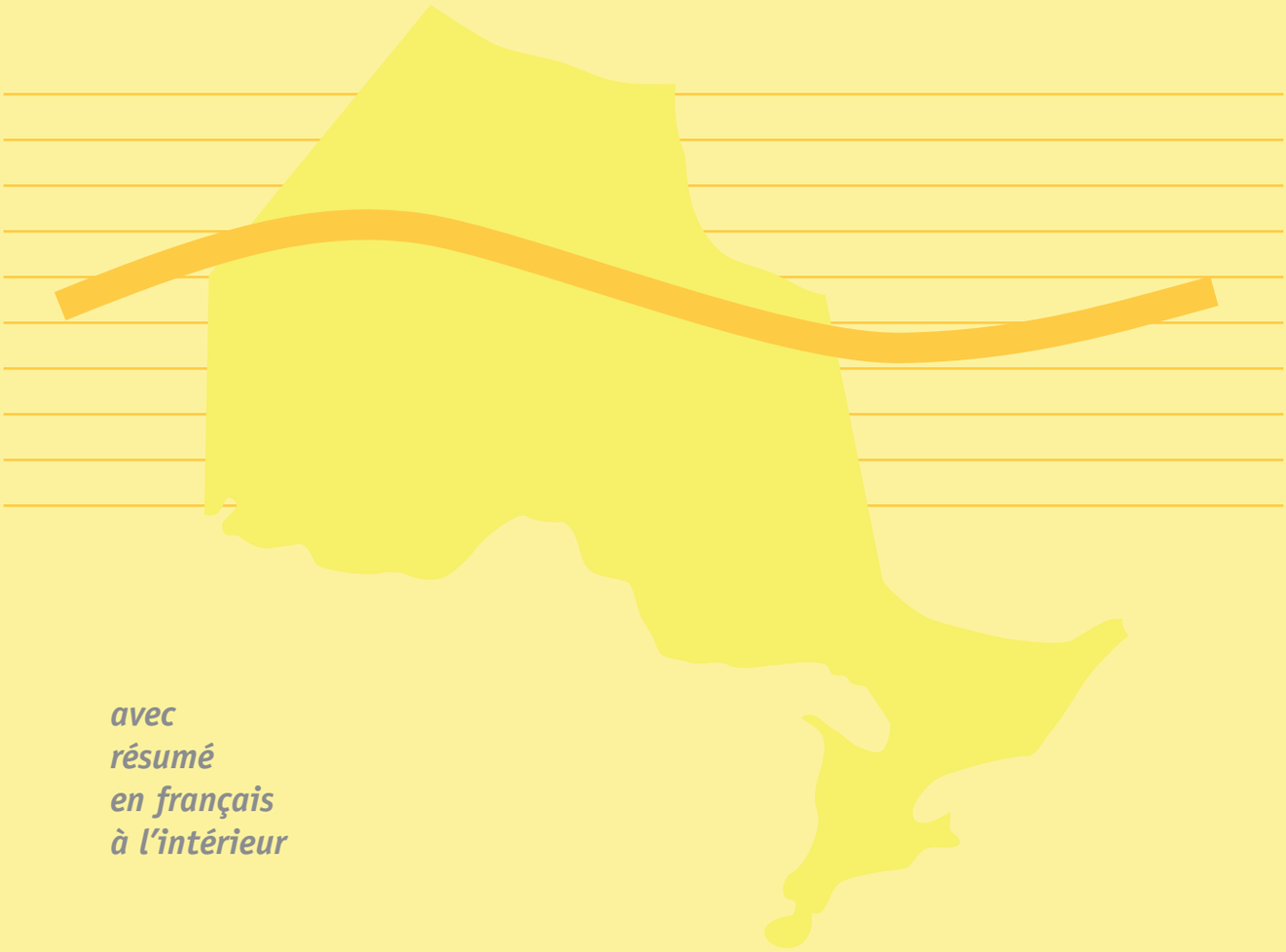
Drug Use Among Ontario Students

Detailed OSDUHS Findings

1977-2013



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OSDUHS
Ontario Student Drug Use and Health Survey

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CAMH Research Document Series
No. 36

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A Pan American Health Organization / World Health Organization Collaborating Centre
Fully affiliated with the University of Toronto

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The 2013 OSDUHS Detailed Drug Use Report
Executive 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. To date, the study is based on 19 survey cycles conducted every two years since 1977. A total of 10,272 students (63% of selected students in participating classes) in grades 7 through 12 from 42 school boards, 198 schools, and 671 classes participated in the 2013 OSDUHS, which was administered by the Institute for Social Research, York University.

This report describes the past year use of alcohol, tobacco, illicit drugs, and the nonmedical (NM) use of specific prescription drugs, and changes since 1977. Trend results are provided for two analytical groups of students: those in grades 7 through 12, and those in grades 7, 9, and 11 only. The first group is used to assess drug use in 2013 and relatively **recent trends (1999–2013)**, and the second is used to assess **long-term trends (1977–2013)**. All data are based on self-reports derived from anonymous questionnaires administered in classrooms between November 2012 and June 2013.

Past Year Drug Use (%) for the Total Sample, by Sex, and by Grade, 2013 OSDUHS (*n*=10,272)

	Total	Males	Females		G7	G8	G9	G10	G11	G12	
Drug Use Among Grades 7–12											
Alcohol	**49.5**	49.8	49.1		9.9	24.6	37.1	53.5	67.9	74.4	*
High-Caffeine Energy Drinks	**39.7**	45.9	33.1	*	26.4	33.6	36.6	40.0	41.7	49.9	*
Cannabis	**23.0**	25.3	20.6	*	1.7	7.0	14.6	24.5	33.5	39.2	*
Binge Drinking (5+ Drinks Past Month)	**19.8**	21.3	18.3		s	3.7	8.5	18.1	29.5	39.2	*
Opioid Pain Relievers (NM)	**12.4**	12.8	12.0		8.8	8.9	11.8	13.0	12.1	16.1	*
OTC Cough/Cold Medication	**9.7**	10.7	8.6	*	9.1	10.2	10.1	9.5	8.5	10.6	
Waterpipe ("Hookah")	**9.7**	11.5	7.9	*	s	s	4.3	8.5	15.1	18.8	*
Cigarettes	**8.5**	9.6	7.3		s	s	3.3	9.1	12.9	15.4	*
Smokeless (Chewing) Tobacco	**5.7**	9.0	2.2	*	s	s	4.0	6.3	9.2	8.7	*
Inhalants (Glue or Solvents)	**3.4**	2.8	4.1		5.9	7.6	3.0	s	2.6	s	*
Salvia Divinorum	**2.6**	3.6	1.5	*	s	s	s	2.7	4.3	4.4	*
Synthetic Cannabis ("Spice," "K2")	**1.8**	1.9	1.7		s	s	s	2.6	2.3	s	*
OxyContin/OxyNEO (NM)	**1.6**	1.9	1.3		s	s	s	s	1.8	2.7	*
ADHD Drugs (NM)	**1.4**	1.9	0.9	*	s	s	s	1.6	1.4	2.4	*
Drug Use Among Grades 9–12†											
Mushrooms (Psilocybin) or Mescaline	**3.7**	5.3	2.0	*	--	--	s	2.9	4.5	5.3	*
Ecstasy (MDMA)	**3.3**	3.9	2.6		--	--	s	2.7	3.1	5.6	*
Cocaine	**2.4**	2.9	2.0		--	--	s	2.0	1.9	3.7	
Tranquillizers/Sedatives (NM)	**2.4**	2.6	2.2		--	--	1.3	2.4	2.0	3.4	
LSD	**1.5**	1.9	0.9		--	--	s	s	1.4	1.9	
Jimson Weed	**1.3**	s	s		--	--	s	s	s	s	
Methamphetamine (incl. Crystal Meth.)	**1.0**	1.4	s	*	--	--	s	s	s	1.7	*
Modafinil (Stay-Awake Prescr. Drug; NM)	**0.8**	s	s		--	--	s	s	s	s	
Crack	**0.7**	0.9	0.5		--	--	s	s	s	s	
Any NM Use of a Prescription Drug	**15.2**	16.1	14.2		--	--	13.0	13.8	13.8	18.8	*
Any Drug Use Excluding Cannabis	**24.3**	25.2	23.4		--	--	17.2	22.5	24.8	29.9	*
Any Drug Use Including Cannabis	**40.0**	41.2	38.8		--	--	24.9	35.7	42.9	51.0	*

Notes: † not asked of grades 7 and 8 students; * indicates a statistically significant sex difference, or grade differences ($p<.05$), *not* controlling for other factors; s=estimate suppressed due to unreliability; estimate for alcohol excludes "a sip"; estimate for cigarettes 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, ADHD drugs, or tranquillizers/sedatives; "Any Drug Use Including Cannabis" refers to use of any one of 22 drugs (excludes alcohol, tobacco, and high-caffeine energy drinks); estimates for heroin, ketamine, methoxetamine, BZP pills, and mephedrone ("bath salts") were suppressed due to unreliability (extremely low values).

2013 Subgroup Differences

- Females do not exceed males on any past-year drug use measure. Males are more likely than females to report the past year use of:
  - high-caffeine energy drinks
  - cannabis
  - OTC cough/cold medication
  - a waterpipe ("hookah")
  - smokeless tobacco
  - salvia divinorum
  - ADHD drugs (nonmedical use)
  - mushrooms/mescaline
  - methamphetamine.

- Past year use varies by grade for most of the drug measures:
  - alcohol
  - high-caffeine energy drinks
  - cannabis
  - binge drinking
  - opioid pain relievers (nonmedical use)
  - waterpipe ("hookah")
  - cigarettes
  - smokeless tobacco
  - inhalants
  - salvia divinorum
  - synthetic cannabis ("spice")
  - OxyContin/OxyNEO (nonmedical use)
  - ADHD drugs (nonmedical use)
  - mushrooms/mescaline
  - ecstasy
  - methamphetamine
  - any prescription drug (nonmedical use)
  - indices measuring any drug use, both including and excluding cannabis.

Use of these drugs tends to increase with grade with the exception of inhalant use, which decreases with grade.

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

- There are significant regional differences in the past year use of several drugs. Whereas students in the East region do not differ from the provincial average on any drug use measure, students in Toronto, the North and West regions do show differences from the average, as shown in the table below.

Use in Region Below Provincial Average	Use in Region Above Provincial Average
Toronto	
• Alcohol • Binge Drinking	• Opioid Pain Relievers (NM)
Northern Ontario	
• Opioid Pain Relievers (NM)	• Alcohol • Binge Drinking
Western Ontario	
	• Opioid Pain Relievers (NM)

Readers should note that an overview of results according to Ontario's Local Health Integration Networks is provided in the report on page 260, and results for the Greater Toronto Area (GTA) on page 263.

Changes in Past Year Drug Use, 2013 vs. 2011

Among the total sample of students, no drug showed an increase in use between the previous survey in 2011 and the 2013 survey. Three drug use measures showed significant **decreases** between 2011 and 2013:

- alcohol (from 54.9% in 2011 to 49.5% in 2013)
- high-caffeine energy drinks (from 49.5% to 39.7%)
- inhalants (from 5.6% to 3.4%).

1999–2013 Drug Use Trends

The only drug use measure that shows a significant **increase** in recent years is over-the-counter cough/cold medication used to "get high." The percentage reporting the use of OTC cough/cold medication to "get high" in the past year significantly increased between 2009 and 2013, from 7.2% to 9.7%.

There have been 17 significant **decreases** in past year drug use during the period between 1999 and 2013:

- alcohol: from 66.0% to 49.5%
- binge drinking: from 27.6% to 19.8%
- cannabis: from 28.0% to 23.0%
- opioids (NM): from 20.6% (2007) to 12.4%
- cigarettes: from 28.4% to 8.5%
- inhalants: from 8.9% to 3.4%
- mushrooms/mesc.:* from 17.1% to 3.7%
- ecstasy:* from 7.9% (2001) to 3.3%
- cocaine:* from 5.7% (2003) to 2.4%
- LSD:* from 8.8% to 1.5%
- methamphetamine:* from 6.3% to 1.0%
- crack:* from 3.2% to 0.7%
- ketamine:* from 2.9% (2003) to <0.5%
- heroin:* from 2.1% to <0.5%.

- Any nonmedical use of a prescription drug decreased between 2007 and 2013 (from 23.5% to 15.2%) among grades 9–12.

- Any use of at least one of nine drugs (including cannabis) measured over time, significantly decreased between 1999 and 2013 (from 39.2% to 30.7%) among grades 9–12.

- A similar measure to that above, but *excluding* cannabis, also significantly decreased between 1999 and 2013 (from 22.8% to 7.9%) among grades 9–12.

1999–2013 Drug Use Trends by Demographic Subgroup

With the exception of OTC cough/cold medication used to "get high" (which increased among males, students in grades 7, 9, and 12, and students in Eastern Ontario), the changes within subgroups during the period from 1999 to 2013 indicate decreases in past year use.

Sex: Both sexes show many decreases in past year drug use in 2013 compared with 2011 and/or 1999. These are listed in the table below.

Decreases in Past Year Drug Use by Sex
2013 vs. 2011 (**bolded**) and 2013 vs. 1999

Males	Females
• Cigarettes	• Cigarettes
• Alcohol	• Alcohol
• Binge Drinking	• Inhalants
• Cannabis	• LSD
• **Inhalants**	• Mushrooms/Mescaline
• LSD	• Methamphetamine
• Mushrooms/Mescaline	• Cocaine$^{\pm}$
• Methamphetamine	• Crack
• Crack	• Ecstasy†
• Heroin	• Ketamine$^{\pm}$
• Ecstasy†	• **Energy Drinks**
• Ketamine$^{\pm}$	• **Opioid Pain Relievers (NM)***
• Opioid Pain Relievers (NM)*	• Any Prescription Drug (NM)
• Any Drug incl. cannabis	• Any Drug incl. cannabis
• Any Drug excl. cannabis	• Any Drug excl. cannabis

NM=nonmedical use; † vs. 2001 estimate; $^{\pm}$ vs. 2003 estimate;
* vs. 2007 estimate

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

Grade: All grades show significant decreases in the past year use of some drugs in 2013 compared with 2011 or 1999. These are listed in the table below.

Decreases in Past Year Drug Use by Grade 2013 vs. 2011 (**bolded**) and 2013 vs. 1999	
7th Graders	
• Cigarettes	• **Alcohol**
• **Inhalants**	• Binge Drinking
8th Graders	
• Cigarettes	• Alcohol
• Cannabis	• Binge Drinking
• Opioid Pain Relievers (NM)*	
9th Graders	
• Cigarettes	• **Alcohol**
• Cannabis	• **Binge Drinking**
• Inhalants	• Ecstasy†
• LSD	• Mushrooms/Mescaline
• Opioid Pain Relievers (NM)*	• Methamphetamine
• Any Prescription Drug (NM)	• Cocaine±
• Any Drug incl. cannabis	• **Energy Drinks**
• Any Drug excl. cannabis	
10th Graders	
• Cigarettes	• Alcohol
• Cannabis	• Binge Drinking
• LSD	• Mushrooms/Mescaline
• Cocaine±	• Methamphetamine
• Crack	• Ecstasy†
• Opioid Pain Relievers (NM)*	• Any Drug incl. cannabis
• Any Prescription Drug (NM)	• Any Drug excl. cannabis
11th Graders	
• Cigarettes	• Binge Drinking
• Cannabis	• Mushrooms/Mescaline
• LSD	• Methamphetamine
• Cocaine±	• **Ecstasy†**
• Crack	• Ketamine±
• **Opioid Pain Relievers (NM)***	• **Energy Drinks**
• Any Prescription Drug (NM)	• Any Drug incl. cannabis
• Any Drug excl. cannabis	
12th Graders	
• Cigarettes	• Mushrooms/Mescaline
• LSD	• Ketamine±
• Methamphetamine	• Any Drug excl. cannabis

NM=nonmedical use; † vs. 2001 estimate; ± vs. 2003 estimate; * vs. 2007 estimate

Region: All regions show significant decreases in the past year use of some drugs in 2013 compared with 2011 or 1999. These are listed in the table below.

Decreases in Past Year Drug Use by Region 2013 vs. 2011 (**bolded**) and 2013 vs. 1999	
Toronto	
• Cigarettes	• Inhalants
• LSD	• Cocaine±
• Crack	
Northern Ontario	
• **Cigarettes**	• Alcohol
• Inhalants	• Mushrooms/Mescaline
• LSD	• Cocaine±
• **Energy Drinks**	• **Opioid Pain Relievers (NM)***
• Any Drug incl. cannabis	• Any Prescription Drug (NM)
• Any Drug excl. cannabis	
Western Ontario	
• Cigarettes	• **Alcohol**
• Cannabis	• Binge Drinking
• Inhalants	• LSD
• Mushrooms/Mescaline	• Cocaine±
• Methamphetamine	• Crack
• Ecstasy†	• Ketamine±
• **Energy Drinks**	• Opioid Pain Relievers (NM)*
• Any Drug incl. cannabis	• Any Prescription Drug (NM)
• Any Drug excl. cannabis	
Eastern Ontario	
• Cigarettes	• Inhalants
• LSD	• Mushrooms/Mescaline
• Cocaine±	• Methamphetamine
• Crack	• Heroin
• **Energy Drinks**	• Ketamine±
• Any Drug incl. cannabis	• Opioid Pain Relievers (NM)*
• Any Drug excl. cannabis	• Any Prescription Drug (NM)

NM=nonmedical use; † vs. 2001 estimate; ± vs. 2003 estimate; * vs. 2007 estimate

Long-Term Drug Use Trends: 1977–2013 (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 use during the late 1980s or early 1990s, a second peak in the late 1990s or early 2000s, followed by another decline. The long-term changes can be further categorized into the following five patterns:

Pattern 1: Prevalence has now reached, or very recently reached, an all-time low:

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

Pattern 2: Prevalence in 2013 is significantly lower than the peaks seen in the late 1970s and late 1990s (2003 for cocaine), and current use is similar to the low levels seen in the 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* compared with the low levels of use seen in the early 1990s:

- cannabis.

Pattern 4: Prevalence shows only one peak in the late 1990s or early 2000s (or the late 1970s for tranquillizers), a decline during the 2000s, and stability in recent years:

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

Pattern 5: Prevalence has been negligible and stable for decades:

- heroin.

Tracking Emerging Synthetic Drugs

Questions about two newly emerging drugs – synthetic cannabis ("spice" or "K2") and methoxetamine ("MXE" or "mket") – were introduced in the 2013 OSDUHS. We found that about 2% of students in grades 7 through 12 (representing about 17,300 students in Ontario) used synthetic cannabis in the past year. The 2013 prevalence estimates for methoxetamine use, as well as for mephedrone ("bath salts") and BZP (benzylpiperazine) pills – which were first tracked in the 2011 OSDUHS – were suppressed due to extremely low values. Although we cannot attach a specific percentage value to the use of these three drugs, we have established, nonetheless, that there is no evidence that these drugs have measurably diffused into the mainstream student population.

Cigarettes & Tobacco Overview

- In 2013, about 9% of students in grades 7–12 (an estimated 83,100 in Ontario) report smoking cigarettes during the past year. About 3% of students (about 33,400) smoke cigarettes on a daily basis. The consistent downward trend in cigarette smoking seen over the past decade appears to have halted, as no further decline was evident in 2013.

- A similar percentage of males (10%) and females (7%) smoke cigarettes. The prevalence of cigarette smoking significantly increases with grade, reaching 15% among 12th graders. There are no significant regional differences in past year cigarette smoking.

- The most common source of cigarettes reported by students who smoke is a friend or family member, while the second most common source is a store, gas station, or bar.

- About 3% of all students (an estimated 24,700 in Ontario) report smoking contraband cigarettes in the past year. Among past year smokers, 32% report smoking contraband cigarettes.

- Smokeless tobacco (a.k.a. chewing tobacco, dipping tobacco, snuff) is used by about 6% of students in grades 7–12 (an estimated 51,800 in Ontario).

- For the first time in 2013, students were asked about their use of a waterpipe ("hookah"). An estimated 10% of students in grades 7–12 (88,400 students in Ontario) report past year use.

- For the first time in 2013, students in grades 9–12 were asked about using an electronic cigarette in their lifetime. About 15% of secondary school students (an estimated 99,800 in Ontario) report smoking an electronic cigarette, with or without nicotine, at least once in their life. More specifically, 4% reported smoking an electronic cigarette with nicotine, and 11% reported smoking one without nicotine.

Alcohol Overview

- Alcohol use has been declining gradually since about 1999 and has shown a further decline between 2011 and 2013, reaching a historically low level. About half (50%) of all students – an estimated 483,900 in Ontario – report drinking alcohol during the past year. Males (50%) and females (49%) are equally likely to drink. Past year drinking varies by grade (increasing from 10% of 7th graders to 74% of 12th graders). Toronto students (42%) are the least likely to drink, whereas students in the North (59%) are the most likely.

- Drinking alcohol mixed with an energy drink is reported by about 16% of students. This estimate ranges from a low of 3% among 7th graders up to 28% among 12th graders.

- One-in-five (20%) students (an estimated 193,400 in Ontario) report binge drinking (defined as 5+ drinks on one occasion) at least once during the month before the survey. A similar percentage (18%) report getting drunk at least once in the past month. About one-third of 12th graders report binge drinking and getting drunk at least once in the past month.

- Playing drinking games (such as beer pong) at least once in the past month is reported by about one-quarter (23%) of students in grades 9–12.

- About 16% of students (32% of past year drinkers) – representing an estimated 158,700 students in Ontario – report drinking hazardously or harmfully, as measured by the *AUDIT* screener. Males and females are equally likely to drink at this level. Hazardous/harmful drinking increases with grade, peaking at 32% among 12th graders. Students in the North and the East are most likely to report hazardous/harmful drinking (about 19%), whereas students in Toronto and the West are less likely (about 13%).

- Almost one-in-five (18%) students could not remember what had happened when they were drinking on at least one occasion during the past 12 months. About 8% report that they were injured or someone else was injured because of their drinking.

- Among past year drinkers, the most common method to obtain alcohol is to be given it by another person, while the second most common method is to give someone money to purchase alcohol.

- About 3% of students (an estimated 28,400) report drinking non-beverage alcohol such as mouthwash, rubbing alcohol, or hand sanitizer at least once in the past year.

Cannabis Overview

- Cannabis use held steady between 2011 and 2013, but has gradually declined since 1999. Almost one-quarter (23%) of students – an estimated 225,600 in Ontario – report using cannabis in 2013. Males are significantly more likely than females to use cannabis (25% vs. 21%, respectively). Use increases with each grade level, increasing from 2%

among 7th graders to about 39% among 12th graders. There are no significant differences among the four regions.

- About 3% of students use cannabis daily – an estimated 25,800 students in Ontario.

- About 3% of all students in grades 9–12 (an estimated 20,900) report symptoms of cannabis dependence, as measured by the *Severity of Dependence Scale*. Among past year cannabis users, about one-in-ten report symptoms of dependence.

Nonmedical Use of Prescription Drugs

- The OSDUHS also asks students about use of the general class of prescription opioid pain relievers (e.g., Percocet, Percodan, Tylenol #3, Demerol, codeine) without a prescription. One-in-eight (12%) students – an estimated 120,100 in Ontario – report using a prescription opioid pain reliever nonmedically in the past year. There is no significant difference in use between males and females. There are significant grade differences showing that use increases steadily with grade level, peaking at 16% among 12th graders. Students in the North (7%) are least likely to use and students in Toronto and the West most likely (about 13%-15%). The majority (70%) of past year users report obtaining the drug from someone at home.

- About 1% of students (an estimated 13,500) report using a drug typically used to treat Attention Deficit/Hyperactivity Disorder (ADHD) in children (e.g., Ritalin, Concerta, Adderall, Dexedrine) without a prescription. Males and older students are more likely to use. There are no significant regional differences.

Nonmedical Use of Over-the-Counter Drugs

- Students were asked about their use of over-the-counter (OTC) cough and cold medications containing the drug dextromethorphan in order to "get high." Overall, 10% of students (an estimated 94,100 in Ontario) report using this type of medication to "get high" during the past year. Males (11%) are significantly more likely than females (9%) to misuse OTC cough/cold medication. There are no significant differences by grade or by region.

High-Caffeine Energy Drinks

- 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. About 40% of all students (an estimated 382,500 in Ontario) report drinking an energy drink at least once in the past year. One-in-eight (12%) students (an estimated 119,700) report drinking an energy drink at least once during the week before the survey.

Past Year Abstinence

- Over one-third (37%) of students in grades 7 through 12 (an estimated 340,600 in Ontario) report using no drug at all during the past year (this includes alcohol and tobacco, but excludes high-caffeine energy drinks). Females are more likely than males to abstain (40% vs. 35%, respectively). Past year abstinence significantly decreases with grade, from 70% of 7th graders down to 17% of 12th graders. There are no significant differences among the four regions.

- The percentage of students reporting no drug use in 2013 is similar to the estimate from 2011. However, between 1999 and 2013,

there was an increasing linear trend in abstinence, from 27% to 37%.

Consequences and Problems Related to Alcohol and Other Drug Use

Vehicles

- Just under one-fifth (18%) of students in grades 7 through 12 report riding in a vehicle driven by someone who had been drinking alcohol, and 14% report riding in a vehicle driven by someone who had been using drugs. The proportion of students reporting these behaviours has significantly decreased during the past decade.

- About 4% of 10th through 12th graders 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 12,700 adolescent drivers in Ontario). The drinking and driving estimate significantly declined between 2011 (7%) and 2013 (4%). Further, the current estimate is significantly lower than the estimates observed a decade ago, and especially lower than those found in the late 1970s and early 1980s.

- Students were asked if they operated a snowmobile, motor boat, Sea-doo, or all-terrain vehicle (ATV) after drinking alcohol. Among all students in grades 10, 11, and 12, 5% (an estimated 29,400 in Ontario) report this activity at least once in the past year.

- The percentage of drivers in grades 10–12 reporting driving after cannabis use is higher than the percentage reporting driving after drinking. One-in-ten (10%) drivers report driving a vehicle within one hour of using cannabis at least once during the past year (an estimated 31,500 adolescent drivers in Ontario). The current estimate of 10% is significantly lower than the estimate from the first surveillance point in 2001 (20%).

- The percentage of drivers in grades 10–12 who report driving a vehicle within an hour of taking a prescription opioid pain reliever (e.g., Percocet, Percodan, OxyContin) at least once in the past year is 3% – an estimated 9,000 adolescent drivers in Ontario.

Drug Use Problem

- One-in-six (17%) students in grades 9–12 (an estimated 132,700) report symptoms of a drug use problem, as measured by the *CRAFFT* screener. Males and 12th graders are most at risk for a drug use problem. There are no differences among the regions.

- A small proportion (1%) of students in grades 9–12 (an estimated 8,400) report that they had been in a treatment program during the past year because of their alcohol and/or drug use.

Coexisting Hazardous/Harmful Drinking and Psychological Distress

- About 6% of students in grades 7–12 (an estimated 60,800 students in Ontario) report both hazardous/harmful drinking and psychological distress (i.e., symptoms of anxiety and depression). Females are more likely than males to report these coexisting problems (9% vs. 4%, respectively). There is significant variation by grade, peaking in 12th grade at 10%. There are no significant regional differences.

Other Highlights

Multi-Drug Use and Injection Drug Use

- About 6% of students in grades 9–12 (an estimated 37,700 in Ontario) smoke cigarettes, use alcohol, cannabis, *and* at least one other drug.

- A negligible proportion (< 0.5%) of students in grades 9–12 report using an illegal drug by injection during the past year.

New Users and Early Initiation

- The percentage of students reporting first-time drug use during the past year is as follows: 5% for cigarettes, 17% for alcohol, 9% for cannabis, and 3% for illicit drugs other than cannabis. New users are most likely to be in grades 9, 10, or 11.

- Fewer students today are smoking cigarettes, drinking alcohol, and using cannabis at an early age compared with their counterparts from past decades. For example, less than 2% of 7th graders in 2013 smoked their first whole cigarette before the end of grade 6, compared with 27% in 1997, and 41% in 1981.

- In 2013, 13% of 7th graders had their first alcoholic drink before the end of grade 6, compared with 31% in 2007, 42% in 2003, and 50% in 1981.

- In 2013, 2% of 7th graders used cannabis for the first time before the end of grade 7, compared with 8% in 2003, and 9% in 1981.

- In 2013, the mean age at which 12th-grade smokers reported smoking their first cigarette was 15.0 years. The mean age at first alcoholic drink among 12th-grade drinkers was 14.6 years, and the first time they were drunk was at age 15.3. The mean age of first cannabis use among 12th-grade users was 15.2 years.

- The average age at first cigarette and first alcoholic drink has significantly increased during the past decade, while the average age at first cannabis use has remained stable.

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 (NM). Students in grades 9–12 believe the greatest risk is associated with NM prescription opioid use, followed closely by trying cocaine. Among all students, trying marijuana ranks last in terms of perceived risk.

- For the first time in a long while, there has been a significant decrease in the perceived risk associated with marijuana use (trying and regular) among students. Between 2011 and 2013, the perceived risk of trying marijuana decreased from 18% to 12%, reaching an all-time low. The perceived risk of regular marijuana use decreased from 56% to 44%.

- During the past decade, there have been increases in the perception of great risk of harm associated with daily smoking and trying cocaine. The perceived risk of binge drinking has remained stable. The perceived risk of trying ecstasy decreased between 2011 and 2013.

- There was a significant decrease between 2011 and 2013 in the percentage who strongly disapprove of regular marijuana use (from 56% to 49%). Conversely, strong disapproval of trying cocaine and trying ecstasy has increased during the past decade.

Perceived Availability of Drugs

- In 2013, among all students in grades 7–12, the drug perceived to be most readily available is alcohol (65% report that it would be “fairly easy” or “very easy” to obtain), followed by cigarettes (61%), cannabis (51%), and a prescription opioid pain reliever (19%).

- Between 2011 and 2013, the perceived availability of alcohol, cigarettes, and cannabis significantly increased. The perceived availability of cocaine, LSD, and ecstasy has shown downward trends over the past decade.

School and Neighbourhood

- Of all the grades surveyed, 8th and 9th graders are most likely to report receiving education at school about alcohol, cannabis, and other drugs.

- One-quarter (25%) of students in grades 7–12 indicate that drug use in their school is a "big problem," 53% believe that drug use is a "small problem," and 22% believe that it is "not a problem" in their school.

- One-in-eight (12%) students in grades 7–12 (an estimated 109,700 in Ontario) report being drunk or high at school at least once in the past year.

- One-in-five (19%) students in grades 7–12 (an estimated 167,600 in Ontario) report having been offered, sold, or given an illegal drug at school at least once in the past year.

- One-in-ten (10%) students in grades 7–12 indicate that most or all of their closest friends use drugs.

- One-quarter (25%) of students in grades 7–12 (an estimated 228,700 in Ontario) report that someone tried to sell them drugs anywhere, at least once in the past year.

- One-in-five (21%) students in grades 7–12 (an estimated 191,400) report seeing drug selling in their own neighbourhood in the past year.

Résumé du rapport détaillé sur la consommation de drogues – SCDSEO 2013

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 longs dans le monde. Le présent sondage est le 19e depuis 1977. Au total, 10 272 élèves (63 % des élèves choisis dans les classes participantes) de la 7e à la 12e année répartis dans 42 conseils scolaires, 198 écoles et 671 classes ont participé au SCDSEO 2013, 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 illégales et de médicaments d'ordonnance à des fins non médicales (NM) en 2013 ainsi que les changements survenus depuis 1977. Les tendances sont fournies pour 2 groupes d'élèves constitués à des fins d'analyse : ceux de la 7e à la 12e année, d'une part, et ceux des 7e, 9e et 11e années, d'autre part. Le premier groupe sert à évaluer la consommation en 2013 et les tendances relativement récentes (de 1999 à 2013) et le second à évaluer les tendances à long terme (de 1977 à 2013). Toutes les données reposent sur les réponses des élèves à des questionnaires anonymes administrés en classe entre novembre 2012 et juin 2013.

Consommation de drogues (en pourcentage) au cours de l'année écoulée parmi l'échantillon total, selon le sexe et l'année d'études, SCDSEO 2013 (*n* = 10,272)

	Total	Garçons	Filles		7e	8e	9e	10e	11e	12e	
Consommation de drogues (7e–12e année)											
Alcool	**49,5**	49,8	49,1		9,9	24,6	37,1	53,5	67,9	74,4	*
Boissons énergisantes fortement caféinées	**39,7**	45,9	33,1	*	26,4	33,6	36,6	40	41,7	49,9	*
Cannabis	**23**	25,3	20,6	*	1,7	7	14,6	24,5	33,5	39,2	*
Excès occasionnels d'alcool	**19,8**	21,3	18,3		s	3,7	8,5	18,1	29,5	39,2	*
Analgésiques opioïdes (usage NM)	**12,4**	12,8	12		8,8	8,9	11,8	13,0	12,1	16,1	*
Antitussifs et anti-rhume en vente libre	**9,7**	10,7	8,6	*	9,1	10,2	10,1	9,5	8,5	10,6	
Pipe à eau (narguilé)	**9,7**	11,5	7,9	*	s	s	4,3	8,5	15,1	18,8	*
Cigarettes	**8,5**	9,6	7,3		s	s	3,3	9,1	12,9	15,4	*
Produits du tabac sans combustion	**5,7**	9	2,2	*	s	s	4	6,3	9,2	8,7	*
Inhalants (colle ou solvants)	**3,4**	2,8	4,1		5,9	7,6	3	s	2,6	s	*
Salvia divinorum	**2,6**	3,6	1,5	*	s	s	s	2,7	4,3	4,4	*
Cannabis synthétique (« spice », « K2 »)	**1,8**	1,9	1,7		s	s	s	2,6	2,3	s	*
OxyContin/OxyNEO (usage NM)	**1,6**	1,9	1,3		s	s	s	s	1,8	2,7	*
Médicaments pour le TDAH (usage NM)	**1,4**	1,9	0,9	*	s	s	s	1,6	1,4	2,4	*
Consommation de drogues (9e–12e année)†											
Champignons (psilocybine) ou mescaline	**3,7**	5,3	2	*	--	--	s	2,9	4,5	5,3	*
Ecstasy (MDMA)	**3,3**	3,9	2,6		--	--	s	2,7	3,1	5,6	*
Cocaïne	**2,4**	2,9	2		--	--	s	2	1,9	3,7	
Tranquillisants ou sédatifs (usage NM)	**2,4**	2,6	2,2		--	--	1,3	2,4	2	3,4	
LSD	**1,5**	1,9	0,9		--	--	s	s	1,4	1,9	
Stramoine (Datura Stramonium)	**1,3**	s	s		--	--	s	s	s	s	
Méthamphétamine (cristaux y compris)	**1**	1,4	s	*	--	--	s	s	s	1,7	*
Modafinil (médicament d'ordonnance, usage NM)	**0,8**	s	s		--	--	s	s	s	s	
Crack	**0,7**	0,9	0,5		--	--	s	s	s	s	
Tout médicament d'ordonnance (usage NM)	**15,2**	16,1	14,2		--	--	13	13,8	13,8	18,8	*
Toute drogue, sauf cannabis	**24,3**	25,2	23,4		--	--	17,2	22,5	24,8	29,9	*
Toute drogue, y compris cannabis	**40**	41,2	38,8		--	--	24,9	35,7	42,9	51	*

Nota : † questions non posées aux élèves de 7e et de 8e année; * différence statistiquement significative entre les sexes ou années d'études ($p < 0,05$), sans tenir compte d'autres facteurs; s = estimation supprimée pour raison de fiabilité; les estimations pour l'alcool excluent « une gorgée »; « Excès occasionnels d'alcool » (≥ 5 consommations par occasion) concerne les 4 semaines précédentes; les estimations pour les cigarettes 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 d'ordonnance (usage NM) » renvoie à l'usage non médical de l'une quelconque des classes de médicaments suivantes : opioïdes, médicaments pour le TDAH et tranquillisants ou sédatifs; « Toute drogue, y compris cannabis » renvoie à l'usage de l'une quelconque des 22 drogues (à l'exception de l'alcool, du tabac et des boissons énergisantes fortement caféinées); les estimations pour l'héroïne, la kétamine, la méthoxétamine, les comprimés de BZP, la méphédrone (« sels de bain ») ont été supprimées pour raison de fiabilité (valeurs extrêmement faibles).

Différences entre les sous-groupes pour 2013

- La consommation de drogues chez les filles n'a dépassé la consommation de drogues chez les garçons pour aucun des indicateurs de consommation de drogue au cours de l'année écoulée. Il y avait plus de garçons qui ont indiqué avoir consommé ou utilisé au cours de l'année écoulée :
  - des boissons énergisantes fortement caféinées
  - du cannabis
  - des antitussifs et anti-rhume en vente libre
  - une pipe à eau (narguilé)
  - des produits du tabac sans combustion
  - de la Salvia divinorum
  - des médicaments pour le TDAH (usage non médical)
  - des champignons ou de la mescaline
  - de la méthamphétamine.

- Au cours de l'année écoulée, on a noté des variations, liées à l'année d'études, dans le cas de la plupart des substances à l'étude :
  - alcool
  - boissons énergisantes fortement caféinées
  - cannabis
  - excès occasionnels d'alcool
  - analgésiques opioïdes (usage non médical)
  - pipe à eau (narguilé)
  - cigarettes
  - produits du tabac sans combustion (tabac à chiquer)
  - inhalants
  - Salvia divinorum
  - cannabis synthétique (« spice »)
  - OxyContin/OxyNEO (usage non médical)
  - médicaments pour le TDAH (usage non médical)
  - champignons ou mescaline
  - ecstasy
  - méthamphétamine
  - tout médicament d'ordonnance (usage non médical)
  - paramètres mesurant toute consommation de substances intoxicantes, que l'on inclue ou non le cannabis.

Plus l'année d'études avançait, plus l'usage de ces drogues avait tendance à augmenter, à l'exception des inhalants, dont l'usage diminuait d'une année d'études à l'autre.

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

- On a noté des différences régionales considérables dans la consommation de plusieurs substances intoxicantes au cours de l'année écoulée. Les élèves de la région de l'Est restent dans la moyenne provinciale pour toutes les drogues, mais ce n'est pas le cas des élèves de Toronto et des régions du Nord et de l'Ouest, comme le montre le tableau ci-dessous.

Consommation de substances intoxicantes *inférieure* à la moyenne provinciale	**Consommation de substances intoxicantes *supérieure* à la moyenne provinciale**
Toronto	
• alcool • excès occasionnels d'alcool	• analgésiques opioïdes (usage NM)
Nord de l'Ontario	
• analgésiques opioïdes (usage NM)	• alcool • excès occasionnels d'alcool
Ouest de l'Ontario	
	• analgésiques opioïdes (usage NM)

Nota : Un aperçu des résultats, répartis selon les Réseaux locaux d'intégration des services de santé de l'Ontario, figure dans le rapport à la page 260. De même, les résultats pour la région du grand Toronto (RGT) figurent à la page 263.

Changements au cours de l'année écoulée dans la consommation de drogues : comparaison des résultats de 2013 et de 2011

Parmi l'échantillon total des élèves, on n'a relevé aucune augmentation de la consommation de drogues depuis le sondage de 2011, mais il y a eu une **baisse** marquée de la consommation de trois substances entre 2011 et 2013 :

- alcool (de 54,9 % en 2011 à 49,5 % en 2013)
- boissons énergisantes fortement caféinées (de 49,5 % en 2011 à 39,7 % en 2013)
- inhalants (de 5,6 % à 3,4 %).

Tendances relatives à la consommation de drogues entre 1999 et 2013

Le seul paramètre de consommation ayant indiqué une **augmentation** marquée au cours des dernières années est l'usage d'antitussifs et d'anti-rhume en vente libre pour « planer ». Le pourcentage d'élèves ayant indiqué la consommation de ces produits au cours de l'année écoulée est passé de 7,2 % en 2009 à 9,7 % en 2013.

On a relevé 17 **baisses** significatives dans la consommation de substances intoxicantes durant la période allant de 1999 à 2013 :

- alcool : de 66 % à 49,5 %
- excès d'alcool : de 27,6 % à 19,8 %
- cannabis : de 28 % à 23 %
- opioïdes (NM) : de 20,6 % (2007) à 12,4 %
- cigarettes : de 28,4 % à 8,5 %
- inhalants : de 8,9 % à 3,4 %
- champignons ou mescaline : de 17,1 % à 3,7 %
- ecstasy : de 7,9 % (2001) à 3,3 %
- cocaïne : de 5,7 % (2003) à 2,4 %
- LSD : de 8,8 % à 1,5 %
- méthamphétamine : de 6,3 % à 1 %
- crack : de 3,2 % à 0,7 %
- kétamine : de 2,9 % (2003) à < 0,5 %
- héroïne : de 2,1 % à < 0,5 %
- baisse de l'usage non médical de tout médicament d'ordonnance entre 2007 et 2013 (de 23,5 % à 15,2 %)
- baisse importante de l'usage d'au moins neuf drogues (incluant le cannabis) entre 1999 et 2013 (de 39,2 % à 30,7 %)
- baisse importante de l'usage de drogues (paramètre de consommation semblable à celui ci-dessus, mais *excluant* le cannabis) entre 1999 et 2013 (de 22,8 % à 7,9 %).

Tendances relatives à la consommation de drogues dans les sous-groupes entre 1999 et 2013

À l'exception de l'utilisation d'antitussifs et d'anti-rhume en vente libre pour « planer » (qui a augmenté chez les garçons de 7e, 9e et 12e année et chez les élèves de l'Est de l'Ontario), la consommation au cours de l'année écoulée de substances intoxicantes a baissé dans les sous-groupes entre 1999 et 2013.

Sexe : On a relevé en 2013 une baisse de la consommation de nombreuses substances intoxicantes au cours de l'année écoulée chez les élèves des deux sexes par rapport à 2011 ou à 1999 ou à ces deux dates (voir ci-dessous).

Baisse de la consommation de drogues lors de l'année écoulée selon le sexe : 2013 par rapport à **2011** (**en gras**) et à 1999

Garçons	Filles
• cigarettes	• cigarettes
• alcool	• alcool
• excès occasionnels d'alcool	• inhalants
• cannabis	• LSD
• **inhalants**	• champignons/mescaline
• LSD	• méthamphétamine
• champignons/mescaline	• cocaïne±
• méthamphétamine	• crack
• crack	• ecstasy†
• héroïne	• kétamine
• ecstasy†	• **boissons énergisantes fortement caféinées**
• kétamine±	• **analgésiques opioïdes (NM)***
• analgésiques opioïdes (NM)*	• tout médicament d'ordonnance (NM)
• toute drogue, y compris cannabis	• toute drogue, y compris cannabis
• toute drogue, sauf cannabis	• toute drogue, sauf cannabis

NM = usage non médical; † par rapport aux estimations de 2001; ± par rapport aux estimations de 2003; * par rapport aux estimations de 2007

Année d'études : On a constaté une baisse significative de la consommation de substances intoxicantes en 2013 par rapport à 2011 ou 1999, pour toutes les années d'études (voir ci-dessous).

Baisse de la consommation lors de l'année écoulée selon l'année d'étude : 2013 par rapport à **2011** (**en gras**) et à 1999	
Élèves de 7e année	
• cigarettes	• **alcool**
• **inhalants**	• excès occasionnels d'alcool
Élèves de 8e année	
• cigarettes	• alcool
• cannabis	• excès occasionnels d'alcool
• analgésiques opioïdes (NM)*	
Élèves de 9e année	
• cigarettes	• **alcool**
• cannabis	• **excès occasionnels d'alcool**
• inhalants	• ecstasy†
• LSD	• champignons/mescaline
• analgésiques opioïdes (NM)*	• méthamphétamine
• tout médicament d'ordonnance (NM)	• cocaïne±
• toute drogue, y compris cannabis	• **boissons énergisantes fortement caféinées**
• toute drogue, sauf cannabis	
Élèves de 10e année	
• cigarettes	• alcool
• cannabis	• **excès occasionnels d'alcool**
• LSD	• champignons/mescaline
• cocaïne±	• méthamphétamine
• crack	• ecstasy†
• analgésiques opioïdes (NM)*	• toute drogue, y compris cannabis
• tout médicament d'ordonnance (NM)	• toute drogue, sauf cannabis
Élèves de 11e année	
• cigarettes	• **excès occasionnels d'alcool**
• cannabis	• champignons/mescaline
• LSD	• méthamphétamine
• cocaïne±	• **ecstasy†**
• crack	• kétamine±
• **analgésiques opioïdes (NM)***	• **boissons énergisantes fortement caféinées**
• tout médicament d'ordonnance (NM)	• toute drogue, y compris cannabis
• toute drogue, sauf cannabis	
Élèves de 12e année	
• cigarettes	• champignons/mescaline
• LSD	• kétamine±
• méthamphétamine	• toute drogue, sauf cannabis

NM = usage non médical; † par rapport aux estimations de 2001; ± par rapport aux estimations de 2003; * par rapport aux estimations de 2007

Région : On a relevé des diminutions significatives de la consommation de substances intoxicantes dans toutes les régions en 2013 par rapport à 2011 ou 1999 (voir le tableau ci-dessous).

Baisse de la consommation lors de l'année écoulée selon la région : 2013 par rapport à **2011** (**en gras**) et à 1999	
Toronto	
• cigarettes	• inhalants
• LSD	• cocaïne±
• crack	
Nord de l'Ontario	
• **cigarettes**	• alcool
• inhalants	• champignons/mescaline
• LSD	• cocaïne±
• **boissons énergisantes fortement caféinées**	• **analgésiques opioïdes (NM)***
• toute drogue, y compris cannabis	• tout médicament d'ordonnance (NM)
• toute drogue, sauf cannabis	
Ouest de l'Ontario	
• cigarettes	• **alcool**
• cannabis	• excès occasionnels d'alcool
• inhalants	• LSD
• champignons/mescaline	• cocaïne±
• méthamphétamine	• crack
• ecstasy†	• kétamine±
• **boissons énergisantes fortement caféinées**	• analgésiques opioïdes (NM)*
• toute drogue, y compris cannabis	• tout médicament d'ordonnance (NM)
• toute drogue, sauf cannabis	
Est de l'Ontario	
• cigarettes	• inhalants
• LSD	• champignons/mescaline
• cocaïne±	• méthamphétamine
• crack	• héroïne
• **boissons énergisantes fortement caféinées**	• kétamine±
• toute drogue, y compris cannabis	• analgésiques opioïdes (NM)*
• toute drogue, sauf cannabis	• tout médicament d'ordonnance (NM)

NM = usage non médical; † par rapport aux estimations de 2001; ± par rapport aux estimations de 2003; * par rapport aux estimations de 2007

Changements à long terme dans la consommation de drogues entre 1977 et 2013 (7e, 9e et 11e années seulement)

On a effectué plusieurs estimations de la prévalence de la consommation de substances intoxicantes 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 et au début des années 1990 et d'un deuxième sommet à la fin des années 1990 et au début des années 2000, suivi par un autre déclin. Les changements à long terme peuvent être également classés en cinq modèles suivants :

1re tendance : La prévalence de la consommation des substances suivantes a actuellement ou très récemment atteint son niveau le plus bas :

- cigarettes
- alcool
- LSD
- méthamphétamine (cristaux y compris).

2e tendance : En 2013, la prévalence de la consommation de substances intoxicantes a été significativement inférieure aux sommets observés à la fin des années 1970 et à la fin des années 1990 (et au sommet atteint en 2003 pour la cocaïne). Pour les substances suivantes, le taux de consommation actuel est comparable aux faibles taux observés au début des années 1990 :

- excès occasionnels d'alcool
- inhalants
- champignons ou mescaline
- cocaine.

3e tendance : La 3e tendance a été semblable à la 2e, à une nuance d'importance près : la consommation actuelle de la substance suivante est significativement *supérieure* aux faibles taux observés au début des années 1990 :

- cannabis.

4e tendance : La prévalence de la consommation des substances 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 durant les années 2000, s'est stabilisée ces dernières années :

- ecstasy
- crack
- tranquillisants ou sédatifs.

5e tendance : Depuis plusieurs dizaines d'années, la prévalence de la consommation de la substance suivante est négligeable et demeure stable :

- héroïne.

Recensement de drogues synthétiques émergentes

Des questions sur deux drogues émergentes, le cannabis synthétique (« spice », ou « K2 ») et la méthoxétamine (« MXE » ou « mket »), ont été ajoutées dans le SCDSEO de 2013. On a établi que 2 % des élèves de la 7e à la 12e année (ce qui représente environ 17 300 élèves en Ontario) avaient consommé du cannabis synthétique pendant l'année écoulée. Les estimations de prévalence en 2013 de la consommation de méthoxétamine, de méphédrone (« sels de bain ») et de comprimés de BZP (benzylpipérazine), initialement prises en compte dans le SCDSEO de 2011, ont été supprimées, car leur taux de consommation était négligeable. Bien qu'on ne soit pas en mesure d'attribuer des proportions précises à la consommation de ces trois substances, on a établi qu'il n'y avait aucune preuve que leur usage s'était répandu de façon mesurable chez les élèves.

Cigarettes et tabac : faits saillants

- En 2013, environ 9 % des élèves de la 7e à la 12e année (soit environ 83 100 élèves en Ontario) ont dit avoir fumé la cigarette au cours de l'année écoulée et environ 3 % (quelque 33 400 élèves) ont déclaré fumer

tous les jours. La baisse graduelle de la consommation de cigarettes observée au cours de la dernière décennie semble avoir stoppé : on n'observe pas de baisse supplémentaire en 2013.

- Les fumeurs se répartissaient également entre les deux sexes (10 % de garçons et 7 % de filles). On observe une augmentation de la prévalence de l'usage de la cigarette d'une année d'étude à l'autre pour atteindre 15 % chez les élèves de 12e année. On n'a pas relevé de différences régionales notables pour ce qui est de l'usage de la cigarette au cours de l'année écoulée.

- La plupart des élèves ont déclaré que les cigarettes qu'ils fumaient leur étaient fournies par un ami ou un membre de la famille. À défaut, la façon la plus courante de s'en procurer était l'achat en magasin, dans des stations-service ou dans des bars.

- Environ 3 % des élèves (soit environ 24 700 élèves en Ontario) ont déclaré avoir fumé des cigarettes de contrebande au cours d'année écoulée. Parmi les élèves ayant fumé au cours de l'année écoulée, 32 % ont déclaré avoir fumé des cigarettes de contrebande.

- Environ 6 % des élèves de la 7e à la 12e année (environ 51 800 élèves en Ontario) ont consommé des produits du tabac sans combustion (tabac à chiquer ou à priser).

- En 2013, on a demandé pour la première fois aux élèves s'ils utilisaient la pipe à eau (« narguilé » ou « hookah »). On estime que 10 % des élèves de la 7e à la 12e année (soit environ 88 400 élèves en Ontario) ont indiqué qu'ils l'avaient utilisée au cours de l'année écoulée.

- En 2013, on a demandé pour la première fois aux élèves de la 9e à la 12e année s'ils avaient fumé la cigarette électronique au cours de leur vie. Environ 15 % des élèves du palier secondaire (environ 99 800 en Ontario) ont indiqué qu'ils avaient fumé la cigarette électronique, avec ou sans nicotine, au moins une fois dans leur vie. Plus précisément, 4 % d'entre eux ont indiqué qu'ils avaient fumé une cigarette électronique contenant de la nicotine, et 11 % d'entre eux avaient fumé une cigarette électronique sans nicotine.

Alcool : faits saillants

- La consommation d'alcool a diminué progressivement depuis environ 1999 et a montré une nouvelle baisse entre 2011 et 2013, atteignant un niveau historiquement bas. Environ la moitié (50 %) de tous les élèves (soit environ 483 900 élèves en Ontario) ont dit avoir bu de l'alcool au cours de l'année écoulée. La consommation d'alcool était à proportions égales chez les garçons (50 %) et les filles (49 %). La consommation variait selon l'année d'études (allant de 10 % des élèves de 7e année à 74 % des élèves de 12e année). Les élèves de la région de Toronto étaient ceux qui consommaient le moins d'alcool (42 % des élèves) tandis que les élèves du Nord de l'Ontario étaient ceux qui en consommaient le plus (59 % des élèves).

- La consommation d'alcool mélangé avec des boissons énergisantes fortement caféinées a été indiquée par environ 16 % des élèves. Cette estimation passe de 3 % chez les élèves de 7e année à 28 % chez les élèves de 12e année.

- Un cinquième (20 %) des élèves, soit environ 193 400 élèves en Ontario, ont 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 (18 %) ont déclaré s'être enivrés au moins une fois au cours du mois écoulé. Environ un tiers des élèves de 12e année ont indiqué avoir fait un excès d'alcool et avoir été saouls à au moins une occasion au cours du mois écoulé.

- Environ un quart (23 %) des élèves de la 9e à la 12e année ont déclaré avoir joué à un jeu impliquant la consommation d'alcool tel que le « bière-pong » au moins une fois au cours du mois écoulé.

- Environ 16 % des élèves (32 % de ceux qui ont déclaré avoir consommé de l'alcool au cours de l'année écoulée), ont signalé des pratiques à risque selon les critères de l'épreuve *AUDIT* (*Alcohol Use Disorders Identification Test*, soit « épreuve de recherche des troubles liés à l'alcool »). Cela représente environ 158 700 élèves en Ontario. On n'a pas relevé de différence entre les sexes concernant la consommation à risque. La consommation à risque augmentait selon l'année d'études, atteignant un sommet de 32 % chez les élèves de 12e année. Les élèves du Nord et de l'Est sont plus susceptibles d'indiquer une consommation à risque ou entraînant des dangers (environ 19 %), tandis que les élèves de Toronto et de l'Ouest le sont relativement moins (environ 13 %).

- Environ un élève sur cinq (18 %) n'était pas en mesure de se souvenir de ce qui s'était passé à au moins une occasion pendant laquelle il avait bu au cours de l'année écoulée. Environ 8 % ont déclaré s'être blessé ou avoir blessé quelqu'un en raison de la consommation d'alcool.

- Dans la plupart des cas, l'alcool avait été fourni aux élèves qui ont déclaré avoir consommé de l'alcool au cours de l'année écoulée par des tiers. À défaut, la façon la plus courante de se procurer de l'alcool était de donner de l'argent à quelqu'un pour qu'il en achète.

- Environ 3 % des élèves (environ 28 400) ont déclaré avoir essayé des solutions contenant de l'alcool impropre à la consommation telles que du rince-bouche, de l'alcool à friction, ou du désinfectant à mains à au moins une occasion au cours de l'année écoulée.

Cannabis : faits saillants

- La consommation de cannabis s'est maintenue entre 2011 et 2013, mais a progressivement diminué depuis 1999. Presque un quart (23 %) des élèves (soit environ 225 600 élèves en Ontario) ont déclaré avoir consommé du cannabis en 2013. La consommation était plus importante chez les garçons (25 %) que chez les filles (21 %). Cette consommation augmentait avec les années d'études, passant de 2 % des élèves de 7e année à environ 39 % des élèves de 12e année. Les quatre régions ne présentaient pas de différences marquées en matière de consommation.

- Environ 3 % des élèves consomment du cannabis tous les jours, ce qui représente 25 800 élèves en Ontario.

- Environ 3 % de toutes les élèves de la 9e à la 12e année (environ 20 900 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 »). Environ un élève sur dix signale des symptômes de dépendance parmi les élèves ayant consommé du cannabis au cours de l'année écoulée.

Prise de médicaments sur ordonnance à des fins non médicales

- Dans le cadre du SCDSEO, on a également posé des questions aux élèves sur leur consommation d'analgésiques opioïdes sur ordonnance (p. ex. Percocet, Percodan, Tylenol no 3, Demerol et codéine) à des fins non médicales. Environ un élève sur huit (12 %) a déclaré avoir pris un analgésique opioïde à des fins non médicales au moins une fois au cours de l'année écoulée, ce qui représente 120 100 élèves en Ontario. On n'a pas relevé de différence significative entre les garçons et les filles. La consommation augmente de façon significative avec l'année d'études et atteint

son niveau le plus élevé chez les élèves de la 12e année (16 %). Les élèves du Nord (7 %) sont les moins susceptibles à en consommer et les élèves de Toronto et de l'Ouest sont les plus susceptibles à en consommer (entre 13 % et 15 % environ). La majorité des élèves (70 %) qui avaient pris un analgésique opioïde à des fins non médicales au cours de l'année écoulée ont déclaré se l'être procuré chez eux.

- Environ 1 % des élèves (quelque 13 500 élèves en Ontario) ont déclaré avoir pris sans ordonnance un médicament prescrit pour traiter le trouble du déficit de l'attention avec ou sans hyperactivité (TDAH) chez les enfants (p. ex. Ritalin, Concerta, Adderall ou Dexedrine). Les garçons et les élèves les plus âgés sont les plus susceptibles d'en consommer. On n'a pas relevé de différences notables entre les régions.

Prise de médicaments en vente libre à des fins non médicales

- On a posé aux élèves des questions sur leur consommation d'antitussifs et d'anti-rhume en vente libre contenant du dextrométhorphane pour « planer ». En tout, 10 % des élèves ont déclaré avoir pris ce type de médicament pour cette raison au cours de l'année écoulée. Cela représente environ 94 100 élèves en Ontario. Il y a plus de garçons (11 %) que de filles (9 %) qui ont consommé des antitussifs et des anti-rhume en vente libre à des fins non médicales. Il n'y avait pas de différences significatives selon l'année d'études ou entre les régions.

Boissons énergisantes fortement caféinées

- 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. Environ 40 % de tous les élèves (quelque 382 500 élèves en Ontario) ont déclaré avoir bu une boisson énergisante au moins une fois au cours de l'année écoulée. Un élève sur huit (12 %) a signalé qu'il avait bu une boisson énergisante au moins une fois au cours de la semaine précédant le sondage. Cela représente environ 119 700 élèves en Ontario.

Abstinence

- Plus d'un tiers (37 %) des élèves de l'Ontario de la 7e à la 12e année (environ 340 600 élèves en Ontario) ont déclaré n'avoir pris aucune substance intoxicante au cours de l'année écoulée (l'alcool et le tabac étaient inclus dans les substances intoxicantes, mais non les boissons énergisantes fortement caféinées). L'abstinence était plus répandue chez les filles (40 %) que chez les garçons (35 %), et les taux d'abstinence diminuaient de façon importante avec l'année d'études, passant de 70 % des élèves de la 7e année à 17 % des élèves de la 12e année. On n'a pas relevé de différences significatives entre les quatre régions.

- Le pourcentage d'élèves ayant répondu qu'ils n'avaient pris aucune substance intoxicante en 2013 est semblable à l'estimation de 2011. Toutefois, on observe une tendance linéaire à la hausse du taux d'abstinence, qui est passé de 27 % à 37 % entre 1999 et 2013.

Répercussions de la consommation d'alcool et d'autres substances intoxicantes

Conduite de véhicules

- Un peu plus d'un cinquième (18 %) des élèves de la 7e année à la 12e année ont répondu avoir été dans un véhicule conduit par une personne qui avait bu de l'alcool et 14 % d'entre eux ont répondu avoir été dans

un véhicule conduit par une personne qui avait consommé de la drogue. La fréquence de ces comportements a significativement diminué au cours des dix dernières années.

- Environ 4 % des élèves de la 10e à la 12e année qui sont titulaires d'un permis de catégorie G ont déclaré avoir, au moins une fois au cours de l'année écoulée, pris le volant une heure ou moins après avoir bu deux verres d'alcool ou plus. Cela représente environ 12 700 conducteurs adolescents en Ontario. L'estimation du pourcentage d'élèves qui ont conduit en état d'ivresse a diminué de façon significative entre 2011 (7 %) et 2013 (4 %). En outre, l'estimation actuelle est significativement plus basse que les estimations d'il y a dix ans, surtout celles datant de la fin des années 1970 et du début des années 1980.

- On a demandé aux élèves s'ils avaient conduit une motoneige, un bateau à moteur, une motomarine ou un véhicule tout-terrain (VTT) après avoir consommé de l'alcool. Parmi les élèves des 10e, 11e et 12e années, 5 % ont déclaré l'avoir fait au moins une fois au cours de l'année écoulée, ce qui représente 29 400 élèves en Ontario.

- Le pourcentage d'élèves de la 10e à la 12e année ayant déclaré avoir conduit un véhicule après avoir pris du cannabis est plus élevé que celui des élèves ayant déclaré l'avoir fait après avoir bu. Environ un conducteur sur dix (10 %) a déclaré avoir, au moins une fois au cours de l'année écoulée, pris le volant une heure après avoir consommé du cannabis ou moins. Cela représente environ 31 500 conducteurs adolescents en Ontario. L'estimation actuelle de 10 % est significativement moindre que la première estimation qui avait été faite en 2001 (20 %).

- Le pourcentage d'élèves de la 10e à la 12e année ayant déclaré avoir, au moins une fois durant l'année écoulée, conduit un véhicule dans l'heure suivant la prise d'un analgésique opioïde sur ordonnance (p.ex. Percocet, Percodan ou OxyContin) est de 3 %. Cela représente environ 9 000 conducteurs adolescents en Ontario.

Problèmes liés à la consommation de drogues

- Un sur six (17 %) élèves de la 9e à la 12e année a signalé avoir connu des symptômes liés à l'usage de drogues, selon les critères du questionnaire de dépistage *CRAFFT*. Cela représente 132 700 élèves en Ontario. Les garçons et les élèves de la 12e année sont les plus nombreux à avoir eu des problèmes de ce type. On n'a pas relevé de différences notables entre les régions.

- Un faible pourcentage des élèves (1 %) de la 9e à la 12e année ont déclaré avoir suivi un programme de traitement de l'alcoolisme ou de la toxicomanie au cours de l'année écoulée. Cela représente 8 400 élèves en Ontario.

Concomitance de consommation d'alcool à risque et de troubles psychiques

- Environ 6 % des élèves de la 7e à la 12e année faisant une consommation d'alcool à risque ont déclaré avoir des troubles psychiques (c.-à-d. symptômes d'anxiété et de dépression). Cela représente 60 800 élèves en Ontario. Il y avait plus de filles que de garçons dans cette catégorie (9 % et 4 %, respectivement). Il y avait également des différences significatives selon l'année d'études, la fréquence de ces problèmes jumelés étant à son maximum en 12e année (10 %). On n'a pas relevé de différences régionales.

Autres faits saillants

Consommation simultanée de différentes drogues et consommation par injection

- Environ 6 % des élèves de 9e à 12e année (ce qui représente environ 37 700 élèves en Ontario) fument des cigarettes, consomment

de l'alcool, du cannabis *et* au moins une autre drogue.

- Un pourcentage négligeable (< 0,5 %) des élèves de 9e à 12e année ont déclaré s'être injecté de la drogue durant l'année écoulée.

Nouveaux consommateurs de substances intoxicantes et initiation précoce

- Chez les élèves ayant déclaré avoir pris des substances intoxicantes pour la première fois durant l'année écoulée, les pourcentages étaient les suivants : 5 % pour la cigarette, 17 % pour l'alcool, 9 % pour le cannabis et 3 % pour des drogues illégales autres que le cannabis. Les nouveaux consommateurs de substances intoxicantes sont plus susceptibles d'être en 9e, en 10e ou en 11e année.

- De nos jours, moins d'élèves consomment de l'alcool, du tabac ou du cannabis à un jeune âge comparativement aux décennies précédentes. En 2013, moins de 2 % des élèves de 7e année avaient fumé leur première cigarette jusqu'au bout avant la fin de la 6e année, comparativement à 27 % en 1997 et à 41 % en 1981.

- En 2013, 13 % des élèves de 7e année avaient consommé leur première boisson alcoolisée avant la fin de la 6e année comparativement à 31 % en 2007, à 42 % en 2003 et à 50 % en 1981.

- En 2013, 2 % des élèves de 7e année avaient consommé du cannabis pour la première fois avant la fin de la 7e année, comparativement à 8 % en 2003 et à 9 % en 1981.

- En 2013, l'âge moyen auquel les fumeurs de 12e année ont déclaré avoir fumé leur première cigarette était de 15 ans. Les élèves de 12e année ont également déclaré avoir pris leur première boisson alcoolisée et s'être enivrés pour la première à l'âge de 14,6 ans; ils ont également déclaré avoir pris du cannabis pour la première fois à l'âge de 15,3 ans. L'âge moyen de la première prise de cannabis signalé chez les usagers de 12e année était de 15,2 ans.

- L'âge moyen où les élèves ont fumé leur première cigarette et bu leur première boisson alcoolisée a considérablement augmenté au cours des dix dernières années tandis que l'âge moyen au moment de la première prise de cannabis est resté stable.

Perception du risque associé à la prise de substances intoxicantes et réprobation de cette consommation

- Les élèves de 7e et de 8e années ont jugé que le plus dangereux pour la santé était la consommation régulière de cannabis, suivie de la consommation d'analgésiques opioïdes d'ordonnance à usage non médical. Les élèves de la 9e à 1a 12e année considèrent la plus dangereuse la consommation d'analgésiques opioïdes d'ordonnance à usage non médical, suivie de l'essai de la cocaïne. Pour tous les élèves, l'essai du cannabis figure en dernier pour ce qui est de la perception du risque y étant associé.

- Pour la première fois depuis de nombreuses années, on observe chez les élèves une diminution considérable dans la perception du risque associé à la consommation du cannabis (l'essayer et le consommer régulièrement). Entre 2011 et 2013, la perception du risque associé à l'essai du cannabis est passée de 18 % à 12 %, un taux historiquement bas. La perception du risque associé à la consommation régulière du cannabis a diminué, passant de 56 % à 44 %.

- Au cours des dix dernières années, la perception du risque associé à l'usage quotidien du tabac et à l'essai de la cocaïne a augmenté. La perception du risque associé aux excès occasionnels d'alcool est restée stable. La perception du risque associé à l'ecstasy a diminué entre 2011 et 2013.

- Entre 2011 et 2013, on a observé une importante diminution du pourcentage des élèves qui réprouvent fortement l'usage

fréquent de cannabis, qui est passé de 56 % à 49 %. À l'inverse, le pourcentage d'élèves qui réprouvent fortement l'essai de l'ecstasy a augmenté au cours des dix dernières années.

Perception de la facilité d'accès aux drogues

- En 2013, les élèves de la 7e à la 12e année ont trouvé que la substance intoxicante la plus facile d'accès était l'alcool (65 % des élèves ont déclaré qu'il serait « assez facile » ou « très facile » de s'en procurer), suivi de la cigarette (61 %), du cannabis (51 %) et des analgésiques opioïdes d'ordonnance (19 %).

- Les données de 2011 et de 2013 indiquent que les élèves trouvent plus difficile de se procurer de l'alcool, des cigarettes et du cannabis. La perception qu'ils ont de la difficulté à se procurer de la cocaïne, du LSD et de l'ecstasy a vu une tendance à la baisse au cours des dix dernières années.

École et quartier

- Parmi tous les élèves, ce sont ceux de la 8e et de la 9e 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 ou d'une autre drogue.

- Un quart (25 %) des élèves de la 7e à la 12e année ont déclaré que dans leur école, la consommation de drogues était un « gros problème », 53 % ont dit que c'était un « problème mineur » et 22 % pensent qu'elle ne constituait « pas un problème » dans leur école.

- Parmi élèves de la 7e à la 12e année, un sur huit (12 %) 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. Cela représente environ 109 700 élèves en Ontario.

- Un cinquième (19 %) des élèves de la 7e à la 12e année (soit environ 167 600 élèves en Ontario) ont déclaré qu'au cours de l'année écoulée on leur avait proposé, vendu ou donné une substance illégale à l'école à au moins une occasion.

- Parmi les élèves de la 7e à la 12e année, un sur dix (10 %) a déclaré que la plupart ou que tous leurs amis proches consommaient des substances intoxicantes.

- Parmi les élèves de la 7e à la 12e année, un quart (25 %) ont déclaré qu'au cours de l'année écoulée, quelqu'un avait essayé de leur vendre des drogues à un endroit ou à un autre. Cela représente 228 700 élèves en Ontario.

- Un élève sur cinq (21 %) des étudiants (ce qui représente environ 191 400 élèves en Ontario) a signalé avoir vu quelqu'un vendre des substances intoxicantes dans leur propre quartier au cours de l'année écoulée.

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Table of Contents

1. INTRODUCTION 1

2. METHODS 7

3. RESULTS 30

3.1 Overview of Drug Use in 2013 30
Drug Use in the Past Year 30
Lifetime Drug Use 30
Frequency of Drug Use 30

3.2 Overview of Drug Use Trends 36
2013 vs. 2011 36
1999–2013 Trends 36
Long-Term Trends, 1977–2013 40
Frequent Drug Use Trends 44

3.3 Tobacco Use 47
Past Year Cigarette Smoking 47
Past Year Daily Cigarette Smoking 53
Lifetime Cigarette Smoking 59
Attempts to Quit Cigarette Smoking (Among Past Year Smokers) 60
Past Year Contraband Cigarette Smoking 61
Past Year Smokeless Tobacco Use 63
Past Year Waterpipe ("Hookah") Use 65
Lifetime Use of Electronic Cigarettes (Among Grades 9–12) 66

3.4 Alcohol Use 67
Past Year Alcohol Use 67
Frequency of Drinking Alcohol in the Past Year 73
Frequency of Drinking Alcohol in the Past Month 75
Heavy Episodic Drinking in the Past Month 77
Hazardous or Harmful Drinking (AUDIT Screener) 91
Past Year Use of Alcohol Mixed with an Energy Drink 96
Participation in Drinking Games (Among Grades 9–12) 97
Past Year Non-Beverage Alcohol Use 98

3.5 Cannabis Use 99
Past Year Cannabis Use 99
Cannabis and Alcohol Use on the Same Occasion in the Past Year 105
Frequency of Cannabis Use in the Past Year, and in the Past Month 106
Number of Marijuana Joints Consumed in the Past Month 110
Cannabis Dependence (Among Grades 9–12) 111
Past Year Synthetic Cannabis ("Spice") Use 113

3.6 Illicit Drug Use 114

3.6.1 Illicit Drug Use Among Grades 7–12 114
Past Year Inhalant Use: Glue or Solvents 114
Past Year Salvia Divinorum Use 120

3.6.2 Illicit Drug Use Among Grades 9–12 123
Past Year LSD Use 123
Past Year Mushroom (Psilocybin) or Mescaline Use 128
Past Year Jimson Weed Use 134
Past Year Methamphetamine or Crystal Methamphetamine Use 136
Past Year Cocaine Use 141
Past Year Crack Cocaine Use 147
Past Year Heroin Use 151
Past Year Ecstasy (MDMA) Use 154
Past Year Ketamine Use 159
Past Year Methoxetamine Use 161
Past Year Mephedrone ("Bath Salts") Use 161
Past Year Use of BZP Pills 161

3.7 Nonmedical Use of Prescription Drugs and Over-the-Counter Drugs 162

3.7.1 Nonmedical Use of Prescription Drugs and Over-the Counter Drugs Among Grades 7–12 162
Past Year Nonmedical Use of OxyContin/OxyNEO 162
Past Year Nonmedical Use of Prescription Opioid Pain Relievers 164
Past Year Nonmedical Use of ADHD Drugs 168
Past Year Nonmedical Use of OTC Cough/Cold Medication 170
Past Year Use of High-Caffeine Energy Drinks 173

3.7.2 Nonmedical Use of Prescription Drugs Among Grades 9–12 175
Past Year Nonmedical Use of Tranquillizers/Sedatives 175
Past Year Nonmedical Use of Modafinil 181
Lifetime Steroid Use 182

3.8 Any Drug Use and Multiple Drug Use 184
Any Drug Use Including Cannabis in 2013 184
Any Drug Use Excluding Cannabis in 2013 185
Trends in Any Drug Use 186
Any Nonmedical Prescription Drug Use 195
Past Year Injection Drug Use 197
Multiple Drug Use in the Past Year 197
Past Year Abstinence. 199

3.9 New Users and Early Initiation 203
Incidence: First-Time Use in the Past Year 203
Early Initiation Among 7th Graders, 1981–2013 208
Drug Use Trends Among 7th Graders, 1977–2013 208
Age at Initiation of Smoking, Drinking, and Cannabis Use, 1981–2013 211

3.10 Consequences and Harms 215
Been a Passenger with a Driver Who Had Been Using Alcohol or Drugs 215
Driving a Motor Vehicle After Drinking Alcohol 219
Operating a Snowmobile, Motor Boat, Sea-Doo, or ATV After Drinking Alcohol 222
Driving a Motor Vehicle After Using Cannabis 223
Driving a Motor Vehicle After Using a Prescription Opioid 226

Drug Use Problem (CRAFFT Screener) Among Grades 9–12 227
Alcohol and Other Drug Treatment Among Grades 9–12 230
Coexisting Alcohol and Mental Health Problems Among Grades 7–12 230

3.11 Attitudes and Perceptions 232
Perceived Risk and Disapproval 232
Perceived Drug Availability 241
Source of Cigarettes 245
Source of Alcohol 245
Source of Diverted Prescription Opioid Pain Relievers 246

3.12 School and Neighbourhood Factors 247
Recall of Substance Education at School 247
Drug Problem at School 249
Intoxication at School 251
Getting Drugs at School 251
Friends' Use of Drugs 255
Exposure to Drug Selling 256

3.13 Overview of Drug Use in the Ontario LHIN Areas 260

3.14 Overview of Drug Use in the Greater Toronto Area (GTA) 263

4. SUMMARY AND DISCUSSION 264

5. APPENDIX 274
District School Boards in Ontario by Region 275
Ontario Public Health Regions Sponsoring Oversamples in the OSDUHS, 2009–2013 276
Student Participation Rate by Year of Survey 277
Sample Demographics by Year of Survey 279
Design Effects (Deffs) for Estimates by Year of Survey 280
Study Information Sheet and Parental Consent/Student Assent Form 281
Drugs No Longer Monitored by the OSDUHS 284
PCP 285
GHB 287
Rohypnol 287
Over-the-Counter Sleeping Medication 287
Nonmedical Use of Prescription Stimulants 288

6. REFERENCES 290

SELECTED OSDUHS PEER-REVIEWED PUBLICATIONS 296

List of Tables

2.1 Thirty-Seven Years (19 Cycles) of the OSDUHS 7
2.2 Topic Overview of the Four Questionnaire Forms Used in the 2013 OSDUHS 13
2.3 The 2013 OSDUHS Sample vs. Ontario 2011/2012 School Enrolment 20
2.4 Sample Characteristics, 2013 OSDUHS 20
2.5 Definitions of Terms Used in the Report 28
2.6 2013 OSDUHS Method and Sample Summary 29
3.1.1 Percentage Reporting Drug Use in Lifetime and in the Past Year, 2013 OSDUHS 35
3.2.1a Percentage Using Drug Once or More in the Past Year, 1999–2013 OSDUHS 39
3.2.1b Percentage Using Drug Once or More in the Past Year, 1977–2013 OSDUHS 43
3.2.2a Frequent Drug Use: Percentage Using Drug Six Times or More in the Past Year, 1999–2013 OSDUHS 45
3.2.2b Frequent Drug Use: Percentage Reporting Using Drug Six Times or More in the Past Year, 1977–2013 OSDUHS (Grades 7, 9, 11 only) 46
3.3.1 Percentage Reporting Cigarette Smoking in the Past Year, 1977–2013 OSDUHS 51
3.3.2 Percentage Reporting Daily Cigarette Smoking in the Past Year, 1977–2013 OSDUHS 57
3.3.3 Attempts to Quit Smoking Cigarettes in the Past Year, 1999–2013 OSDUHS (Grades 7–12) 60
3.3.4 Percentage Reporting Smoking Contraband Cigarettes in the Past Year, 2009–2013 OSDUHS 62
3.3.5 Percentage Reporting Smokeless Tobacco Use in the Past Year, 2011–2013 OSDUHS 64
3.4.1 Percentage Reporting Drinking Alcohol in the Past Year, 1977–2013 OSDUHS 71
3.4.2 Frequency of Drinking Alcohol in the Past Year Among the Total Sample, 1999–2013 OSDUHS 73
3.4.3 Frequency of Drinking Alcohol in the Past Month Among the Total Sample, 1999–2013 OSDUHS 76
3.4.4 Percentage Reporting Binge Drinking in the Past Month, 1977–2013 OSDUHS 85
3.4.5a Frequency of Binge Drinking in the Past Month, 1999–2013 OSDUHS (Grades 7–12) 87
3.4.5b Frequency of Binge Drinking in the Past Month, 1987–2013 OSDUHS (Grades 7, 9, 11 only) 88
3.4.6 Percentage Reporting Drunkenness in the Past Month, 1977–2013 OSDUHS 89
3.4.7 Percentage of the Total Sample, and of Past Year Drinkers, Reporting AUDIT Indicators, 2013 OSDUHS (Grades 7–12) 92
3.4.8 Percentage of the Total Sample Reporting Hazardous/Harmful Drinking (AUDIT 8+) 1999–2013 OSDUHS (Grades 7–12) 95
3.5.1 Percentage Reporting Cannabis Use in the Past Year, 1977–2013 OSDUHS 103
3.5.2a Frequency of Cannabis Use in the Past Year, 1999–2013 OSDUHS (Grades 7–12) 107
3.5.2b Frequency of Cannabis Use in the Past Year, 1981–2013 OSDUHS (Grades 7, 9, 11 only) 107
3.5.3a Frequency of Cannabis Use in the Past Month, 1999–2013 OSDUHS (Grades 7–12) 108
3.5.3b Frequency of Cannabis Use in the Past Month, 1983–2013 OSDUHS (Grades 7, 9, 11 only) 109
3.5.4 Number of Marijuana Joints Smoked Per Occasion in the Past Month, Among Past Year Cannabis Users, 1999–2013 OSDUHS (Grades 7–12) 110
3.5.5 Percentage of the Total Sample, and of Past Year Cannabis Users, Reporting Severity of Dependence (SDS) Indicators Experienced in the Past Three Months, 2013 OSDUHS (Grades 9–12) 111
3.5.6 Percentage of Total Sample Reporting Symptoms of Cannabis Dependence as Measured by the Severity of Dependence Scale (SDS), 2007–2013 OSDUHS (Grades 9–12) 112
3.6.1 Percentage Reporting Inhalant Use (Glue or Solvents) in the Past Year, 1977–2013 OSDUHS 118
3.6.2 Percentage Reporting Salvia Divinorum Use in the Past Year, 2009–2013 OSDUHS 122
3.6.3 Percentage Reporting LSD Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12) 126
3.6.4 Percentage Reporting Mushroom/Mescaline Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12) 132
3.6.5 Percentage Reporting Jimson Weed Use in the Past Year, 2007–2013 OSDUHS (Grades 9–12) 135
3.6.6 Percentage Reporting Methamphetamine Use (includes Crystal Methamphetamine) in the Past Year, 1977–2013 OSDUHS (Grades 9–12) 139
3.6.7 Percentage Reporting Cocaine Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12) 145
3.6.8 Percentage Reporting Crack Cocaine Use in the Past Year, 1987–2013 OSDUHS (Grades 9–12) 149
3.6.9 Percentage Reporting Heroin Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12) 152
3.6.10 Percentage Reporting Ecstasy Use in the Past Year, 1991–2013 OSDUHS (Grades 9–12) 158
3.6.11 Percentage Reporting Ketamine Use in the Past Year, 2003–2013 OSDUHS (Grades 9–12) 160
3.7.1 Percentage Reporting Nonmedical Use of OxyContin/OxyNEO in the Past Year, 2005–2013 OSDUHS 163
3.7.2 Percentage Reporting Nonmedical Use of a Prescription Opioid Pain Reliever in the Past Year, 2007–2013 OSDUHS 167

3.7.3 Percentage Reporting Nonmedical Use of an ADHD Drug in the Past Year, 2007–2013 OSDUHS 169
3.7.4 Percentage Reporting Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication in the Past Year, 2009–2013 OSDUHS 172
3.7.5 Percentage Reporting Drinking High-Caffeine Energy Drinks in the Past Year, 2011–2013 OSDUHS 174
3.7.6 Percentage Reporting Nonmedical Tranquillizer/Sedative Use in the Past Year, 1977–2013 OSDUHS ... 179
3.7.7 Percentage Reporting Steroid Use in Lifetime, 1989–2013 OSDUHS (Grades 9–12) 183
3.8.1 Percentage Reporting Any Drug Use Including Cannabis in the Past Year, 1977–2013 OSDUHS 191
3.8.2 Percentage Reporting Any Drug Use Excluding Cannabis in the Past Year, 1977–2013 OSDUHS 193
3.8.3 Percentage Reporting Nonmedical Use of a Prescription Drug in the Past Year, 2009–2013 OSDUHS.... 196
3.8.4 Percentage Reporting No Drug Use in the Past Year, 1999–2013 OSDUHS (Grades 7–12)..... 202
3.9.1 Percentage Reporting Smoking a Whole Cigarette for the First Time in the Past Year, 1999–2013 OSDUHS (Grades 7–12) 205
3.9.2 Percentage Reporting Using Alcohol for the First Time in the Past Year, 1999–2013 OSDUHS 206
3.9.3 Percentage Reporting Using Cannabis for the First Time in the Past Year, 1999–2013 OSDUHS 207
3.10.1 Percentage Reporting Riding in a Vehicle in the Past Year with a Driver Who Had Been Drinking Alcohol, 2001–2013 OSDUHS (Grades 7–12) 217
3.10.2 Percentage Reporting Riding in a Vehicle in the Past Year with a Driver Who Had Been Using Drugs, 2003–2013 OSDUHS (Grades 7–12) 218
3.10.3 Percentage Drivers in Grades 10–12 Reporting Drinking and Driving at Least Once in the Past Year, 1999–2013 OSDUHS 221
3.10.4 Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year, 2001–2013 OSDUHS 225
3.10.5 Percentage of Secondary Students Reporting Drug Use Problems Experienced in the Past Year, 2013 OSDUHS (Grades 9–12) 227
3.10.6 Percentage of Secondary Students Indicating a Drug Use Problem (CRAFFT 2+), 2003–2013 OSDUHS . 229
3.11.1 Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, by Grade, 1989–2013 OSDUHS 237
3.11.2 Percentage Who Strongly Disapprove of Drug Use, by Grade, 1989–2013..... 239
3.11.3 Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, by Grade, 1981–2013 OSDUHS 243
3.12.1 Percentage Reporting the Perception that Drug Use in their School is a “Big Problem,” 1993–2013 OSDUHS 250
3.12.2 Percentage Reporting Being Drunk or High at School in the Past Year, 2005–2013 OSDUHS..... 253
3.12.3 Percentage Reporting Being Offered, Sold, or Given a Drug at School in the Past Year, 2005–2013 OSDUHS 254
3.12.4 Percentage Reporting that Someone Tried to Sell Drugs to Them in the Past Year, 1995–2013 OSDUHS 258
3.12.5 Percentage Reporting Witnessing Drug Selling in their Neighbourhood in the Past Year, 1995–2013 OSDUHS 259
3.13.1 Percentage of Secondary Students (Grades 9–12) Reporting Drug Use in the Past Year and Other Selected Indicators, by Ontario Local Health Integration Network (LHIN) Areas, 2013 OSDUHS..... 261
3.14.1 Percentage of Students in the Greater Toronto Area (GTA) Reporting Past Year Drug Use, 2011 and 2013 OSDUHS 263
4.1 Significant Changes in Past Year Drug Use by Subgroup, 2013 vs. 2011 and 2013 vs. 1999 272
4.2 Significant Subgroup Differences in Past Year Drug Use, 2013 OSDUHS..... 273
A1 District School Boards in Ontario by Region..... 275
A2 Ontario Public Health Region Sponsoring Oversamples in the OSDUHS, 2009–2013 276
A3 Student Participation Rate by Year of Survey..... 277
A4 Sample Demographics by Year of Survey 279
A5 Design Effects (Deffs) for Estimates by Year of Survey..... 280
A6 Percentage Reporting PCP Use in the Past Year, 1981–2009 OSDUHS 285
A7 Percentage Reporting GHB Use, Rohypnol Use, and OTC Sleeping Medication Nonmedical Use in the Past Year, 2001–2009 OSDUHS..... 287
A8 Percentage Reporting Nonmedical Stimulant Use in the Past Year, 1977–2011 OSDUHS 288

List of Figures

3.1.1 Percentage Reporting Lifetime and Past Year Drug Use, 2013 OSDUHS 31
3.1.2 Percentage Reporting Past Year Drug Use by Grade Level, 2013 OSDUHS 32
3.1.3 Percentage Reporting Frequent Drug Use (Six Times or More) in the Past Year, 2013 OSDUHS (Total Sample) 33
3.1.3 Frequency of Drug Use in the Past Year, Among Users, 2013 OSDUHS (Grades 9–12 only) 34
3.2.1a Past Year Drug Use 2013 vs. 2011, OSDUHS (Grades 7–12) 37
3.2.1b Past Year Drug Use 2013 vs. 2011, OSDUHS (Grades 9–12 only) 37
3.2.2a Overview of Past Year Drug Use Trends, 1999–2013 OSDUHS (Grades 7–12) 38
3.2.2b Overview of Past Year Drug Use Trends, 1999–2013 OSDUHS (Grades 9–12 only) 38
3.2.3 Pattern 1: Long-Term Drug Use Trends, 1977–2013 OSDUHS 40
3.2.4 Pattern 2: Long-Term Drug Use Trends, 1977–2013 OSDUHS 41
3.2.5 Pattern 3: Long-Term Drug Use Trends, 1977–2013 OSDUHS 41
3.2.6 Pattern 4: Long-Term Drug Use Trends, 1977–2013 OSDUHS 42
3.2.7 Pattern 5: Long-Term Drug Use Trends, 1977–2013 OSDUHS 42
3.3.1 Past Year Cigarette Smoking by Sex, Grade, and Region, 2013 OSDUHS 48
3.3.2 Past Year Cigarette Smoking, 1999–2013 OSDUHS (Grades 7–12) 49
3.3.3 Past Year Cigarette Smoking, 1977–2013 OSDUHS (Grades 7, 9, 11 only) 50
3.3.4 Past Year Daily Cigarette Smoking by Sex, Grade, and Region, 2013 OSDUHS 54
3.3.5 Past Year Daily Cigarette Smoking, 1999–2013 OSDUHS (Grades 7–12) 55
3.3.6 Past Year Daily Cigarette Smoking, 1977–2013 OSDUHS (Grades 7, 9, 11 only) 56
3.3.7 Trends in Lifetime Cigarette Smoking, 1991–2013 OSDUHS (Grades 7, 9, 11 only) 59
3.3.8 Past Year Contraband Cigarette Smoking by Sex, Grade, and Region, 2013 OSDUHS 61
3.3.9 Past Year Smokeless (Chewing) Tobacco Use by Sex, Grade, and Region, 2013 OSDUHS 63
3.3.10 Past Year Waterpipe ("Hookah") Use by Sex, Grade, and Region, 2013 OSDUHS 65
3.3.11 Lifetime Use of Electronic Cigarettes by Sex, Grade, and Region, 2013 OSDUHS 66
3.4.1 Past Year Alcohol Use by Sex, Grade, and Region, 2013 OSDUHS 68
3.4.2 Past Year Alcohol Use, 1999–2013 OSDUHS (Grades 7–12) 69
3.4.3 Past Year Alcohol Use, 1977–2013 OSDUHS (Grades 7, 9, 11 only) 70
3.4.4 Frequency of Drinking Alcohol in the Past Year, 1987–2013 OSDUHS (Grades 7, 9, 11 only) 74
3.4.5 Frequency of Drinking Alcohol in the Past Month, 1987–2013 OSDUHS (Grades 7, 9, 11 only) 75
3.4.6 Binge Drinking in the Past Month by Sex, Grade, and Region, 2013 OSDUHS 79
3.4.7 Drunkenness in the Past Month by Sex, Grade, and Region, 2013 OSDUHS 79
3.4.8 Binge Drinking in the Past Month, 1999–2013 OSDUHS (Grades 7–12) 80
3.4.9 Binge Drinking in the Past Month, 1977–2013 OSDUHS (Grades 7, 9, 11 only) 81
3.4.10 Frequency of Binge Drinking in the Past Month, 1979–2013 OSDUHS (Grades 7, 9, 11 only) 82
3.4.11 Drunkenness in the Past Month, 1999–2013 OSDUHS (Grades 7–12) 83
3.4.12 Drunkenness in the Past Month, 1977–2013 OSDUHS (Grades 7, 9, 11 only) 84
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, 2013 OSDUHS (Grades 7–12) 93
3.4.14 Percentage Reporting Hazardous/Harmful Drinking (AUDIT 8+) by Sex, Grade, and Region, 2013 OSDUHS 93
3.4.15 Hazardous/Harmful Drinking (AUDIT 8+), 1999–2013 OSDUHS (Grades 7–12) 94
3.4.16 Past Year Use of Alcohol Mixed with an Energy Drink by Sex, Grade, and Region, 2013 OSDUHS 96
3.4.17 Participation in Drinking Games in the Past Month by Sex, Grade, and Region, 2013 OSDUHS 97
3.4.18 Past Year Non-Beverage Alcohol Use by Sex, Grade, and Region, 2013 OSDUHS 98
3.5.1 Past Year Cannabis Use by Sex, Grade, and Region, 2013 OSDUHS 100
3.5.2 Past Year Cannabis Use, 1999–2013 OSDUHS (Grades 7–12) 101
3.5.3 Past Year Cannabis Use, 1977–2013 OSDUHS (Grades 7, 9, 11 only) 102
3.5.4 Cannabis and Alcohol Use on the Same Occasion in the Past Year by Sex, Grade, and Region, 2013 OSDUHS 105
3.5.5 Daily Cannabis Use in the Past Month by Sex, Grade, and Region, 2013 OSDUHS 106
3.5.6 Frequency of Cannabis Use in the Past Month, 1983–2013 OSDUHS (Grades 7, 9, 11 only) 108
3.6.1 Past Year Inhalant Use (Glue or Solvents) by Sex, Grade, and Region, 2013 OSDUHS 115
3.6.2 Past Year Inhalant Use (Glue or Solvents), 1999–2013 OSDUHS (Grades 7–12) 116
3.6.3 Past Year Inhalant Use (Glue or Solvents), 1977–2013 OSDUHS (Grades 7, 9, 11 only) 117
3.6.4 Past Year Salvia Divinorum Use by Sex, Grade, and Region, 2013 OSDUHS 121
3.6.5 Past Year LSD Use, 1999–2013 OSDUHS (Grades 9–12) 124
3.6.6 Past Year LSD Use, 1977–2013 OSDUHS (Grades 9 and 11 only) 125
3.6.7 Past Year Mushroom/Mescaline Use by Sex, Grade, and Region, 2013 OSDUHS 129
3.6.8 Past Year Mushroom/Mescaline Use, 1999–2013 OSDUHS (Grades 9–12) 130
3.6.9 Past Year Mushroom/Mescaline Use, 1977–2013 OSDUHS (Grades 9 and 11 only) 131
3.6.10 Past Year Methamphetamine Use (includes Crystal Methamphetamine), 1999–2013 OSDUHS (Grades 9–12) 137
3.6.11 Past Year Methamphetamine Use (includes Crystal Methamphetamine), 1977–2013 OSDUHS (Grades 9 and 11 only) 138

3.6.12 Past Year Cocaine Use by Sex, Grade, and Region, 2013 OSDUHS 142
3.6.13 Past Year Cocaine Use, 1999–2013 OSDUHS (Grades 9–12) 143
3.6.14 Past Year Cocaine Use, 1977–2013 OSDUHS (Grades 9 and 11 only) 144
3.6.15 Past Year Crack Cocaine Use, 1999–2013 OSDUHS (Grades 9–12) 148
3.6.16 Past Year Crack Cocaine Use, 1987–2013 OSDUHS (Grades 9 and 11 only) 148
3.6.17 Past Year Ecstasy Use by Sex, Grade, and Region, 2013 OSDUHS 155
3.6.18 Past Year Ecstasy Use, 1999–2013 OSDUHS (Grades 9–12) 156
3.6.19 Past Year Ecstasy Use, 1991–2013 OSDUHS (Grades 9 and 11 only) 157
3.7.1 Past Year Nonmedical Use of a Prescription Opioid Pain Reliever by Sex, Grade, and Region, 2013 OSDUHS 165
3.7.2 Past Year Nonmedical Use of a Prescription Opioid Pain Reliever, 2007–2013 OSDUHS (Grades 7–12) 166
3.7.3 Past Year Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication by Sex, Grade, and Region, 2013 OSDUHS 171
3.7.4 Past Year Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication, 2009–2013 OSDUHS (Grades 7–12) 171
3.7.5 Past Year Use of a High-Caffeine Energy Drink by Sex, Grade, and Region, 2013 OSDUHS 173
3.7.6 Past Year Nonmedical Tranquillizer/Sedative Use by Sex, Grade, and Region, 2013 OSDUHS 176
3.7.7 Past Year Nonmedical Tranquillizer/Sedative Use, 1999–2013 OSDUHS (Grades 9–12) 177
3.7.8 Past Year Nonmedical Tranquillizer/Sedative Use, 1977–2013 OSDUHS (Grades 9 and 11 only) 178
3.8.1 Past Year Use of Any Drug Including Cannabis by Sex, Grade, and Region, 2013 OSDUHS (Grades 9–12) 184
3.8.2 Past Year Use of Any Drug Excluding Cannabis by Sex, Grade, and Region, 2013 OSDUHS (Grades 9–12) 185
3.8.3 Past Year Use of Any Drug Including Cannabis, 1999–2013 OSDUHS (Grades 9–12) 187
3.8.4 Past Year Use of Any Drug Including Cannabis, 1977–2013 OSDUHS (Grades 9 and 11 only) 187
3.8.5 Past Year Use of Any Drug Excluding Cannabis, 1999–2013 OSDUHS (Grades 9–12) 189
3.8.6 Past Year Use of Any Drug Excluding Cannabis, 1977–2013 OSDUHS (Grades 9 and 11 only) 190
3.8.7 Past Year Nonmedical Use of a Prescription Drug by Sex, Grade, and Region, 2013 OSDUHS 195
3.8.8 The Overlap of Cigarette Smoking, Alcohol, Cannabis, and Other Drug Use in the Past Year, 2013 OSDUHS (Grades 9–12) 198
3.8.9 Percentage Reporting No Drug Use in the Past Year, by Sex, Grade, and Region, 2013 OSDUHS 200
3.8.10 Percentage Reporting No Drug Use in the Past Year, 1999–2013 OSDUHS (Grades 7–12) 201
3.8.11 Percentage Reporting No Drug Use in the Past Year, 1977–2013 OSDUHS (Grades 7, 9, and 11 only) 201
3.9.1 Percentage Reporting First-Time Use of the Drug in the Past Year, by Grade, 2013 OSDUHS 204
3.9.2 Grade First Smoked a Whole Cigarette Among All 7th Graders, by Year of Survey, 1981–2013 OSDUHS 209
3.9.3 Grade First Drank Alcohol Among All 7th Graders, by Year of Survey, 1981–2013 OSDUHS 209
3.9.4 Grade First Used Cannabis Among All 7th Graders, by Year of Survey, 1981–2013 OSDUHS 210
3.9.5 Percentage of 7th Graders Reporting Cigarette Smoking, Alcohol Use, and Cannabis Use in the Past Year, 1977–2013 OSDUHS 210
3.9.6 Average Age at First Cigarette Among 12th-Grade Smokers, First Alcoholic Drink Among 12th Grade Drinkers, and First Cannabis Use Among 12th Grade Users, 1999–2013 OSDUHS 212
3.9.7 Average Age at First Cigarette Among 11th-Grade Smokers, First Alcoholic Drink Among 11th Grade Drinkers, and First Cannabis Use Among 11th Grade Users, 1981–2013 OSDUHS 213
3.9.8 Grade at First Whole Cigarette Among 11th Grade Smokers, by Year of Survey, 1981–2013 OSDUHS 214
3.9.9 Grade at First Alcoholic Drink Among 11th Grade Drinkers, by Year of Survey, 1981–2013 OSDUHS 214
3.9.10 Grade at First Cannabis Use Among 11th Grade Users, by Year of Survey, 1981–2013 OSDUHS 214
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, 2013 OSDUHS 216
3.10.2 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, 2013 OSDUHS 216
3.10.3 Percentage of Drivers in Grades 10–12 Reporting Drinking and Driving at Least Once in the Past Year, 1999–2013 OSDUHS 219
3.10.4 Percentage of 11th-Grade Drivers Reporting Drinking and Driving in the Past Year, 1977–2013 OSDUHS 220
3.10.5 Percentage of Students in Grades 10–12 Reporting Operating a Snowmobile, Motor Boat, Sea-Doo, or ATV within an Hour of Drinking at Least Once in the Past Year, by Sex, Grade, and Region, 2013 OSDUHS 222
3.10.6 Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year, by Sex, Grade, and Region, 2013 OSDUHS 224
3.10.7 Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year, 2001–2013 OSDUHS 224
3.10.8 Percentage Indicating a Drug Use Problem (CRAFFT 2+) by Sex, Grade, and Region, 2013 OSDUHS (Grades 9–12) 228
3.10.9 Coexisting Problems: Hazardous/Harmful Drinking (AUDIT) and Psychological Distress (K10), 2013 OSDUHS (Grades 7–12) 231
3.10.10 Percentage Reporting Coexisting Hazardous/Harmful Drinking and Psychological Distress by Sex, Grade, and Region, 2013 OSDUHS 231

3.11.1 Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, by Grade Level, 2013 OSDUHS 234
3.11.2 Percentage Who “Strongly Disapprove” of Drug Use, by Grade Level, 2013 OSDUHS 234
3.11.3 Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, 1999–2013 OSDUHS (Grades 7–12) ... 235
3.11.4 Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, 1989–2013 OSDUHS (Grades 7, 9, and 11 only)..... 235
3.11.5 Percentage Who “Strongly Disapprove” of Drug Use, 1999–2013 OSDUHS (Grades 7–12) 236
3.11.6 Percentage Who “Strongly Disapprove” of Drug Use, 1989–2013 OSDUHS (Grades 7, 9, and 11 only)..... 236
3.11.7 Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, by Grade Level, 2013 OSDUHS..... 241
3.11.8 Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, 1999–2013 OSDUHS (Grades 7–12) .. 242
3.11.9 Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, 1981–2013 OSDUHS (Grades 7, 9, and 11 only)..... 242
3.11.10 Source of Previous Whole Cigarette Among Smokers Under Age 19, 2013 OSDUHS (Grades 7–12)..... 245
3.11.11 Usual Source of Alcohol Among Drinkers Under Age 19, 2013 OSDUHS (Grades 7–12)..... 245
3.12.1 Percentage Recalling No Class/Presentation About the Drug Since September, by Grade, 2013 OSDUHS (Grades 7–12)..... 248
3.12.2 Percentage Reporting that Drug Use at Their School is a Big Problem, Small Problem, or Not a Problem, 2013 OSDUHS (Grades 7–12)..... 249
3.12.3 Percentage Reporting Being Drunk or High at School in the Past Year by Sex, Grade, and Region, 2013 OSDUHS . 252
3.12.4 Percentage Reporting Having Been Offered, Given or Sold an Illegal Drug at School in the Past Year by Sex, Grade, and Region, 2013 OSDUHS..... 252
3.12.5 Percentage Reporting that Most or All of Their Closest Friends Use an Illegal Drug by Sex, Grade, and Region, 2013 OSDUHS 255
3.12.6 Percentage Reporting that Someone Had Tried to Sell Them Drugs in Past Year by Sex, Grade, and Region, 2013 OSDUHS 257
3.12.7 Percentage Reporting Witnessing Drug Selling in Their Neighbourhood in the Past Year by Sex, Grade, and Region, 2013 OSDUHS..... 257
3.13.1 Local Health Integration Networks of Ontario..... 260
4.1 Significant Sex Differences in Past Year Drug Use, 2013 OSDUHS 270

1. INTRODUCTION

This report describes the prevalence and patterns of alcohol and other drug use among Ontario students in grades 7 through 12 in 2013, and changes during a 37-year period since 1977. The findings are based on the 19th 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 globally.

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 stemming from such use, and the associated contextual, social, and demographic risk and protective factors. Such monitoring is fundamental to governments and health care professionals alike. For example, one of the six goals of the US Surgeon General's *Call to Action to Prevent and Reduce Underage Drinking* included "work to improve public health surveillance" (US Department of Health and Human Services, 2007), a call which was recently repeated by the American Academy of Paediatrics (AAP, Committee on Substance Abuse, 2010).

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;
- early initiation of use and trends over time;
- the nature of, and trends in, harms associated with alcohol and other drug use and misuse;
- trends in driving after consuming alcohol and cannabis;
- exposure to alcohol and other drug use at school;
- exposure to education about alcohol and other drug use at school; and
- attitudes and beliefs about alcohol and other drug use.

History of the OSDUHS

The 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 here.)

In **1977**, the study expanded to include students across Ontario, and in **1999**, the OSDUHS was again 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 three decades, the OSDUHS has surveyed thousands of students every two years, and to date some 100,000 students in Ontario have participated. The study's history is underscored by noting that most of the 12th graders interviewed in 1977 are now in their 50s. Since its inception, the OSDUHS has not only been the source data for numerous scientific publications on an array of adolescent health issues, but has evolved into a well-recognized school survey globally.

All OSDUHS surveys since 1977 received some funding support from the Ontario Ministry of Health and Long-Term Care.

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

This 2013 OSDUHS drug use report includes **newly introduced material** on the following topics:

- use of a waterpipe ("hookah");
- use of electronic cigarettes;
- use of alcohol mixed with an energy drink;
- playing drinking games;
- use of synthetic cannabis ("spice," "K2");
- use of cannabis and alcohol on the same occasion;
- use of methoxetamine (a new synthetic drug);
- nonmedical use of modafinil (a prescription stay-awake drug); and
- the perceived risk of harm associated with smoking a waterpipe regularly, and with the nonmedical use of a prescription opioid pain reliever.

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 section). The 2013 mental health and well-being findings will be described in a forthcoming companion report (Boak, Hamilton, Adlaf, Beitchman, Wolfe, & Mann, forthcoming).

Why Monitor Student Drug Use?

As highlighted in a recent editorial in *The Lancet*, "the most prominent non-communicable diseases are linked to common risk factors, namely tobacco use, harmful use of alcohol, an unhealthy diet and lack of physical activity" (UN Declaration 2011), risk factors that all originate in adolescence (The Lancet, 2012, p. 1561). Thus, there are important reasons for estimating and monitoring drug use among adolescent students.

- In high-income countries, alcohol and illicit drug use are among the top risk factors that contribute to disability-adjusted life-years (DALYs)[3] among young people aged 15-24 (Gore et al., 2011; Rehm, Taylor, & Room, 2006).

- Adolescents are not only in a turbulent period, but also at a pivotal developmental stage in which harms due to drug use could result in negative life trajectories in late adolescence and adulthood. This is a critical period for initiation, and early initiation of drug use is strongly related to problems experienced later in life, such as substance use disorder (Agrawal et al., 2006; Behrendt, Wittchen, Höfler, Lieb, & Beesdo, 2009; Chen, O'Brien, & Anthony, 2005; Dawson, Goldstein, Chou, Ruan, & Grant, 2008; DeWit, Adlaf, Offord, & Ogborne, 2000; Hingson, Heeren, & Winter, 2006; Meier et al., 2012).

- Drug use in adolescence is a strong predictor of drug use in adulthood. Adolescent drug use often establishes future drug use among young adults, as the cohort of 12th graders transitions out of secondary school. Elevated drug use among the oldest students may be a signal for a future rise in prevalence among young adults aged 18–29 in the general population.

- 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. In a short period we have seen several drug-related "outbreaks" emerge – crack cocaine in the late 1980s, ecstasy, ketamine, and other "club drugs" in

[2] Our use of the term "drug use" in this report includes alcohol and tobacco.

[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 because of premature mortality and those lost because of disability.

the 1990s, and more recent concern over the nonmedical use of prescription drugs and the use of caffeinated energy drinks by young people. This cycling of emerging drugs or changing modes of administration is the *raison d'être* for a surveillance system that is both timely and relevant, and one that can document important shifts in drug-use behaviours.

- The OSDUHS provides data on a broad set of health indicators and influences among a general population. Such data are critical to the population health framework promoted by Health Canada and the World Health Organization. The findings are used to develop policies and programs to enhance well-being and reduce the 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 Drug Prevention Strategy for Canada's Youth (Canadian Centre on Substance Abuse, 2007), and health objectives and targets outlined in the *Healthy People 2020* (US Department of Health and Human Services, 2011).

- 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. As well, such data can 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 develop and resources can be misallocated. 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, our data drew national attention to the problem of driving after cannabis use among young drivers, sparking a national public awareness campaign by the Canadian Public Health Association.[4] Our findings on the nonmedical use of prescription opioid pain relievers stimulated a recent public awareness campaign by the Partnership for a Drug-Free Canada.[5]

- 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 be consuming drugs more or less hazardously at one point in time than at another.

What Do Drug Use Surveys Tell Us?

Ongoing drug use surveys provide a public health barometer used to identify and respond to various drug-related behaviours and their potential consequences. Drug use surveys:

- provide a scientific estimate of the size of the adolescent student drug-using population, 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;

[4] See http://www.potanddriving.cpha.ca

[5] See http://www.canadadrugfree.org/drug-info/prescription-drugs

- identify and/or verify newly-emerging drugs, their outbreaks and turning points, and their related harms; and,

- identify the changes in the extent and nature of drug use and related harms over time.

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 harm to public health will differ if this percentage is the number of students using cannabis once, the number of students sharing needles when injecting drugs, the number of students sustaining injuries due to their use of alcohol, or the number of students driving a motor vehicle after using alcohol or other drugs.

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 adept at identifying aggregate period trends, such as changes over time in the size of the population using alcohol and other drugs, while taking into account any population changes.

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

There are many benefits to using school-based surveys:

- 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 interviewed during a single visit.[6]

- Because administrative data on student enrolment and the number of schools is 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 sampling methods (e.g., telephone frames).

- 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 are usually 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

[6] 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 section 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-completed, school-based surveys often demonstrate higher validity than do data collected through alternative methods (Brenner et al., 2006; 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 (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 more recent work of Hibell and colleagues (2003), sponsored by the UN Office of 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, fielded in 2011. This data collection provided the first general population (nonclinical) prevalence estimate in North America (Ilie, Boak, Adlaf, Asbridge, & Cusimano, 2013).

What Student Drug Use Surveys Do Not Tell Us

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

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

- 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 indicator can fully describe the extent of the drug use problem, in our view, the strengths of the survey method far outweigh its limitations in estimating the size and character of the drug-using population.

Strengths	Limitations
■ The survey is based on scientific, random (probability) sampling methods designed to produce representative samples in which the sampling error can be estimated.	■ The survey is restricted to adolescent students enrolled in publicly funded schools (note that in most jurisdictions, schools cannot participate without prior school board approval). Excluded by design are out-of-scope groups for which drug use is typically elevated, such as institutionalized youth, school leavers, and homeless/street youth.
■ Drug use surveys are often the only feasible means to measure the size of the drug-using population because no other administrative source exists (e.g., such as for alcohol which can be estimated by sales data).	■ Enrolled students who do not participate (due to absenteeism or lack of consent) may bias estimates *if* non-participating students differ from participating students on variables of interest.
■ The OSDUHS sample is geographically dispersed throughout Ontario with typically over 40 school boards, 150 schools, and 300 classrooms participating.	■ Because the reporting of drug use is based on self-reports, there is an inestimable potential for misestimating drug use caused by intentional (e.g., underreporting) and unintentional errors (e.g., memory and recall errors).
■ The survey is administered in classrooms by trained field staff. This is cost-effective and tends to increase student participation. As well, the questionnaire is completed in a more anonymous group setting, which is the most critical factor in reducing the underreporting of drug use and other sensitive behaviours. Indeed, school administered surveys typically obtain higher reports of drug use than do personal interview surveys.	■ The survey is designed to provide precise estimates of drug use at the provincial level. A single cycle, however, is not designed to provide precise estimates for local (small) geographic areas. Small area analysis, however, can be potentially accommodated by oversampling students or cumulating data across cycles
■ Unlike enforcement data (e.g., arrests, convictions) and treatment data (e.g., number of admissions), survey data captures the widest continuum of use, spanning from abstainers to experimenters to active users to former users.	■ The collection of data in clusters (e.g., schools and classrooms), although cost-effective in reducing data collection costs, requires the use of specialized statistical software to accommodate the statistical dependence caused by the naturally occurring similarities among students in the same schools and classrooms.
■ Because surveys are based on individual responses, they can assess the correlates and predictors of drug use and identify varying subtypes of drug users and their defining characteristics.	■ Highly structured self-completed questionnaires do not allow for the probing or collection of rich qualitative information.

2. METHODS

Sampling Design

Target and Survey Population

For each of the 19 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 systems (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, those who were home-schooled, those institutionalized for correctional or health reasons, those schooled on First Nations reserves, military bases, or in the remote northern region of Ontario. These out-of-scope groups represent a small proportion of the Ontario student population (about 8%). Therefore, although our target population represents students, it captures the vast majority (92%) of Ontario children and adolescents aged 12–18 years.

Table 2.1 Thirty-Seven Years (19 Cycles) of the OSDUHS

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

Notes: (1) response rates represent the student participation rate; (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 built on the regular redesign of surveys (Biemer & Lyberg, 2003), and the OSDUHS program has strived to maintain its integrity in this regard. As seen in **Table 2.1**, 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 proportional allocation of students by grade and region allowed for self-weighted (i.e., unweighted) estimates.[8] In **1981**, the design was modified to a *stratified single-stage cluster design* with paired selection ("two-per-stratum") of first-stage school board district clusters to further improve the precision and efficiency of estimates.[9] This design resulted in the selection of more school boards and schools.

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

Current Sampling Design[10]

In **1999**, the OSDUHS transitioned to a *stratified* (region by school level[11]), *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).[12] 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 change provided greater age variation and more developmentally relevant detail on the relationship between health compromising risk 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 specifies the sampling of more students per school and a greater geographical dispersion of schools with more precise school-level estimates.[13]

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[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 second grade (grade 7, 9, 11, 13) in every second year (1977, 1979, etc.) allowed for the assessment of 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.

[9] This major redesign was developed by Professors P. Peskun and C.M. Lanphier, both of York University.

[10] In addition to the authors, the 2013 OSDUHS sample design team, headed by Michael Ornstein, also included John Pollard, David Northrup, and Hugh McCague all from the Institute for Social Research (ISR) at York University.

[11] 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).

[12] Prior to 1999, the allocation of students from Northern Ontario was proportional 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 lack of statistical power. This redesign was headed by Professor Michael Ornstein, York University/ISR.

[13] The disadvantages of greater 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, greater school dispersion provides richer, more precise school-level data necessary for multilevel analysis. Recent OSDUHS examples of this work include Rehm et al. (2005), and Kariouz and Adlaf (2003).

OSDUHS Regions

Since 1977, the sample design has divided Ontario into four regional strata based on the following boundaries: **City of Toronto**;[14] **Northern** Ontario (Parry Sound District, Nipissing District, and areas farther north); **Western** Ontario (Peel District, Dufferin County and areas farther west); and **Eastern** Ontario (Simcoe County, York County and areas farther east).

Sponsored Oversamples by Ontario Public Health Units/Departments in 2013

In addition to the four regional strata of the base design just described, the 2013 OSDUHS included an additional **seven 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. Schools in the following seven regions of the province were oversampled: the City of Ottawa; Leeds, Grenville, and Lanark District; Haliburton, Kawartha, and Pine Ridge District; York Region; Durham Region; Peel Region; and Sudbury District. (See Table A2 for a list of public health region oversamples since 2009.)

The addition of these seven regional oversamples resulted in **11 mutually exclusive regions**. This created 20 region-by-school level strata ([4 × 2] + [7 × 2]) = 22 – 2 (elementary students were not sampled in two regions) = **20 total design-based strata**). Mutually exclusive school samples were drawn for each of these 20 strata.[15]

School Selection (Stage 1)

Publicly funded schools represented by four school systems in Ontario – English and French language schools in the public and Catholic school sectors – were eligible to participate.[16] **Schools excluded** as being out-of-scope were private schools, schools on First Nations reserves, on Canadian Forces Bases, and schools in geographically inaccessible northern areas.

The 2013 OSDUHS school selection proceeded as follows:[17]

1) The sampling frame used to randomly draw the school sample was the Ontario Ministry of Education's 2009/2010 school enrolment database (most recently available at the time). This sampling frame included all publicly funded schools in Ontario that included the grades in our target. As noted earlier, this included schools in four systems: English language public, English language Catholic, French language public, and French language Catholic. For cost-efficiency reasons and due to estimation difficulties with sparse data, schools with low enrolment (i.e., fewer than 20 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 20 region-by-school level primary-stage strata, a **probability proportionate-to-size (PPS) selection of schools** was drawn (i.e., larger schools had a greater probability of being selected). Following a random start, schools were selected with systematic sampling without replacement (WOR). The school selection was conducted by ISR.

[14] Throughout the OSDUHS program, the geographical boundary for Toronto schools remained unchanged despite a municipal amalgamation in 1998.

[15] Although each oversample was an independent stratum, for our analyses and presentation, oversamples were assigned to one of the four corresponding base regions.

[16] In Ontario, each regional county has both a public and Catholic school board.

[17] 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 was refreshed with a fully independent sample.

3) If a selected school declined to participate, or if it had closed, a replacement school from the same 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 was used to randomly sub-sample one class per grade with equal probability and without replacement (WOR). In elementary/middle schools, **two classes** were randomly selected – **one 7th-grade and one 8th-grade**. 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). The class selection was conducted by ISR.

For the **public health region oversamples**, the class selection procedure in the secondary schools did not differ from the standard one class per grade selection. In the elementary/middle schools, rather than the standard selection of one class per grade, *two* 7th-grade and *two* 8th-grade classes were selected to participate (or all students in these grades if there was fewer than two classes in each grade).

If a selected class could not participate, a replacement class from the same school and same grade was randomly re-selected, time permitting (otherwise this loss was incorporated in the class nonresponse adjustments). **Classes excluded** as being out of scope were special education classes, English as a Second Language (ESL) classes, and classes with fewer than five students. **All students in the selected classes who provided a signed consent form were eligible to participate.**

Sample Exclusions
School Exclusions ● private schools ● schools on First Nations reserves ● schools on Canadian Forces bases ● geographically inaccessible ● elementary/middle schools with fewer than 20 students enrolled ● secondary schools with fewer than 80 students enrolled
Class Exclusions ● special education classes ● English as a Second Language (ESL) classes ● classes with fewer than 5 students
Student Exclusions ● institutionalized or home schooled

Selection of Units
School Selection
● **PPS/WOR**: probability-proportionate-to-school size; sampled without replacement
Class Selection
● **EPSEM/WOR**: Equal probability selection of classes; sampled without replacement
Student Selection
● **None**: all students in a class with a signed consent form were eligible to participate

Administrative and Recruitment Procedures

The 2013 OSDUHS protocol was approved by the Research Ethics Boards (REBs) at CAMH and York University,[18] as well as 29 school board research review committees (RRC).

Student participation required the approval of school boards, school principals, classroom teachers, parents (if under 18 years) and students themselves. For each school board associated with one or more randomly selected schools, permission to survey students was first requested from the Director of Education. Depending on the school board's policy, agreement to participate was conditional upon approval from the board RRC, as well as school principals, classroom teachers, parents, and students. 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. Once a school was recruited, the principal provided ISR with a grade-stratified list of classes, from which random selections were drawn.

All participating schools were provided with **active** (also known as explicit) **parental consent forms**,[19] which were available in six languages (English, French, Spanish, Portuguese, Russian, and Mandarin). Well in advance of the survey date, each school 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 not allowed to participate. If a student did not participate, no substitution took place. Instead, the selection weights were statistically adjusted for this unit nonresponse.

Administration procedures were designed to protect students' privacy by ensuring anonymous and voluntary participation. The survey was administered across the province by 30 trained ISR field staff in the randomly selected classrooms between November 2012 and June 2013.[20] 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.[21] Students were reminded that participation was voluntary and anonymous, and were instructed not to write their names on the questionnaires. They were also instructed to skip any question they did not understand, rather than risk disclosure by asking for assistance. Students recorded their answers directly on the **paper-and-pencil instrument (PAPI)**. 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. No compensation for participation was provided to schools or students.

The ISR field staff collected all completed questionnaires, which were then couriered to ISR for editing and data capture by using the Computer-Assisted Survey Execution System (CASES)

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

[19] The OSDUHS *active/explicit* parental consent requires a clear approval for their child to participate from at least one parent indicated by a "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, & Ditterline, 2009; Jelsma, Burgess, & Henley, 2012). Most school boards in Ontario require active consent for external research studies.

[20] While some data collection predates 2013, 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 for a longer interval in which schools could arrange an acceptable administration date.

[21] The survey administrators also recorded information about the classroom, such as the grade level, number of students enrolled, number of students absent, and whether the class was randomly selected.

software. The quality of the data entry was verified by re-keying a random sample of about 5% of all questionnaires.[22] The major editing rule used for processing a valid questionnaire was that at least half of the questions had to be completed. Only 22 questionnaires failed to meet this rule and were withdrawn from data entry.

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 topics covered in the survey is as follows: demographics, family and school life, alcohol, tobacco, and other drug use, beliefs and attitudes about substance use, vehicle-related questions, mental health indicators (e.g., suicidality, symptoms of anxiety and depression), physical health indicators (e.g., physical activity, healthy weight and diet, injuries), bullying, gambling and gambling problems, video game playing problems, aggressive and other problem behaviours.

To include as many topics as possible in a fixed class period, while minimizing the burden on students, we employed **four versions of the questionnaire**, depending on school level. As in past cycles, we used split ballot modularized questionnaires whose item content was distributed according to questionnaire form (Form A vs. Form B).[23] However, in 2013 we reduced the number of questions in these forms for students in elementary schools (i.e., the 7th and 8th graders). That is, elementary school students (grades 7 and 8) completed shorter questionnaires (a shorter Form A and a shorter Form B) than the secondary school students (grades 9–12). The **elementary school questionnaires excluded the following topics**: the use of cocaine, crack, heroin, methamphetamine, hallucinogens, club drugs and new synthetic drugs, prescription tranquillizers, drug use problem screeners, gambling problem screener, and driving-related behaviours. See **Table 2.2** for an overview of the content across the four forms. The item count was 163 in Form A-SS, 160 in Form B-SS, 128 in Form A-ES, and 125 in Form B-ES. About half of the items in each form were designated as core, that is, items common to all four forms (and thus answered by all students). A **French version** of Form A (ES and SS) was used in French-language schools.[24] All forms were typeset in a two-column booklet format. The 2013 questionnaires are available at www.camh.ca/research/osduhs.aspx.

In each classroom, Form A and Form B were distributed alternatively (i.e., A, B, A, B, etc.) so that there would be two near-equal random samples completing each form.[25] The average completion time was 29 minutes (median was 28 minutes) for secondary school students, and 31 minutes (median was 30 minutes) for elementary school students. By design, item branching (i.e., designated question skips) was not used in the questionnaire in order to protect students' privacy by ensuring that students in a classroom completed the questionnaires roughly the same time thereby reducing the likelihood of identifying drug-using students who would take longer to complete additional questions.[26] This was achieved by having nonusers respond to all questions using the response categories of *never used, did not currently use,* or *did not know what a drug was* for the drug-related items. A further advantage of minimizing item branching is a reduced risk of navigational errors (i.e., students skipping ahead to the wrong question).

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

[23] 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.

[24] Form B was not translated into French.

[25] Such distribution should result in two balanced, systematic random samples of students. An assessment of this alternate distribution showed good random characteristics, as there were few differences between the samples completing each form regarding demographics and drug use variables.

[26] A similar strategy is used in NIDA's *National Survey on Drug Use and Health* (NSDUH) (Biemer & Lyberg, 2003, p. 146).

Table 2.2 Topic Overview of the Four Questionnaire Forms Used in the 2013 OSDUHS

Grades 7 and 8 (ES)		Grades 9–12 (SS)	
Form A-ES	**Form B-ES**	**Form A-SS**	**Form B-SS**
Demographics			
age, gender, residential situation, how long lived in Canada, ethno-racial identity, language spoken at home, **hours spent daily on social media**		age, gender, residential situation, how long lived in Canada, ethno-racial identity, language spoken at home, **hours spent daily on social media**, hours spent weekly at part-time job	
School Life			
usual marks, attitudes about school, school transportation	usual marks, attitudes about school, school transportation, school suspensions, hours spent on homework	usual marks, attitudes about school, school transportation	usual marks, attitudes about school, school transportation, school suspensions, hours spent on homework
Family Life			
relationship with parents, parents' education, parents born in Canada, subjective socio-economic status, experience with any Children's Aid Society	relationship with parents, parents' education, parents born in Canada, subjective socio-economic status	relationship with parents, parents' education, parents born in Canada, subjective socio-economic status, experience with any Children's Aid Society	relationship with parents, parents' education, parents born in Canada, subjective socio-economic status
Drug Use			
alcohol, tobacco, cannabis, **synthetic cannabis**, OTC cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs	alcohol, tobacco, smokeless tobacco, **waterpipe**, cannabis, **synthetic cannabis**, inhalants, salvia, OTC cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs	alcohol, tobacco, cannabis, **synthetic cannabis**, OTC cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs	alcohol, tobacco, smokeless tobacco, **waterpipe**, cannabis, **synthetic cannabis**, inhalants, salvia, OTC cough/cold medication, prescription opioid pain relievers, prescription ADHD drugs
More Drug Use			
		hallucinogens, cocaine, crack, ecstasy, heroin, methamphetamine, prescription tranquillizers, **prescription stay-awake pills**	hallucinogens, cocaine, crack, ecstasy, heroin, methamphetamine, prescription tranquillizers, **prescription stay-awake pills**, new club drugs and synthetic drugs, **electronic cigarettes**, steroids, any injection drug use
Alcohol			
first use, past month use, heavy episodic drinking, problem use	first use, past month use, heavy episodic drinking, source of alcohol, non-beverage alcohol	first use, past month use, heavy episodic drinking, problem use, been in treatment	first use, past month use, heavy episodic drinking, source of alcohol, non-beverage alcohol, been in treatment, **drinking games**
Cannabis			
first use, past month use, quantity used	first use, past month use	first use, past month use, quantity used, cannabis and other drug problem use	first use, past month use
Tobacco/Cigarettes			
	first use, quitting, source of cigarettes, exposure to second-hand smoke, opinions		first use, quitting, source of cigarettes, exposure to second-hand smoke, opinions
Vehicles			
been passenger with intoxicated driver, driven recreational vehicle after drinking	seatbelt use, been passenger with intoxicated driver, driven recreational vehicle after drinking	been passenger with intoxicated driver, driven recreational vehicle after drinking	seatbelt use, been passenger with intoxicated driver, driven recreational vehicle after drinking
Driving Behaviours			
		driver's licence and training, collisions, impaired driving	driver's licence and training, collisions, impaired driving, **texting and driving**

(continued…)

Grades 7 and 8 (ES)		Grades 9–12 (SS)	
Form A-ES	**Form B-ES**	**Form A-SS**	**Form B-SS**
		Perceptions About Drugs, Education, and Exposure	
	availability and risk perceptions (alcohol, cigarettes, cannabis, prescription pain relievers), recall of drug education, intoxicated at school, exposure to drugs		availability and risk perceptions (alcohol, cigarettes, cannabis, prescription pain relievers, cocaine, ecstasy, LSD), recall of drug education, intoxicated at school, exposure to drugs
		Physical Health	
self-rated health, physical activity, sedentary behaviour, healthy eating, energy drinks, height and weight, injuries	self-rated health, physical activity, sedentary behaviour, healthy eating, energy drinks, height and weight, injuries, body image, **use of diet pills/liquids**, doctor visits, asthma, **tanning bed use**, **helmet use**	self-rated health, physical activity, sedentary behaviour, healthy eating, energy drinks, height and weight, injuries	self-rated health, physical activity, sedentary behaviour, healthy eating, energy drinks, height and weight, injuries, body image, **use of diet pills/liquids**, doctor visits, asthma, **tanning bed use**, **helmet use**
		Mental Health	
self-rated mental health, psychological distress, suicide ideation and attempt, help-seeking behaviour	self-esteem	self-rated mental health, psychological distress, suicide ideation and attempt, help-seeking behaviour, prescription medication for anxiety/depression	self-esteem
		Other Risk Behaviours	
aggressive and other problem behaviours, bullying perpetration and victimization at school, cyber-bullying, gambling activities, video gaming and problems		aggressive and other problem behaviours, bullying perpetration and victimization, cyber-bullying, gambling activities and problems, video gaming and problems	
questionnaire evaluation & first three digits of postal code			

Notes: (1) Form A-ES and Form A-SS were translated into French; (2) bolded font indicates topics new in 2013.

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,[27] the CDC's *Youth Risk Behavior Survey* (YRBS),[28] and the WHO's *Health Behaviour of School-aged Children* (HBSC) survey,[29] and have been shown to produce valid responses (Brener et al., 2002; Currie et al., 2012; Fosse & Haas, 2009; Johnston, O'Malley, Bachman, & Schulenberg, 2013; Mawani & Gilmour, 2010; May & Klonsky, 2011; 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, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2009); and second, the capacity for interprovincial and cross-national comparisons extends the utility of the data. Such comparability of measurements is deemed a dimension of data quality by national statistical agencies (Biemer & Lyberg, 2003).

Also included in the 2013 OSDUHS questionnaire were validated screeners and scales, 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 use problems (Martin, Copeland, Gates, & Gilmour, 2006), the *Kessler 10-Item Psychological Distress Scale* (K10) (Kessler et al., 2002; Kessler et al. 2003) assessing nonspecific psychological distress, and the *Problem Video Playing* (PVP) scale assessing problems with video gaming (Tejeiro Salguero & Morán, 2002).

All newly introduced items in the 2013 questionnaire were evaluated by both expert review (by ISR and CAMH staff) and pre-tested by ISR on a small convenience sample of young adolescents. The readability of the 2013 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 (95% of 7th graders) indicated that the questionnaire was "fairly" or "very easy" to understand; only 8% of students (9% of 7th graders) indicated that the questionnaire was "much too long"; and only 6% of students (8% 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.

Data Quality

2013 Sample Participation and Characteristics

A central objective of the OSDUHS is to generate a representative, unbiased sample of Ontario students in grades 7 through 12. The target sample size for the 2013 OSDUHS was calculated to be 11,500 students.

Schools. In total, 323 schools (267 initial selections plus 56 replacements) were invited to participate. Of these, **198 schools** (89 elementary/middle – of which six were French – and 109 secondary – of which seven were French) from 42 school boards participated in the survey, resulting in a school response rate of 61%. The most common reasons given by non-participating schools were that they were too busy, or that they had already committed to

[27] See http://www.monitoringthefuture.org

[28] See http://www.cdc.gov/healthyyouth/yrbs

[29] See http://www.hbsc.org

other research projects.[30] Each school that could not participate was replaced with a randomly selected school from the same regional stratum and with similar school size in order to maintain representativeness. Although we could not conduct a systematic follow-up of non-participating schools, we do not expect these refusals to have created appreciable bias. Our analysis showed that this group of non-participating schools did not discernibly differ from participating schools regarding school level (elementary/middle versus secondary). However, there was a larger proportion of public schools that refused relative to the proportion in the participating sample. Further, compared with the regional distribution of the participating schools, there were fewer refusing schools in the Northern region, and more refusals in Toronto and the Western region of the province. As we shall see, such distortions were corrected by adjustments made to the sampling weights. A further analysis was conducted to examine whether replacement schools[31] differed from initially selected schools. Results showed no significant differences between students in these two groups of schools with respect to demographics or drug use measures.

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 sector (public vs. Catholic), or 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 (Johnston et al., 2013) – a factor that is controlled for in the replacement sampling within the same regional stratum. This would imply that if schools are fairly similar in drug use and other risk behaviours then which particular schools participate in the survey has a small influence on estimates.

Classes. A total of **671 classes** were recruited for the survey (259 from elementary/middle schools, 412 from secondary schools). The class participation rate was 87%. We must note that 111 classes were not randomly selected. Rather, these classes were convenient same-grade replacements, typically identified by principals, for classes that were originally selected but declined to participate for logistical reasons.[32]

Students.[33] Finally, of the 16,535 students enrolled in these recruited classes, 10,398 completed the survey (**63%** of students in participating classes).[34] Eleven percent (11%) were lost due to absenteeism and 26% were lost due to either unreturned consent forms or parental refusal. The sources of nonresponse vary by grade: the major source of nonresponse in the lower grades is unreturned consent or parental refusal (27%–29% in grades 7–9 versus 22% in grade 12, whereas in the upper grades absenteeism is higher than in the lower grades (15%–16% in grades 11 and 12 versus 8% in

[30] During the 2012/2013 school year, Ontario experienced labour disruptions in the educational sector that likely contributed to the unusually high level of school refusals.

[31] Of the 198 participating schools, 41 were replacements.

[32] Statistical tests comparing randomly selected versus non-randomly selected classes showed that only 3 of 43 drug use measures showed significant differences (with non-random classes showing higher prevalence). Drug use measures were also evaluated with and without the inclusion of the non-random classes, and results did not substantially differ. Thus, all classes remained in the final dataset.

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

[34] This shows the *unweighted* student response rate. The *weighed* student response rate is based on the sum of the product of the regional weighted distribution and regional response rate: Toronto (.178×.59) + North (.042×.63) + Sudbury (.014×.50) + West (.344×.57) + Peel Region (.124×.71) + East (.079×.69) + Ottawa (×.072×.70) + Durham Region (.059×.60) + Haliburton (.013×.65) + Leeds (.013×.62) + York Region (.062×.62) = 62%. The weighted response rate of 62% is similar to the unweighted response rate.

grades 7 and 8). The student response rates according to the four regions presented in this report were 59% in Toronto, 56% in the North, 65% in the West, and 64% in the East.[35]

Trends in student participation. Student participation in the OSDUHS has trended downward over the long-term. Between 1977 and 2013, the student participation rate fell from 70% to 63%, with a peak in 1981–1983 at 85%. This decline is strongly attributable to an increase in consent loss, which increased from 4% to 26% during this interval. In contrast, the loss due to absent students remained flat (11%–15%). While the proportion of absent students has remained constant across cycles, the proportion of consent form loss has been increasing across all grades and all regions. The reasons for this increase are unclear. One possible explanation is the increasing number of school board RRCs that have mandated active parental consent/student assent procedures. This problem of declining response rates is common to the survey research field generally and is not unique to the OSDUHS (de Leeuw & de Heer, 2002; Dey, 1997; Galea & Tracy, 2007; Groves et al., 2009; Porter, 2004).

Still, our student participation rate of 63% is nominally above average for a student survey with full active parental consent (Courser, Shamblen, Lavrakas, Collins, & Ditterline, 2009; White, Hill, Effendi, 2004). For example, Health Canada's 2010/2011 *Youth Smoking Survey*, based on a combination of active and passive consent procedures, had a national student response rate of 73% yet the response rate in Ontario was appreciably lower at 56% (University of Waterloo, 2011). The US *Monitoring the Future* (MTF) survey also employs a blend of active and passive consent procedures, an active parental dissent procedure (i.e., passive consent) for all students unless a school requires active consent procedures. MTF reports student response rates of 80%–84% of 12th graders and 86%–91% of 8th and 10th graders.[36]

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 that the data are characterized by elevated 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). 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.[37]

Existing research examining the impact of non-consent on estimates of student drug use and other risk behaviours has not been conclusive. Some studies have found that students without parental consent are more likely to use drugs and to engage in risk behaviours than are students with consent (Anderman, Cheadle, Curry, & Diehr, 1995; Courser et al., 2009; White et al., 2004), whereas others have found no such differences (Eaton, Lowry, Brener, Grunbaum, & Kann, 2004; Jelsma et al., 2012). 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 risk behaviours in classes in which the class response rate was below 70% (n=377 classes) with classes in which the

[35] For further details about the 2013 sample selection and participation rates for the 11 regions, please see Pollard, Ornstein, and Northrup (2013).

[36] 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 US have confidentiality 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, participating schools in the MTF are given a monetary incentive to commit to the study for two cycles.

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

class response rate was 70% or higher (n=294 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) of risk behaviours and problem indicators due to the greater absence of high-risk students compared with high-participation classes. We found no significant grade differences between classes with low versus high participation, however low participation classes did have fewer males. Of the 43 drug use measures compared between the two groups, only one measure showed a significant difference.[38] This suggests that students who participated in the survey were not dominantly "low-risk" youth. Put another way, we have no compelling evidence that nonresponse produced appreciable nonresponse bias.

By design, one group not represented by the OSDUHS sample is dropouts or 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.[39] This should serve as a reminder that readers should not attempt to extrapolate the OSDUHS findings to groups outside the target population (e.g., school leavers, homeless youth).

[38] Low participation classes had a lower estimate for past year use of salvia divinorum compared with high participation classes.

[39] Another source of sampling error would occur if recent 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,[40] 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, therefore differing estimates. The Ministry of Education estimates that the Ontario high school graduation rate in 2011/2012 was 83% (Ontario Ministry of Education, April 2013). However, we cannot assume that the dropout rate was 17% because some students remain in school without graduating (i.e., take more than four years to graduate). Statistics Canada, on the other hand, measures the dropout rate using the *Labour Force Survey* and found that about 5% of 16 to 17 year-olds and 7% of 18 to 19 year-olds in Ontario were not attending high school (and did not already graduate) in 2009/2010 (McMullen & Gilmore, 2010).

Because school leavers are outside our target population (i.e., enrolled students), their omission should not greatly bias our estimates. It is known that school leavers are more likely to be male, Canadian-born, and live outside of large urban centres (Gilmore, 2010). However, our poststratification weight adjustments should reduce this problem to some extent. The omission of school leavers would not affect our drug use and other risk behaviours trends if the proportion remains constant from cycle to cycle. However, both the Ontario Ministry of Education and Statistics Canada indicate that the proportion of high 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.

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

Post-Survey Processing

Data editing. Consistent with previous process quality procedures, editing rules were established to enhance data quality. **Students were removed from the final dataset if they**: (1) did not report their age; (2) did not report their sex;[41] (3) reported the use of a fictitious drug;[42] (4) reported using four or five of the five core illicit drugs 40 or more times during the past year ("faking bad"); or (5) did not respond to half or more of the core substance use questions. If a case met any *one* of these criteria, then it was removed from the dataset. Note that criteria 3 and 4 address the potential bias due to overreporting drug use.[43] In 2013, only 126 cases were removed from the dataset, which is a proportion similar to past cycles. This data editing process resulted in **10,272 minimally complete cases** used in the data analyses (Form A-ES *n*=2,214 students; Form B-ES *n*=1,899 students; Form A-SS *n*=3,264 students; Form B-SS *n*=2,895 students).

Item missingness. Both the single item missing rate and the cumulated item missing rate were low, suggesting quality responding. Across the 77 core questions (i.e., items in all four questionnaire forms), the item missingness average was about 1%. In addition, there is no evidence that item nonresponse inflates with the transition from the demographic questions to the more sensitive drug use questions.[44] Missing responses to questions were not statistically imputed, but were excluded on a casewise (i.e., listwise) basis for all multivariable analyses.

Poststratification. We compared the 2013 OSDUHS sample with the most current school enrolment figures from the Ministry of Education based on the 2011/2012 academic year. **Table 2.3** shows that there were slight discrepancies between the 2013 OSDUHS sex-by-grade weighted (pre-adjusted) 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 post-survey adjustments for the sex-by-grade distributions within *each of the eleven regional strata separately* to restore each region's demographic composition to the population composition.[45] The poststratified weighted sample distribution is shown in Table 2.3 (far-right columns). The OSDUHS adjusted-weighted sample corresponds well to the Ontario enrolment. **Table 2.4** shows the demographic characteristics of the final weighted sample.

[41] We contend that if students are unwilling to provide valid responses to questions about their sex or age, the data quality of their remaining responses is untrustworthy.

[42] The fictitious drug was called "adrenochromes" (also known as "wagon wheels" or "dreens").

[43] Our data suggest that any overreporting bias should be minimal given rare reports of fictitious drug use (*n*=86 cases) and of exaggerated frequent (40 or more times in the past year) multiple drug use (*n*=9 cases).

[44] For example, the demographic and background items immediately preceding the drug use items averaged an item missing rate of 0.66%. Transition to the subsequent module containing the drug use items did not appreciably alter this rate (0.91%).

[45] The sex-by-grade population distribution was not available according to each of the 11 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.

Table 2.3 The 2013 OSDUHS Sample vs. Ontario 2011/2012 School Enrolment

	OSDUHS Pre-Adjusted		Population Enrolment		OSDUHS Post-Survey Adjusted	
	% Male	% Female	% Male	% Female	% Male	% Female
Grade 7	5.7	6.5	7.3	6.9	6.3	5.9
Grade 8	5.9	6.7	7.5	7.1	6.4	6.1
Grade 9	7.3	9.9	8.0	7.6	8.4	8.0
Grade 10	7.2	9.9	8.2	7.8	8.7	8.2
Grade 11	7.4	10.1	8.7	8.3	9.2	8.7
Grade 12	10.6	12.6	12.1	10.6	12.8	11.2
Total	44.2	55.8	51.8	48.2	51.8	48.2

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 982,100 students enrolled in Ontario's publicly funded schools during the 2011/2012 academic year.

Table 2.4 Sample Characteristics, 2013 OSDUHS

	Final Number (*n*)	Weighted %
Total	**10,272**	
Males	4,651	51.8
Females	5,621	48.2
Grade 7	2,100	12.2
Grade 8	2,013	12.5
Grade 9	1,537	16.4
Grade 10	1,544	17.0
Grade 11	1,574	17.9
Grade 12	1,504	24.0
Toronto	769	17.8
North	605	4.2
Sudbury District (OS)	659	1.4
West	1,205	34.4
Peel Region (OS)	2,100	12.4
East	249	7.9
Ottawa (OS)	1,272	7.2
Leeds, Grenville and Lanark District (OS)	862	1.3
Haliburton, Kawartha, Pine Ridge District (OS)	758	1.3
Durham Region (OS)	742	5.9
York Region (OS)	1,051	6.2
Public School	6,054	60.6
Catholic School	4,218	39.4

Notes: (1) OS=oversample for the public health unit/department; (2) mean age was 15.2 years (SD=1.8); (3) the 11 regional strata were mutually exclusive; (4) for the four regional estimates presented in this report, the North region includes Sudbury District (combined *n*=1,264), the West region includes Peel Region (combined *n*=3,305), and the East region includes Ottawa, Leeds District, Haliburton District, Durham Region, and York Region (combined *n*=4,934).

Data Analysis, Interpretation, and Presentation

Data Weighting

Our deliberate oversampling of students in certain regions and our equal allocation of students within grade (and the additional public health region oversamples), results in the oversampling and undersampling of students relative to their population share. Given that the objective of our analyses is to provide descriptive 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.[46]

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 figures.

Our weighted estimates are representative of all students in grades 7 through 12 enrolled in publicly funded schools in Ontario. Our population-scaled (or normed) case weights expand our sample from 10,272 students to represent about 982,100 Ontario students in grades 7 through 12, while ensuring that sample characteristics correspond to the population.[47]

[46] 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).

[47] The population-scaled weights range in value from 2.029 to 1461.614 (mean=95.614; median=50.147) and inflates to the population count of 982,147. The sample-scaled weight ranges in value from .0212 to 15.286 (mean=1.00; median=0.524).

Sample Weights

One intuitive way of thinking of the sampling weight is that each student in the sample represents or "stands in" for 96 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 is to obtain accurate estimates – that is estimates with high precision and low bias.

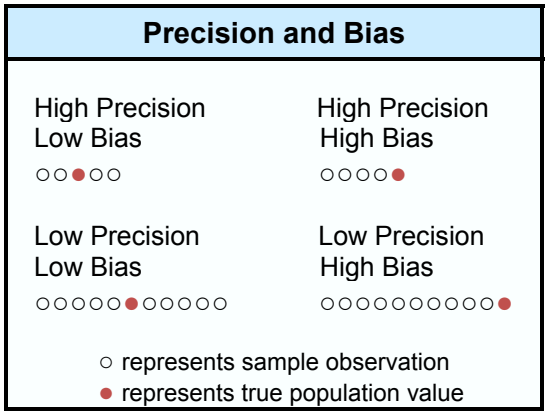
Precision refers to the variance or sampling error surrounding an estimate; those summarized in the present report include a range, or **confidence interval (CI)**, enclosing a percentage value. The reason for employing confidence intervals stems from the uncertainty, or sampling error, associated with 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 49.5% (46.4%-52.5%), 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;[48] 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.[49] 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 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, or errors of memory or recall.



Validity of self-reports. The data collection features of the OSDUHS (i.e., in-class, self-completed, anonymous, voluntary) are the optimal conditions under which to survey adolescents about sensitive topics such as drug use, other illegal behaviours, and mental health (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 direct, objective validation of students' self-reports of

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

[49] 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 with 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.

drug use (e.g., biomarkers), we do have some inferential evidence to support their validity:

- The OSDUHS data have shown predictable relationships between self-reported drug use and other items including demographics, aggressive and other problem behaviours, and school problems (for examples see Fischer, Ialomiteanu, Boak, Adlaf, Rehm, & Mann, 2013; Hamilton, Danielson, Mann, & Paglia-Boak, 2012; MacKay, Paglia-Boak, Henderson, Marton, & Adlaf, 2009; Vingilis, Smart, Mann, Paglia-Boak, Stoduto, & Adlaf, 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 non-sensitive 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 and risk behaviours 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; Johnston et al., 2013; Tourangeau & Yan, 2007). In addition to intentional misreporting, respondents may unintentionally misreport their responses due to various errors in the response process. Indeed, 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, in terms of error, establishing the lower bounds of a population value with greater confidence is far better than overestimating it. 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.

2013 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 such 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.[50]

[50] 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 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.,

All 2013 percentage and population count estimates and corresponding confidence intervals presented in this report were design-based and statistical tests were design-adjusted, i.e., accommodated for characteristics of the complex sampling (namely, stratification, clustering, weighting) using **Taylor series linearization (TSL)** available in Stata 12 (Heeringa et al., 2010; StataCorp, 2011).[51]

The 2013 OSDUHS sampling design was comprised of 20 strata (region by school level),[52] 198 primary sampling units (schools), and 10,272 students. The design-based degrees of freedom (*df*) for our complex sample was 178 (*df*=198 [# school PSUs] – 20 [# 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).[53] In addition, our negligible sampling fraction allows us to ignore the finite population correction (fpc) in our estimation.[54]

The statistical significance of subgroup (i.e., sex, grade, region) differences in 2013 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 over state 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.[55]

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, SPSSs Complex Samples module, SASs SURVEY procedures, Rs survey package, and dedicated systems including SUDAAN, WesVar, and Mplus.

[51] 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.

[52] Elementary/middle schools were not sampled in 2 of the 11 regions, resulting in 20 rather than 22 strata.

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

[54] 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 2013 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).

[55] 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).

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.[56]

Trend Analysis

In this report, we describe three patterns of change in our data: the first describes changes between 2011 and 2013 (changes since the previous survey); the second describes recent trends from 1999 to 2013; and the third describes long-term trends from 1977 to 2013. To evaluate the time trends, a merged or "stacked" dataset was used.[57] All estimates spanning back to 1977 were accommodated for the respective survey design effects.

2013 vs. 2011 and **1999–2013 Trends .** We first evaluated changes since the previous survey (i.e., 2013 vs. 2011). 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 2013 and 2011 estimates and estimates since 1999 were based on **grades 7 through 12**.

For time trends 1999 through 2013, we assessed change with a binary-response logistic regression providing an appraisal of the cycle-to-cycle change (with 2013 contrasted to each prior survey, i.e., reference group contrasts) as well as assessing the presence of linear and nonlinear trends.[58] A linear trend indicates a significant straight-line increase or decrease over the entire period. A nonlinear trend indicates a levelling-off and/or a change in direction over time (an upward or downward bend in the line). Both linear and nonlinear trends may be simultaneously present in a longitudinal data series.

[56] 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.

[57] Trend analyses were conducted using a stacked dataset cumulating 19 cycles for the years 1977–2013. The dataset contains 93,253 students enrolled in 2,253 schools (stage 1 PSU clusters) distributed among 243 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.

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

1977–2013 Trends. The long-term trend analyses from 1977 through 2013 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 2013 contrasted to each prior survey, i.e., reference group contrasts) and a joint test of the presence of change between 1977 and 2013. 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.

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

- Statistical differences must be carefully evaluated. 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. Readers are reminded that the elementary student (grade 7 and grade 8) questionnaires excluded certain topics (e.g., most illicit drugs) and therefore these grades are excluded from certain sections of this report.

- Visual inspection of overlapping/non-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 restricted to a select few epidemiologically relevant risk factors – sex, 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 about grade associations and drug use would, of course, mirror age associations.

- Our report is descriptive. Associations found in these data do not imply causal relationships. For example, regarding regional differences, we can only determine if a difference in drug use 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 total population or expansion estimates of population counts, the latter of which have been rounded down.

- 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., *AUDIT*, *CRAFFT*, *SDS*), 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) less than 50 students; or
  (3) a relative standard error, measured by the coefficient of variation[59] (CV), greater than a value of 33.3. (This suppression threshold for untrustworthy estimates is also used by Statistics Canada and other statistical agencies.)

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

Table 2.5 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 Cigarette Use (*Smokers*)	Smoking at least one cigarette daily or smoking occasionally during the past 12 months. Those who smoked a few puffs or less than one cigarette in the past 12 months were not classified as smokers.
Daily Smoking	Smoking at least one whole cigarette daily during the past 12 months.
Past Year Alcohol Use (*Drinkers*)	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 5 or more drinks on the same occasion during the past 4 weeks; (2) getting drunk during the past 4 weeks.
Hazardous/Harmful Drinking	Scoring at least 8 of 40 (Likert scoring) on the World Health Organization's *Alcohol Use Disorders Identification Test* (AUDIT) screen, which identifies the percentage drinking hazardously or harmfully. Hazardous drinking is a pattern of drinking that increases the likelihood of future physical and 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 nonusers and assigned to the denominator.
Frequent Drug Use	Used the drug 6 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 2013	This binary measure indicates past year use of one or more of the following 22 drugs asked about in the 2013 survey (Form B-SS only): cannabis, synthetic cannabis, inhalants, LSD, mushrooms/mescaline, cocaine, crack, methamphetamine, heroin, ecstasy, ketamine, methoxetamine, jimson weed, salvia divinorum, BZP pills, mephedrone, tranquillizers/sedatives (NM), modafinil (NM), OxyContin/OxyNEO (NM), other prescription opioid pain relievers (NM), ADHD drugs (NM), and over-the-counter cough/cold medication (to "get high"). Excluded from this count are tobacco, alcohol, and high-caffeine energy drinks.
Any Drug Use (two indices for trend analyses)	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 tranquillizers/sedatives (NM). A second measure for trends in any drug use excludes cannabis from the count.
Any Nonmedical Prescription Drug Use	Nonmedical use of one or more of the following four prescription drugs or drug classes once or more often during the past 12 months: OxyContin/OxyNEO, other prescription opioid pain relievers, ADHD drugs, or tranquillizers/sedatives.
Drug Use Problem	Reporting 2 or more of the 6 items on the *CRAFFT* screener, which measures a drug use problem that may require intervention (past 12 month period).
Cannabis Dependence	Scoring at least 4 of 15 (Likert scoring) on the cannabis subscale of the *Severity of Dependence Scale* (SDS). The SDS is a validated 5-item instrument used to screen for drug dependence in adolescent and general populations.
Psychological Distress	Scoring at least 22 of 50 (Likert scoring) on the *Kessler-10 Psychological Distress Scale* (K10). The K10 scale measures unspecified psychological distress (symptoms of anxiety and/or depression). A score of 22 or higher was used to indicate moderate or high distress.

Table 2.6 2013 OSDUHS Method and Sample Summary

2013 OSDUHS Method and Sample Summary	
Design	▪ Target sample consisted of 7th–12th graders enrolled in publicly funded English and French language schools (public and Catholic school sectors) in Ontario during the 2012/2013 school year. Students excluded as being out-of-scope were those in private schools, those schooled in correctional or health facilities, those schooled on First Nations reserves, military bases, those schooled in the remote areas of Northern Ontario, and those who were home-schooled. ▪ Sample selected by a 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 (7 regions × 2 school levels), resulted in a combined total of 20 (22-2) region-by-school level strata (elementary/middle schools were not sampled in 2 of the 11 regions). ▪ Within each stratum, schools were selected by systematic random sampling according to PPS using the 2009/2010 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	▪ 10,398 of 7th–12th graders sampled from 198 schools, 671 classes, and who provided active parental consent and student assent, completed questionnaires from Nov. 2012 to June 2013 ▪ 61% of selected schools, 87% of selected classes, and 63% of students in participating classes took part in the survey ▪ The **final (edited) sample of 10,272 students** is representative of the 982,100 7th to 12th graders enrolled in Ontario's publicly funded public and Catholic schools.
Questionnaire	▪ Four split ballot versions (Form A-ES, Form B-ES, Form A-SS, Form B-SS) of the anonymous, self-completed, paper-and-pencil instrument (PAPI), which averaged 30 minutes to complete, were administered in classrooms by trained staff from the Institute for Social Research.
Student Characteristics	▪ Males (n=4,651; 52%); Females (n=5,621; 48%) ▪ 7th graders (n=2,100; 12%); 8th graders (n=2,013; 13%); 9th graders (n=1,537; 16%); 10th graders (n=1,544; 17%); 11th graders (n=1,574; 18%); 12th graders (n=1,504; 24%). ▪ Toronto (n=769; 18%); North (n=1,264; 6%); West (n=3,305; 47%); East (n=4,934; 30%).
Data Quality	▪ Data editing rules were applied, resulting in 126'incomplete' or 'untrustworthy' questionnaires removed from the final dataset. ▪ Nonresponse analysis comparing classes with response rates of 70% or higher to classes with lower rates showed no significant differences in most of the drug use measures.
Analysis	▪ Sample weights were used to account for differing sampling probabilities and to restore the sample to the corresponding population distribution. Poststratification adjustments were made to correspond to the Ministry of Education's 2011/2012 enrolment for sex-by-grade groupings. ▪ The complex sample analysis model is based on a design with 198 primary sampling unit clusters (schools), 671 secondary sampling unit clusters (classes) distributed among 20 region-by-school level strata. For analysis, only stage 1 primary sampling units (schools) and strata were necessary to approximate the actual two-stage sampling design used to draw the sample.

Note: percentages shown are weighted

3. RESULTS

3.1 Overview of Drug Use in 2013

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 half (49.5%) 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 39.7% of students report past year use. Cannabis is the next most common drug, with 23.0% reporting past year use, followed by the nonmedical (NM) use of prescription opioid pain relievers, such as codeine, Percocet, Percodan, Demerol, or Tylenol #3 (12.4%). Over-the-counter (OTC) cough/cold medication with dextromethorphan (e.g., Robitussin DM) ranks high, with 9.7% of students in grades 7–12 reporting misuse during the past year.

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 3.7% of secondary students reporting use in the past year, followed by ecstasy at 3.3%. Use of heroin, ketamine, BZP pills (benzylpiperazine), and mephedrone ("bath salts") is extremely rare, as their past year prevalence estimates fall below 0.5%.

About one-in-six (15.2%) secondary students (grades 9–12) report using at least one prescription drug nonmedically (without a doctor's prescription) during the past year. Over one-third (40.0%) of secondary students report using any drug, other than tobacco or alcohol, during the past year.

Figure 3.1.2 shows the past year 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)

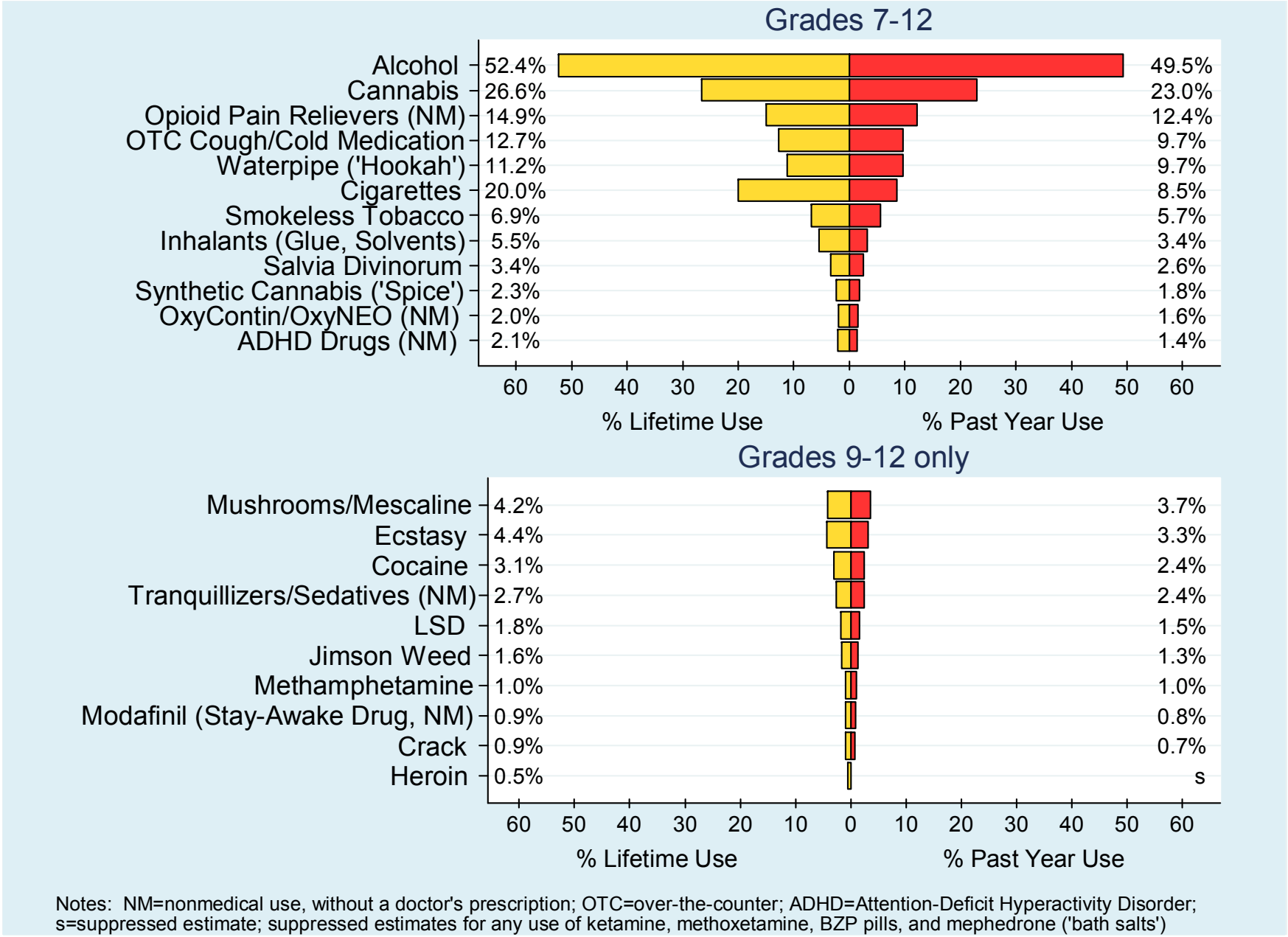
Estimates for lifetime use show that alcohol, cannabis, and tobacco are the three most common drugs students in grades 7–12 have ever used. About 52.4% of students have ever consumed alcohol (more than just a sip), over one-quarter (26.6%) have ever used cannabis, and 20.0% have smoked cigarettes. About 14.9% have used prescription opioid pain relievers (e.g., codeine, Percocet, Percodan, Demerol, Tylenol #3) nonmedically in their lifetime. About one-in-eight (12.7%) students have ever used OTC cough/cold medication recreationally, and a similar proportion (11.2%) report ever using a waterpipe ("hookah"). The remaining drugs were used by less than 10% of students during their lifetime.

Frequency of Drug Use
(Figures 3.1.3, 3.1.4)

Frequent drug use, defined as using **six or more times** during the past year, is shown in Figure 3.1.3. Of all the drugs (excluding alcohol and cigarettes) cannabis is, by far, the most frequently used. About 13% of students in grades 7–12 report using cannabis frequently during the past year. Frequent waterpipe use and frequent prescription opioid pain reliever use is reported by about 4% of all students. All other drugs measured in the survey are used this frequently by about 2% of students or fewer.

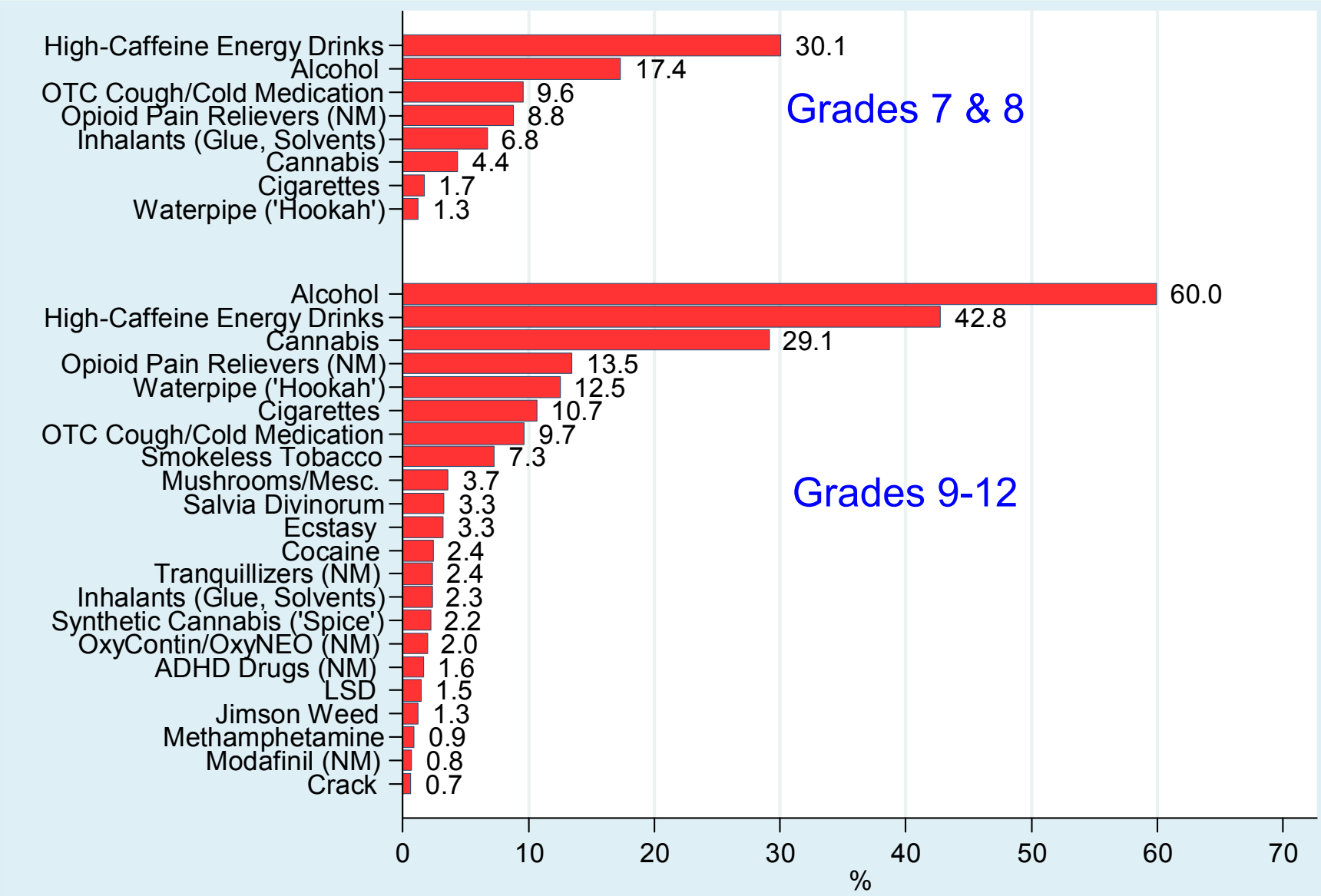
Figure 3.1.4 displays the number of times *past year users* used an illicit drug during the 12 months before the survey (excluded are alcohol and cigarettes). Again, we can readily see that use of most drugs, with the exception of cannabis, is infrequent.

Figure 3.1.1
Percentage Reporting Lifetime and Past Year Drug Use, 2013 OSDUHS



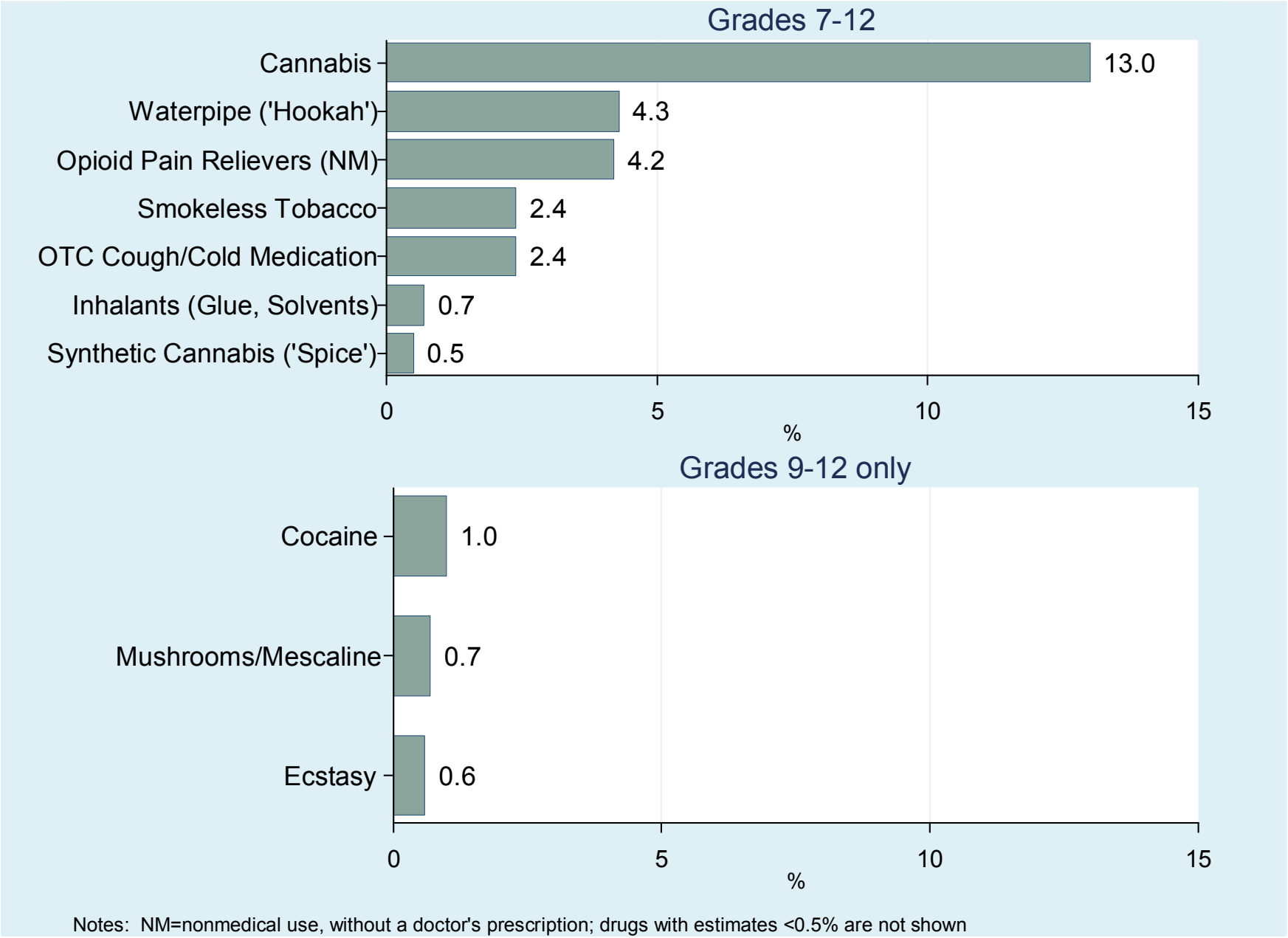
Notes: NM=nonmedical use, without a doctor's prescription; OTC=over-the-counter; ADHD=Attention-Deficit Hyperactivity Disorder; s=suppressed estimate; suppressed estimates for any use of ketamine, methoxetamine, BZP pills, and mephedrone ('bath salts')

Figure 3.1.2
Percentage Reporting Past Year Drug Use by Grade Level, 2013 OSDUHS



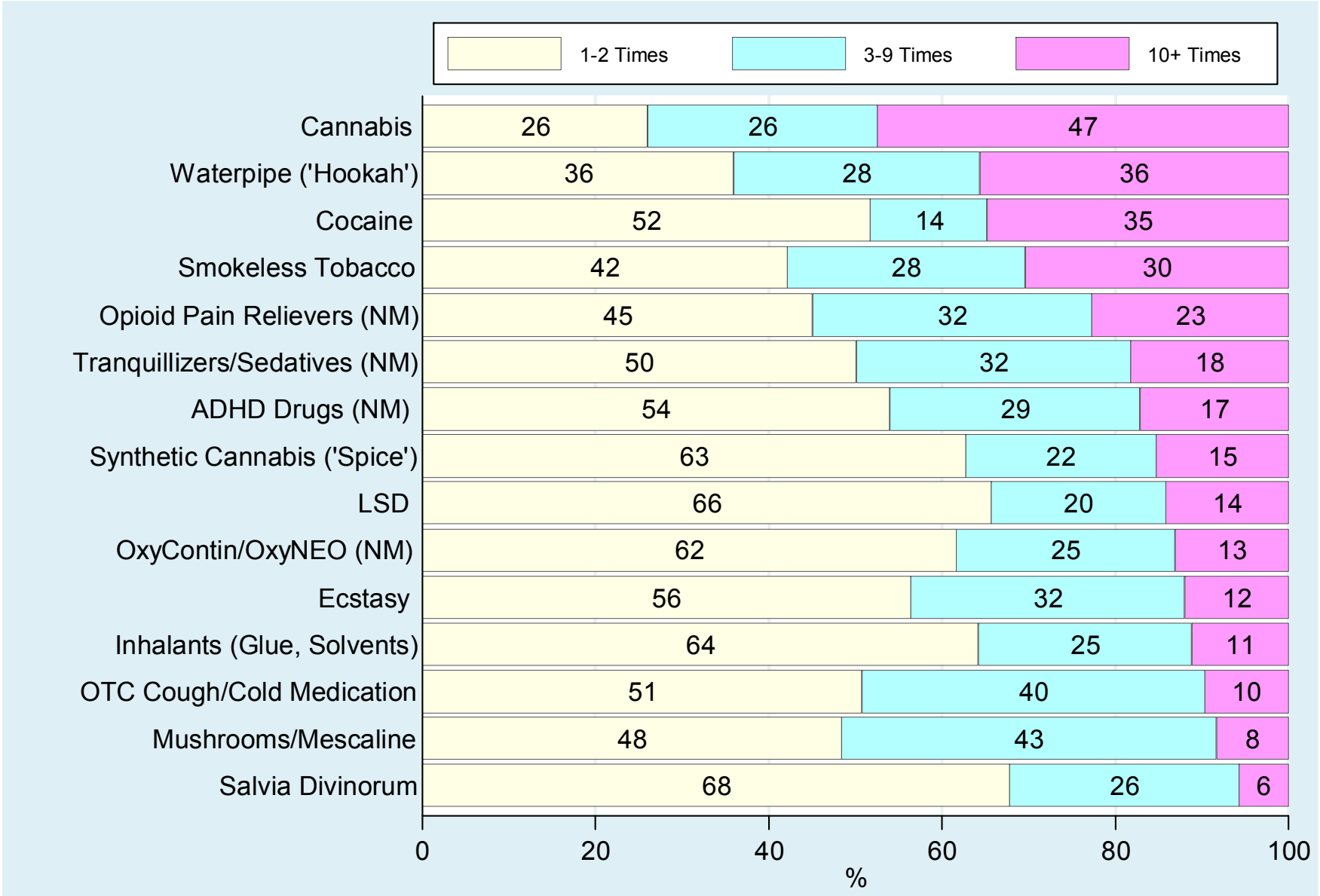
Notes: (1) NM = nonmedical use, without a doctor's prescription; (2) estimates for smokeless tobacco, synthetic cannabis ('spice'), salvia, OxyContin, and ADHD drugs among Grades 7 & 8 were suppressed due to unreliability; (3) estimates for heroin, ketamine, methoxetamine, BZP pills, and mephedrone ('bath salts') among Grades 9-12 were suppressed due to unreliability

Figure 3.1.3
Percentage Reporting Frequent Drug Use (Six Times or More) in the Past Year, 2013 OSDUHS (Total Sample)



Notes: NM=nonmedical use, without a doctor's prescription; drugs with estimates <0.5% are not shown

Figure 3.1.4
Frequency of Drug Use in the Past Year, Among Users, 2013 OSDUHS (Grades 9–12 only)



Notes: NM=nonmedical use, without a doctor's prescription; frequencies displayed only for drugs with 50 or more users

Table 3.1.1: Percentage Reporting Drug Use in Lifetime and in the Past Year, 2013 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									
Cigarettes	17.8	**20.0**	22.4	7.2	**8.5**	9.9	69,400	**83,100**	96,800
Smokeless (Chewing) Tobacco	5.5	**6.9**	8.5	4.6	**5.7**	7.0	40,000	**51,800**	63,700
Waterpipe ("Hookah")	9.5	**11.2**	13.1	8.2	**9.7**	11.5	72,800	**88,400**	104,100
Alcohol	49.2	**52.4**	55.4	46.4	**49.5**	52.5	441,500	**483,900**	526,200
Cannabis	24.1	**26.6**	29.2	20.7	**23.0**	25.6	197,100	**225,600**	254,100
Synthetic Cannabis ("Spice," "K2")	1.7	**2.3**	3.0	1.2	**1.8**	2.6	11,000	**17,300**	23,600
Inhalants (Glue or Solvents)	4.3	**5.5**	7.1	2.7	**3.4**	4.5	22,000	**31,300**	40,600
Salvia Divinorum	2.5	**3.4**	4.7	1.7	**2.6**	3.8	13,900	**23,400**	32,800
OTC Cough/Cold Medication	11.0	**12.7**	14.6	8.2	**9.7**	11.4	75,700	**94,100**	112,600
High-Caffeine Energy Drinks		**--**		37.8	**39.7**	41.7	345,700	**382,500**	419,300
OxyContin/OxyNEO (NM)	1.5	**2.0**	2.6	1.2	**1.6**	2.1	11,000	**15,500**	22,000
Opioid Pain Relievers (NM)	13.6	**14.9**	16.3	11.2	**12.4**	13.6	105,800	**120,100**	134,400
ADHD Drugs (NM)	1.6	**2.1**	2.9	1.0	**1.4**	2.0	8,500	**13,500**	18,600
AMONG GRADES 9–12 ONLY									
LSD	1.4	**1.8**	2.5	1.0	**1.5**	2.1	6,700	**10,600**	14,500
Mushrooms (Psilocybin) or Mescaline	3.1	**4.2**	5.6	2.7	**3.7**	5.1	17,900	**27,000**	36,200
Jimson Weed	1.0	**1.6**	2.7	0.7	**1.3**	2.4	3,100	**8,800**	14,500
Methamphetamine (incl. Crystal Meth)	0.7	**1.0**	1.6	0.6	**1.0**	1.5	3,700	**7,000**	10,200
Cocaine	2.3	**3.1**	4.2	1.7	**2.4**	3.4	11,600	**17,800**	24,100
Crack	0.6	**0.9**	1.4	0.5	**0.7**	1.1	3,000	**5,100**	7,300
Heroin	0.3	**0.5**	0.8		†				
Ecstasy (MDMA)	3.3	**4.4**	5.8	2.4	**3.3**	4.6	15,800	**24,200**	32,600
Ketamine		†			†				
Methoxetamine		†			†				
BZP Pills		†			†				
Mephedrone ("Bath Salts")		†			†				
Tranquillizers/Sedatives (NM)	2.1	**2.7**	3.6	1.8	**2.4**	3.2	12,000	**17,400**	22,800
Modafinil (Prescript. Stay-Awake Drug; NM)	0.5	**0.9**	1.6	0.4	**0.8**	1.4	2,000	**5,500**	9,100
Steroids (lifetime use only)	1.1	**2.0**	3.8						
Any NM Use of a Prescription Drug				13.8	**15.2**	16.7	99,400	**112,300**	125,200
Any Drug Use Including Cannabis				36.5	**40.0**	43.7	240,800	**274,800**	308,800

Notes: (1) [a] 95% confidence interval; (2) [b] numbers are based on a population of approximately 982,100 students in grades 7–12, and have been rounded down; (3) † estimate suppressed due to unreliability (most are <0.5%); (4) "Lifetime Use" refers to ever using at least once; (5) "Past Year Use" refers to use at least once during the past 12 months; (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 either OxyContin/OxyNEO, other prescription opioid pain relievers, ADHD drugs, or tranquillizers/sedatives; (9) "Any Drug Use Including Cannabis" refers to the past year use of any one of 22 drugs (excludes alcohol, tobacco, and high-caffeine energy drinks).

3.2 Overview of Drug Use Trends

2013 vs. 2011

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

Of the 22 drugs monitored in both the 2011 and 2013 surveys, no drug shows a statistically significant increase in past year prevalence among the total sample of students. However, three drugs show a significant **decrease** in past year prevalence among grades 7–12 between these two years:

- alcohol significantly decreased between 2011 and 2013 (from 54.9% to 49.5%);
- high-caffeine energy drinks (from 49.5% to 39.7%); and
- inhalants (from 5.6% to 3.4%).

No other drug showed a statistically significant change in past year prevalence between 2011 and 2013.

1999–2013 Trends

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

Past year use of one drug shows a significant **increase** in recent years among the total sample of grades 7–12. The recreational use of over-the-counter cough/cold medication containing dextromethorphan is significantly higher in 2013 (9.7%) compared with the 2009 estimate (7.2%), the first year of monitoring. Although the 2013 estimate is numerically higher than the 2011 estimate (6.9%), this difference did not reach statistical significance due to a wider confidence interval in 2011.

Most drugs monitored in the OSDUHS have shown decreases in prevalence during the past decade or so. Specifically, there are 13 drugs that show **decreases** in past year use since about 1999.

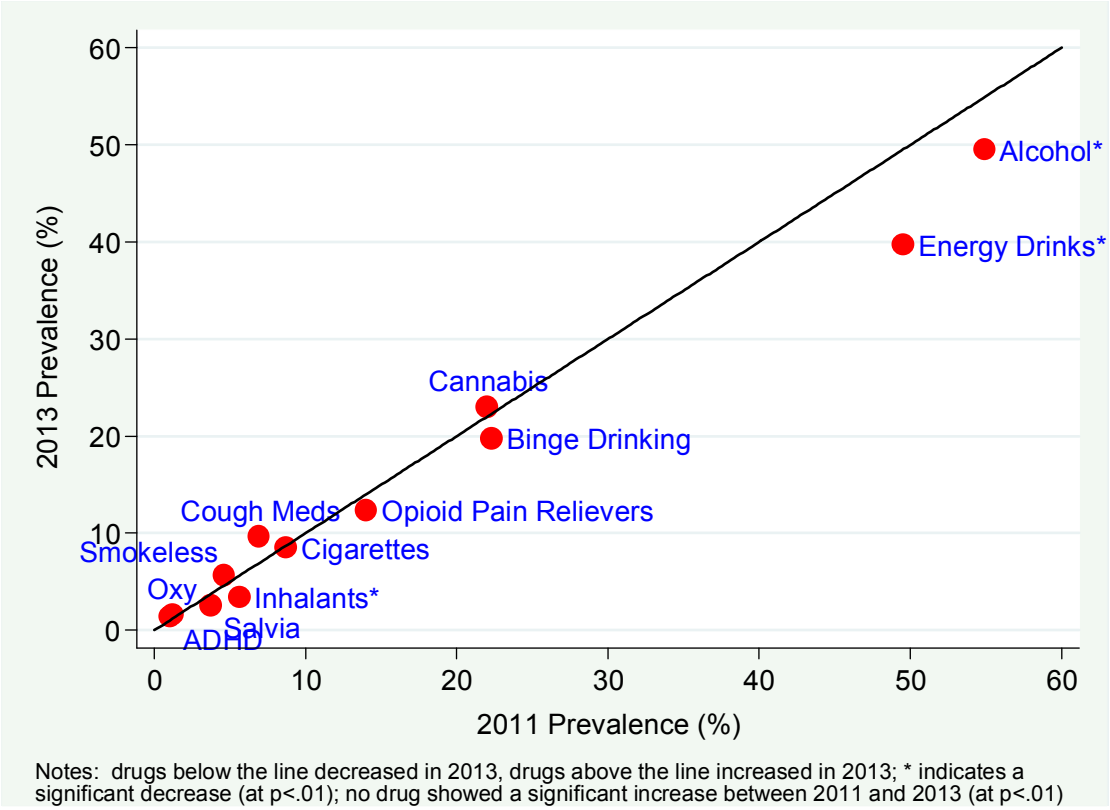
Drugs that decreased among grades 7–12:

- cigarette smoking significantly decreased between 1999 and 2013 (from 28.4% to 8.5%)
- alcohol (from 66.0% to 49.5%)
- cannabis (from 28.0% to 23.0%)
- inhalants (from 8.9% to 3.4%)
- opioid pain relievers (nonmedical use decreased from 20.6% in 2007 to 12.4%).

Drugs that decreased among grades 9–12 only:

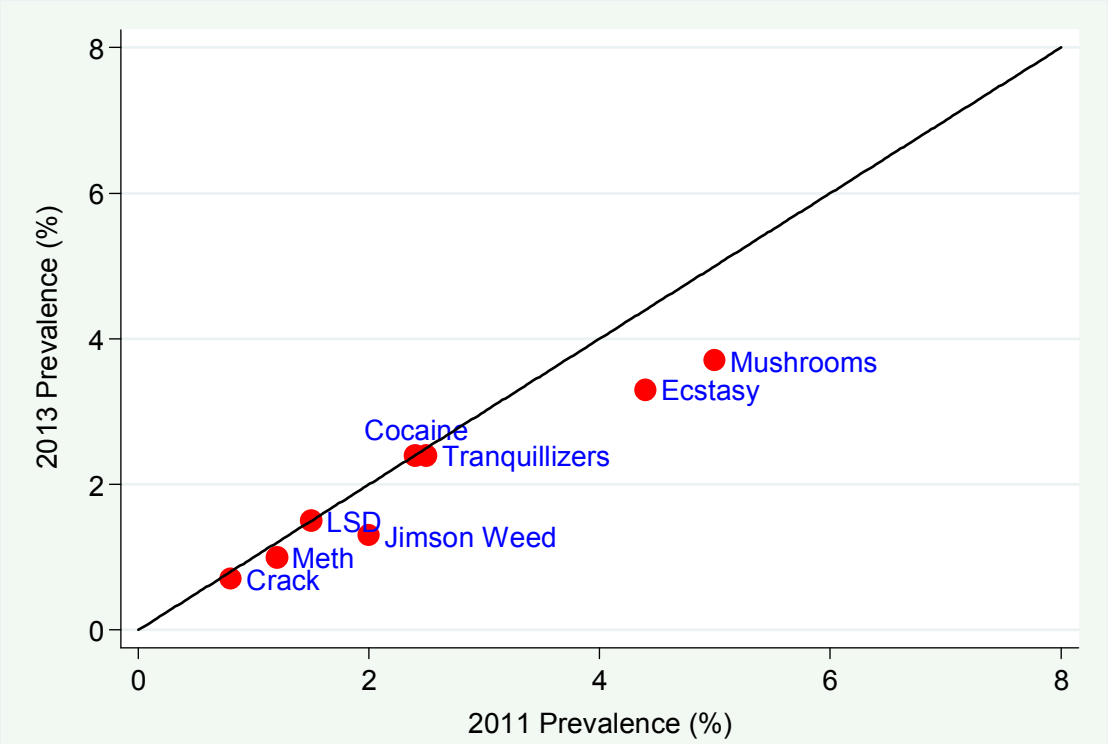
- LSD (from 8.8% in 1999 to 1.5% in 2013)
- mushrooms/mescaline (from 17.1% to 3.7%)
- methamphetamine (from 6.3% to 1.0%)
- cocaine (from 5.7% in 2003 to 2.4%)
- crack (from 3.2% to 0.7%)
- heroin (from 2.1% to < 0.5%)
- ecstasy (from 7.9% in 2001 to 3.3%)
- ketamine (from 2.9% in 2003 to < 0.5%)
- an index measuring any drug use of nine drugs, including cannabis, monitored since 1999 significantly decreased from 39.2% to 30.7% in 2013
- a second index similar to that above, but excluding cannabis, decreased from 22.8% in 1999 to 7.9% in 2013
- an index measuring the nonmedical use of any prescription drug decreased from 23.5% in 2007 to 15.2% in 2013.

Figure 3.2.1a
Past Year Drug Use 2013 vs. 2011, OSDUHS (Grades 7–12)



Notes: drugs below the line decreased in 2013, drugs above the line increased in 2013; * indicates a significant decrease (at p<.01); no drug showed a significant increase between 2011 and 2013 (at p<.01)

Figure 3.2.1b
Past Year Drug Use 2013 vs. 2011, OSDUHS (Grades 9–12 only)



Notes: drugs below the line decreased in 2013, drugs above the line increased in 2013; no drug showed a significant change (at p<.01) between 2011 and 2013

Figure 3.2.2a
Overview of Past Year Drug Use Trends, 1999–2013 OSDUHS (Grades 7–12)

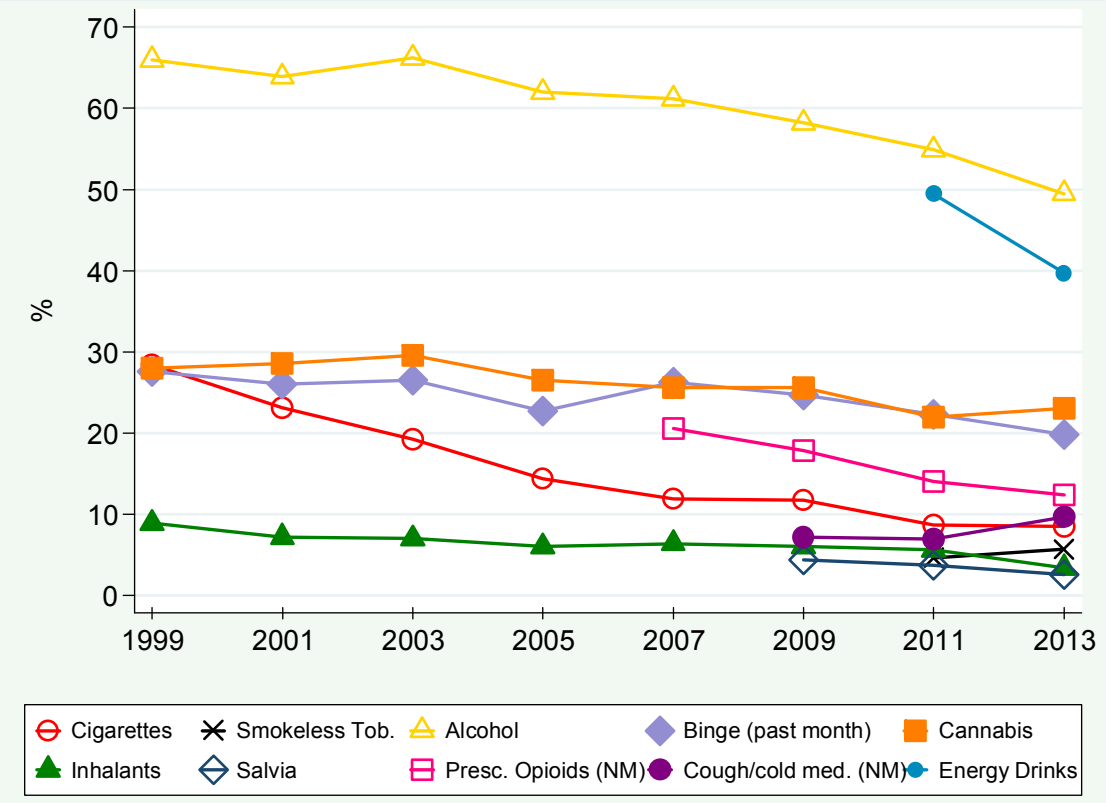
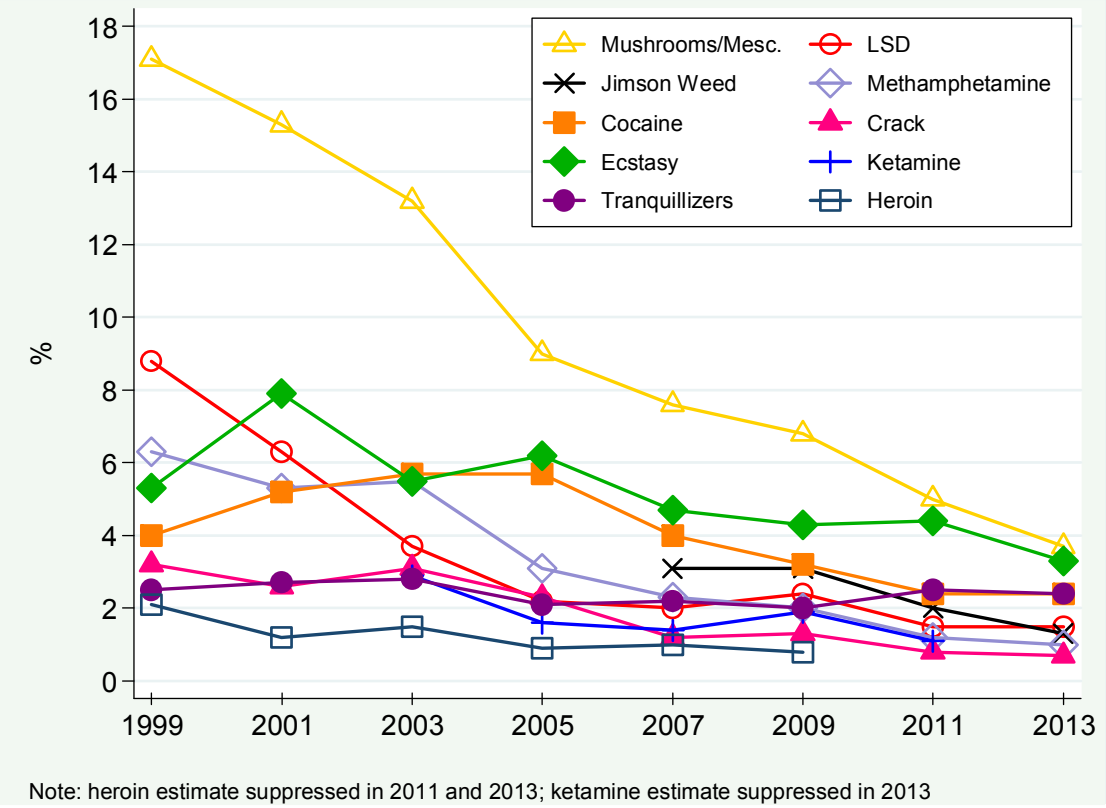


Figure 3.2.2b
Overview of Past Year Drug Use Trends, 1999–2013 OSDUHS (Grades 9–12 only)



Note: heroin estimate suppressed in 2011 and 2013; ketamine estimate suppressed in 2013

Table 3.2.1a: Percentage Using the Drug Once or More in the Past Year, 1999–2013 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013
AMONG GRADES 7–12								
(*n*=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
Cigarettes	**28.4** (26.1-30.7)	**23.1** (20.3-26.1)	**19.2** (17.7-20.8)	**14.4** (13.0-15.9)	**11.9** (10.7-13.2)	**11.7** (10.6-13.0)	**8.7** (7.5-10.2)	**8.5** [b] (7.2-9.9)
Smokeless (Chewing) Tobacco	—	—	—	—	—	—	**4.6** (3.9-5.5)	**5.7** (4.6-7.0)
Alcohol	**66.0** (63.6-68.3)	**63.9** (60.8-67.0)	**66.2** (64.1-68.4)	**62.0** (59.3-64.7)	**61.2** (58.9-63.5)	**58.2** (55.7-60.6)	**54.9** (52.1-57.6)	**49.5** [ab] (46.4-52.5)
Cannabis	**28.0** (26.0-30.1)	**28.6** (25.8-31.7)	**29.6** (27.6-31.6)	**26.5** (24.5-28.7)	**25.6** (23.7-27.7)	**25.6** (24.0-27.3)	**22.0** (20.5-23.7)	**23.0** [b] (20.7-25.6)
Inhalants (Glue or Solvents)	**8.9** (7.7-10.2)	**7.2** (6.1-8.4)	**7.0** (6.1-8.2)	**6.0** (5.1-7.1)	**6.4** (5.3-7.8)	**6.0** (5.0-7.1)	**5.6** (4.5-7.0)	**3.4** [ab] (2.7-4.5)
Salvia Divinorum	—	—	—	—	—	**4.4** (3.3-5.7)	**3.7** (2.8-4.8)	**2.6** (1.7-3.8)
OTC Cough/Cold Medication (NM)	—	—	—	—	—	**7.2** (6.1-8.5)	**6.9** (5.5-8.7)	**9.7** [b] (8.2-11.4)
High-Caffeine Energy Drinks	—	—	—	—	—	—	**49.5** (46.3-52.7)	**39.7** [a] (37.8-41.7)
OxyContin/OxyNEO (NM)	—	—	—	**1.0** (0.7-1.5)	**1.8** (0.3-2.4)	**1.6** (1.3-2.0)	**1.2** (0.9-1.7)	**1.6** (1.2-2.1)
Opioid Pain Relievers (NM)	—	—	—	—	**20.6** (18.9-23.5)	**17.8** (16.6-18.9)	**14.0** (12.8-15.3)	**12.4** [b] (11.2-13.6)
ADHD Drugs (NM)	—	—	—	—	**1.0** (0.7-1.5)	**1.6** (1.3-2.1)	**1.0** (0.7-1.3)	**1.4** (1.0-2.0)
AMONG GRADES 9–12 ONLY								
(*n*=)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
LSD	**8.8** (7.2-10.7)	**6.3** (5.0-7.8)	**3.7** (3.0-4.5)	**2.2** (1.6-3.0)	**2.0** (1.4-2.8)	**2.4** (1.9-3.1)	**1.5** (1.0-2.2)	**1.5** [b] (1.0-2.1)
Mushrooms (Psilocybin)/ Mescaline	**17.1** (15.0-19.3)	**15.3** (13.0-17.8)	**13.2** (11.5-15.1)	**9.0** (7.5-10.8)	**7.6** (6.3-9.0)	**6.8** (5.7-8.1)	**5.0** (3.9-6.2)	**3.7** [b] (2.7-5.1)
Jimson Weed	—	—	—	—	**3.1** (2.3-4.3)	**3.1** (2.3-4.1)	**2.0** (1.1-3.5)	**1.3** (0.7-2.4)
Methamphetamine (includes crystal methamphetamine)	**6.3** (4.6-8.7)	**5.3** (3.5-7.8)	**5.5** (4.5-6.7)	**3.1** (2.4-4.0)	**2.3** (1.7-2.9)	**2.0** (1.4-2.7)	**1.2** (0.7-2.0)	**1.0** [b] (0.6-1.5)
Cocaine	**4.0** (3.2-5.0)	**5.2** (4.1-6.6)	**5.7** (4.9-6.7)	**5.7** (4.8-6.8)	**4.0** (3.4-4.8)	**3.2** (2.5-4.0)	**2.4** (1.9-3.0)	**2.4** [b] (1.7-3.4)
Crack	**3.2** (2.4-4.2)	**2.6** (1.9-3.5)	**3.1** (2.4-4.0)	**2.3** (1.9-2.8)	**1.2** (0.8-1.6)	**1.3** (1.0-1.7)	**0.8** (0.5-1.3)	**0.7** [b] (0.5-1.1)
Heroin	**2.1** (1.5-2.7)	**1.2** (0.8-1.7)	**1.5** (1.1-1.9)	**0.9** (0.7-1.2)	**1.0** (0.7-1.5)	**0.8** (0.6-1.2)	†	† [b]
Ecstasy (MDMA)	**5.3** (4.0-7.1)	**7.9** (6.5-9.6)	**5.5** (4.7-6.4)	**6.2** (5.2-7.4)	**4.7** (3.9-5.7)	**4.3** (3.5-5.2)	**4.4** (3.5-5.6)	**3.3** (2.4-4.6)
Ketamine	—	—	**2.9** (2.3-3.7)	**1.6** (1.1-2.2)	**1.4** (0.9-2.3)	**1.9** (1.3-3.0)	**1.1** (0.6-2.0)	† [b]
Tranquillizers/Sedatives (NM)	**2.5** (1.9-3.3)	**2.7** (1.8-3.9)	**2.8** (1.2-3.4)	**2.1** (1.7-2.7)	**2.2** (1.7-2.8)	**2.0** (1.5-2.6)	**2.5** (1.9-3.3)	**2.4** (1.8-3.2)
Steroids (lifetime use)	**4.3** (3.3-5.4)	**4.5** (3.5-5.8)	**3.8** (3.0-4.7)	**2.8** (2.3-3.6)	**1.6** (1.1-2.4)	**1.2** (0.8-1.9)	**1.6** (1.1-2.4)	**2.0** (1.1-3.8)
Any NM Use of a Prescription Drug	—	—	—	—	**23.5** (21.5-25.6)	**21.4** (20.0-22.9)	**17.0** (15.3-18.9)	**15.2** [b] (13.8-16.7)
Any Drug Including Cannabis	**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** [b] (27.7-33.8)
Any Drug Excluding Cannabis	**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** [b] (6.4-9.7)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) [a] 2013 vs. 2011 significant difference, p<.01; (4) [b] 2013 vs. 1999 significant difference, p<.01 (vs. 2001 for ecstasy; vs. 2003 for cocaine and ketamine; vs. 2007 for opioid pain relievers; vs. 2009 for OTC cough/cold medication); (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 any one of the following prescription drugs or drug classes: OxyContin/OxyNEO, other opioids, ADHD drugs, or tranquillizers/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, and tranquillizers/sedatives (NM). Source: OSDUHS, Centre for Addiction & Mental Health

Long-Term Trends, 1977–2013 (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. The long-term changes can be further categorized into the following five patterns:

Pattern 1: Prevalence has now reached, or very recently reached, an all-time low:

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

Pattern 2: Prevalence in 2013 is significantly lower than the peaks seen in the late 1970s and late 1990s (2003 for cocaine), and current use is similar to the lows seen in the 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* compared with the low levels of use evident in the early 1990s:

- cannabis.

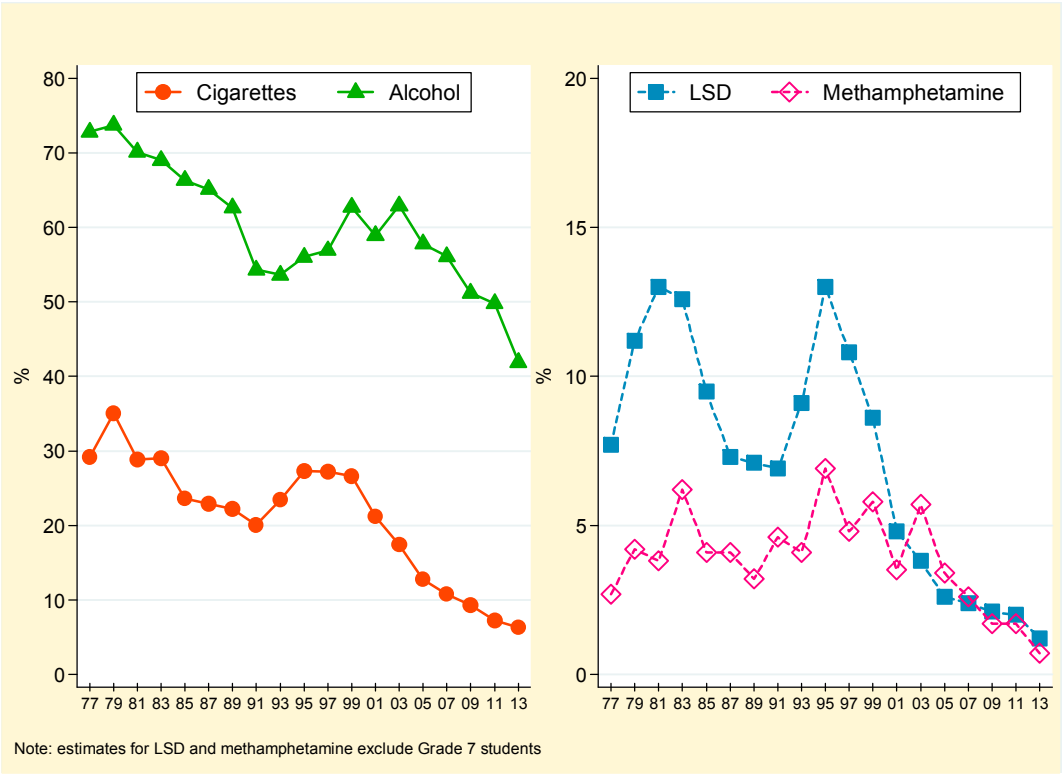
Pattern 4: Prevalence shows only one peak in the late 1990s or early 2000s (or the late 1970s for tranquillizers), a decline during the 2000s, and stability in recent years:

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

Pattern 5: Prevalence has been negligible and stable for decades:

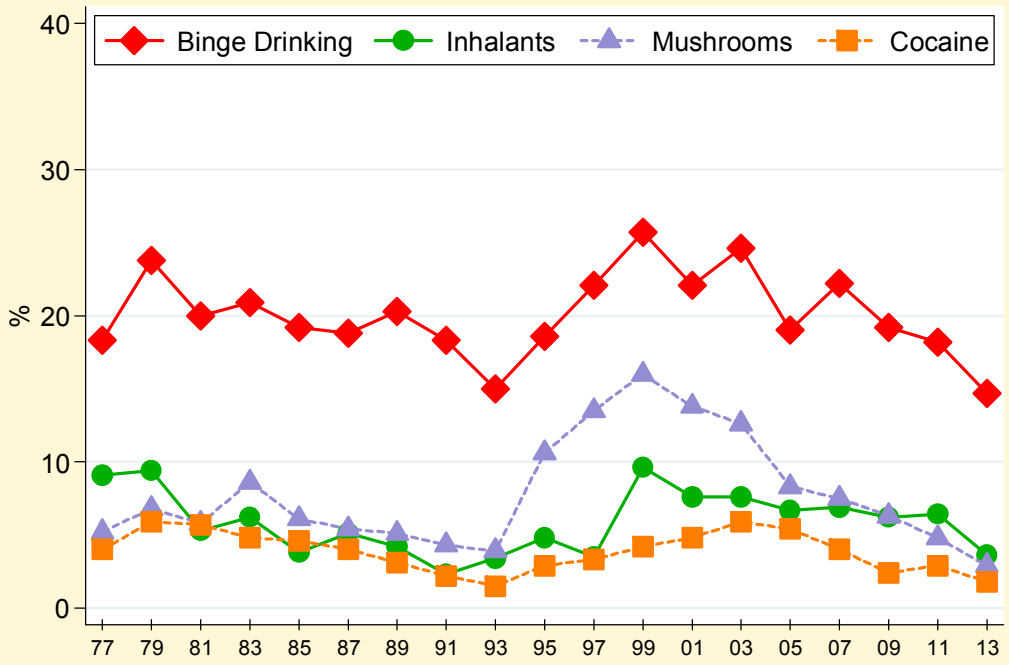
- heroin.

Figure 3.2.3
Pattern 1: Long-Term Drug Use Trends, 1977–2013 OSDUHS



Note: estimates for LSD and methamphetamine exclude Grade 7 students

Figure 3.2.4
Pattern 2: Long-Term Drug Use Trends, 1977–2013 OSDUHS



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

Figure 3.2.5
Pattern 3: Long-Term Drug Use Trends, 1977–2013 OSDUHS

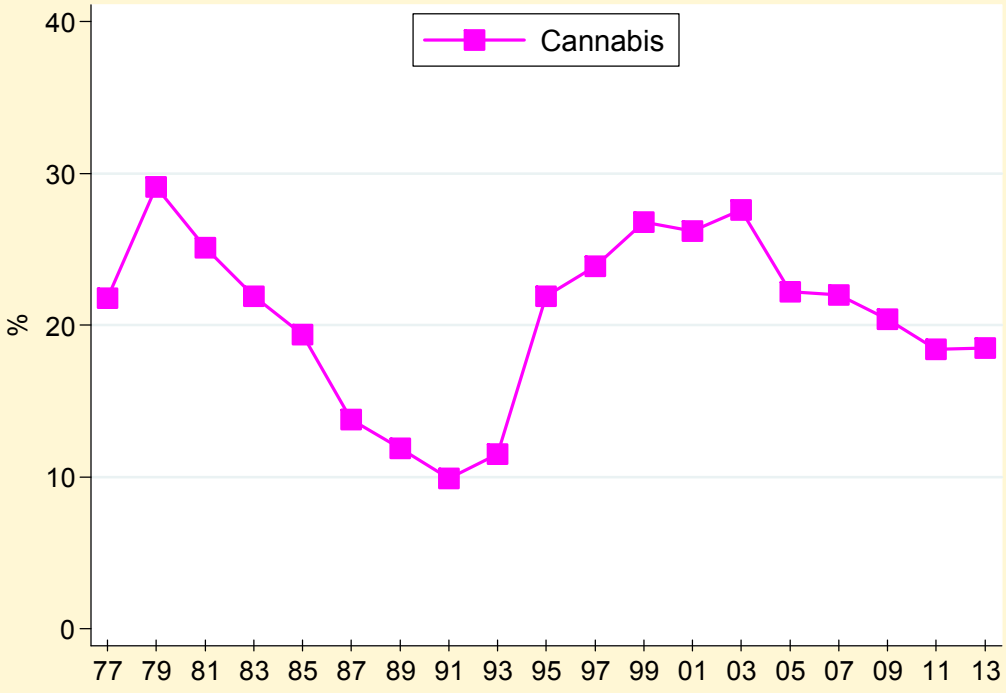
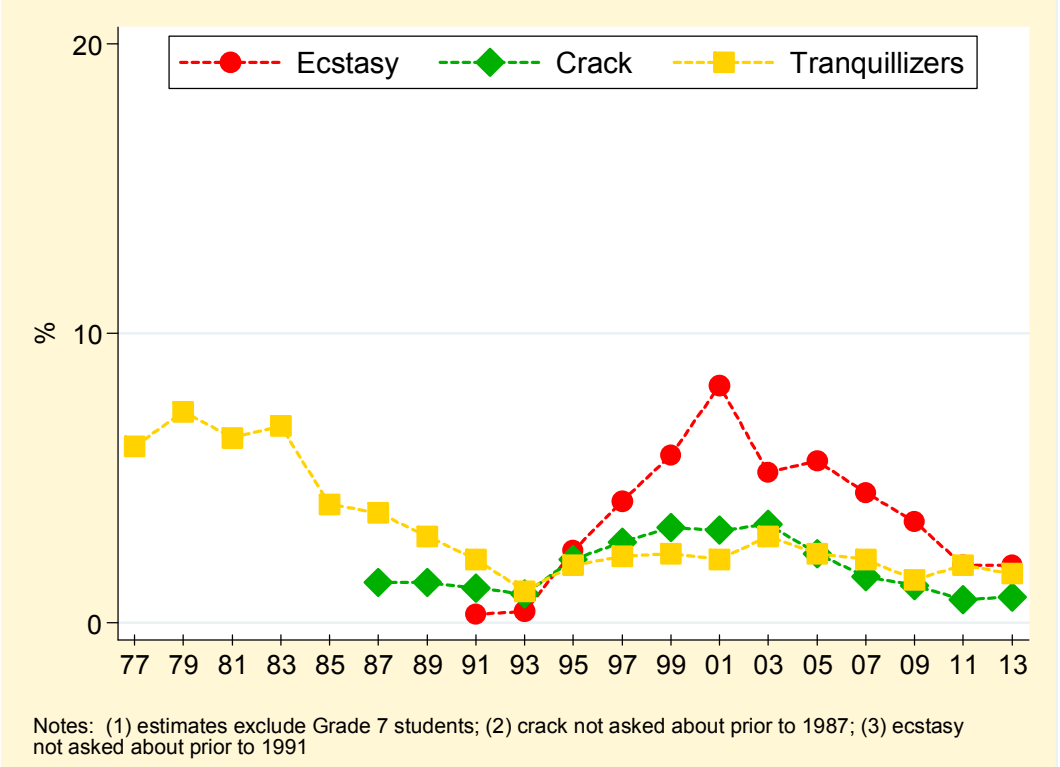
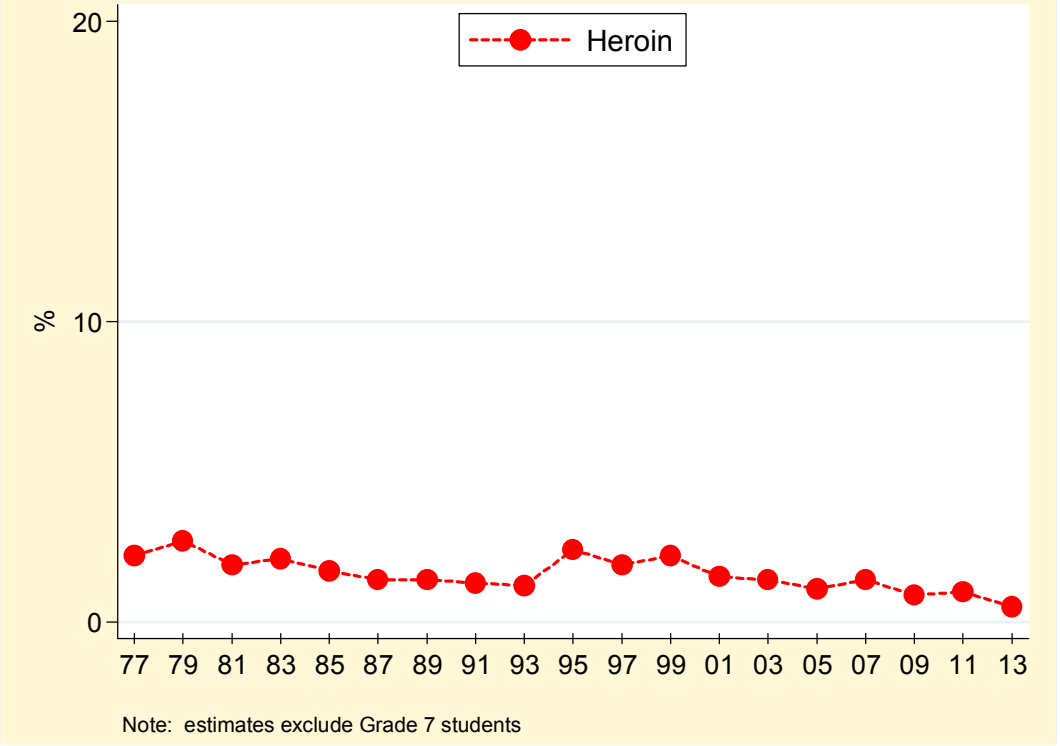


Figure 3.2.6
Pattern 4: Long-Term Drug Use Trends, 1977–2013 OSDUHS



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

Figure 3.2.7
Pattern 5: Long-Term Drug Use Trends, 1977–2013 OSDUHS



Note: estimates exclude Grade 7 students

Table 3.2.1b: Percentage Using the Drug Once or More in the Past Year, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
AMONG GRADES 7, 9 & 11																			
(*n*=)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
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)
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)
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)
Inhalants (Glue or Solvents)	**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)
AMONG GRADES 9 & 11 ONLY																			
(*n*=)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
LSD	**7.7** (6.4-9.3)	**11.2** (9.4-13.3)	**13.0** (10.4-16.0)	**12.6** (10.7-14.8)	**9.5** (7.3-12.2)	**7.3** (4.8-10.8)	**7.1** (4.8-10.4)	**6.9** (5.6-8.3)	**9.1** (7.6-10.8)	**13.0** (9.5-7.4)	**10.8** (9.7-12.0)	**8.6** (6.4-11.5)	**4.8** (3.6-6.4)	**3.8** (3.0-4.8)	**2.6** (1.8-3.6)	**2.4** (1.7-3.5)	**2.1** (1.4-3.0)	**2.0** (1.1-3.4)	**1.2** (0.7-1.9)
Mushrooms or Mescaline	**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)
Methamphetamine (incl. crystal meth)	**2.7** (2.1-3.5)	**4.2** (3.5-5.1)	**3.8** (2.5-5.5)	**6.2** (3.3-11.2)	**4.1** (3.2-5.1)	**4.1** (3.0-5.6)	**3.2** (2.5-4.2)	**4.6** (2.9-7.4)	**4.1** (2.7-6.3)	**6.9** (4.6-10.3)	**4.8** (3.6-6.4)	**5.8** (3.5-9.6)	**3.4** (2.2-5.3)	**5.7** (4.4-7.3)	**3.4** (2.5-4.7)	**2.6** (1.8-3.5)	**1.7** (1.2-2.6)	†	**0.7** (0.4-1.4)
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)
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)
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 (MDMA)	—	—	—	—	—	—	—	†	†	**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)
Tranquillizers (NM)	**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)
Steroids (lifetime)	—	—	—	—	—	—	**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 Incl. Cannabis	**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)
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)

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), tranquillizers/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 between 1999 and 2013 are shown in Table 3.2.2a. Frequent use of the following drugs has significantly decreased since 1999: inhalants (from 1.8% to 0.7%); opioid pain relievers (from 8.0% in 2007 to 4.2%); LSD (from 2.5% to less than 0.5%); and mushrooms/mescaline (from 5.6% to 0.7%).

Table 3.2.2b shows changes in frequent drug use since 1977. Over the long-term, only cannabis has shown marked fluctuations in frequent use. 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. Currently, frequent cannabis use is lower than the elevated rate found in 1979, but higher than levels from the mid-1980s and early 1990s.

Table 3.2.2a: Frequent Drug Use: Percentage Using the Drug Six Times or More in the Past Year, 1999–2013 OSDUHS

	1999	2001	2003	2005	2007	2009	2011	2013
Among Grades 7–12 (*n*=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
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)
Smokeless (Chewing) Tobacco	—	—	—	—	—	—	**1.6** (1.2-2.2)	**2.4** (1.6-3.4)
Waterpipe ("Hookah")	—	—	—	—	—	—	—	**4.3** (3.3-5.5)
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** [b] (0.5-1.2)
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)
Opioid Pain Relievers (NM)	—	—	—	—	**8.0** (6.8-9.3)	**6.9** (6.2-7.6)	**5.4** (4.6-6.4)	**4.2** [b] (3.7-4.8)
Among Grades 9–12 (*n*=)	(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
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)	†	† [b]
Mushrooms (Psilocybin)/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** [b] (0.4-1.3)
Jimson Weed	—	—	—	—	**1.3** (0.8-2.2)	**1.0** (0.6-1.6)	†	†
Methamphetamine (includes crystal 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)	†	†
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)
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)
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)	†

Notes: (1) entries in brackets are 95% confidence intervals; (2) no significant difference 2013 vs. 2011; [b] 2013 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 heroin, crack, ketamine, OxyContin/OxyNEO (NM), 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 in the Past Year, 1977–2013 OSDUHS (Grades 7, 9, 11 only)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
Among Grades 7, 9 & 11																			
(*n*=)	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2424)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
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)
Inhalants (Glue or Solvents)	**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)	†
Among Grades 9 & 11 Only																			
(*n*=)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
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/Mescal.	**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)	†
Methamphetamine (incl. Crystal Meth)	**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)	†
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)	†
Tranquillizers (NM)	**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)	†	†

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) NM = 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

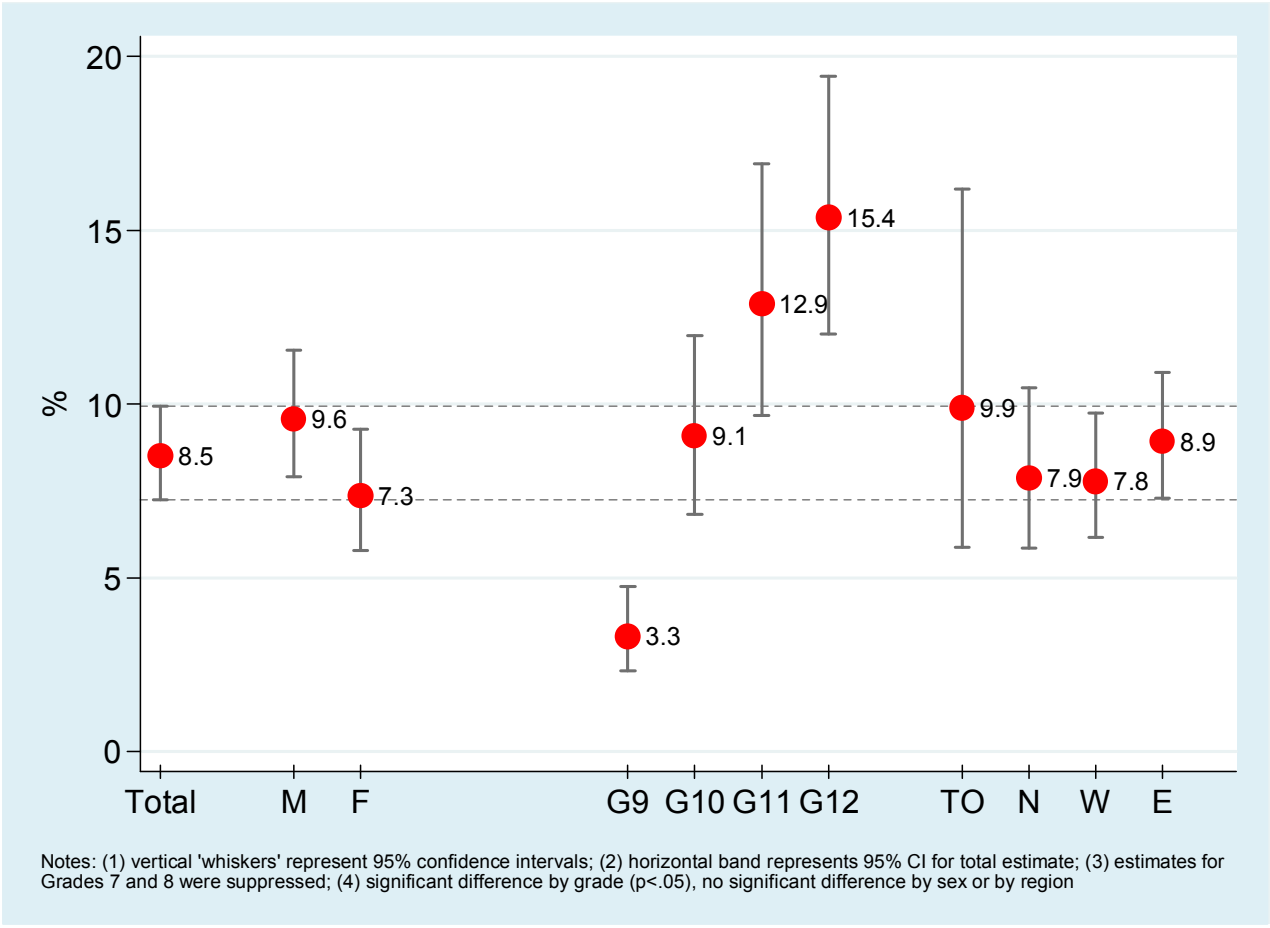
3.3 Tobacco Use

Past Year Cigarette Smoking

(Figures 3.3.1–3.3.3; Table 3.3.1)

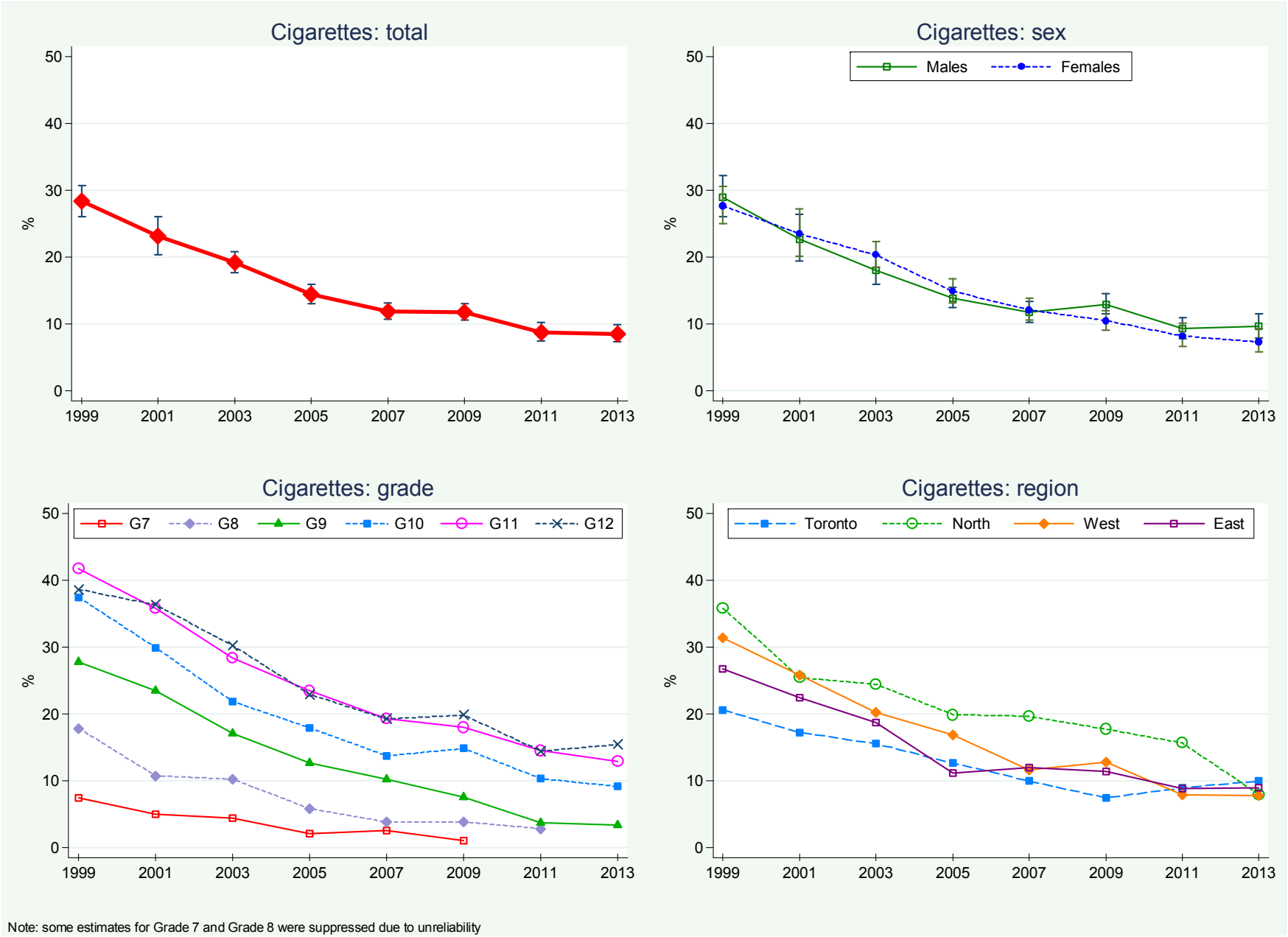
	Cigarette Smoking in 2013 (Grades 7–12)	Trends in Cigarette Smoking
Total Sample	■ Overall, 8.5% of students report smoking cigarettes during the 12 months before the survey. This estimate includes daily and occasional smoking, but excludes those who tried a few puffs of a cigarette. We estimate that the actual percentage of all students who smoke falls between 7.2% and 9.9% (95% CI). The percentage of 8.5% represents about 83,100 Ontario students in grades 7 through 12.	☐ Past year smoking among students in grades 7–12 significantly decreased between 1999 (28.4%) and 2007 (11.9%), remained stable in 2009, and then reached an all-time low 2011 (8.7%). The 2013 estimate (8.5%) is similar to the 2011 estimate. ☐ Over the long-term (among grades 7, 9, and 11 only), the highest smoking prevalence rate was found in 1979, at 35%. Smoking decreased in the 1980s, but increased again in the late 1990s. Smoking began on another downward trend after 1999, reached a historical low in 2011, and currently remains at this relatively low level.
Sex	■ In 2013, males (9.6%) and females (7.3%) are equally likely to smoke cigarettes.	☐ Between 2011 and 2013, cigarette smoking remained stable among males (9.3% and 9.6%, respectively) and females (8.2% and 7.3%, respectively). Smoking has dramatically declined for both sexes since 1999. Females show a linear decrease from 27.7% in 1999 to 7.3% in 2013. Males show a decrease between 1999 (29.0%) and 2009 (12.9%), followed by another drop in 2011 (9.3%) and remain stable in 2013.
Grade	■ The prevalence of smoking is extremely low (suppressed estimates) among students in grades 7 and 8. About 3% of 9th graders smoke cigarettes and the prevalence significantly increases with grade, reaching 15% among 12th graders.	☐ No grade shows a statistically significant change in smoking between 2011and 2013. However, smoking is currently significantly lower among students in all grades compared with their respective estimates from 1999.
Region	■ Smoking cigarettes does not significantly differ by region, with estimates in the four regions at about 8%-10%.	☐ Only the North shows a significant decrease in smoking between 2011 (15.6%) and 2013 (7.9%). All four regions show significant decreases since 1999, although the decrease in Toronto was not as dramatic as the other three regions.

Figure 3.3.1
Past Year Cigarette Smoking by Sex, Grade, and Region, 2013 OSDUHS



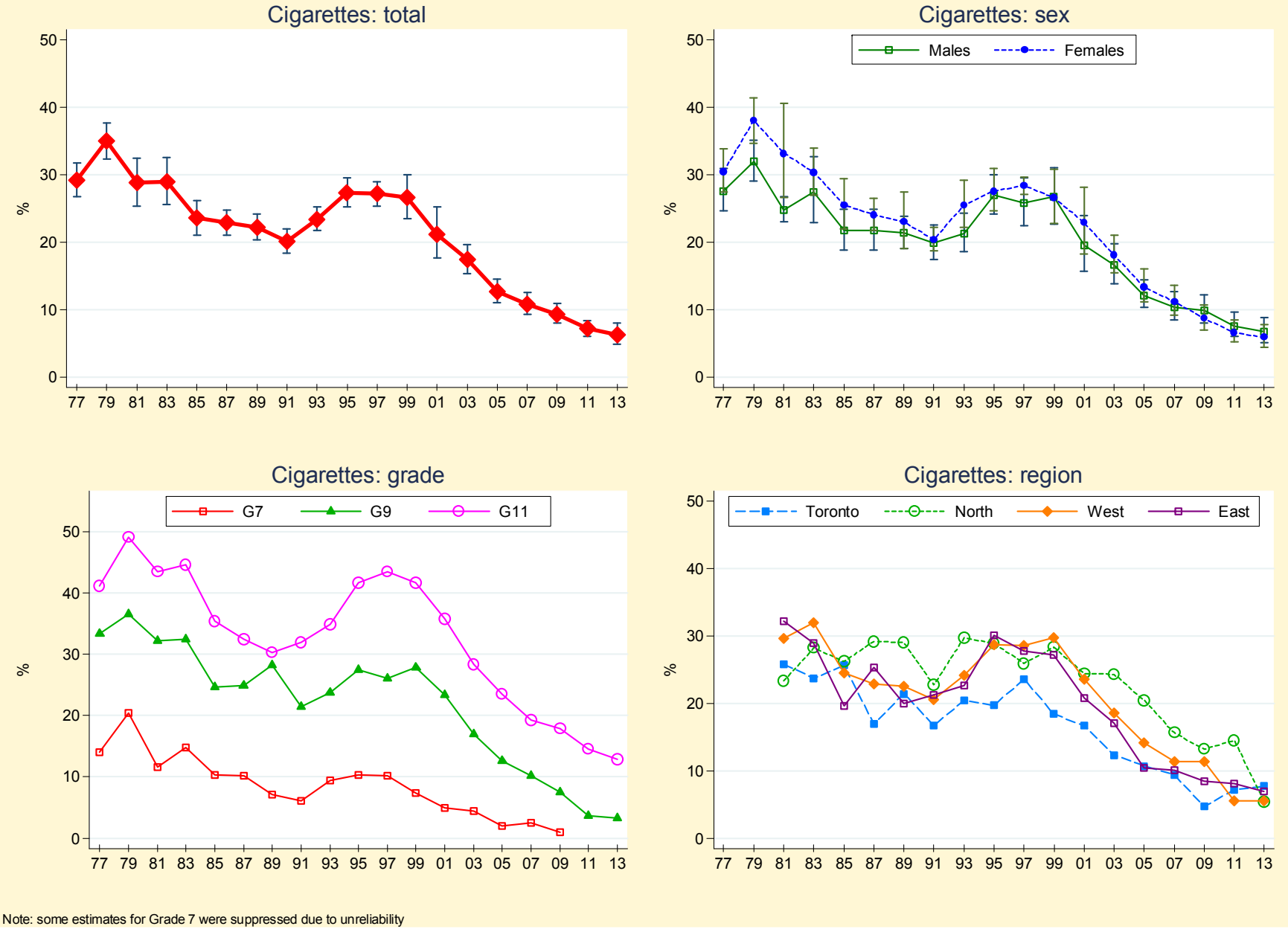
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8 were suppressed; (4) significant difference by grade (p<.05), no significant difference by sex or by region

Figure 3.3.2
Past Year Cigarette Smoking, 1999–2013 OSDUHS (Grades 7–12)



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

Figure 3.3.3
Past Year Cigarette Smoking, 1977–2013 OSDUHS (Grades 7, 9, 11 only)



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

Table 3.3.1: Percentage Reporting Cigarette Smoking in the Past Year, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
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** [bcd] (7.2-9.9)
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** [cd] (4.9-8.0)
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** [b] (7.9-11.5)
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)
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** [b] (5.8-9.3)
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)
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** [b] (2.3-4.7)
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** [b] (6.8-12.0)
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** [b] (9.7-16.9)
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** [b] (12.0-19.4)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**20.6** (15.7-26.6)	**17.2** (11.0-25.7)	**15.5** (12.2-19.4)	**12.6** (10.1-15.7)	**9.9** (6.6-14.5)	**7.4** (5.0-11.0)	**8.9** (6.4-12.3)	**9.9** [b] (5.9-16.2)
Toronto[2]	—	—	**25.9** (17.8-36.0)	**23.7** (17.7-31.0)	**25.6** (21.6-30.0)	**16.9** (13.1-21.6)	**21.4** (16.1-27.9)	**16.7** (12.7-21.6)	**20.4** (16.7-24.6)	**19.7** (13.5-27.9)	**23.6** (20.3-27.3)	**18.4** (13.6-24.5)	**16.7** (9.2-28.2)	**12.3** (8.4-17.6)	**10.7** (8.0-14.2)	**9.4** (5.3-16.0)	**4.7** (2.6-8.3)	**7.2** (4.6-10.9)	**7.7** (3.8-15.0)
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** [ab] (5.9-10.5)
North[2]	—	—	**23.4** (14.2-35.8)	**28.2** (22.3-35.0)	**26.2** (22.1-30.6)	**29.2** (21.1-38.9)	**29.0** (22.2-36.8)	**22.7** (15.5-31.9)	**29.7** (22.0-38.9)	**28.9** (19.2-41.0)	**25.9** (23.9-27.9)	**28.3** (19.4-39.2)	**24.4** (17.4-33.2)	**24.3** (18.5-31.1)	**20.4** (15.6-26.3)	**15.6** (11.2-21.3)	**13.2** (9.2-18.5)	**14.5** (10.0-20.7)	**5.4** (3.8-7.6)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**31.3** (27.8-35.0)	**25.8** (21.6-30.4)	**20.2** (17.9-22.8)	**16.8** (14.4-19.5)	**11.6** (9.9-13.5)	**12.7** (10.7-15.1)	**7.9** (5.7-10.8)	**7.8** [b] (6.2-9.7)
West[2]	—	—	**29.6** (24.3-35.4)	**31.9** (25.2-39.4)	**24.5** (22.8-26.2)	**22.9** (20.3-25.8)	**22.5** (20.2-25.0)	**20.5** (18.2-23.0)	**24.2** (21.9-26.8)	**28.7** (26.0-31.6)	**28.6** (25.5-31.9)	**29.7** (24.3-35.7)	**23.6** (19.2-28.7)	**18.6** (15.7-21.8)	**14.1** (11.5-17.1)	**11.3** (9.0-14.0)	**11.3** (9.0-14.1)	**5.5** (3.9-7.7)	**5.5** (3.8-7.8)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**26.7** (22.9-31.0)	**22.4** (17.6-28.1)	**18.7** (16.2-21.6)	**11.1** (9.0-13.6)	**11.9** (10.0-14.1)	**11.4** (9.7-13.5)	**8.8** (7.3-10.4)	**8.9** [b] (7.3-10.9)
East[2]	—	—	**32.2** (27.2-37.6)	**28.9** (24.6-33.6)	**19.6** (12.9-28.7)	**25.3** (23.6-27.1)	**20.0** (16.3-24.3)	**21.2** (18.1-24.7)	**22.6** (20.3-25.1)	**30.1** (28.5-31.7)	**27.8** (24.6-31.3)	**27.2** (22.1-33.1)	**20.8** (14.3-29.3)	**17.0** (12.8-22.2)	**10.4** (7.9-13.6)	**10.1** (7.7-13.1)	**8.4** (6.4-11.0)	**8.1** (6.2-10.5)	**6.9** (4.7-10.1)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 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 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.)

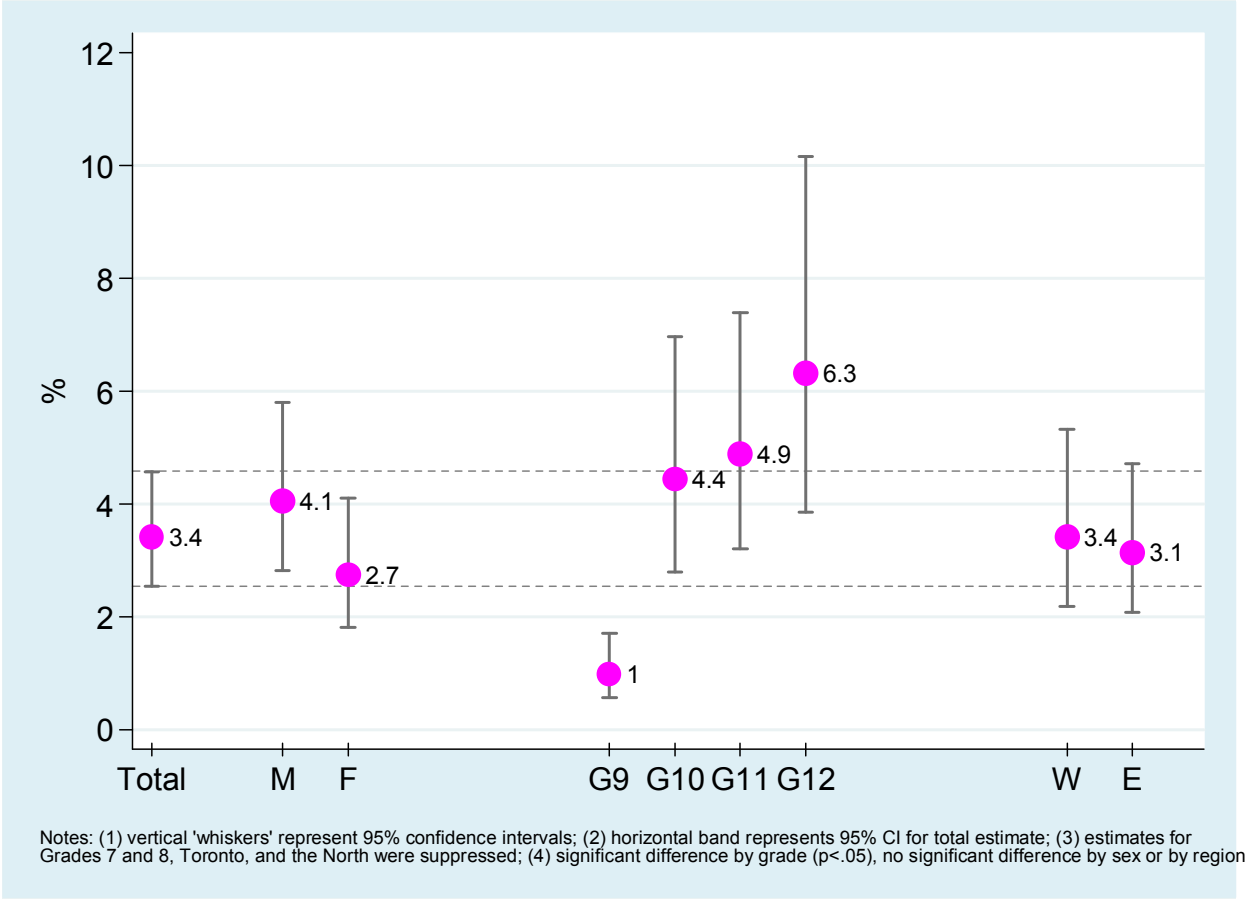
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Daily Cigarette Smoking

(Figures 3.3.4–3.3.6; Table 3.3.2)

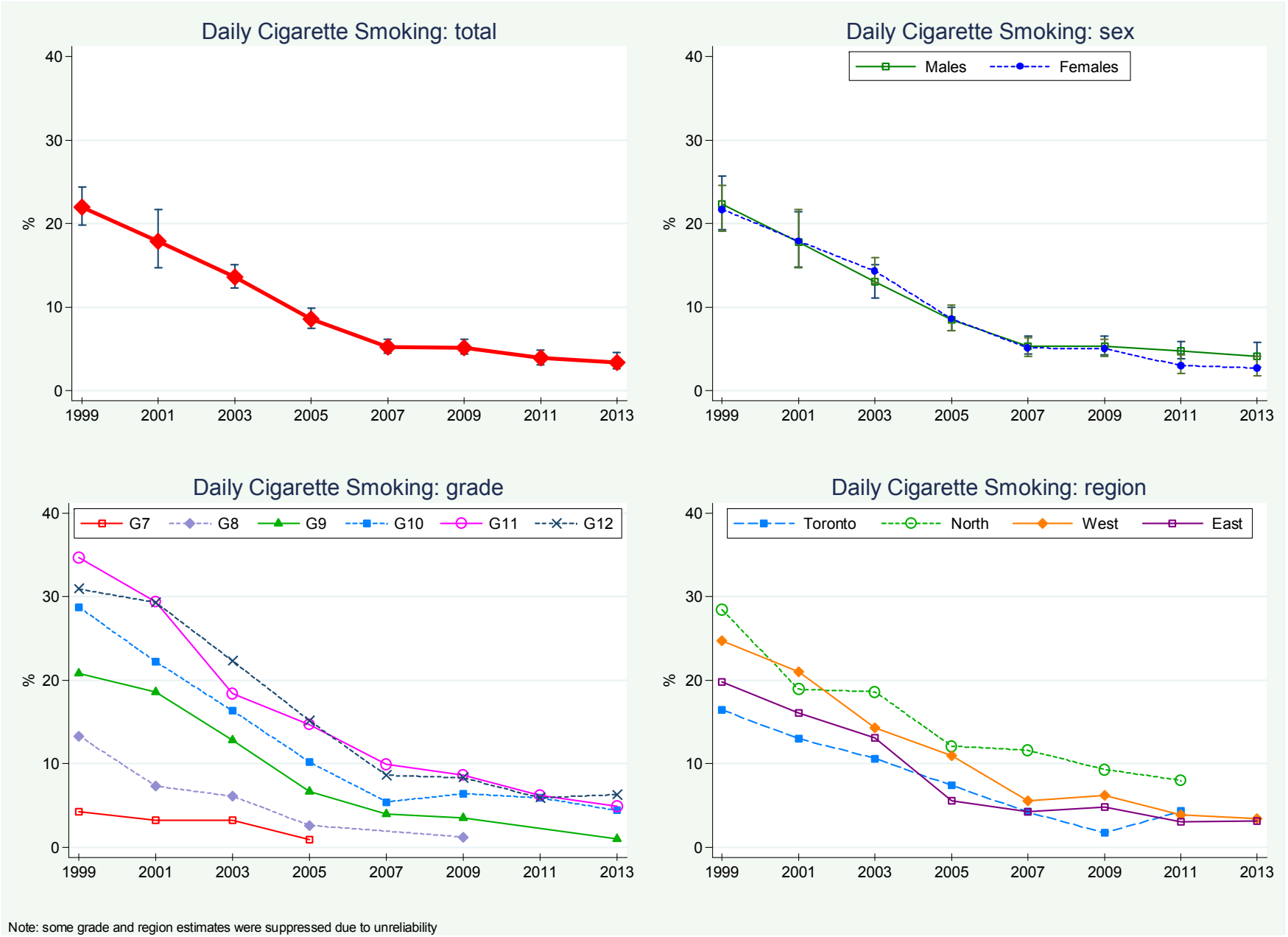
	Daily Smoking in 2013 (Grades 7–12)	Trends in Daily Smoking
Total Sample	■ Overall, 3.4% (95% CI: 2.6%–4.6%) of students report smoking one or more cigarettes on a daily basis during the past 12 months. This percentage represents about 33,400 students in grades 7 through 12 across Ontario.	☐ Overall, daily smoking among grades 7 through 12 remained stable between 2011 (3.9%) and 2013 (3.4%). Daily smoking significantly decreased between 1999 (22.0%) and 2007 (5.2%) and has levelled off since then. ☐ Over the long-term (among grades 7, 9, and 11 only), daily smoking peaked in the late 1970s and again in the late 1990s. Daily smoking began a downward trend after 1999, reaching an all-time low in 2011, and remaining stable in 2013.
Sex	■ Daily smoking does not significantly differ between males (4.1%) and females (2.7%).	☐ Daily smoking among both males and females remained stable between 2011 and 2013. However, the current daily smoking estimates for both males and females are significantly lower than their respective 1999 estimates.
Grade	■ The likelihood of daily smoking significantly increases with grade, with the highest level among 12th graders (6.3%).	☐ Daily smoking remained stable between 2011 and 2013 within all grade levels. However, all grades show a significant decrease in 2013 compared with their respective 1999 estimates.
Region	■ Daily smoking does not significantly differ by region.	☐ Between 2011 and 2013, daily smoking remained stable within all regions. However, rates are significantly lower in 2013 compared with estimates from a decade ago.

Figure 3.3.4
Past Year Daily Cigarette Smoking by Sex, Grade, and Region, 2013



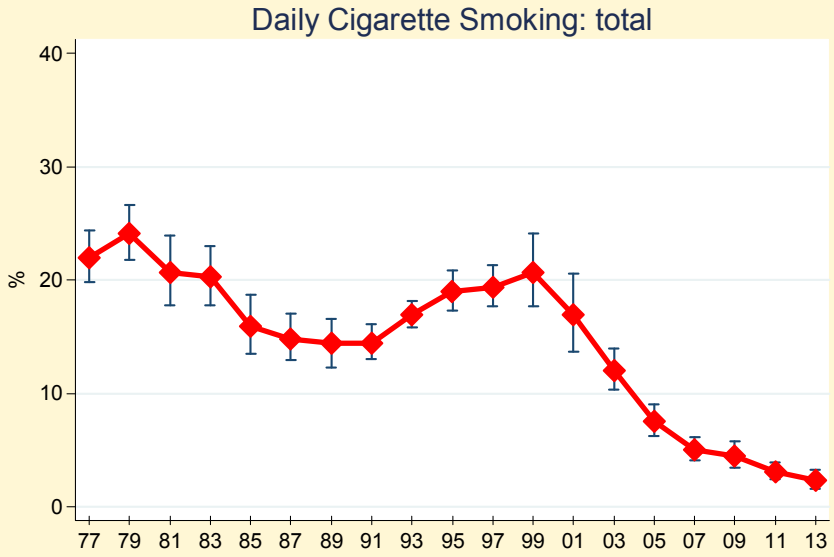
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8, Toronto, and the North were suppressed; (4) significant difference by grade (p<.05), no significant difference by sex or by region

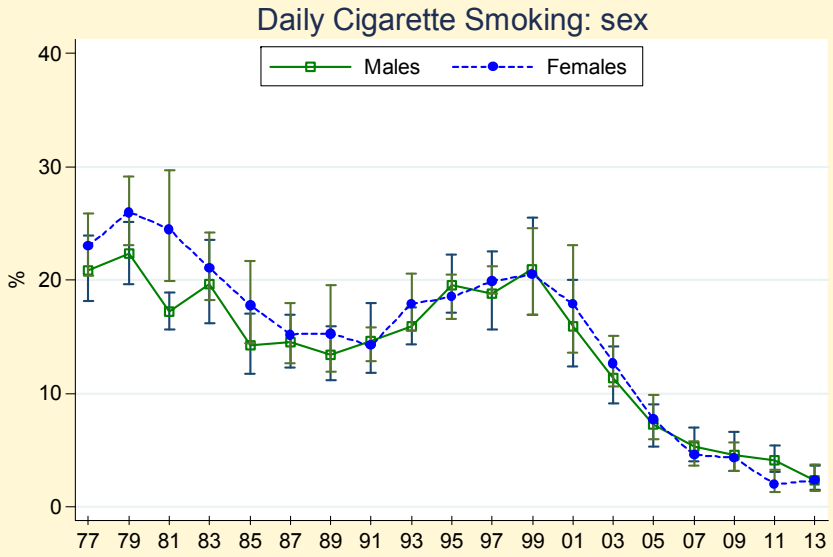
Figure 3.3.5
Past Year Daily Cigarette Smoking, 1999–2013 OSDUHS (Grades 7–12)

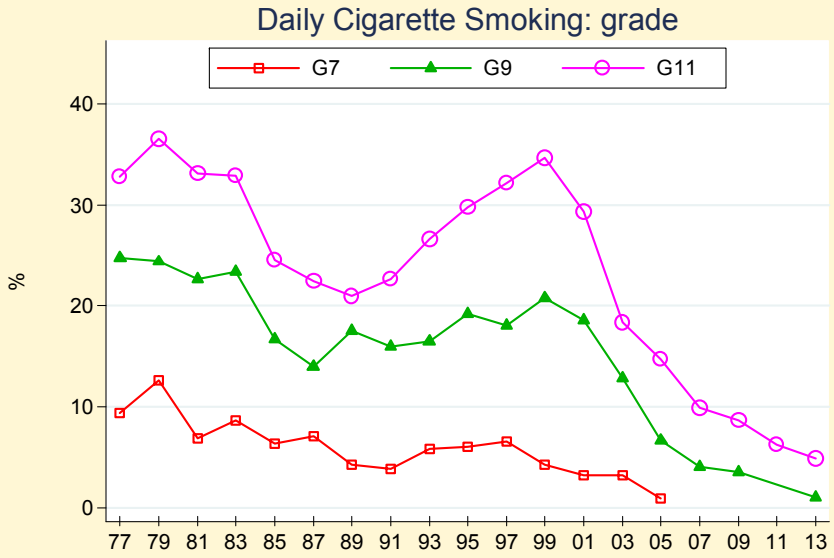


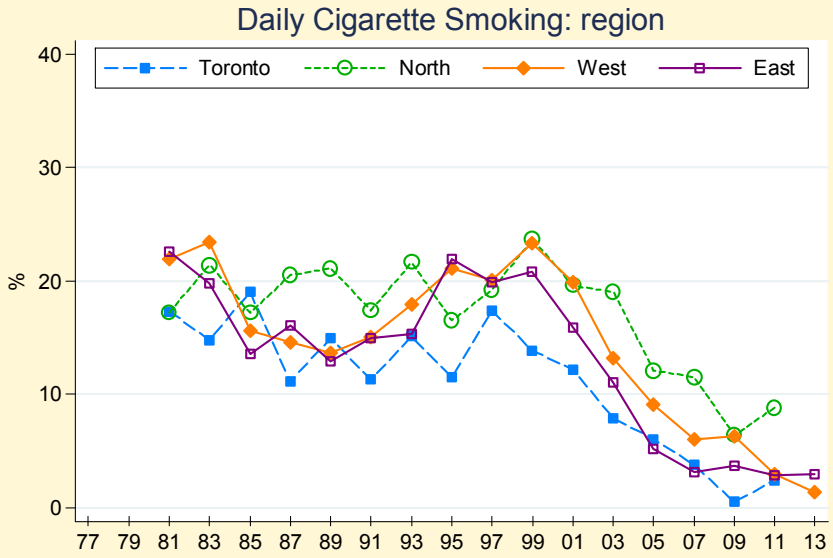
Note: some grade and region estimates were suppressed due to unreliability

Figure 3.3.6
Past Year Daily Cigarette Smoking, 1977–2013 OSDUHS (Grades 7, 9,









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

Table 3.3.2: Percentage Reporting Daily Cigarette Smoking in the Past Year, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
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** [bcd] (2.6-4.6)
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** [cd] (1.6-3.3)
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** [b] (2.8-5.8)
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)
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** [b] (1.8-4.1)
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)
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)	†	†	†	† [b]
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)	†	†	†	† [b]
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** [b] (0.6-1.7)
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** [b] (2.8-7.0)
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** [b] (3.2-7.4)
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** [b] (3.9-10.2)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**16.4** (12.2-21.7)	**13.0** (8.3-19.9)	**10.6** (8.2-13.7)	**7.4** (5.6-9.7)	**4.2** (3.2-5.5)	†	**4.3** (2.6-7.0)	† [b]
Toronto[2]	—	—	**17.4** (12.2-24.2)	**14.8** (10.2-20.9)	**19.0** (14.9-23.8)	**11.1** (7.2-16.7)	**14.9** (10.6-20.6)	**11.3** (7.2-17.2)	**15.1** (12.2-18.6)	**11.5** (8.3-15.9)	**17.4** (14.2-21.0)	**13.8** (9.9-18.9)	**12.2** (6.6-21.6)	**7.9** (5.1-12.2)	**6.0** (4.0-8.8)	**3.8** (2.4-6.0)	†	**2.4** (1.4-4.1)	†
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)	† [b]
North[2]	—	—	**17.2** (11.8-24.4)	**21.4** (16.1-28.0)	**17.2** (15.2-19.5)	**20.5** (9.4-39.1)	**21.1** (13.4-31.7)	**17.4** (14.7-20.6)	**21.6** (14.9-30.1)	**16.5** (12.8-21.0)	**19.2** (17.3-21.2)	**23.7** (15.4-34.7)	**19.6** (13.4-27.9)	**19.0** (13.1-26.8)	**12.1** (8.1-17.7)	**11.5** (8.1-16.1)	**6.4** (3.4-11.9)	**8.8** (4.6-16.1)	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**24.7** (20.9-29.0)	**21.0** (16.8-26.0)	**14.3** (12.4-16.6)	**10.9** (8.7-13.6)	**5.5** (4.2-7.2)	**6.2** (5.0-8.1)	**3.9** (2.6-5.7)	**3.4** [b] (2.2-5.3)
West[2]	—	—	**21.9** (17.0-27.7)	**23.4** (18.2-29.4)	**15.6** (14.2-17.1)	**14.6** (13.6-15.7)	**13.6** (11.0-16.7)	**15.0** (13.8-16.2)	**17.9** (17.4-18.4)	**21.1** (18.5-23.9)	**20.1** (16.8-23.8)	**23.3** (17.9-29.8)	**19.9** (15.2-25.6)	**13.2** (10.6-16.2)	**9.1** (6.7-12.3)	**6.0** (4.3-8.2)	**6.3** (4.2-9.2)	**2.9** (2.0-4.1)	**1.4** (0.9-2.3)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**19.8** (16.4-23.7)	**16.1** (11.4-22.3)	**13.1** (10.8-15.7)	**5.5** (4.2-7.3)	**4.2** (3.1-5.7)	**4.8** (3.8-6.1)	**3.0** (2.2-4.0)	**3.1** [b] (2.1-4.7)
East[2]	—	—	**22.6** (17.9-28.2)	**19.8** (17.8-21.8)	**13.5** (7.1-24.1)	**16.1** (13.6-18.9)	**12.9** (9.2-17.9)	**14.9** (11.5-19.1)	**15.3** (13.4-17.4)	**21.9** (18.7-25.4)	**19.9** (17.6-22.4)	**20.8** (16.1-26.6)	**15.9** (10.4-23.6)	**11.0** (8.0-14.9)	**5.2** (3.7-7.1)	**3.1** (2.0-4.6)	**3.7** (2.7-5.2)	**2.8** (1.8-4.3)	**2.9** (1.6-5.2)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) † estimate suppressed due to unreliability; (6) no significant differences 2013 vs. 2011; [b] 2013 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 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 Cigarette Smoking
(Figure 3.3.7)

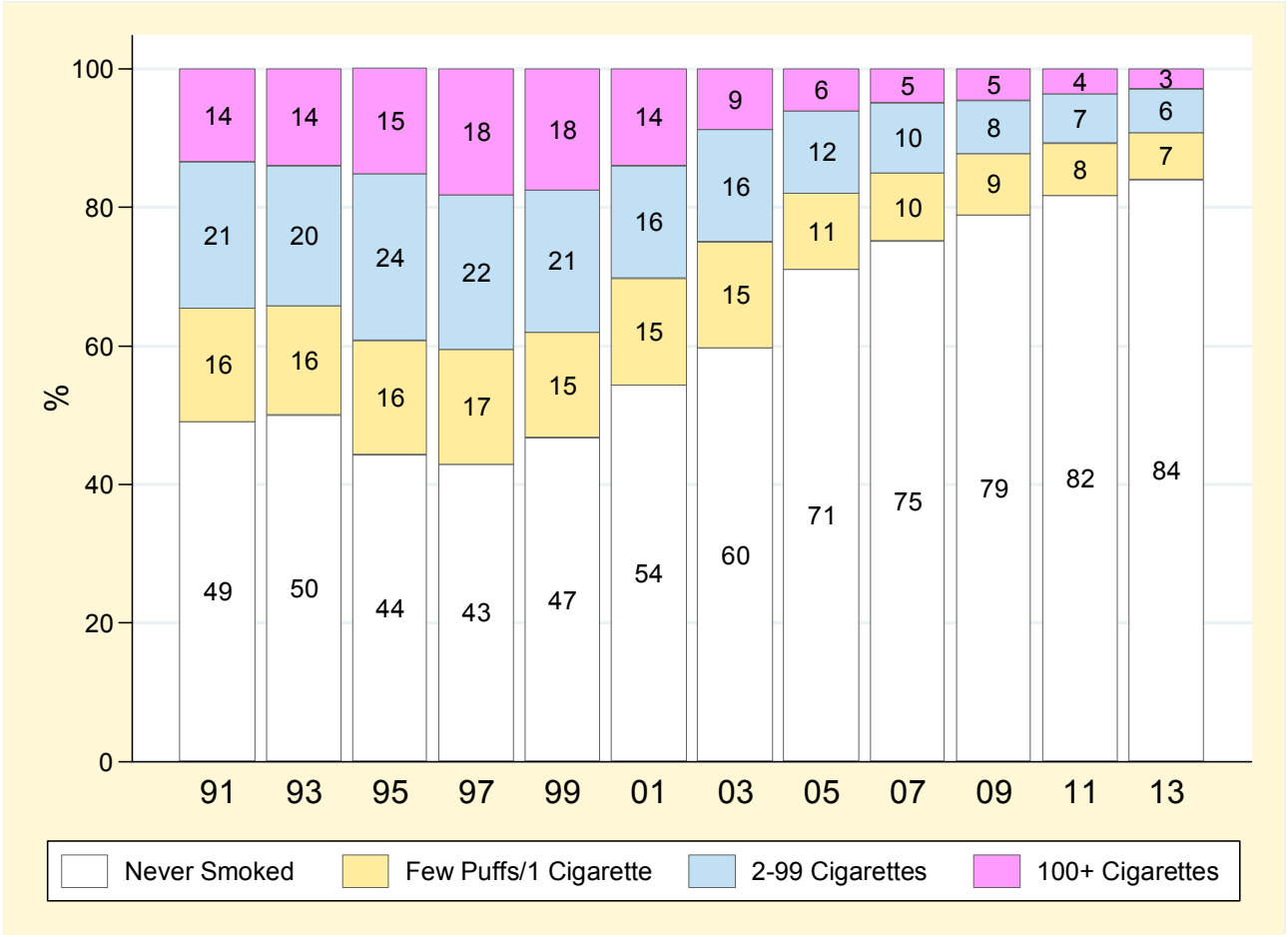
2013: Grades 7–12

■ Although 9% of all students in grades 7 through 12 are considered to be current smokers, about one-in-five (20%) have tried a cigarette at some point in their life. Specifically, about 8% of students have smoked a few puffs or one whole cigarette, while another 8% have consumed less than 100 cigarettes, and 4% have consumed 100 or more cigarettes in their lifetime.

1991–2013: 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 2013.

Figure 3.3.7
Trends in Lifetime Cigarette Smoking, 1991–2013 OSDUHS (Grades 7, 9, 11



Attempts to Quit Cigarette Smoking (Among Past Year Smokers)

(Table 3.3.3)

We asked a random half sample of about 4,700 students in grades 7–12 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.

2013: Grades 7–12

- In 2013, just over one-third (38%) of smokers in all grades reported at least one quit attempt during the 12 months before the survey. Among the 154 smokers who attempted to quit, over half report attempting to do so more than once.

Table 3.3.3: Attempts to Quit Smoking Cigarettes in the Past Year, 1999–2013 (Grades 7–12)

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

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 Contraband Cigarette Smoking

(Figure 3.3.8; Table 3.3.4)

Starting in 2009, we asked students whether they had smoked any contraband cigarettes originating from First Nations reserves during the 12 months preceding the survey. These cigarettes usually come in clear plastic bags, although some are professionally packaged with standard health warnings. By law, status Natives are entitled to purchase them on reserves without paying provincial taxes, while anyone else purchasing them must pay the requisite federal and provincial taxes. However, these cigarettes are illegally sold outside of reserves without payment of all requisite taxes and their lower price makes them especially attractive to youth.

2013: Grades 7–12

- Among the total sample of students, 2.8% report smoking contraband cigarettes during the past year. This percentage represents about 24,700 students in Ontario. Among past year smokers, the percentage reporting smoking contraband cigarettes is 32% (95% CI: 24%-40%).

- Males (3.2%) and females (2.3%) are equally likely to report smoking contraband cigarettes.

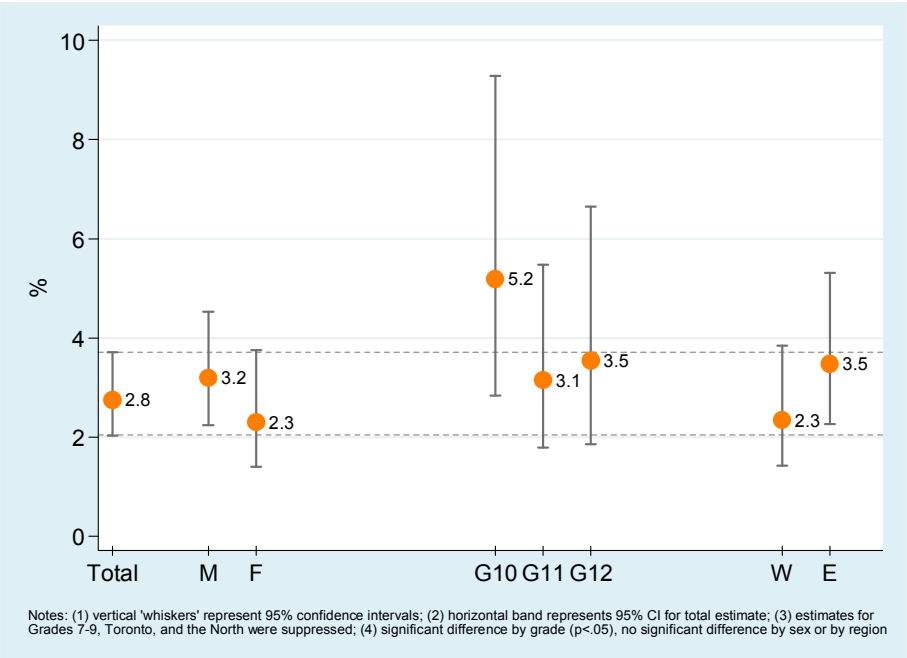
- There are significant grade differences, with the likelihood of smoking contraband cigarettes highest among 10th graders (5.2%).

- There are no statistically significant differences among the four regions.

2009–2013: Grades 7–12

- The percentage of students smoking contraband cigarettes in 2013 (2.8%) does not significantly differ from the 2011 estimate (3.9%), however it is significantly lower than the estimate from 2009 (6.4%). This decline is evident for both males and females.

Figure 3.3.8
Past Year Contraband Cigarette Smoking by Sex, Grade, and Region, 2013 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7-9, Toronto, and the North were suppressed; (4) significant difference by grade (p<.05), no significant difference by sex or by region

Table 3.3.4: Percentage Reporting Smoking Contraband Cigarettes in the Past Year, 2009–2013 OSDUHS

		2009 (*n*=4261)	2011 (*n*=4472)	2013 (*n*=4794)
Total		**6.4**	**3.9**	**2.8** [b]
(95% CI)		(5.1-7.9)	(2.8-5.3)	(2.0-3.7)
Sex				
	Males	**6.7**	**4.2**	**3.2** [b]
		(5.1-8.8)	(3.1-5.7)	(2.2-4.5)
	Females	**6.0**	**3.5**	**2.3** [b]
		(4.6-7.7)	(2.1-5.7)	(1.4-3.8)
Grade				
	7	†	†	†
	8	†	†	†
	9	†	†	†
	10	**7.6**	†	**5.2**
		(5.2-10.9)		(2.8-9.3)
	11	**11.7**	**7.5**	**3.1** [b]
		(8.5-15.9)	(4.2-12.9)	(1.8-5.5)
	12	**9.9**	**3.2**	**3.5** [b]
		(6.6-14.5)	(1.9-5.4)	(1.8-6.6)
Region				
	Toronto	†	**2.8**	†
			(1.5-5.1)	
	North	**8.9**	**8.5**	†
		(6.1-12.8)	(6.1-11.8)	
	West	**7.9**	†	**2.3** [b]
		(5.6-11.1)		(1.4-3.8)
	East	**6.0**	**3.7**	**3.5**
		(4.7-7.6)	(2.7-5.0)	(2.3-5.3)

Notes: (1) question asked of a random half sample in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) no significant differences 2013 vs. 2011; [b] 2013 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

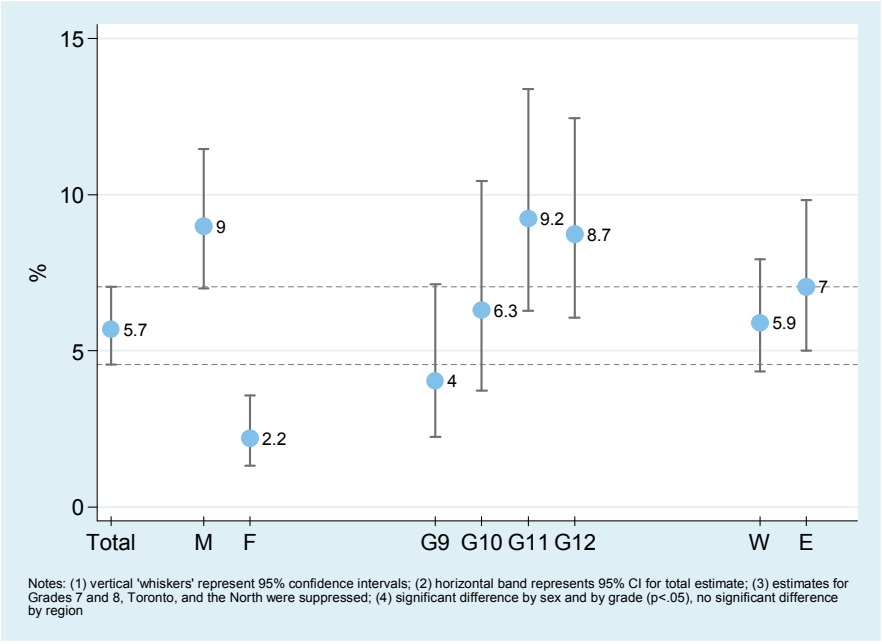
Past Year Smokeless Tobacco Use

(Figure 3.3.9; Table 3.3.5)

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 2013 (Grades 7–12)	Trends in Smokeless Tobacco Use (Grades 7–12)
Total Sample	■ Among all students, 5.7% (95% CI: 4.6%-7.0%) report using smokeless tobacco in the past year. This estimate represents about 51,800 students in Ontario.	☐ The past year prevalence of smokeless tobacco use did not significantly change between 2011 (4.6%) and 2013 (5.7%).
Sex	■ Males (9.0%) are significantly more likely than females (2.2%) to use smokeless tobacco.	☐ Neither males nor females showed a significant change in smokeless tobacco use between 2011 and 2013.
Grade	■ There is significant grade variation, with students in grades 11 and 12 most likely to use (about 9%).	☐ Among the grades, only 9th graders showed a significant change, increasing from 1.4% in 2011 to 4.0% in 2013.
Region	■ There are no significant differences among the four regions.	☐ No region showed a significant change in smokeless tobacco use between these two years.

Figure 3.3.9
Past Year Smokeless (Chewing) Tobacco Use by Sex, Grade, and Region, 2013 OSDUHS



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

Table 3.3.5: Percentage Reporting Smokeless Tobacco Use in the Past Year, 2011–2013 OSDUHS

		2011 (*n*=9288)	2013 (*n*=4794)
Total (95% CI)		**4.6** (3.9-5.5)	**5.7** (4.6-7.0)
Sex			
	Males	**7.5** (6.2-9.0)	**9.0** (7.0-11.5)
	Females	**1.6** (1.2-2.0)	**2.2** (1.3-3.6)
Grade			
	7	†	†
	8	**1.3** (0.8-2.3)	†
	9	**1.4** (0.9-2.1)	**4.0** [a] (2.3-7.1)
	10	**7.8** (5.8-10.5)	**6.3** (3.7-10.4)
	11	**7.2** (5.4-9.4)	**9.2** (6.3-13.4)
	12	**6.9** (4.9-9.7)	**8.7** (6.1-12.4)
Region			
	Toronto	**4.3** (2.6-7.0)	†
	North	**6.2** (4.8-8.1)	†
	West	**3.6** (2.5-5.0)	**5.9** (4.4-7.9)
	East	**6.0** (4.8-7.3)	**7.0** (5.0-9.8)

Notes: (1) question asked of a random half sample in 2013; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) [a] 2013 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

Past Year Waterpipe ("Hookah") Use

(Figure 3.3.10)

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 for the same diseases as those caused by 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.

For the first time in 2013, the OSDUHS asked students about their past year use of a waterpipe, also known as a "hookah" or "shisha." A random half sample of students in grades 7 through 12 was asked: "*In the last 12 months, how often did you smoke a waterpipe (also known as a hookah, shisha, hubble-bubble, gouza)?*"

2013: Grades 7–12

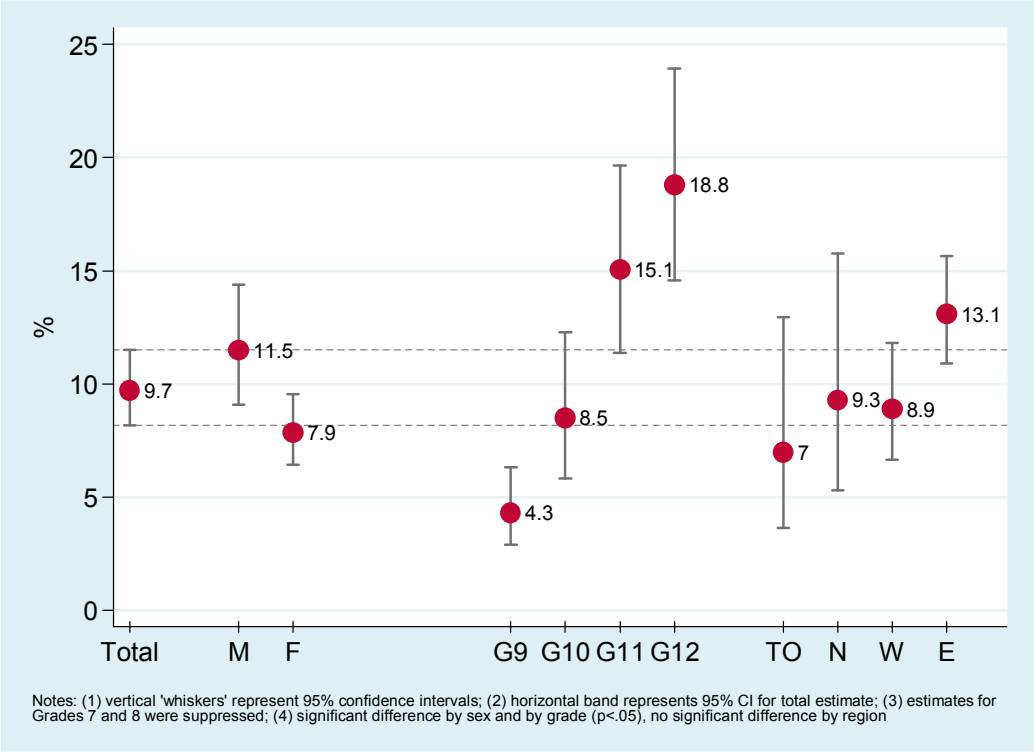
- Among students in grades 7 through 12, 9.7% (95% CI: 8.2%-11.5%) used a waterpipe at least once in the past year. This estimate represents about 88,400 students in Ontario.

- There is a significant sex difference, with males (11.5%) more likely than females (7.9%) to use a waterpipe.

- The likelihood of using a waterpipe significantly increases with grade, peaking at 18.8% in 12th grade.

- Despite some variation, there are no significant differences among the four regions.

Figure 3.3.10
Past Year Waterpipe ("Hookah") Use by Sex, Grade, and Region, 2013 OSDUHS



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

Lifetime Use of Electronic Cigarettes (Among Grades 9–12)

(Figure 3.3.11)

An electronic cigarette (e-cigarette) is a battery-powered cigarette-shaped canister used to simulate the sensation of smoking. A liquid-filled cartridge is heated and releases vapour when inhaled. The vapour resembles smoke. Some e-cigarettes contain nicotine, and some are flavoured. E-cigarettes are not approved for sale in Canada.

For the first time in 2013, the OSDUHS asked secondary schools students (grades 9–12) about their lifetime use of e-cigarettes. A random half sample was asked the following: "*Electronic cigarettes, or e-cigarettes, are electronic devices made in the shape of cigarettes that create an inhaled mist without odour. Have you ever smoked at least one puff from an electronic cigarette*?" The four response options were: (1) *Yes, smoked an e-cigarette with nicotine in it*; (2) *Yes, smoked an e-cigarette without nicotine in it*; (3) *Never smoked, but have heard of e-cigarettes*; or (4) *Never heard of e-cigarettes*.

2013: Grades 9–12

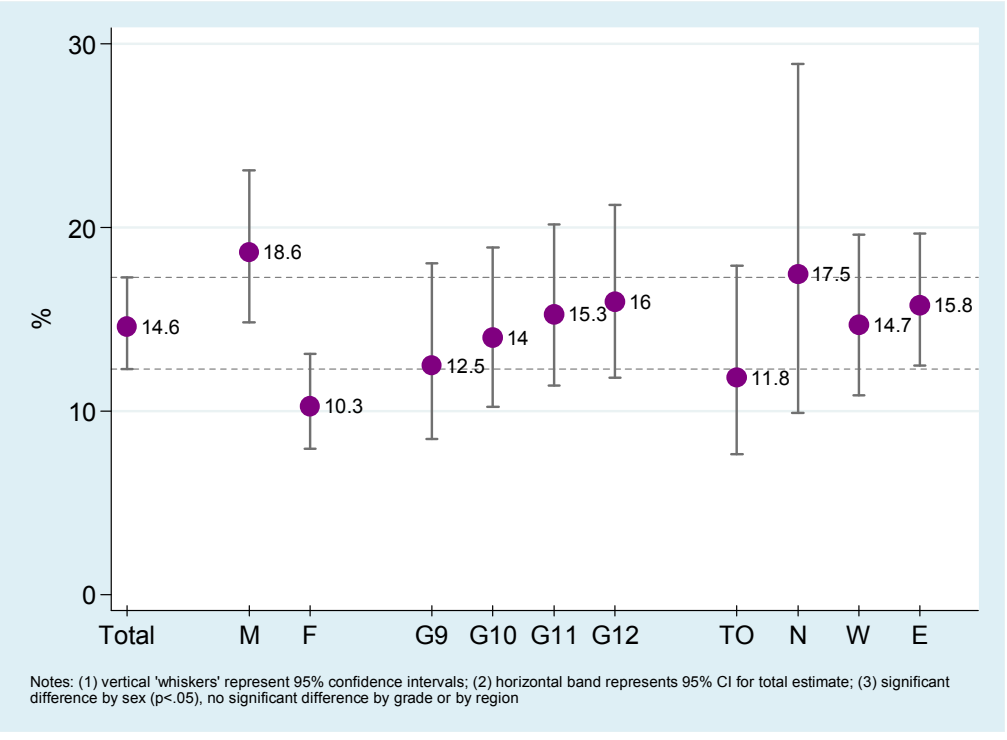
- About one-in-seven secondary students report smoking an e-cigarette in their lifetime. The estimate is 14.6% (95% CI: 12.3%-17.3%), representing about 99,800 students in Ontario. Specifically, 4.1% (95% CI: 3.2%-5.3%) smoked an e-cigarette with nicotine, and 10.5% (95% CI: 8.7%-12.7%) smoked an e-cigarette without nicotine. About one-quarter (23%) of secondary students have never heard of e-cigarettes.

- Males (18.6%) are significantly more likely than females (10.3%) to have ever smoked e-cigarettes.

- There are no significant differences among the four grades.

- There are no significant differences among the four regions.

Figure 3.3.11
Lifetime Use of Electronic Cigarettes (With or Without Nicotine) by Sex, Grade, and Region, 2013 OSDUHS



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

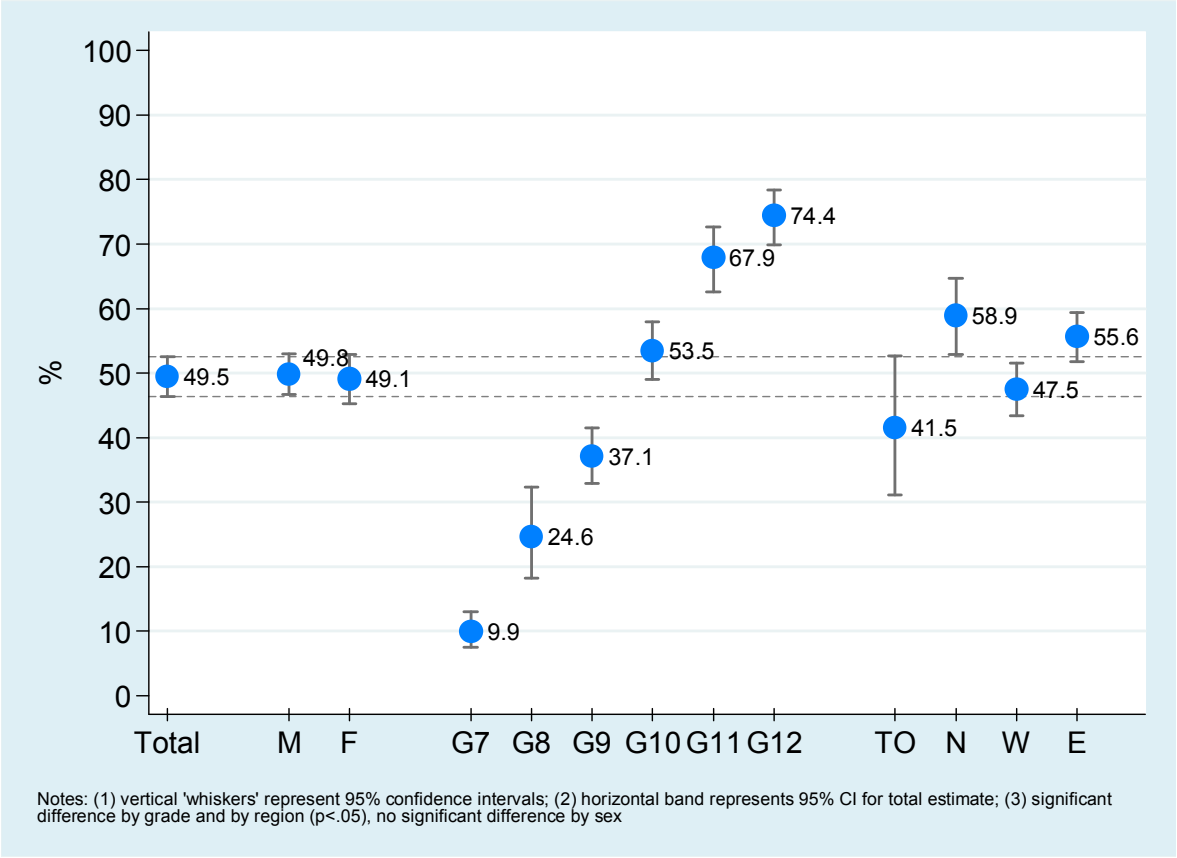
3.4 Alcohol Use

Past Year Alcohol Use

(Figures 3.4.1–3.4.3; Table 3.4.1)

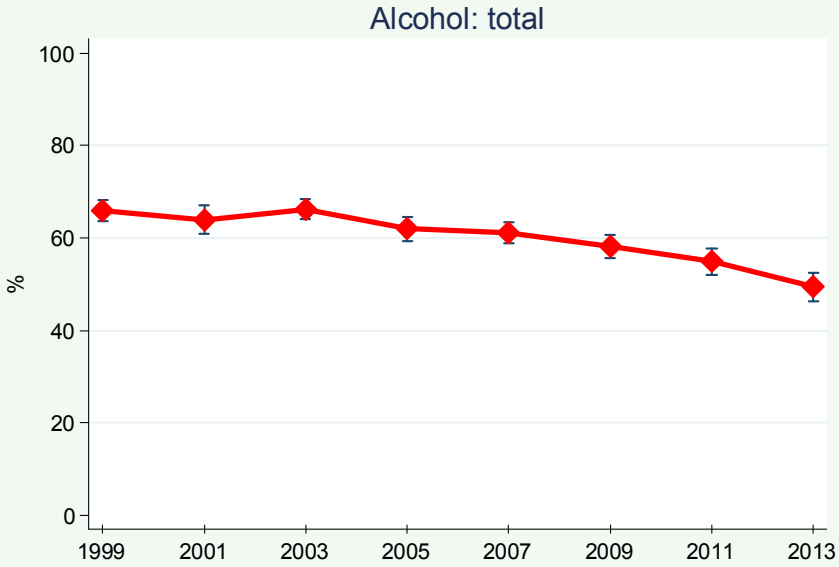
	Alcohol Use in 2013 (Grades 7–12)	Trends in Alcohol Use
Total Sample	■ Overall, half (49.5%) of students report drinking alcohol during the 12 months before the survey. This estimate excludes those who only had a sip of alcohol, but does include those who drank only on a special occasion. We estimate that between 46.4% and 52.5% of all students drink alcohol (95% CI). The percentage of 49.5% represents about 483,900 students in grades 7–12 in Ontario.	☐ The percentage of students drinking in the past year significantly decreased between 2011 (54.9%) and 2013 (49.5%). Drinking has been on a downward trend – with the exception of a temporary increase in 2003 – since 1999 when the estimate was at 66.0%. ☐ Over the long-term, rates of drinking among grades 7, 9, and 11 gradually declined between 1977 and 1993. Between 1993 and 2003 drinking gradually increased, and has since decreased once again. The current level is significantly lower than the peaks seen in the late 1970s and late 1990s/early 2000s. In fact, the prevalence of drinking reached a historical low in 2013, dropping lower than the levels seen in the early 1990s.
Sex	■ The prevalence of drinking does not significantly differ between males (49.8%) and females (49.1%).	☐ Although both sexes show a decrease in drinking between 2011 and 2013, these were not statistically significant. Both sexes do show a significant downward trend since 1999.
Grade	■ Drinking significantly increases with grade: rates climb by ten or more percentage points with each grade level, between grades 7 and 11 (from 9.9% to 67.9%). The prevalence climbs again slightly in 12th grade to 74.4%.	☐ Drinking significantly decreased between 2011 and 2013 among 7th graders (from 17.4% to 9.9%) and 9th graders (from 50.5% to 37.1%). No other grade showed a significant decrease between the last two years. However, all grades show significant declines in drinking since 1999.
Region	■ Rates of drinking significantly differ by region. Toronto students (41.5%) are least likely to drink, while Northern students are the most likely (58.9%). Students in the West and East regions fall in between.	☐ Only the West region shows a significant change between 2011 (55.7%) and 2013 (47.5%). All regions show downward trends in drinking since 1999, although the Toronto decline started later in 2003.

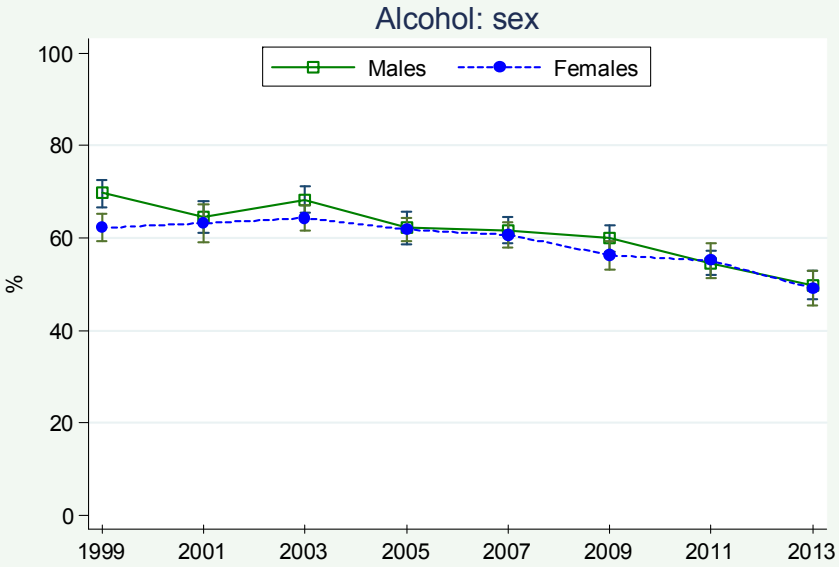
Figure 3.4.1
Past Year Alcohol Use by Sex, Grade, and Region, 2013 OSDUHS

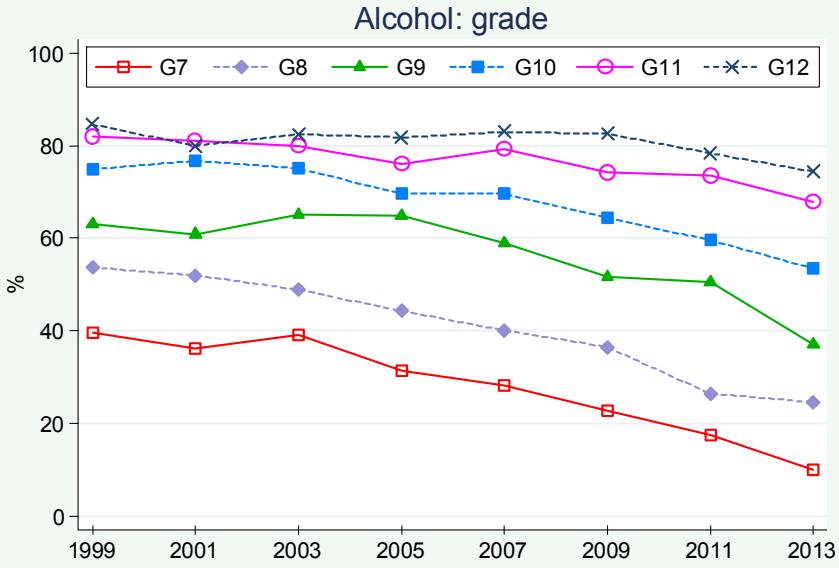


Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant difference by grade and by region (p<.05), no significant difference by sex

Figure 3.4.2
Past Year Alcohol Use, 1999–2013 OSDUHS (Grades 7–12)







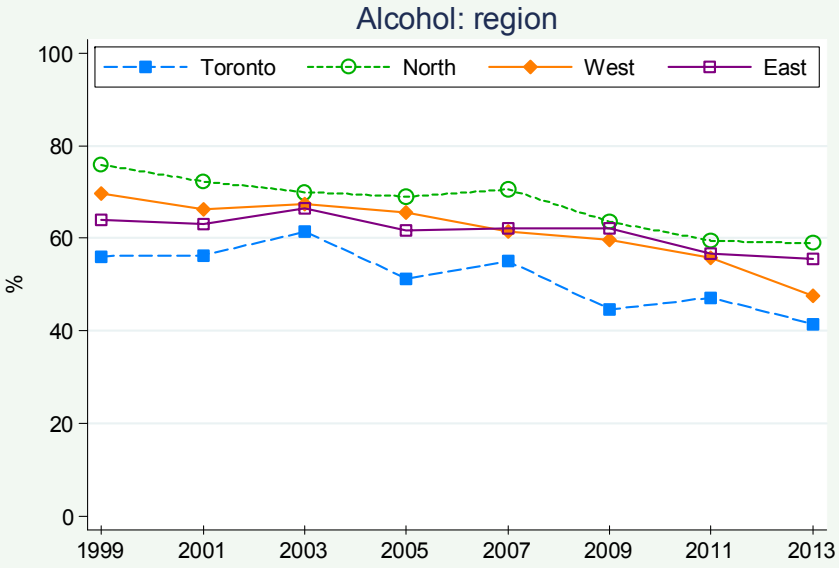


Figure 3.4.3
Past Year Alcohol Use, 1977–2013 OSDUHS (Grades 7, 9, 11 only)

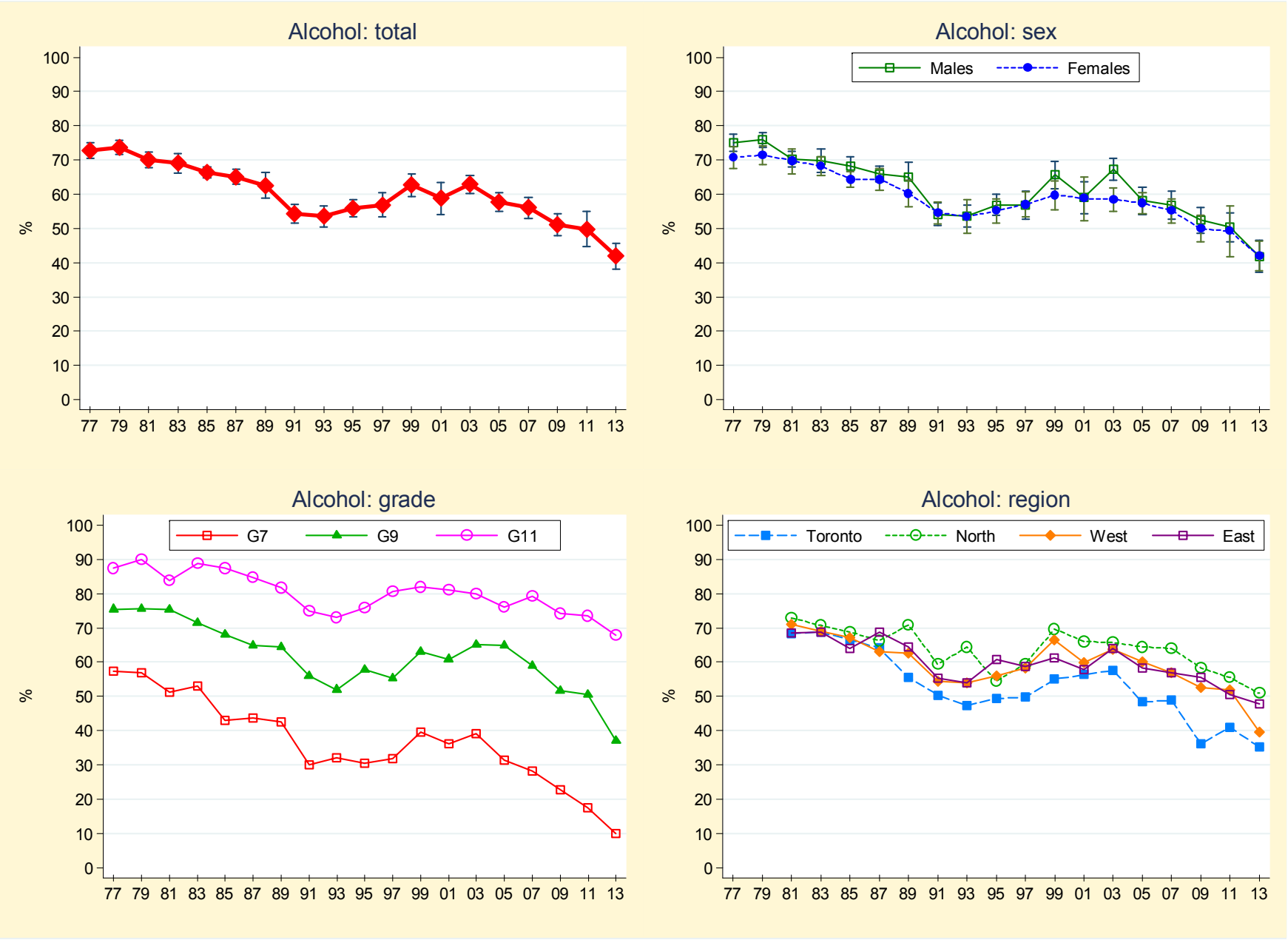


Table 3.4.1: Percentage Reporting Drinking Alcohol in the Past Year, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	
Total[1] (95% CI)	—	—	—	—	—	—	—	—	—	—	—	**66.0** (63.6-68.3)	**63.9** (60.8-67.0)	**66.2** (64.1-68.4)	**62.0** (59.4-64.6)	**61.2** (58.9-63.5)	**58.2** (55.7-60.6)	**54.9** (52.1-57.6)	**49.5** (46.4-52.5)	abcd
Total[2]	**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** (60.3-65.4)	**57.8** (54.9-60.5)	**56.1** (53.0-59.0)	**51.2** (47.9-54.4)	**49.8** (44.7-54.9)	**41.9** (38.1-45.7)	cd
Sex																				
Males[1]	—	—	—	—	—	—	—	—	—	—	—	**69.7** (66.6-72.6)	**64.6** (61.1-68.0)	**68.3** (65.4-71.1)	**62.3** (58.7-65.7)	**61.7** (58.8-64.5)	**60.0** (57.2-62.8)	**54.6** (52.0-57.2)	**49.8** (46.7-53.0)	b
Males[2]	**75.1** (72.5-77.6)	**75.9** (73.6-78.0)	**70.3** (68.0-72.5)	**69.9** (66.4-73.2)	**68.1** (65.1-71.0)	**65.9** (63.6-68.2)	**65.0** (60.5-69.3)	**54.1** (50.8-57.4)	**53.6** (50.4-56.9)	**56.9** (53.8-59.9)	**56.8** (52.6-60.9)	**65.6** (61.5-69.6)	**59.0** (54.2-63.7)	**67.4** (64.2-70.5)	**58.1** (54.0-62.1)	**56.9** (52.7-61.0)	**52.4** (48.6-56.1)	**50.4** (46.1-54.6)	**41.8** (37.3-46.5)	
Females[1]	—	—	—	—	—	—	—	—	—	—	—	**62.2** (59.2-65.2)	**63.2** (59.0-67.2)	**64.3** (61.6-67.0)	**61.8** (59.2-64.4)	**60.7** (58.0-63.5)	**56.3** (53.2-59.4)	**55.1** (51.3-58.8)	**49.1** (45.3-52.9)	b
Females[2]	**70.7** (67.5-73.8)	**71.5** (68.6-74.2)	**69.8** (66.0-73.4)	**68.2** (65.4-70.9)	**64.4** (62.1-66.6)	**64.4** (61.2-67.5)	**60.3** (56.3-64.2)	**54.6** (51.4-57.7)	**53.5** (48.5-58.4)	**55.1** (51.6-58.6)	**57.0** (53.3-60.6)	**59.8** (55.5-63.9)	**58.8** (52.2-65.1)	**58.5** (54.9-61.9)	**57.4** (54.3-60.4)	**55.2** (51.6-58.7)	**49.9** (46.0-53.8)	**49.2** (41.8-56.5)	**41.9** (37.6-46.3)	
Grade																				
7	**57.3** (53.5-61.0)	**57.0** (53.6-60.4)	**51.2** (48.6-53.8)	**53.0** (46.3-60.0)	**43.1** (39.6-46.6)	**43.6** (39.5-47.8)	**42.5** (38.5-46.6)	**30.1** (26.8-33.6)	**32.0** (25.6-39.1)	**30.5** (27.8-33.3)	**31.9** (26.1-38.3)	**39.7** (33.8-45.9)	**36.1** (29.6-43.1)	**39.1** (35.0-43.4)	**31.4** (28.1-35.0)	**28.1** (23.7-33.1)	**22.7** (18.6-27.4)	**17.4** (13.5-22.1)	**9.9** (7.5-13.0)	ab
8	—	—	—	—	—	—	—	—	—	—	—	**53.7** (49.2-58.3)	**52.0** (45.5-58.4)	**48.9** (44.5-53.4)	**44.3** (39.4-49.4)	**40.1** (34.8-45.7)	**36.5** (31.5-41.7)	**26.4** (22.6-30.5)	**24.6** (18.2-32.3)	b
9	**75.5** (72.7-78.1)	**75.6** (72.9-78.1)	**75.4** (71.4-78.9)	**71.5** (68.6-74.3)	**68.0** (65.8-70.1)	**64.8** (59.0-70.2)	**64.5** (58.1-70.5)	**56.0** (52.1-59.8)	**52.0** (49.2-54.7)	**57.8** (54.5-61.0)	**55.3** (47.4-63.0)	**63.1** (58.0-67.9)	**60.9** (54.3-67.1)	**65.1** (60.5-69.3)	**64.8** (60.4-68.9)	**58.9** (53.8-63.8)	**51.6** (46.3-56.8)	**50.5** (43.8-57.2)	**37.1** (32.9-41.5)	ab
10	—	—	—	—	—	—	—	—	—	—	—	**74.9** (69.2-79.8)	**76.8** (73.0-80.2)	**75.1** (71.1-78.7)	**69.6** (65.7-73.3)	**69.6** (65.2-73.6)	**64.5** (59.8-68.9)	**59.6** (54.9-64.2)	**53.5** (49.0-57.9)	b
11	**87.4** (85.1-89.3)	**89.9** (87.0-92.2)	**83.9** (80.3-87.0)	**88.9** (86.3-91.1)	**87.4** (84.7-89.7)	**84.8** (81.1-87.9)	**81.8** (73.1-88.2)	**75.0** (69.7-79.6)	**73.2** (68.7-77.3)	**75.8** (69.3-81.3)	**80.6** (76.3-84.3)	**82.0** (77.7-85.6)	**81.0** (75.1-85.8)	**79.9** (76.3-83.1)	**76.1** (72.3-79.5)	**79.2** (75.5-82.4)	**74.3** (70.0-78.2)	**73.5** (66.8-79.3)	**67.9** (62.6-72.7)	
12	—	—	—	—	—	—	—	—	—	—	—	**84.6** (80.8-87.8)	**80.0** (72.5-85.9)	**82.5** (77.7-86.4)	**81.8** (77.7-85.4)	**83.0** (79.5-86.0)	**82.6** (79.0-85.8)	**78.4** (74.6-81.8)	**74.4** (69.9-78.4)	

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**56.1** (49.4-62.5)	**56.3** (44.7-67.3)	**61.5** (55.8-66.9)	**51.3** (43.8-58.8)	**55.1** (46.9-63.1)	**44.6** (37.0-52.4)	**47.2** (42.0-52.5)	**41.5** (31.1-52.7)
Toronto[2]	—	—	**68.3** (60.5-75.1)	**68.8** (61.1-75.6)	**66.6** (62.0-71.0)	**64.1** (58.1-69.7)	**55.5** (40.9-69.2)	**50.4** (44.1-56.8)	**47.3** (41.3-53.4)	**49.4** (40.3-58.5)	**49.8** (39.5-60.1)	**55.0** (47.6-62.2)	**56.4** (41.4-70.3)	**57.6** (50.1-64.7)	**48.4** (40.5-56.4)	**48.9** (38.2-59.7)	**36.2** (27.1-46.5)	**40.9** (35.7-46.4)	**35.2** (23.5-49.0)
North[1]	—	—	—	—	—	—	—	—	—	—	—	**75.9** (69.3-81.5)	**72.3** (68.2-76.0)	**70.0** (65.7-73.9)	**69.0** (64.8-73.0)	**70.6** (65.1-75.6)	**63.6** (58.1-68.8)	**59.5** (54.0-64.7)	**58.9** [b] (52.9-64.7)
North[2]	—	—	**72.8** (61.6-81.7)	**70.8** (65.7-75.4)	**68.8** (64.6-72.7)	**66.3** (62.1-70.2)	**70.9** (58.2-81.0)	**59.4** (50.4-67.8)	**64.4** (50.3-76.4)	**54.5** (49.4-59.6)	**59.5** (54.7-64.1)	**69.7** (60.6-77.5)	**66.1** (60.6-71.3)	**65.7** (60.3-70.8)	**64.5** (59.0-69.7)	**64.0** (55.9-71.3)	**58.3** (52.164.3)	**55.5** (49.7-61.1)	**50.8** (44.4-57.3)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**69.7** (66.1-73.2)	**66.2** (62.3-70.0)	**67.3** (63.4-71.0)	**65.6** (62.1-69.0)	**61.5** (58.2-64.7)	**59.6** (55.6-63.4)	**55.7** (50.8-60.5)	**47.5** [ab] (43.4-51.6)
West[2]	—	—	**71.1** (68.4-73.3)	**69.0** (64.9-72.9)	**67.1** (64.5-69.6)	**63.1** (59.2-66.8)	**62.7** (57.5-67.7)	**54.4** (51.9-57.0)	**54.0** (48.2-60.0)	**56.0** (52.8-59.2)	**58.3** (52.9-63.5)	**66.4** (61.1-71.4)	**59.8** (54.6-64.8)	**63.8** (59.3-68.1)	**60.0** (56.4-63.5)	**57.0** (52.4-61.5)	**52.5** (47.3-57.5)	**51.9** (41.7-62.0)	**39.6** (34.0-45.5)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**63.9** (59.8-67.8)	**63.0** (58.7-67.2)	**66.6** (63.9-69.2)	**61.8** (56.5-66.9)	**62.2** (58.7-65.6)	**62.1** (58.5-65.6)	**56.8** (53.0-60.6)	**55.6** (51.7-59.4)
East[2]	—	—	**68.6** (64.8-72.2)	**68.7** (62.4-74.3)	**63.9** (61.6-66.2)	**68.8** (66.7-70.8)	**64.4** (60.6-68.0)	**55.3** (48.6-61.8)	**54.0** (50.7-57.3)	**60.9** (57.4-64.3)	**58.8** (52.8-64.6)	**61.3** (55.5-66.8)	**57.8** (50.8-64.4)	**64.0** (60.8-67.0)	**58.4** (52.9-63.6)	**57.0** (52.4-61.5)	**55.5** (50.5-60.4)	**50.6** (46.0-55.2)	**47.7** (43.9-51.4)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 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? (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)

2013: Grades 7–12

▪ As seen in Table 3.4.2, about 22% of all students restrict their drinking to special occasions, about 11% drink once a month or less often, another 11% drink two or three times a month, and about 6% drink at least once a week. Very few students drink on a daily basis (estimate suppressed).

1987–2013: Grades 7, 9, 11

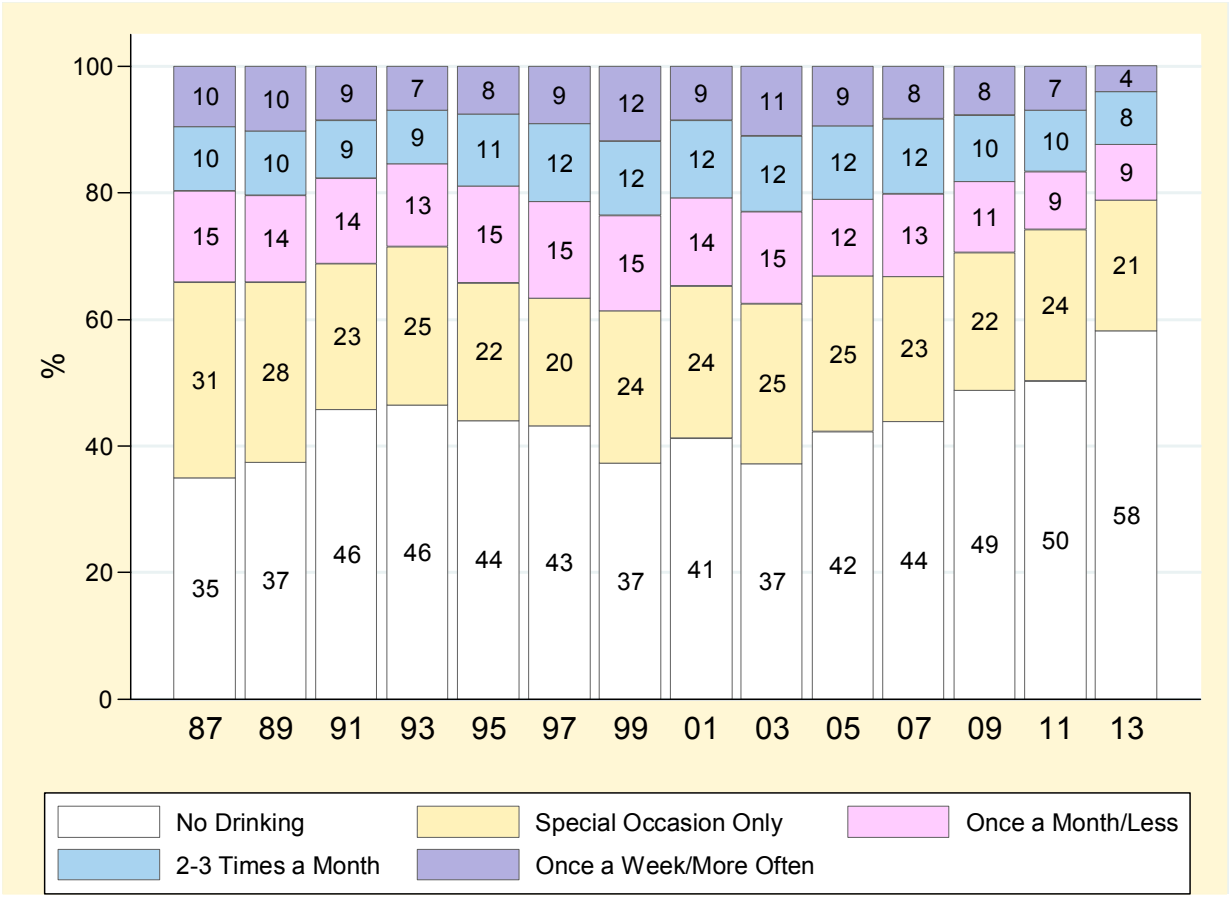
☐ Figure 3.4.4 presents trends in the frequency of past year drinking between 1987 and 2013 among the total sample. Compared with students in the late 1980s, the percentage of students reporting no drinking is higher today, and the percentage reporting drinking once a week or more often is currently lower.

Table 3.4.2: Frequency of Drinking Alcohol in the Past Year Among the Total Sample, 1999–2013 OSDUHS (Grades 7–12)

		1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
No Drinking									
Total		**34.0**	**36.1**	**33.8**	**38.0**	**38.8**	**41.8**	**45.1**	**50.5**
Sex	Males	30.3	35.4	31.7	37.7	38.3	40.0	45.4	50.2
	Females	37.8	36.8	35.7	38.2	39.3	43.7	44.9	50.9
On Special Occasions Only									
Total		**23.7**	**24.6**	**25.1**	**24.3**	**23.0**	**21.5**	**23.3**	**21.7**
Sex	Males	23.8	22.4	25.2	24.0	23.3	22.0	23.5	21.1
	Females	23.6	26.9	24.9	24.6	22.8	21.0	23.0	22.4
Once a Month or Less Often									
Total		**16.1**	**14.7**	**16.0**	**13.9**	**15.1**	**14.0**	**12.5**	**10.6**
Sex	Males	16.0	14.1	14.9	12.4	13.3	13.4	11.9	10.8
	Females	16.3	15.4	17.3	15.5	17.1	14.6	13.0	10.2
2-3 Times a Month									
Total		**13.0**	**14.2**	**13.0**	**13.5**	**12.9**	**13.0**	**11.6**	**10.7**
Sex	Males	13.3	14.8	11.9	12.8	13.6	12.8	11.6	10.8
	Females	12.6	13.6	14.2	14.2	12.1	13.3	11.6	10.6
At Least Once a Week									
Total		**12.3**	**10.0**	**11.7**	**10.1**	**9.8**	**9.5**	**7.2**	**6.4**
Sex	Males	15.1	13.0	14.0	12.7	11.0	11.4	7.1	7.0
	Females	9.4	7.1	9.6	7.3	8.6	7.4	7.2	5.7
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

Figure 3.4.4
Frequency of Drinking Alcohol in the Past Year, 1987–2013 OSDUHS
(Grades 7, 9, 11 only)



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.

2013: Grades 7–12

- As seen in Table 3.4.3, 66.6% of students did not drink alcohol during the month before the survey (thus, 33.4% did drink). About one-quarter (24.1%) of students drank only once or twice in the past month; 6.7% drank once or twice per week; and 2.6% drank three or more times per week during the past month.

- There is no significant difference between males and females regarding frequency of drinking in the past month.

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

1999–2013: Grades 7–12

☐ Table 3.4.3 also presents the past month drinking frequencies from 1999 to 2013. The percentage of students reporting not drinking at all in the past month in 2013 (66.6%) is similar to the estimate from 2011 (65.3%), but significantly lower than that found in 1999 (48.3%).

1987–2013: Grades 7, 9, 11

☐ Figure 3.4.5 presents the past month drinking frequency from 1987 to 2013, 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 each week) has remained stable.

Figure 3.4.5
Frequency of Drinking Alcohol in the Past Month, 1987–2013 OSDUHS
(Grades 7, 9, 11 only)

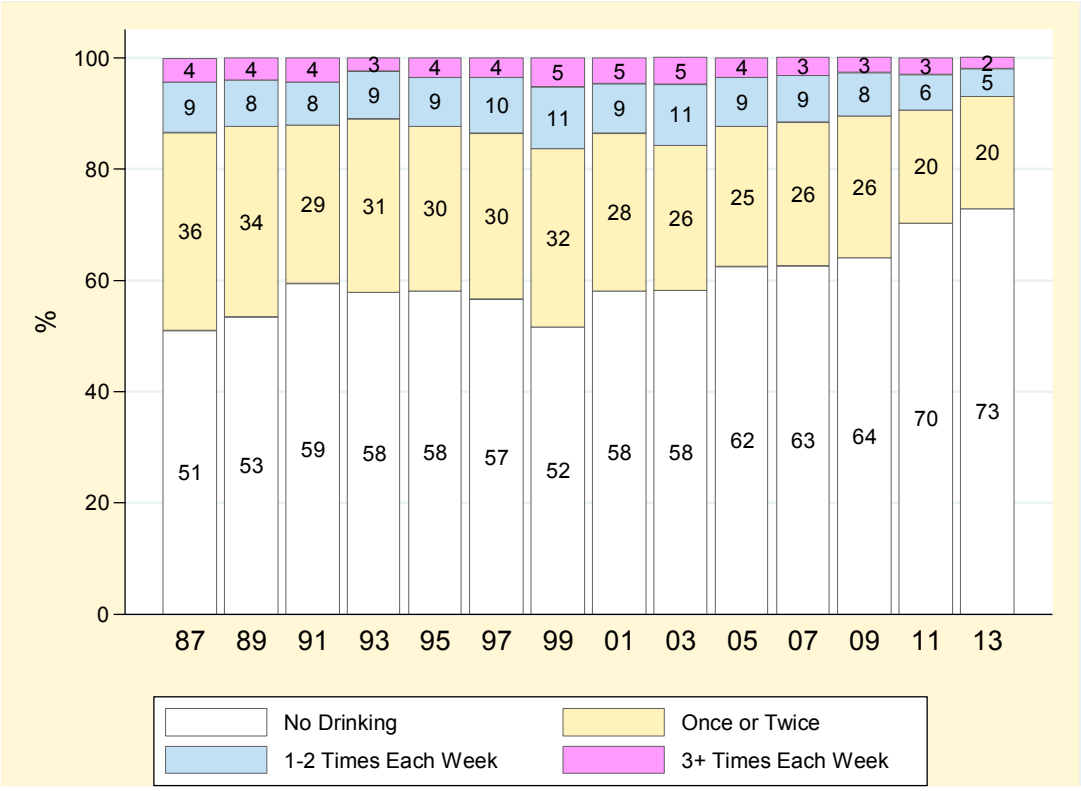


Table 3.4.3: Frequency of Drinking Alcohol in the Past Month Among the Total Sample, 1999–2013 OSDUHS (Grades 7–12)

	1999	2001	2003	2005	2007	2009	2011	2013
(*n*=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
Total								
Not in Past 4 Weeks	**48.3**	**53.7**	**54.7**	**57.3**	**57.5**	**58.1**	**65.3**	**66.6** [b]
Once or Twice	**33.5**	**30.0**	**28.7**	**28.6**	**28.6**	**28.4**	**23.3**	**24.1**
Once or Twice a Week	**12.5**	**11.5**	**11.6**	**10.2**	**9.9**	**9.4**	**8.2**	**6.7**
3 + Times a Week	**5.7**	**4.8**	**5.0**	**3.9**	**4.0**	**4.0**	**3.1**	**2.6**
Males								
Not in Past 4 Weeks	44.3	50.7	53.4	56.0	57.5	56.2	66.1	66.1
Once or Twice	33.9	28.6	27.6	27.3	27.2	28.2	22.2	23.7
Once or Twice a Week	13.5	14.5	12.7	11.3	10.5	10.2	8.3	7.2
3 + Times a Week	8.3	6.2	6.3	5.4	4.7	5.3	3.3	3.0
Females								
Not in Past 4 Weeks	52.5	56.6	56.0	58.7	57.4	60.1	64.4	67.2
Once or Twice	33.1	31.4	29.7	30.1	30.1	28.7	24.5	24.6
Once or Twice a Week	11.4	8.6	10.6	8.9	9.2	8.5	8.2	6.1
3 + Times a Week	3.1	3.4	3.7	2.3	3.3	2.6	2.9	2.1
Grade 7								
Not in Past 4 Weeks	76.4	83.0	82.4	85.4	85.6	88.6	93.5	95.3
Once or Twice	20.1	14.2	13.0	13.1	12.4	9.8	5.8	4.2
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
Once or Twice	31.7	24.5	20.1	22.6	18.3	17.0	11.0	10.3
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
Once or Twice	33.4	32.9	30.2	28.0	26.7	28.9	23.4	18.6
Once or Twice a Week	10.3	9.0	8.9	8.7	7.7	5.7	4.5	2.3
3 + Times a Week	5.5	3.2	5.2	3.4	3.2	2.3	†	1.2
Grade 10								
Not in Past 4 Weeks	42.0	40.9	47.3	52.1	51.0	54.3	63.2	65.4
Once or Twice	34.9	33.2	34.5	33.6	33.3	32.3	26.1	26.2
Once or Twice a Week	15.0	19.4	13.1	10.4	11.1	9.7	6.9	6.0
3 + Times a Week	8.0	6.6	5.1	3.9	4.6	3.6	3.8	2.4
Grade 11								
Not in Past 4 Weeks	31.6	35.6	41.0	42.3	41.2	44.5	53.0	53.0
Once or Twice	40.5	37.6	32.5	34.2	37.1	35.1	28.4	32.3
Once or Twice a Week	19.1	16.8	19.4	16.5	16.4	15.1	12.3	10.6
3 + Times a Week	8.8	9.9	7.1	6.9	5.3	5.3	6.3	4.1
Grade 12								
Not in Past 4 Weeks	29.2	34.9	34.1	35.5	35.6	34.0	43.9	44.3
Once or Twice	40.2	39.8	38.3	38.5	39.4	39.5	34.5	37.5
Once or Twice a Week	22.6	18.9	19.4	19.9	17.6	17.6	17.4	13.4
3 + Times a Week	8.0	6.4	8.2	6.1	7.4	8.9	4.2	4.8

Notes: (1) † estimate suppressed due to unreliability; (2) no significant differences among the total sample, 2013 vs. 2011; [b] 2013 vs. 1999 significant difference p<.01.

Q: During the last 4 weeks, have often did you drink alcohol (liquor, wine, beer, or coolers)?

Source: OSDUHS, Centre for Addiction & Mental Health

Heavy Episodic Drinking in the Past Month

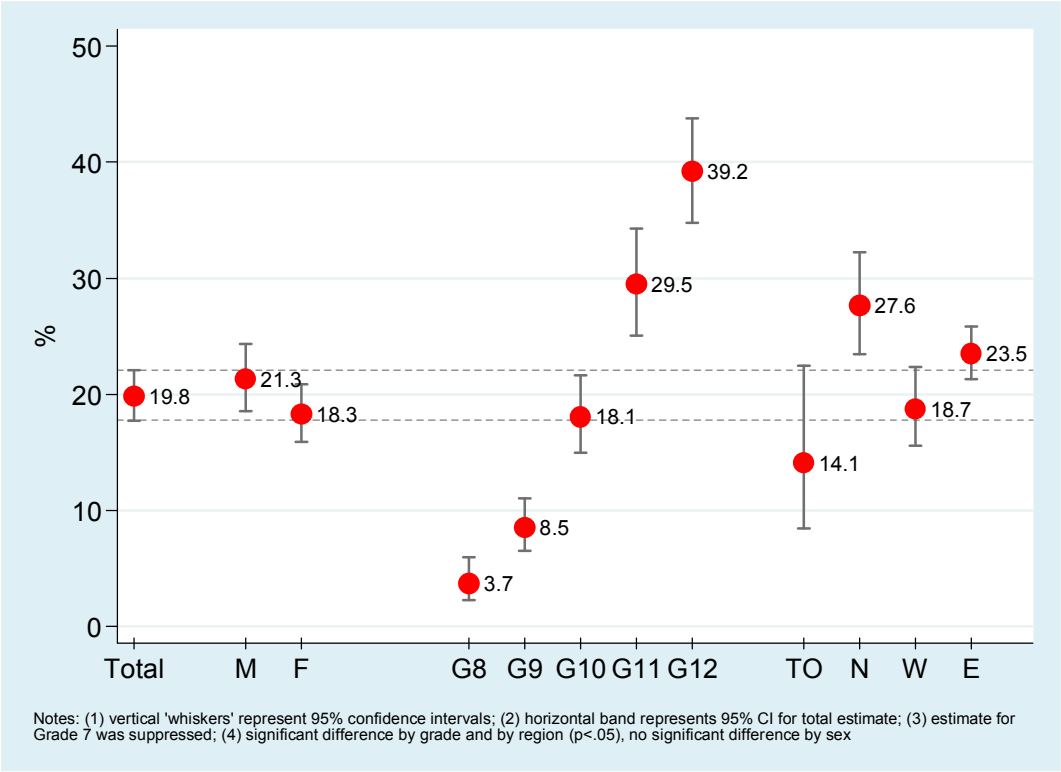
(Figures 3.4.6–3.4.12; Tables 3.4.4-3.4.6)

We use two indicators of heavy episodic drinking in this report: consuming 5 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 4 weeks.

	Heavy Episodic Drinking in 2013 (Grades 7–12)	Trends in Heavy Episodic Drinking
Total Sample	▪ One-fifth (19.8%) of students report binge drinking at least once during the four weeks before the survey. This percentage represents about 193,400 students in grades 7 through 12 in Ontario. ▪ A similar proportion (17.6%) reported becoming drunk at least once during the past month, representing about 172,000 students in Ontario. ▪ About 7.1% of all students report binge drinking two to three times during the month before the survey. Another 3.8% report binge drinking four or more times (see Table 3.4.5a).	☐ 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 2011 and 2013. However, both measures show a significant downward trend since 1999. Binge drinking declined from 27.6% in 1999 to 19.8% in 2013. Drunkenness declined from 25.0% in 1999 to 17.6% in 2013. Frequent binge drinking (e.g., four or more times in the past month) also shows a linear decline since 1999 (see Table 3.4.5a). ☐ Over the long-term, 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 of binge drinking is significantly lower than the peaks seen in the late 1970s and late 1990s/early 2000s, but is similar to the lows levels 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 and early 2000s, and decreased again recently (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 has since been on a downward trend. The current level is significantly lower than the peak seen in the late 1990s and early 2000s.
Sex	▪ Binge drinking does not significantly differ between males (21.3%) and females (18.3%). Nor is there a difference in reported drunkenness between males (17.9%) and females (17.3%).	☐ Neither sex shows a significant change in binge drinking between 2011 and 2013. Males show a significant downward trend in binge drinking between 1999 (32.1%) and 2013 (21.3%), and drunkenness (from 27.4% to

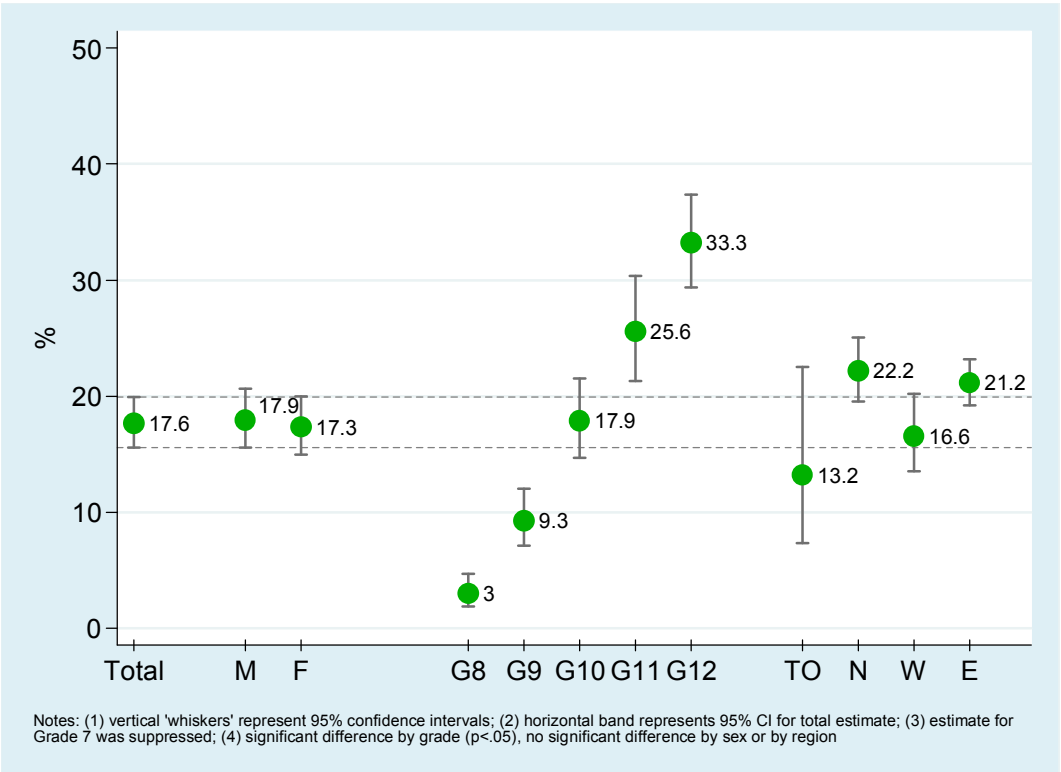
		17.9%). Among females, binge drinking did not significantly change since 1999, however drunkenness significantly declined between 1999 (22.6%) and 2013 (17.3%).
Grade	▪ Heavy episodic drinking significantly increases with grade level: binge drinking is lowest among 7th graders (suppressed estimate) and climbs to a high of 39.2% among 12th graders. Drunkenness is lowest among 7th graders (suppressed estimate) and climbs to a high of 33.3% among12th graders.	☐ Only 9th graders show a decrease in binge drinking and drunkenness between 2011 and 2013. All grades, except 12th graders, show a significant downward trend in both binge drinking and drunkenness between 1999 and 2013. Grade 12 students have remained stable on both measures since 1999.
Region	▪ Binge drinking varies significantly by region, with Toronto students (14.1%) least likely to report binge drinking and Northern students (27.6%) most likely. There is no significant regional difference regarding drunkenness.	☐ No region shows a significant change in heavy episodic drinking between 2011 and 2013. Students in the West show a significant decrease in binge drinking and drunkenness compared with their respective 1999 estimates. Northern students show a significant decrease in drunkenness since 1999. Toronto and the Eastern region show no significant declines since 1999.

Figure 3.4.6
Binge Drinking in the Past Month by Sex, Grade, and Region, 2013



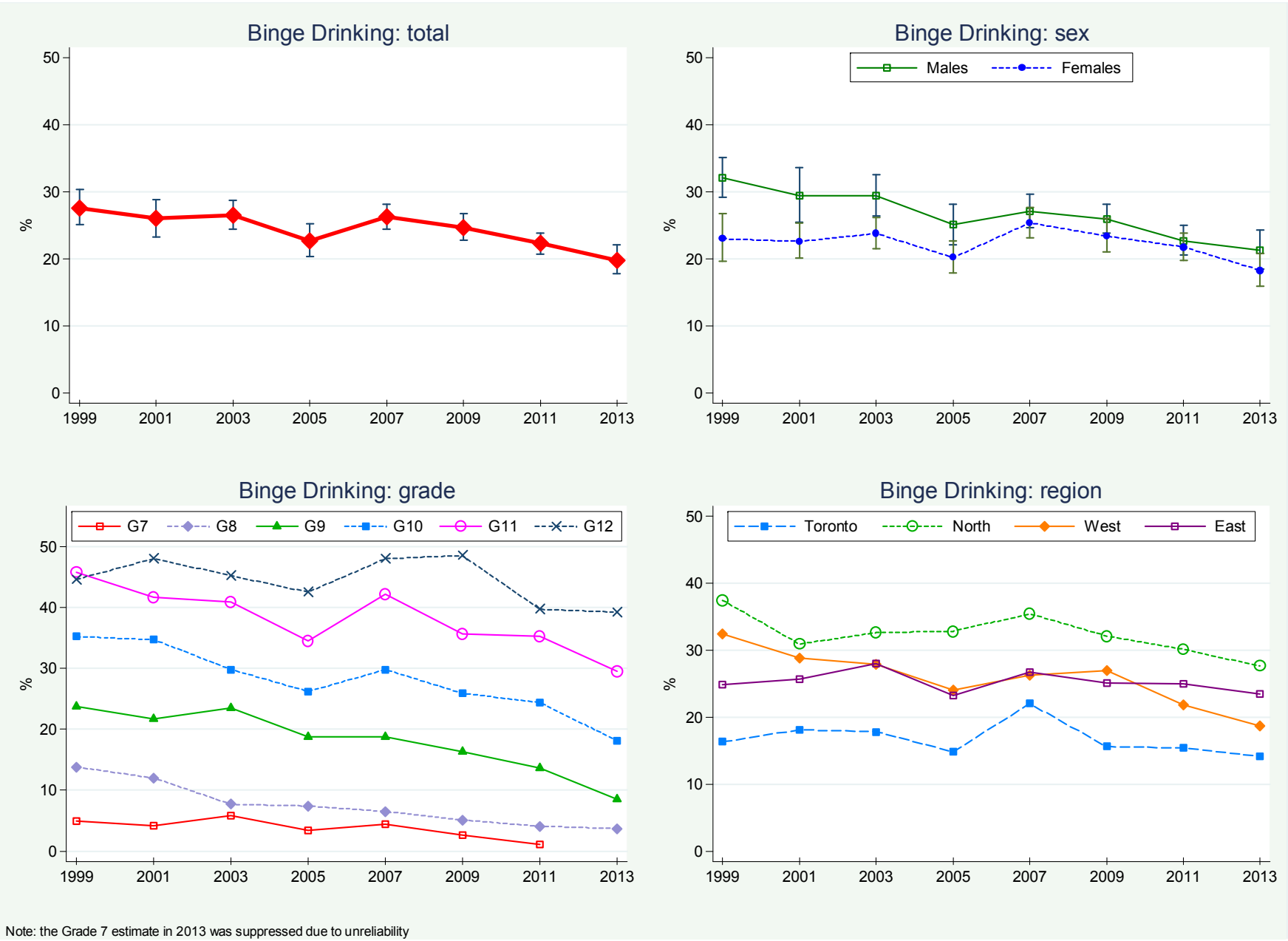
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 7 was suppressed; (4) significant difference by grade and by region (p<.05), no significant difference by sex

Figure 3.4.7
Drunkenness in the Past Month by Sex, Grade, and Region, 2013 OSDUHS



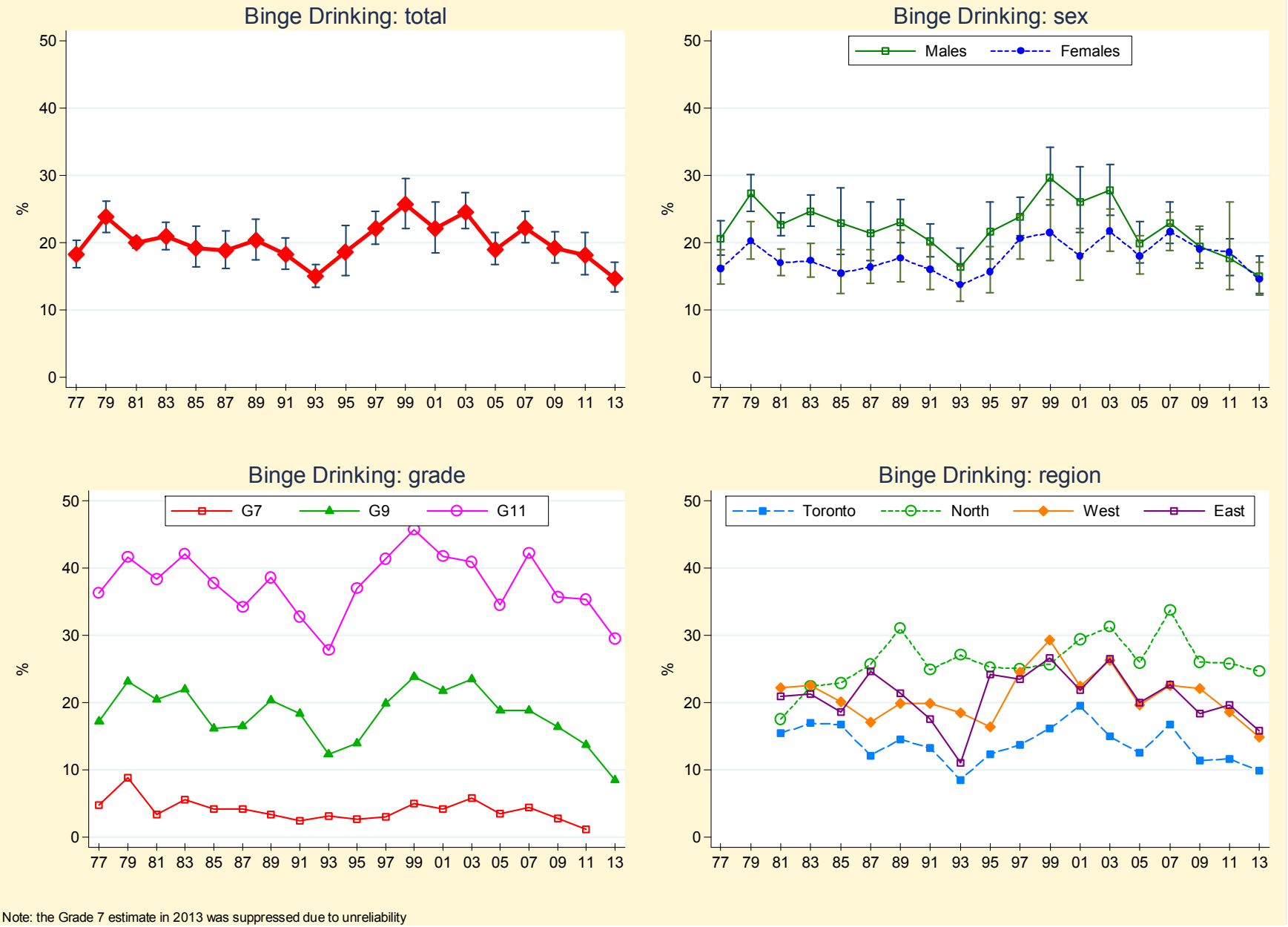
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 7 was suppressed; (4) significant difference by grade (p<.05), no significant difference by sex or by region

Figure 3.4.8
Binge Drinking in the Past Month, 1999–2013 OSDUHS (Grades 7–12)



Note: the Grade 7 estimate in 2013 was suppressed due to unreliability

Figure 3.4.9
Binge Drinking in the Past Month, 1977–2013 OSDUHS (Grades 7, 9, 11 only)



Note: the Grade 7 estimate in 2013 was suppressed due to unreliability

Figure 3.4.10
Frequency of Binge Drinking in the Past Month, 1979–2013 OSDUHS
(Grades 7, 9, 11 only)

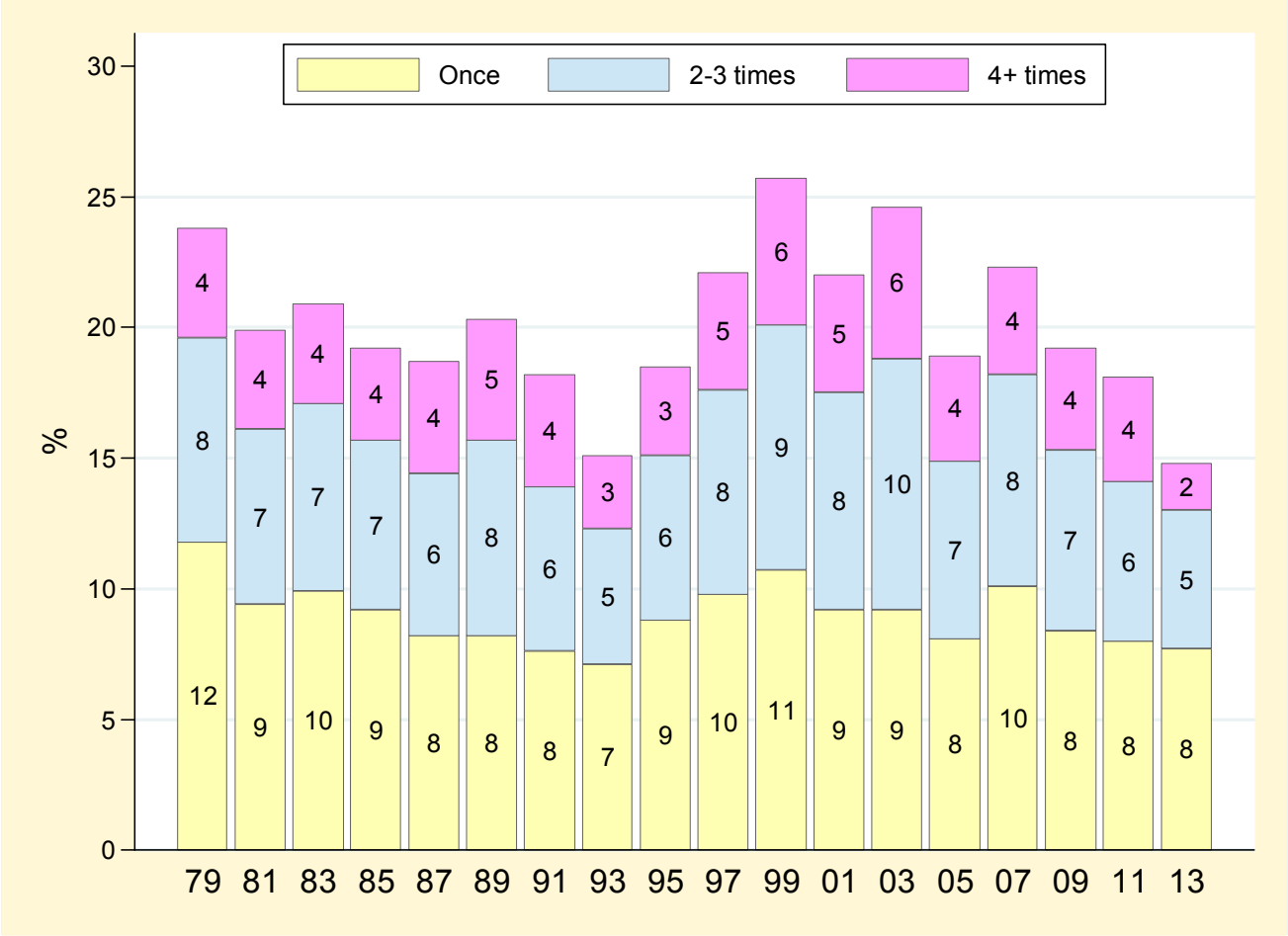
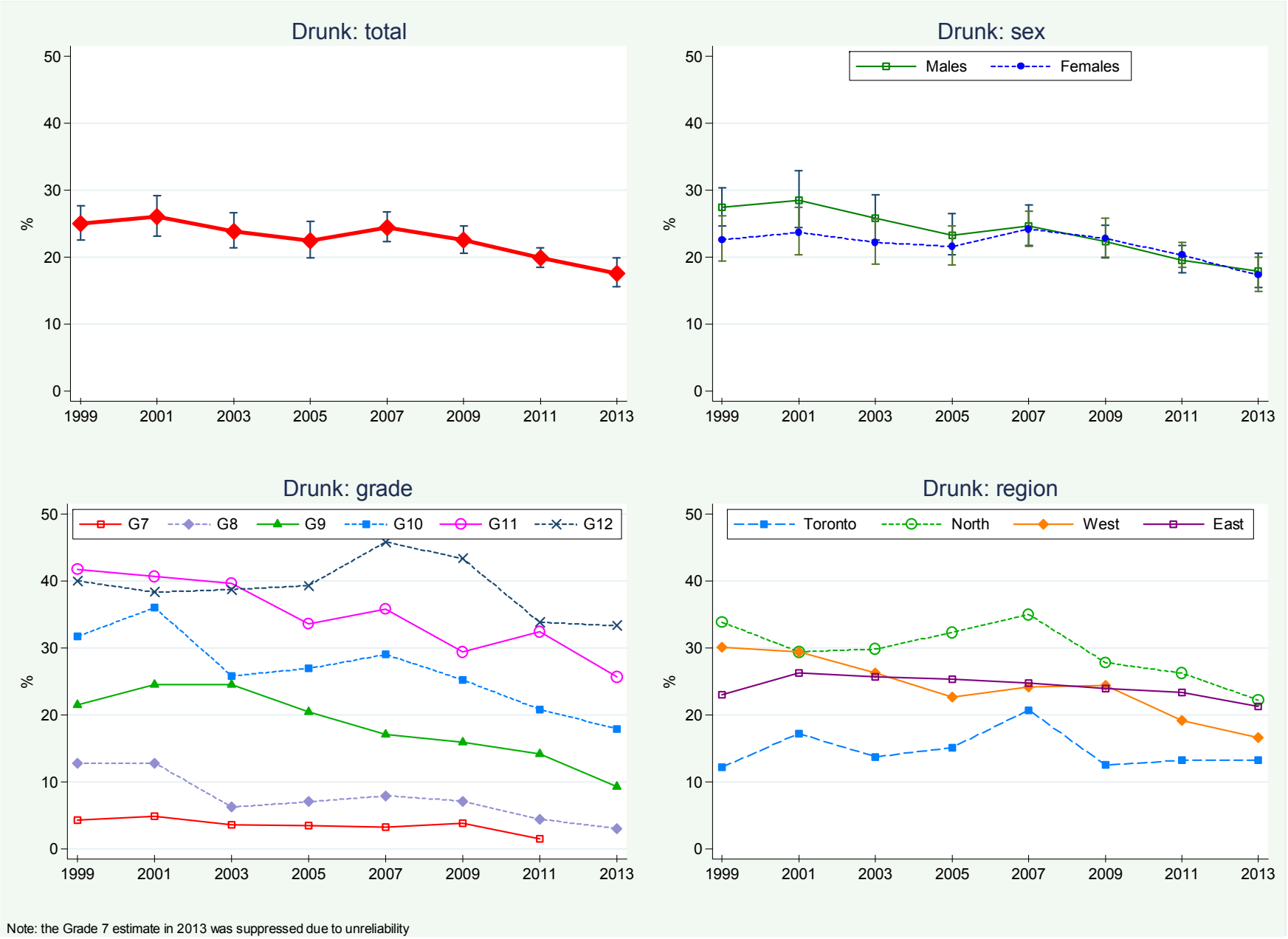
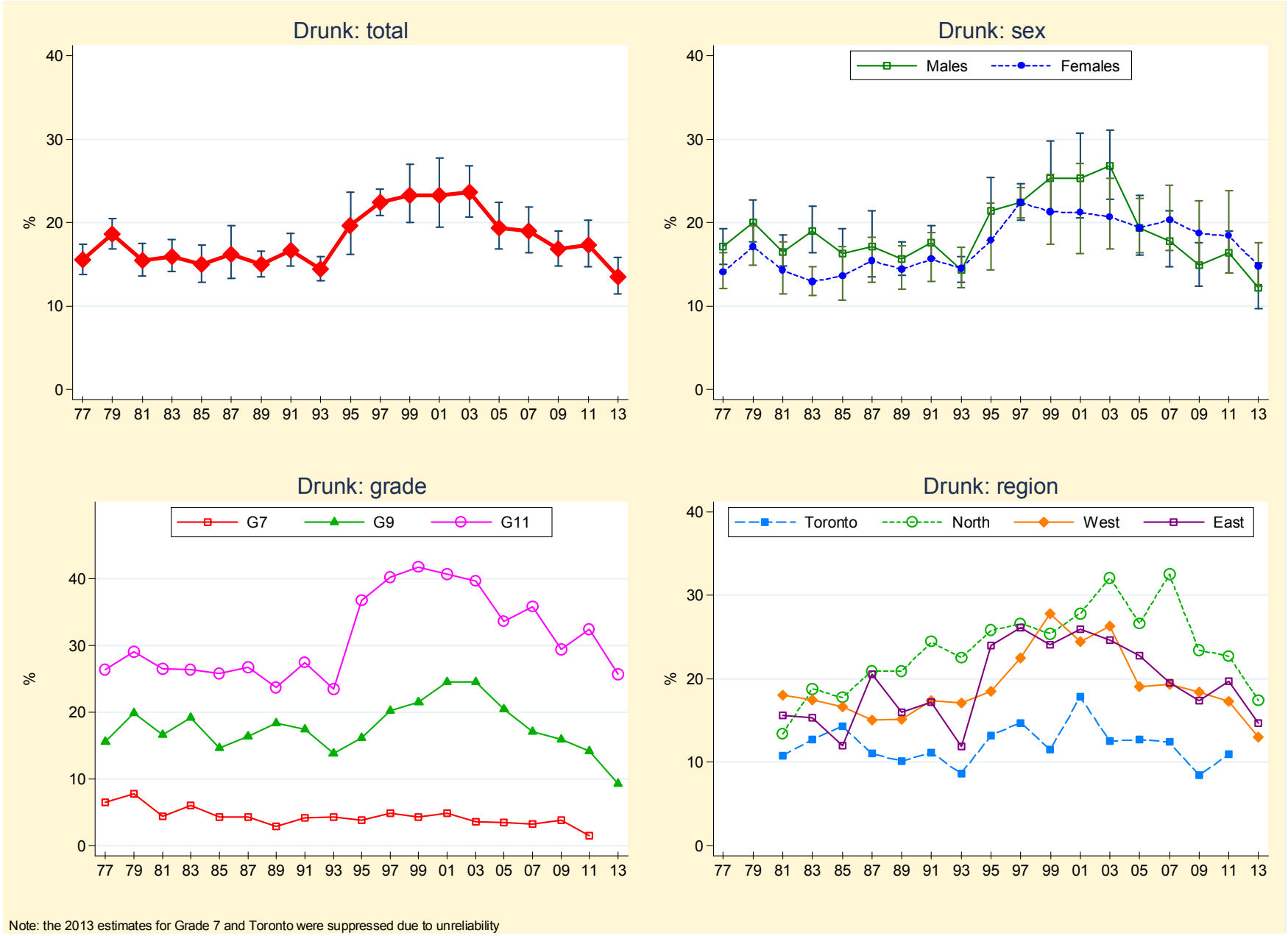


Figure 3.4.11
Drunkenness in the Past Month, 1999–2013 OSDUHS (Grades 7–12)



Note: the Grade 7 estimate in 2013 was suppressed due to unreliability

Figure 3.4.12
Drunkenness in the Past Month, 1977–2013 OSDUHS (Grades 7, 9, 11 only)



Note: the 2013 estimates for Grade 7 and Toronto were suppressed due to unreliability

Table 3.4.4: Percentage Reporting Binge Drinking in the Past Month, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)	
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)	
Total[1] (95% CI)	—	—	—	—	—	—	—	—	—	—	—	**27.6** (25.1-30.3)	**26.0** (23.3-28.8)	**26.5** (24.4-28.7)	**22.7** (20.4-25.2)	**26.3** (24.4-28.2)	**24.7** (22.8-26.7)	**22.3** (20.7-23.9)	**19.8** (17.8-22.1)	bc
Total[2]	**18.3** (16.3-20.4)	**23.8** (21.5-26.2)	**20.0** (19.2-20.8)	**20.9** (19.0-23.0)	**19.2** (16.4-22.5)	**18.8** (16.2-21.7)	**20.3** (17.5-23.5)	**18.3** (16.0-20.7)	**15.0** (13.4-16.8)	**18.6** (15.1-22.6)	**22.1** (19.8-24.6)	**25.7** (22.1-29.6)	**22.1** (18.5-26.1)	**24.6** (22.1-27.4)	**19.0** (16.7-21.5)	**22.2** (20.0-24.6)	**19.2** (17.0-21.6)	**18.2** (15.2-21.5)	**14.7** (12.6-17.1)	d
Sex																				
Males[1]	—	—	—	—	—	—	—	—	—	—	—	**32.1** (29.2-35.1)	**29.4** (25.5-33.6)	**29.4** (26.4-32.6)	**25.1** (22.1-28.2)	**27.1** (24.7-29.7)	**25.9** (23.9-28.1)	**22.7** (20.6-25.0)	**21.3** (18.5-24.3)	b
Males[2]	**20.6** (18.2-23.3)	**27.3** (24.6-30.1)	**22.7** (21.1-24.4)	**24.7** (22.4-27.1)	**22.9** (18.3-28.1)	**21.4** (17.3-26.0)	**23.0** (20.0-26.4)	**20.2** (17.9-22.8)	**16.4** (13.9-19.2)	**21.6** (17.6-26.1)	**23.8** (21.1-26.8)	**29.7** (25.6-34.2)	**26.1** (21.5-31.3)	**27.7** (24.1-31.6)	**19.9** (17.0-23.1)	**22.9** (19.9-26.1)	**19.4** (17.0-22.0)	**17.7** (15.1-20.6)	**15.0** (12.5-18.0)	
Females[1]	—	—	—	—	—	—	—	—	—	—	—	**23.0** (19.7-26.8)	**22.6** (20.1-25.4)	**23.8** (21.5-26.2)	**20.2** (17.9-22.7)	**25.4** (23.1-27.7)	**23.4** (21.0-26.0)	**21.8** (19.8-23.9)	**18.3** (15.9-20.8)	
Females[2]	**16.2** (13.9-18.9)	**20.2** (17.6-23.1)	**17.0** (15.1-19.1)	**17.3** (14.9-19.9)	**15.5** (12.5-19.0)	**16.4** (14.0-19.0)	**17.7** (14.2-21.9)	**16.0** (13.0-19.7)	**13.7** (11.3-16.5)	**15.7** (12.6-19.4)	**20.6** (17.6-24.1)	**21.5** (17.3-26.4)	**18.0** (14.4-22.1)	**21.7** (18.7-25.0)	**18.0** (15.4-21.0)	**21.6** (18.8-24.5)	**19.1** (16.2-22.4)	**18.6** (13.0-26.0)	**14.5** (12.2-17.1)	
Grade																				
7	**4.7** (3.4-6.5)	**8.8** (6.8-11.2)	**3.3** (2.4-4.6)	**5.5** (2.9-10.3)	**4.1** (1.9-8.4)	**4.2** (2.5-6.9)	**3.3** (2.4-4.5)	**2.4** (1.5-4.0)	**3.1** (2.1-4.6)	**2.6** (2.2-3.1)	**3.0** (2.3-3.9)	**5.0** (3.5-7.1)	**4.2** (2.7-6.7)	**5.8** (4.0-8.4)	**3.4** (2.1-5.5)	**4.4** (2.9-6.6)	**2.7** (1.6-4.5)	**1.1** (0.6-2.1)	†	b
8	—	—	—	—	—	—	—	—	—	—	—	**13.8** (11.1-16.9)	**12.0** (8.5-16.8)	**7.7** (5.6-10.5)	**7.4** (5.8-9.5)	**6.5** (4.5-9.4)	**5.0** (3.5-7.2)	**4.1** (2.8-5.9)	**3.7** (2.3-5.9)	b
9	**17.2** (14.3-20.6)	**23.1** (20.0-26.5)	**20.2** (18.9-21.6)	**21.9** (19.6-24.3)	**16.1** (10.6-23.7)	**16.5** (12.6-21.3)	**20.3** (17.7-23.2)	**18.3** (13.8-23.8)	**12.3** (9.7-15.4)	**13.9** (9.1-20.6)	**19.8** (15.6-24.9)	**23.8** (18.7-29.7)	**21.7** (17.0-27.2)	**23.5** (20.3-27.0)	**18.8** (15.4-22.7)	**18.8** (15.6-22.4)	**16.3** (12.9-20.4)	**13.7** (10.7-17.4)	**8.5** (6.5-11.0)	ab
10	—	—	—	—	—	—	—	—	—	—	—	**35.2** (29.7-41.0)	**34.7** (30.6-39.0)	**29.8** (25.7-34.3)	**26.2** (22.8-30.0)	**29.8** (26.2-33.6)	**25.9** (22.0-30.3)	**24.4** (19.0-30.8)	**18.1** (14.9-21.6)	b
11	**36.2** (32.2-40.5)	**41.6** (36.8-46.5)	**38.3** (32.1-44.9)	**42.1** (38.8-45.4)	**37.7** (32.5-43.2)	**34.2** (26.2-43.2)	**38.6** (30.8-47.1)	**32.8** (28.5-37.4)	**27.7** (24.5-31.2)	**36.9** (28.5-45.2)	**41.4** (36.3-46.6)	**45.7** (39.1-52.5)	**41.7** (36.1-47.5)	**40.9** (36.0-46.0)	**34.5** (30.4-38.8)	**42.2** (37.7-47.0)	**35.6** (31.3-40.0)	**35.3** (30.9-40.0)	**29.5** (25.1-34.3)	b
12	—	—	—	—	—	—	—	—	—	—	—	**44.6** (38.6-50.7)	**48.0** (37.1-59.0)	**45.2** (39.9-50.6)	**42.5** (37.8-47.4)	**48.0** (44.1-51.9)	**48.5** (44.1-52.9)	**39.7** (35.3-44.3)	**39.2** (34.8-43.8)	

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**16.3** (13.0-20.3)	**18.1** (12.0-26.4)	**17.8** (14.5-21.7)	**14.8** (11.4-19.1)	**22.0** (16.4-28.7)	**15.6** (10.7-22.1)	**15.4** (11.3-20.6)	**14.1** (8.5-22.5)
Toronto[2]	—	—	**15.4** (13.3-17.9)	**16.9** (12.4-22.5)	**16.7** (10.1-26.2)	**12.1** (8.5-16.8)	**14.5** (7.4-26.3)	**13.2** (10.3-16.7)	**8.5** (6.4-11.1)	**12.3** (6.9-21.1)	**13.7** (11.8-15.8)	**16.1** (12.6-20.4)	**19.5** (11.7-30.8)	**14.9** (11.0-19.7)	**12.5** (9.7-15.8)	**16.7** (11.0-24.4)	**11.3** (5.9-20.5)	**11.6** (9.3-14.4)	**9.8** (5.1-17.9)
North[1]	—	—	—	—	—	—	—	—	—	—	—	**37.4** (31.1-44.2)	**30.9** (26.0-36.3)	**32.6** (28.2-37.3)	**32.8** (28.5-37.4)	**35.4** (31.3-39.6)	**32.1** (28.1-36.5)	**30.1** (25.3-35.4)	**27.6** (23.5-32.3)
North[2]	—	—	**17.5** (14.2-21.4)	**22.4** (18.2-27.4)	**22.9** (18.6-27.9)	**25.6** (17.0-36.6)	**31.0** (22.2-41.4)	**24.8** (15.8-36.9)	**27.0** (21.5-33.2)	**25.2** (18.4-33.4)	**25.0** (20.4-30.2)	**25.7** (19.0-33.8)	**29.4** (23.4-36.1)	**31.2** (25.6-37.3)	**25.9** (21.6-30.7)	**33.7** (27.2-41.0)	**26.0** (20.2-32.7)	**25.8** (18.0-35.5)	**24.6** (18.9-31.3)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**32.4** (27.9-37.3)	**28.8** (24.6-33.4)	**27.9** (24.3-31.8)	**24.0** (20.5-27.8)	**26.2** (23.5-29.1)	**26.9** (23.8-30.2)	**21.8** (20.2-23.5)	**18.7** [b] (15.6-22.3)
West[2]	—	—	**22.2** (21.4-23.1)	**22.5** (18.9-26.6)	**20.1** (17.0-23.8)	**17.0** (12.5-22.6)	**19.8** (15.3-25.3)	**19.8** (16.9-23.2)	**18.4** (15.4-21.9)	**16.4** (10.0-25.7)	**24.5** (22.1-27.1)	**29.3** (22.6-37.0)	**22.4** (17.8-27.9)	**26.2** (22.1-30.8)	**19.6** (16.2-23.5)	**22.5** (19.6-25.6)	**22.1** (18.6-26.2)	**18.6** (13.2-25.7)	**14.8** (11.7-18.6)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**24.8** (21.1-28.9)	**25.6** (21.5-30.3)	**28.0** (24.2-32.1)	**23.2** (18.5-28.8)	**26.7** (23.9-29.7)	**25.1** (22.3-28.0)	**25.0** (21.9-28.4)	**23.5** (21.3-25.9)
East[2]	—	—	**20.9** (19.0-22.8)	**21.2** (18.9-23.6)	**18.6** (12.5-26.8)	**24.6** (21.2-28.4)	**21.4** (18.6-24.5)	**17.5** (13.0-23.1)	**11.0** (8.9-13.6)	**24.2** (22.0-26.5)	**23.5** (17.3-31.2)	**26.6** (21.1-33.0)	**21.8** (15.2-30.3)	**26.5** (21.6-32.2)	**20.0** (15.3-25.9)	**22.6** (18.7-26.9)	**18.3** (15.2-21.7)	**19.6** (16.4-23.1)	**15.8** (12.7-19.4)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: How many times in the last 4 weeks have you had 5 or more drinks of alcohol on the same occasion?

Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.4.5a: Frequency of Binge Drinking in the Past Month, 1999–2013 OSDUHS (Grades 7–12)

		Percentage of Total Sample							
		1999	**2001**	**2003**	**2005**	**2007**	**2009**	**2011**	**2013**
	(*n*=)	(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
Total									
	Did Not	**72.4**	**74.0**	**73.5**	**77.3**	**73.7**	**75.3**	**77.8**	**80.2**
	Once	**11.3**	**10.7**	**10.1**	**9.3**	**11.4**	**9.7**	**9.2**	**8.9**
	2 to 3 times	**10.2**	**9.9**	**9.9**	**8.5**	**9.6**	**9.2**	**8.2**	**7.1**
	4 + times	**6.1**	**5.4**	**6.4**	**4.9**	**5.2**	**5.8**	**4.8**	**3.8**
Males									
	Did Not	67.9	70.6	70.6	74.9	72.9	74.1	77.3	78.7
	Once	11.0	10.8	10.7	9.1	11.3	9.4	9.1	8.9
	2 to 3 times	12.8	11.4	10.2	9.6	9.5	9.6	8.4	7.9
	4 + times	8.3	7.1	8.4	6.3	6.3	6.9	5.2	4.6
Females									
	Did Not	77.0	77.4	76.2	79.8	74.6	76.6	78.2	81.8
	Once	11.7	10.6	9.6	9.5	11.5	10.0	9.3	8.9
	2 to 3 times	7.5	8.4	9.6	7.3	9.7	8.8	8.0	6.5
	4 + times	3.9	3.6	4.5	3.4	4.1	4.6	4.4	2.9
Grade 7									
	Did Not	95.0	95.8	94.2	96.6	95.6	97.3	98.9	98.7
	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
	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
	Once	11.4	10.6	10.3	8.5	8.8	9.0	6.5	6.6
	2 to 3 times	8.8	7.9	9.3	7.2	6.6	5.0	5.7	1.6
	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
	Once	12.6	12.9	11.5	11.9	14.0	10.9	10.0	8.1
	2 to 3 times	16.3	14.6	11.0	10.2	10.7	10.4	9.7	6.8
	4 + times	6.4	7.1	7.3	4.1	5.2	4.7	4.6	3.2
Grade 11									
	Did Not	54.3	58.3	59.1	65.5	57.8	64.4	64.7	70.5
	Once	16.3	15.0	13.0	13.1	18.2	13.6	15.0	13.1
	2 to 3 times	17.1	16.1	15.8	12.5	15.9	13.5	10.8	12.1
	4 + times	12.3	10.5	12.1	8.9	8.2	8.4	9.6	4.3
Grade 12									
	Did Not	55.4	52.0	54.8	57.5	52.0	51.6	60.3	60.8
	Once	17.4	16.5	16.2	15.5	18.0	16.0	14.8	15.3
	2 to 3 times	14.2	18.5	16.6	15.9	18.4	18.3	15.7	14.2
	4 + times	13.1	13.0	12.4	11.1	11.6	14.1	9.2	9.7

Notes: † estimate suppressed due to unreliability
Q: How many times in the last 4 weeks have you had 5 or more drinks of alcohol on the same occasion?
Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.4.5b: Frequency of Binge Drinking in the Past Month, 1987–2013 OSDUHS (Grades 7, 9, 11 only)

		Percentage of Total Sample													
		1987	**1989**	**1991**	**1993**	**1995**	**1997**	**1999**	**2001**	**2003**	**2005**	**2007**	**2009**	**2011**	**2013**
	(*n*=)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4469)	(5211)
Total															
	Did Not	**81.2**	**79.7**	**81.7**	**85.0**	**81.4**	**77.9**	**74.3**	**77.9**	**75.4**	**81.0**	**77.7**	**80.8**	**81.8**	**85.3**
	Once	**8.2**	**8.2**	**7.6**	**7.1**	**8.8**	**9.8**	**10.7**	**9.2**	**9.2**	**8.1**	**10.1**	**8.4**	**8.0**	**7.7**
	2 to 3 times	**6.2**	**7.5**	**6.3**	**5.2**	**6.3**	**7.8**	**9.4**	**8.3**	**9.6**	**6.8**	**8.1**	**6.9**	**6.1**	**5.3**
	4 + times	**4.3**	**4.6**	**4.3**	**2.8**	**3.4**	**4.5**	**5.6**	**4.5**	**5.8**	**4.0**	**4.1**	**3.9**	**4.0**	**1.8**
Males															
	Did Not	78.6	77.0	79.8	83.6	78.4	76.2	70.3	73.9	72.3	80.1	77.1	80.6	82.3	85.0
	Once	8.3	8.9	8.0	7.3	9.4	8.6	10.2	10.1	9.8	7.4	10.4	8.0	8.4	7.7
	2 to 3 times	7.5	8.3	6.2	4.9	7.2	8.8	11.9	9.6	10.3	7.1	8.3	6.7	5.7	5.8
	4 + times	5.5	5.8	6.1	4.2	4.9	6.4	7.6	6.4	7.6	5.4	4.2	4.7	3.5	1.5
Females															
	Did Not	83.6	82.3	84.0	86.3	84.3	79.4	78.5	82.0	78.3	82.0	78.4	80.9	81.4	85.5
	Once	8.1	7.6	7.2	6.8	8.3	10.8	11.1	8.3	8.6	8.8	9.8	8.9	7.5	7.7
	2 to 3 times	5.0	6.6	6.5	5.5	5.5	7.0	6.8	7.0	9.0	6.6	7.8	7.1	6.6	4.8
	4 + times	3.2	3.5	2.4	1.4	1.9	2.9	3.6	2.6	4.1	2.6	3.9	3.1	4.5	2.0
Grade 7															
	Did Not	95.8	97.0	97.5	96.9	97.4	97.0	95.0	95.8	94.2	96.6	95.6	97.3	98.9	98.7
	Once	2.1	1.7	1.4	2.0	1.6	1.2	3.2	2.2	3.2	2.6	2.7	1.5	†	†
	2 to 3 times	1.2	0.9	†	†	†	1.2	1.1	1.5	2.3	†	1.2	†	†	†
	4 + times	†	†	†	†	†	†	†	†	†	†	†	†	†	†
Grade 9															
	Did Not	83.5	80.0	81.7	87.7	86.1	80.2	76.2	78.3	76.5	81.2	81.2	83.7	86.3	91.5
	Once	7.8	9.0	9.3	7.0	8.2	10.4	11.4	10.6	10.3	8.5	8.8	9.0	6.5	6.6
	2 to 3 times	5.3	8.2	5.8	4.6	4.2	6.4	8.8	7.9	9.3	7.2	6.6	5.0	5.7	1.6
	4 + times	3.3	3.1	3.2	†	†	2.9	3.6	3.2	3.9	3.0	3.3	2.3	1.4	†
Grade 11															
	Did Not	65.8	61.4	67.2	72.3	63.1	58.6	54.3	58.3	59.1	65.5	57.8	64.4	64.7	70.5
	Once	14.1	14.2	11.7	11.4	15.8	16.7	16.3	15.0	13.0	13.1	18.2	13.6	15.0	13.1
	2 to 3 times	11.6	13.6	11.9	9.6	13.3	15.1	17.1	16.1	15.8	12.5	15.9	13.5	10.8	12.1
	4 + times	8.4	10.9	9.2	6.7	7.9	9.6	12.3	10.5	12.1	8.9	8.2	8.4	9.6	4.3

Note: † estimate suppressed due to unreliability
Q: How many times in the last 4 weeks 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, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])												(2148)	(1837)	(3152)	(3648)	(2935)	(4851)	(9288)	(10272)	
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(1168)	(953)	(1618)	(1862)	(1488)	(2355)	(4669)	(5211)	
Total[1] (95% CI)	—	—	—	—	—	—	—	—	—	—	—	**25.0** (22.6-27.7)	**26.0** (23.1-29.2)	**23.9** (21.4-26.6)	**22.5** (19.9-25.3)	**24.4** (22.3-26.7)	**22.6** (20.6-24.6)	**19.9** (18.5-21.4)	**17.6** (15.6-19.9)	bc
Total[2]	**15.5** (13.8-17.4)	**18.6** (16.8-20.5)	**15.4** (13.6-17.5)	**15.9** (14.1-18.0)	**15.0** (12.8-17.3)	**16.2** (13.3-19.6)	**15.0** (13.5-16.6)	**16.7** (14.8-18.7)	**14.4** (13.0-15.9)	**19.6** (16.2-23.6)	**22.4** (20.8-24.0)	**23.3** (20.0-27.0)	**23.3** (19.4-27.7)	**23.6** (20.7-26.8)	**19.4** (16.8-22.4)	**19.0** (16.4-21.9)	**16.8** (14.8-19.0)	**17.3** (14.7-20.3)	**13.5** (11.4-15.8)	cd
Sex																				
Males[1]	—	—	—	—	—	—	—	—	—	—	—	**27.4** (24.6-30.3)	**28.5** (24.4-32.9)	**25.8** (22.6-29.3)	**23.3** (20.3-26.5)	**24.7** (21.8-27.8)	**22.3** (19.9-24.8)	**19.6** (17.7-21.7)	**17.9** (15.5-20.6)	b
Males[2]	**17.1** (15.0-19.3)	**20.0** (17.7-22.7)	**16.5** (14.8-18.5)	**19.0** (16.4-22.0)	**16.3** (13.6-19.3)	**17.1** (13.5-21.4)	**15.6** (13.7-17.7)	**17.6** (15.7-19.6)	**14.3** (12.8-15.9)	**21.4** (17.9-25.4)	**22.4** (20.3-24.7)	**25.3** (21.2-29.8)	**25.3** (20.6-30.7)	**26.8** (22.8-31.1)	**19.4** (16.1-23.3)	**17.8** (14.7-21.4)	**14.9** (12.4-17.6)	**16.4** (14.0-19.0)	**12.2** (9.7-15.2)	
Females[1]	—	—	—	—	—	—	—	—	—	—	—	**22.6** (19.4-26.2)	**23.7** (20.3-27.4)	**22.2** (19.0-25.7)	**21.6** (18.8-24.7)	**24.2** (21.6-26.9)	**22.8** (20.0-25.8)	**20.3** (18.5-22.2)	**17.3** (14.9-20.0)	b
Females[2]	**14.1** (12.1-16.4)	**17.1** (14.9-19.6)	**14.3** (11.4-17.7)	**12.9** (11.3-14.7)	**13.6** (10.7-17.1)	**15.4** (12.8-18.2)	**14.4** (12.0-17.2)	**15.6** (12.9-18.8)	**14.5** (12.2-17.0)	**17.9** (14.3-22.3)	**22.4** (20.6-24.2)	**21.3** (17.4-25.8)	**21.2** (16.3-27.1)	**20.7** (16.8-25.3)	**19.4** (16.4-22.9)	**20.3** (16.7-24.5)	**18.7** (15.3-22.6)	**18.4** (14.0-23.8)	**14.8** (12.4-17.6)	
Grade																				
7	**6.5** (4.9-8.5)	**7.8** (6.0-10.1)	**4.4** (3.7-5.1)	**6.0** (3.8-9.4)	**4.3** (2.6-7.2)	**4.3** (2.8-6.6)	**2.9** (2.3-3.6)	**4.2** (3.5-5.1)	**4.3** (2.8-6.6)	**3.8** (3.0-4.9)	**4.8** (3.1-7.4)	**4.3** (2.8-6.6)	**4.8** (2.8-8.1)	**3.6** (2.0-6.5)	**3.4** (2.1-5.3)	**3.2** (1.6-6.6)	**3.8** (2.4-5.9)	**1.5** (0.9-2.4)	†	b
8	—	—	—	—	—	—	—	—	—	—	—	**12.8** (9.7-16.6)	**12.8** (6.5-23.5)	**6.2** (4.3-9.0)	**7.0** (5.0-9.7)	**7.9** (4.9-12.5)	**7.1** (4.7-10.5)	**4.4** (2.9-6.6)	**3.0** (1.9-4.7)	b
9	**15.5** (12.8-18.6)	**19.8** (17.0-22.9)	**16.6** (13.3-20.6)	**19.1** (17.7-20.5)	**14.6** (11.1-19.2)	**16.4** (12.4-21.4)	**18.3** (15.2-21.8)	**17.4** (13.9-21.5)	**13.8** (11.0-17.0)	**16.1** (10.9-23.1)	**20.2** (17.7-22.8)	**21.5** (16.7-27.1)	**24.5** (19.2-30.8)	**24.5** (20.6-28.8)	**20.4** (16.4-25.0)	**17.1** (13.2-22.0)	**15.9** (12.5-20.1)	**14.2** (11.7-17.1)	**9.3** (7.1-12.0)	ab
10	—	—	—	—	—	—	—	—	—	—	—	**31.7** (26.4-37.4)	**36.0** (31.2-41.2)	**25.8** (21.0-31.2)	**26.9** (22.8-31.4)	**29.0** (24.4-33.9)	**25.2** (21.1-29.8)	**20.8** (16.6-25.8)	**17.9** (14.7-21.5)	b
11	**26.3** (22.9-30.0)	**29.0** (25.4-33.0)	**26.5** (20.2-33.8)	**26.3** (21.4-31.8)	**25.8** (21.5-30.7)	**26.7** (18.5-36.9)	**23.7** (21.3-26.2)	**27.4** (23.9-31.1)	**23.4** (20.6-26.4)	**36.7** (28.9-45.5)	**40.2** (37.0-43.4)	**41.7** (35.3-48.4)	**40.7** (32.5-49.4)	**39.6** (33.4-46.1)	**33.6** (28.7-39.0)	**35.8** (30.8-41.1)	**29.4** (25.3-34.0)	**32.4** (28.1-36.9)	**25.6** (21.3-30.4)	b
12	—	—	—	—	—	—	—	—	—	—	—	**40.0** (33.5-46.8)	**38.3** (25.4-53.1)	**38.7** (32.7-45.1)	**39.3** (33.9-44.9)	**45.8** (40.8-50.9)	**43.3** (38.5-48.2)	**33.8** (29.3-38.5)	**33.3** (29.4-37.4)	

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2148)	(1837)	(3152)	(3648)	(2935)	(4851)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(1168)	(953)	(1618)	(1862)	(1488)	(2355)	(4669)	(5211)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**12.2** (8.8-16.6)	**17.2** (10.8-26.2)	**13.7** (8.9-20.5)	**15.1** (10.4-21.2)	**20.7** (14.5-28.7)	**12.5** (7.8-19.5)	**13.2** (9.9-17.4)	**13.2** (7.3-22.6)
Toronto[2]	—	—	**10.8** (7.9-14.6)	**12.7** (7.4-20.8)	**14.3** (11.4-17.7)	**11.0** (7.2-16.4)	**10.1** (6.4-15.6)	**11.1** (7.0-17.0)	**8.6** (6.5-11.2)	**13.2** (6.8-24.2)	**14.7** (14.2-15.2)	**11.5** (7.9-16.5)	**17.8** (9.5-30.8)	**12.5** (7.6-20.1)	**12.7** (8.1-19.2)	**12.4** (7.0-21.1)	**8.4** (4.0-16.9	**10.9** (8.4-13.9)	†
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** [b] (19.6-25.1)
North[2]	—	—	**13.4** (9.2-19.1)	**18.8** (15.2-22.9)	**17.7** (12.6-24.3)	**20.9** (16.4-26.3)	**20.9** (14.3-29.4)	**24.4** (14.9-37.2)	**22.5** (16.6-29.7)	**25.8** (19.1-34.0)	**26.6** (22.9-30.7)	**25.4** (18.0-34.4)	**27.8** (23.1-33.1)	**32.1** (25.0-40.1)	**26.6** (21.2-32.8)	**32.5** (25.5-40.4)	**23.4** (17.0-31.2)	**22.7** (16.0-31.2)	**17.4** (13.3-22.3)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**30.1** (25.6-35.0)	**29.4** (24.8-34.6)	**26.2** (22.0-30.9)	**22.6** (19.0-26.6)	**24.2** (21.5-27.1)	**24.4** (21.3-27.8)	**19.2** (17.6-20.8)	**16.6** [b] (13.5-20.2)
West[2]	—	—	**18.0** (15.0-21.3)	**17.5** (14.9-20.5)	**16.6** (14.6-18.8)	**15.0** (10.2-21.6)	**15.1** (13.4-17.0)	**17.4** (15.2-19.8)	**17.1** (15.3-19.1)	**18.5** (12.4-26.6)	**22.5** (21.2-23.9)	**27.8** (21.9-34.6)	**24.4** (19.5-30.1)	**26.3** (21.6-31.7)	**19.0** (15.3-23.3)	**19.3** (15.9-23.3)	**18.4** (15.3-21.9)	**17.3** (12.4-23.6)	**13.0** (10.1-16.6)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**23.0** (19.3-27.2)	**26.2** (22.0-31.0)	**25.7** (21.9-29.8)	**25.3** (20.2-31.0)	**24.7** (20.8-29.2)	**23.9** (21.1-27.0)	**23.3** (20.4-26.5)	**21.2** (19.2-23.2)
East[2]	—	—	**15.6** (15.0-16.3)	**15.3** (13.1-17.8)	**12.0** (6.8-20.4)	**20.5** (15.1-27.3)	**16.0** (13.5-19.0)	**17.2** (14.0-20.8)	**11.9** (8.9-15.8)	**24.0** (20.5-27.9)	**26.1** (21.6-31.2)	**24.1** (18.6-30.6)	**25.9** (18.8-34.6)	**24.6** (19.8-30.2)	**22.8** (17.5-29.2)	**19.5** (14.5-25.7)	**17.4** (14.2-21.2)	**19.7** (16.5-23.4)	**14.7** (12.7-17.1)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) based on random half sample between 1999 and 2009; (5) entries in brackets are 95% confidence intervals; (6) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: How many times in the last 4 weeks 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)

(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 medical and physical problems (e.g., dependence), whereas *harmful* drinking refers to a pattern of drinking that is already causing damage to one's health (e.g., alcohol-related injuries). Those with a score of eight 8 or higher out of a maximum total of 40 are considered to be drinking at a hazardous or harmful level (Cronbach's α=.86).

	Hazardous/Harmful Drinking in 2013 (Grades 7–12)	Trends in Hazardous/Harmful Drinking (Grades 7–12)
Total Sample	■ Almost one-fifth (17.6%) of all 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 just about one-tenth (8.0%) of students report that they were injured or someone else was injured because of their drinking, during the past 12 months. ■ Overall, 15.7% of students report hazardous/harmful drinking (that is, scoring 8 or higher of 40). This represents about 158,700 students in grades 7 through 12 in Ontario. Among past-year drinkers, 32.0% drink hazardously/harmfully.	☐ There was no significant change in hazardous/harmful drinking between 2011 (17.8%) and 2013 (15.7%). The 2013 percentage is also similar to that found in 1999 (18.0%). However, a significant nonlinear trend occurred between 1999 and 2013, showing a peak in 2003 and another in 2009, followed by a decrease.
Sex	■ Males (16.3%) and females (15.0%) are equally likely to drink hazardously or harmfully.	☐ Neither sex shows a statistically significant change in 2013 compared with their respective 2011 estimates, or their respective 1999 estimates.
Grade	■ There is significant variation by grade, with students in grade 12 most likely to report hazardous/harmful drinking (about 32.2%).	☐ None of the grades shows a statistically significant change in 2013 compared with their respective 2011 estimates. However, 9th and 10th graders show a significant downward trend between 1999 and 2013.
Region	■ There is significant variation among the regions, with students in the North and the East most likely to report hazardous/harmful drinking (about 19%), whereas students in Toronto and the West are less likely (about 13%).	☐ None of the four regions shows a significant change between 2011 and 2013. However, the current estimates for students in the North and the West are significantly lower than their respective 1999 estimates.

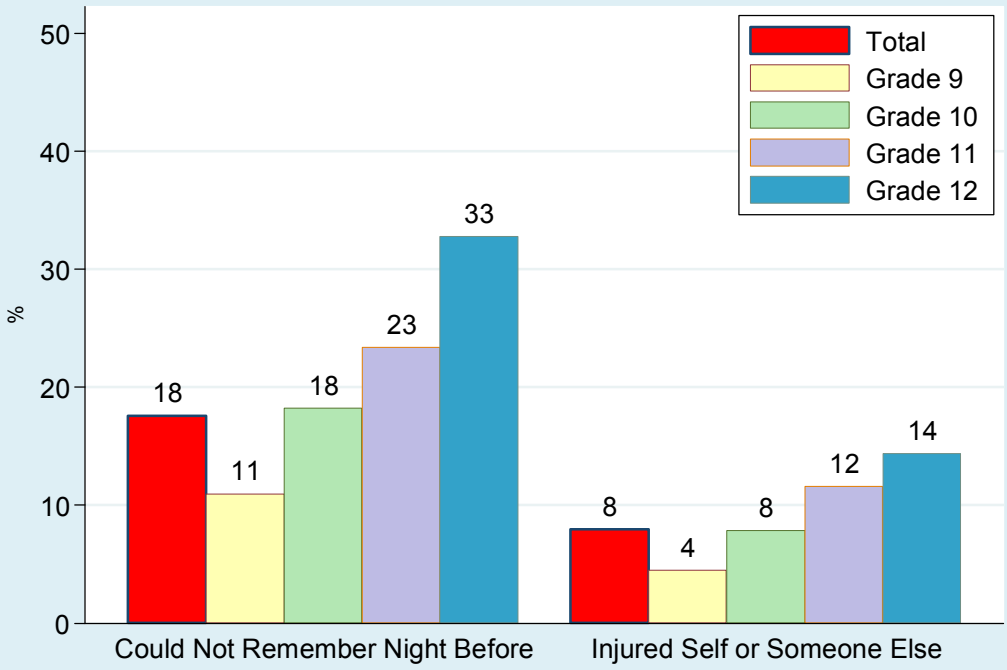
Table 3.4.7: Percentage of the Total Sample, and of Past Year Drinkers, Reporting AUDIT Indicators, 2013 OSDUHS (Grades 7–12)

AUDIT Item	% "yes"	
	Total Sample (*n*=5,478)	Past Year Drinkers (*n*=2,227)
Alcohol Intake		
1. Consumed alcohol during the past 12 months	48.8	--
2. Number of drinks usually have on typical day when drink (% reporting 2+ drinks)	32.2	64.1
3. Consumed 5 or more drinks on one occasion during the past 12 months	28.2	56.7
Dependence Indicators (past 12 months)		
4. Were not able to stop drinking once you had started	7.5	14.9
5. Failed to do what was normally expected from you because of your drinking	11.0	22.0
6. Needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session	2.4	4.7
Adverse Consequences		
7. Had a feeling of guilt or remorse after drinking, during the past 12 months	11.3	21.9
8. Been unable to remember what happened the night before because you had been drinking, during the past 12 months	17.6	34.9
9. You or someone else been injured as a result of your drinking		
Yes, but not in the past 12 months:	4.2	6.8
Yes, in the past 12 months:	8.0	15.2
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:	0.7	1.4
Yes, in the past 12 months:	1.5	2.8
AUDIT 8+ Score (95% CI)	**15.7** (13.9-17.6)	**32.0** (29.1-34.9)

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.

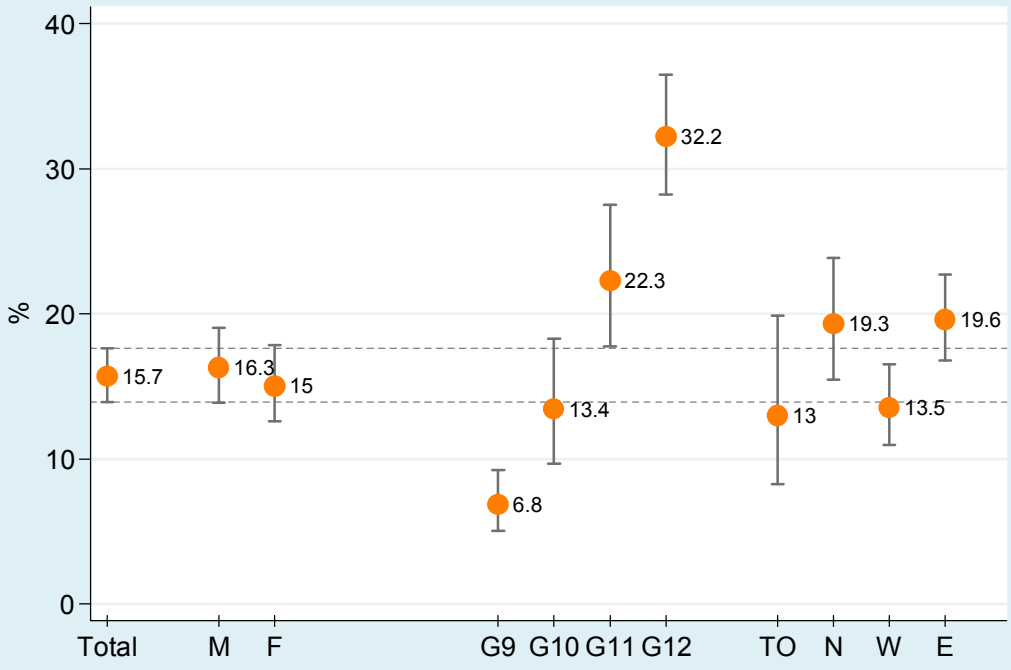
Source: OSDUHS, Centre for Addiction & Mental Health

Figure 3.4.13
Percentage of Students 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, 2013 OSDUHS (Grades 7–12)



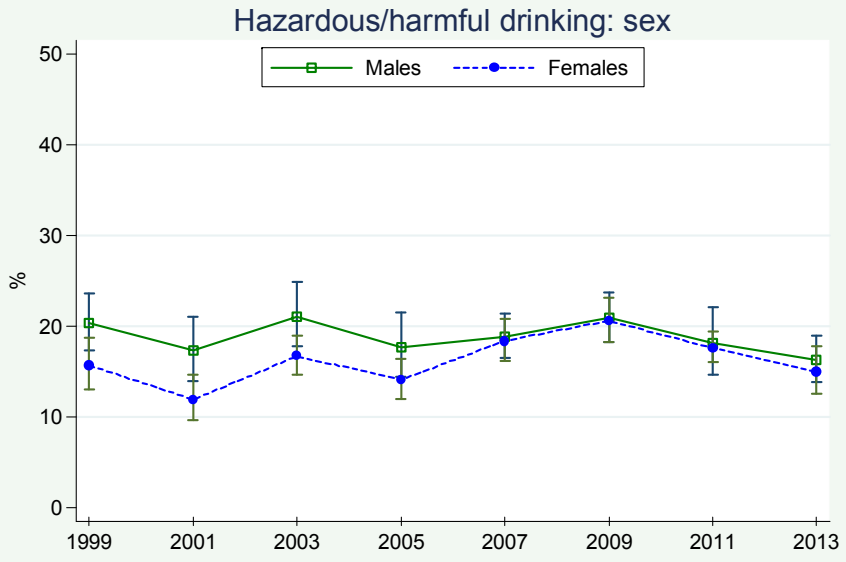
Notes: (1) both adverse consequences are from the AUDIT screener and refer to the past 12 months; (2) suppressed estimates for Grades 7 and 8 due to unreliability; (3) sex differences were not significant (data not shown)

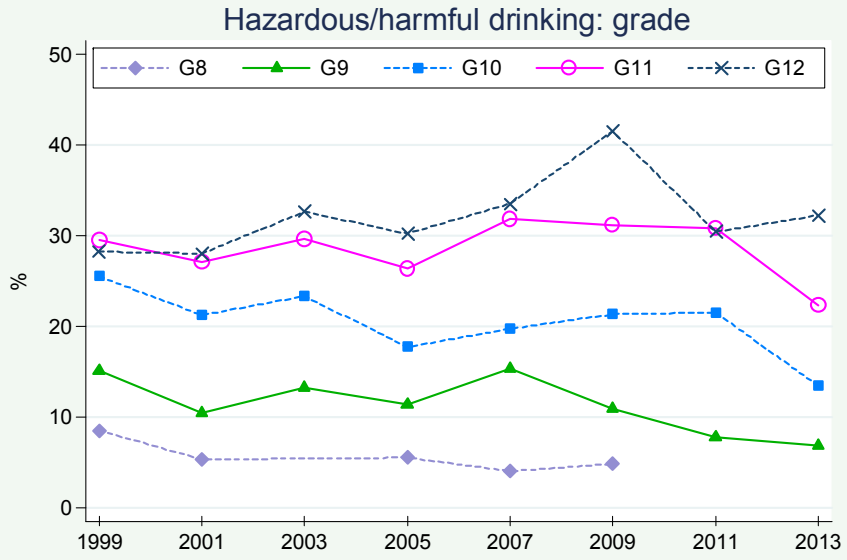
Figure 3.4.14
Percentage Reporting Hazardous/Harmful Drinking (AUDIT 8+) by Sex, Grade, and Region, 2013 OSDUHS

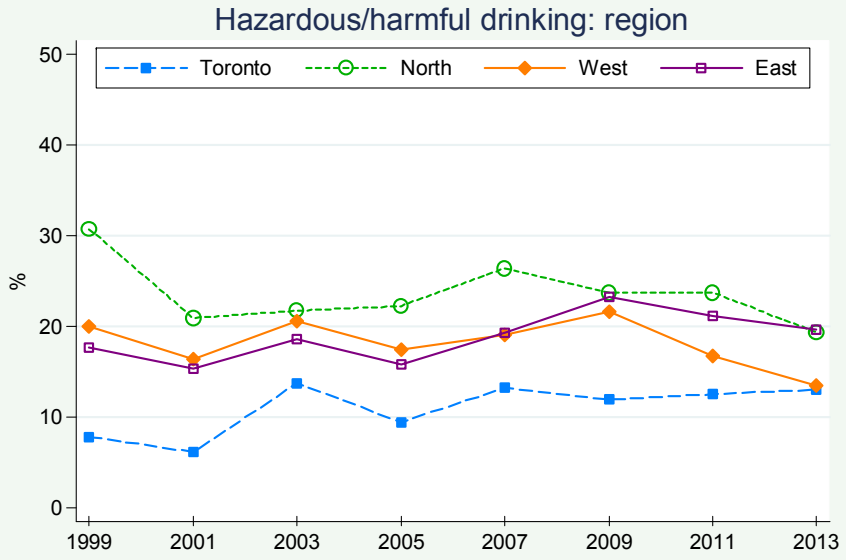


Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7 and 8 were suppressed; (4) significant difference by grade and by region (p<.05), no significant difference by sex

Figure 3.4.15
Hazardous/Harmful Drinking (AUDIT 8+), 1999–2013 OSDUHS (Grades 7–12)







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

Table 3.4.8: Percentage of the Total Sample of Students Reporting Hazardous/Harmful Drinking (AUDIT 8+), 1999–2013 OSDUHS (Grades 7–12)

		1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(2299)	(2061)	(3464)	(4078)	(3388)	(4851)	(4816)	(5478)
Total		**18.0**	**14.6**	**18.8**	**15.9**	**18.6**	**20.8**	**17.8**	**15.7** [d]
(95% CI)		(15.8-20.4)	(12.2-17.3)	(16.7-21.1)	(13.6-18.5)	(16.8-20.6)	(18.8-22.9)	(15.9-20.0)	(13.9-17.6)
Sex									
	Males	**20.3**	**17.3**	**21.1**	**17.7**	**18.8**	**20.9**	**18.1**	**16.3**
		(17.3-23.6)	(14.0-21.1)	(17.8-24.9)	(14.4-21.5)	(16.5-21.4)	(18.3-23.7)	(14.6-22.1)	(13.9-19.0)
	Females	**15.7**	**11.9**	**16.7**	**14.1**	**18.4**	**20.6**	**17.6**	**15.0**
		(13.0-18.7)	(9.6-14.6)	(14.6-19.0)	(12.0-16.4)	(16.2-20.8)	(18.3-23.2)	(16.0-19.4)	(12.6-17.8)
Grade									
	7	†	†	†	†	†	†	†	†
	8	**8.5**	**5.3**	†	**5.5**	**4.0**	**4.8**	†	†
		(6.4-11.3)	(3.0-9.2)		(3.2-9.4)	(2.2-7.0)	(2.8-8.0)		
	9	**15.1**	**10.4**	**13.2**	**11.3**	**15.3**	**10.9**	**7.7**	**6.8** [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)
	10	**25.5**	**21.2**	**23.3**	**17.7**	**19.7**	**21.3**	**21.5**	**13.4** [b]
		(19.5-32.6)	(16.0-27.4)	(18.8-28.5)	(14.4-21.6)	(16.6-23.2)	(17.4-25.7)	(15.7-28.6)	(9.7-18.3)
	11	**29.5**	**27.0**	**29.6**	**26.3**	**31.8**	**31.1**	**30.8**	**22.3**
		(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)
	12	**28.2**	**28.0**	**32.6**	**30.2**	**33.5**	**41.5**	**30.4**	**32.2**
		(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)
Region									
	Toronto	**7.8**	**6.1**	**13.7**	**9.4**	**13.2**	**11.9**	**12.5**	**13.0**
		(5.4-11.0)	(2.5-13.9)	(10.1-18.4)	(7.0-12.6)	(8.6-19.8)	(7.9-17.6)	(8.9-17.4)	(8.2-19.9)
	North	**30.7**	**20.9**	**21.7**	**22.2**	**26.4**	**23.7**	**23.7**	**19.3** [b]
		(24.5-37.6)	(16.5-26.1)	(17.7-26.4)	(19.4-25.3)	(21.0-32.7)	(18.4-30.0)	(19.8-28.0)	(15.5-23.9)
	West	**20.0**	**16.4**	**20.5**	**17.4**	**19.0**	**21.6**	**16.7**	**13.5** [b]
		(16.2-24.4)	(12.6-21.1)	(17.2-24.3)	(14.2-21.3)	(16.1-22.2)	(18.6-25.0)	(13.6-20.5)	(11.0-16.5)
	East	**17.6**	**15.3**	**18.6**	**15.8**	**19.3**	**23.2**	**21.1**	**19.6**
		(14.0-22.0)	(11.2-20.5)	(14.6-23.4)	(11.2-21.8)	(16.7-22.2)	(19.8-26.8)	(18.2-24.3)	(16.8-22.7)

Notes: (1) based on a random half sample in each year; (2) entries in brackets are 95% confidence intervals; (3) † estimate suppressed due to unreliability; (4) no significant differences 2013 vs. 2011; [b] 2013 vs. 1999 significant difference, p<.01; [d] significant nonlinear trend, p<.01.

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Use of Alcohol Mixed with an Energy Drink

(Figure 3.4.16)

For the first time in 2013, the OSDUHS included a question about drinking alcohol mixed with an energy drink. A random half sample of students in grades 7–12 was asked the following: "*In the last 12 months, how often did you drink an energy drink mixed with alcohol, such as Red Bull mixed with alcohol, Rock Star + vodka, or other brands?*"

2013: Grades 7–12

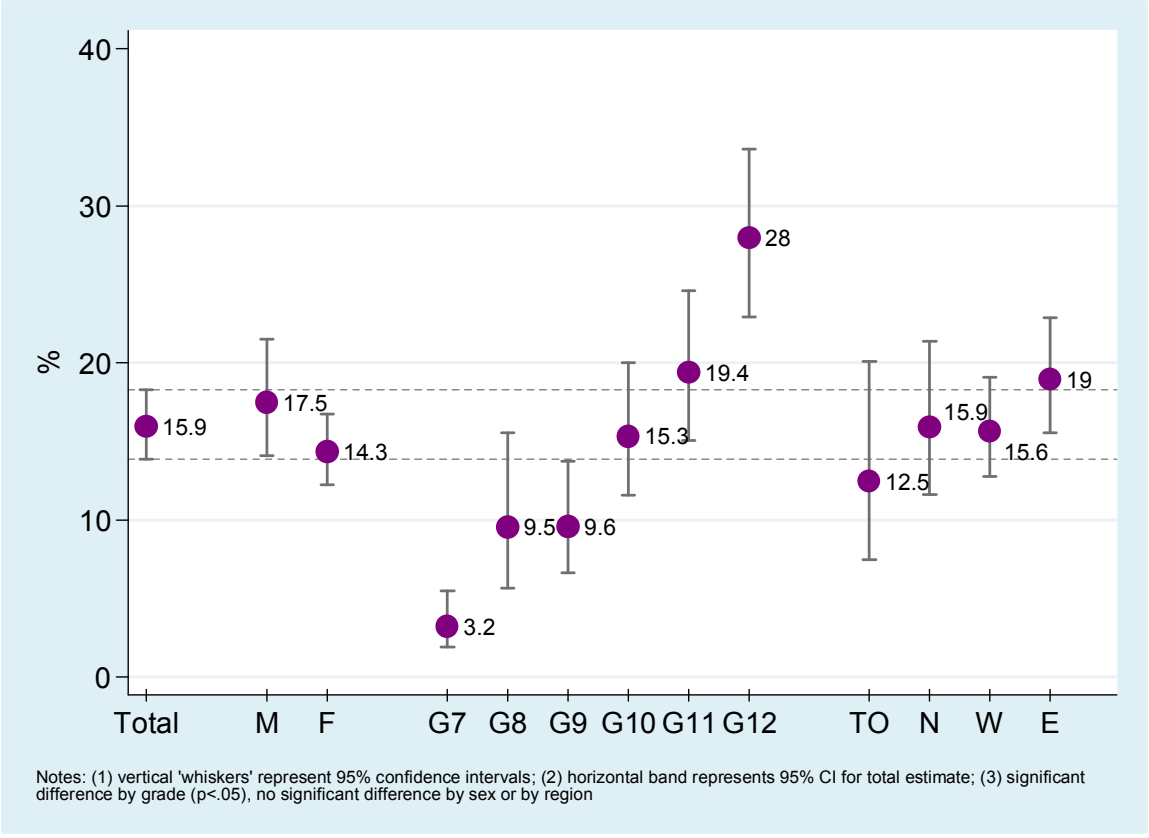
- The percentage of students who report drinking alcohol mixed with an energy drink at least once in the past year is 15.9% (95% CI: 13.8%-18.3%). This estimate represents about 145,500 students in Ontario in grades 7–12.

- Males (17.5%) and females (14.3%) are equally likely to drink alcohol mixed with an energy drink.

- Drinking alcohol with an energy drink significantly increases with grade, from a low of 3.2% among 7th graders to a high of 28.0% among 12th graders.

- Despite some variation, there are no significant regional differences.

Figure 3.4.16
Past Year Use of Alcohol Mixed with an Energy Drink by Sex, Grade, and Region, 2013 OSDUHS



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

Participation in Drinking Games (Among Grades 9–12)

(Figure 3.4.17)

For the first time in 2013, secondary students were asked about participation in drinking games. A random half sample was asked the following: "*Drinking games are games in which players drink alcohol quickly with the purpose of getting drunk. Examples of such games include Beer Pong, Flip Cup, and Power Hour. In the last 4 weeks, how often have you played drinking games with others?*" Here we present the percentage of secondary students who reported participating in drinking games at least once in the past month.

2013: Grades 9–12

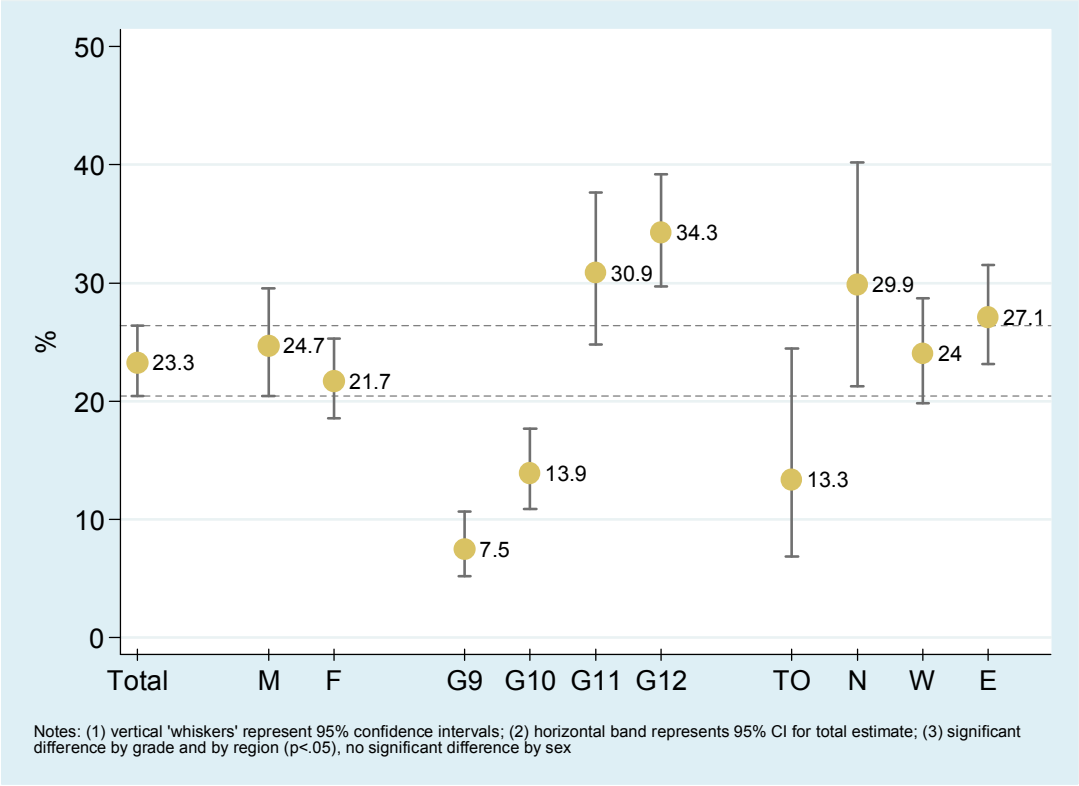
- Almost one-quarter (23.3%; 95% CI: 20.4%-26.4%) of secondary students report playing a drinking game in the past month. This estimate represents about 157,600 secondary students in Ontario. (Among past year drinkers, 37.5% report playing a drinking game in the past month).

- Males (24.7%) and females (21.7%) are equally likely to play drinking games.

- Participation significantly increases with grade, with a substantial jump between 10th grade (13.9%) and 11th grade (30.9%), and remaining stable in 12th grade (34.3%).

- Compared with the other three regions, students in Toronto are significantly less likely to participate in drinking games (about 25%-30% vs. 13.3%, respectively).

Figure 3.4.17
Participation in Drinking Games in the Past Month by Sex, Grade, and Region, 2013 OSDUHS



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

Past Year Non-Beverage Alcohol Use

(Figure 3.4.18)

In the 2011 and 2013 OSDUHS cycles, a random half sample of students in grades 7–12 was asked whether they tried drinking non-beverage alcohol such as mouthwash or liquid hand sanitizer, which likely contain alcohol. The question was "*In the last 12 months, did you drink alcohol in the form of mouthwash, rubbing alcohol, or hand sanitizer, even just a sip to try it?*" Here we present the percentage who reported drinking these substances in the past year.

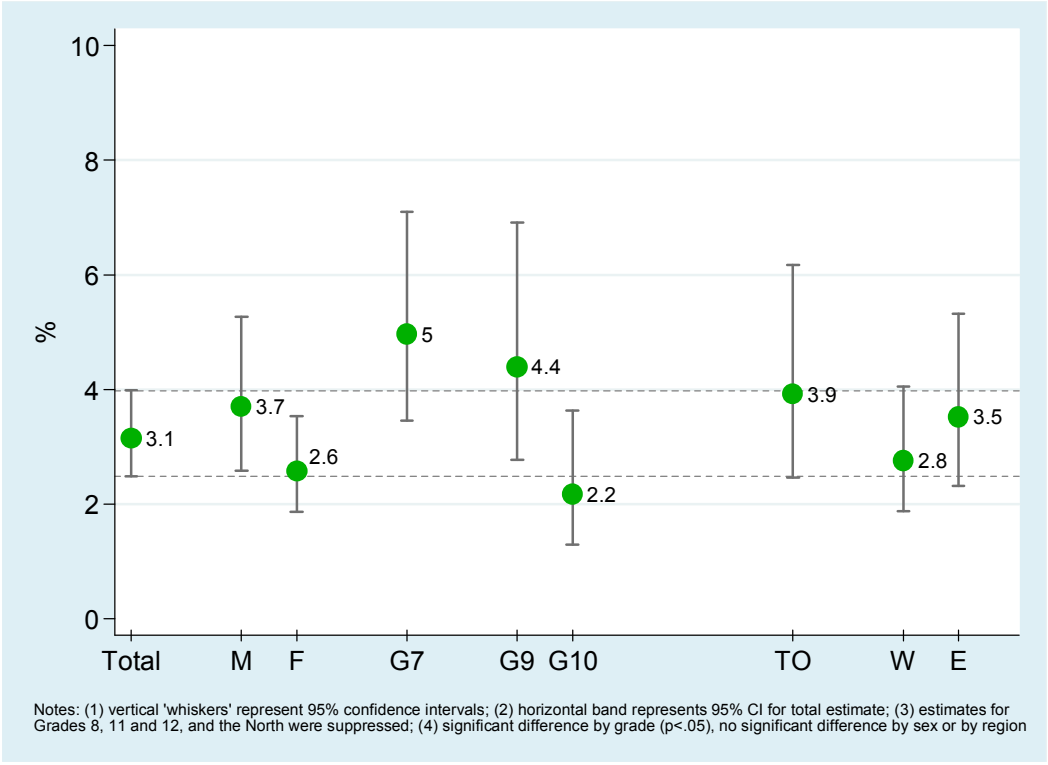
2013: Grades 7–12

- Among the total sample, 3.1% (95% CI: 2.5%-4.0%) report drinking mouthwash, rubbing alcohol, or hand sanitizer at least once in the past year. This percentage represents about 28,400 students in Ontario.
- Males (3.7%) and females (2.6%) are equally likely to report drinking non-beverage alcohol.
- There is significant variation by grade, showing that younger students are more likely to try non-beverage alcohol.
- There is no significant difference according to region.

2013 vs. 2011: Grades 7–12

- The percentage of students reporting trying non-beverage alcohol did not significantly change between 2011 (2.3%; 95% CI: 1.9%-2.8%) and 2013 (3.1%).

Figure 3.4.18
Past Year Non-Beverage Alcohol Use by Sex, Grade, and Region, 2013 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 8, 11 and 12, and the North were suppressed; (4) significant difference by grade (p<.05), no significant difference by sex or by region

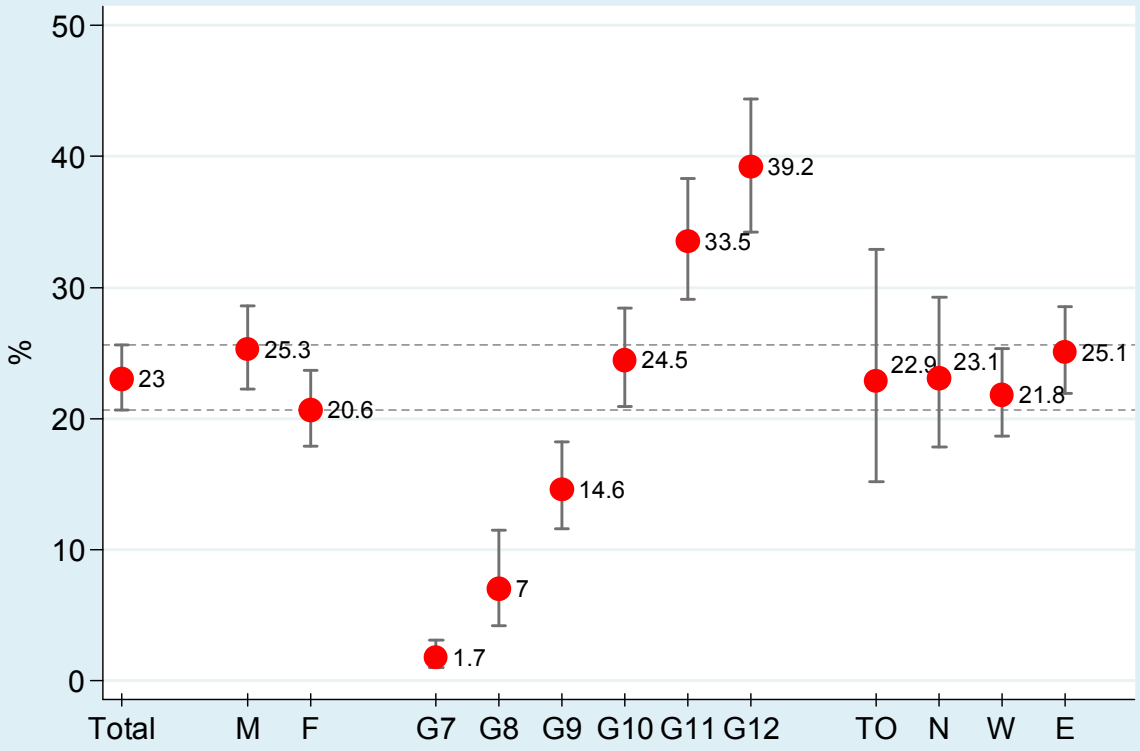
3.5 Cannabis Use

Past Year Cannabis Use

(Figures 3.5.1–3.5.3; Table 3.5.1)

	Cannabis Use in 2013 (Grades 7–12)	Trends in Cannabis Use
Total Sample	▪ Overall, 23.0% of students report using cannabis at least once during the 12 months before the survey. With the sampling error, we estimate that between 20.7% and 25.6% of Ontario students in grades 7 through 12 use cannabis. The percentage of 23.0% represents about 225,600 students.	☐ Among the total sample of students in grades 7 through 12, cannabis use did not significantly change between 2011 (22.0%) and 2013 (23.0%). Cannabis use was on a downward trend between 1999 and 2011 (from 28.0% to 22.0%), and remained stable in 2013. ☐ Over the long-term (grades 7, 9, 11 only), the 2013 cannabis prevalence is significantly lower than the historical peak years in the late 1970s and in 1999/early 2000s, but still remains higher than the low levels evident in the late 1980s/early 1990s.
Sex	▪ Males are significantly more likely than females to use cannabis (25.3% vs. 20.6%, respectively).	☐ Neither sex shows a significant change in cannabis use between 2011 and 2013 (males: 23.0% and 25.3%, respectively; females: 21.0% and 20.6%, respectively). However, both show a significant downward trend in use over the past decade or so. Use among males is significantly lower in 2013 compared with 1999-2001, when use was at about 32%. Use among females began to decline after 2003, when use was at 28.3%.
Grade	▪ Cannabis use significantly increases with grade, increasing from 1.7% among 7th graders to 39.2% among 12th graders.	☐ No grade shows a significant change in cannabis use between 2011 and 2013. Students in grades 8 through 11 show a significant downward trend in use since 1999, whereas 7th graders began to decline after 2003. Students in 12th grade show an increase in use between 1999 and 2009, a decline in 2011, and stability in 2013.
Region	▪ There are no significant regional differences in cannabis use in 2013.	☐ No region shows a significant change in cannabis use between 2011 and 2013. Only the West shows a significant downward trend since 1999, from 31.1% down to 21.8% in 2013.

Figure 3.5.1
Past Year Cannabis Use by Sex, Grade, and Region, 2013 OSDUHS



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

Figure 3.5.2
Past Year Cannabis Use, 1999–2013 OSDUHS (Grades 7–12)

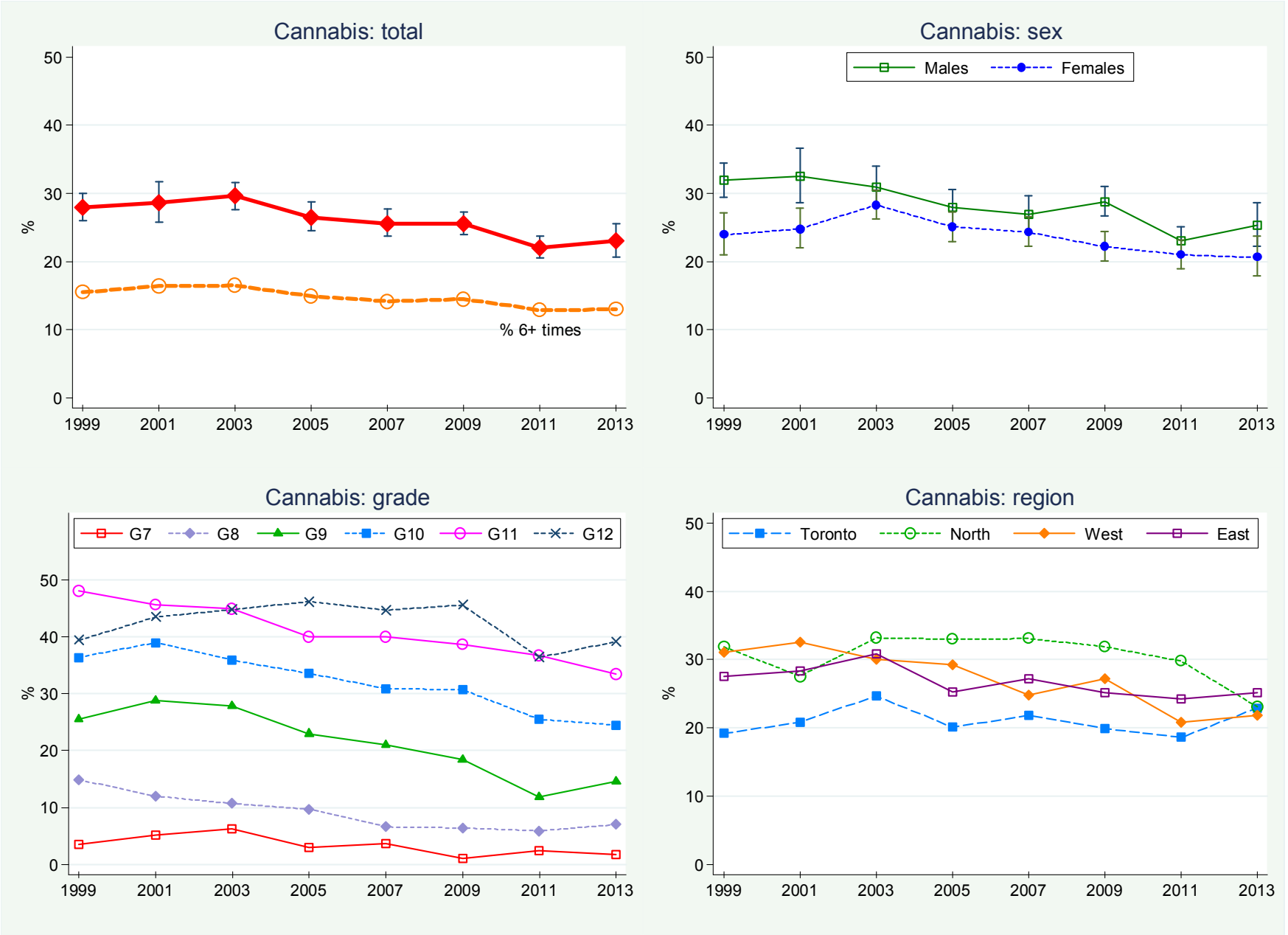


Figure 3.5.3
Past Year Cannabis Use, 1977–2013 OSDUHS (Grades 7, 9, 11 only)

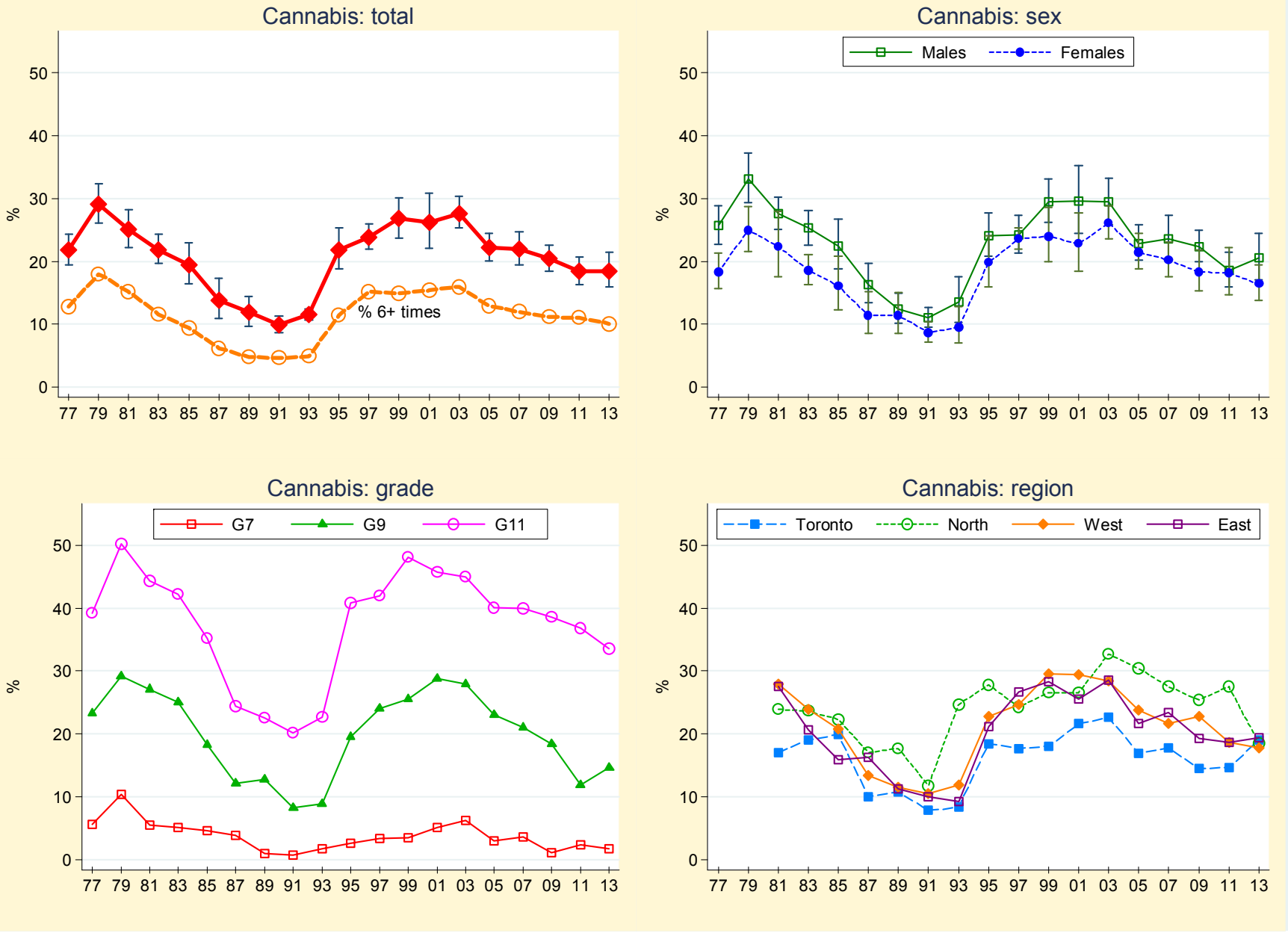


Table 3.5.1: Percentage Reporting Cannabis Use in the Past Year, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
Total[1] (95% CI)	—	—	—	—	—	—	—	—	—	—	—	**28.0** (26.0-30.0)	**28.6** (25.8-31.7)	**29.6** (27.6-31.6)	**26.5** (24.5-28.7)	**25.6** (23.7-27.7)	**25.6** (24.0-27.3)	**22.0** (20.5-23.7)	**23.0** [bc] (20.7-25.6)
Total[2]	**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** [d] (15.9-21.5)
Sex																			
Males[1]	—	—	—	—	—	—	—	—	—	—	—	**31.9** (29.4-34.4)	**32.5** (28.6-36.6)	**30.9** (28.1-34.0)	**27.9** (25.4-30.6)	**26.9** (24.3-29.6)	**28.8** (26.7-31.0)	**23.0** (21.0-25.1)	**25.3** [b] (22.2-28.6)
Males[2]	**25.7** (22.7-28.9)	**33.1** (29.3-37.2)	**27.6** (25.1-30.2)	**25.3** (22.6-28.1)	**22.5** (18.8-26.7)	**16.3** (13.4-19.7)	**12.4** (10.2-14.9)	**11.0** (9.6-12.7)	**13.6** (10.3-17.6)	**24.1** (20.8-27.7)	**24.2** (21.3-27.4)	**29.5** (26.2-33.1)	**29.6** (24.5-35.2)	**29.5** (25.9-33.3)	**22.9** (20.2-25.8)	**23.6** (20.3-27.4)	**22.4** (20.0-25.0)	**18.6** (16.0-21.5)	**20.6** (17.1-24.5)
Females[1]	—	—	—	—	—	—	—	—	—	—	—	**23.9** (21.0-27.1)	**24.8** (22.0-27.8)	**28.3** (26.2-30.4)	**25.1** (22.9-27.3)	**24.3** (22.2-26.6)	**22.2** (20.1-24.4)	**21.0** (18.9-23.2)	**20.6** (17.9-23.7)
Females[2]	**18.3** (15.7-21.3)	**25.0** (21.6-28.7)	**22.4** (17.6-28.0)	**18.6** (16.3-21.1)	**16.1** (12.3-20.8)	**11.4** (8.5-15.2)	**11.4** (8.5-15.0)	**8.7** (7.2-10.4)	**9.5** (7.0-12.8)	**19.8** (16.0-24.1)	**23.6** (21.9-25.4)	**24.0** (19.9-28.6)	**22.8** (18.5-27.7)	**26.1** (23.6-28.9)	**21.5** (18.8-24.5)	**20.2** (17.6-23.1)	**18.3** (15.3-21.8)	**18.2** (14.7-22.2)	**16.4** (13.8-19.4)
Grade																			
7	**5.6** (4.1-7.5)	**10.4** (8.2-13.0)	**5.4** (4.2-6.8)	**5.1** (2.8-9.1)	**4.6** (3.1-6.8)	**3.8** (2.4-6.0)	**0.9** (0.5-1.5)	**0.7** (0.2-2.1)	**1.7** (0.9-3.0)	**2.6** (1.2-5.6)	**3.4** (1.4-8.1)	**3.5** (2.2-5.6)	**5.1** (3.4-7.6)	**6.2** (4.3-8.7)	**3.0** (1.9-4.9)	**3.6** (2.2-5.8)	**1.1** (0.6-1.8)	**2.4** (1.3-4.4)	**1.7** (1.0-3.1)
8	—	—	—	—	—	—	—	—	—	—	—	**14.9** (11.6-18.9)	**12.0** (9.4-15.1)	**10.7** (6.8-16.4)	**9.7** (7.3-12.8)	**6.6** (4.7-9.4)	**6.4** (4.4-9.2)	**5.9** (4.1-8.4)	**7.0** [b] (4.2-11.5)
9	**23.3** (19.3-27.8)	**29.2** (24.1-34.8)	**27.1** (24.1-30.3)	**25.0** (22.1-28.3)	**18.3** (13.1-25.0)	**12.1** (6.0-23.0)	**12.7** (8.8-18.0)	**8.2** (6.6-10.0)	**8.8** (7.5-10.2)	**19.5** (14.1-26.2)	**24.0** (21.6-26.5)	**25.5** (21.7-29.7)	**28.8** (23.8-34.2)	**27.9** (24.5-31.5)	**23.0** (20.2-26.1)	**21.0** (17.2-25.4)	**18.4** (15.0-22.3)	**11.9** (10.0-14.1)	**14.6** [b] (11.6-18.2)
10	—	—	—	—	—	—	—	—	—	—	—	**36.4** (30.7-42.6)	**39.0** (35.0-43.1)	**35.9** (31.4-40.8)	**33.6** (30.2-37.1)	**30.9** (27.4-34.6)	**30.7** (26.6-35.0)	**25.5** (20.4-31.4)	**24.5** [b] (20.9-28.4)
11	**39.2** (34.4-44.1)	**50.2** (44.3-56.1)	**44.3** (36.6-52.2)	**42.2** (36.8-47.7)	**35.2** (28.6-42.4)	**24.4** (19.9-29.4)	**22.5** (18.5-27.0)	**20.1** (17.3-23.2)	**22.6** (20.5-24.8)	**40.8** (34.1-47.9)	**42.0** (37.5-46.7)	**48.1** (42.8-53.4)	**45.7** (37.7-53.9)	**45.0** (40.6-49.5)	**40.1** (36.2-44.1)	**40.0** (35.9-44.2)	**38.6** (34.4-42.9)	**36.8** (33.2-40.7)	**33.5** [b] (29.1-38.3)
12	—	—	—	—	—	—	—	—	—	—	—	**39.4** (33.2-45.9)	**43.5** (33.1-54.5)	**44.8** (39.4-50.4)	**46.2** (42.0-50.5)	**44.7** (40.8-48.7)	**45.6** (41.9-49.3)	**36.4** (31.6-41.5)	**39.2** (34.2-44.4)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	(10272)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**19.2** (16.2-22.6)	**20.8** (13.2-31.3)	**24.7** (20.3-29.8)	**20.1** (16.2-24.6)	**21.8** (14.9-30.8)	**19.9** (15.2-25.5)	**18.6** (14.4-23.6)	**22.9** (15.2-32.9)
Toronto[2]	—	—	**17.0** (12.9-21.9)	**19.0** (12.8-27.2)	**19.9** (16.8-23.4)	**10.0** (4.8-19.8)	**10.8** (5.1-21.3)	**7.8** (7.3-8.2)	**8.3** (7.8-8.6)	**18.4** (10.5-30.2)	**17.7** (14.1-21.9)	**18.0** (14.2-22.6)	**21.6** (11.4-37.1)	**22.6** (16.9-29.6)	**16.9** (12.8-22.0)	**17.8** (9.4-31.2)	**14.5** (8.7-23.2)	**14.6** (11.7-18.0)	**19.0** (10.4-32.0)
North[1]	—	—	—	—	—	—	—	—	—	—	—	**31.9** (26.2-38.2)	**27.6** (22.4-33.6)	**33.2** (27.9-39.0)	**33.0** (29.6-36.6)	**33.1** (28.9-37.7)	**31.9** (27.8-36.2)	**29.8** (26.4-33.4)	**23.1** (17.8-29.3)
North[2]	—	—	**23.9** (18.6-30.1)	**23.6** (18.6-29.4)	**22.3** (18.0-27.4)	**17.0** (8.9-29.9)	**17.7** (14.2-22.0)	**11.8** (6.6-20.2)	**24.7** (18.9-31.6)	**27.8** (22.5-33.8)	**24.3** (23.1-25.5)	**26.6** (16.6-39.7)	**26.6** (18.8-36.2)	**32.7** (26.8-39.2)	**30.4** (25.6-35.8)	**27.5** (21.2-35.0)	**25.4** (19.6-32.4)	**27.5** (21.2-34.7)	**18.5** (13.6-24.7)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**31.1** (27.6-34.8)	**32.6** (28.5-37.1)	**30.0** (26.7-33.5)	**29.3** (26.0-32.8)	**24.8** (22.6-27.3)	**27.2** (24.7-29.9)	**20.8** (18.4-23.4)	**21.8** [b] (18.6-23.4)
West[2]	—	—	**27.9** (22.7-33.7)	**23.9** (20.3-28.0)	**20.8** (17.1-25.0)	**13.4** (8.8-20.0)	**11.5** (8.5-15.3)	**10.5** (9.0-12.2)	**11.9** (10.8-13.1)	**22.8** (18.0-28.4)	**24.7** (21.8-28.0)	**29.6** (24.0-35.8)	**29.4** (24.6-34.6)	**28.5** (24.8-32.6)	**23.8** (20.4-27.4)	**21.7** (18.9-24.7)	**22.8** (19.9-26.1)	**18.7** (14.9-23.2)	**17.8** (15.0-21.0)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**27.6** (24.1-31.4)	**28.4** (24.1-33.1)	**30.9** (28.2-33.8)	**25.3** (21.7-29.2)	**27.2** (24.1-30.4)	**25.2** (22.9-27.6)	**24.2** (21.9-26.6)	**25.1** (21.9-28.5)
East[2]	—	—	**27.6** (23.2-32.4)	**20.7** (18.6-23.1)	**15.9** (8.4-28.0)	**16.2** (13.2-19.7)	**11.3** (8.0-15.6)	**10.0** (7.2-13.8)	**9.2** (7.6-11.1)	**21.2** (16.8-26.5)	**26.7** (22.4-31.5)	**28.3** (23.9-33.3)	**25.6** (18.7-33.9)	**28.5** (24.6-32.7)	**21.3** (17.7-25.3)	**23.4** (19.8-27.3)	**19.3** (16.5-22.5)	**18.6** (16.0-21.5)	**19.4** (15.1-24.5)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) no significant differences 2013 vs. 2011; [b] 2013 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

Cannabis and Alcohol Use on the Same Occasion in the Past Year

(Figure 3.5.4)

For the first time in 2013, students were asked about using cannabis and alcohol on the same occasion. A random half sample of students in grades 7–12 was asked the following: "*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 who report using these drugs together at least once in the past year.

2013: Grades 7–12

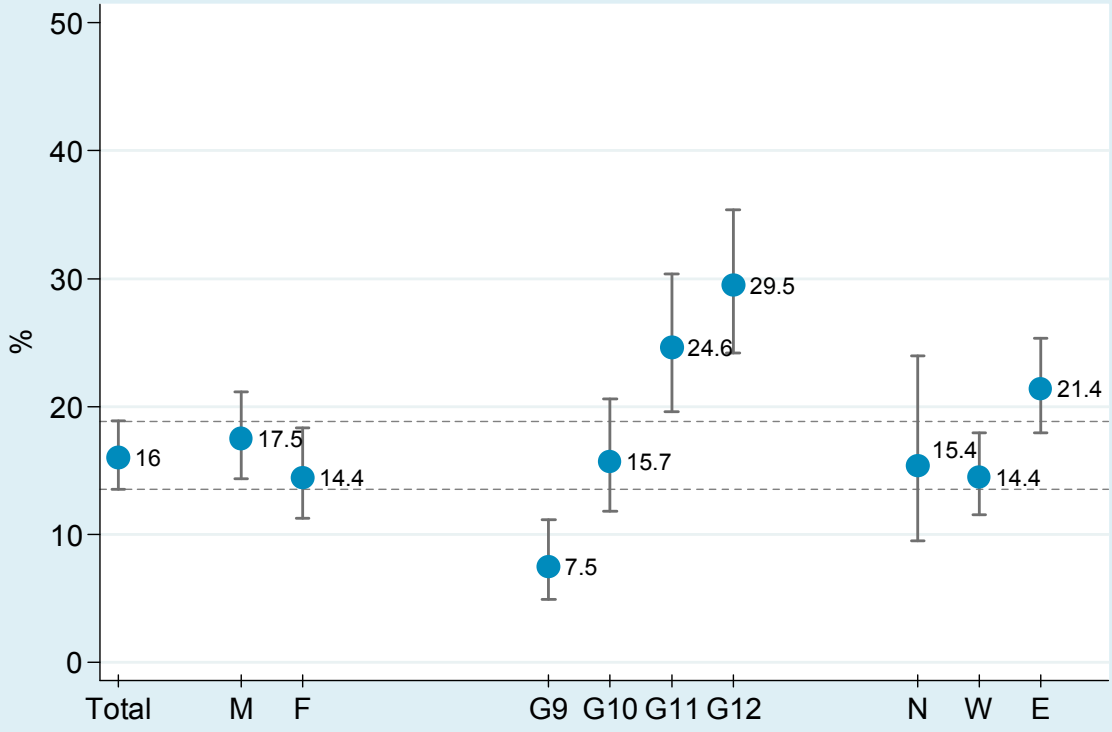
- 16.0% (95% CI: 13.5%-18.8%) report using cannabis and alcohol on the same occasion at least once during the past year. This percentage represents about 144,700 students in Ontario.

- Males (17.5%) and females (14.4%) are equally likely to use cannabis and alcohol on the same occasion.

- Use of these drugs together significantly increases with grade, peaking in 12th grade at 29.5%.

- Despite some variation, there are no significant differences among the four regions.

Figure 3.5.4
Cannabis and Alcohol Use on the Same Occasion in the Past Year by Sex, Grade, and Region, 2013 OSDUHS



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

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

(Figures 3.5.5, 3.5.6; Tables 3.2.2a, 3.2.2b, 3.5.2a–3.5.3b)

2013: Grades 7–12

- Among all students, 13.0% report using cannabis six times or more often during the past year (see Table 3.2.2a and Table 3.2.2b for trends). About 10% of students report using between one and five times during the past year.

- During the month (4 weeks) before the survey, 14.2% (95% CI: 12.0%-16.6%) of students used cannabis at least once.

- About 2.7% (95% CI: 1.9%-3.7%) of students used on a daily basis during the past month – representing about 25,800 Ontario students. Daily cannabis use is more prevalent among males, and among older students. There are no significant differences in daily cannabis use among the four regions.

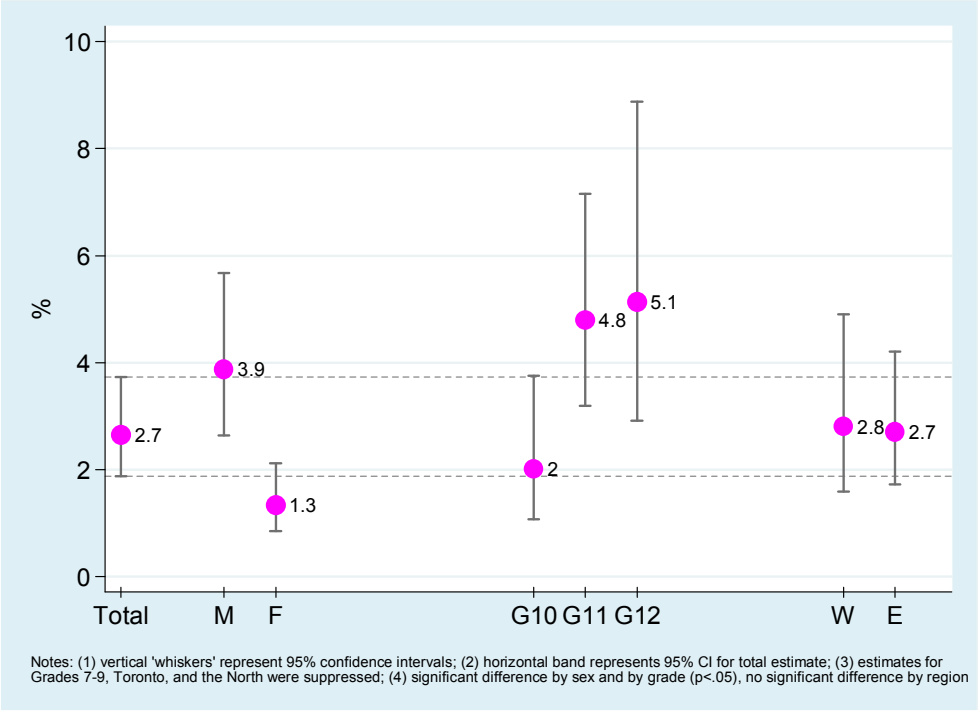
1999–2013: Grades 7–12

☐ The percentage reporting any cannabis use in the past month in 2013 (14.2%) is similar to the percentage seen in 2011 (13.4%), but significantly lower than in 1999 (20.9%). There have been no significant changes in daily cannabis use between 1999 and 2013.

1981–2013: Grades 7, 9, 11

☐ Among students in grades 7, 9, and 11 only, cannabis use six or more times in the past year is currently at an elevated level compared with estimates from the late 1980s and early 1990s, but is lower than the peaks evident in the late 1970s and again in the late 1990s/early 2000s (see Table 3.2.2b and Figure 3.5.3). Similarly, as seen in the bottom panel of Table 3.5.3b, daily cannabis use in 2013 is significantly higher than the estimates from the late 1980s and early 1990s, but lower than the peak seen in 2003.

Figure 3.5.5
Daily Cannabis Use in the Past Month by Sex, Grade, and Region, 2013 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7-9, Toronto, and the North were suppressed; (4) significant difference by sex and by grade (p<.05), no significant difference by region

Table 3.5.2a: Frequency of Cannabis Use in the Past Year, 1999–2013 OSDUHS (Grades 7–12)

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

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

Table 3.5.2b: Frequency of Cannabis Use in the Past Year, 1981–2013 OSDUHS (Grades 7, 9, 11 only)

	1981	**1983**	**1985**	**1987**	**1989**	**1991**	**1993**	**1995**	**1997**	**1999**	**2001**	**2003**	**2005**	**2007**	**2009**	**2011**	**2013**
(*n*=)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	(5211)
Frequency:																	
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
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
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
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
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
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
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

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

Table 3.5.3a: Frequency of Cannabis Use in the Past Month, 1999–2013 OSDUHS (Grades 7–12)

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

Notes: (1) question asked of a random half sample between 2001 and 2011; (2) † estimate suppressed due to unreliability; (3) no significant differences 2013 vs. 2011; [b] 2013 vs. 1999 significant difference, p<.01.
Q: During the last 4 weeks how often (if ever) did you use cannabis (also known as marijuana, "weed", "pot", "grass", hashish, "hash", hash oil, etc.)?
Source: OSDUHS, Centre for Addiction & Mental Health

Figure 3.5.6
Frequency of Cannabis Use in the Past Month, 1983–2013 OSDUHS
(Grades 7, 9, 11 only)

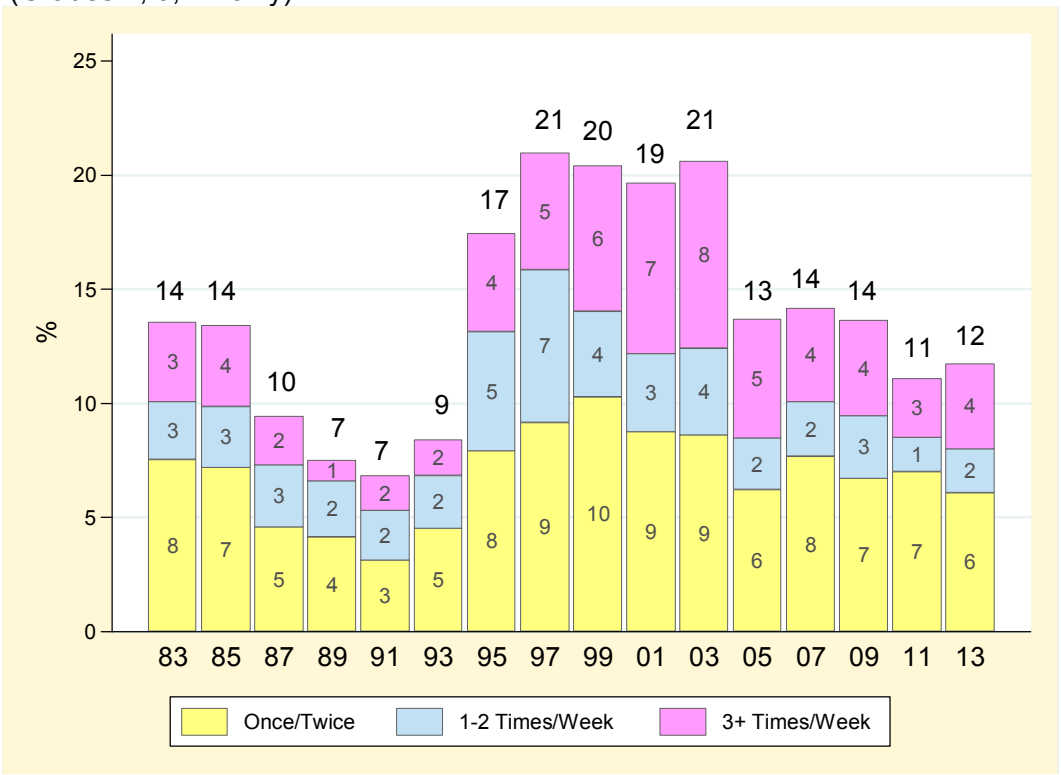


Table 3.5.3b: Frequency of Cannabis Use in the Past Month, 1983–2013 OSDUHS (Grades 7, 9, 11 only)

		1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(2544)	(2421)	(953)	(1618)	(2107)	(1727)	(2355)	(2415)	(5211)
Not Uses in Past Month																	
Total		**86.4**	**86.6**	**90.6**	**92.5**	**93.2**	**91.6**	**82.6**	**79.0**	**79.6**	**80.3**	**79.4**	**86.3**	**85.8**	**86.4**	**88.9**	**88.3**
Sex	Males	82.9	84.6	88.6	92.1	92.1	89.0	80.1	77.0	76.8	76.2	74.7	84.5	85.0	84.9	86.7	85.9
	Females	89.9	88.7	92.4	92.9	94.4	94.1	85.0	80.1	82.4	84.6	83.8	88.2	86.7	87.8	91.1	90.7
1-2 Times																	
Total		**7.5**	**7.2**	**4.6**	**4.1**	**3.1**	**4.5**	**7.9**	**9.2**	**10.3**	**8.8**	**8.6**	**6.2**	**7.7**	**6.7**	**7.0**	**6.1**
Sex	Males	8.3	7.4	4.9	3.9	3.2	5.2	8.2	8.0	10.3	9.6	8.9	6.1	6.8	6.9	8.0	6.9
	Females	6.8	7.0	4.3	4.4	3.0	3.9	7.7	10.2	10.3	7.8	8.3	6.4	8.6	6.6	6.0	5.2
1-2 Times Each Week																	
Total		**2.6**	**2.7**	**2.7**	**2.4**	**2.2**	**2.3**	**5.2**	**6.7**	**3.8**	**3.4**	**3.8**	**2.2**	**2.4**	**2.7**	**1.5**	**1.9**
Sex	Males	3.4	3.1	3.2	2.6	2.3	3.3	6.1	7.0	4.1	4.1	4.5	2.4	2.1	2.8	1.7	2.1
	Females	1.8	2.2	2.3	2.4	2.0	1.3	4.3	6.4	3.4	2.7	3.0	2.1	2.8	2.7	1.3	1.7
3-6 Times Each Week																	
Total		**2.6**	**2.5**	**1.5**	†	†	**1.2**	**2.9**	**3.5**	**4.0**	**4.8**	**3.9**	**2.4**	**1.8**	**1.8**	**1.4**	**1.4**
Sex	Males	4.0	3.4	2.2	†	†	2.0	3.5	5.2	5.5	5.3	5.5	2.7	2.9	2.2	1.8	1.8
	Females	†	1.5	†	†	†	†	2.4	2.1	2.0	4.2	2.3	1.9	†	1.4	1.0	1.0
Daily Use																	
Total		**0.9**	†	**0.6**	†	**0.7**	†	**1.4**	**1.6**	**2.5**	**2.7**	**4.3**	**2.8**	**2.3**	**2.4**	**1.2**	**2.3**
Sex	Males	†	†	†	†	†	†	2.1	2.8	3.3	4.8	6.3	4.2	3.2	3.2	1.7	3.2
	Females	†	†	†	†	†	†	†	†	1.6	†	2.4	1.4	1.4	1.6	†	1.4

Notes: (1) question asked of a random half sample between 2001 and 2011; (2) † estimate suppressed due to unreliability
Q: During the last 4 weeks, how often (if ever) did you use cannabis (also known as marijuana, "weed", "pot", "grass", hashish, "hash", hash oil, etc.)?
Source: OSDUHS, Centre for Addiction & Mental Health

Number of Marijuana Joints Consumed in the Past Month (Among Past Year Users)

(Table 3.5.4)

2013: Grades 7–12

- Roughly 17% of past year cannabis users in grades 7 through 12 smoked less than one joint per occasion during the past month; 20.2% smoked about one joint; 17.4% smoked two to three joints; and 11.6% smoked four or more joints. Just over one-third of past year users did not use marijuana during the month before the survey.

1999–2013: Grades 7–12

☐ The percentage of past year users reporting a high quantity of marijuana (i.e., four or more joints) consumed per occasion did not substantially change over the past decade.

Table 3.5.4: Number of Marijuana Joints Smoked Per Occasion in the Past Month, Among Past Year Cannabis Users, 1999–2013 OSDUHS (Grades 7–12)

	Percentage of Past Year Cannabis Users							
	1999	**2001**	**2003**	**2005**	**2007**	**2009**	**2011**	**2013**
(*n*=)	(1137)	(497)	(930)	(1180)	(950)	(1117)	(1019)	(947)
No marijuana in past 4 weeks	13.1	26.4	29.4	32.8	32.9	29.2	36.0	34.0
Less than 1 joint	23.8	13.8	14.9	15.6	18.6	17.1	14.8	16.8
About 1 joint	23.8	19.6	21.9	22.2	22.3	24.9	18.8	20.2
2 to 3 joints	24.9	23.6	18.4	18.3	17.7	17.3	16.6	17.4
4 + joints	14.4	16.6	15.4	11.1	8.6	11.5	13.8	11.6

Note: Question asked of a random half sample since 2001.
Q: During the last 4 weeks, on occasions when you have used marijuana, how many joints did you typically smoke? (If you shared joints with others, count only the amount that ***you*** smoked.)
Source: OSDUHS, Centre for Addiction & Mental Health

Cannabis Dependence (Among Grades 9–12)

(Tables 3.5.5, 3.5.6)

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. In 2013, the SDS was asked of grades 9–12 only.

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

The response options for items #1, 2, and 4 were: *Never used; Did not use in the last 3 months; Never; Sometimes; Often;* or A*lways*. Responses for item #3 were: *Never used; Did not use in the last 3 months; Not at all; A little; Quite a lot;* or *A great deal*. Responses for item #5 were: *Don't use; Not difficult; Quite difficult; Very difficult;* or *Impossible*. Each item was scored on a 4-point scale and item scores were summed. A total score of 4 or more (of 15) indicates potential cannabis dependence (α=0.79).

2013: Grades 9–12 (among the Total Sample)

- An estimated 2.7% (95% CI: 1.9%-3.8%) of students in grades 9 through 12 report symptoms of cannabis dependence. This percentage represents about 20,900 Ontario secondary students. Males (2.8%) and females (2.5%) are equally likely to report dependence symptoms.

2013: Grades 9–12 (among Cannabis Users)

- When we look at the results among users only, about 8.9% (95% CI: 6.4%-12.4%) of past year cannabis users in grades 9 through 12 report dependence symptoms.

2007–2013: Grades 9– 12

☐ The percentage of students reporting symptoms of cannabis dependence has not significantly changed since 2007.

Table 3.5.5: Percentage of the Total Sample, and of Past Year Cannabis Users, Reporting Severity of Dependence (SDS) Indicators Experienced in the Past Three Months, 2013 OSDUHS (Grades 9–12)

	Total Sample (*n*=3264)	Past Year Users (*n*=869)
1. Your cannabis use was out of control *	2.9	9.6
2. Idea of missing a smoke of cannabis made you very anxious or worried *	5.6	18.4
3. Worried about your use of cannabis †	5.9	19.5
4. Wished you could stop using cannabis *	4.0	13.1
5. Would be difficult for you to stop or go without using cannabis ‡	3.2	10.5
SDS Score 4+	**2.7**	**8.9**
(95 % CI)	(1.9-3.8)	(6.4-12.4)

Notes: based on a random half sample; * 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 3.5.6: Percentage of Total Sample Reporting Symptoms of Cannabis Dependence as Measured by the Severity of Dependence Scale (SDS), 2007–2013 OSDUHS (Grades 9–12)

	(*n*=)	**2007** (2587)	**2009** (3055)	**2011** (3358)	**2013** (3264)
Total		**3.5**	**3.6**	**2.7**	**2.7**
(95% CI)		(2.8-4.4)	(2.7-4.7)	(1.8-4.3)	(1.9-3.8)
Sex					
	Males	**4.4**	**4.4**	**3.6**	**2.8**
		(3.2-6.0)	(3.0-6.6)	(2.1-6.4)	(1.8-4.2)
	Females	**2.6**	**2.7**	**1.8**	**2.5**
		(1.8-3.8)	(1.7-4.2)	(1.1-2.9)	(1.5-4.1)
Grade					
	9	**2.3**	†	†	†
		(1.3-4.1)			
	10	**3.4**	†	†	**3.1**
		(2.1-5.4)			(1.8-5.6)
	11	**4.5**	†	†	**3.6**
		(2.9-7.1)			(2.0-6.2)
	12	**3.8**	**4.5**	**4.0**	†
		(2.4-5.9)	(2.9-6.9)	(2.4-6.7)	
Region					
	Toronto	†	†	**3.0**	†
				(1.9-4.7)	
	North	**7.0**	†	**4.1**	**3.1**
		(4.0-12.0)		(2.4-6.7)	(1.8-5.1)
	West	**2.9**	**2.5**	†	**2.7**
		(1.9-4.3)	(1.5-4.2)		(1.5-5.0)
	East	**4.1**	**5.7**	**2.8**	**3.0**
		(3.1-5.4)	(3.9-8.3)	(1.8-4.5)	(1.7-5.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) cannabis dependence is indicated by a score of 4 or higher (of 15) on the SDS; (3) scale asked of a random half sample in each year; (4) † estimate suppressed due to unreliability; (5) no significant changes over time.

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Synthetic Cannabis ("Spice") Use

For the first time in 2013, students were asked about their use of synthetic cannabis, also known as "Spice" or "K2." 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," 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.

The question used in the survey was "*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')?*"

2013: Grades 7–12

- Among students in grades 7 through 12, the percentage reporting using synthetic cannabis at least once in the past year is 1.8% (95% CI: 1.2%-2.6%). This estimate represents about 17,300 students in Ontario.

- There is no significant difference between males (1.9%) and females (1.7%).

- There is variation by grade. Students in grades 7 and 8 report almost no use of synthetic cannabis in the past year (suppressed estimates). About 2.6% of 10th graders and 2.3% of 11th graders report use. (Estimates for 9th and 12th graders were also suppressed.)

- There is no significant regional variation. About 1.6% of students in the East region report use. (Estimates for the other three regions were suppressed.)

3.6 Illicit Drug Use

3.6.1 Illicit Drug Use Among Grades 7–12

Past Year Inhalant Use: Glue or Solvents

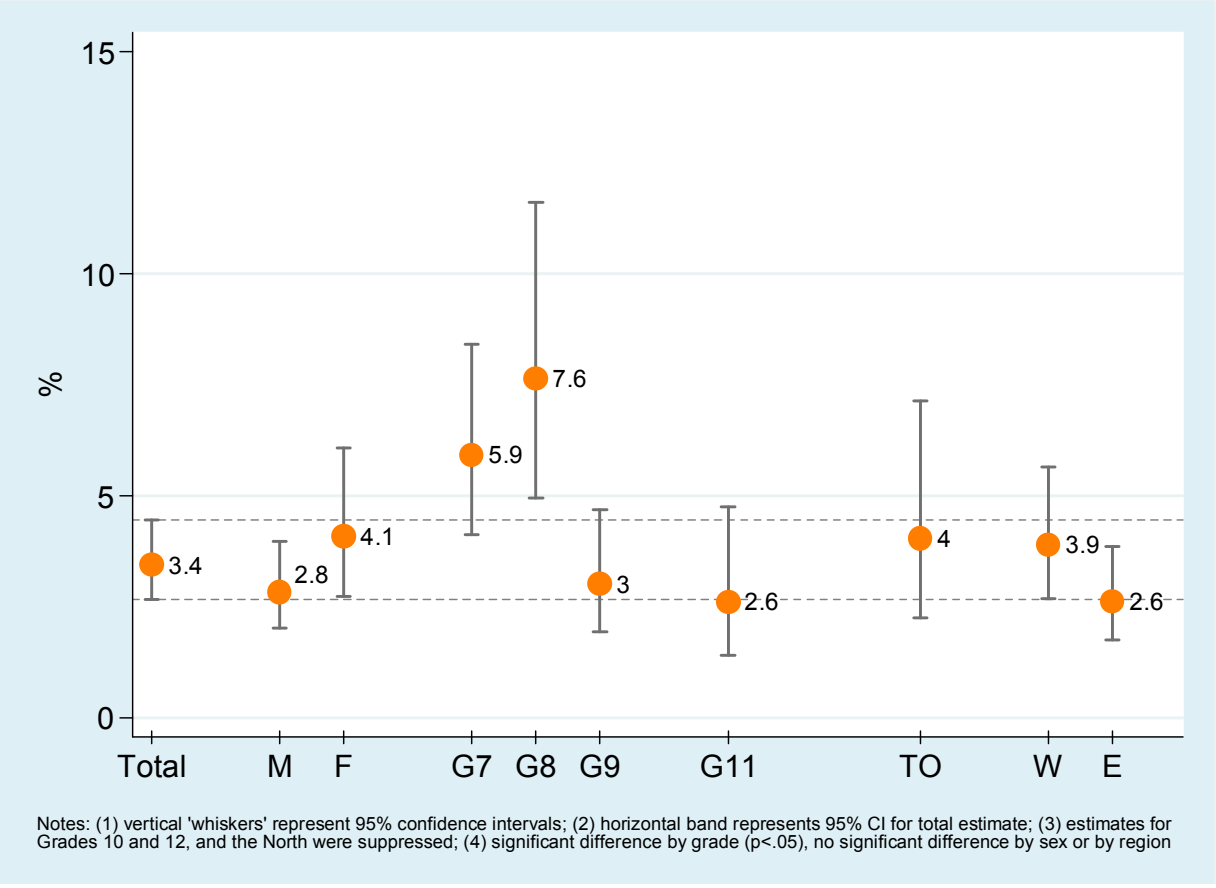
(Figures 3.6.1–3.6.3; Table 3.6.1)

Inhalants are substances, such as glue, cleaning solvents, gasoline, and aerosols, with chemical vapours that produce a "high" when they are 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 2013 (Grades 7–12)	Trends in Inhalant Use
Total Sample	■ 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 4.5% of students in Ontario inhaled glue or solvents. The current estimate of 3.4% represents about 31,300 students in grades 7 through to 12.	☐ The percentage of students in grades 7 through 12 that inhale glue or solvents significantly declined between 2011 (5.6%) and 2013 (3.4%). The use of inhalants shows a significant downward trend since 1999 (when the estimate was at 8.9%), and the 2013 estimate is the lowest on record since that time. ☐ Over the long-term (among 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	■ There is no significant difference between males (2.8%) and females (4.1%).	☐ Only males show a significant decrease in use between 2011 (5.3%) and 2013 (2.8%). Both sexes show a significant decreasing trend since 1999 (males dropped from 8.0% in 1999 to 2.8% in 2013; females dropped from 9.8% in 1999 to 4.1% in 2013).
Grade	■ Inhaling glue or solvents significantly decreases with grade, from 6%-8% among 7th and 8th graders to about 3% among students in the older grades.	☐ Only 7th graders show a significant decline in inhalant use between 2011 (12.2%) and 2013 (5.9%). Grades 7 and 9 show a significant downward trend since 1999 (7th graders are down from 14.6% in 1999 to 5.9% in 2013; 9th graders are down from 9.5% to 3.0%). Students in the other grades show no significant change between 1999 and 2013.

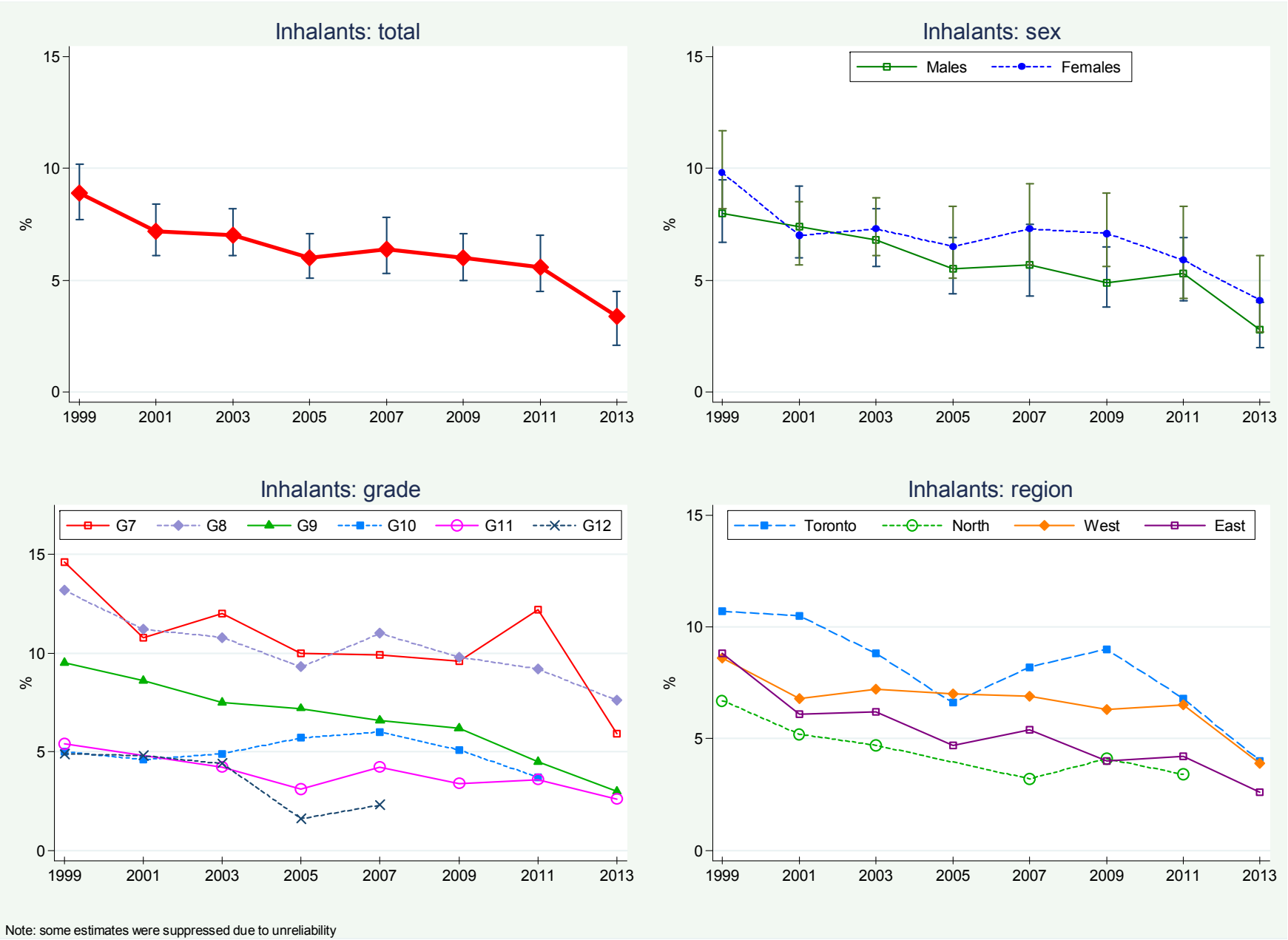
Region	■ There are no significant differences in inhalant use among the regions.	☐ No region shows a significant change in use between 2011 and 2013. However, all regions show a significant downward trend since 1999.
Frequent Use	■ Inhaling glue or solvents six times or more often in the past year was reported by 0.7% of the total sample (see Figure 3.1.3). ■ Most (64%) past year users report using inhalants only once or twice in the past year (see Figure 3.1.4).	

Figure 3.6.1
Past Year Inhalant Use (Glue or Solvents) by Sex, Grade, and Region, 2013 OSDUHS



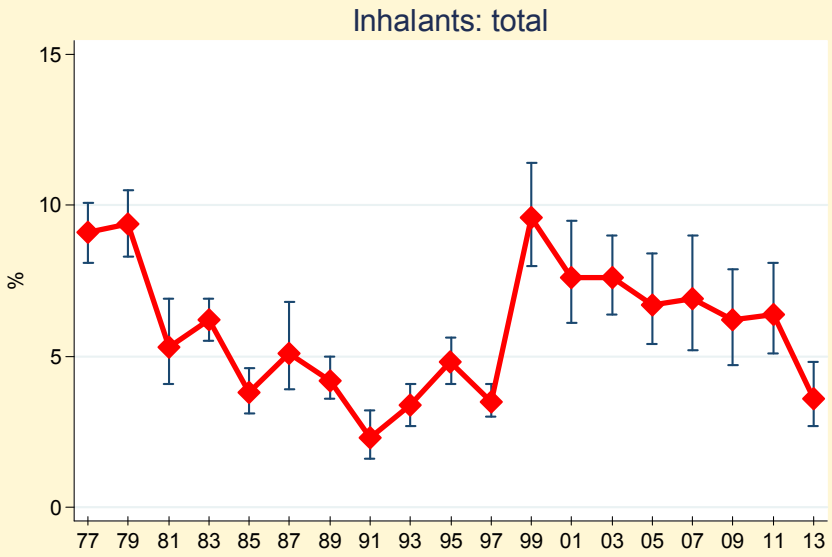
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 10 and 12, and the North were suppressed; (4) significant difference by grade (p<.05), no significant difference by sex or by region

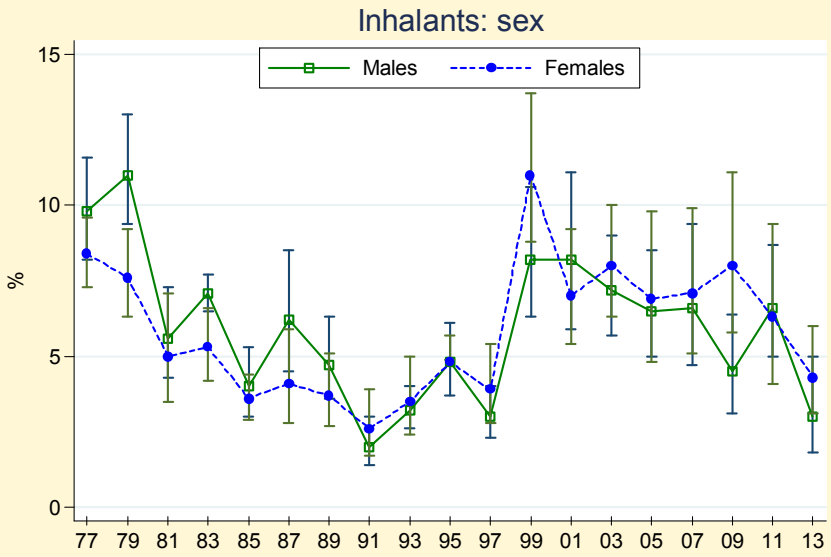
Figure 3.6.2
Past Year Inhalant Use (Glue or Solvents), 1999–2013 OSDUHS (Grades 7–12)

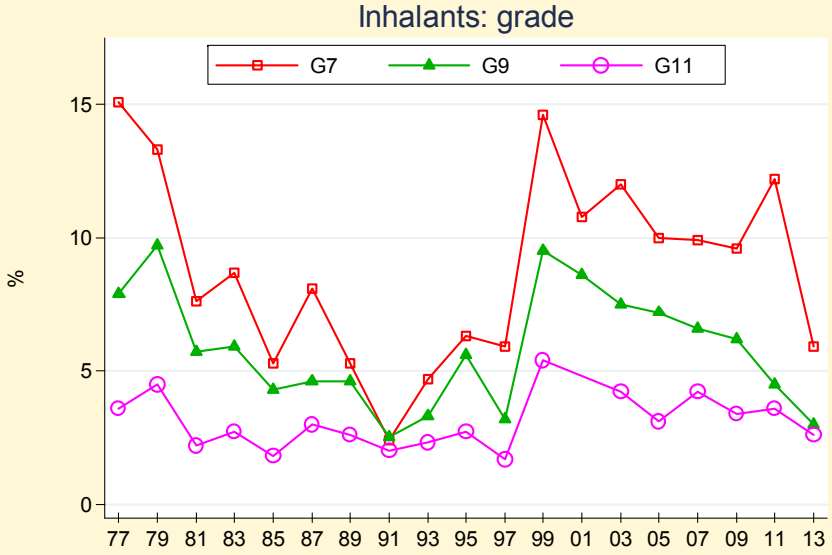


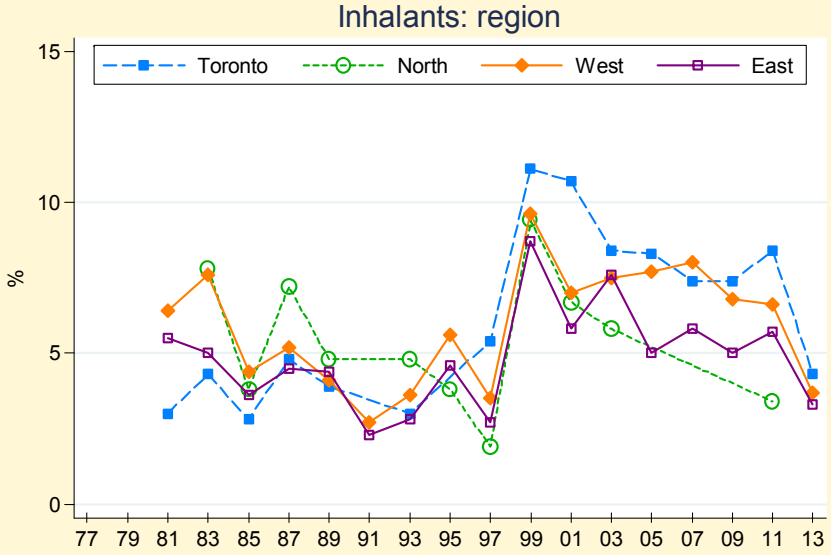
Note: some estimates were suppressed due to unreliability

Figure 3.6.3
Past Year Inhalant Use (Glue or Solvents), 1977–2013 OSDUHS (Grades 7, 9, 11 only)









Note: some estimates were suppressed due to unreliability

Table 3.6.1: Percentage Reporting Inhalant Use (Glue or Solvents) During the Past Year, 1977–2013 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(1862)	(1488)	(2069)	(2254)	(2433)
Total[1]	—	—	—	—	—	—	—	—	—	—	—	**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** [abc] (2.7-4.5)
Total[2] (95% CI)	**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** [d] (2.7-4.8)
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** [ab] (2.0-4.0)
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)
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** [b] (2.7-6.1)
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)
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** [ab] (4.1-8.4)
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)
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** [b] (1.9-4.7)
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)	†
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)
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)	†	†	†

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(1862)	(1488)	(2069)	(2254)	(2433)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**10.7** (7.9-14.4)	**10.5** (7.0-15.6)	**8.8** (6.4-12.1)	**6.6** (4.7-9.0)	**8.2** (6.6-10.0)	**9.0** (6.2-13.1)	**6.8** (5.1-9.0)	**4.0** [b] (2.3-7.1)
Toronto[2]	—	—	**3.0** (1.6-5.2)	**4.3** (2.6-7.2)	**2.8** (1.4-5.5)	**4.8** (3.5-6.7)	**3.9** (2.8-5.4)	†	**3.0** (1.9-4.5)	†	**5.4** (4.0-7.2)	**11.1** (7.6-15.9)	**10.7** (6.4-17.5)	**8.4** (5.2-13.1)	**8.3** (5.7-12.0)	**7.4** (4.6-11.6)	**7.4** (4.2-12.8)	**8.4** (5.9-11..9)	**4.3** (2.5-7.3)
North[1]	—	—	—	—	—	—	—	—	—	—	—	**6.7** (4.5-9.9)	**5.2** (3.8-7.2)	**4.7** (3.6-6.2)	†	**3.2** (1.9-5.3)	**4.1** (2.3-7.2)	**3.4** (1.9-5.9)	† [b]
North[2]	—	—	†	**7.8** (6.6-9.1)	**3.8** (2.1-6.5)	**7.2** (5.5-9.5)	**4.8** (2.7-8.2)	†	**4.8** (3.2-7.1)	**3.8** (3.2-4.3)	**1.9** (1.2-3.0)	**9.4** (5.1-16.7)	**6.7** (4.7-9.4)	**5.8** (4.2-8.0)	†	†	†	**3.4** (1.9-6.2)	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**8.6** (6.9-10.6)	**6.8** (5.4-8.5)	**7.2** (5.7-9.2)	**7.0** (5.4-8.9)	**6.9** (4.9-9.5)	**6.3** (4.8-8.3)	**6.5** (4.3-9.8)	**3.9** [b] (2.7-5.6)
West[2]	—	—	**6.4** (4.2-9.6)	**7.6** (7.0-8.3)	**4.4** (3.7-5.2)	**5.2** (2.9-9.2)	**4.1** (3.1-5.4)	**2.7** (1.7-4.2)	**3.6** (2.8-4.6)	**5.6** (4.9-6.4)	**3.5** (2.6-4.7)	**9.6** (7.2-12.7)	**7.0** (5.1-9.6)	**7.5** (5.8-9.7)	**7.7** (5.4-10.7)	**8.0** (5.1-12.3)	**6.8** (4.7-9.8)	**6.6** (4.2-10.4)	**3.7** (2.4-5.5)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**8.8** (6.9-11.2)	**6.1** (4.6-7.9)	**6.2** (4.8-8.2)	**4.7** (3.4-6.5)	**5.4** (3.8-7.7)	**4.0** (3.0-5.4)	**4.2** (3.2-5.5)	**2.6** [b] (1.8-3.6)
East[2]	—	—	**5.5** (5.0-6.1)	**5.0** (3.9-6.4)	**3.6** (2.3-5.7)	**4.5** (2.9-6.8)	**4.4** (3.4-5.8)	**2.3** (1.3-4.3)	**2.8** (1.5-5.1)	**4.6** (3.5-6.1)	**2.7** (2.2-3.4)	**8.7** (6.2-11.9)	**5.8** (3.7-8.9)	**7.6** (5.6-10.3)	**5.0** (3.2-7.8)	**5.8** (3.8-8.7)	**5.0** (3.0-8.0)	**5.7** (4.1-7.8)	**3.3** (1.9-5.9)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) question asked of a random half-sample starting in 2005; (4) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (5) entries in brackets are 95% confidence intervals; (6) † estimate suppressed due to unreliability; (7) estimates prior to 2011 are based on two separate questions (glue and solvent use) in the questionnaire; (8) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

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

Source: OSDUHS, Centre for Addiction & Mental Health

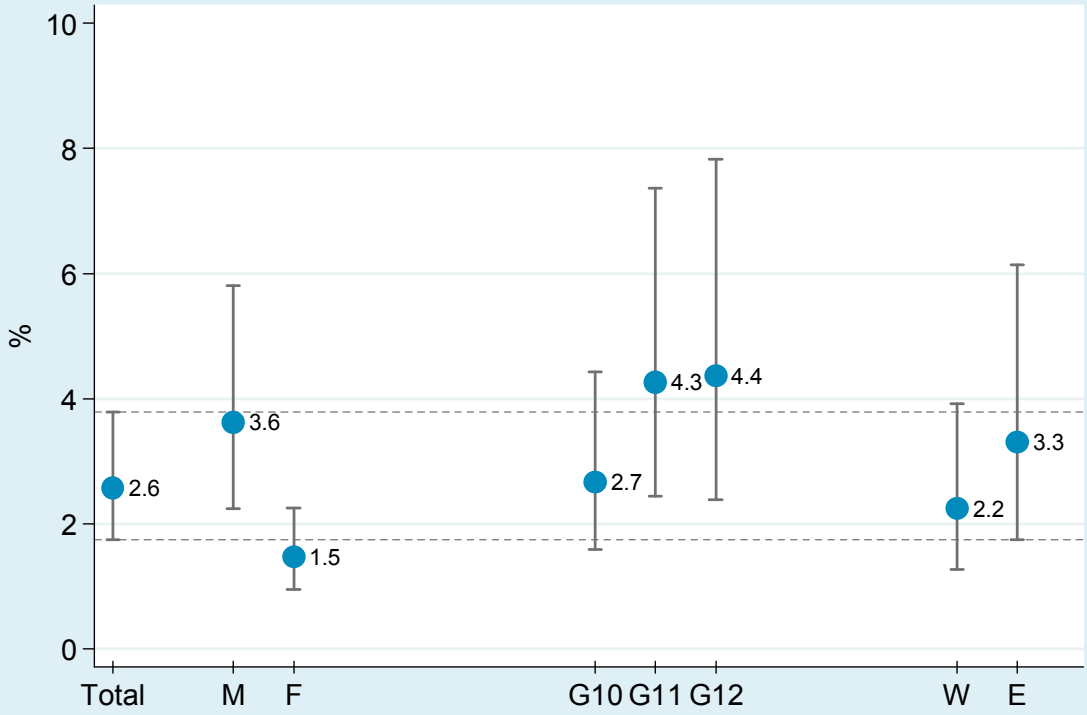
Past Year Salvia Divinorum Use

(Figure 3.6.4; 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 intense short-lived hallucinations and delusions. Use was first monitored in the 2009 cycle of the survey.

	Salvia Divinorum Use in 2013 (Grades 7–12)	Trends in Salvia Divinorum Use (Grades 7–12)
Total Sample	■ In 2013, 2.6% (95% CI: 1.7%-3.8%) of students in grades 7 through 12 report using salvia divinorum at least once in the past year. This percentage represents roughly 23,400 students in Ontario.	☐ Past year salvia use remained stable between 2009 (4.4%) and 2013 (2.6%).
Sex	■ Males (3.6%) are significantly more likely than females (1.5%) to use salvia divinorum.	☐ Neither sex shows a significant change between 2009 and 2013.
Grade	■ There is significant grade variation showing that salvia use is most likely among 11th and 12th graders (about 4%).	☐ None of the grades shows a significant change between 2009 and 2013.
Region	■ There is no significant regional variation.	☐ None of the four regions shows a significant change between 2009 and 2013.
Frequent Use	■ Most salvia users (68%) used only once or twice in the past year (see Figure 3.1.4).	

Figure 3.6.4
Past Year Salvia Divinorum Use by Sex, Grade, and Region, 2013 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grades 7-9, Toronto, and the North were suppressed; (4) significant difference by sex and by grade (p<.05), no significant difference by region

Table 3.6.2: Percentage Reporting Salvia Divinorum Use in the Past Year, 2009–2013 OSDUHS

		2009	2011	2013
	(*n*=)	(4220)	(4472)	(4794)
Total		**4.4**	**3.7**	**2.6**
(95% CI)		(3.3-5.7)	(2.8-4.8)	(1.7-3.8)
Sex				
	Males	**6.2**	**5.1**	**3.6**
		(4.7-8.2)	(3.7-6.8)	(2.2-5.8)
	Females	**2.3**	**2.1**	**1.5**
		(1.5-3.5)	(1.1-4.0)	(0.9-2.2)
Grade				
	7	†	†	†
	8	†	†	†
	9	†	**3.1**	†
			(1.7-5.4)	
	10	**4.7**	**5.0**	**2.7**
		(2.9-7.3)	(3.2-7.8)	(1.6-4.4)
	11	**8.6**	**5.2**	**4.3**
		(6.4-11.4)	(3.5-7.6)	(2.4-7.4)
	12	**8.4**	**6.2**	**4.4**
		(5.4-12.7)	(3.3-11.3)	(2.4-7.8)
Region				
	Toronto	†	†	†
	North	**9.2**	**4.9**	†
		(6.5-12.8)	(2.8-8.6)	
	West	**4.7**	**3.0**	**2.2**
		(2.8-7.6)	(1.6-5.5)	(1.3-3.9)
	East	**4.0**	**5.0**	**3.3**
		(3.0-5.4)	(3.9-6.4)	(1.7-6.1)

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 salvia divinorum (also known as “sally-D”, “magic mint”, “sadi”)?
Source: OSDUHS, Centre for Addiction & Mental Health

3.6.2 Illicit Drug Use Among Grades 9–12

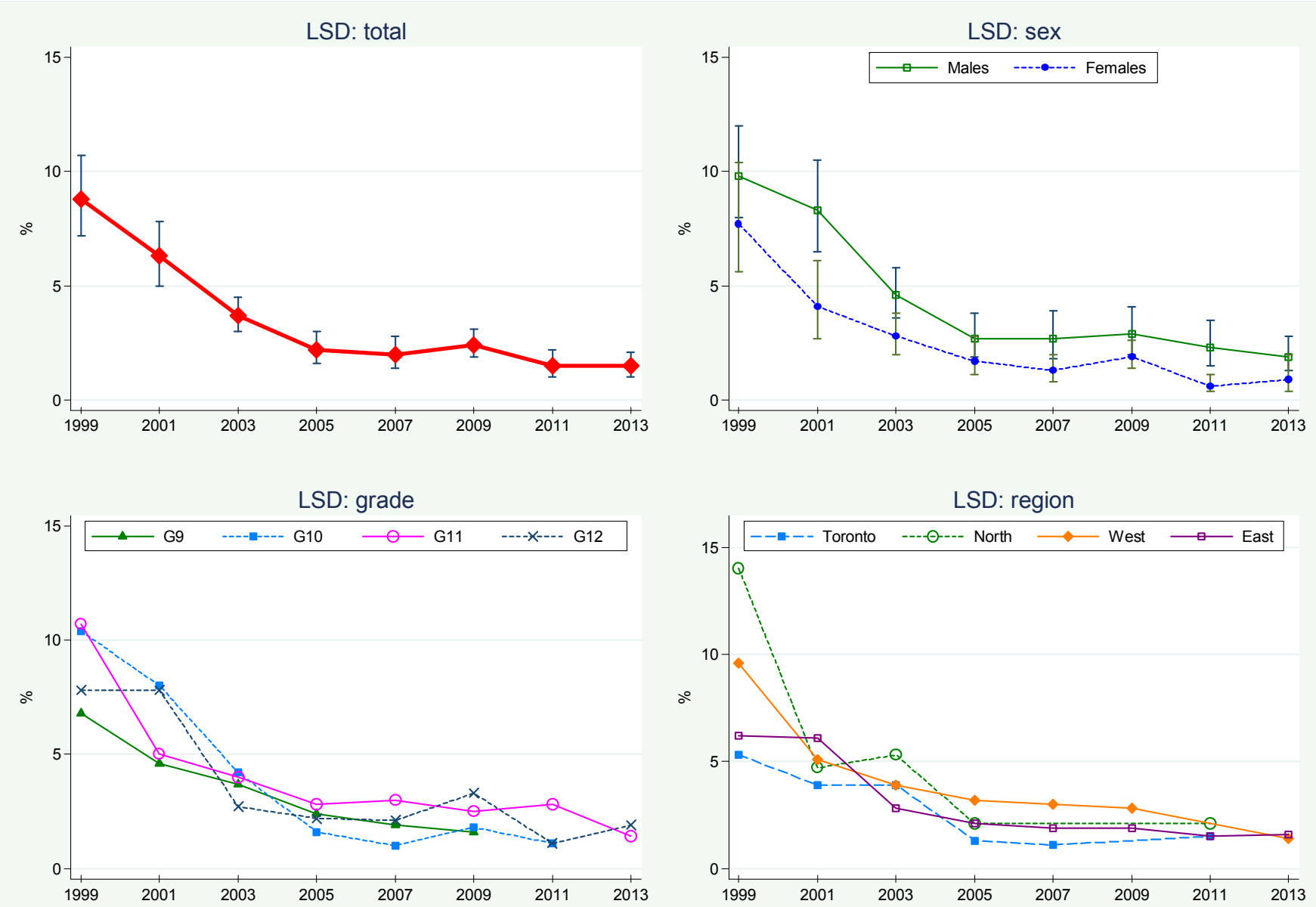
Past Year LSD Use

(Figures 3.6.5, 3.6.6; 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).

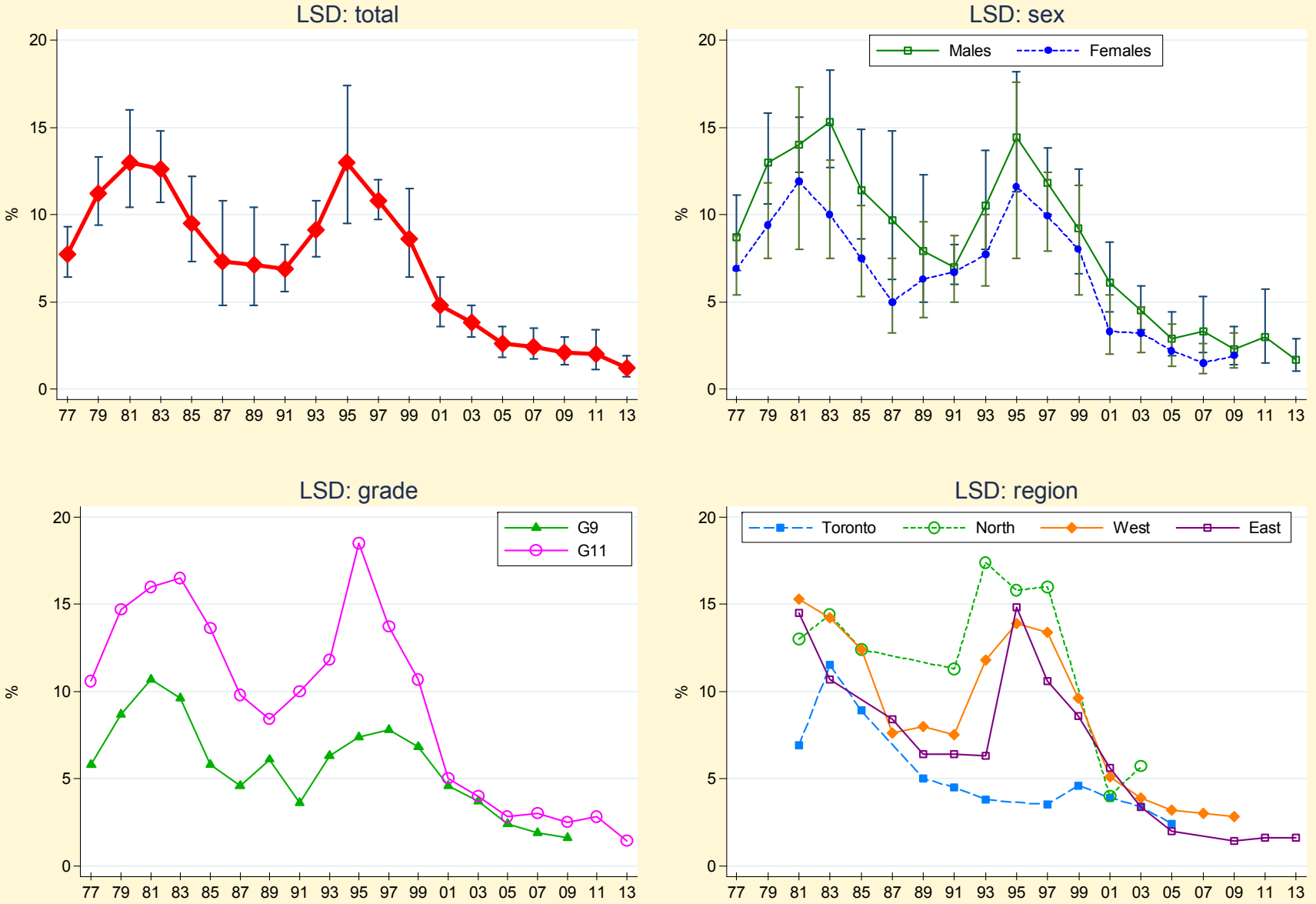
	LSD Use in 2013 (Grades 9–12)	Trends in LSD Use
Total Sample	■ LSD use is reported by 1.5% of Ontario students in grades 9 through 12 (representing about 10,600 students). With the sampling error, we estimate that between 1.0% and 2.1% of students in Ontario use LSD.	☐ LSD use remained stable between 2011 and 2013 (both years at 1.5%) among the total sample of secondary students. LSD use was on a significant downward trend between 1999 and 2005 (from 8.8% down to 2.2%), followed by low and stable estimates between 2005 and 2013. ☐ Over the long-term (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. The lowest point was reached in 2009 and estimates since then have been low and stable.
Sex	■ LSD use does not significantly differ between males (1.9%) and females (0.9%).	☐ No sex shows a significant change in LSD use between 2011 and 2013. Both males and females show a significant decline in use between 1999 and 2013.
Grade	■ LSD use does not significantly differ by grade.	☐ No grade shows a significant change between 2011 and 2013. All four grades show a significant decline since 1999.
Region	■ LSD use does not significantly differ by region.	☐ No region shows a significant change in LSD use between 2011 and 2013. All four regions show a significant decline since 1999.
Frequent Use	■ The majority (66%) of LSD users report using only once or twice during the past year (see Figure 3.1.4).	

Figure 3.6.5
Past Year LSD Use, 1999–2013 OSDUHS (Grades 9–12)



Note: some estimates were suppressed due to unreliability

Figure 3.6.6
Past Year LSD Use, 1977–2013 OSDUHS (Grades 9 and 11 only)



Note: some estimates were suppressed due to unreliability

Table 3.6.3: Percentage Reporting LSD Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2404)	(2792)	(3223)	(3111)	
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)	bcd
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)	cd
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)	b
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)	
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)	b
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)	†	†	
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)	†	†	b
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)	†	b
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)	b
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)	b

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2404)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**5.3** (3.5-7.9)	**3.9** (1.9-7.5)	**3.9** (2.3-6.5)	**1.3** (0.7-2.5)	**1.1** (0.6-2.0)	†	**1.5** (0.8-2.8)	† [b]
Toronto[2]	—	—	**6.9** (3.0-14.9)	**11.5** (5.6-22.3)	**8.9** (5.9-13.2)	†	**5.0** (3.8-6.6)	**4.5** (2.3-8.6)	**3.8** (2.0-7.3)	†	**3.5** (2.3-5.2)	**4.6** (2.6-7.9)	**3.9** (2.1-7.0)	**3.4** (1.9-6.0)	**2.4** (1.3-4.5)	†	†	†	†
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)	†	†	†	† [b]
North[2]	—	—	**13.0** (8.5-19.3)	**14.4** (10.3-19.9)	**12.4** (8.0-18.8)	†	†	**11.3** (5.7-21.2)	**17.4** (9.4-30.0)	**15.8** (11.3-21.5)	**16.0** (12.0-21.0)	†	**4.0** (2.0-7.6)	**5.7** (3.9-8.4)	†	†	†	†	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**9.8** (6.8-13.9)	**7.8** (5.7-10.3)	**3.8** (2.8-5.2)	**2.8** (1.7-4.5)	**2.3** (1.3-4.1)	**2.9** (2.0-4.2)	†	**1.4** (0.7-2.5) [b]
West[2]	—	—	**15.3** (11.0-21.1)	**14.2** (12.7-15.9)	**12.4** (8.5-17.9)	**7.6** (3.6-15.4)	**8.0** (3.9-15.9)	**7.5** (5.9-9.5)	**11.8** (10.4-3.4)	**13.9** (7.8-23.7)	**13.4** (11.5-15.6)	**9.6** (5.5-16.2)	**5.1** (3.2-8.1)	**3.9** (2.7-5.4)	**3.2** (1.8-5.6)	**3.0** (1.7-5.1)	**2.8** (1.7-4.6)	†	†
East[1]	—	—	—	—	—	—	—	—	—	—	—	**6.2** (5.1-7.5)	**6.1** (4.0-9.2)	**2.8** (1.8-4.4)	**2.1** (1.3-3.4)	**1.9** (1.1-3.3)	**1.9** (1.2-3.0)	**1.5** (1.1-2.2)	**1.6** (1.0-2.3) [b]
East[2]	—	—	**14.5** (11.4-18.3)	**10.7** (7.9-14.4)	†	**8.4** (6.7-10.4)	**6.4** (3.2-12.5)	**6.4** (4.1-9.8)	**6.3** (3.4-11.4)	**14.8** (11.7-18.5)	**10.6** (8.6-13.1)	**8.6** (6.0-12.1)	**5.6** (3.5-8.9)	**3.4** (2.1-5.7)	**2.0** (1.1-3.6)	†	**1.4** (0.8-2.7)	**1.6** (1.0-2.5)	**1.6** (0.8-3.2)

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) † estimate suppressed due to unreliability; (6) no significant differences 2013 vs. 2011; [b] 2013 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

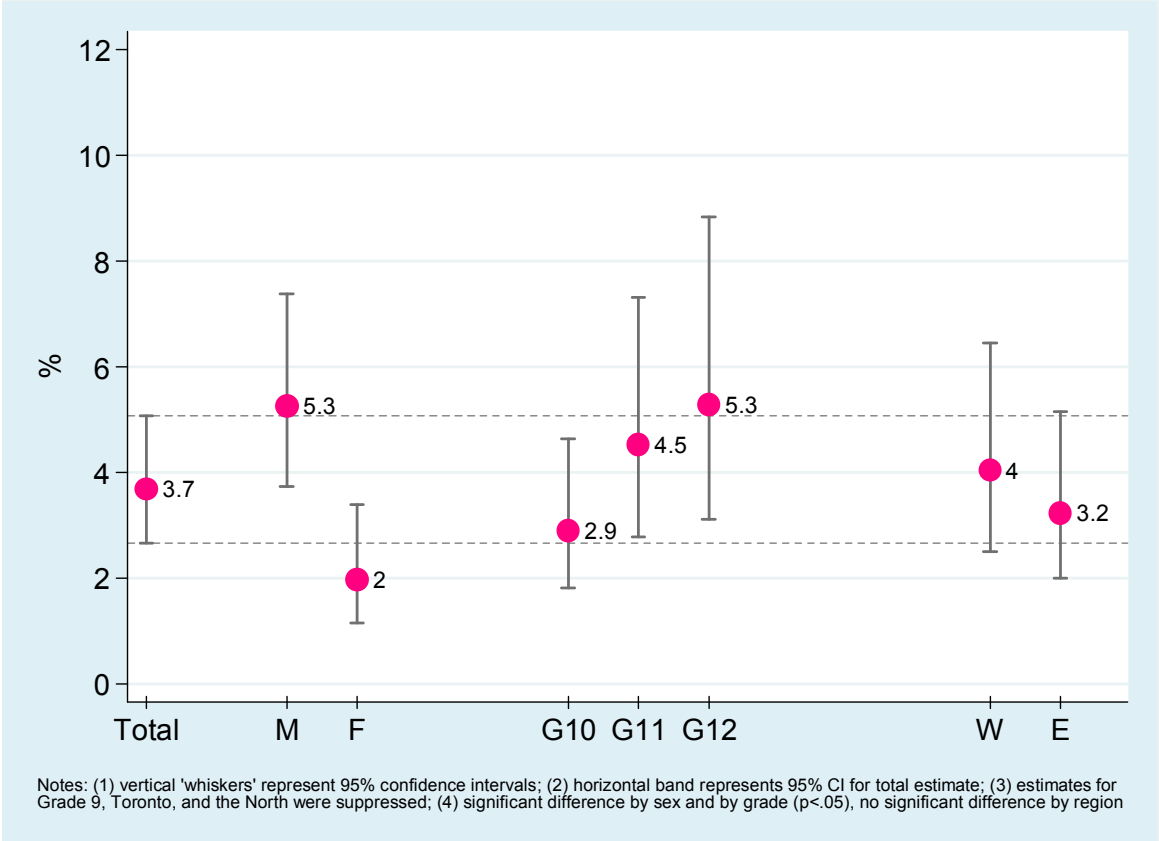
Past Year Mushroom (Psilocybin) or Mescaline Use

(Figures 3.6.7–3.6.9; 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).

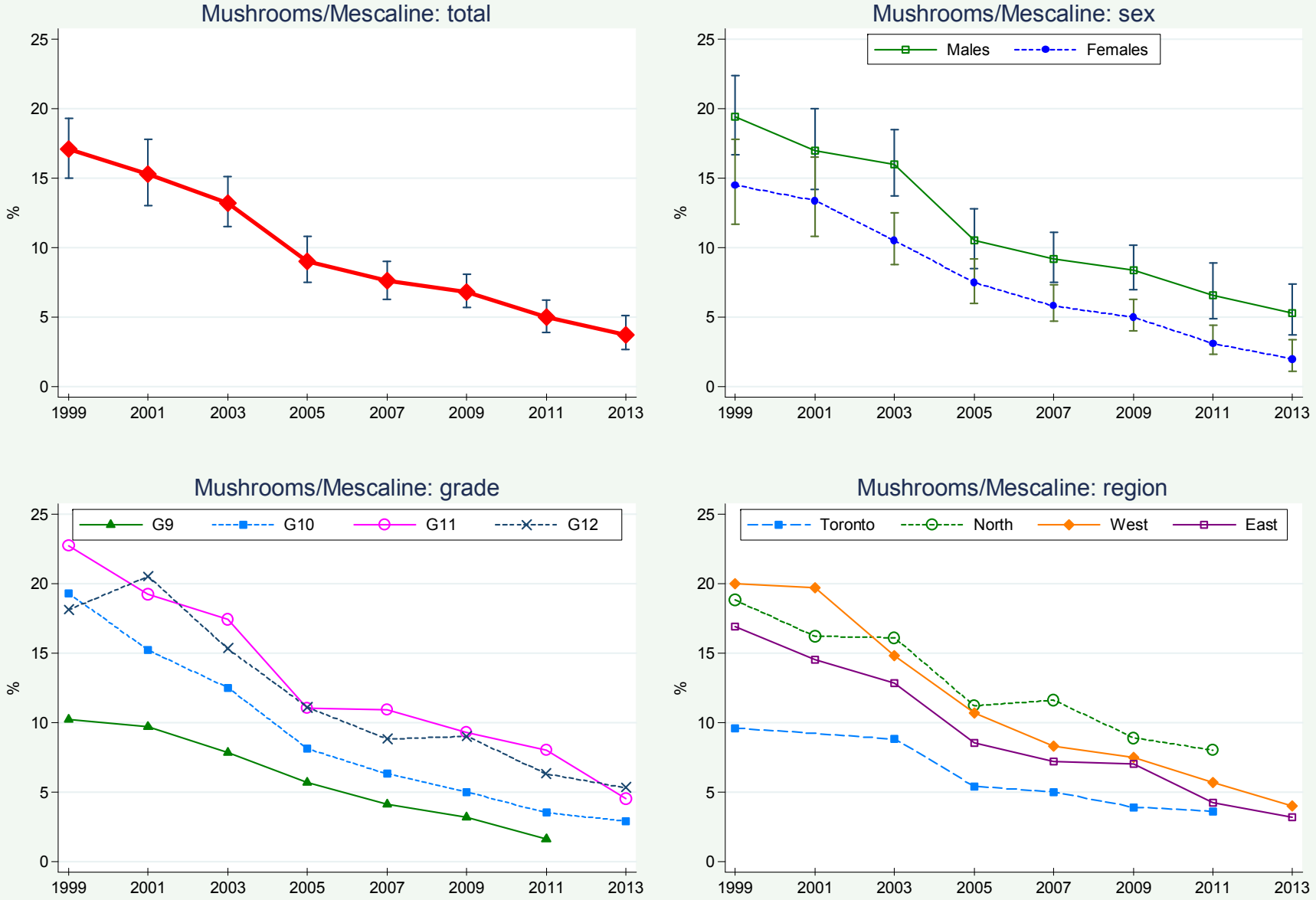
	Mushroom/Mescaline Use in 2013 (Grades 9–12)	Trends in Mushroom/Mescaline Use
Total Sample	▪ Psilocybin ("mushroom") or mescaline use is reported by 3.7% of Ontario students in grades 9 through 12. This estimate represents about 27,000 secondary students in Ontario. With the sampling error, we estimate that between 2.7% and 5.1% of students use these hallucinogens.	☐ Mushroom/mescaline use did not significantly change between 2011 (5.0%) and 2013 (3.7%). However, a dramatic linear decline in use occurred between 1999 – when the estimate was at 17.1% – and 2013. ☐ Over the long-term (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, and has steadily decreased since then. The current level remains below the two peaks, and is similar to the lows seen in the early 1990s.
Sex	▪ Males (5.3%) are significantly more likely than females (2.0%) to use mushrooms/mescaline.	☐ No sex shows a significant change in use between 2011 and 2013. Both males and females show substantial declines since 1999.
Grade	▪ Use significantly varies by grade, and is most likely among 12th graders (5.3%).	☐ No grade shows a significant change in use between 2011 and 2013. All four grades show significant declines since 1999.
Region	▪ There is no significant regional variation.	☐ No region shows a significant change in use between 2011 and 2013. All regions, except Toronto, show significant declines since 1999. (There was a slight decline in Toronto, but it did not reach statistical significance.)
Frequent Use	▪ Less than 1% of students use these hallucinogenic drugs on a frequent basis (see Figure 3.1.3). ▪ About half (48%) of users used only once or twice in the past year (see Figure 3.1.4).	☐ Frequent use (six times or more often in the past year) of these hallucinogens remained low from the late 1970s until the mid-1990s, peaked in 1999, and has since decreased.

Figure 3.6.7
Past Year Mushroom/Mescaline Use by Sex, Grade, and Region, 2013 OSDUHS



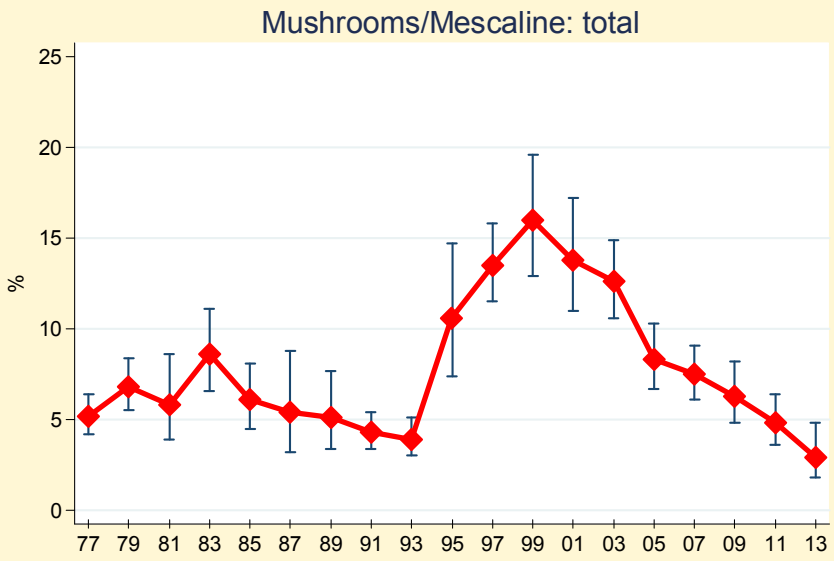
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grade 9, Toronto, and the North were suppressed; (4) significant difference by sex and by grade (p<.05), no significant difference by region

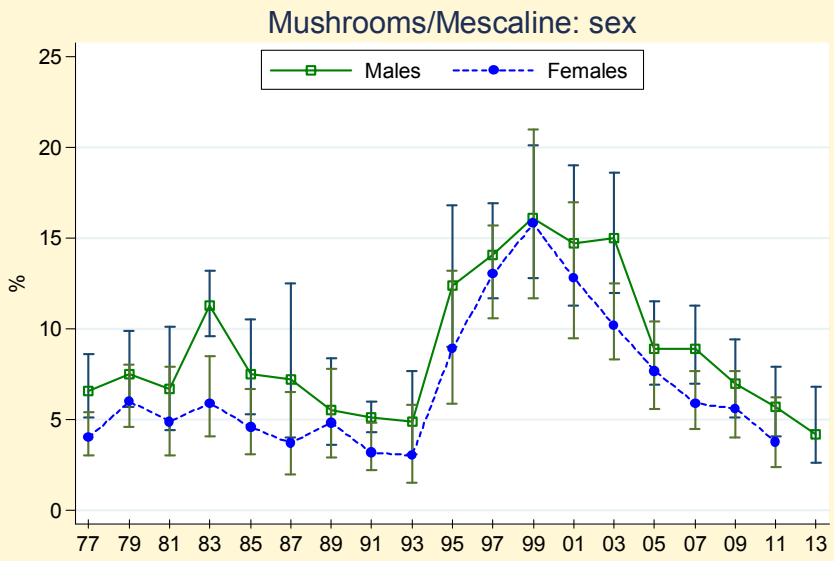
Figure 3.6.8
Past Year Mushroom/Mescaline Use, 1999–2013 OSDUHS (Grades 9–12)

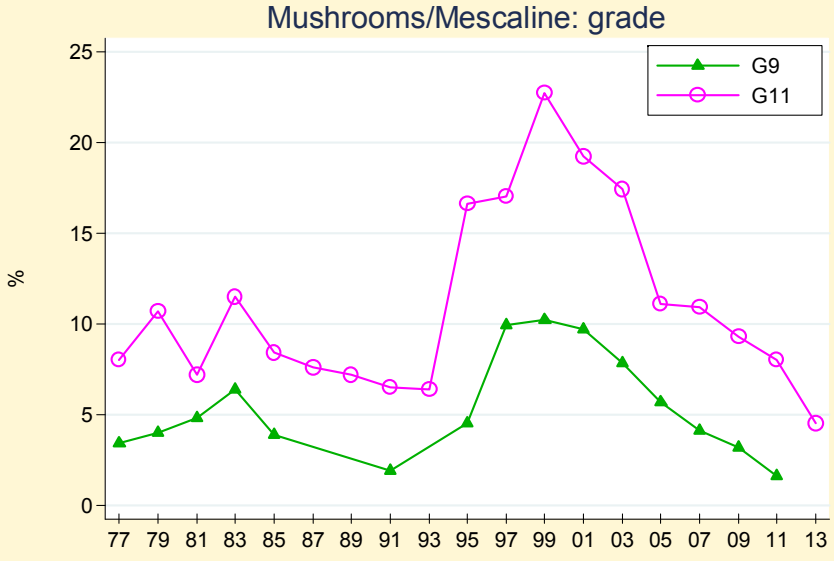


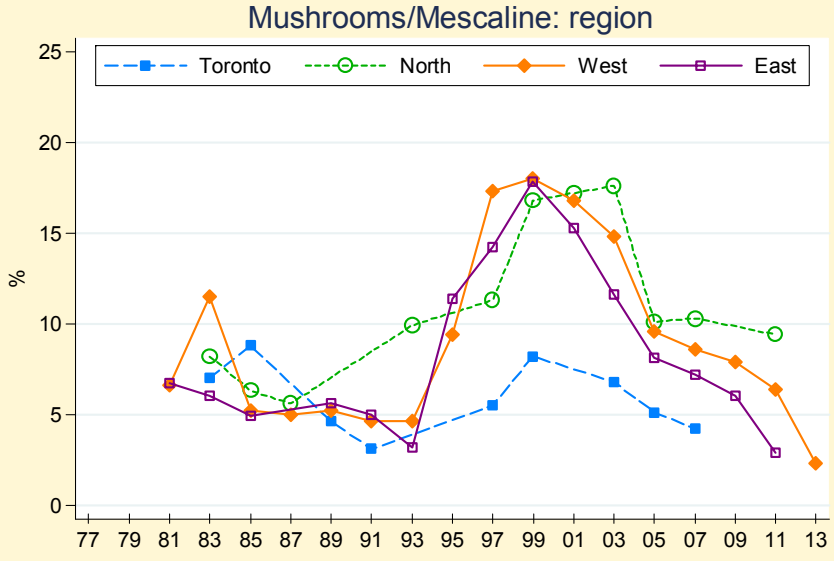
Note: some estimates were suppressed due to unreliability

Figure 3.6.9
Past Year Mushroom/Mescaline Use, 1977–2013 OSDUHS (Grades 9 and 11 only)









Note: some estimates were suppressed due to unreliability

Table 3.6.4: Percentage Reporting Mushroom or Mescaline Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	
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)	bc
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)	d
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)	b
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)	
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)	b
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)	†	
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)	†	b
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)	b
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)	b
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)	b

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**9.6** (6.7-13.5)	†	**8.8** (6.5-11.7)	**5.4** (3.2-8.8)	**5.0** (3.0-8.0)	**3.9** (2.2-6.8)	**3.6** (1.9-6.8)	†
Toronto[2]	—	—	†	**7.0** (4.2-11.3)	**8.8** (4.9-15.4)	†	**4.6** (2.4-8.4)	**3.1** (1.9-5.0)	†	†	**5.5** (4.0-7.5)	**8.2** (5.0-13.3)	†	**6.8** (4.0-11.5)	**5.1** (3.2-8.0)	**4.2** (2.4-7.3)	†	†	†
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)	† [b]
North[2]	—	—	†	**8.2** (4.9-13.4)	**6.3** (3.9-10.0)	**5.6** (2.7-11.0)	†	†	**9.9** (6.6-14.6)	†	**11.3** (5.7-21.2)	**16.8** (11.4-24.1)	**17.2** (12.2-23.8)	**17.6** (13.6-22.6)	**10.1** (6.2-15.9)	**10.3** (5.9-17.2)	†	**9.4** (5.7-15.2	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**20.0** (16.3-24.3)	**19.7** (16.2-23.8)	**14.8** (12.0-18.1)	**10.7** (8.0.-14.1)	**8.3** (6.0-11.5)	**7.5** (5.5-10.2)	**5.7** (3.7-8.6)	**4.0** [b] (2.5-6.5)
West[2]	—	—	**6.6** (3.5-11.9)	**11.5** (7.5-17.4)	**5.2** (2.9-9.4)	**5.0** (2.9-8.4)	**5.2** (2.6-10.6)	**4.6** (4.1-5.2)	**4.6** (3.1-6.9)	**9.4** (5.8-14.9)	**17.3** (13.6-21.7)	**18.0** (12.7-25.0)	**16.8** (12.2-22.7)	**14.8** (11.7-18.5)	**9.6** (6.5-13.8)	**8.6** (6.1-11.9)	**7.9** (5.3-11.5)	**6.4** (4.2-9.6)	**2.3** (1.3-3.9)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**16.9** (13.7-20.8)	**14.5** (11.2-18.4)	**12.8** (9.6-17.1)	**8.5** (6.1-11.7)	**7.2** (5.7-9.0)	**7.0** (5.6-8.5)	**4.2** (3.3-5.4)	**3.2** [b] (2.0-5.2)
East[2]	—	—	**6.7** (3.7-12.0)	**6.0** (3.8-9.2)	**4.9** (3.5-6.8)	†	**5.6** (2.6-11.7)	**5.0** (2.8-8.8)	**3.2** (2.1-4.8)	**11.4** (7.8-16.3)	**14.2** (10.7-18.5)	**17.8** (13.0-23.9)	**15.3** (11.3-20.5)	**11.6** (7.9-16.9)	**8.1** (5.9-11.0)	**7.2** (5.2-9.9)	**6.0** (3.8-9.4)	**2.9** (2.0-4.2)	†

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) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (5) † estimate suppressed or less than 0.5%; (6) no significant differences 2013 vs. 2011; [b] 2013 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 2013 (Grades 9–12)	Trends in Jimson Weed Use (Grades 9–12)
Total Sample	■ Overall, 1.3% (95% CI: 0.7%-2.4%) of students report using jimson weed at least once during the past year. This represents about 8,800 Ontario students in grades 9 through 12.	☐ Jimson weed use did not significantly change between 2011 (2.0%) and 2013 (1.3%) among secondary students. The 2013 estimate is not significantly different from that found in 2007 (3.1%), when monitoring first began.
Sex	■ Estimates by sex were suppressed.	☐ Use did not significantly change among males or females between 2007 and 2013.
Grade	■ Estimates by grade were suppressed.	☐ No grade shows a significant change in jimson weed use between 2007 and 2013.
Region	■ Estimates by region were suppressed.	☐ No region shows a significant change in jimson weed use between 2007 and 2013.

Table 3.6.5: Percentage Reporting Jimson Weed Use in the Past Year, 2007–2013 OSDUHS (Grades 9–12)

		(*n*=)	**2007** (2247)	**2009** (2728)	**2011** (3025)	**2013** (2895)
Total			**3.1**	**3.1**	**2.0**	**1.3**
(95% CI)			(2.3-4.3)	(2.3-4.1)	(1.1-3.5)	(0.7-2.4)
Sex						
	Males		**3.1** (1.9-5.0)	**3.7** (2.6-5.4)	**2.5** (1.3-4.6)	†
	Females		**3.1** (2.2-4.4)	**2.3** (1.5-3.7)	**1.5** (0.8-2.7)	†
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)	†
	12		**3.4** (1.9-6.0)	**3.4** (1.9-6.1)	**1.2** (0.5-2.7)	†
Region						
	Toronto		**1.9** (1.1-3.4)	†	†	†
	North		**3.2** (1.9-5.4)	†	†	†
	West		**3.3** (1.9-5.6)	**4.0** (2.7-6.0)	†	†
	East		**3.5** (2.2-5.7)	**2.2** (1.4-3.4)	**2.1** (1.4-3.3)	†

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 jimson weed (also known as “locoweed”, “stinkweed”, “mad apple”)?
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Methamphetamine or Crystal Methamphetamine Use

(Figures 3.6.10, 3.6.11; Table 3.6.6)

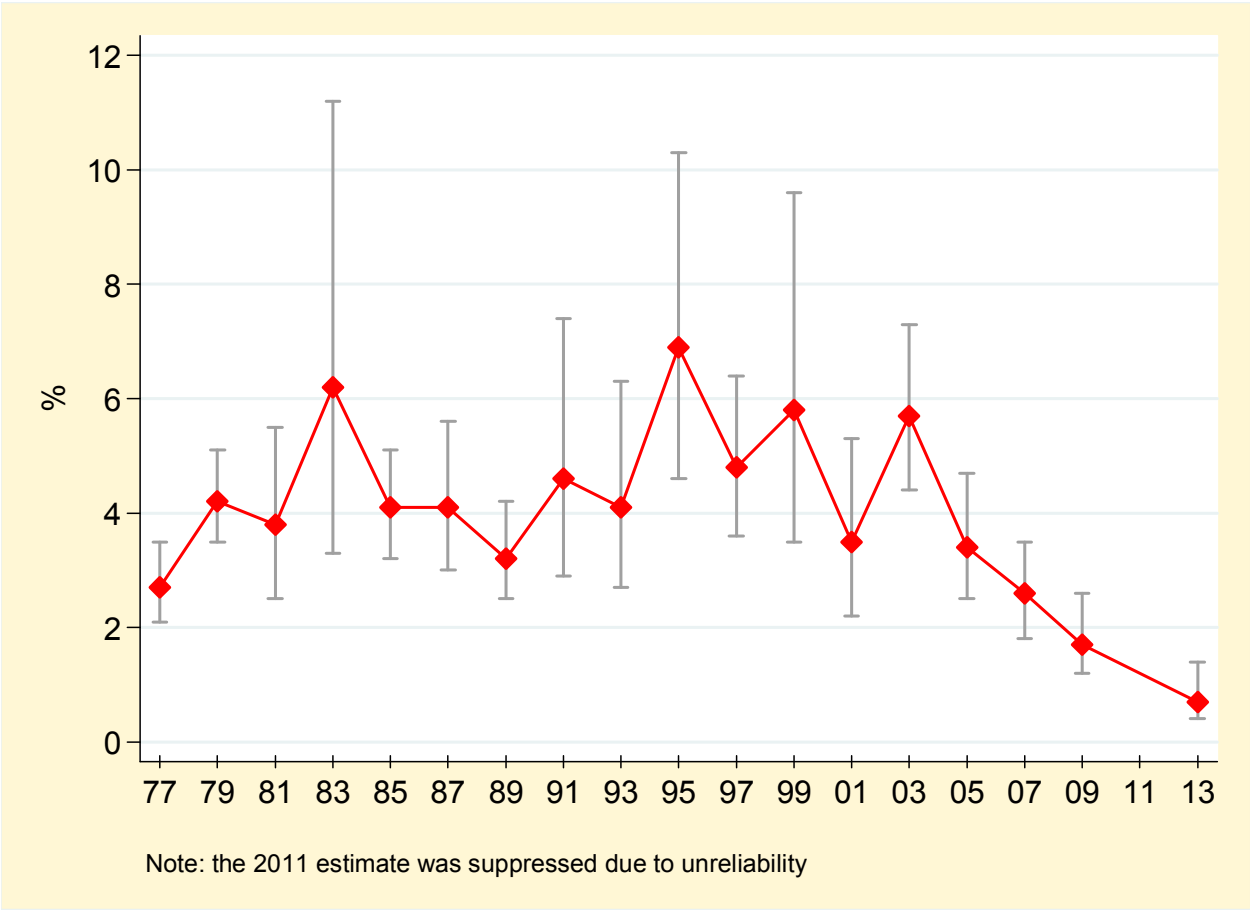
This section presents the past year use of methamphetamine (also known as "speed") or crystal methamphetamine (also known as "crystal meth" or "ice"). Methamphetamine comes in a powder that can be swallowed, snorted, smoked, or injected. Crystallized methamphetamine, resembling pieces of ice, is the 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 2011 (Grades 9–12)	Trends in Methamphetamine Use
Total Sample	■ Overall, 1.0% 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 0.6% and 1.5% of students use methamphetamine. The percentage of 1.0% represents about 7,000 Ontario students in grades 9 through 12.	☐ Methamphetamine use did not significantly change between 2011 (1.2%) and 2013 (1.0%). Between 1999 and 2013, however, there was a significant downward trend in use, from 6.3% down to the current 1.0%. ☐ Over the long-term (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	■ Males (1.4%) are significantly more likely than females (estimate suppressed) to report methamphetamine use.	☐ Methamphetamine use among males and females has not changed since the last survey in 2011. However, both sexes show a significant decline between 1999 and 2013.
Grade	■ There is significant variation by grade, with 12th graders most likely to use (1.7%).	☐ No grade shows a significant decline in methamphetamine use between 2011 and 2013, but all grades show significant declines since 1999.
Region	■ There is no significant variation by region.	☐ No region shows a significant decline in methamphetamine use between 2011 and 2013. Students in the West and the East regions show significant declines since 1999. Toronto and the North show no change.

Figure 3.6.10
Past Year Methamphetamine Use (includes Crystal Methamphetamine), 1999–2013 OSDUHS (Grades 9–12)

Note: some estimates were suppressed due to unreliability; trends for Toronto and the North are not shown

Figure 3.6.11
Past Year Methamphetamine Use (includes Crystal Methamphetamine), 1977–2013 OSDUHS (Grades 9 and 11 only)



Note: the 2011 estimate was suppressed due to unreliability

Table 3.6.6: Percentage Reporting Methamphetamine Use (includes Crystal Methamphetamine) in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])												(1496)	(1278)	(2238)	(5794)	(4834)	(5783)	(6383)	(6159)	
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(656)	(1168)	(3008)	(2494)	(2792)	(3223)	(3111)	
Total[1]	—	—	—	—	—	—	—	—	—	—	—	**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)	bc
Total[2] (95% CI)	**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)	cd
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)	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)	†	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
(n[1])												(1496)	(1278)	(2238)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(656)	(1168)	(3008)	(2494)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	†	†	**3.5** (2.2-5.4)	†	**1.1** (0.6-2.0)	†	†	†
Toronto[2]	—	—	†	†	**5.1** (2.9-8.9)	**3.5** (2.6-4.6)	**3.3** (2.0-5.6)	**4.2** (2.2-7.7)	†	**4.4** (2.7-7.2)	**3.0** (1.6-5.6)	†	†	†	†	†	†	†	†
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)	†	†	†	†
North[2]	—	—	**3.1** (1.9-5.0)	**6.0** (2.9-12.1)	**3.2** (2.9-3.6)	**5.1** (3.4-7.7)	†	**4.6** (2.3-9.2)	†	†	†	†	†	†	**4.7** (2.4-9.0)	†	†	†	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**8.6** (5.4-13.4)	**6.1** (3.4-10.4)	**6.3** (4.6-8.5)	**3.4** (2.5-4.7)	**2.0** (1.4-3.0)	**1.8** (1.0-3.2)	†	† [b]
West[2]	—	—	**5.3** (3.2-8.9)	†	**4.3** (3.1-6.0)	**3.4** (1.7-6.4)	**4.5** (3.1-6.6)	†	**5.5** (3.6-8.2)	**7.2** (3.5-14.5)	**5.6** (4.2-7.6)	†	**3.3** (1.8-6.2)	**6.4** (4.3-9.3)	**3.3** (2.1-5.4)	**2.3** (1.5-3.5)	†	†	†
East[1]	—	—	—	—	—	—	—	—	—	—	—	**4.6** (2.4-8.3)	†	**4.7** (3.3-6.7)	**3.0** (1.6-5.4)	**2.7** (1.8-4.0)	**2.4** (1.4-4.0)	**0.8** (0.5-1.4)	† [b]
East[2]	—	—	**2.9** (1.9-4.3)	**5.0** (3.2-7.8)	**3.2** (2.2-4.6)	**5.5** (3.1-9.4)	**2.0** (1.1-3.7)	**2.6** (1.5-4.4)	**2.0** (1.3-3.2)	**5.4** (3.5-8.2)	**4.8** (2.7-8.5)	†	†	**4.3** (2.9-6.4)	†	**2.7** (1.5-5.1)	**2.0** (1.3-3.2)	†	†

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) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (5) question asked of a random half sample between 1991 and 2005; (6) † estimate suppressed due to unreliability; (7) all estimates between 1991 and 2009 are based on two separate questions (methamphetamine and crystal methamphetamine) in the questionnaire; (8) all estimates between 1977 and 1989 are based on methamphetamine use only and excludes crystal methamphetamine because it was not measured in those years; (9) no significant differences 2013 vs. 2011; [b] 2013 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.)?

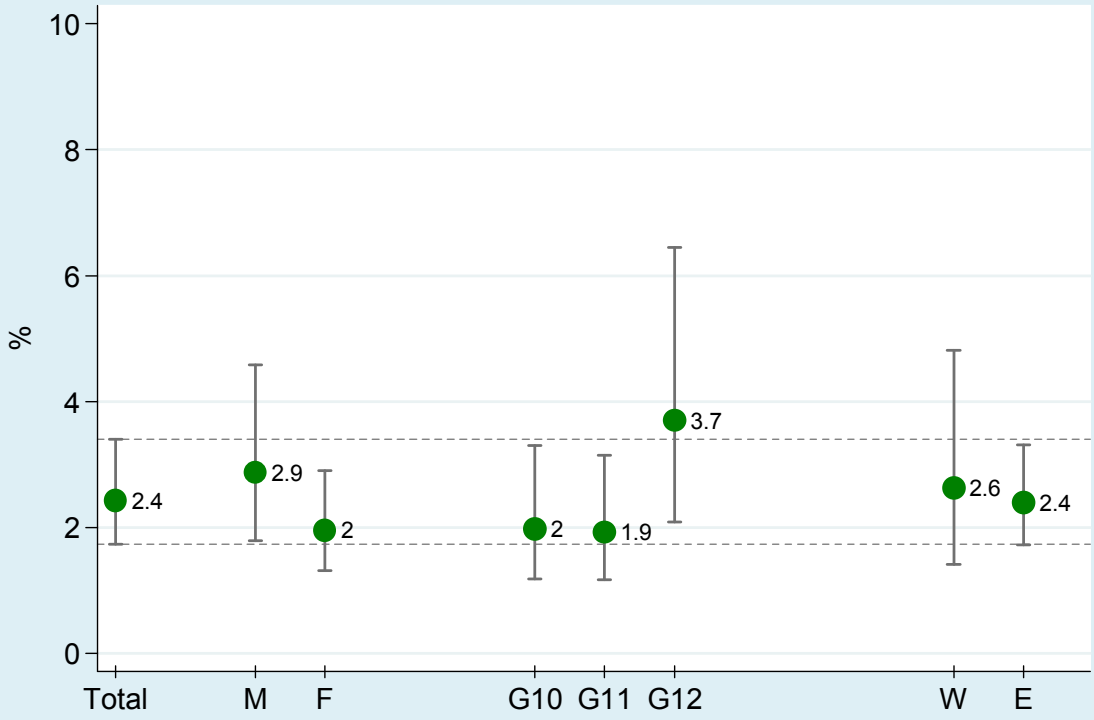
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Cocaine Use

(Figures 3.6.12–3.6.14; Table 3.6.7)

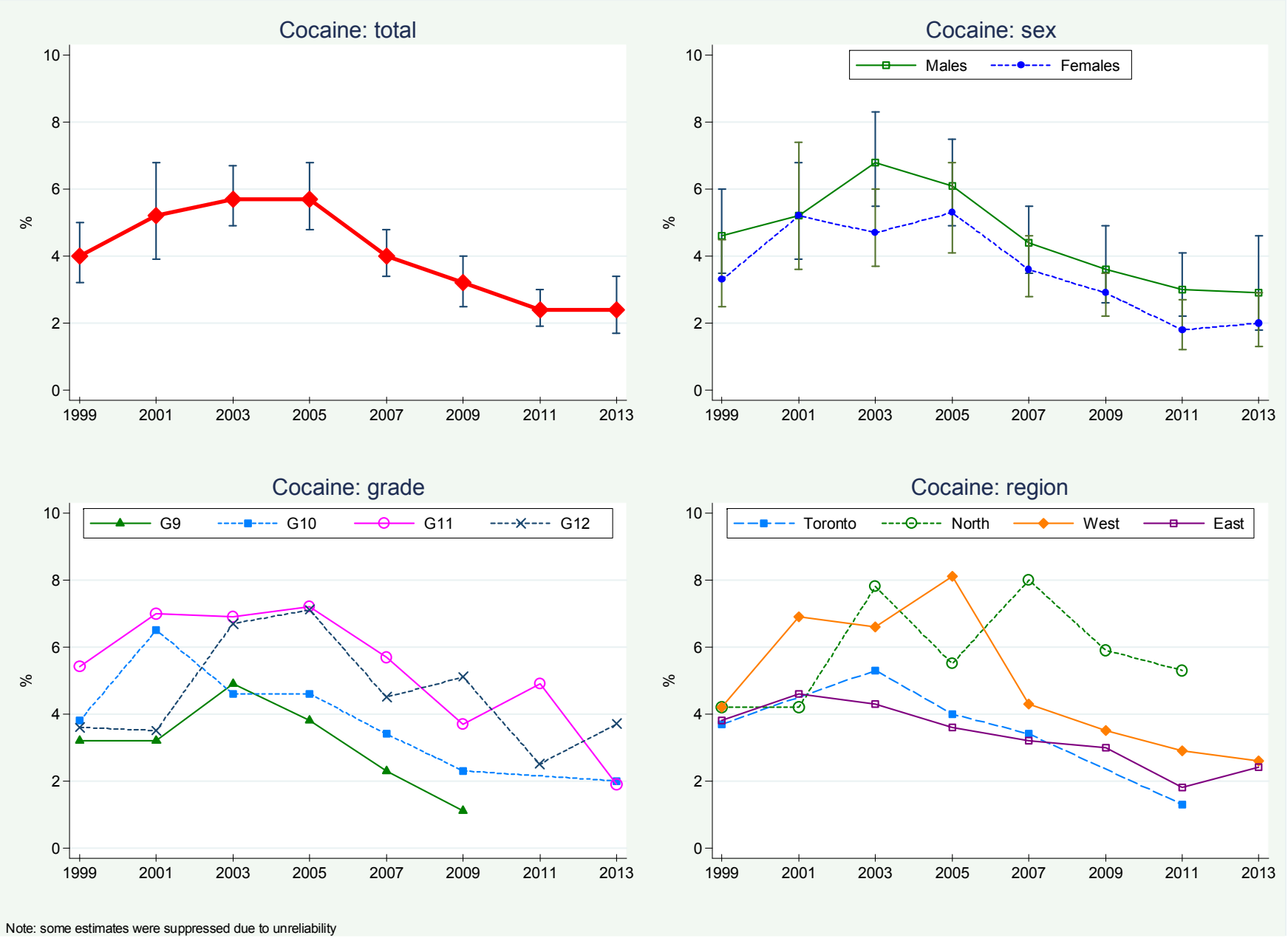
	Cocaine Use in 2013 (Grades 9–12)	Trends in Cocaine Use
Total Sample	■ Overall, 2.4% of secondary students report using cocaine at least once during the 12 months before the survey. Accounting for sampling error, we project that between 1.7% and 3.4% of Ontario students use cocaine. The 2.4% estimate represents roughly 17,800 students in grades 9 through 12.	☐ Cocaine use did not change between 2011 and 2013 (both years at 2.4%). There was a significant increase between 1999 (4.0%) and 2003 (5.7%), and the level has since declined. The 2013 estimate is significantly lower than the peak years of use seen a decade ago in 2003 and 2005. ☐ Over the long-term (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, and has subsequently declined. The current estimate is lower than the peak years of 1979 and 2003, and similar to the lows evident in the early 1990s.
Sex	■ Cocaine use does not significantly differ between males (2.9%) and females (2.0%).	☐ Neither males nor females show a significant change in cocaine use since 2011. However, both sexes show a significant decline over the past decade.
Grade	■ Cocaine use does not significantly differ by grade.	☐ No grade shows a change in cocaine use between 2011 and 2013. Cocaine use among students in grade 9, 10, and 11 significantly declined over the past decade. Despite some downward movement, cocaine use among 12th graders remained stable over the past decade.
Region	■ Cocaine use does not significantly differ by region.	☐ No region shows a change in cocaine use between 2011 and 2013. Students in all four regions show a significant decline in user over the past decade.
Frequent Use	■ Cocaine use six or more times during the past year is reported by about 1% of all secondary students (see Figure 3.1.3). ■ Half (52%) of cocaine users report using once or twice, while one-third (35%) report using ten or more times in the past year (Figure 3.1.4).	

Figure 3.6.12
Past Year Cocaine Use by Sex, Grade, and Region, 2013 OSDUHS



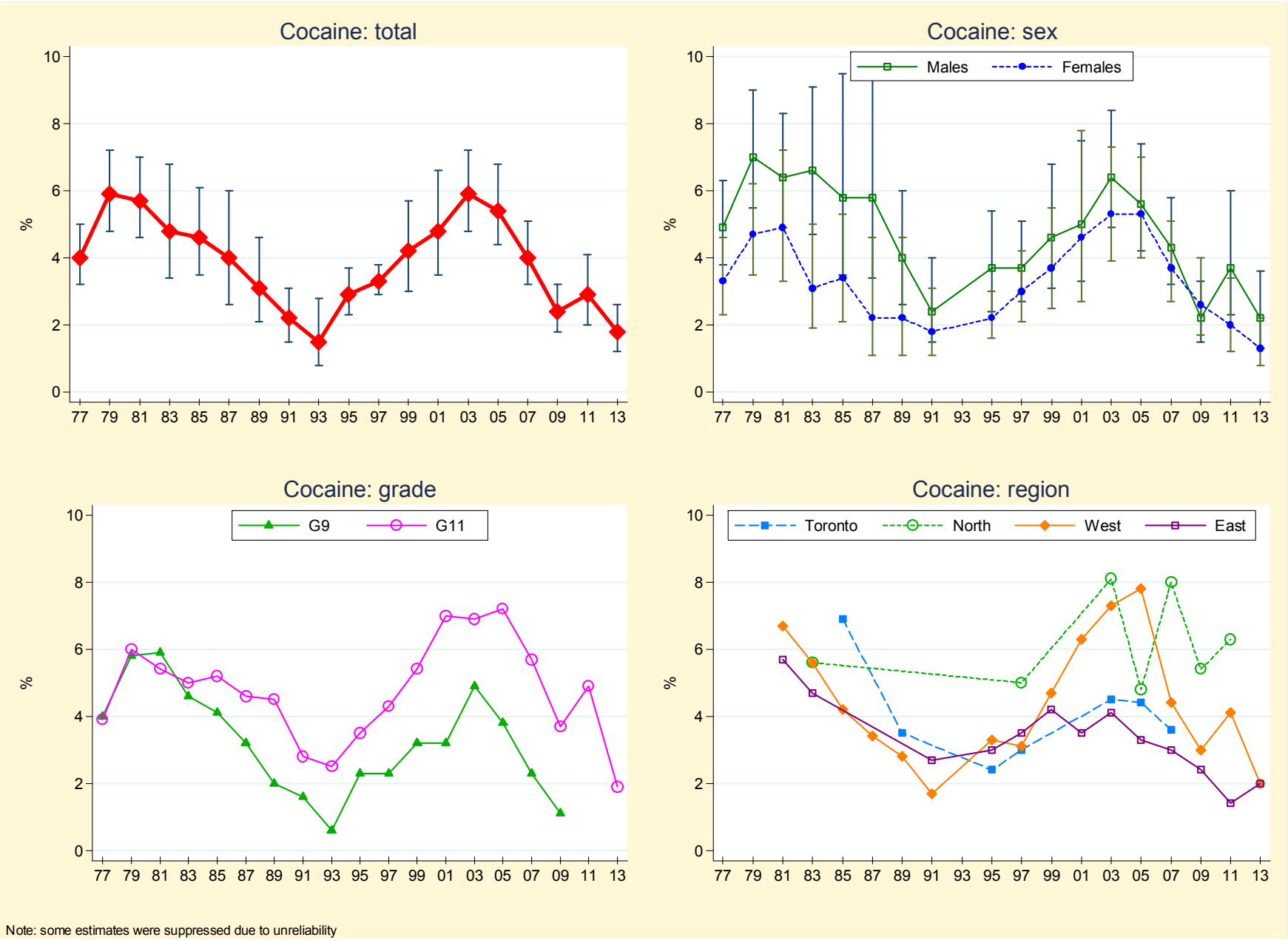
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grade 9, Toronto, and the North were suppressed; (4) no significant difference by sex, by grade, or by region

Figure 3.6.13
Past Year Cocaine Use, 1999–2013 OSDUHS (Grades 9–12)



Note: some estimates were suppressed due to unreliability

Figure 3.6.14
Past Year Cocaine Use, 1977–2013 OSDUHS (Grades 9 and 11 only)



Note: some estimates were suppressed due to unreliability

Table 3.6.7: Percentage Reporting Cocaine Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n^1)												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	
(n^2)	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	
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)	bcd
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)	cd
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)	b
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)	†	**3.7** (2.4-5.4)	**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)	
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)	b
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)	†	**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)	
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)	†	†	b
10	—	—	—	—	—	—	—	—	—	—	—	**3.8** (2.4-5.9)	**6.5** (4.4-9.6)	**4.6** (3.3-6.2)	**4.6** (3.4-6.2)	**3.4** (2.4-4.8)	**2.3** (1.5-3.6)	†	**2.0** (1.2-3.3)	b
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)	b
12	—	—	—	—	—	—	—	—	—	—	—	**3.6** (2.3-5.7)	**3.5** (1.9-6.2)	**6.7** (5.1-8.8)	**7.1** (5.1-9.7)	**4.5** (3.3-6.1)	**5.1** (3.5-7.4)	**2.5** (1.4-4.4)	**3.7** (2.1-6.4)	

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**3.7** (2.0-6.9)	†	**5.3** (3.5-8.0)	**4.0** (2.7-5.8)	**3.4** (2.1-5.5)	†	**1.3** (0.8-2.2)	† [b]
Toronto[2]	—	—	†	†	**6.9** (4.3-11.0)	†	**3.5** (1.7-6.8)	†	†	**2.4** (1.3-4.5)	**3.0** (1.8-4.9)	†	†	**4.5** (2.9-6.9)	**4.4** (2.7-7.1)	**3.6** (2.1-6.2)	†	†	†
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)	† [b]
North[2]	—	—	†	**5.6** (4.0-7.8)	†	†	†	†	†	†	**5.0** (2.4-10.4)	†	†	**8.1** (5.7-11.5)	**4.8** (2.5-9.0)	**8.0** (4.3-14.5)	**5.4** (3.0-9.5)	**6.3** (3.8-10.4)	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**4.2** (2.9-6.2)	**6.9** (5.0-9.4)	**6.6** (5.2-8.2)	**8.1** (6.4-10.2)	**4.3** (3.1-5.8)	**3.5** (2.5-4.9)	**2.9** (2.0-4.3)	**2.6** (1.4-4.8) [b]
West[2]	—	—	**6.7** (5.5-8.3)	**5.6** (3.0-10.4)	**4.2** (2.9-6.0)	**3.4** (2.2-5.1)	**2.8** (1.9-3.9)	**1.7** (0.9-3.2)	†	**3.3** (2.9-3.7)	**3.1** (2.8-3.3)	**4.7** (2.7-8.1)	**6.3** (4.0-9.8)	**7.3** (5.3-9.9)	**7.8** (5.8-10.4)	**4.4** (2.9-6.6)	**3.0** (1.9-4.6)	**4.1** (2.5-6.8)	**2.0** (1.2-3.4)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**3.8** (2.7-5.2)	**4.6** (2.8-7.5)	**4.3** (3.0-5.9)	**3.6** (2.4-5.4)	**3.2** (2.4-4.2)	**3.0** (2.0-4.4)	**1.8** (1.2-2.7)	**2.4** (1.7-3.3) [b]
East[2]	—	—	**5.7** (3.2-10.0)	**4.7** (3.0-7.3)	†	†	†	**2.7** (1.9-3.9)	†	**3.0** (1.7-5.4)	**3.5** (3.0-4.0)	**4.2** (2.8-6.3)	**3.5** (2.3-5.2)	**4.1** (2.9-5.8)	**3.3** (2.0-5.3)	**3.0** (2.0-4.4)	**2.4** (1.4-3.8)	**1.4** (0.9-2.3)	**2.0** (1.1-3.6)

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) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (5) † estimate suppressed due to unreliability; (6) no significant differences 2013 vs. 2011; [b] 2013 vs. 2003 (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 cocaine (also known as “coke”, “blow”, “snow”, “powder”, “snort”, etc.)?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Crack Cocaine Use

(Figures 3.6.15, 3.6.16; 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 2013 (Grades 9–12)	Trends in Crack Cocaine Use
Total Sample	■ Overall, 0.7% of secondary students used crack cocaine during the past year. With sampling error, we estimate that between 0.5% and 1.1% of students in grades 9 through 12 use crack. The percentage 0.7% represents about 5,100 secondary students in Ontario.	☐ Crack use in 2013 (0.7%) is similar to the level found in 2011 (0.8%). Use remained stable between 1999 (3.2%) and 2003 (3.1%), and began to decline thereafter. The 2013 estimate is significantly lower than the 1999 estimate. ☐ Over the long-term (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.
Sex	■ Use of crack does not significantly differ between males (0.9%) and females (0.5%).	☐ Crack use has significantly declined since 1999 for both males and females.
Grade	■ Estimates by grade were suppressed.	☐ Only 10th and 11th graders show a significant decline in crack use in 2013 relative to use in 1999.
Region	■ There are no significant differences among the regions.	☐ Students in Toronto, West, and East regions show a significant decline in crack use over the past decade. No significant downward trend was found for the North.

Figure 3.6.15
Past Year Crack Cocaine Use, 1999–2013 OSDUHS (Grades 9–12)

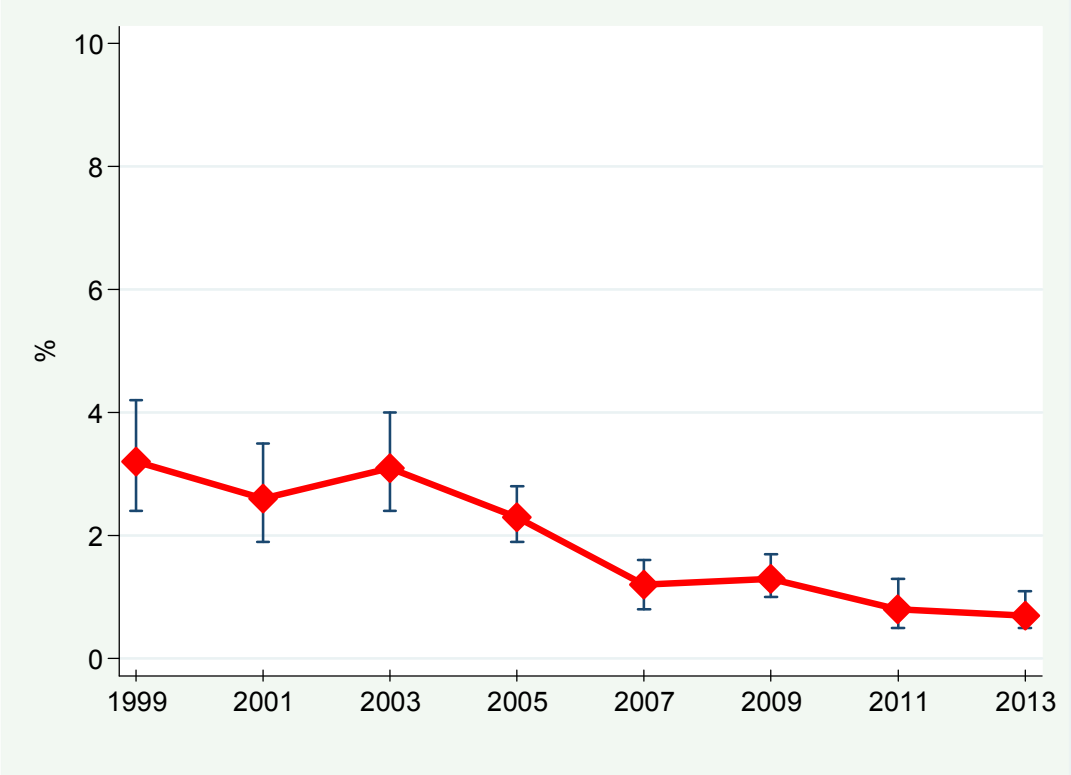


Figure 3.6.16
Past Year Crack Cocaine Use, 1987–2013 OSDUHS (Grades 9 and 11 only)

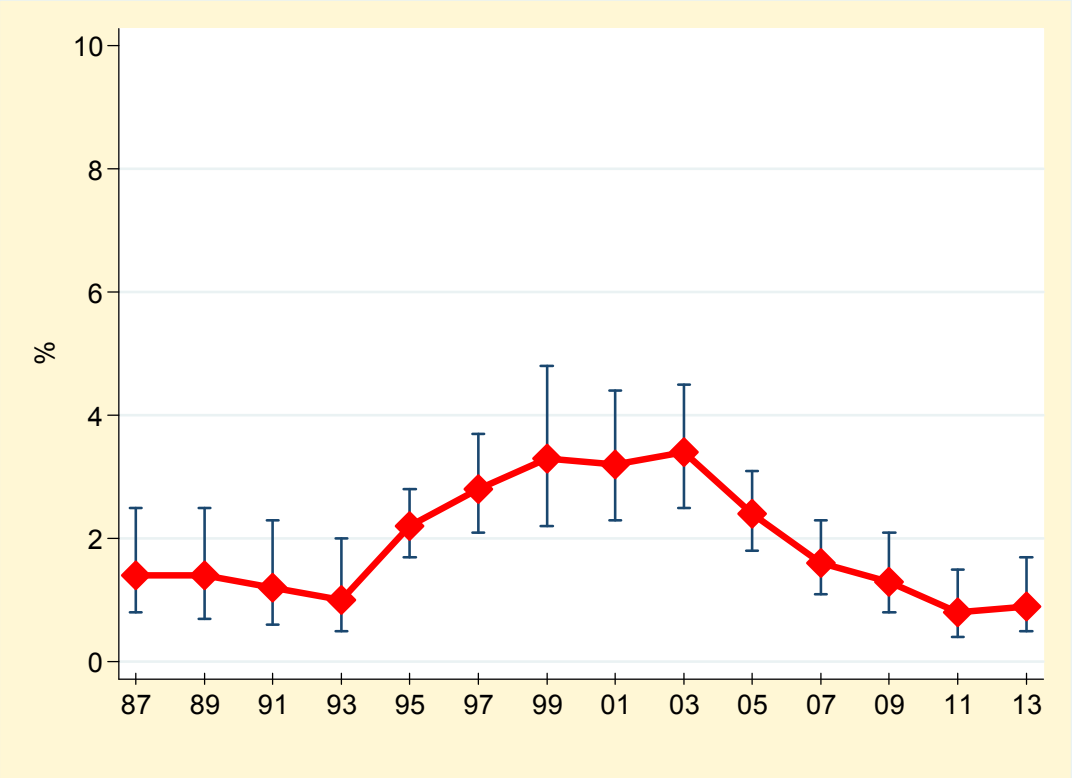


Table 3.6.8: Percentage Reporting Crack Cocaine Use in the Past Year, 1987–2013 OSDUHS (Grades 9–12)

	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])							(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
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) [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) [d]
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]	†	**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)	†	†	†
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)	†	†

(cont'd)

	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])							(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
Region														
Toronto[1]	—	—	—	—	—	—	†	**3.4** (2.6-4.4)	**2.6** (1.3-5.1)	**1.4** (0.8-2.4)	**1.0** (0.5-1.8)	**1.6** (0.9-3.0)	†	† [b]
Toronto[2]	†	†	†	**0.6** (0.3-1.2)	**2.4** (1.3-4.4)	†	†	**4.0** (2.6-6.1)	†	†	†	†	†	†
North[1]	—	—	—	—	—	—	†	†	**5.6** (4.1-7.6)	**2.8** (1.6-4.5)	**3.6** (2.0-6.4)	†	†	†
North[2]	**1.5** (0.8-3.0)	†	†	†	†	†	†	†	**6.1** (4.2-8.9)	†	**5.3** (2.9-9.4)	†	†	†
West[1]	—	—	—	—	—	—	**3.8** (2.4-6.0)	**3.4** (2.1-5.5)	**3.2** (2.2-4.8)	**3.1** (2.4-4.0)	**0.9** (0.5-1.8)	**1.2** (0.7-1.9)	†	**0.7** [b] (0.4-1.4)
West[2]	†	**1.0** (0.5-1.9)	†	†	**2.6** (2.0-3.5)	**3.1** (2.3-4.0)	**4.0** (2.1-7.5)	**4.1** (2.5-6.7)	**3.5** (2.2-5.6)	**3.0** (2.0-4.4)	**1.1** (0.6-2.0)	†	†	†
East[1]	—	—	—	—	—	—	**2.9** (2.0-4.1)	**1.1** (0.6-2.1)	**2.5** (1.5-4.2)	**1.8** (1.1-2.7)	**1.1** (0.6-1.9)	**1.2** (0.8-1.9)	†	**0.8** [b] (0.4-1.5)
East[2]	†	†	**0.8** (0.5-1.4)	†	**1.8** (0.9-3.5)	**2.6** (1.8-3.7)	**3.4** (2.1-5.6)	†	**2.7** (1.5-4.7)	**1.5** (1.0-2.5)	†	†	†	†

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) † estimate suppressed due to unreliability; (5) no significant differences 2013 vs. 2011; [b] 2013 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 2013 (Grades 9–12)	Trends in Heroin Use
Total Sample	■ The 2013 OSDUHS estimate for past year heroin use among the total sample of secondary students was suppressed (less than 0.5%).	☐ Heroin remained low and stable between 2011 and 2013. However, use is currently lower than the level seen in 1999 (2.1%). ☐ Since 1977, the use of heroin has been negligible and stable, hovering around 2% or less (among grades 9 and 11 only).
Sex	■ The estimate among males is 0.7%. The estimate among females was suppressed.	☐ Males show a significant decline in heroin use since 1999, when the estimate was at 2.8%.
Grade	■ Estimates by grade were suppressed.	☐ Use among all grades has remained stable and very low.
Region	■ Estimates by region were suppressed.	☐ Only students in the East region show a significant decline in use since 1999. Use among students in other regions has remained stable and very low.

Table 3.6.9: Percentage Reporting Heroin Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
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)	†	† [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)	†	†
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)	†	†	†
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)	†	†

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	†	†	**1.5** (0.8-2.9)	**1.2** (0.6-2.1)	†	†	†	†
Toronto[2]	—	—	†	†	**3.1** (1.5-6.2)	†	†	†	†	**2.6** (1.5-4.3)	**1.5** (0.8-2.9)	†	†	†	†	†	†	†	†
North[1]	—	—	—	—	—	—	—	—	—	—	—	**1.4** (0.8-2.6)	†	†	**1.0** (0.6-1.7)	†	†	†	†
North[2]	—	—	†	†	†	†	†	†	†	†	**3.2** (1.6-6.3)	†	†	†	†	†	†	†	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**1.7** (1.0-3.0)	**1.8** (1.2-2.9)	**1.5** (1.0-2.2)	**1.2** (0.9-1.8)	**1.1** (0.6-2.0)	**0.9** (0.5-1.6)	†	†
West[2]	—	—	**2.8** (1.9-4.2)	**2.4** (1.2-4.9)	**1.6** (1.1-2.2)	†	**1.9** (1.1-3.4)	**1.4** (0.7-2.8)	**1.5** (0.8-3.0)	†	**1.9** (1.3-2.7)	†	**2.4** (1.3-4.4)	**1.1** (0.6-1.9)	**1.2** (0.7-2.2)	**1.5** (0.8-2.9)	†	†	†
East[1]	—	—	—	—	—	—	—	—	—	—	—	**3.0** (2.1-4.2)	†	**1.5** (1.0-2.4)	†	**1.0** (0.6-1.7)	†	†	† [b]
East[2]	—	—	**1.3** (0.7-2.2)	**2.8** (1.8-4.2)	†	†	†	†	†	**2.4** (1.6-3.5)	**1.9** (1.4-2.6)	**3.0** (1.7-5.1)	†	†	†	†	†	†	†

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) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (5) † estimate suppressed due to unreliability; (6) no significant differences 2013 vs. 2011; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear 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

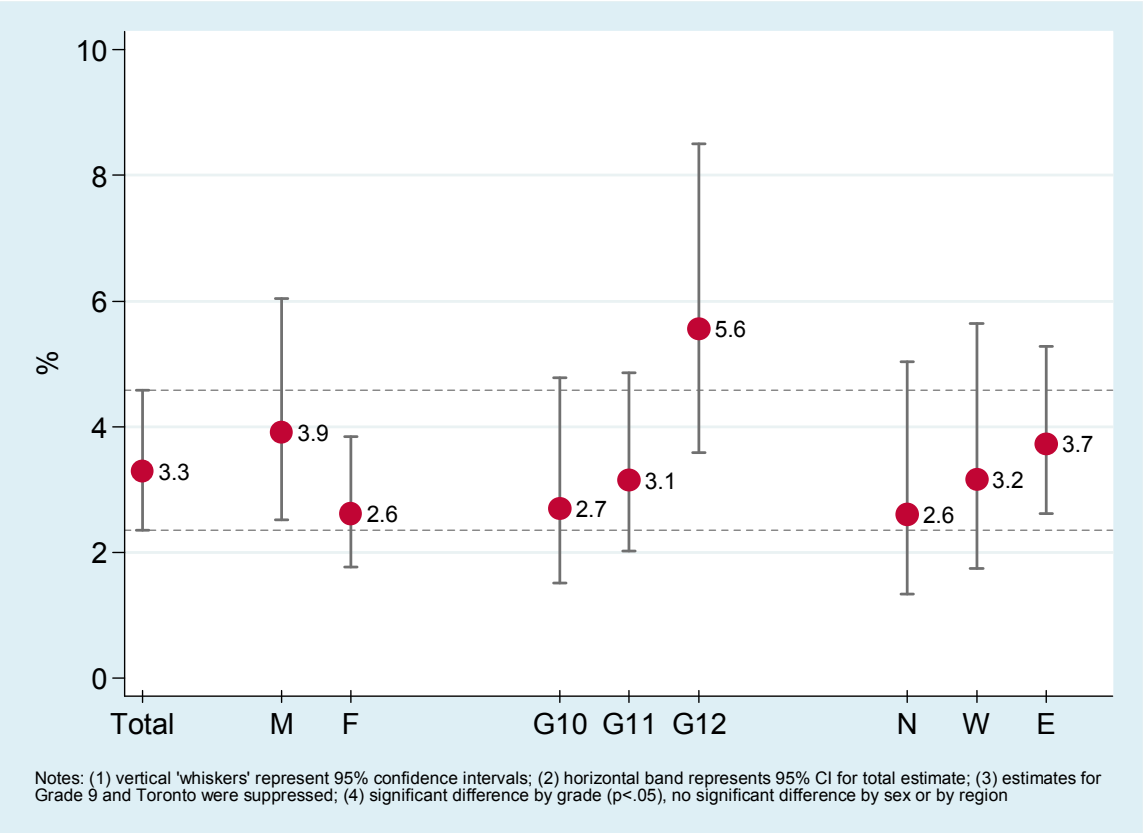
Past Year Ecstasy (MDMA) Use

(Figures 3.6.17–3.6.19; 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).

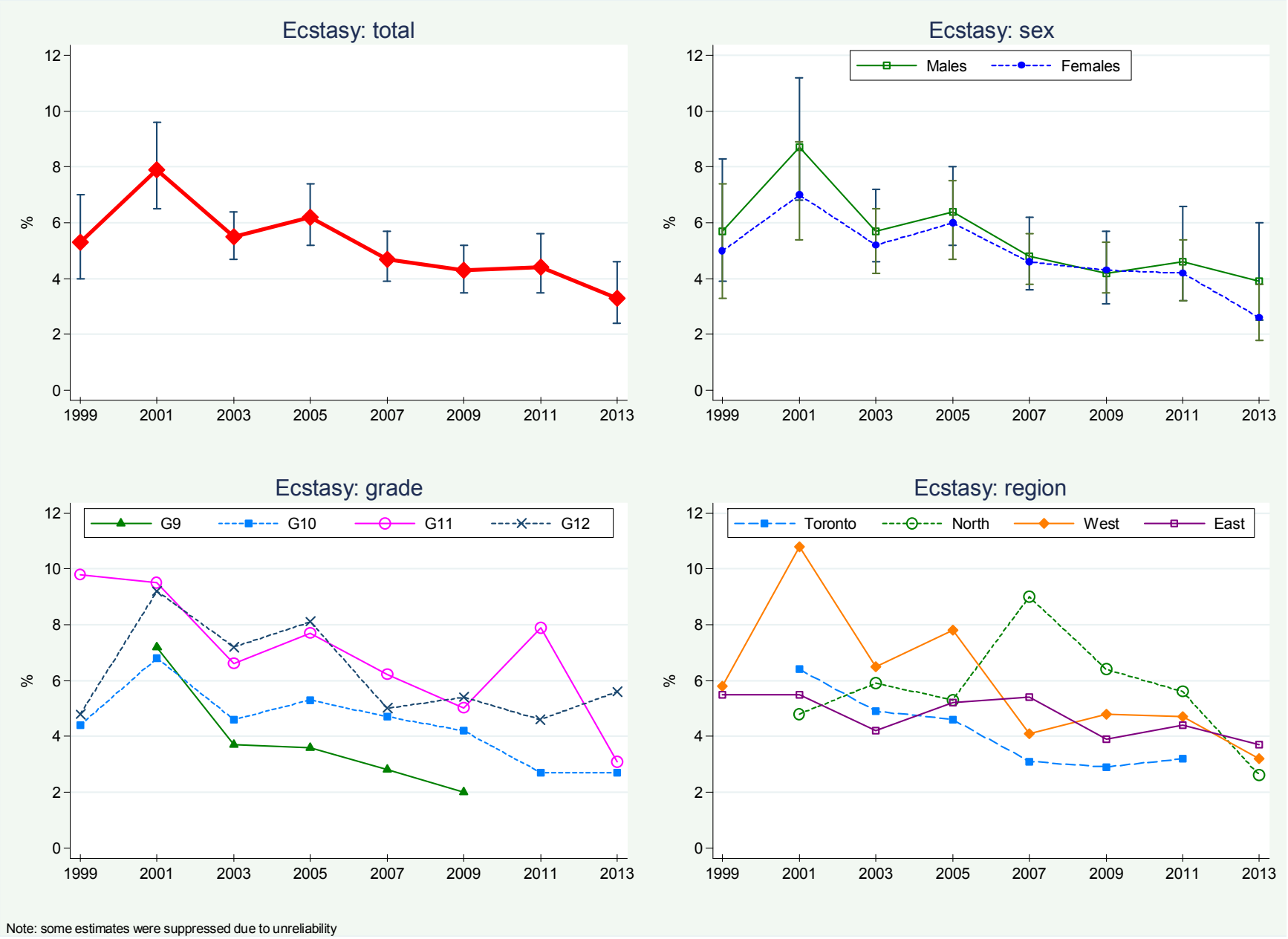
	Ecstasy Use in 2013 (Grades 9–12)	Trends in Ecstasy Use
Total Sample	■ In 2013, 3.3% of students in grades 9 through 12 report using ecstasy at least once during the 12 months before the survey. With the sampling error, we estimate that between 2.3% and 4.6% of students use ecstasy. The estimated number of secondary students in Ontario who use ecstasy is about 24,200.	☐ The 2013 estimate (3.3%) for ecstasy use among students in grades 9–12 is not significantly different from that found in 2011 (4.4%), but is significantly lower than the peak level seen in 2001 (7.9%). ☐ Since monitoring began in 1991, ecstasy use steadily increased from below 0.5% to a peak of 8.2% in 2001 (among grades 9 and 11 only). Use has been on a downward trend since that peak.
Sex	■ There is no significant sex difference (3.9% of males use ecstasy, 2.6% of females).	☐ Both males and females show a significant decline in 2013 compared with their respective estimates from 2001 (peak year of use).
Grade	■ There is significant grade variation, with 12th graders (5.6%) the most likely to use.	☐ Ecstasy use among 11th graders significantly declined between 2011 and 2013, from 7.9% to 3.1%. Use among grades 9, 10, and 11 declined between 2001 and 2013. Use among 12th graders shows no significant change during these years.
Region	■ There is no significant variation among the regions.	☐ Among the regions, students in the West show a significant decline in use since 2001, when it peaked at 10.8%. There have been no significant changes over the past decade among students in the other three regions.
Frequent Use	■ Less than 1% of students report using ecstasy six times or more often in the past year (see Figure 3.1.3). ■ More than half (56%) of ecstasy users report using once or twice in the past year (see Figure 3.1.4).	

Figure 3.6.17
Past Year Ecstasy Use by Sex, Grade, and Region, 2013 OSDUHS



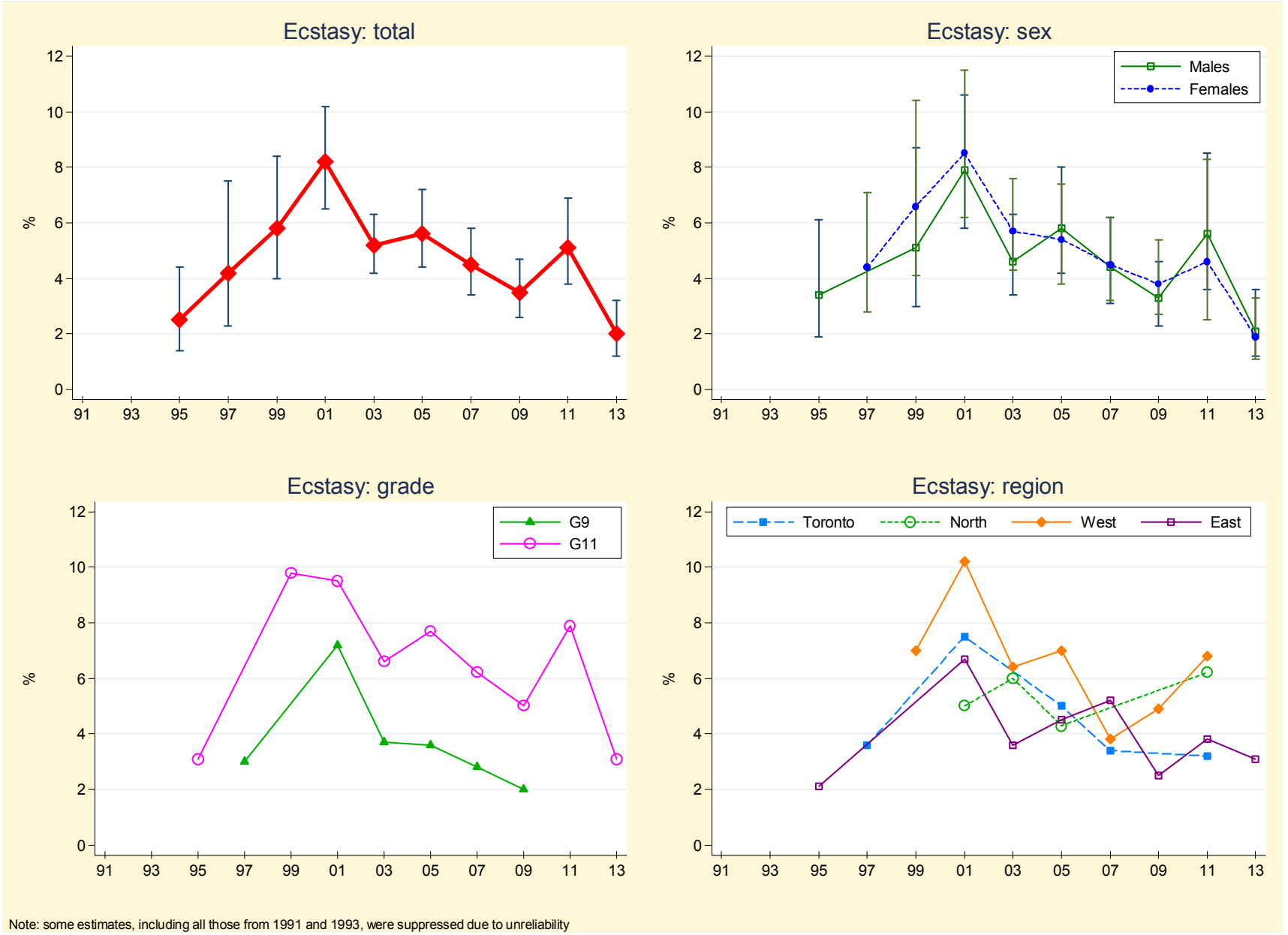
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Grade 9 and Toronto were suppressed; (4) significant difference by grade (p<.05), no significant difference by sex or by region

Figure 3.6.18
Past Year Ecstasy Use, 1999–2013 (Grades 9–12)



Note: some estimates were suppressed due to unreliability

Figure 3.6.19
Past Year Ecstasy Use, 1991–2013 (Grades 9 and 11 only)



Note: some estimates, including all those from 1991 and 1993, were suppressed due to unreliability

Table 3.6.10: Percentage Reporting Ecstasy Use in the Past Year, 1991–2013 OSDUHS (Grades 9–12)

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])					(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)	
(n[2])	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)	
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** (2.4-4.6)	bc
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)	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)	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)	
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)	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)	
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)	†	†	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)	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** (5.7-40.5)	**6.2** (4.6-8.2)	**5.0** (3.7-6.9)	**7.9** (5.9-10.6)	**3.1** (2.0-4.8)	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)	
Region													
Toronto[1]	—	—	—	—	†	**6.4** (4.0-10.1)	**4.9** (3.2-7.5)	**4.6** (2.8-7.6)	**3.1** (2.2-4.4)	**2.9** (1.6-5.2)	**3.2** (1.8-5.5)	†	
Toronto[2]	†	†	†	**3.6** (2.2-5.9)	†	**7.5** (4.7-11.7)	†	**5.0** (3.0-8.2)	**3.4** (2.0-5.5)	†	**3.2** (1.6-6.1)	†	
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)	**2.6** (1.3-5.0)	
North[2]	†	†	†	†	†	**5.0** (2.6-9.5)	**6.0** (4.4-8.2)	**4.3** (2.6-7.0)	†	†	**6.2** (3.8-9.8)	†	
West[1]	—	—	—	—	**5.8** (3.8-8.7)	**10.8** (8.5-13.5)	**6.5** (5.1-8.3)	**7.8** (6.1-10.0)	**4.1** (3.0-5.6)	**4.8** (3.5-6.4)	**4.7** (3.1-7.1)	**3.2** (1.7-5.6)	b
West[2]	†	†	†	†	**7.0** (4.2-11.5)	**10.2** (7.6-13.5)	**6.4** (4.8-8.5)	**7.0** (4.6-10.4)	**3.8** (2.4-5.7)	**4.9** (3.3-7.2)	**6.8** (4.5-10.1)	†	
East[1]	—	—	—	—	**5.5** (3.3-9.1)	**5.5** (3.1-9.6)	**4.2** (3.1-5.7)	**5.2** (3.8-7.2)	**5.4** (4.0-7.5)	**3.9** (2.8-5.5)	**4.4** (3.2-6.0)	**3.7** (2.6-5.3)	
East[2]	†	†	**2.1** (0.4-10.4)	†	†	**6.7** (3.6-12.3)	**3.6** (2.5-5.4)	**4.5** (3.1-6.5)	**5.2** (3.2-8.2)	**2.5** (1.6-4.0)	**3.8** (2.4-5.8)	**3.1** (1.9-5.1)	

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) † estimate suppressed due to unreliability; (6) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 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 "E", "X")?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Ketamine Use

(Table 3.6.11)

Ketamine (also known as "vitamin K", "special K") is a dissociative anaesthetic drug usually used in veterinary medicine and sometimes in human medicine to produce anaesthesia. Ketamine can be injected, snorted, or smoked. It can produce an out of body state of dissociation, distorted perceptions of sight and sound (hallucinations), increased heart rate, and impaired motor function. The OSDUHS began monitoring ketamine use in 2003. Starting in 2013, ketamine use was asked of students in grades 9 through 12 only (not asked of 7th and 8th graders).

	Ketamine Use in 2013 (Grades 9–12)	Trends in Ketamine Use (Grades 9–12)
Total Sample	■ The 2013 OSDUHS estimate for past year ketamine use among the total sample of students was suppressed (< 0.5%).	☐ Ketamine use shows a significant downward trend between 2003, the first year of surveillance, and 2013 among the total sample of secondary students.
Sex	■ Estimates by sex were suppressed.	☐ Both males' and females' use of ketamine is significantly lower in 2013 compared with 2003.
Grade	■ Estimates by grade were suppressed.	☐ 11th and 12th graders show a significant decline over the past decade. Use among younger students has been low and stable.
Region	■ Estimates by region were suppressed.	☐ Students in the East and West regions show a significant decline over the past decade. Use among students in Toronto and the North region has been low and stable.

Table 3.6.11: Percentage Reporting Ketamine Use in the Past Year, 2003–2013 OSDUHS (Grades 9–12)

	(*n*=)	2003 (2238)	2005 (2725)	2007 (2247)	2009 (2728)	2011 (3025)	2013 (2895)
Total (95% CI)		**2.9** (2.3-3.7)	**1.6** (1.1-2.2)	**1.4** (0.9-2.3)	**1.9** (1.3-3.0)	**1.1** (0.6-2.0)	† [bc]
Sex							
	Males	**3.6** (2.6-5.0)	**2.1** (1.4-3.1)	**1.6** (0.9-2.7)	**2.2** (1.4-3.3)	†	† [b]
	Females	**2.1** (1.4-3.3)	**1.0** (0.6-1.8)	†	**1.7** (0.9-3.2)	†	† [b]
Grade							
	9	†	†	†	†	†	†
	10	†	†	†	†	†	†
	11	**4.7** (3.1-6.9)	**1.9** (1.1-3.3)	**2.0** (1.1-3.8)	**2.3** (1.4-4.0)	†	† [b]
	12	**3.7** (2.1-6.5)	**1.4** (0.7-2.5)	**2.5** (1.4-4.4)	**2.8** (1.6-5.1)	†	† [b]
Region							
	Toronto	†	†	†	†	†	†
	North	†	**1.9** (1.0-3.4)	†	†	†	†
	West	**3.8** (2.7-5.2)	**2.2** (1.5-3.4)	**1.0** (0.6-1.9)	**2.5** (1.3-4.8)	†	† [b]
	East	**2.1** (1.3-3.4)	†	†	**1.6** (0.8-3.1)	**0.8** (0.5-1.4)	† [b]

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 2013 vs. 2011; [b] 2013 vs. 2003 significant difference, p<.01; [c] significant linear trend, p<.01.
Q: In the last 12 months, how often did you use the drug ketamine (also known as "vitamin K", "special K")?
Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Methoxetamine Use

For the first time in 2013, we asked a random half sample of secondary students (grades 9–12) whether they used methoxetamine ("MXE" or "mket"). Methoxetamine, which is a synthetic ketamine analog, can cause feelings of euphoria, hallucinations, increased heart rate, and anxiety. Methoxetamine is available over the internet, but it is illegal in Canada.

To assess use students were asked: "*In the last 12 months, how often did you use methoxetamine (also known as 'MXE', 'mexxy', 'mket')?*"

- The percentage of secondary students reporting past year use (and lifetime use) of methoxetamine was suppressed due to extremely low numbers relative to our sample size. This suggests that the drug has not diffused to the Ontario student population.

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." Mephedrone is a synthetic stimulant, which is illegal and relatively new to Canada that produces an experience 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 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', 'drone', 'bubbles', 'm-cat')?*"

- The percentage of secondary students reporting past year use (and lifetime use) of mephedrone was suppressed due to an extremely low value relative to our sample size. This suggests that the drug has not diffused to the Ontario student population.

Past Year Use of BZP Pills

Starting in 2011, we asked a random half sample of secondary students (grades 9–12) whether they used BZP pills. BZP (benzylpiperazine) pills are synthetic stimulant drugs that can cause hallucinogens and euphoria, much like ecstasy. Indeed, BZP pills are often purposively designed to look like ecstasy. Taken in high doses, BZP can cause vomiting, convulsion, and seizures. This drug is legal in Canada and available in "head shops" and over the internet.

To assess use students were asked: "*In the last 12 months, how often did you use BZP Pills (also known as 'pure rush', 'party pills', 'legal E', 'legal X', 'herbal high')?"*

- The percentage of secondary students reporting past year use (and lifetime use) of BZP pills was suppressed due to an extremely low value relative to our sample size. This suggests that the drug has not diffused to the Ontario student population.

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 OxyContin/OxyNEO

(Table 3.7.1)

OxyContin is a brand name for a highly addictive prescription painkiller containing the opioid oxycodone. In Canada, OxyContin was replaced with OxyNEO in 2012. Oxycodone is an analgesic that can cause euphoria, much like heroin. Starting in 2005, the OSDUHS asked students about their nonmedical (NM) use of OxyContin during the past 12 months. The question was revised in 2013 to include OxyNEO as well. We define nonmedical use as use of a prescription drug without one's own prescription.

	NM OxyContin/OxyNEO Use in 2013 (Grades 7–12)	Trends in NM OxyContin/OxyNEO Use (Grades 7–12)
Total Sample	■ In 2013, 1.6% of all students report using OxyContin nonmedically in the past year. With the sampling error, we estimate that between 1.2% and 2.1% of students use OxyContin. The estimate of 1.6% represents about 15,500 students in Ontario.	☐ Among the total sample of students, nonmedical OxyContin use in 2013 (1.6%) is similar to the estimate from 2011 (1.2%). There has been no significant change since 2005 (1.0%), when use was first monitored.
Sex	■ There is no significant difference between males (1.9%) and females (1.3%) in nonmedical OxyContin use.	☐ There has been no significant change in use among males or females between 2005 and 2013.
Grade	■ OxyContin use significantly increases with grade, peaking in grade 12 at 2.7%.	☐ Use has remained stable between 2005 and 2013 among students in each grade.
Region	■ There is no significant regional variation.	☐ Use has remained stable in each region.
Frequent Use	■ Most (62%) OxyContin users report using once or twice in the past year. About 13% of users consumed the drug ten times or more often in the past year (see Figure 3.1.4).	

Table 3.7.1: Percentage Reporting Nonmedical Use of OxyContin/OxyNEO in the Past Year, 2005–2013 OSDUHS

	(*n*=)	**2005** (7726)	**2007** (6323)	**2009** (9112)	**2011** (9288)	**2013** (10272)
Total		**1.0**	**1.8**	**1.6**	**1.2**	**1.6**
(95% CI)		(0.7-1.5)	(1.3-2.4)	(1.3-2.0)	(0.9-1.7)	(1.2-2.1)
Sex						
	Males	**0.9** (0.6-1.4)	**1.7** (1.2-2.3)	**1.7** (1.3-2.3)	**1.5** (1.0-2.3)	**1.9** (1.2-2.9)
	Females	**1.2** (0.7-1.9)	**1.9** (1.3-2.8)	**1.6** (1.2-2.1)	**1.0** (0.6-1.5)	**1.3** (0.8-2.0)
Grade						
	7	†	†	†	†	†
	8	†	†	†	†	†
	9	†	**0.8** (0.4-1.4)	†	†	†
	10	†	**1.9** (1.2-3.2)	**2.4** (1.6-3.5)	†	†
	11	**1.2** (0.7-2.3)	**3.2** (1.9-5.3)	**2.9** (2.0-4.2)	**2.9** (1.8-4.5)	**1.8** (1.1-3.0)
	12	**1.4** (0.7-2.7)	**2.2** (1.3-3.6)	**1.9** (1.2-3.1)	**1.6** (0.9-2.6)	**2.7** (1.6-4.7)
Region						
	Toronto	†	**1.3** (0.8-2.2)	†	†	†
	North	**3.3** (1.8-6.1)	**3.2** (1.8-5.5)	**3.2** (2.4-4.4)	**1.4** (0.9-2.2)	†
	West	**1.2** (0.7-1.9)	**1.7** (1.1-2.7)	**1.7** (1.2-2.4)	**1.1** (0.7-1.9)	**2.0** (1.4-2.8)
	East	**0.6** (0.3-1.0)	**1.9** (1.3-2.4)	**1.6** (1.2-2.1)	**1.7** (1.1-2.7)	**1.2** (0.8-1.7)

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 OxyContin or OxyNEO (also known as "oxy", "OC") without a prescription or without a doctor telling you to take it? (Note that "OxyNEO" was added to the question in 2013.)

Source: OSDUHS, Centre for Addiction & Mental Health

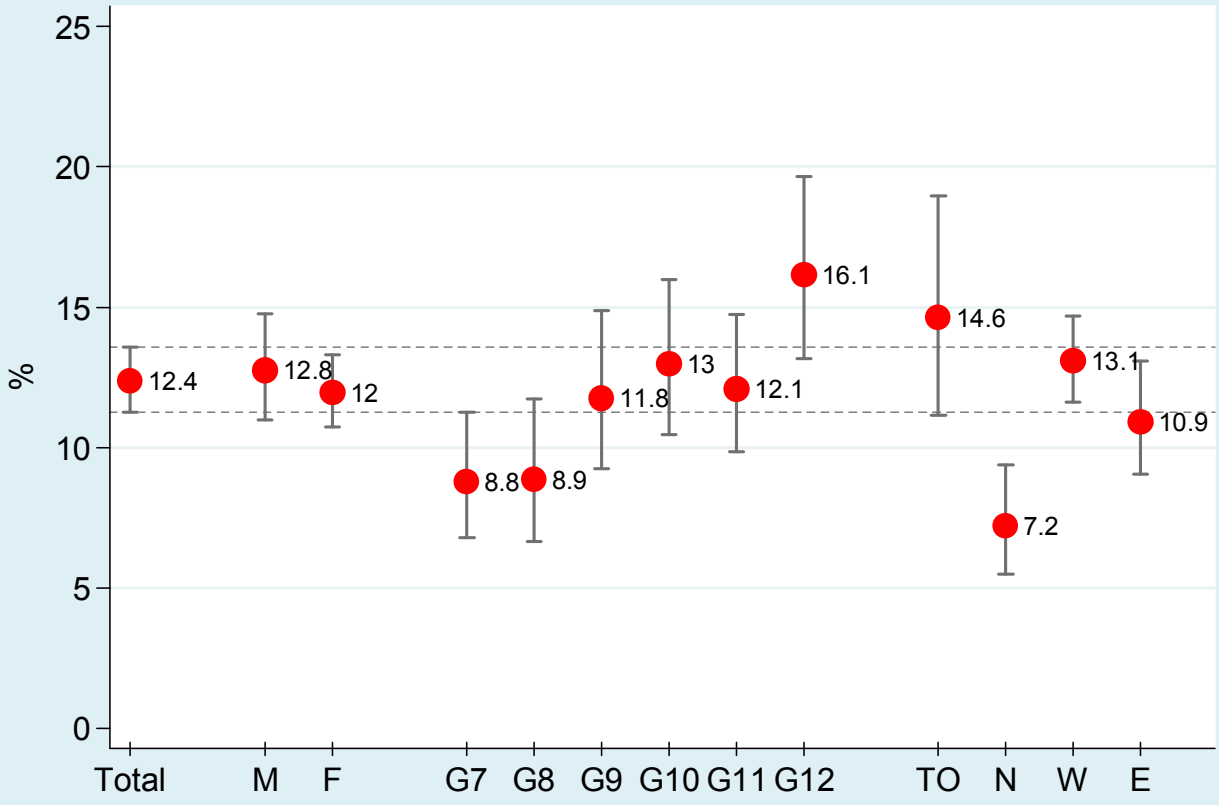
Past Year Nonmedical Use of Prescription Opioid Pain Relievers

(Figures 3.7.1, 3.7.2; Table 3.7.2)

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 abuse of opioids can lead to addiction. To measure past year use, students were asked "*In the last 12 months, how often did you use pain relief pills (such as Percocet, Percodan, Tylenol #3, Demerol, OxyContin, 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.*)"

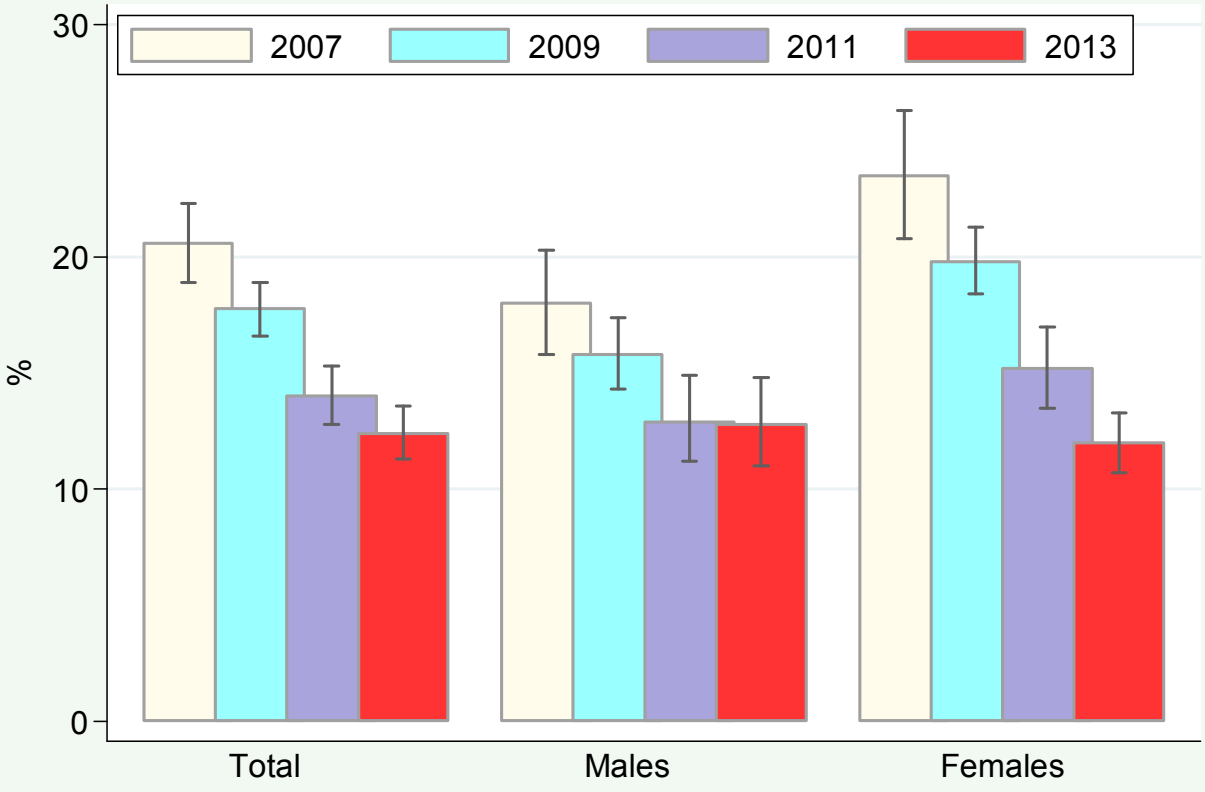
	NM Use of an Opioid Pain Reliever in 2013 (Grades 7–12)	Trends in Use (Grades 7–12)
Total Sample	■ Among all students, 12.4% (95% CI: 11.2%-13.6%) report using a prescription opioid pain reliever nonmedically at least once during the 12 months before the survey. This estimate represents about 120,100 Ontario students in grades 7 through 12.	☐ Among the total sample of students, nonmedical opioid use in the past year remained stable between 2011 (14.0%) and 2013 (12.4%). However, there has been a significant downward trend since 2007 – when monitoring began – from 20.6% down to 12.4% in 2013.
Sex	■ There is no significant difference in nonmedical opioid use between males (12.8%) and females (12.0%).	☐ Females show a significant decline in use between 2011 and 2013 (from 15.2% to 12.0%). Males remained stable between these two survey cycles. Both sexes show a significant linear decline between 2007 and 2013.
Grade	■ There is significant grade variation showing that use increases steadily with grade, peaking in 12th grade at 16.1%.	☐ Only 11th graders show a significant decline between 2011 and 2013 (from 18.0% to 12.1%). Students in grades 8, 9, 10, and 11 show a significant downward trend since 2007. Students in grade 7 and grade 12 show no significant change over time.
Region	■ Use significantly differs by region, with students in the North (7.2%) least likely to use and students in Toronto and the West most likely (about 13%-15%).	☐ Nonmedical use of prescription opioids significantly declined between 2011 and 2013 only among students in the North, from 13.2% to 7.2%. Students in the North, West, and East regions all show significant declines in 2013 compared with their respective 2007 estimates. Toronto shows no significant change.
Frequent Use	■ About 4% of all students report using an opioid pain reliever nonmedically six times or more often in the past year (see Figure 3.1.3). ■ About one-quarter (23%) of past year users used ten times or more often (see Figure 3.1.4).	

Figure 3.7.1
Past Year Nonmedical Use of a Prescription Opioid Pain Reliever by Sex, Grade, and Region, 2013 OSDUHS



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

Figure 3.7.2
Past Year Nonmedical Use of a Prescription Opioid Pain Reliever, 2007–2013 OSDUHS (Grades 7–12)



Notes: error bars represent 95% confidence intervals; significant decrease between 2007 and 2013 for total, males, and females (p<.01)

Table 3.7.2: Percentage Reporting Nonmedical Use of a Prescription Opioid Pain Reliever in the Past Year, 2007–2013 OSDUHS

		2007	2009	2011	2013
	(*n*=)	(2935)	(9112)	(9288)	(10272)
Total		**20.6**	**17.8**	**14.0**	**12.4** [bc]
(95% CI)		(18.9-22.3)	(16.6-18.9)	(12.8-15.3)	(11.2-13.6)
Sex					
	Males	**18.0**	**15.8**	**12.9**	**12.8** [b]
		(15.8-20.3)	(14.3-17.4)	(11.2-14.9)	(11.0-14.8)
	Females	**23.5**	**19.8**	**15.2**	**12.0** [ab]
		(20.8-26.3)	(18.4-21.3)	(13.5-17.0)	(10.7-13.3)
Grade					
	7	**12.5**	**9.2**	**8.5**	**8.8**
		(8.4-18.2)	(6.9-12.2)	(6.7-10.7)	(6.8-11.3)
	8	**22.1**	**14.4**	**10.9**	**8.9** [b]
		(17.7-27.2)	(11.9-17.4)	(8.5-13.8)	(6.6-11.7)
	9	**24.0**	**19.2**	**13.0**	**11.8** [b]
		(19.5-29.1)	(16.4-22.3)	(10.7-15.6)	(9.2-14.9)
	10	**21.8**	**20.4**	**14.9**	**13.0** [b]
		(18.1-25.9)	(17.1-24.2)	(12.9-17.2)	(10.4-16.0)
	11	**22.0**	**21.3**	**18.0**	**12.1** [ab]
		(18.4-26.2)	(18.6-24.3)	(14.6-22.0)	(9.9-14.7)
	12	**20.5**	**19.5**	**16.0**	**16.1**
		(16.6-25.1)	(16.8-22.5)	(13.2-19.2)	(13.2-19.6)
Region					
	Toronto	**17.9**	**16.8**	**12.8**	**14.6**
		(14.5-21.9)	(14.7-19.2)	(11.4-14.4)	(11.1-19.0)
	North	**27.0**	**18.1**	**13.2**	**7.2** [ab]
		(21.6-33.1)	(15.9-20.6)	(9.7-17.8)	(5.5-9.4)
	West	**21.5**	**17.5**	**15.2**	**13.1** [b]
		(18.8-24.4)	(15.6-19.5)	(13.0-17.8)	(11.6-14.7)
	East	**19.3**	**18.4**	**13.1**	**10.9** [b]
		(16.8-22.1)	(16.6-20.4)	(11.8-14.6)	(9.1-13.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in 2007; (3) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 2007 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, how often did you use pain relief pills (such as Percocet, Percodan, Tylenol #3, Demerol, OxyContin, 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 the 2009 cycle 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 3.7.3)

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., abuse) 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. The question used was "*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?*"

	NM ADHD Drug Use in 2013 (Grades 7–12)	Trends in Use (Grades 7–12)
Total Sample	■ Among all students, 1.4% (95% CI: 1.0%-2.0%) report using an ADHD drug for nonmedical purposes at least once in the past 12 months. This represents about 13,500 Ontario students in grades 7 through 12.	☐ The nonmedical use of an ADHD drug has not significantly changed since 2007, the first year of monitoring. Estimates have remained stable during this period, between 1% and 2%.
Sex	■ Males (1.9%) are significantly more likely than females (0.9%) to report the nonmedical use of an ADHD drug.	☐ Use has not changed among males or females since 2007.
Grade	■ There is significant grade variation, with older students more likely to use.	☐ No grade shows a significant change in use.
Region	■ There is no significant regional variation.	☐ No region shows a significant change in use.
Frequent Use	■ Most (54%) past year users report using once or twice in the past year (see Figure 3.1.4).	

Table 3.7.3: Percentage Reporting Nonmedical Use of an ADHD Drug in the Past Year, 2007–2013 OSDUHS

		2007	2009	2011	2013
	(*n*=)	(2935)	(9112)	(9288)	(10272)
Total		**1.0**	**1.6**	**1.0**	**1.4**
(95% CI)		(0.7-1.5)	(1.3-2.1)	(0.7-1.3)	(1.0-2.0)
Sex					
	Males	**1.1**	**1.7**	**1.2**	**1.9**
		(0.7-1.8)	(1.2-2.4)	(0.7-2.2)	(1.2-2.9)
	Females	**1.0**	**1.6**	**0.7**	**0.9**
		(0.5-1.9)	(1.2-2.1)	(0.4-1.3)	(0.6-1.3)
Grade					
	7	†	**0.8**	†	†
			(0.4-1.5)		
	8	†	**1.2**	†	†
			(0.7-2.3)		
	9	†	**1.8**	†	†
			(1.0-3.0)		
	10	†	**1.6**	†	**1.6**
			(1.0-2.6)		(0.8-3.0)
	11	**2.2**	**2.5**	†	**1.4**
		(1.3-3.7)	(1.5-4.1)		(0.8-2.5)
	12	†	**1.7**	†	**2.4**
			(1.1-2.7)		(1.2-4.7)
Region					
	Toronto	†	†	†	†
	North	†	**2.5**	**1.3**	†
			(1.4-4.4)	(0.8-2.3)	
	West	**1.1**	**1.7**	†	**1.4**
		(0.6-1.7)	(1.1-2.4)		(0.8-2.7)
	East	†	**1.8**	**1.4**	**1.3**
			(1.2-2.7)	(1.0-2.0)	(0.8-2.1)

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 changes over time.

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

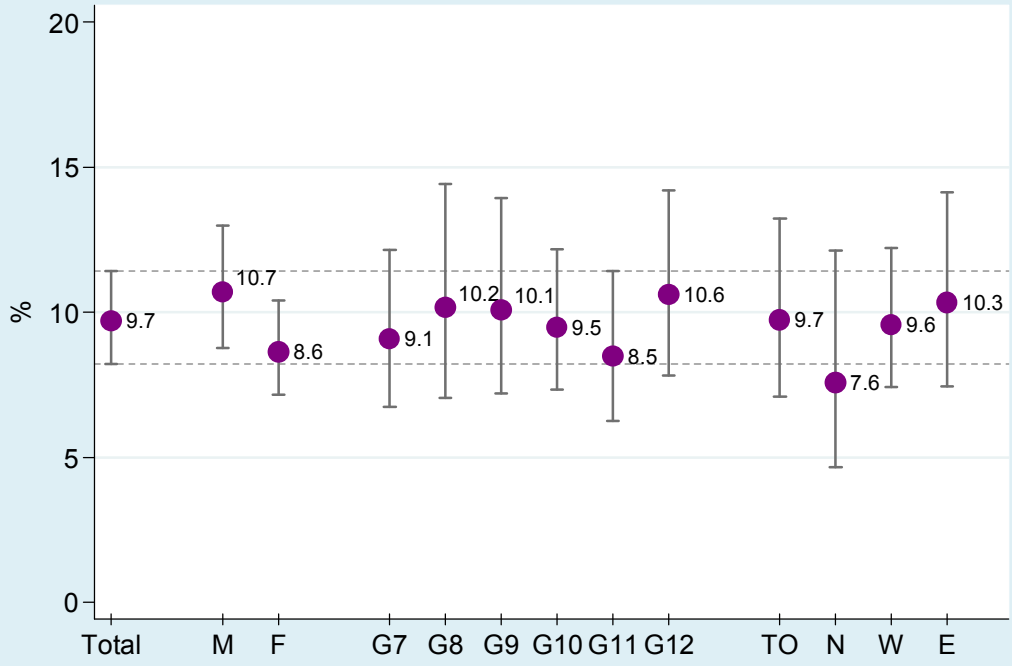
Past Year Nonmedical Use of Over-the-Counter Cough or Cold Medication

(Figures 3.7.3, 3.7.4; Table 3.7.4)

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 abused, DXM takes on qualities of a dissociative drug such as ketamine, producing feelings of detachment and distorting perceptions of sight and sound and impairing motor coordination.

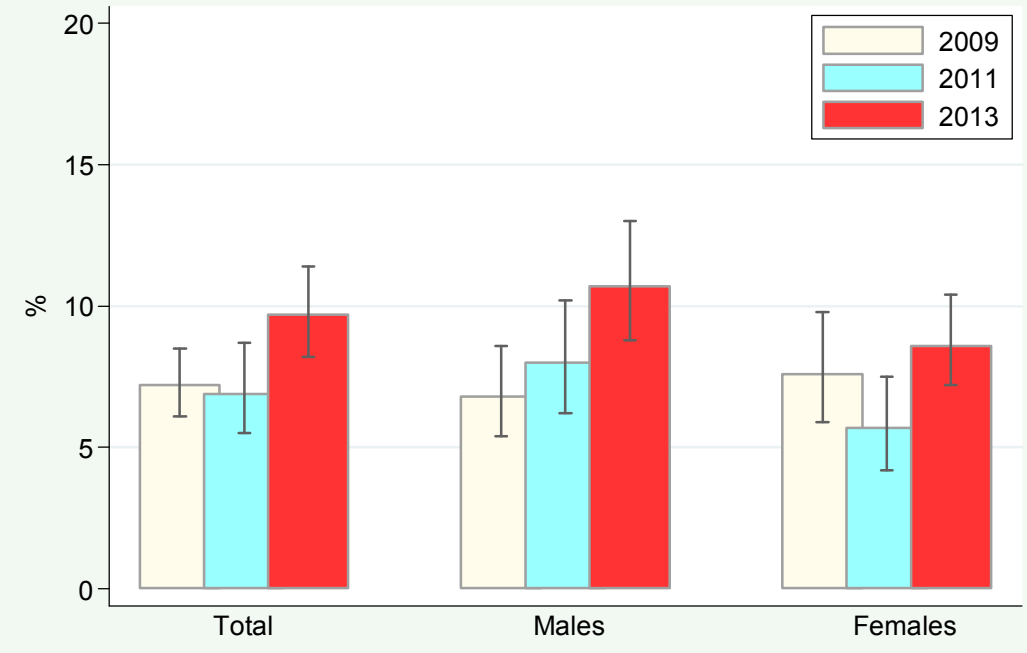
	Use in 2013 (Grades 7–12)	Trends in Use (Grades 7–12)
Total Sample	■ In 2013, 9.7% (95% CI: 8.2%-11.4%) of students report using an OTC cough/cold medication to get high at least once in the past year. This estimate represents about 94,100 students in Ontario.	☐ The percentage of the total sample of students reporting using an OTC cough/cold medication to get high in 2013 (9.7%) is significantly higher than the estimate seen in 2009 (7.2%), the first year of monitoring. (While the current estimate is numerically higher than that from 2011, the difference did not reach statistical significance.)
Sex	■ Males (10.7%) are significantly more likely than females (8.6%) to use a cough/cold medication to get high.	☐ Only males show a significant increase in the use of an OTC cough/cold medication to get high, as the estimate increased from 6.8% in 2009 to 10.7% in 2013. There was no significant increase among females.
Grade	■ There are no significant grade differences.	☐ Students in grades 7, 9, and 12 show a significant increase in use between 2011 and 2013. Students in 12th grade also show a significant increase compared with 2009. Students in the other grades show no significant increase.
Region	■ There are no significant regional differences.	☐ Among the regions, only students in the East show a significant increase in use between 2011 and 2013, from 5.5% to 10.3%.
Frequent Use	■ Among the total sample of students, 2.4% report using an OTC cough/cold medication to get high six times or more often during the past year (see Figure 3.1.3).	

Figure 3.7.3
Past Year Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication by Sex, Grade, and Region, 2013 OSDUHS



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

Figure 3.7.4
Past Year Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication, 2009–2013 OSDUHS (Grades 7–12)



Notes: error bars represent 95% confidence intervals; significant increase between 2009 and 2013 for total and males (p<.01); no significant change among females

Table 3.7.4: Percentage Reporting Nonmedical Use of Over-the-Counter (OTC) Cough or Cold Medication in the Past Year, 2009–2013 OSDUHS

	2009 (*n*=4220)	2011 (*n*=4472)	2013 (*n*=10272)
Total	**7.2**	**6.9**	**9.7** [bc]
(95% CI)	(6.1-8.5)	(5.5-8.7)	(8.2-11.4)
Sex			
Males	**6.8**	**8.0**	**10.7** [b]
	(5.4-8.6)	(6.2-10.2)	(8.8-13.0)
Females	**7.6**	**5.7**	**8.6**
	(5.9-9.8)	(4.2-7.5)	(7.2-10.4)
Grade			
7	**6.0**	**3.1**	**9.1** [a]
	(3.8-9.4)	(1.8-5.3)	(6.7-12.1)
8	**6.3**	**7.5**	**10.2**
	(4.1-9.6)	(5.2-10.8)	(7.0-14.4)
9	**6.8**	**4.5**	**10.1** [a]
	(4.0-11.2)	(3.1-6.5)	(7.2-13.9)
10	**7.9**	**8.9**	**9.5**
	(5.3-11.4)	(6.6-11.9)	(7.3-12.2)
11	**7.8**	**11.7**	**8.5**
	(5.6-10.9)	(6.1-21.5)	(6.2-11.4)
12	**7.9**	**5.5**	**10.6** [ab]
	(5.3-11.5)	(3.6-8.3)	(7.8-14.2)
Region			
Toronto	**10.6**	**8.0**	**9.7**
	(7.4-15.1)	(6.3-10.1)	(7.1-13.2)
North	**5.0**	**3.8**	**7.6**
	(2.9-8.7)	(2.4-5.9)	(4.6-12.1)
West	**6.7**	**7.9**	**9.6**
	(5.0-8.8)	(5.2-11.8)	(7.4-12.2)
East	**6.5**	**5.5**	**10.3** [a]
	(5.3-8.1)	(4.3-7.1)	(7.4-14.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 2009 significant difference, p<.01; [c] significant linear trend, p<.01.

Q: In the last 12 months, how often did you use a cough or cold medicine form a drug store, such as Robitussin DM, Benylin DM (also known as "robos", "dex", "DXM") in order to get high?

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Use of High-Caffeine Energy Drinks

(Figure 3.7.5; Table 3.7.5)

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, agitation and sleeplessness.

2013: Grades 7–12

- About 39.7% (95% CI: 37.8%-41.7%) of students in grades 7 through 12 report drinking an energy drink at least once in the past year. This estimate represents about 382,500 Ontario students. About 12.4% (95% CI: 11.0%-14.0%) report drinking an energy drink at least once during the 7 days before the survey. This estimate represents about 119,700 students.

- Males are more likely than females to report drinking an energy drink in the past year (45.9% vs. 33.1%, respectively).

- There is significant grade variation showing an increase in past year use as grade increases (from 26.4% among 7th graders to 49.9% among 12th graders).

- There are no significant differences among the four regions.

2013 vs. 2011: Grades 7–12

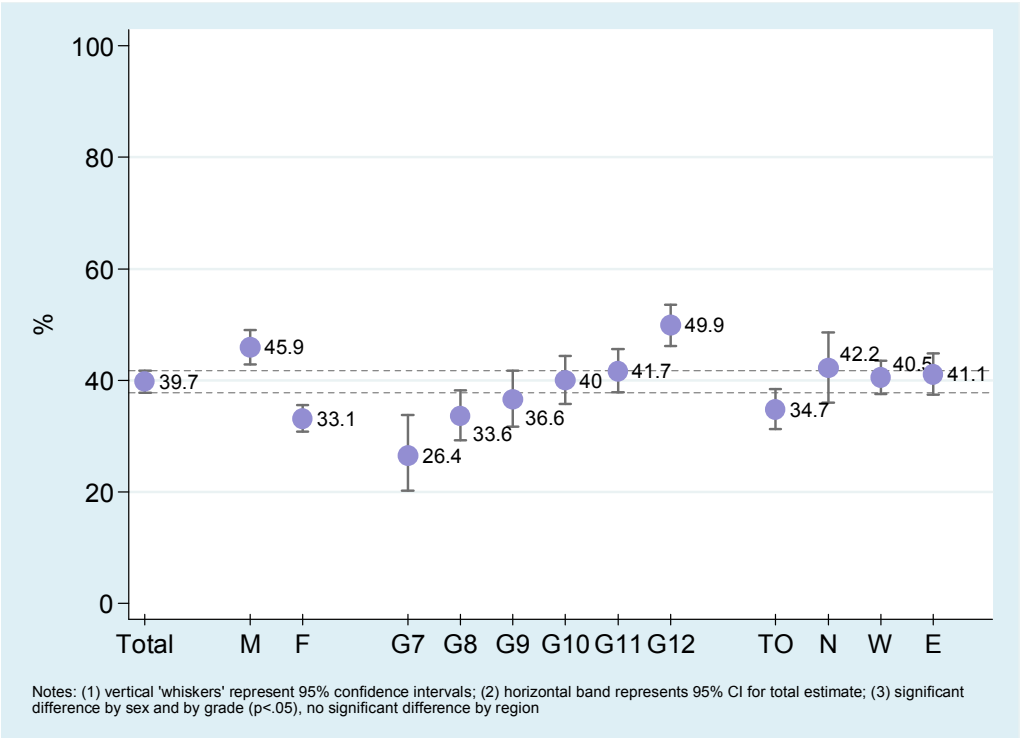
- Among the total sample, past year use of an energy drink significantly decreased between 2011 and 2013, from 49.5% to 39.7%.

- Females show a significant decline in past year energy drink use, from 46.5% in 2011 to 33.1% in 2013. Males show no significant change.

- Students in grades 9 and 11 show significant declines between 2011 and 2013.

- Students in all regions except Toronto show significant declines between 2011 and 2013.

Figure 3.7.5
Past Year Use of a High-Caffeine Energy Drink by Sex, Grade, and Region, 2013 OSDUHS



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

Table 3.7.5: Percentage Reporting Drinking High-Caffeine Energy Drinks in the Past Year, 2011–2013 OSDUHS

	2011 (*n*=4472)	2013 (*n*=10272)
Total	**49.5**	**39.7** [a]
(95% CI)	(46.3-52.7)	(37.8-41.7)
Sex		
Males	**52.2**	**45.9**
	(48.1-56.2)	(42.8-49.0)
Females	**46.5**	**33.1** [a]
	(40.5-52.6)	(30.8-35.6)
Grade		
7	**34.1**	**26.4**
	(27.0-42.0)	(20.2-33.8)
8	**41.8**	**33.6**
	(34.8-49.3)	(29.3-38.2)
9	**48.6**	**36.6** [a]
	(42.4-54.8)	(31.7-41.7)
10	**49.0**	**40.0**
	(42.5-55.6)	(35.8-44.4)
11	**56.2**	**41.7** [a]
	(47.4-64.7)	(37.8-45.6)
12	**58.5**	**49.9**
	(47.6-68.6)	(46.2-53.6)
Region		
Toronto	**37.9**	**34.7**
	(32.9-43.2)	(31.2-38.4)
North	**53.7**	**42.2** [a]
	(50.2-57.2)	(36.0-48.6)
West	**54.9**	**40.5** [a]
	(49.2-60.5)	(37.5-43.5)
East	**48.0**	**41.1** [a]
	(44.5-51.4)	(37.4-44.8)

Notes: (1) entries in brackets are 95% confidence intervals; (2) asked of a random half sample in 2011; (3) [a] 2013 vs. 2011 significant difference, p<.01.

Q: In the last 7 days, how often did you drink a can of a high-energy caffeine drink, such as Redbull, 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

3.7.2 Nonmedical Use of Prescription Drugs Among Grades 9–12

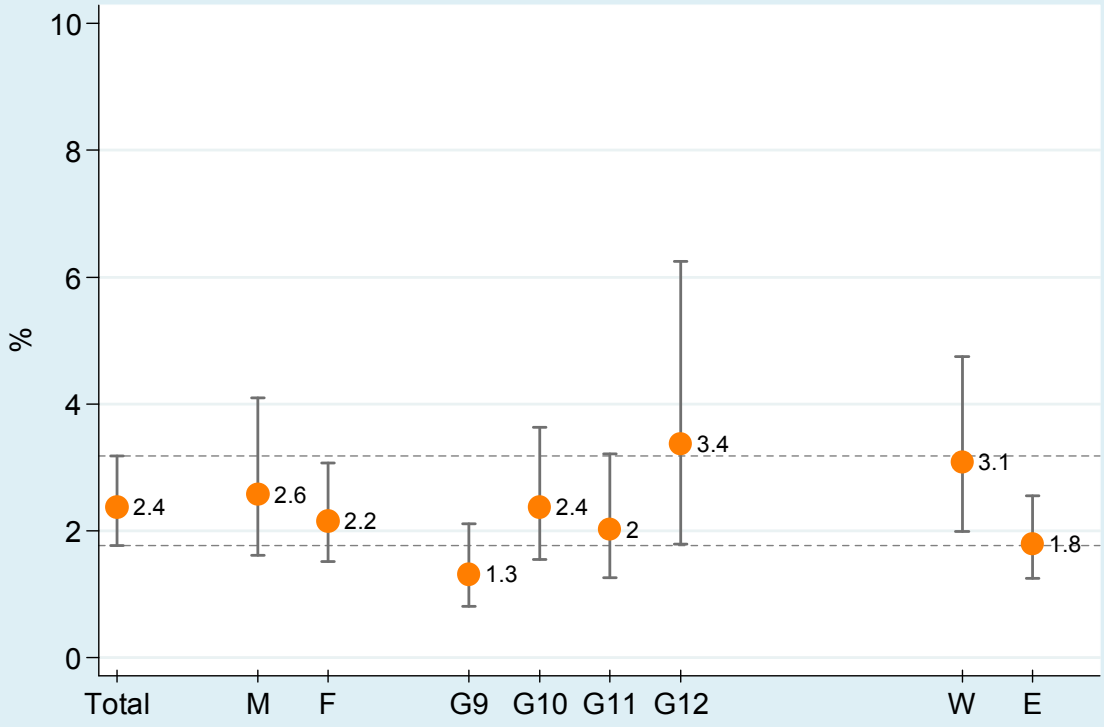
Past Year Nonmedical Use of Tranquillizers/Sedatives

(Figures 3.7.6–3.7.8; Table 3.7.6)

This section presents past year tranquilizer/sedative use (e.g., Valium) without a prescription or doctor's supervision. These drugs are benzodiazepines, and may have the following effects: 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).

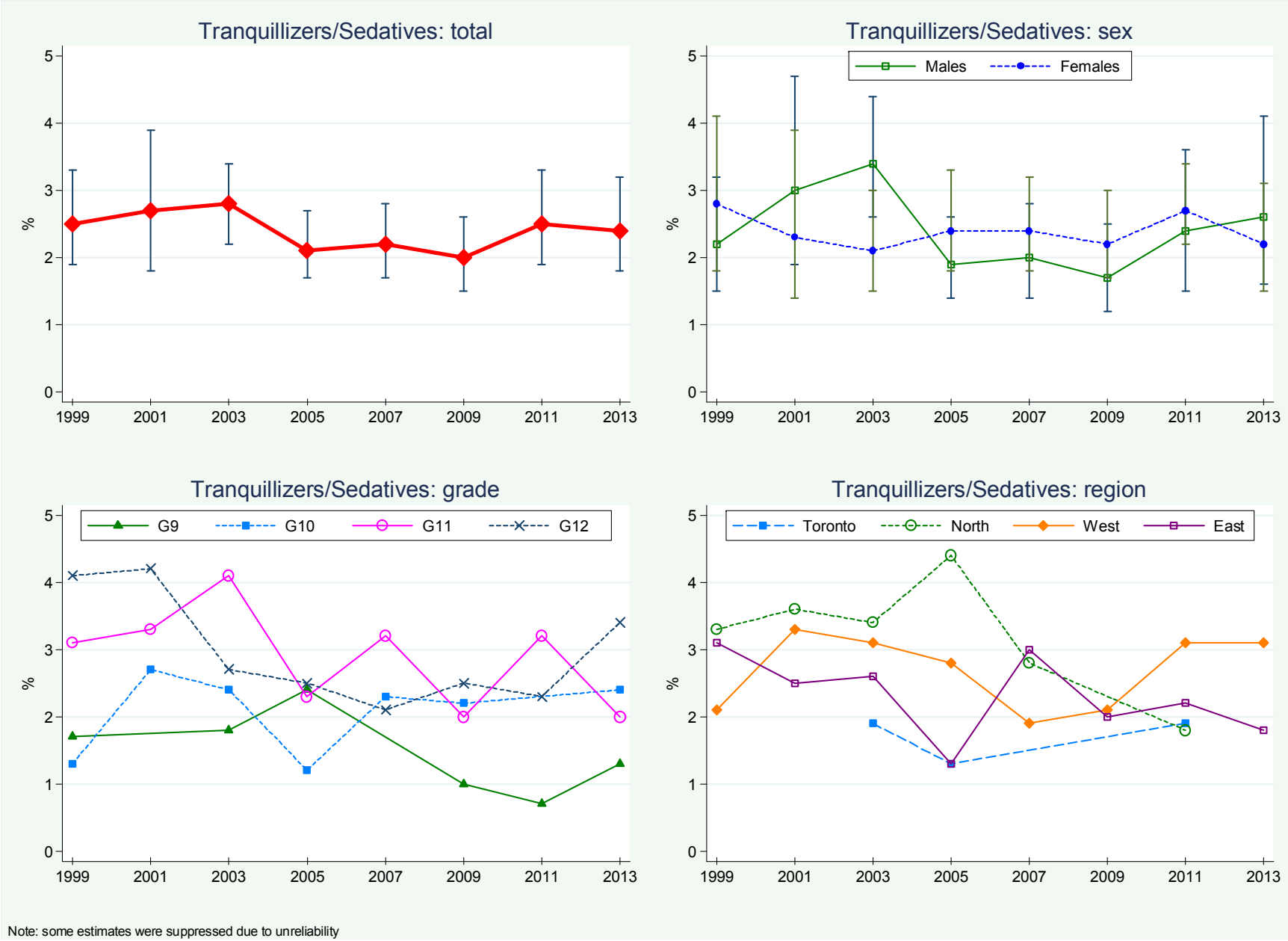
	Nonmedical Tranquillizer Use in 2013 (Grades 9–12)	Trends in Use
Total Sample	■ Nonmedical tranquillizer/sedative use is reported by 2.4% (95% CI: 1.8%-3.2%) of students in grades 9 through 12. This percentage represents about 17,400 students.	☐ Among the total sample, there has been no change in tranquillizer/sedative use between 1999 and 2013, as estimates have remained stable at about 2%. ☐ Over the long-term (among grades 9 and 11 only), use peaked in the late 1970s/early 1980s, and then decreased substantially over the late 1980s/early 1990s. Since 1991, use has remained low and stable.
Sex	■ Tranquillizer use does not significantly differ between males (2.6%) and females (2.2%).	☐ Neither males nor females show a significant change in tranquillizer use since 1999.
Grade	■ Tranquillizer use does not significantly vary by grade.	☐ No grade shows a significant change in tranquillizer use since 1999.
Region	■ Use does not significantly vary by region.	☐ No region shows a significant change in tranquillizer use since 1999.
Frequent Use	■ About half (50%) of users report using only once or twice during the past year (see Figure 3.1.4).	

Figure 3.7.6
Past Year Nonmedical Tranquillizer/Sedative Use by Sex, Grade, and Region, 2013 OSDUHS



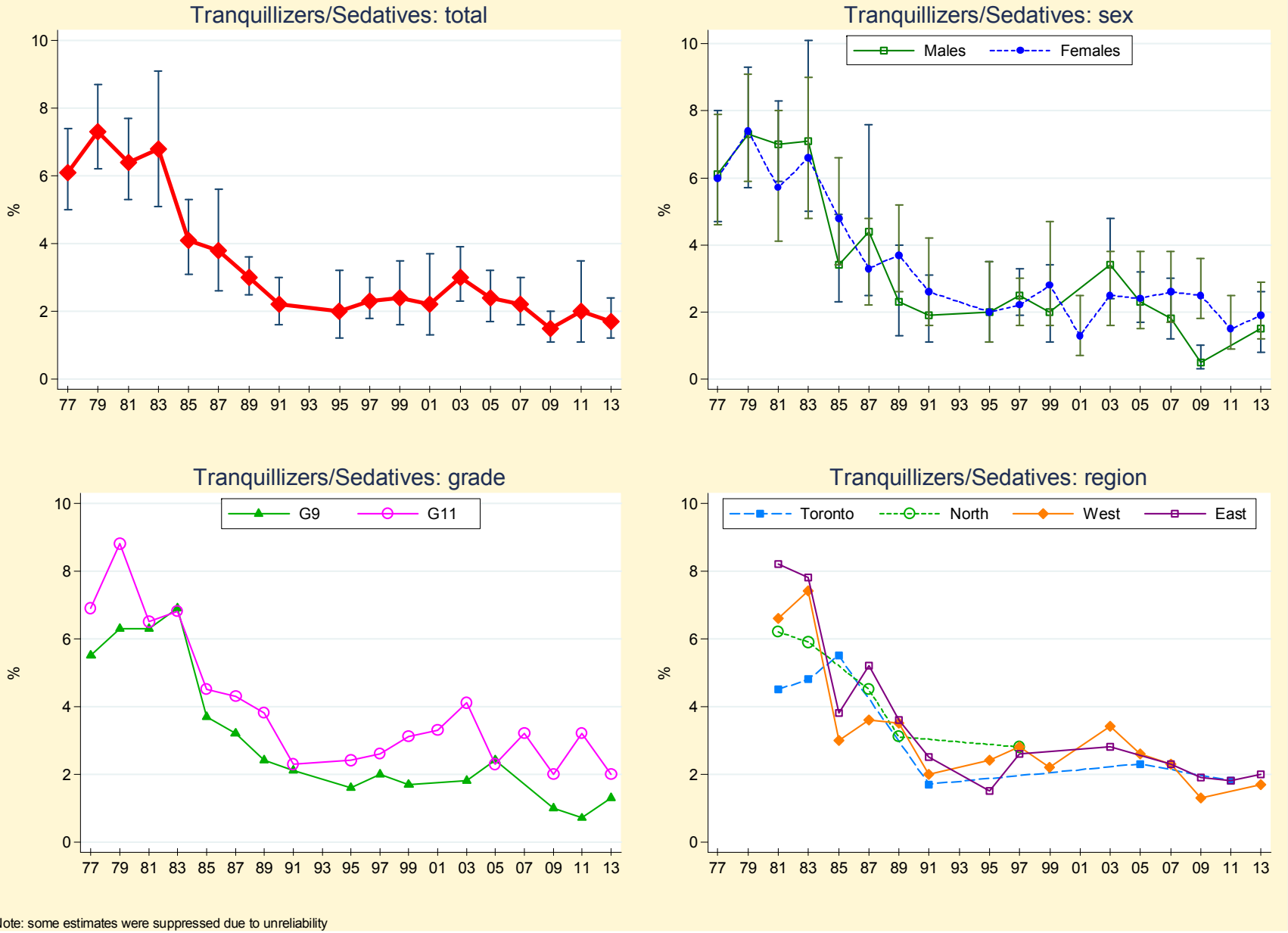
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimates for Toronto and the North were suppressed; (4) no significant difference by sex, grade, or region

Figure 3.7.7
Past Year Nonmedical Tranquillizer/Sedative Use, 1999–2013 OSDUHS (Grades 9–12)



Note: some estimates were suppressed due to unreliability

Figure 3.7.8
Past Year Nonmedical Tranquillizer/Sedative Use, 1977–2013 OSDUHS (Grades 9 and 11 only)



Note: some estimates were suppressed due to unreliability

Table 3.7.6: Percentage Reporting Nonmedical Tranquillizer/Sedative Use in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
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)
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) [cd]
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)
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)
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)
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)
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)
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)
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)
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)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(2883)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	†	†	**1.9** (1.1-3.4)	**1.3** (0.7-2.5)	†	†	**1.9** (1.2-3.0)	†
Toronto[2]	—	—	**4.5** (3.4-5.9)	**4.8** (4.2-5.5)	**5.5** (4.6-6.5)	†	†	**1.7** (0.9-3.3)	†	†	†	†	†	†	**2.3** (1.4-3.9)	†	†	**1.8** (1.0-3.0)	†
North[1]	—	—	—	—	—	—	—	—	—	—	—	**3.3** (1.9-5.8)	**3.6** (2.2-6.0)	**3.4** (2.2-5.0)	**4.4** (2.3-8.3)	**2.8** (1.7-4.6)	†	**1.8** (1.2-2.8)	†
North[2]	—	—	**6.2** (3.2-11.8)	**5.9** (4.2-8.2)	†	**4.5** (3.8-5.3)	**3.1** (1.7-5.5)	†	†	†	**2.8** (2.0-4.0)	†	†	†	†	†	†	†	†
West[1]	—	—	—	—	—	—	—	—	—	—	—	**2.1** (1.3-3.4)	**3.3** (1.9-5.7)	**3.1** (2.3-4.3)	**2.8** (2.1-3.7)	**1.9** (1.3-2.8)	**2.1** (1.4-3.3)	**3.1** (2.0-4.7)	**3.1** (2.0-4.8)
West[2]	—	—	**6.6** (5.3-8.2)	**7.4** (4.4-12.1)	**3.0** (1.4-6.4)	**3.6** (1.8-7.0)	**3.5** (3.1-3.8)	**2.0** (1.1-3.5)	†	**2.4** (1.4-4.1)	**2.8** (2.0-3.8)	**2.2** (1.2-4.1)	†	**3.4** (2.3-5.0)	**2.6** (1.7-3.8)	**2.3** (1.4-3.8)	**1.3** (0.7-2.2)	†	**1.7** (1.1-2.6)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**3.1** (1.9-4.9)	**2.5** (1.3-4.7)	**2.6** (1.6-4.2)	**1.3** (0.8-2.1)	**3.0** (2.0-4.6)	**2.0** (1.4-3.0)	**2.2** (1.6-3.2)	**1.8** (1.2-2.6)
East[2]	—	—	**8.2** (4.7-13.8)	**7.8** (4.5-13.2)	**3.8** (2.4-6.0)	**5.2** (3.2-8.3)	**3.6** (2.8-4.6)	**2.5** (1.5-4.1)	†	**1.5** (0.7-2.9)	**2.6** (1.7-4.1)	†	†	**2.8** (1.7-4.3)	†	**2.3** (1.4-3.9)	**1.9** (1.3-2.9)	**1.8** (1.2-2.7)	**2.0** (1.2-3.4)

Notes: (1) based on Grades 9-12 (full sample); (2) based on Grades 9 and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) † estimate suppressed due to unreliability; (6) no significant changes between 1999 and 2013; [c] significant linear trend; [d] significant nonlinear trend.

Q: Sedatives or tranquillizers are sometimes prescribed by doctors to help people sleep, calm them down, or to relax their muscles. In the last 12 months, how often did you use sedatives or tranquillizers (such as 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

Past Year Nonmedical Use of Modafinil

Starting in 2013, a random half sample of secondary students was asked about the nonmedical use of modafinil, which is the generic name for a prescription stay-awake drug (central nervous system stimulant) typically used to treat sleep disorders by reducing excessive daytime drowsiness. Anecdotal and media reports warn that it is being used by some students who want to stay alert and focussed while studying, hence its label as a "cognitive enhancer" or "smart drug."

Student were asked "*In the last 12 months, how often did you use modafinil (such as Alertec, Provigil), which is a prescription stay-awake drug, without a prescription or without a doctor telling you to take it?*"

2013: Grades 9–12

- Among students in grades 9 through 12, 0.8% (95% CI: 0.4%-1.4%) report taking modafinil without their own prescription at least once in the past 12 months. This estimate represents about 5,500 students.

- Estimates by sex, grade, and region are suppressed due to unreliability.

Lifetime Steroid Use

(Table 3.7.7)

In 1989, the OSDUHS began asking students whether they had ever used steroids (e.g., body builders, testosterone, androgens, durabolin, growth hormones) to enhance their athletic performance or to change their physical appearance. Steroid use does not cause intoxication, but can cause hypertension, blood clotting and cholesterol changes, aggression, acne, and adolescents can experience premature stoppage of growth. Starting in 2013, the steroid use question was asked of students in grades 9 through 12 only (not asked of 7th and 8th graders).

	Lifetime Steroid Use (Grades 9–12)	Trends in Use
Total Sample	■ In 2013, 2.0% of students (95% CI: 1.1%-3.8%) in grades 9 through 12 report ever using steroids to increase performance or change their physical appearance. This estimate represents about 14,000 students in Ontario.	☐ Among the total sample of students, there has been no significant change in reported lifetime steroid use between 2011 (1.6%) and 2013 (2.0%). The estimate significantly decreased between 1999 and 2007 (from 4.3% to 1.6%) and has remained stable since then. ☐ Looking at the long-term estimates (among grades 9 and 11 only), steroid use peaked in 1999 and 2001, but has since declined gradually back down to a level that is similar to the lows seen in the late 1980s/early 1990s.
Sex	■ There is no significant sex difference in reported lifetime steroid use (2.7% among males; the estimate among females was suppressed).	☐ The use of steroids among males did not change between 2011 and 2013 (both years at 2.7%). However, males do show a significant downward trend since 1999, when the estimate was at 7.0%. There has been no significant change among females during the past decade.
Grade	■ Estimates by grade were suppressed.	☐ Only grade 11 students show a significant decline since 1999. The decline among 12th graders began after 2001.
Region	■ Estimates by region were suppressed.	☐ Toronto students and students in the North show significant declines in use since 1999.

Table 3.7.7: Percentage Reporting Steroid Use in Lifetime, 1989–2013 OSDUHS (Grades 9–12)

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n[1])						(2883)	(2457)	(2238)	(2725)	(2247)	(2728)	(3025)	(2895)	
(n[2])	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(1263)	(1168)	(1409)	(1150)	(1320)	(1536)	(1459)	
Total[1] (95% CI)	—	—	—	—	—	**4.3** (3.3-5.4)	**4.5** (3.5-5.8)	**3.8** (3.0-4.7)	**2.8** (2.3-3.6)	**1.6** (1.1-2.4)	**1.2** (0.8-1.9)	**1.6** (1.1-2.4)	**2.0** (1.1-3.8)	[c]
Total[2]	**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)	†	[d]
Sex														
Males[1]	—	—	—	—	—	**7.0** (5.3-9.1)	**6.3** (4.5-8.8)	**5.8** (4.5-7.4)	**3.8** (2.8-5.1)	**2.6** (11.7-4.1)	**2.0** (1.2-3.3)	**2.7** (1.7-4.3)	**2.7** (1.6-4.5)	[b]
Males[2]	**3.0** (1.9-4.6)	**3.3** (2.4-4.5)	**2.7** (1.9-3.8)	**2.0** (1.2-3.5)	**2.6** (1.6-4.2)	**6.1** (4.0-9.2)	**5.4** (3.5-8.2)	**5.2** (3.6-7.5)	**3.1** (1.9-5.1)	**1.8** (1.0-3.5)	†	†	†	
Females[1]	—	—	—	—	—	**1.3** (0.8-2.1)	**2.5** (1.7-3.7)	**1.8** (1.1-3.0)	**1.8** (1.1-2.8)	†	†	†	†	
Females[2]	†	†	†	**0.9** (0.4-1.9)	†	**1.3** (0.7-2.3)	**2.4** (1.3-4.3)	†	†	†	†	†	†	
Grade														
9	†	**1.8** (1.2-2.6)	†	**1.4** (1.3-1.6)	†	†	**2.7** (1.4-5.2)	**1.6** (0.9-2.9)	**2.0** (1.1-3.8)	†	†	†	†	
10	—	—	—	—	—	**2.9** (1.8-4.7)	**3.1** (2.0-4.9)	**3.8** (2.4-6.1)	**2.9** (1.8-4.4)	†	**1.8** (1.0-3.4)	†	†	
11	**1.8** (1.2-2.9)	**2.1** (1.4-3.1)	**2.8** (1.8-4.3)	**1.5** (0.7-3.0)	**1.8** (1.1-3.2)	**6.2** (4.2-9.1)	**5.6** (3.4-9.1)	**4.6** (3.2-6.6)	**2.6** (1.6-4.3)	**2.0** (1.1-3.7)	**1.2** (0.6-2.7)	†	†	[b]
12	—	—	—	—	—	**6.9** (4.9-9.7)	**9.1** (5.7-14.4)	**5.3** (3.4-8.1)	**3.7** (2.5-5.5)	**2.4** (1.2-4.7)	†	**0.8** (0.4-1.6)	†	
Region														
Toronto[1]	—	—	—	—	—	**4.3** (2.4-7.4)	**3.8** (2.4-5.9)	**3.1** (1.6-5.9)	**2.4** (1.4-4.0)	†	†	†	†	[b]
Toronto[2]	†	**2.1** (1.6-2.7)	†	†	†	†	**2.4** (1.3-4.4)	†	†	†	†	†	†	
North[1]	—	—	—	—	—	**6.0** (3.2-11.1)	**4.6** (3.1-6.9)	**5.0** (3.3-7.5)	**1.3** (0.7-2.4)	†	†	†	†	[b]
North[2]	†	†	†	†	**1.1** (1.0-1.2)	†	**4.0** (2.4-6.8)	**3.1** (1.6-5.9)	†	†	†	†	†	
West[1]	—	—	—	—	—	**4.2** (2.7-6.4)	**5.2** (3.7-7.3)	**3.1** (2.2-4.4)	**3.1** (2.2-4.4)	**1.9** (1.0-3.4)	†	†	†	
West[2]	**1.6** (1.0-2.6)	**2.5** (1.7-3.8)	**2.5** (1.4-4.4)	**1.6** (1.1-2.2)	**1.7** (0.8-3.6)	**3.7** (2.0-7.1)	**4.2** (2.2-7.7)	**2.4** (1.2-4.5)	**2.8** (1.6-4.6)	†	†	†	†	
East[1]	—	—	—	—	—	**3.8** (2.5-5.7)	†	**5.0** (3.3-7.5)	**3.1** (2.1-4.4)	†	†	**1.9** (1.2-3.1)	†	
East[2]	†	**0.6** (0.4-1.2)	**1.5** (1.0-2.3)	**1.9** (0.9-3.9)	†	**3.7** (2.2-6.3)	†	**5.2** (3.6-7.6)	**2.4** (1.3-4.5)	†	†	†	†	

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) † estimate suppressed due to unreliability; (5) question asked of a random half sample starting in 2005; (6) no significant differences 2013 vs. 2011; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.

Q: Have you ever used steroids, body builders (e.g. testosterone and other androgens, durabolin, growth hormones, etc.) to increase your performance in some sport or activity and/or to change your physical appearance?

Source: OSDUHS, Centre for Addiction & Mental Health

3.8 Any Drug Use and Multiple 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 high-caffeine energy 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); (4) the percentage who used any illicit drug by injection (among grades 9–12 only); (5) the overlap of alcohol, tobacco, cannabis, and other drug use (among grades 9–12 only); and (6) the percentage who used no drug, including alcohol and tobacco, during the past year (among grades 7–12).

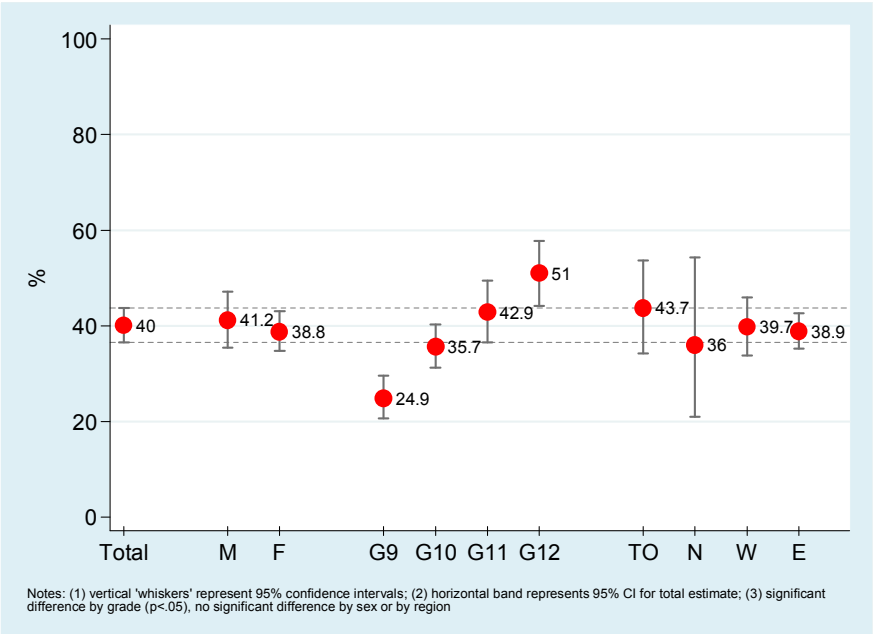
Any Drug Use Including Cannabis in 2013 (Figure 3.8.1)

This composite measure captures the use of at least one of the following **22 drugs** asked about in the 2013 survey: cannabis, synthetic cannabis, inhalants, LSD, mushrooms/mescaline, jimson weed, salvia divinorum, cocaine, crack, methamphetamine, heroin, ecstasy, ketamine, methoxetamine, BZP pills, mephedrone ("bath salts"), tranquillizers/sedatives (NM), modafinil (NM), OxyContin/OxyNEO (NM), other prescription opioid pain relievers (NM), ADHD drugs (NM), and over-the-counter cough/cold medication. Excluded from this index are tobacco, alcohol, and high-caffeine energy drinks. These results are among grades 9 through 12 only.

2013: Grades 9–12

- Among secondary students, 40.0% (95% CI: 36.5%-43.7%) report using at least one drug in the past year. This estimate represents about 274,800 Ontario students in grades 9 through 12.
- Males (41.2%) and females (38.8%) are equally likely to report the use of at least one drug.
- Drug use significantly increases with grade, from 24.9% of 9th graders up to 51.0% of 12th graders.
- There are no significant regional differences.

Figure 3.8.1
Past Year Use of Any Drug Including Cannabis, by Sex, Grade, and Region, 2013 OSDUHS (Grades 9–12)



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

Any Drug Use Excluding Cannabis in 2013

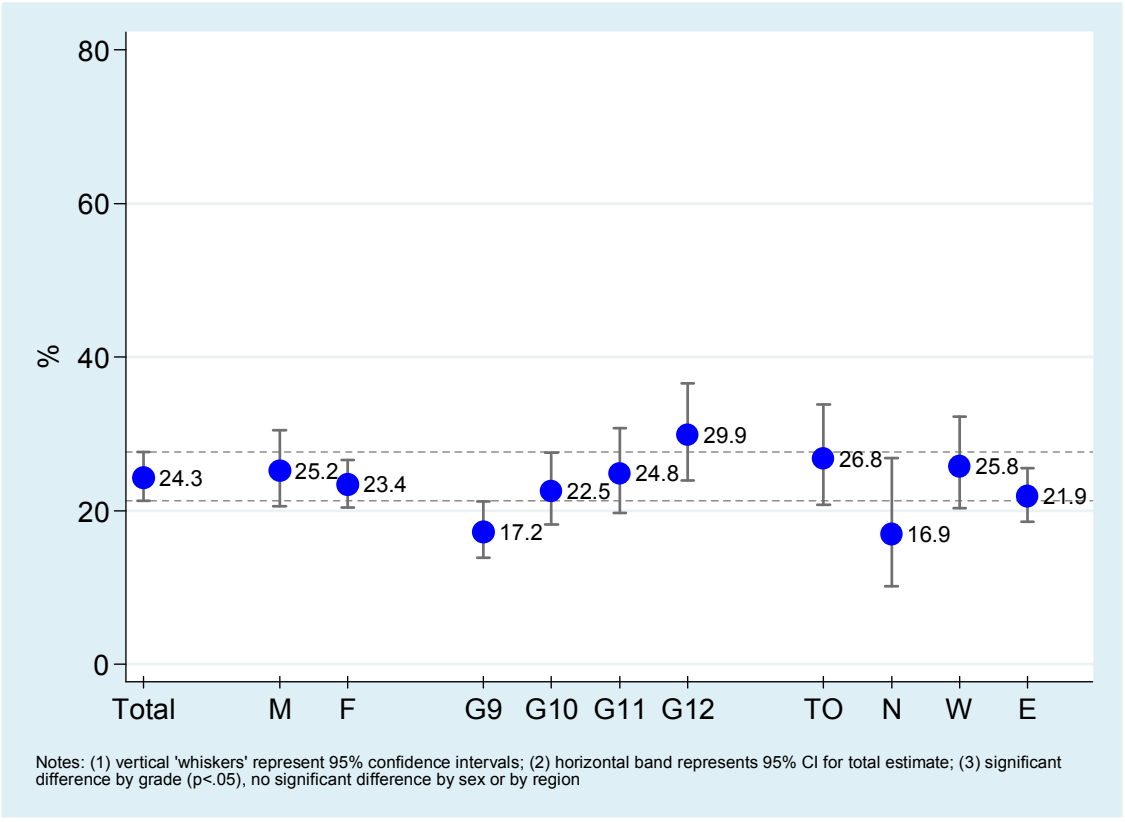
(Figure 3.8.2)

This composite measure captures the use of at least one of the following **21 drugs** asked about in the 2013 survey: synthetic cannabis, inhalants, LSD, mushrooms/mescaline, jimson weed, salvia divinorum, cocaine, crack, methamphetamine, heroin, ecstasy, ketamine, methoxetamine, BZP pills, mephedrone ("bath salts"), tranquillizers/sedatives (NM), modafinil (NM), OxyContin/OxyNEO (NM), other prescription opioid pain relievers (NM), ADHD drugs (NM), and over-the-counter cough/cold medication. Excluded from this index are tobacco, alcohol, high-caffeine energy drinks, and cannabis. These results are among grades 9 through 12 only.

2013: Grades 9–12

- Among secondary students, 24.3% (95% CI: 21.3%-27.6%) report using at least one drug, excluding cannabis, in the past year. This estimate represents about 166,900 Ontario students in grades 9 through 12.
- Males (25.2%) and females (23.4%) are equally likely to use a drug excluding cannabis.
- There is significant grade variation, increasing between 9th grade and 12th grade, from 17.2% up to 29.9%.
- There are no significant differences among the four regions.

Figure 3.8.2
Past Year Use of Any Drug Excluding Cannabis, by Sex, Grade, and Region, 2013 OSDUHS (Grades 9–12)



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

Trends in Any 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 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 tranquillizers/sedatives (NM). Because crack use was not asked about before 1987, and ecstasy use was not was not asked about before 1991, these two drugs are excluded from the computation for those earlier years. **The drugs excluded from this measure across all years are the following**: tobacco, alcohol, energy drinks, synthetic cannabis, inhalants, jimson weed, salvia divinorum, ketamine, methoxetamine, BZP pills, mephedrone, prescription ADHD drugs, prescription opioid pain relievers, and any over-the-counter medication.

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

1999–2013: Grades 9–12

☐ Neither of the two measures for any drug use significantly changed between 2011 and 2013.

☐ Both measures for any drug use show a significant downward trend between 1999 and 2013. Among the total sample, the 2013 estimate (30.7%) for any illicit drug use including cannabis is significantly lower than the 1999 estimate (39.2%). Similarly, any drug use excluding cannabis is significantly lower in 2013 (7.9%) compared with 1999 (22.8%).

☐ The measure for any drug use including cannabis is significantly lower in 2013 compared with 1999 among the following subgroups:

- males (33.2% in 2013 vs. 42.8% in 1999)
- females (27.9% in 2013 vs. 35.5% in 1999)
- 9th graders (16.1% in 2013 vs. 29.3% in 1999)
- 10th graders (25.3% in 2013 vs. 42.0% in 1999)
- 11th graders (34.9% in 2013 vs. 48.3% in 1999)
- West (30.1% in 2013 vs. 42.1% in 1999), and
- East (30.4% in 2013 vs. 43.2% in 1999).

☐ Regarding trends in any drug use excluding cannabis, all subgroups except for students in Toronto show significant decreases in 2013 compared with their respective 1999 estimates.

1977–2013: Grades 9 and 11 only

☐ Any drug use including cannabis began to decline during the 1980s after peaking in 1979. Rates increased again after 1991 (when it was at an all-time low) up until the early 2000s. Use declined after 2003and has levelled off in recent years. The current estimate is significantly lower than the both peak periods, but still remains significantly higher than the low levels seen in the late 1980s/early 1990s.

☐ The 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 and the current estimate is now at an all-time low.

Figure 3.8.3
Past Year Use of Any Drug Including Cannabis, 1999–2013 OSDUHS (Grades 9–12)

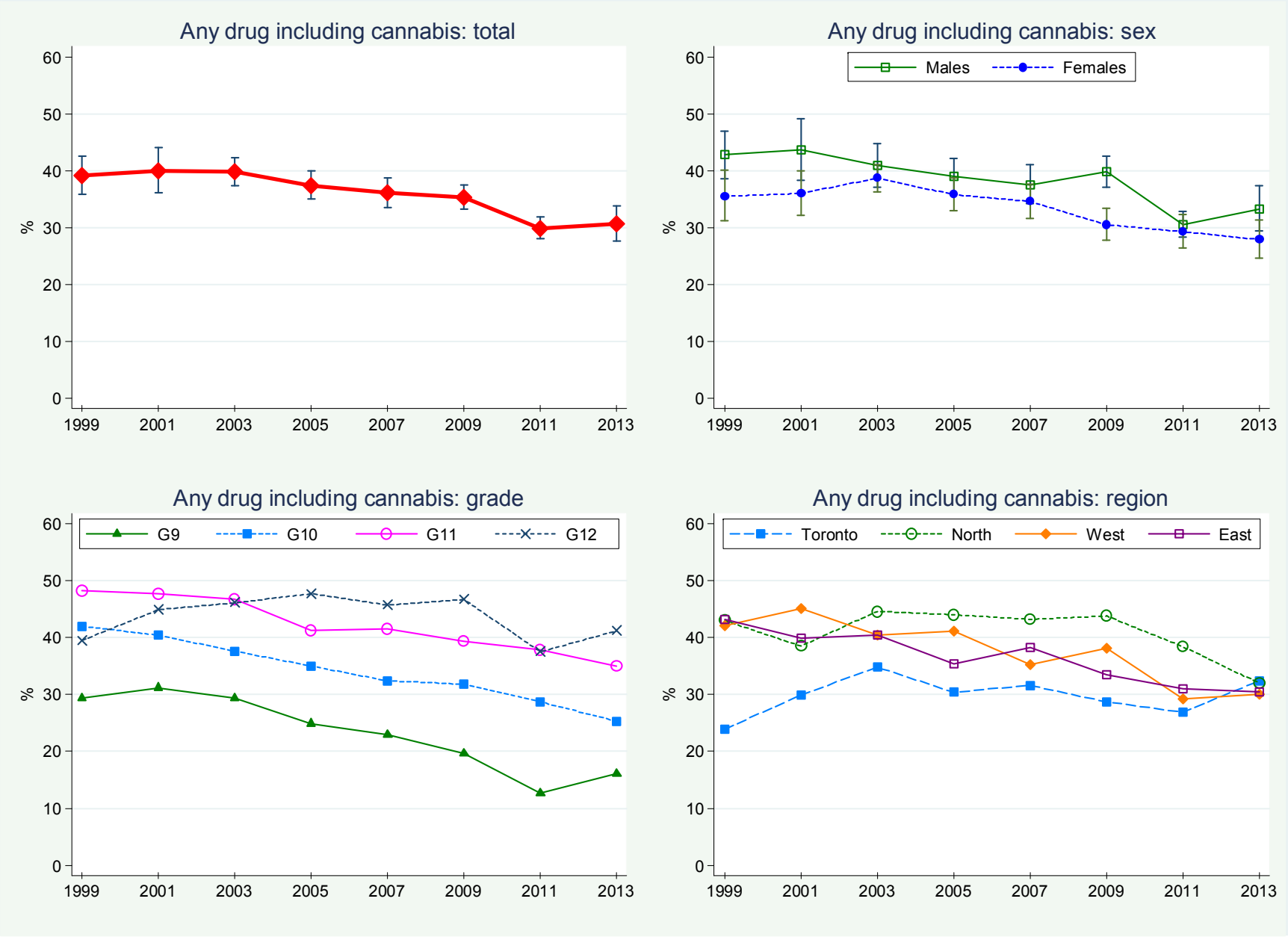


Figure 3.8.4
Past Year Use of Any Drug Including Cannabis, 1977–2013 OSDUHS (Grades 9 and 11 only)

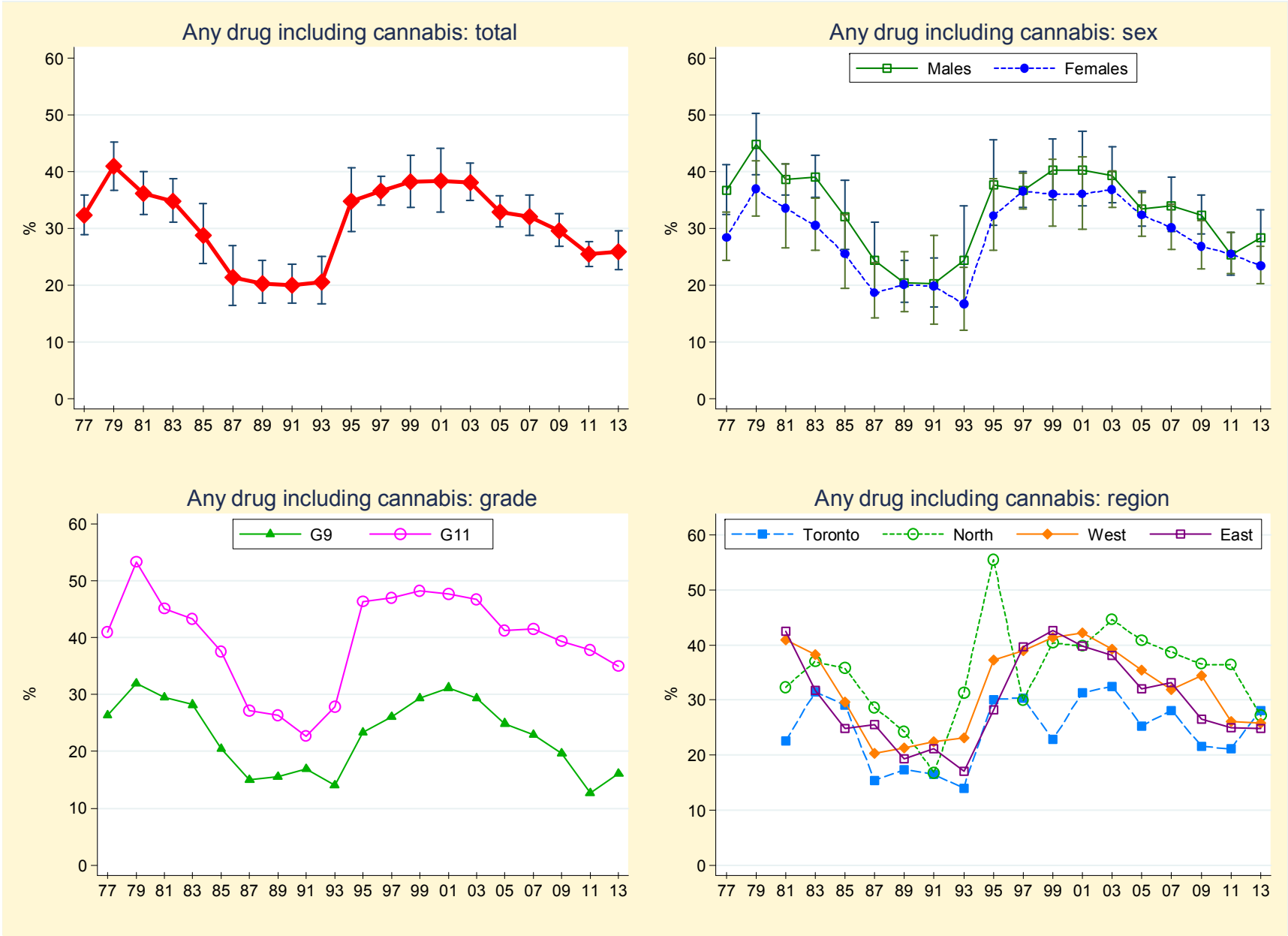


Figure 3.8.5
Past Year Use of Any Drug Excluding Cannabis, 1999–2013 OSDUHS (Grades 9–12)

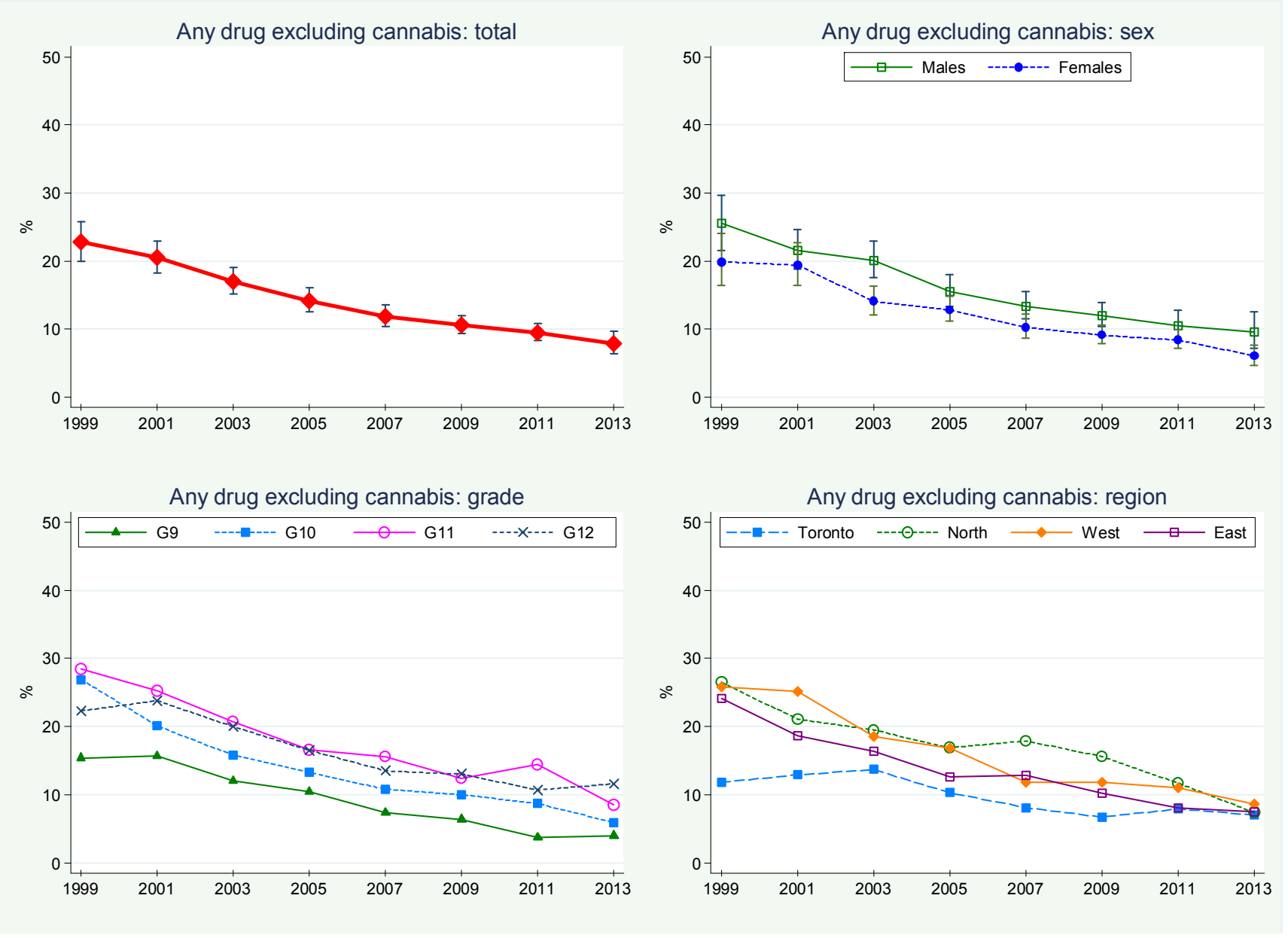
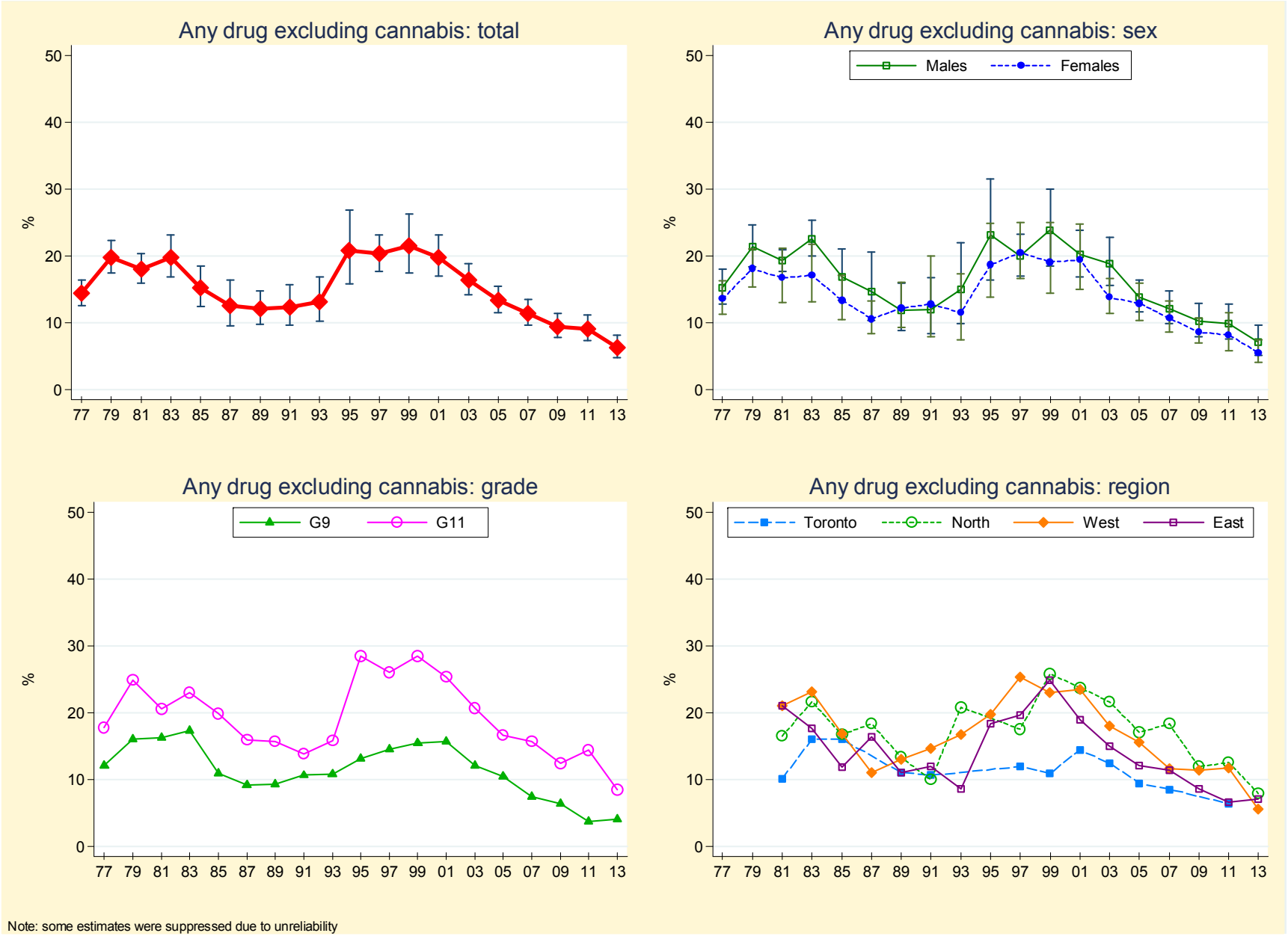


Figure 3.8.6
Past Year Use of Any Drug Excluding Cannabis, 1977–2013 OSDUHS (Grades 9 and 11 only)



Note: some estimates were suppressed due to unreliability

Table 3.8.1: Percentage Reporting Any Drug Use Including Cannabis in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
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** [bc] (27.7-33.8)
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** [d] (22.7-29.4)
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** [b] (29.4-37.4)
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)
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** [b] (24.6-31.4)
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)
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** [b] (13.1-19.6)
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** [b] (21.7-29.4)
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** [b] (30.4-39.8)
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)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(888)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**23.9** (17.9-31.1)	**29.9** (18.8-44.0)	**34.8** (29.7-40.4)	**30.4** (25.6-35.5)	**31.6** (22.5-42.3)	**28.7** (22.0-36.5)	**26.9** (21.5-33.0)	**32.4** (22.4-44.3)
Toronto[2]	—	—	**22.5** (18.9-26.6)	**31.5** (21.0-44.3)	**29.1** (22.9-36.2)	**15.4** (7.3-29.4)	**17.4** (8.7-31.8)	**16.5** (12.3-21.7)	**14.0** (9.1-21.1)	**30.1** (15.8-49.8)	**30.4** (26.7-34.3)	**22.8** (16.2-31.1)	**31.4** (17.8-49.0)	**32.5** (25.0-41.0)	**25.3** (19.9-31.7)	**28.1** (16.1-44.4)	**21.6** (13.3-33.2)	**21.1** (17.6-25.1)	**28.1** (16.7-43.3)
North[1]	—	—	—	—	—	—	—	—	—	—	—	**43.0** (34.7-51.6)	**38.5** (31.4-46.1)	**44.6** (38.3-51.0)	**44.0** (39.9-48.1)	**43.2** (37.8-48.6)	**43.8** (37.2-50.6)	**38.4** (34.1-42.8)	**32.0** (24.4-40.7)
North[2]	—	—	**32.3** (23.0-43.2)	**37.0** (32.3-41.8)	**35.8** (29.8-42.4)	**28.6** (15.7-46.4)	**24.3** (21.0-27.8)	**16.8** (12.2-22.7)	**31.4** (21.3-43.8)	**55.5** (23.9-83.1)	**29.9** (24.2-36.3)	**40.4** (23.8-59.5)	**39.8** (27.7-53.2)	**44.6** (37.8-51.5)	**40.8** (34.0-47.9)	**38.7** (30.1-48.1)	**36.5** (27.4-46.8)	**36.4** (29.0-44.5)	**27.2** (18.9-37.4)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**42.1** (36.8-47.5)	**45.1** (39.9-50.4)	**40.5** (36.0-45.1)	**41.1** (36.8-45.5)	**35.3** (31.8-38.9)	**38.1** (34.8-41.6)	**29.2** (26.0-32.5)	**30.1**[b] (25.7-34.8)
West[2]	—	—	**41.0** (35.5-46.6)	**38.3** (31.9-45.2)	**29.6** (23.5-36.4)	**20.3** (12.5-31.2)	**21.3** (15.4-28.8)	**22.4** (15.0-32.2)	**23.1** (15.9-32.2)	**37.3** (31.6-43.4)	**38.9** (35.8-42.0)	**41.3** (34.2-48.8)	**42.2** (35.9-48.7)	**39.3** (34.3-44.5)	**35.4** (31.4-39.6)	**31.9** (27.4-36.8)	**34.4** (30.3-38.8)	**26.1** (22.4-30.1)	**25.8** (22.2-29.8)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**43.2** (37.5-49.0)	**39.9** (34.7-45.4)	**40.5** (37.0-44.1)	**35.4** (31.2-39.8)	**38.2** (34.3-42.2)	**33.5** (30.9-36.3)	**31.0** (28.6-33.6)	**30.4**[b] (27.034.0)
East[2]	—	—	**42.5** (34.6-50.7)	**31.7** (27.9-35.9)	**24.8** (12.8-42.6)	**25.6** (19.8-32.6)	**19.3** (14.7-24.8)	**21.2** (19.8-22.8)	**17.0** (11.4-24.7)	**28.2** (23.2-33.9)	**39.7** (32.9-47.0	**42.6** (34.6-51.1)	**39.8** (31.4-48.8)	**38.1** (32.6-43.9)	**32.1** (27.1-37.5)	**33.1** (28.9-37.7)	**26.5** (22.7-30.6)	**25.0** (21.8-28.4)	**24.8** (20.0-30.4)

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) † estimate suppressed due to unreliability; (5) question asked of a random half sample from 1991 to 1999; (6) the 9 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 tranquillizers/sedatives (NM); excluded from the index: tobacco, alcohol, energy drinks, synthetic cannabis, inhalants, jimson weed, salvia divinorum, ketamine, methoxetamine, BZP pills, mephedrone, prescription ADHD drugs, prescription opioid pain relievers, and OTC cough/cold medication; (7) no significant differences 2013 vs. 2011; [b] 2013 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 Drug Use Excluding Cannabis in the Past Year, 1977–2013 OSDUHS (Grades 9–12)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
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** [bc] (6.4-9.7)
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** [cd] (4.8-8.2)
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** [b] (7.2-12.6)
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)
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** [b] (4.7-7.7)
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)
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** [b] (2.5-6.3)
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** [b] (4.1-8.4)
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** [b] (6.4-11.2)
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** [b] (8.1-16.3)

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n[1])												(1496)	(2457)	(4693)	(5794)	(4834)	(5783)	(6383)	(6159)
(n[2])	(2640)	(2653)	(1894)	(2075)	(2092)	(2137)	(1919)	(2020)	(870)	(991)	(1125)	(856)	(1263)	(2442)	(3008)	(2494)	(2792)	(3223)	(3111)
Region																			
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**11.8** (7.6-17.8)	**12.9** (8.1-20.0)	**13.7** (10.3-18.0)	**10.3** (7.6-13.8)	**8.1** (5.5-11.8)	**6.7** (4.5-9.9)	**7.9** (6.2-10.1)	**7.0** (3.4-13.7)
Toronto[2]	—	—	**10.1** (5.3-18.5)	**16.0** (9.1-26.5)	**16.0** (10.0-24.6)	†	**11.0** (8.1-14.8)	**10.6** (8.0-13.8)	†	†	**11.9** (7.4-18.6)	**10.9** (6.1-18.8)	**14.4** (9.1-22.1)	**12.4** (8.2-18.2)	**9.4** (7.0-12.5)	**8.5** (6.0-12.0)	†	**6.4** (4.3-9.3)	†
North[1]	—	—	—	—	—	—	—	—	—	—	—	**26.5** (19.2-35.4)	**21.1** (15.8-27.5)	**19.5** (15.8-23.8)	**16.9** (14.1-20.2)	**17.9** (13.5-23.3)	**15.6** (11.4-21.1)	**11.7** (8.4-16.1)	**7.4** [b] (5.5-9.8)
North[2]	—	—	**16.5** (9.5-27.2)	**21.6** (19.8-23.5)	**16.7** (8.9-29.2)	**18.3** (9.2-33.1)	**13.3** (7.8-21.7)	**9.9** (9.4-10.4)	**20.8** (13.1-31.4)	†	**17.5** (8.4-32.9)	**25.8** (14.3-41.9)	**23.7** (15.6-34.3)	**21.6** (17.3-26.6)	**17.0** (12.6-22.6)	**18.3** (10.9-29.3)	**11.9** (6.7-20.3)	**12.5** (8.2-18.6)	**7.9** (5.8-10.6)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**25.8** (21.3-30.9)	**25.2** (21.9-28.9)	**18.5** (15.5-21.9)	**16.8** (13.8-20.3)	**11.8** (9.2-14.9)	**11.8** (9.4-14.6)	**11.0** (8.8-13.7)	**8.6** [b] (5.9-12.2)
West[2]	—	—	**21.0** (18.5-23.7)	**23.1** (17.6-29.7)	**16.8** (12.5-22.1)	**11.0** (6.6-17.7)	**13.0** (9.0-18.4)	**14.6** (8.2-24.5)	**16.7** (12.3-22.3)	**19.7** (16.5-23.3)	**25.3** (22.0-28.8)	**23.0** (15.6-32.5)	**23.5** (19.0-28.7)	**18.0** (14.7-21.9)	**15.5** (12.2-19.6)	**11.6** (8.6-15.4)	**11.3** (8.6-14.7)	**11.7** (8.6-15.6)	**5.5** (4.1-7.4)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**24.1** (19.2-29.9)	**18.6** (15.0-22.8)	**16.4** (13.1-20.2)	**12.6** (9.9-15.8)	**12.8** (10.6-15.4)	**10.2** (9.2-11.3)	**8.0** (6.6-9.8)	**7.5** [b] (6.4-8.8)
East[2]	—	—	**21.0** (16.8-26.0)	**17.6** (14.7-21.0)	**11.8** (8.0-17.0)	**16.4** (11.6-22.9)	**11.0** (6.8-17.3)	**11.9** (10.4-13.5)	**8.6** (3.4-19.9)	**18.3** (17.2-19.5)	**19.6** (14.4-26.2)	**24.9** (18.5-32.7)	**18.9** (13.6-25.6)	**15.0** (10.9-20.3)	**12.1** (9.2-15.7)	**11.4** (8.6-15.0)	**8.6** (6.3-11.8)	**6.6** (4.9-8.9)	**7.0** (5.3-9.2)

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) † estimate suppressed due to unreliability; (5) question asked of a random half sample from 1991 to 1999; (6) the 8 drugs included in the index are LSD, mushrooms/mescaline, methamphetamine, heroin, cocaine, crack (except for years prior to 1987), ecstasy (except for years prior to 1991), and tranquillizers/sedatives (NM); excluded from the index: tobacco, alcohol, energy drinks, cannabis, synthetic cannabis, inhalants, jimson weed, salvia divinorum, ketamine, methoxetamine, BZP pills, mephedrone, prescription ADHD drugs, prescription opioid pain relievers, and OTC cough/cold medication; (7) no significant differences 2013 vs. 2011; [b] 2013 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

(Figure 3.8.7; 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 tranquillizers/sedatives. Nonmedical use is defined as use without one's own prescription. These results are among grades 9 through 12 only.

2013: Grades 9–12

- Among the total sample, 15.2% (95% CI: 13.8%-16.7%) report using a prescription drug nonmedically in the past year. This estimate represents about 112,300 Ontario students in grades 9 through 12.

- There is no significant difference between males (16.1%) and females (14.2%).

- There is significant grade variation, with 12th graders (18.8%) most likely to use a prescription drug nonmedically at least once in the past year.

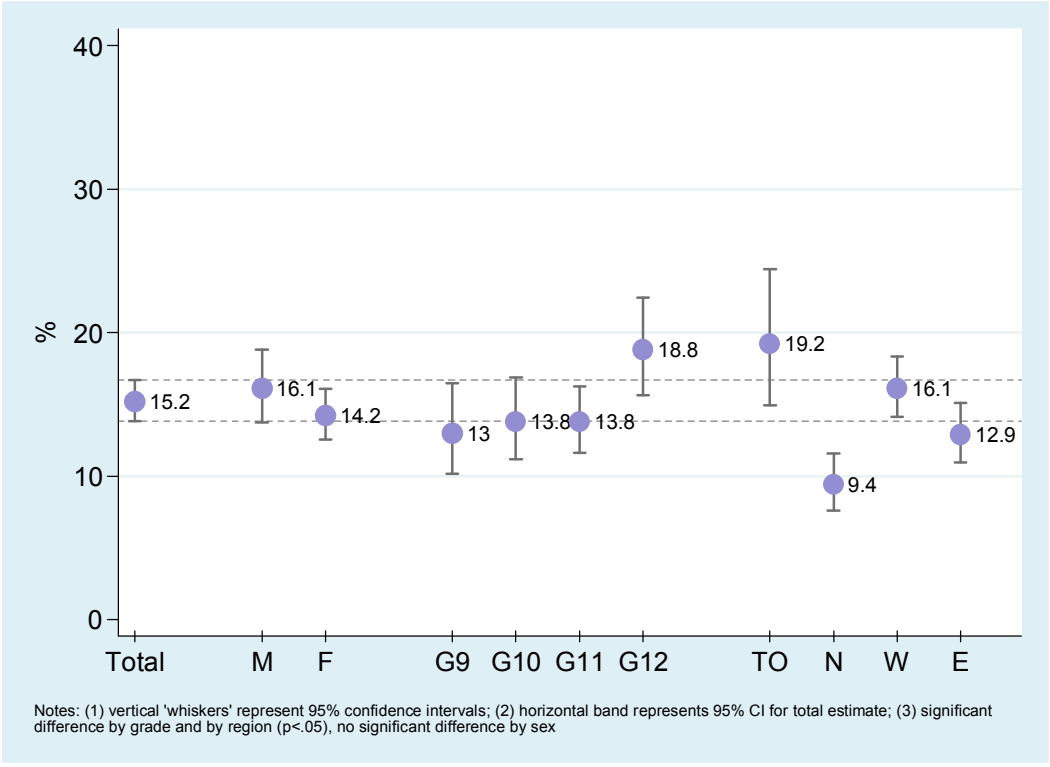
- There are significant differences among the regions, showing that Toronto students (19.2%) are most likely to use while Northern students are least likely (9.4%).

2007–2013: Grades 9–12

- The nonmedical use of a prescription drug did not significantly change between 2011 (17.0%) and 2013 (15.2%). However, current use is significantly lower than the level seen in 2007 (23.5%), the first year of monitoring.

- All subgroups except for males, 12th graders, and Toronto students show significant decreases between 2007 and 2013.

Figure 3.8.7
Past Year Nonmedical Use of a Prescription Drug by Sex, Grade, and Region, 2013 OSDUHS



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

Table 3.8.3: Percentage Reporting Nonmedical Use of a Prescription Drug in the Past Year, 2007–2013 OSDUHS (Grades 9–12)

	(*n*=)	2007 (2247)	2009 (5783)	2011 (6383)	2013 (6159)
Total		**23.5**	**21.4**	**17.0**	**15.2** [bc]
(95% CI)		(21.5-25.6)	(20.0-22.9)	(15.3-18.9)	(13.8-16.7)
Sex					
	Males	**20.3**	**19.9**	**15.5**	**16.1**
		(17.8-23.1)	(18.0-21.9)	(13.2-18.2)	(13.7-18.8)
	Females	**27.1**	**23.1**	**18.6**	**14.2** [b]
		(24.0-30.5)	(21.3-25.0)	(16.8-20.5)	(12.6-16.1)
Grade					
	9	**25.5**	**20.4**	**13.8**	**13.0** [b]
		(21.1-30.6)	(17.5-23.5)	(11.4-16.7)	(10.1-16.5)
	10	**23.3**	**22.3**	**17.2**	**13.8** [b]
		(19.3-27.7)	(18.7-26.3)	(14.9-19.9)	(11.2-16.9)
	11	**23.7**	**22.6**	**20.0**	**13.8** [b]
		(19.7-28.2)	(19.8-25.8)	(16.3-24.3)	(11.6-16.3)
	12	**21.8**	**20.6**	**16.9**	**18.8**
		(17.8-26.3)	(17.8-23.7)	(14.1-20.2)	(15.6-22.4)
Region					
	Toronto	**21.0**	**19.7**	**15.4**	**19.2**
		(17.6-24.9)	(17.2-22.3)	(13.8-17.3)	(14.9-24.4)
	North	**29.4**	**21.7**	**16.0**	**9.4** [b]
		(22.6-37.3)	(19.3-24.4)	(11.4-21.8)	(7.6-11.6)
	West	**24.3**	**21.2**	**18.7**	**16.1** [b]
		(21.0-27.8)	(18.6-24.2)	(15.5-22.4)	(14.1-18.3)
	East	**22.3**	**22.4**	**15.8**	**12.9** [b]
		(19.2-25.8)	(20.2-24.7)	(14.2-17.5)	(11.0-15.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) based on a random half sample in 2007; (3) no significant differences 2013 vs. 2011; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; (4) the nonmedical use of a prescription drug is defined as the use of a prescription opioid, an ADHD drug, or a tranquillizer/sedative without one's own prescription, at least once in the past year

Source: OSDUHS, Centre for Addiction & Mental Health

Past Year Injection Drug Use

The OSDUHS has been asking students about injection drug use for over a decade. The question asked is "*In the last 12 months, have you used any illegal drug by injection or needle?*"

2013: Grades 9–12

- The 2013 estimate for use of an illegal drug by injection during the past year among secondary students was suppressed due to an extremely low value (less than 0.5%).

1999–2013: Grades 9–12

☐ The following are the estimates of injection drug use from previous survey cycles: 2011 (1.4%), 2009 (0.8%), 2007 (0.9%), 2005 (0.9%), 2003 (1.4%), 2001 (0.9%), and 1999 (1.9%).

Multiple Drug Use in the Past Year: Cigarettes, Alcohol, Cannabis, and Other Drugs

(Figure 3.8.8)

2013: Grades 9–12

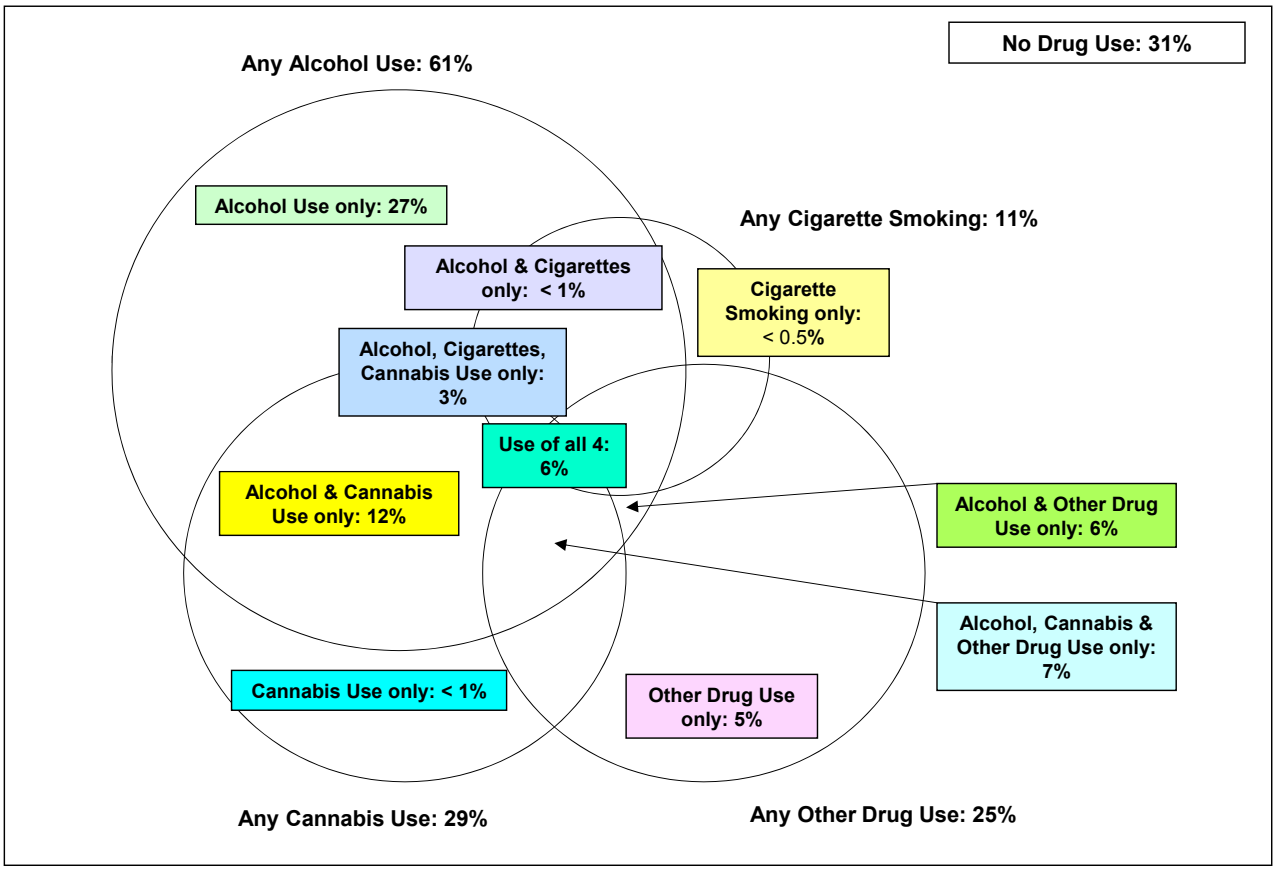
- Figure 3.8.8 presents the overlap of past year use of all drugs (excluding high-caffeine energy drinks) asked about in the 2013 survey. As seen in the figure, most secondary students use alcohol either exclusively, or in addition to other drugs.

- About one-quarter (27%) of secondary students use only alcohol, and no other drug; about 12% use only alcohol and cannabis; and about 7% use alcohol, cannabis, and another drug.

- Negligible proportions (below 1%) of students smoke cigarettes exclusively or use cannabis exclusively.

- About 6% – an estimated 37,700 secondary students in Ontario – smoke cigarettes, use alcohol, cannabis, *and* at least one other drug.

Figure 3.8.8
The Overlap of Cigarette Smoking, Alcohol, Cannabis, and Other Drug Use in the Past Year, 2013 OSDUHS (Grades 9–12)



Notes: (1) based on a random half sample of secondary students (n=2,895); (2) "Other Drug Use" refers to use of at least one of 21 drugs: synthetic cannabis ("spice"), inhalants, LSD, mushrooms/mescaline, jimson weed, salvia divinorum, cocaine, crack, methamphetamine, heroin, ecstasy, ketamine, methoxetamine, BZP pills, mephedrone ("bath salts"), tranquillizers/sedatives (NM), modafinil (NM), OxyContin/OxyNEO (NM), other prescription opioid pain relievers (NM), ADHD drugs (NM), and over-the-counter cough/cold medication; (3) not all combinations are presented, therefore the percentages shown do not total to 100%.

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 and alcohol (but excluding caffeinated energy 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.

2013: Grades 7–12

- Over one-third (37.2%) of students in grades 7 through 12 report using no drug at all during the past year – this includes alcohol and tobacco. This percentage represents about 340,600 students in Ontario.

- Females (39.6%) are more likely than males (35.0%) to abstain.

- Past year abstinence significantly decreases with grade, from 69.5% of 7th graders to 16.5% of 12th graders.

- Despite some variation, there are no significant differences among the regions.

1999–2013: Grades 7–12

☐ Among the total sample, the 2013 percentage (37.2%) of students reporting no drug use is similar to estimate from 2011 (32.6%). However, between 1999 and 2013, there was a significant linear increase in abstinence, from 27.2% to 37.2%.

☐ Both males and females show a significant increase in abstinence between 1999 and 2013.

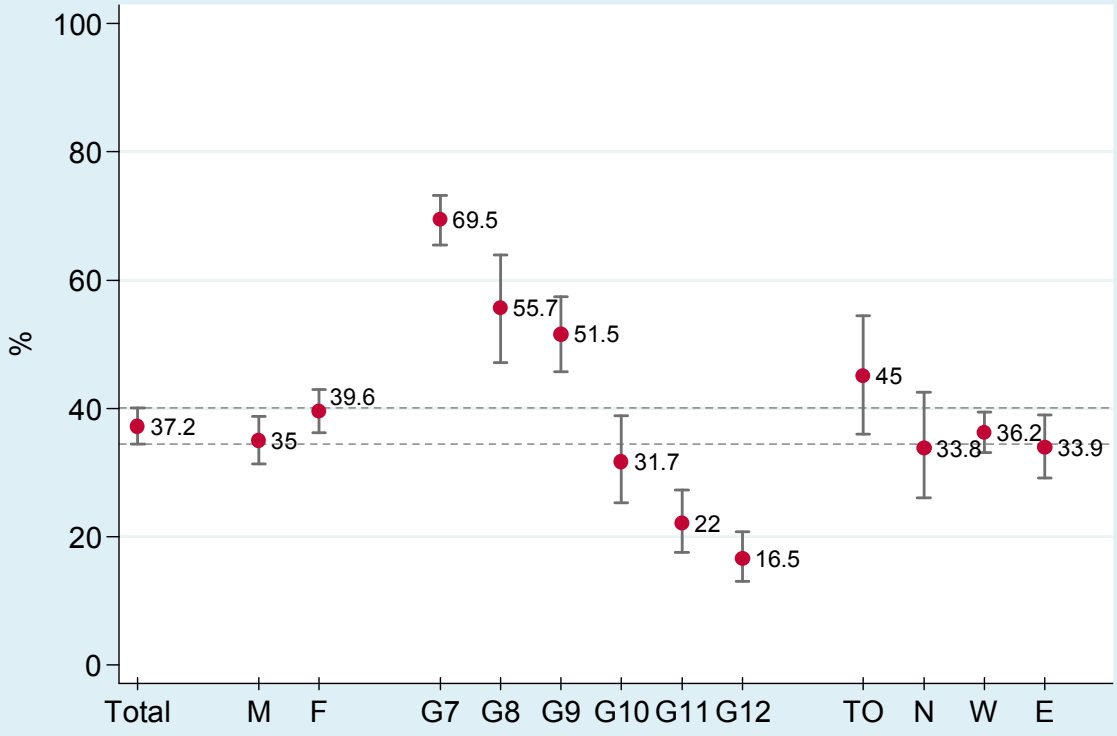
☐ Among the grades, 7th and 9th graders show a significant increase in abstinence between 2011 and 2013. Grades 7, 8, and 9 show significant increases since 1999.

☐ Among the regions, only students in the West show a significant increase between 1999 and 2013, from 22.0% to 36.2%

1977–2013: Grades 7, 9, 11

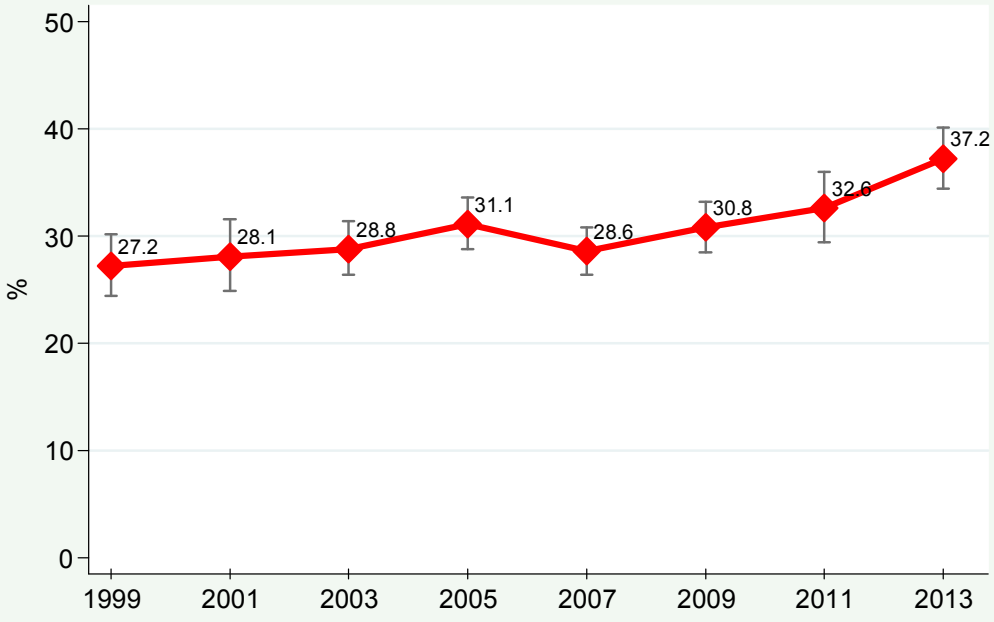
☐ As seen in Figure 3.8.11, past year abstinence was lowest in the late 1970s and early 1980s, as only about 20%–25% of students in grade 7, 9, and 11 reported no drug use. This percentage increased during the late 1980s, peaked in 1991, decreased during the 1990s, and increased again during the 2000s. The current level is elevated and is similar to estimate seen in 1991.

Figure 3.8.9
Percentage Reporting No Drug Use in the Past Year, by Sex, Grade, and Region, 2013 OSDUHS



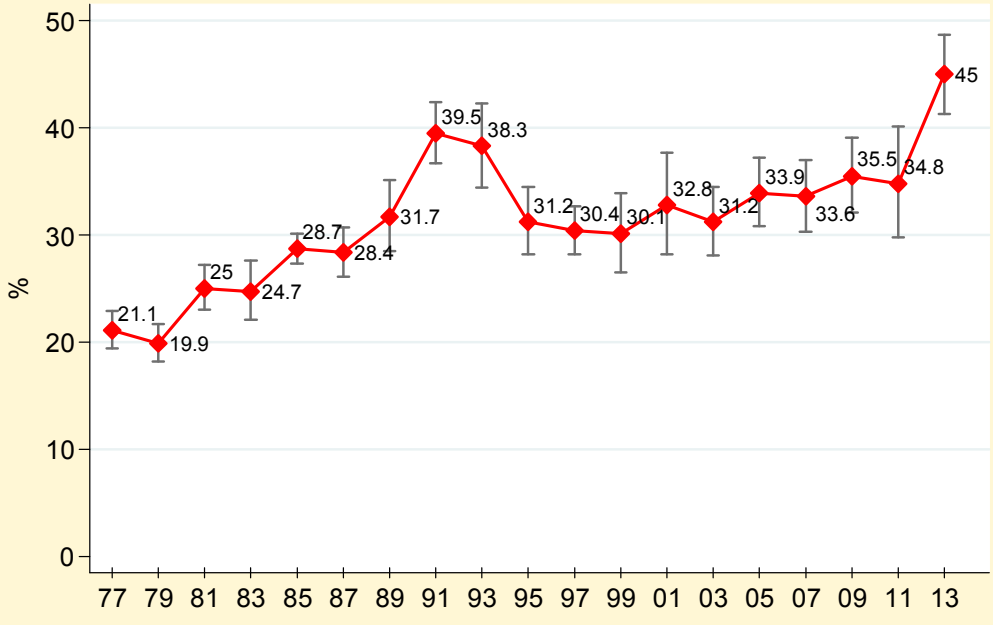
Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) significant difference by sex and by grade (p<.05), no significant difference by region

Figure 3.8.10
Percentage Reporting No Drug Use in the Past Year, 1999–2013 OSDUHS (Grades 7–12)



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) the number of drugs asked about increases over time

Figure 3.8.11
Percentage Reporting No Drug Use in the Past Year, 1977–2013 OSDUHS (Grades 7, 9, and 11 only)



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) the number of drugs asked about increases over time

Table 3.8.4: Percentage Reporting No Drug Use in the Past Year, 1999–2013 OSDUHS (Grades 7–12)

		1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(2229)	(1837)	(3152)	(3648)	(2395)	(4261)	(4472)	(4794)
Total		**27.2**	**28.1**	**28.8**	**31.1**	**28.6**	**30.8**	**32.6**	**37.2** [bc]
(95% CI)		(24.4-30.2)	(24.9-31.6)	(26.4-31.4)	(28.8-33.6)	(26.4-30.8)	(28.5-33.2)	(29.4-36.0)	(34.4-40.1)
Sex									
	Males	**24.7**	**27.2**	**25.7**	**29.3**	**28.9**	**28.9**	**31.9**	**35.0** [b]
		(21.5-28.2)	(23.7-30.9)	(22.3-29.4)	(26.5-32.2)	(26.2-31.8)	(25.9-32.0)	(28.5-35.5)	(31.4-38.8)
	Females	**29.8**	**29.0**	**31.8**	**33.2**	**28.2**	**33.0**	**33.4**	**39.6** [b]
		(25.7-34.3)	(24.7-33.7)	(28.7-35.0)	(30.1-36.4)	(25.4-31.2)	(30.2-35.8)	(28.7-38.5)	(36.2-42.9)
Grade									
	7	**47.3**	**49.4**	**47.5**	**54.5**	**54.1**	**55.5**	**56.6**	**69.5** [ab]
		(39.0-55.7)	(42.0-56.9)	(42.1-53.0)	(48.0-60.8)	(46.9-61.1)	(49.0-61.8)	(50.8-62.3)	(65.5-73.2)
	8	**36.0**	**37.5**	**44.2**	**48.3**	**40.2**	**42.4**	**55.0**	**55.7** [b]
		(31.5-40.7)	(30.1-45.5)	(39.0-49.4)	(43.8-52.8)	(34.0-46.8)	(36.9-48.0)	(49.6-60.3)	(47.2-63.9)
	9	**29.7**	**29.7**	**30.3**	**30.5**	**31.5**	**35.6**	**33.0**	**51.5** [ab]
		(24.5-35.4)	(22.2-38.5)	(25.4-35.8)	(26.0-35.4)	(25.6-38.0)	(29.7-42.0)	(25.7-41.3)	(45.7-57.4)
	10	**20.8**	**17.1**	**21.5**	**25.0**	**24.0**	**27.8**	**30.9**	**31.7**
		(14.7-28.6)	(12.8-22.4)	(16.9-26.9)	(21.0-29.3)	(19.4-29.3)	(23.1-32.9)	(25.2-37.3)	(25.3-38.8)
	11	**15.9**	**19.2**	**18.3**	**18.0**	**16.2**	**19.8**	**18.7**	**22.0**
		(12.0-20.8)	(12.9-27.6)	(14.5-22.9)	(14.5-22.2)	(13.2-19.8)	(15.8-24.5)	(13.9-24.6)	(17.6-27.2)
	12	**11.9**	**14.0**	**15.5**	**15.0**	**11.7**	**15.4**	**16.0**	**16.5**
		(8.1-17.1)	(8.1-22.9)	(11.2-21.1)	(11.3-19.7)	(9.1-14.9)	(11.4-20.6)	(12.1-20.8)	(13.0-20.7)
Region									
	Toronto	**37.9**	**32.8**	**29.2**	**40.7**	**31.0**	**37.9**	**37.2**	**45.0**
		(30.8-45.6)	(22.6-45.1)	(23.1-36.2)	(33.3-48.1)	(24.4-38.3)	(31.3-45.0)	(32.2-42.5)	(36.0-54.4)
	North	**19.8**	**22.8**	**24.7**	**23.3**	**18.4**	**26.4**	**32.7**	**33.8**
		(13.4-28.2)	(17.1-29.6)	(19.3-31.0)	(18.6-28.7)	(14.7-22.8)	(21.0-32.5)	(27.9-37.8)	(26.0-42.5)
	West	**22.0**	**26.7**	**27.9**	**28.0**	**28.8**	**29.0**	**29.3**	**36.2** [b]
		(17.8-27.0)	(22.3-31.6)	(23.6-32.5)	(25.2-31.1)	(26.0-31.9)	(25.7-32.5)	(23.7-35.4)	(33.2-39.4)
	East	**30.0**	**28.3**	**31.2**	**31.0**	**28.9**	**30.4**	**34.5**	**33.9**
		(25.6-34.7)	(24.2-32.9)	(28.8-33.7)	(26.9-35.4)	(25.3-32.8)	(26.3-34.7)	(30.8-38.5)	(29.2-39.0)

Notes: (1) based on a random half sample in each year; (2) entries in brackets are 95% confidence intervals; (3) the number of drugs asked about increased over time; (4) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear 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

(Figure 3.9.1; Tables 3.9.1–3.9.3)

2013: Grades 7–12

Students were asked whether they used certain drugs for the very first time during the past 12 months. Here we evaluate the incidence of cigarette smoking, drinking alcohol, cannabis use, and other drug use in the past year. We also compare the 2013 results with those from past surveys.

- Among all students, 5.3% smoked a whole **cigarette** for the first time during the 12 months before the survey. This estimate represents about 47,900 students in Ontario. There is significant grade variation in first-time use of cigarettes in the past year, with the highest level among 11th graders (9.9%).

- About 17.3% of students tried **alcohol** for the first time (representing about 156,600 students). First use of alcohol increases steadily between grades 7 and 10, and then decreases slightly in grade 11, and again in grade 12.

- About 8.8% of students tried **cannabis** (about 80,400 students) for the first time. Grade is significantly associated with incidence of cannabis use, showing that incidence increases steadily between grades 7 and 11, and then drops in grade 12.

- About 2.6% tried **another illicit drug** such as cocaine or ecstasy for the first time (this represents about 23,100 students). This significantly increases with grade, from less than 1% of students in grades 7–9 up to 4.1% of 12th graders (data not tabled).

1999–2013: Grades 7–12

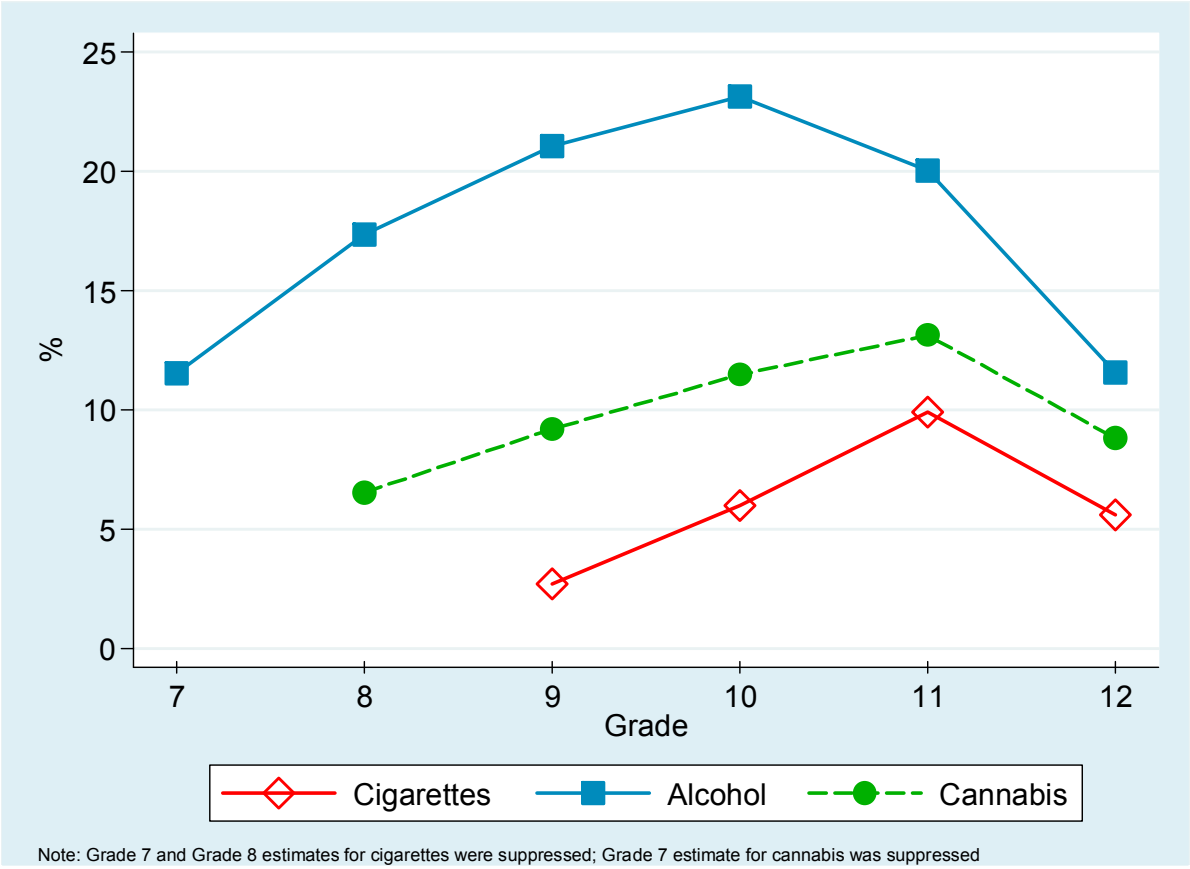
☐ The percentage of all students who smoked a **cigarette** for the first time in 2013 (5.3%) is similar to the percentage seen in 2011 (6.3%). There was a significant downward trend in new smokers between 1999 and 2013, from 10.9% to 5.3%.

☐ The percentage of all students who tried **alcohol** for the first time in 2013 (17.3%) is similar to the percentage seen in 2011 (17.2%). There has been no substantial change since 1999 (remaining between 16% and 20%) among the total sample. Interestingly, there was a significant decline in first-time use of alcohol among males and among 7th graders between 1999 and 2013.

☐ Among all students, there was no significant change in the percentage of first-time **cannabis** users over this period (remaining between 8% and 10%).

☐ First-time use of **another illicit drug** other than cannabis in 2013 (2.6%) is similar to the estimate seen in 2011 (3.2%), but significantly lower than the estimates found in 1999 and 2001 (about 5%-6%; data not tabled).

Figure 3.9.1
Percentage Reporting First-Time Use of the Drug in the Past Year, by Grade, 2013 OSDUHS



Note: Grade 7 and Grade 8 estimates for cigarettes were suppressed; Grade 7 estimate for cannabis was suppressed

Table 3.9.1: Percentage Reporting Smoking a Whole Cigarette for the First Time in the Past Year, 1999–2013 OSDUHS (Grades 7–12)

		1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)
Total		**10.9**	**10.1**	**9.3**	**7.3**	**6.3**	**6.1**	**6.3**	**5.3** [bc]
(95% CI)		(9.7-12.4)	(9.0-11.4)	(8.4-10.3)	(6.4-8.3)	(5.2-7.7)	(5.1-7.4)	(5.1-7.6)	(4.3-6.5)
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** [b] (4.2-7.7)
	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** [b] (3.8-6.2)
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** [b] (1.4-5.0)
	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** [b] (3.8-9.4)
	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	**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)
Region									
	Toronto	**10.3** (7.6-13.9)	**9.2** (6.9-12.3)	**7.3** (5.6-9.5)	**6.4** (4.3-9.2)	**6.6** (4.2-10.3)	**5.6** (3.3-9.2)	**4.5** (2.8-7.2)	**4.4** [b] (2.8-6.8)
	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** [b] (4.1-9.8)
	West	**11.5** (9.3-14.2)	**10.3** (8.6-12.4)	**9.2** (7.7-10.9)	**7.2** (6.1-8.6)	**6.0** (4.5-7.9)	**6.1** (4.4-8.3)	**7.2** (4.9-10.4)	**4.2** [b] (3.0-5.8)
	East	**10.1** (8.4-12.2)	**9.7** (7.5-12.5)	**10.6** (9.3-12.1)	**7.6** (5.8-9.8)	**7.0** (4.8-10.0)	**5.6** (4.1-7.5)	**5.9** (4.9-7.1)	**7.5** (5.2-10.6)

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 since 2005; (4) no significant differences 2013 vs. 2011; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant liner trend, p<.01.

Q: In the last 12 months, have you smoked one whole cigarette for the very first time?

Source: OSDUHS, Centre for Addiction & Mental Health

Table 3.9.2: Percentage Reporting Using Alcohol for the First Time in the Past Year, 1999–2013 OSDUHS (Grades 7–12)

		1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)
Total		**20.0**	**21.1**	**19.4**	**17.7**	**16.1**	**16.8**	**17.2**	**17.3**
(95% CI)		(18.3-21.8)	(19.1-23.3)	(18.1-20.8)	(16.2-19.3)	(14.3-18.0)	(15.2-18.6)	(15.1-19.5)	(15.3-19.4)
Sex									
	Males	**20.1**	**21.9**	**20.4**	**17.5**	**16.1**	**16.3**	**15.9**	**15.7** [b]
		(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)
	Females	**19.8**	**20.3**	**18.4**	**17.8**	**16.0**	**17.5**	**18.6**	**19.0**
		(17.5-22.4)	(17.7-23.2)	(17.0-20.0)	(15.8-20.0)	(13.9-18.4)	(15.4-19.7)	(15.9-21.6)	(15.9-22.4)
Grade									
	7	**20.3**	**21.5**	**21.4**	**17.9**	**15.0**	**14.8**	**14.4**	**11.6** [b]
		(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)
	8	**23.4**	**24.7**	**21.7**	**20.2**	**19.0**	**19.4**	**20.6**	**17.3**
		(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)
	9	**25.6**	**25.6**	**23.4**	**20.1**	**19.0**	**23.0**	**21.6**	**21.1**
		(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)
	10	**20.7**	**22.5**	**20.4**	**19.9**	**17.9**	**18.9**	**21.6**	**23.1**
		(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)
	11	**13.5**	**15.1**	**16.1**	**16.5**	**14.0**	**15.4**	**15.4**	**20.0**
		(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)
	12	**15.0**	**12.4**	**13.5**	**12.2**	**12.4**	**11.5**	**11.7**	**11.6**
		(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)
Region									
	Toronto	**23.4**	**20.8**	**19.7**	**16.6**	**14.2**	**20.4**	**17.3**	**16.7**
		(20.0-27.2)	(14.1-29.8)	(16.1-23.8)	(13.4-20.5)	(10.0-19.8)	(16.0-25.7)	(14.0-21.2)	(12.0-22.8)
	North	**18.5**	**19.4**	**22.2**	**19.2**	**14.8**	**19.2**	**16.5**	**24.1**
		(14.6-23.2)	(17.2-21.8)	(18.8-26.1)	(15.8-23.3)	(10.3-20.9)	(14.4-25.2)	(14.3-19.1)	(17.7-31.8)
	West	**19.4**	**19.6**	**18.4**	**18.8**	**16.3**	**14.4**	**16.7**	**15.1**
		(16.4-22.8)	(17.1-22.3)	(16.4-20.6)	(16.5-21.3)	(13.8-19.2)	(12.3-16.9)	(12.7-21.6)	(12.2-18.5)
	East	**19.2**	**24.2**	**19.9**	**16.4**	**17.1**	**17.8**	**17.8**	**20.0**
		(16.7-22.0)	(21.1-27.5)	(17.9-22.0)	(13.8-19.4)	(14.0-20.7)	(14.8-21.4)	(15.1-20.9)	(17.3-23.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in each year since 2005; (3) no significant differences 2013 vs. 2011; [b] 2013 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 Using Cannabis for the First Time in the Past Year, 1999–2013 OSDUHS (Grades 7–12)

		1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(4447)	(3898)	(6616)	(3648)	(2935)	(4261)	(4472)	(4794)
Total		**10.0**	**10.3**	**10.4**	**8.8**	**8.5**	**8.5**	**7.8**	**8.8**
(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)
Sex									
	Males	**10.7**	**11.2**	**10.8**	**8.8**	**8.8**	**9.7**	**7.2**	**9.2**
		(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)
	Females	**9.4**	**9.3**	**10.0**	**8.8**	**8.2**	**7.2**	**8.5**	**8.4**
		(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)
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**
		(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)
	9	**15.3**	**14.9**	**13.1**	**11.8**	**9.5**	**11.8**	**7.9**	**9.2**
		(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)
	10	**11.2**	**12.6**	**14.8**	**12.8**	**10.2**	**12.7**	**10.0**	**11.5**
		(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)
	11	**13.5**	**11.4**	**12.8**	**9.1**	**13.2**	**9.8**	**10.8**	**13.1**
		(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	**8.2**	**10.7**	**10.4**	**11.1**	**10.0**	**10.1**	**8.4**	**8.8**
		(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)
Region									
	Toronto	**7.8**	**9.5**	**8.5**	**9.1**	**7.3**	**7.9**	**7.9**	**8.4**
		(6.0-10.1)	(7.7-11.7)	(6.7-10.9)	(5.5-14.7)	(4.6-11.5)	(5.0-12.3)	(5.2-11.6)	(5.3-13.1)
	North	**11.5**	**9.2**	**13.2**	**10.4**	**12.2**	**10.8**	**8.1**	**9.2**
		(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)
	West	**10.1**	**10.9**	**9.8**	**7.7**	**7.5**	**9.3**	**7.7**	**8.1**
		(8.5-11.9)	(9.1-13.0)	(8.8-10.9)	(6.2-9.6)	(6.1-9.2)	(7.4-11.5)	(5.3-11.0)	(6.2-10.6)
	East	**10.9**	**10.2**	**11.6**	**9.9**	**10.1**	**7.3**	**7.9**	**10.2**
		(9.1-12.9)	(8.5-12.1)	(10.0-13.4)	(8.2-12.0)	(7.6-13.3)	(5.8-9.2)	(6.2-10.0)	(7.9-13.1)

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 since 2005; (4) no significant different changes since 1999.
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

Early Initiation Among 7th Graders, 1981–2013

(Figures 3.9.2–3.9.4)

Perhaps one of the most consistent and robust factors associated with future substance 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 disorders and other problems later on in life (Agrawal et al., 2006; Behrendt, Wittchen, Höfler, Lieb, & Beesdo, 2009; Chen, O'Brien, & Anthony, 2005; Dawson, Goldstein, Chou, Ruan, & Grant, 2008; DeWit, Adlaf, Offord, & Ogborne, 2000; Hingson, Heeren, & Winter, 2006; Meier et al., 2012).

One way of monitoring changes in early initiation is to examine initiation of drug use among the youngest cohort of students, namely the 7th graders (ages 12/13). We asked students in which grade did they first smoke a whole cigarette, drink an alcoholic drink, and try cannabis. The grade of first drug use among the 7th graders is profiled in Figures 3.9.2 to 3.9.4 for the years 2013, 2011, 2009, 2007, 2005, 2003, 2001, 1997, 1993, 1989 and 1981.

Cigarettes

- As seen in Figure 3.9.2, early initiation of cigarette smoking shows a downward trend over time, with fewer 7th graders today reporting smoking at an early age. Most notably, less than 2% of 7th graders in 2013 reported smoking their first whole cigarette before the end of grade 6 (ages 11/12), compared with 9% in 2003, 27% in 1997, and 41% in 1981.

Alcohol

- Early initiation of alcohol use also declined over time (see Figure 3.9.3). For example, about 13% of 7th graders in 2013 used alcohol before the end of grade 6 compared with 31% in 2007, 42% in 2003, and 50% in 1981.

- The OSDUHS also asked students in which grade they first drank enough alcohol to feel drunk. About 4% of 7th graders in 2013 experienced drunkenness before the end of grade 6 (data not presented).

Cannabis

- As seen in Figure 3.9.4, early initiation of cannabis use – defined as using for the first time before the end of grade 7 (ages 12/13) – was at 9% in 1981. Early use decreased by 1993 (3.5%), increased again in 1997 and remained elevated until 2003 (8%). In 2013, the estimate is lower at 2%.

Drug Use Trends Among 7th Graders, 1977–2013

(Figure 3.9.5)

Another approach to assess potential future trends in adolescent drug use is to closely monitor prevalence among the 7th graders (ages 12/13), the youngest students in our sample. We present the past year prevalence rates for tobacco, alcohol, and cannabis among 7th graders in Figure 3.9.5. An overview of these data shows that use of these substances is currently lower 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 3.9.2
Grade First Smoked a Whole Cigarette Among All 7th Graders, by Year of Survey, 1981–2013 OSDUHS

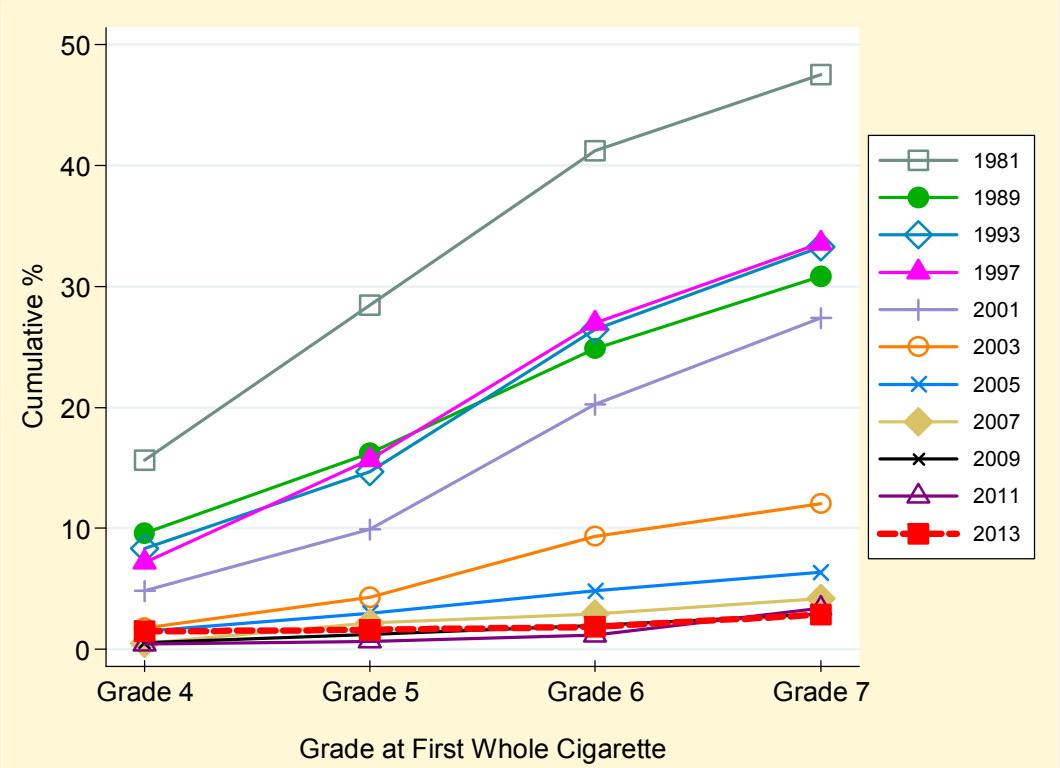


Figure 3.9.3
Grade First Drank Alcohol Among All 7th Graders, by Year of Survey, 1981–2013 OSDUHS

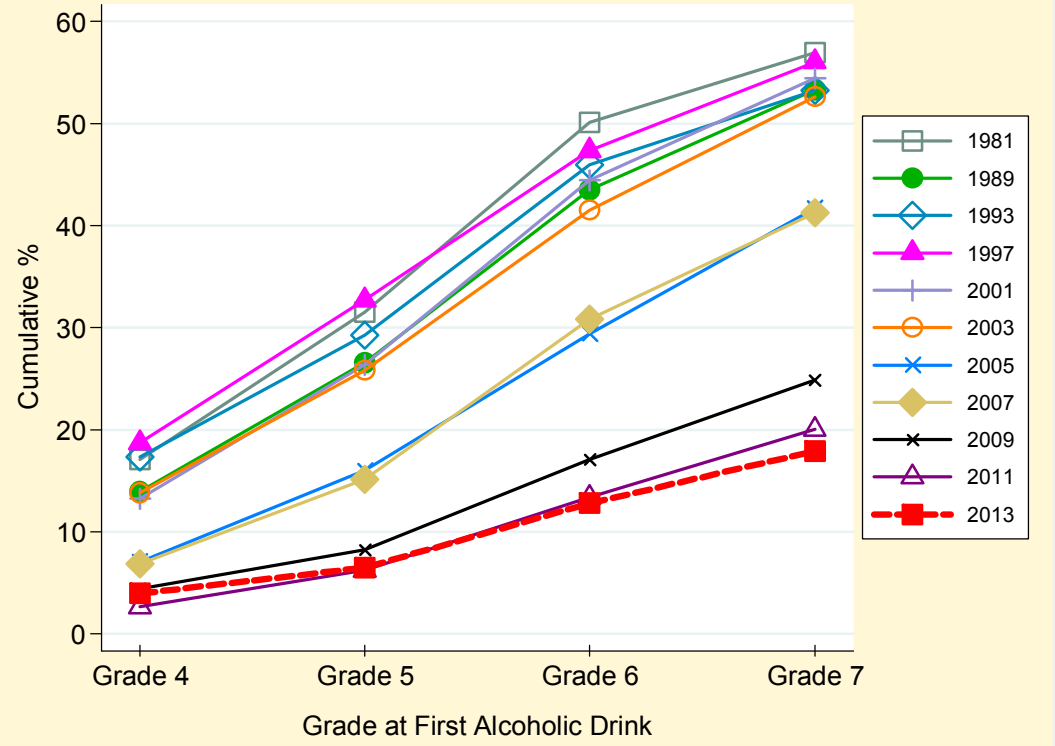


Figure 3.9.4
Grade First Used Cannabis Among All 7th Graders, by Year of Survey, 1981–2013 OSDUHS

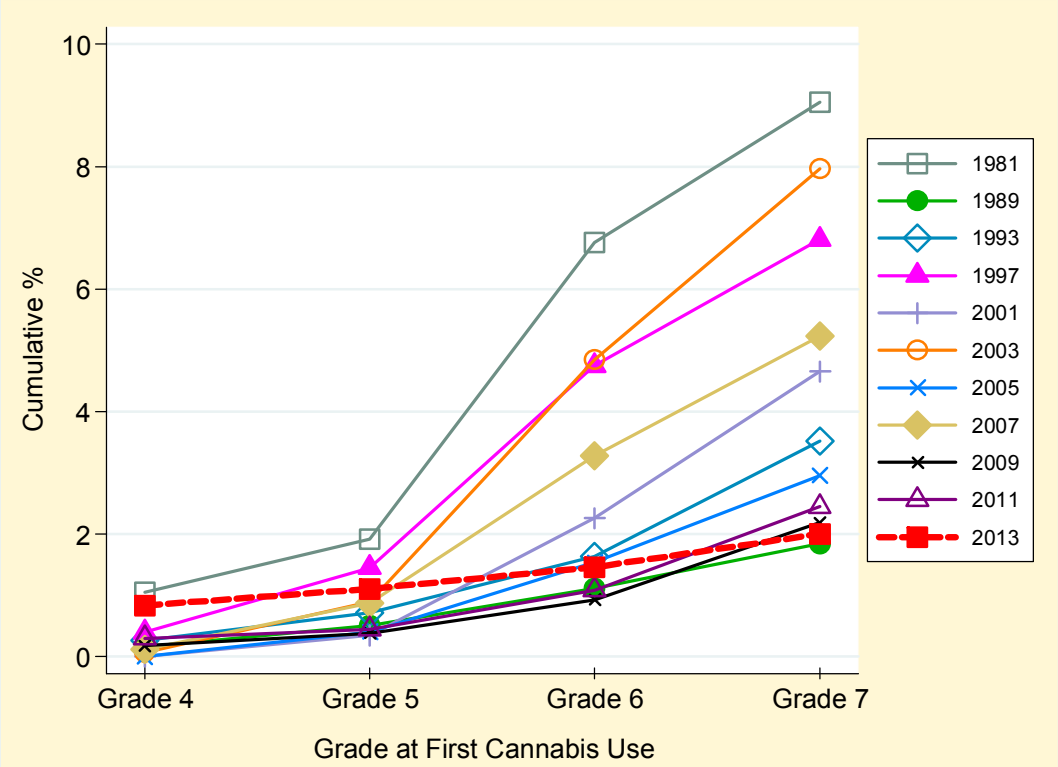
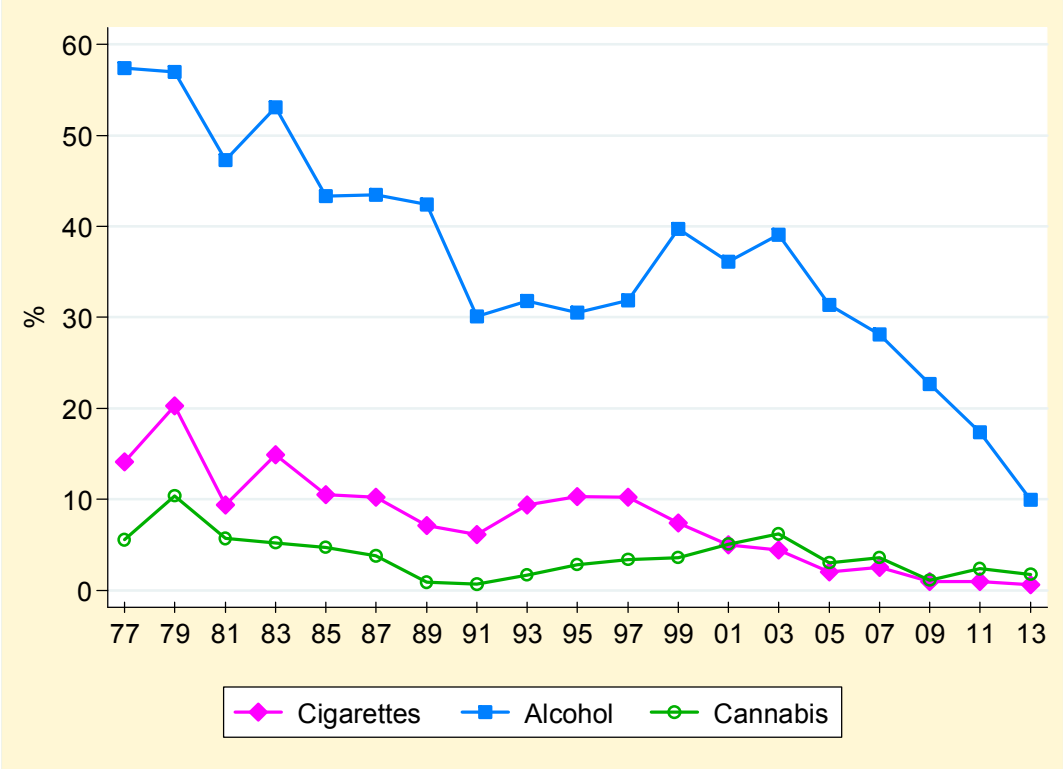


Figure 3.9.5
Percentage of 7th Graders Reporting Cigarette Smoking, Alcohol Use, and Cannabis Use in the Past Year, 1977–2013 OSDUHS



Age at Initiation of Smoking, Drinking, and Cannabis Use, 1981–2013

(Figures 3.9.6–3.9.10)

As previously mentioned, early initiation of substance use is a risk factor for substance use disorders and other problems later in life. 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.

We also present long-term findings since 1981 for grade 11 users because it is the oldest grade for which we have data spanning back the furthest.

2013 OSDUHS: Mean Ages

- As seen in Figure 3.9.6, in 2013 the average age at first cigarette smoking (smoking one whole cigarette) among grade 12 smokers was age 15. The average age at first alcoholic drink among grade 12 drinkers was 14.6 years, and the average age at first drunkenness among grade 12 drinkers was 15.3 years. The average age at first cannabis use among grade 12 users was 15.2 years.

Cigarette Smoking

- The average initiation age for smoking increased between 1981 and 1995, decreased slightly in the late 1990s, and has increased considerably during the past decade (see Figures 3.9.6 to 3.9.8).

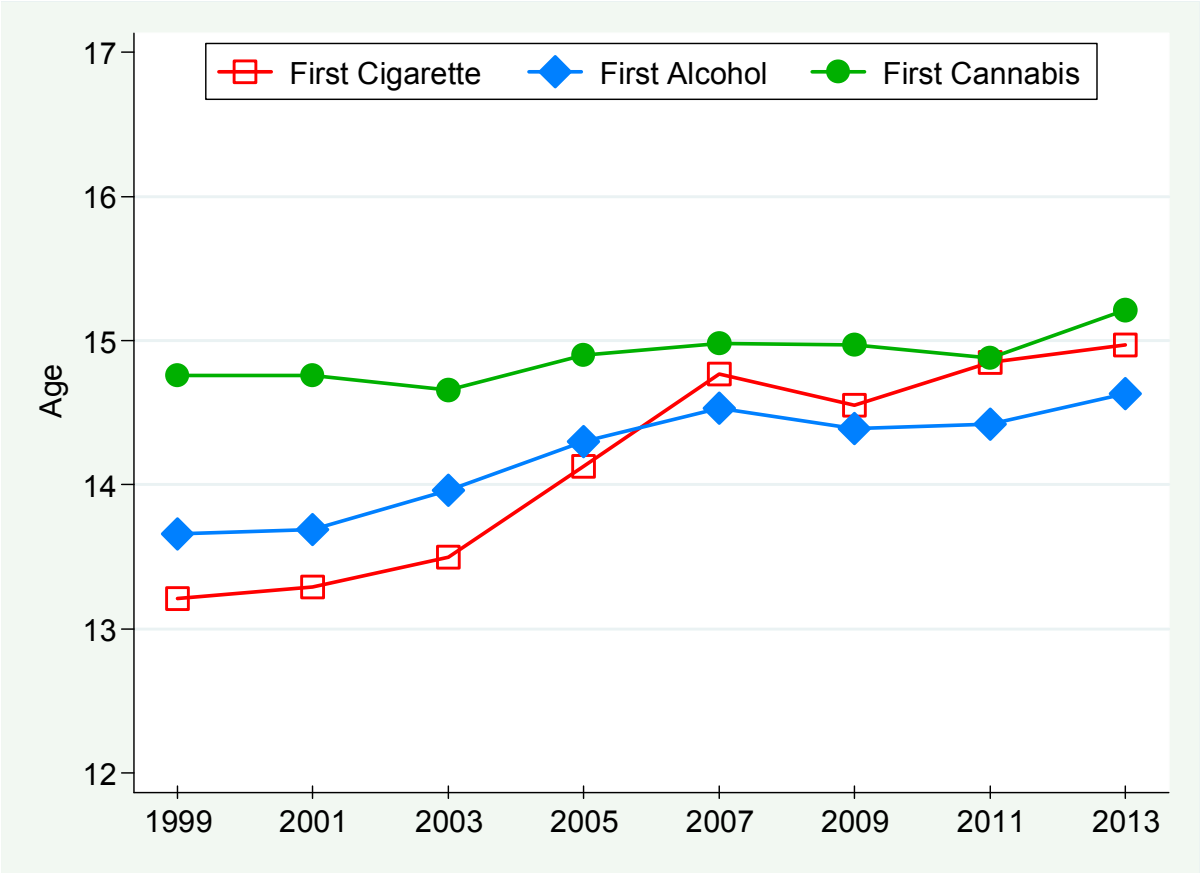
Drinking Alcohol

- The average initiation age for drinking was stable during the 1990s, and increased during the past decade (see Figures 3.9.6, 3.9.7, and 3.9.9).

Cannabis Use

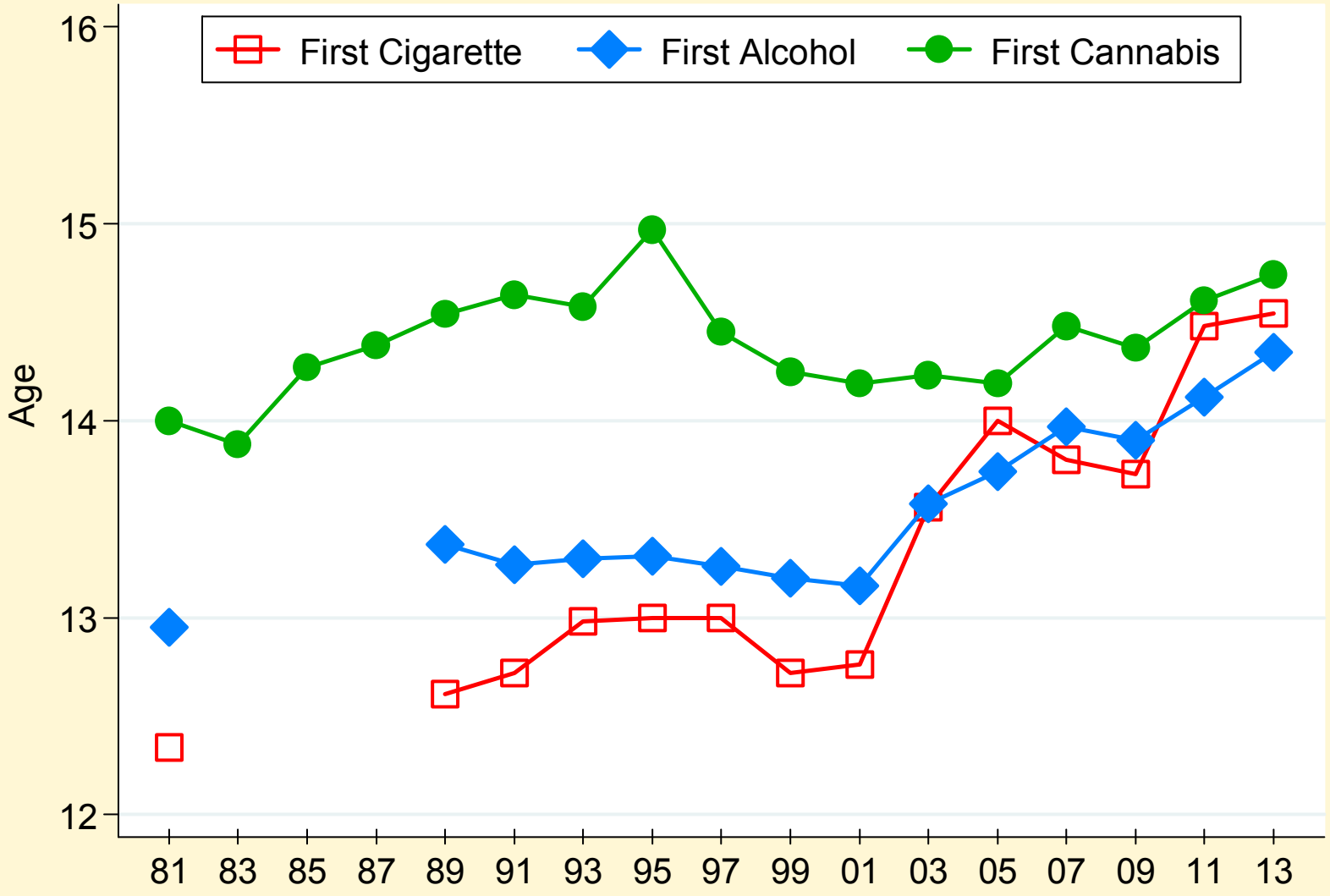
- The average age at first cannabis use has not significantly changed since about 1999 (see Figure 3.9.6). Looking over the long-term, the current average age of initiation is higher than the estimates found three decades ago in 1981 and 1983 (see Figures 3.9.7 and 3.9.10).

Figure 3.9.6
Average Age at First Cigarette Among 12th-Grade Smokers, First Alcoholic Drink Among 12th-Grade Drinkers, and First Cannabis Use Among 12th-Grade Users, 1999–2013 OSDUHS



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

Figure 3.9.7
Average Age at First Cigarette Among 11th-Grade Smokers, First Alcoholic Drink Among 11th-Grade Drinkers, and First Cannabis Use Among 11th-Grade Users, 1981–2013 OSDUHS



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

Figure 3.9.8
Grade at First Whole Cigarette Among 11th-Grade Smokers, by Year of Survey, 1981–2013 OSDUHS

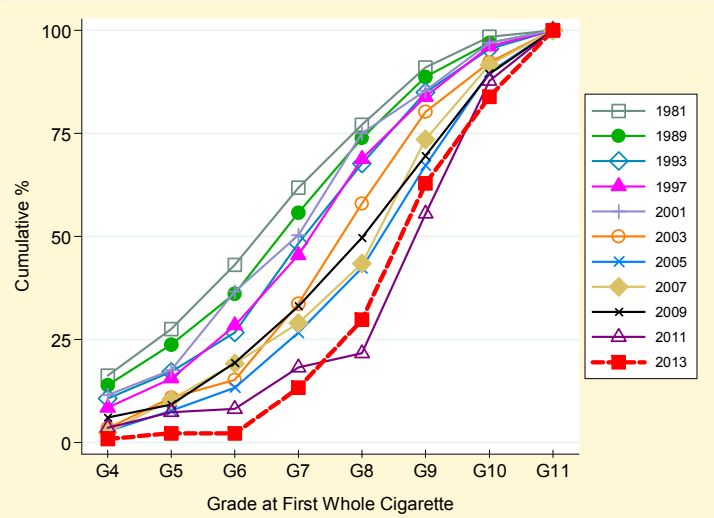


Figure 3.9.9
Grade at First Alcoholic Drink Among 11th-Grade Drinkers, by Year of Survey, 1981–2013 OSDUHS

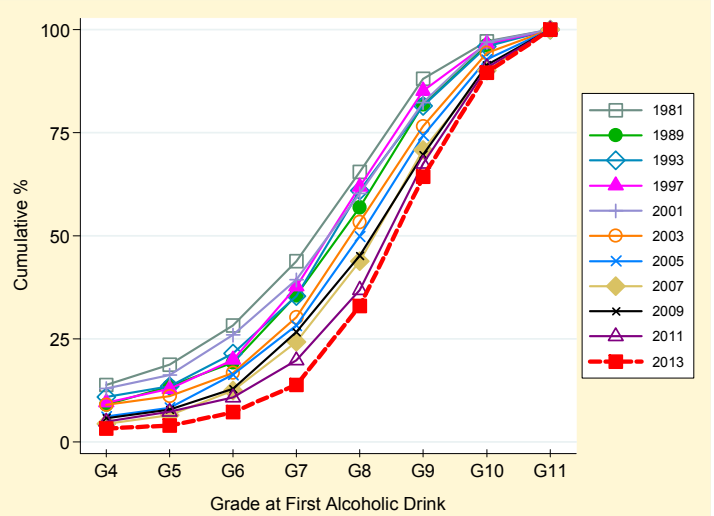
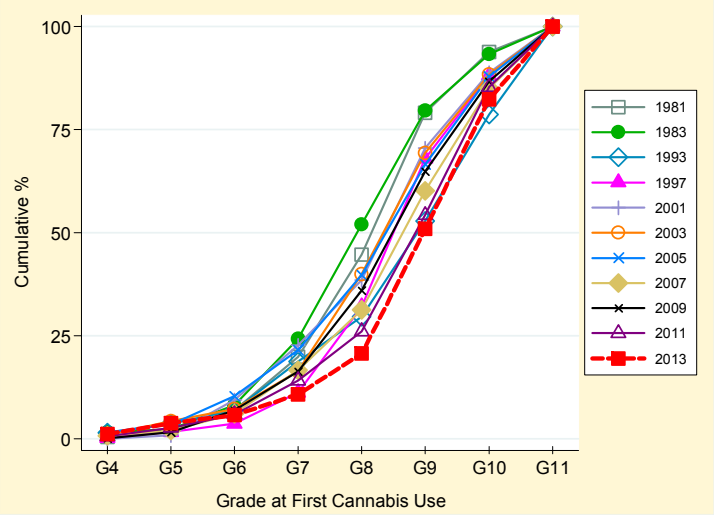


Figure 3.9.10
Grade at First Cannabis Use Among 11th-Grade Users, by Year of Survey, 1981–2013 OSDUHS



3.10 Consequences and Harms

Been a Passenger with a Driver Who Had Been Using Alcohol or Drugs

(Figures 3.10.1, 3.10.2; 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.

2013: Grades 7– 12

- The 2013 survey found that about 17.8% of students rode in a vehicle at least once in the past year with a driver who had been drinking. This represents roughly 173,500 students in Ontario. About 13.8% of students rode with a driver who had been using drugs at least once in the past year. This estimate represents 135,200 students in Ontario.

- Males and females are equally likely to ride with a driver who was drinking. Males are significantly more likely than females to ride with a driver who had been using drugs (15.2% vs. 12.4%, respectively).

- The likelihood of riding in a vehicle with a driver who had been drinking or using drugs significantly increases with grade level.

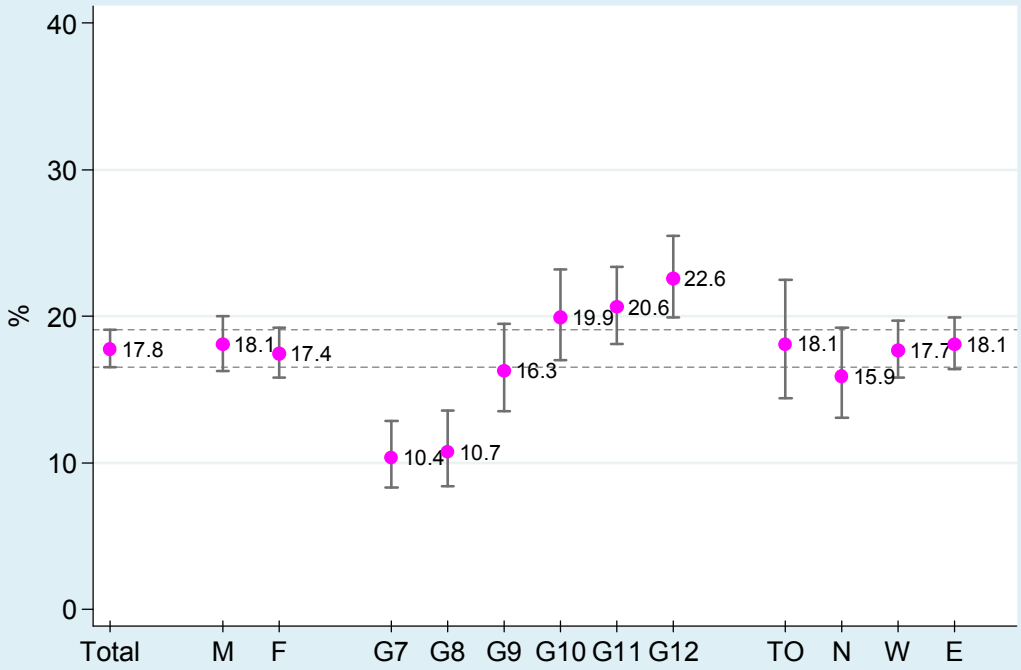
- There are no significant regional differences regarding the likelihood of riding with a driver who had been drinking. However, there were significant differences regarding riding with a driver who had been using drugs. Toronto students (9.9%) are least likely, and Northern and Eastern students (about 16%) are most likely to report this behaviour.

2001–2013: Grades 7– 12

- The percentage of students who report riding with a driver who had been drinking alcohol significantly declined between 2011 (24.1%) and 2013 (17.8%). There has been a significant downward trend between 2001, when monitoring first began, and 2013 (from 30.9% to 17.8%).

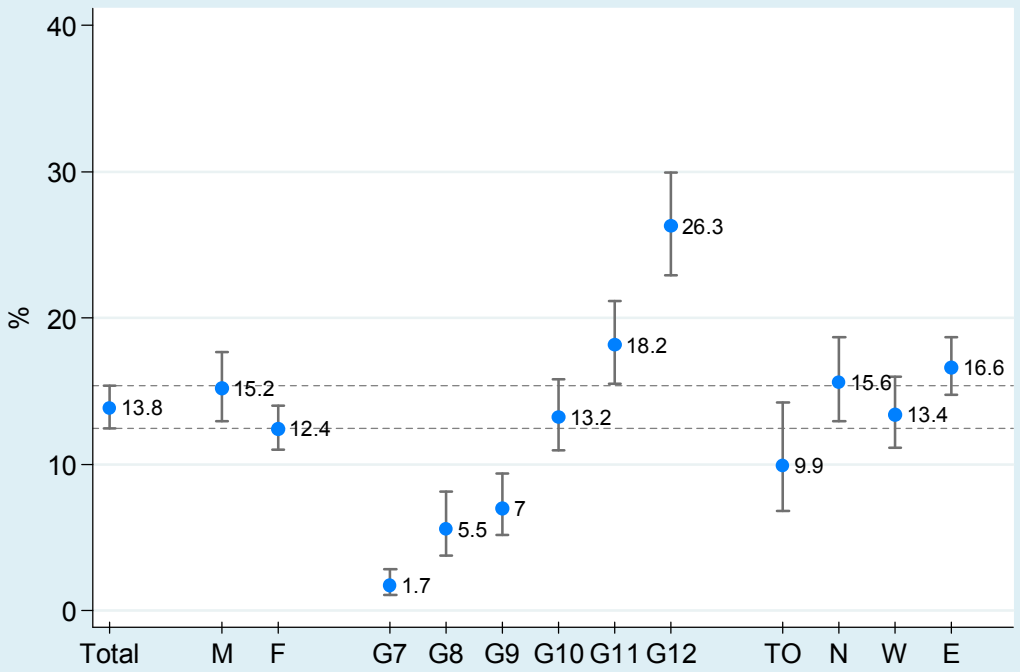
- The percentage of students who report riding in a vehicle with a driver who been using drugs did not significantly change between 2011 (15.5%) and 2013 (13.8%). However, the current estimate is significantly lower than the estimate found in 2003 (22.9%), when monitoring first began.

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, 2013 OSDUHS



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

Figure 3.10.2
Percentage Reporting Riding in a Vehicle with a Driver Who Had Been Using Drugs (at Least Once in the Past Year) by Sex, Grade, and Region, 2013 OSDUHS



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

Table 3.10.1: Percentage Reporting Riding in a Vehicle in the Past Year with a Driver Who Had Been Drinking Alcohol, 2001–2013 OSDUHS (Grades 7–12)

	2001	2003	2005	2007	2009	2011	2013
(*n*=)	(1837)	(3152)	(3648)	(2935)	(4261)	(9288)	(10272)
Total	**30.9**	**29.2**	**28.8**	**25.7**	**23.4**	**24.1**	**17.8** [abc]
(95% CI)	(28.5-33.5)	(27.1-31.3)	(26.9-30.8)	(23.6-27.9)	(21.6-25.4)	(22.0-26.4)	(16.5-19.1)
Sex							
Males	**31.5**	**27.6**	**26.7**	**24.7**	**23.2**	**20.8**	**18.1** [b]
	(28.2-34.9)	(25.0-30.5)	(24.3-29.2)	(22.2-27.5)	(20.5-26.2)	(18.7-23.2)	(16.3-20.0)
Females	**30.4**	**30.6**	**31.2**	**26.8**	**23.6**	**27.7**	**17.4** [ab]
	(26.7-34.3)	(27.7-33.6)	(28.5-33.9)	(23.9-29.9)	(21.1-26.3)	(23.6-32.2)	(15.8-19.2)
Grade							
7	**17.5**	**21.2**	**17.7**	**14.0**	**10.0**	**10.7**	**10.4** [b]
	(12.9-23.4)	(16.6-26.8)	(14.1-22.0)	(10.8-18.0)	(6.6-14.8)	(8.7-13.2)	(8.3-12.8)
8	**23.2**	**25.2**	**19.9**	**17.3**	**14.8**	**18.6**	**10.7** [ab]
	(16.5-31.5)	(21.1-29.8)	(16.7-23.5)	(13.9-21.4)	(11.4-19.2)	(14.5-23.4)	(8.4-13.6)
9	**31.5**	**24.0**	**27.3**	**22.0**	**23.3**	**23.8**	**16.3** [ab]
	(25.1-38.6)	(20.1-28.4)	(23.2-31.9)	(18.4-26.0)	(18.9-28.3)	(20.3-27.8)	(13.5-19.5)
10	**36.0**	**30.2**	**28.9**	**24.9**	**23.0**	**24.7**	**19.9** [b]
	(30.8-41.7)	(25.5-35.4)	(24.5-33.7)	(21.2-29.0)	(19.4-27.0)	(21.8-27.9)	(17.0-23.2)
11	**40.0**	**38.3**	**36.5**	**33.1**	**26.5**	**26.8**	**20.6** [b]
	(33.4-46.9)	(33.9-42.8)	(31.9-41.2)	(29.0-37.4)	(22.0-31.6)	(21.6-32.6)	(18.1-23.4)
12	**36.2**	**34.1**	**39.4**	**37.4**	**34.1**	**32.7**	**22.6** [ab]
	(28.9-44.1)	(30.1-38.2)	(34.8-44.3)	(31.8-43.4)	(28.0-40.8)	(29.4-36.3)	(19.9-25.5)
Region							
Toronto	**26.1**	**27.1**	**21.3**	**19.9**	**19.1**	**19.9**	**18.1** [b]
	(19.0-34.6)	(21.6-33.4)	(18.6-24.3)	(14.3-26.9)	(14.4-24.9)	(17.3-22.8)	(14.4-22.5)
North	**34.7**	**29.8**	**31.7**	**27.2**	**27.3**	**24.6**	**15.9** [ab]
	(30.9-38.8)	(26.0-33.8)	(26.7-37.2)	(22.8-32.1)	(21.7-33.6)	(22.8-26.5)	(13.1-19.2)
West	**32.8**	**32.5**	**30.0**	**27.9**	**23.9**	**25.1**	**17.7** [ab]
	(29.2-36.5)	(29.4-35.6)	(26.9-33.3)	(25.3-30.6)	(20.8-27.2)	(21.2-29.6)	(15.8-19.7)
East	**30.2**	**25.1**	**31.2**	**25.6**	**24.5**	**24.8**	**18.1** [ab]
	(26.5-34.2)	(21.6-28.9)	(27.6-35.1)	(21.4-30.4)	(22.0-27.2)	(22.4-27.4)	(16.4-19.9)

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in each year between 2001 and 2009; (3) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 2001 significant difference, p<.01; [c] significant linear trend, p<.01.
Q: How often in the last 12 months did you ride in a car or other 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, 2003–2013 OSDUHS (Grades 7–12)

(*n*=)	**2003** (3464)	**2005** (4078)	**2007** (3388)	**2009** (4851)	**2011** (9288)	**2013** (10272)
Total	**22.9**	**21.5**	**17.6**	**17.9**	**15.5**	**13.8** [bc]
(95% CI)	(20.8-25.0)	(19.3-24.0)	(16.1-19.2)	(16.4-19.5)	(14.0-17.0)	(12.4-15.4)
Sex						
Males	**21.1**	**21.2**	**16.2**	**18.9**	**14.6**	**15.2** [b]
	(18.3-24.1)	(18.3-24.5)	(14.2-18.2)	(16.4-21.6)	(12.9-16.5)	(13.0-17.7)
Females	**24.5**	**21.9**	**19.0**	**16.9**	**16.4**	**12.4** [ab]
	(21.8-27.3)	(19.3-24.7)	(16.8-21.4)	(14.9-19.1)	(14.1-19.0)	(11.0-14.0)
Grade						
7	**9.4**	**6.1**	**2.8**	**1.5**	**2.2**	**1.7** [b]
	(6.1-14.1)	(3.6-10.0)	(1.6-4.9)	(0.9-2.5)	(1.2-3.7)	(1.0-2.8)
8	**11.1**	**9.2**	**5.6**	**5.1**	**4.4**	**5.5** [b]
	(8.0-15.3)	(6.3-13.2)	(3.5-9.1)	(3.5-7.5)	(3.2-6.1)	(3.7-8.1)
9	**17.4**	**15.2**	**13.9**	**10.0**	**9.0**	**7.0** [b]
	(14.0-21.3)	(11.8-19.2)	(10.6-18.1)	(7.9-12.7)	(6.3-12.6)	(5.2-9.4)
10	**23.3**	**23.6**	**17.9**	**16.7**	**14.8**	**13.2** [b]
	(19.0-28.3)	(20.0-27.7)	(14.8-21.6)	(13.6-20.4)	(11.7-18.5)	(11.0-15.8)
11	**33.8**	**34.7**	**25.0**	**25.9**	**21.4**	**18.2** [b]
	(28.7-39.3)	(31.2-38.3)	(21.6-28.7)	(20.2-32.6)	(18.8-24.2)	(15.5-21.2)
12	**37.0**	**38.0**	**34.0**	**37.1**	**30.4**	**26.3** [b]
	(31.4-43.0)	(33.7-42.5)	(29.3-39.1)	(23.8-41.6)	(26.4-34.7)	(22.9-29.9)
Region						
Toronto	**20.7**	**15.3**	**12.0**	**12.7**	**11.2**	**9.9** [b]
	(17.0-25.0)	(11.6-20.0)	(9.4-15.1)	(9.9-16.3)	(9.0-13.8)	(6.8-14.2)
North	**27.0**	**27.2**	**22.3**	**22.2**	**20.6**	**15.6** [b]
	(21.7-33.2)	(23.6-31.3)	(18.1-27.2)	(16.8-28.8)	(17.8-23.8)	(12.9-18.7)
West	**22.7**	**23.6**	**19.0**	**18.4**	**16.5**	**13.4** [b]
	(19.9-25.8)	(20.5-27.0)	(16.5-21.7)	(16.1-21.0)	(13.8-19.4)	(11.1-16.0)
East	**23.2**	**20.9**	**17.7**	**18.9**	**15.6**	**16.6** [b]
	(18.9-28.0)	(16.6-26.1)	(15.3-20.4)	(16.3-21.8)	(13.5-17.9)	(14.7-18.7)

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in each year between 2001 and 2009; (3) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 2003 significant difference, p<.01; [c] significant linear trend, p<.01.
Q: How often in the last 12 months did you ride in a car or other 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 3.10.3, 3.10.4; Table 3.10.3)

2013: Drivers in Grades 10–12

- In 2013, 4.0% of drivers (with a G-Class licence) in grades 10 through 12 drove within an hour of consuming *two or more* alcoholic drinks at least once during the past 12 months. With the sampling error, we estimate that between 3.0% and 5.2% of adolescent drivers in Ontario drove after drinking alcohol. The estimate of 4.0% represents about 12,700 drivers in grades 10, 11, and 12.

- Male and female drivers are equally likely to drink and drive.

- There are no significant grade differences.

- There are no significant regional differences.

1999–2013: Drivers in Grades 10–12

☐ There was a significant decrease in drinking and driving among adolescent drivers between 2011 (7.0%) and 2013 (4.0%). The estimate had been stable between 1999 and 2009, significantly decreased in 2011 and again in 2013.

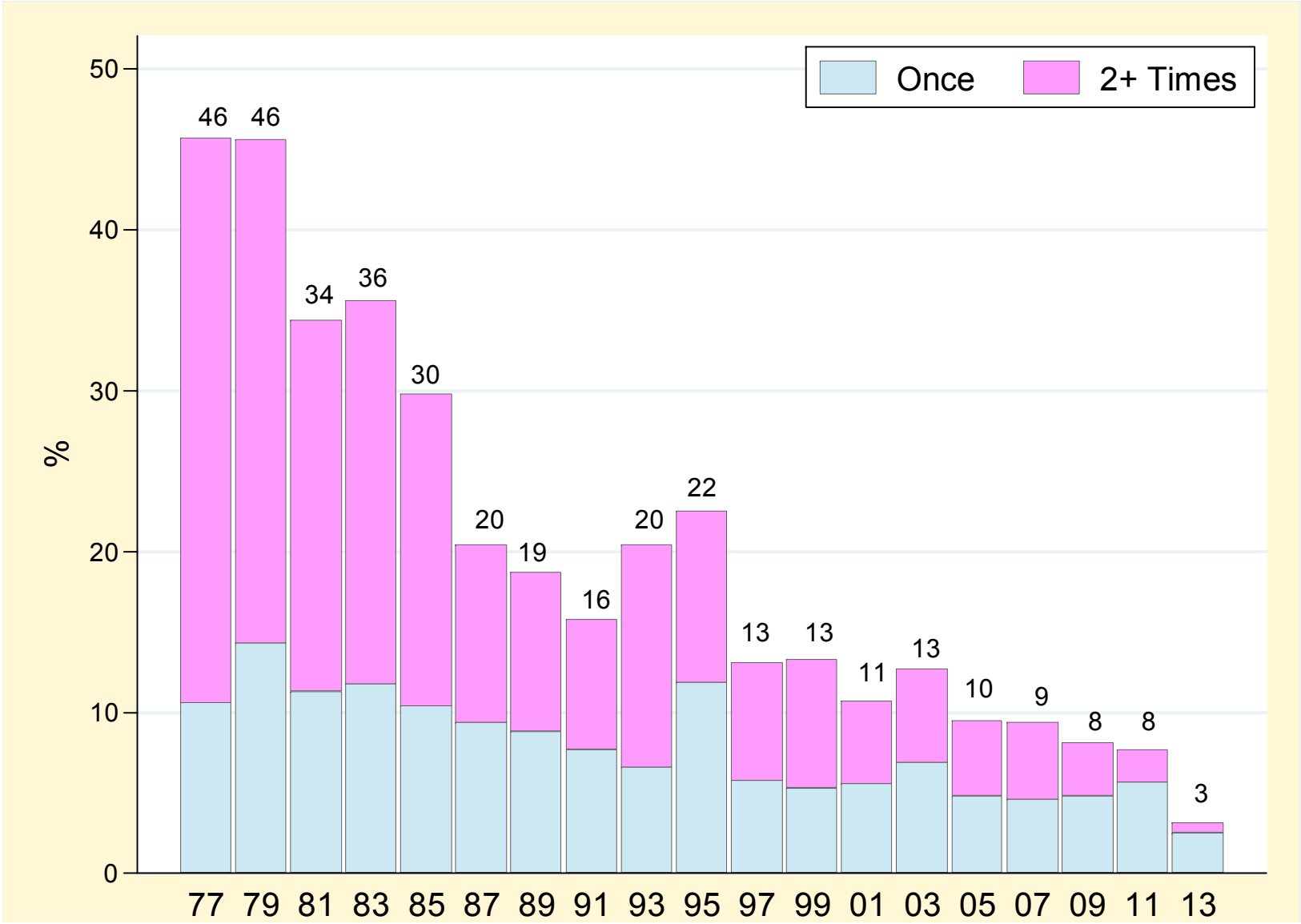
☐ Among the subgroups, only students in the East show a significant decrease between 2011 and 2013. However, most subgroups do show significant decreases since 1999.

1977 –2013: Drivers in Grade 11 only

☐ Figure 3.10.4 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 3.10.3
Percentage of Drivers in Grades 10–12 Reporting Drinking and Driving at Least Once in the Past Year, 1999–2013 OSDUHS

Figure 3.10.4
Percentage of 11th-Grade Drivers Reporting Drinking and Driving in the Past Year, 1977–2013 OSDUHS



	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
Sample n	314	558	436	556	563	638	578	646	401	560	614	451	374	824	965	794	856	987	999
Never (%)	54	54	66	64	70	79	81	84	80	77	87	87	89	87	90	91	92	92	97
Once	11	14	11	12	10	9	9	8	7	12	6	5	6	7	5	5	5	6	2.5
2+ Times	36	32	24	24	19	11	10	9	14	10	8	7	5	4	5	4	3	2	0.5

Table 3.10.3: Percentage of Drivers in Grades 10–12 Reporting Drinking and Driving at Least Once in the Past Year, 1999–2013 OSDUHS

		1999	2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(1009)	(847)	(1973)	(2280)	(1897)	(2219)	(2486)	(2433)
Total		**14.0**	**14.2**	**13.8**	**13.6**	**11.6**	**11.9**	**7.0**	**4.0** [abcd]
(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)
Sex									
	Males	**17.6**	**19.0**	**19.5**	**17.7**	**14.1**	**14.9**	**7.8**	**4.6** [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)
	Females	**9.8**	**7.4**	**7.8**	**8.5**	**8.4**	**8.3**	†	**3.1** [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)
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** [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)
	12	**16.3**	**20.9**	**16.2**	**17.4**	**13.4**	**15.1**	**7.0**	**4.9** [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)
Region									
	Toronto	**7.3**	**13.2**	**12.4**	**9.8**	**11.0**	**6.5**	†	†
		(3.0-16.9)	(10.7-16.2)	(8.5-17.9)	(5.7-16.1)	(6.1-19.1)	(2.7-15.1)		
	North	**26.0**	**12.5**	**16.8**	**16.8**	**12.7**	**12.5**	**9.8**	† [b]
		(17.3-37.2)	(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	**13.6**	**18.5**	**13.9**	**15.6**	**11.7**	**10.8**	†	**4.5** [b]
		(9.8-18.6)	(13.1-25.6)	(10.6-18.0)	(12.9-18.7)	(9.1-14.8)	(7.8-14.9)		(2.9-6.8)
	East	**12.9**	**8.2**	**13.6**	**12.1**	**11.5**	**14.6**	**7.9**	**3.7** [ab]
		(7.7-21.0)	(4.8-13.5)	(11.0-16.7)	(9.1-15.9)	(9.1-14.3)	(11.8-18.0)	(5.5-11.2)	(2.5-5.5)

Notes: (1) entries in brackets are 95% confidence intervals; (2) † estimate suppressed due to unreliability; (3) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 significant difference, p<.01; [c] significant linear trend, p<.01; [d] significant nonlinear trend, p<.01.
Q: How often in the last 12 months, have you driven a vehicle within an hour of drinking two or more drinks of alcohol?
Source: OSDUHS, Centre for Addiction & Mental Health

Operating a Snowmobile, Motor Boat, Sea-Doo, or ATV After Drinking Alcohol

(Figure 3.10.5)

Students were asked if they drove a snowmobile, motor boat, Sea-doo, or all-terrain vehicle (ATV) after drinking at least *one* alcoholic drink. The question used was "*In the last 12 months, have you driven a snowmobile, motor boat, Sea-doo, or all-terrain vehicle (ATV) with an hour of drinking 1 or more drinks of alcohol?*" Here we present the percentage of students in grades 10 through 12 who responded "yes" to the question.

2013: Grades 10–12

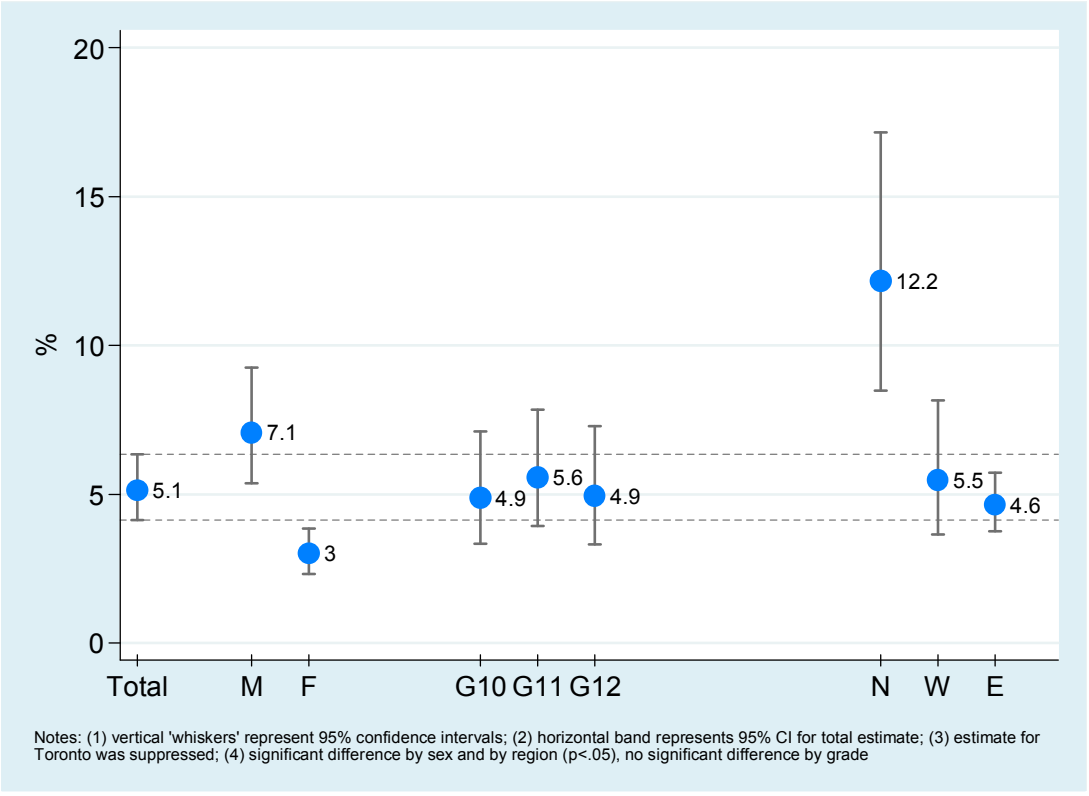
- Among students in grades 10–12, 5.1% (95% CI: 4.1%-6.3%) report operating a snowmobile, motor boat, Sea-doo, or an ATV within an hour of drinking one or more alcoholic drinks at least once during the past 12 months. This estimate represents about 29,400 Ontario students in grades 10–12.

- Males (7.1%) are significantly more likely than females (3.0%) to engage in this behaviour.

- There are no statistically significant differences among the grades.

- There is significant regional variation, showing that students in the North (12.2%) are more likely to engage in this behaviour compared with students in the other regions (about 5%).

Figure 3.10.5
Percentage of Students in Grades 10–12 Reporting Operating a Snowmobile, Motor Boat, Sea-Doo, or ATV within an Hour of Drinking One or More Alcoholic Drinks at Least Once in the Past Year, by Sex, Grade, and Region, 2013 OSDUHS



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

Driving a Motor Vehicle After Using Cannabis

(Figures 3.10.6, 3.10.7; 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.

2013: Drivers in Grades 10–12

- In 2013, 9.7% 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 7.9% and 11.9% of adolescent drivers in Ontario drove after using cannabis. This estimate represents about 31,500 adolescent drivers in Ontario.

- Male drivers are significantly more likely than female drivers to use cannabis and drive (13.0% vs. 5.8%, respectively).

- There is no significant grade variation in the likelihood of using cannabis and driving.

- Despite some variation, there are no statistically significant regional differences.

2001–2013: Drivers in Grades 10–12

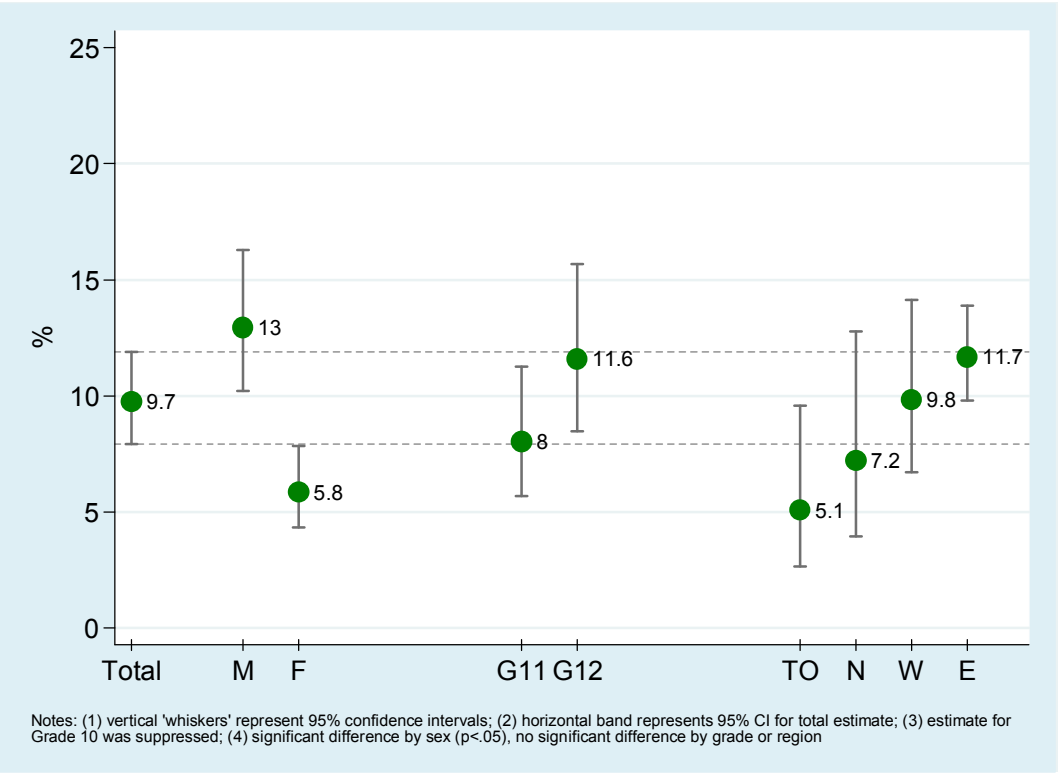
- The 2013 estimate (9.7%) for driving after cannabis use does not significantly differ from the 2011 estimate (12.4%). Between 2001 and 2013, cannabis use and driving among adolescent drivers shows a significant downward trend, from 19.9% down to 9.7%.

- Both male and female adolescent drivers show significant decreases in cannabis use and driving since 2001.

- Grade 10, 11, and 12 students show significant decreases since 2001.

- Cannabis use and driving significantly decreased between 2011 and 2013 in the North (from 20.2% to 7.2%). All four regions show significant decreases since 2001 or 2003.

Figure 3.10.6
Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year, by Sex, Grade, and Region, 2013 OSDUHS



Notes: (1) vertical 'whiskers' represent 95% confidence intervals; (2) horizontal band represents 95% CI for total estimate; (3) estimate for Grade 10 was suppressed; (4) significant difference by sex (p<.05), no significant difference by grade or region

Figure 3.10.7
Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year, 2001–2013 OSDUHS

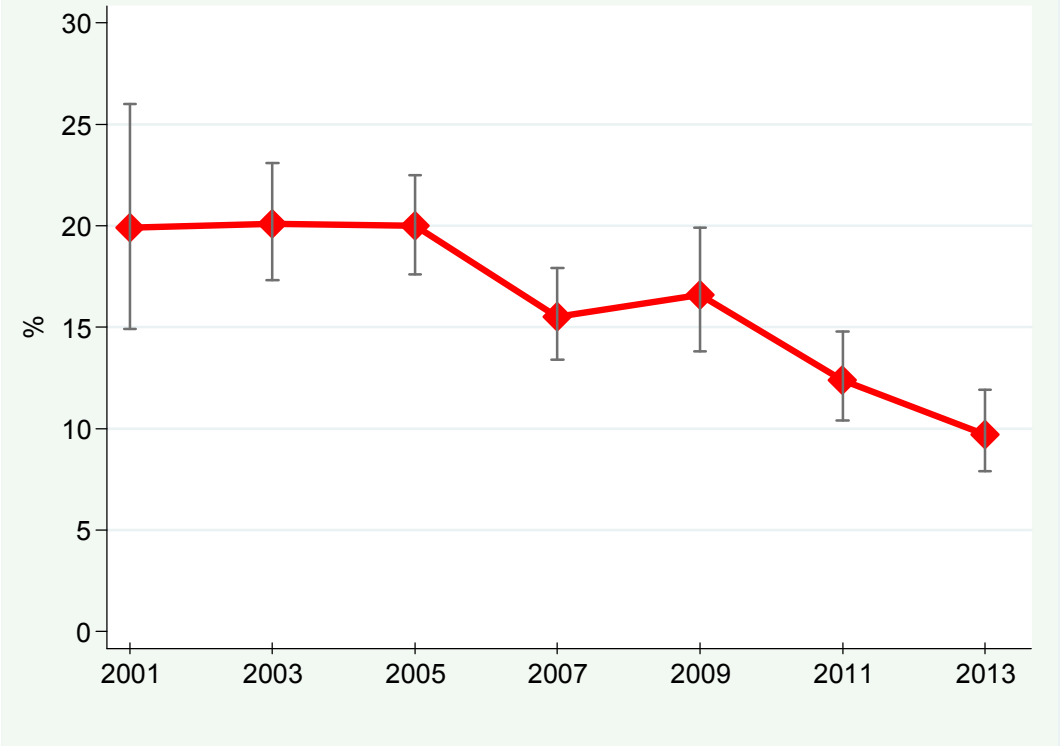


Table 3.10.4: Percentage of Drivers in Grades 10–12 Reporting Using Cannabis and Driving at Least Once in the Past Year, 2001–2013 OSDUHS

		2001	2003	2005	2007	2009	2011	2013
	(*n*=)	(400)	(1973)	(2280)	(1897)	(2219)	(2468)	(2433)
Total		**19.9**	**20.1**	**20.0**	**15.5**	**16.6**	**12.4**	**9.7** [bc]
(95% CI)		(14.9-26.0)	(17.3-23.1)	(17.6-22.5)	(13.4-17.9)	(13.8-19.9)	(10.4-14.8)	(7.9-11.9)
Sex								
	Males	**25.3**	**25.6**	**25.2**	**17.9**	**20.8**	**15.3**	**13.0** [b]
		(17.3-35.5)	(21.4-30.2)	(22.1-28.7)	(15.0-21.2)	(16.9-25.4)	(12.2-19.0)	(10.2-16.3)
	Females	**12.6**	**14.1**	**13.4**	**12.7**	**11.4**	**9.0**	**5.8** [b]
		(8.5-18.4)	(11.3-17.6)	(10.8-16.4)	(9.8-16.4)	(8.9-14.6)	(6.9-11.7)	(4.3-7.8)
Grade								
	10	**18.9**	**15.9**	**15.1**	†	**7.8**	†	† [b]
		(9.6-33.9)	(11.3-21.9)	(9.7-22.6)		(4.1-14.4)		
	11	**18.9**	**18.0**	**15.4**	**12.8**	**10.8**	**12.3**	**8.0** [b]
		(12.7-27.3)	(14.4-22.3)	(12.3-19.1)	(10.0-16.3)	(8.1-14.3)	(8.9-16.7)	(5.7-11.3)
	12	**21.6**	**23.3**	**23.9**	**18.9**	**21.1**	**13.0**	**11.6** [b]
		(14.1-31.7)	(18.9-28.3)	(20.5-27.6)	(16.2-21.8)	(17.0-25.7)	(9.9-16.8)	(8.5-15.7)
Region								
	Toronto	**13.7**	**13.8**	**16.0**	**15.1**	**11.4**	**10.8**	**5.1**
		(6.1-28.0)	(10.0-19.4)	(10.8-23.1)	(11.0-20.3)	(6.1-20.4)	(7.4-15.6)	(2.6-9.6)
	North	**17.5**	**24.7**	**21.6**	**19.0**	**21.1**	**20.2**	**7.2** [a]
		(10.9-27.1)	(16.3-35.6)	(17.0-27.0)	(12.5-27.7)	(13.9-30.6)	(15.5-25.9)	(3.9-12.8)
	West	**23.9**	**21.0**	**24.1**	**14.3**	**17.8**	**12.5**	**9.8** [b]
		(17.2-32.2)	(17.0-25.7)	(20.1-28.6)	(10.9-18.5)	(13.3-23.3)	(8.9-17.4)	(6.7-14.2)
	East	**16.7**	**20.3**	**16.3**	**16.7**	**16.0**	**11.5**	**11.7**
		(7.8-32.1)	(15.2-26.6)	(12.9-20.3)	(13.6-20.3)	(11.6-21.7)	(9.5-13.9)	(9.8-13.9)

Notes: (1) entries in brackets are 95% confidence intervals; (2) question asked of a random half sample in 2001; (3) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 2001 significant difference, p<.01; [c] significant linear trend, p<.01.
Q: How often in the last 12 months have you driven a vehicle within an hour of using marijuana or hashish?
Source: OSDUHS, Centre for Addiction & Mental Health

Driving a Motor Vehicle After Using a Prescription Opioid

Starting in 2011, students were asked how often, if at all, they had driven a vehicle after using a prescription opioid drug. The question was "*In the last 12 months, how often have you driven a vehicle within an hour of using a prescription pain relief pill such as Percocet, Percodan, Tylenol #3, Demerol, OxyContin/OxyNEO, or codeine? (We do not mean regular Tylenol, Advil, or Aspirin that anyone can buy in a drugstore.)*" We present the percentage of students in grades 10, 11, and 12 with a driver's licence who report doing so at least once in the past 12 months.

2013: Drivers in Grades 10–12

- About 3.0% (95% CI: 1.7%-5.2%) of students in grades 10 through 12 with a licence report driving after using a prescription opioid at least one time in the past 12 months. This estimate represents about 9,000 adolescent drivers in Ontario.

- There is no significant difference between male and female drivers (about 3% each).

- There are no significant grade differences.

- There are no significant regional differences.

2013 vs. 2011: Drivers in Grades 10–12

☐ The 2013 estimate (3.0%) for driving after using a prescription opioid does not significantly differ from the 2011 estimate of 5.8% (95% CI: 3.9%-8.5%).

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

(Figure 3.10.8; 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 (α=0.79).

2013: Grades 9–12

- Overall, 16.8% of 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 132,700 Ontario students in grades 9–12.

- Males are significantly more likely than females to meet the criterion for a drug use problem (19.2% vs. 14.3%, respectively).

- There is significant grade variation. The likelihood of a drug use problem is lowest among 9th graders (7.5%) and highest among 12th graders (24.0%).

- There is no significant regional variation.

2003–2013: Grades 9–12

☐ The percentage of secondary students who meet the CRAFFT criterion for a drug use problem in 2013 (16.8%) does not significantly differ from the percentage found in 2011 (16.3%). However, over the past decade there has been a significant downward trend, from 21.9% in 2003 to 16.8% in 2013.

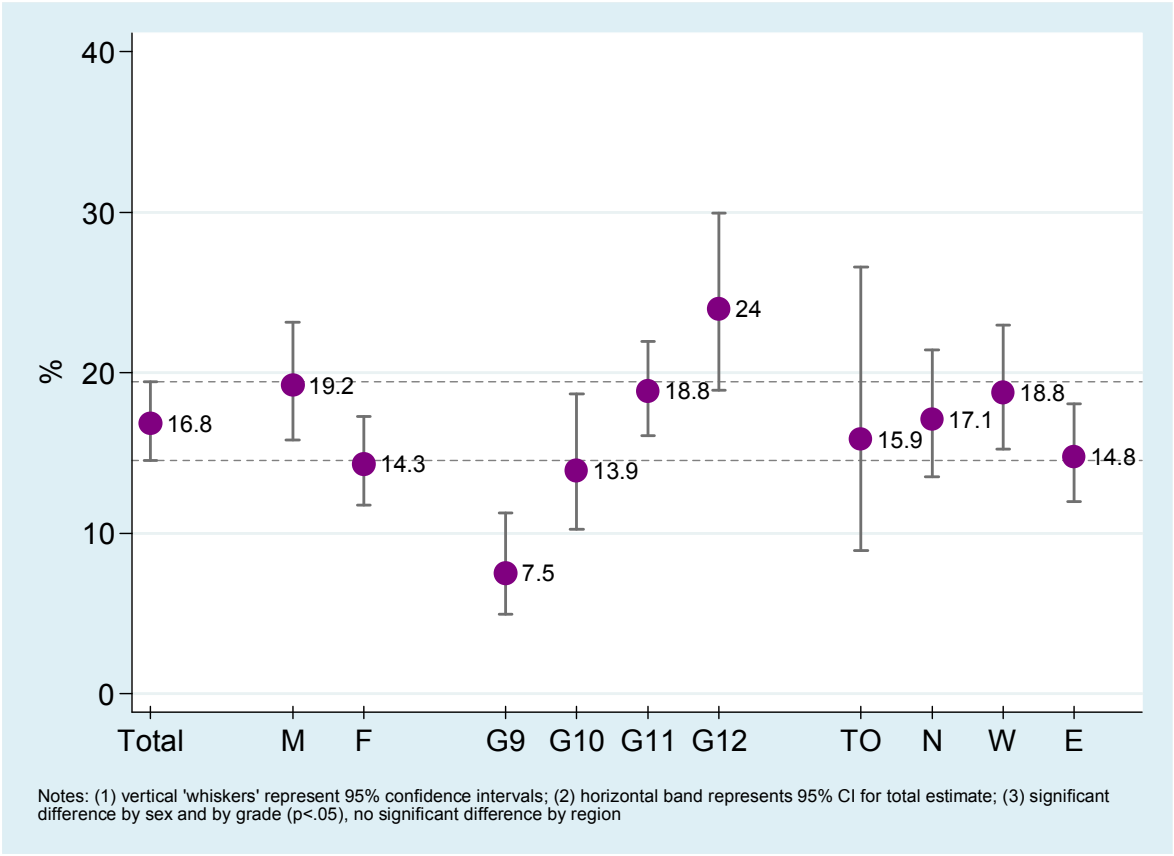
☐ Among the subgroups, significant declines since 2003 are evident for females, 9th graders, 11th graders, and students in the North.

Table 3.10.5: Percentage of Secondary Students Reporting Drug Use Problems Experienced in the Past Year, 2013 OSDUHS (Grades 9–12)

CRAFFT Item	% "yes" among the total sample
"In the last 12 months…."	
1. did you ride in a **c**ar or other vehicle driven by someone who had been using drugs	19.0
2. did you use drugs to **r**elax, feel better about yourself, or fit in?	17.6
3. did you use drugs while you were by yourself (**a**lone)?	11.4
4. did you **f**orget things you did while using drugs?	8.5
5. did your **f**amily or friends tell you that you should cut down on your use of drugs?	5.5
6. did you get into **t**rouble while using drugs?	4.2
% CRAFFT 2+ Score (95% CI)	**16.8** (14.5-19.4)

Notes: (1) those responding "yes" to 2 or more problems on the CRAFFT screener may have a drug use problem that requires treatment; (2) based on a random half sample (*n*=3264).
Source: OSDUHS, Centre for Addiction & Mental Health

Figure 3.10.8
Percentage Indicating a Drug Use Problem (CRAFFT 2+) by Sex, Grade, and Region, 2013 OSDUHS (Grades 9–12)



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

Table 3.10.6: Percentage of Secondary Students Indicating a Drug Use Problem (CRAFFT 2+), 2003–2013 OSDUHS (Grades 9–12)

		2003	2005	2007	2009	2011	2013
	(*n*=)	(2455)	(3069)	(2587)	(3055)	(3358)	(3264)
Total		**21.9**	**22.1**	**20.1**	**20.1**	**16.3**	**16.8** [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)
Sex							
	Males	**23.1**	**23.5**	**20.5**	**22.7**	**17.5**	**19.2**
		(19.5-27.2)	(20.6-26.8)	(17.7-23.6)	(19.9-25.8)	(14.0-21.6)	(15.8-23.1)
	Females	**20.9**	**20.6**	**19.8**	**17.3**	**15.1**	**14.3** [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)
Grade							
	9	**14.1**	**13.4**	**14.0**	**11.7**	**7.5**	**7.5** [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)
	10	**20.5**	**21.0**	**18.0**	**18.4**	**15.8**	**13.9**
		(16.1-25.8)	(17.6-24.8)	(14.8-21.7)	(14.8-22.8)	(12.2-20.3)	(10.2-18.7)
	11	**27.0**	**25.4**	**23.0**	**19.4**	**18.4**	**18.8** [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)
	12	**26.7**	**28.3**	**24.7**	**28.2**	**21.7**	**24.0**
		(21.8-32.2)	(24.3-32.7)	(20.8-29.0)	(24.5-32.2)	(15.1-30.1)	(18.9-30.0)
Region							
	Toronto	**23.3**	**17.8**	**15.2**	**18.3**	**13.8**	**15.9**
		(19.1-28.1)	(13.3-23.4)	(9.7-23.2)	(14.6-22.7)	(10.6-17.7)	(8.9-26.6)
	North	**26.3**	**26.1**	**26.0**	**28.0**	**23.0**	**17.1** [b]
		(20.4-33.1)	(21.4-31.5)	(20.0-33.0)	(22.2-34.6)	(17.7-29.3)	(13.5-21.4)
	West	**20.7**	**22.8**	**19.3**	**20.3**	**16.0**	**18.8**
		(17.2-24.8)	(18.7-27.6)	(16.5-22.4)	(17.1-23.9)	(10.2-24.2)	(15.2-22.9)
	East	**21.7**	**22.4**	**22.2**	**19.3**	**17.0**	**14.8**
		(16.9-27.3)	(19.4-25.6)	(18.8-26.0)	(16.6-22.4)	(14.2-20.1)	(12.0-18.1)

Notes: (1) entries in brackets are 95% confidence intervals; (2) based on a random half sample in each year; (3) no significant differences 2013 vs. 2011; [b] 2013 vs. 2003 significant difference, p<.01; [c] significant linear trend, p<.01.
Source: OSDUHS, Centre for Addiction & Mental Health

Alcohol and Other Drug Treatment Among Grades 9–12

In addition to asking students about alcohol and drug use problems, we surveyed secondary students about their treatment experience. Specifically, the question was: *"Have you been in a treatment program during the last 12 months because of your alcohol or drug use?"*

- In 2013, 1.2% (95% CI: 0.6%-2.1%) of students report that they had received treatment for their alcohol and/or drug use (data not tabled). This estimate represents about 8,400 Ontario students in grades 9 through 12.

- The 2013 estimate (1.2%) of students who report receiving treatment is similar to the estimate from 2011 (1.1%; 95% CI: 0.7%-1.7%), as well as estimates from previous years (1.7% in 2009; 1.8% in 2007; 1.0% in 2005; and 1.5% in 2003).

Coexisting Alcohol and Mental Health Problems Among Grades 7–12

(Figures 3.10.9, 3.10.10)

In addition to drug use problem indicators, the OSDUHS also contains mental health measures. One of these is the *Kessler 10-Item Psychological Distress Scale* (K10), which is a 10-item screening instrument designed to detect nonspecific psychological distress (symptoms of anxiety and depression) (Kessler et al., 2002, Kessler et al, 2003). For our present purpose, we examine the percentage of students reporting a moderate level of distress as indicated by scoring at least 22 of the maximum 50 on the K10.

Figure 3.10.9 displays the percentage of all students in grades 7 through 12 who report hazardous/harmful drinking according to the AUDIT (those scoring 8+); the percentage reporting moderate psychological distress according to the K10; and the percentage reporting both problems.

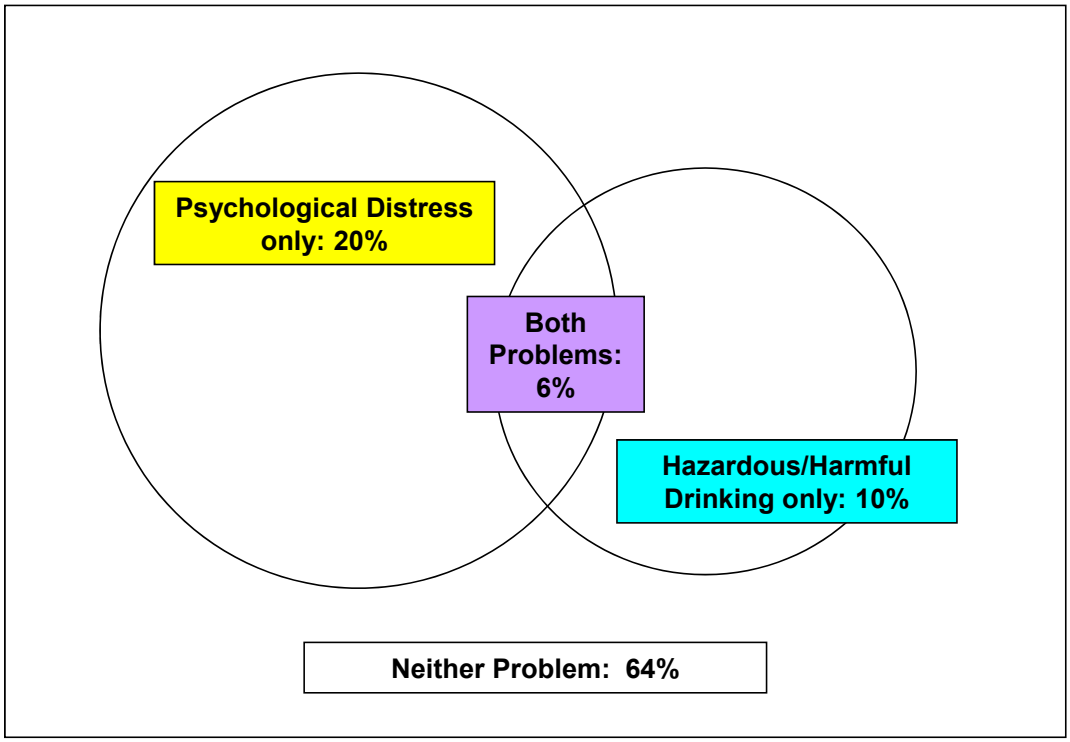
- As seen in Figure 3.10.10, 6.2% (95% CI: 5.1%-7.5%) of all students indicate both hazardous/harmful drinking and psychological distress. This estimate represents about 60,800 students in Ontario.

- Females are significantly more likely than males to report these two coexisting problems (8.7% vs. 3.8%, respectively).

- Coexisting problems significantly increase with grade, up to a high of about 10% among 11th and 12th graders.

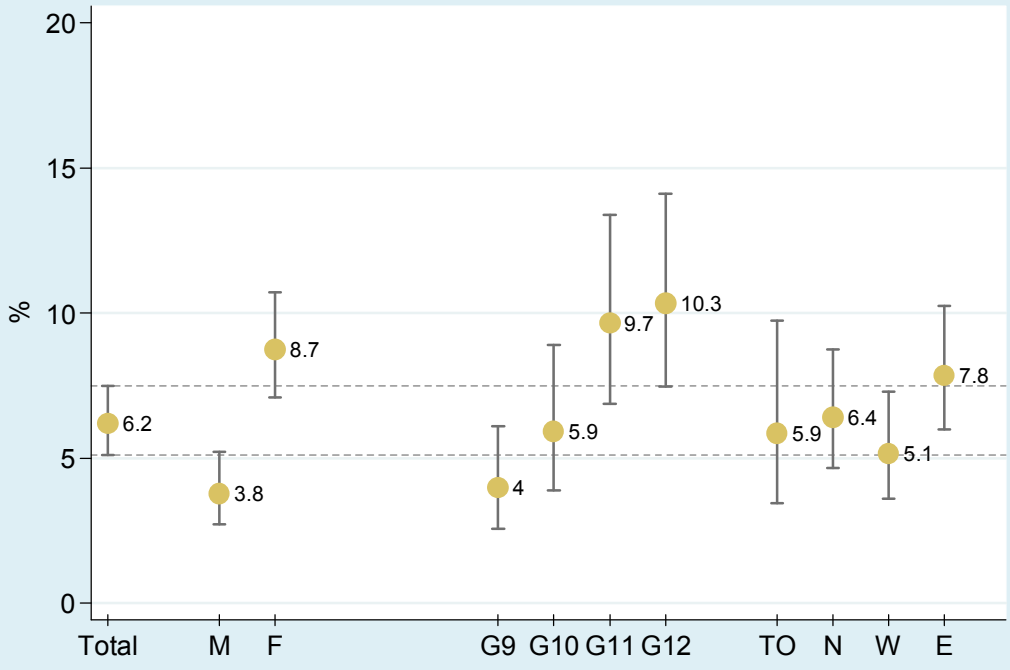
- There are no significant regional differences.

Figure 3.10.9
Coexisting Problems: Hazardous/Harmful Drinking (AUDIT) and Psychological Distress (K10), 2013 OSDUHS (Grades 7–12)



Based on a random half sample of students (n=5478)

Figure 3.10.10
Percentage Reporting Coexisting Hazardous/Harmful Drinking and Psychological Distress by Sex, Grade, and Region, 2013 OSDUHS



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

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 correlate strongly with drug using behaviour (Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997; Johnston et al. 2013). 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 Table 3.11.1 and Figure 3.11.1, we present the percentage of students who believe there is a "great risk" that people will harm themselves 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.

2013

- 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 (NM). Students in grades 9–12 believe the greatest risk is associated with NM prescription opioid use, followed closely by trying cocaine. Among all students, trying marijuana ranks last in terms of potential harm.

- Perceptions of risk significantly increase with grade regarding daily smoking, NM use of a prescription opioid, and trying ecstasy, but *decrease with grade* regarding marijuana use (trying and regular use). No grade variation was evident for risk associated with regular waterpipe smoking, binge drinking each weekend, or trying cocaine.

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

- Disapproval of marijuana use (trying and regular use) and binge drinking significantly decrease as grade increases. There is no grade variation in the disapproval of trying cocaine or ecstasy.

1999–2013

☐ For the first time in a long while, there has been a significant decrease in the perceived risk associated with **marijuana** use (trying and regular) among the total sample of grades 7–12. Between 2011 and 2013, the perceived risk of trying marijuana decreased from 18.4% to 11.9%, reaching an all-time low. The perceived risk of regular marijuana use decreased from 55.8% to 44.4%. There was also a significant decrease between 2011 and 2013 in the percentage strongly disapproving of regular marijuana use (from 55.8% to 48.9%), dropping back down to a level seen a few years ago.

☐ The percentage of students in grades 7–12 who perceive there is great risk associated with **daily smoking** is significantly higher in 2013 (29.4%) compared with 2003 (24.0%), the first year of monitoring.

☐ Among grades 9–12 the perception of great risk of harm associated with trying **cocaine** is shows a significant linear increase between 1999 (36.7%) and 2013 (42.1%). There was also an increase in the percentage who strongly disapprove of trying cocaine between 1999 (39.1%) and 2013 (54.8%).

☐ Among grades 9–12 the perception of great risk associated with trying **ecstasy** significantly

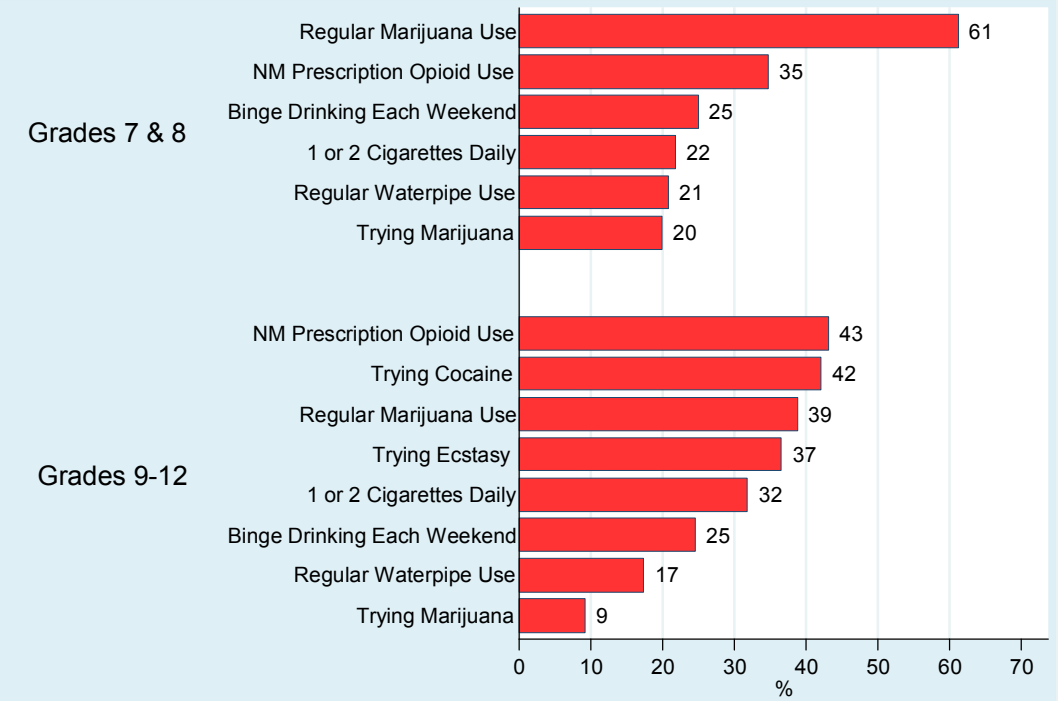
decreased between 2011 and 2013, from 43.0% to 36.6%. The 2013 estimate is similar to the estimate seen in 2001, the first year of monitoring. The percentage that strongly disapproves of trying ecstasy remains higher in 2013 (55.3%) compared with 2001 (36.0%).

1989–2013

☐ Over the long-term, perceptions of great risk associated with trying marijuana was highest in the late 1980s/early 1990s, remained stable during the 1990s and 2000s, and has decreased in recent years. Perceived risk of regular marijuana use decreased between 1989 and 2001, increased during the 2000s up until 2009, and then decreased again in recent years. Perceived risk of trying cocaine was lowest in 2001 and has gradually increased since then.

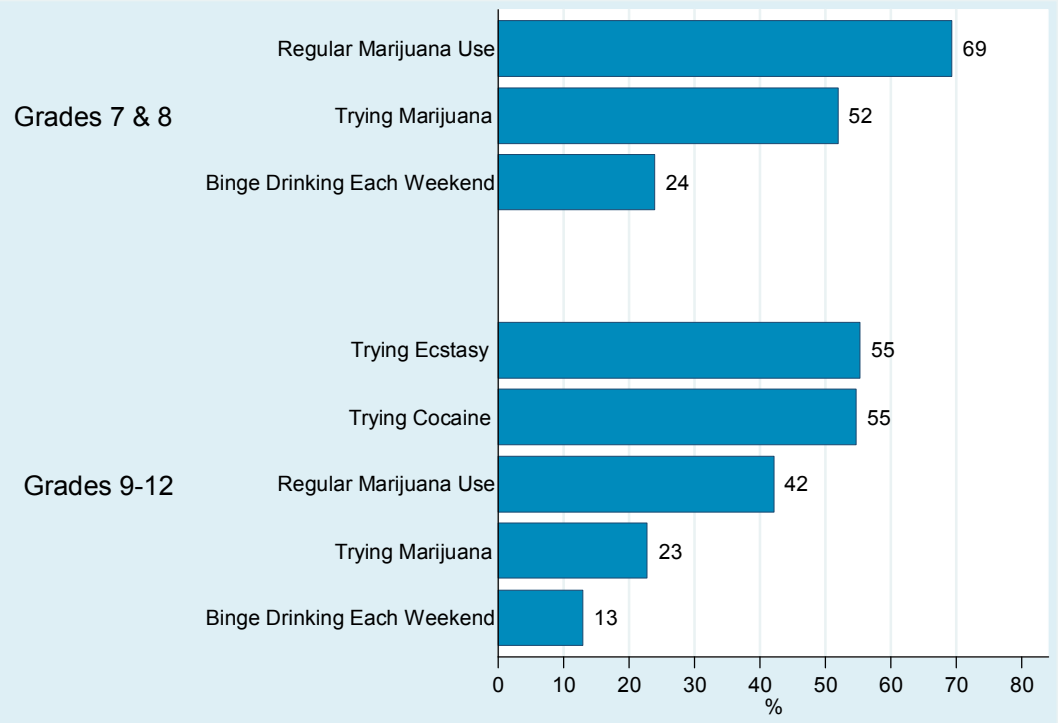
☐ Over the long-term, the disapproval of using trying marijuana was highest in the late 1980s/early 1990s, decreased during the 1990s, and increased during the 2000s. Disapproval of regular use marijuana use was highest in the late 1980s/early 1990s, decreased during the 1990s, increased during the 2000s, and recently decreased again. Disapproval of trying cocaine was lowest in 2001 and has since gradually increased.

Figure 3.11.1
Percentage Who Perceive "Great Risk" of Harm Associated with Drug Use, by Grade Level, 2013 OSDUHS



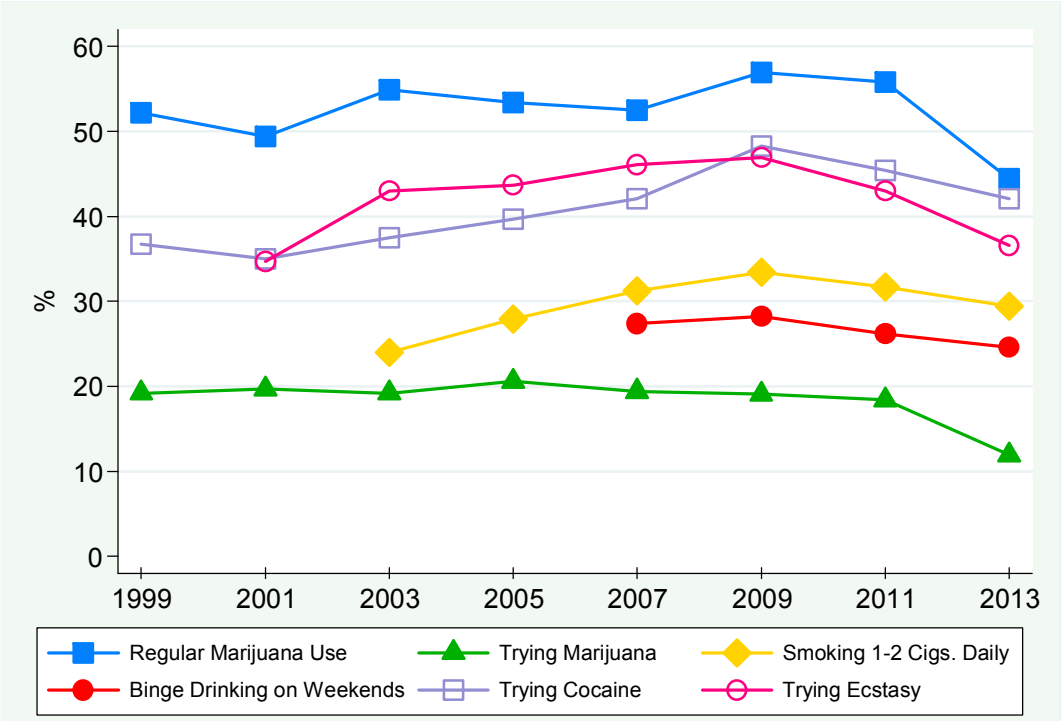
Notes: (1) NM=nonmedical use, without one's own prescription; (2) Binge Drinking=5+ drinks of alcohol on one occasion; (3) Grade 7 and 8 students were not asked about trying cocaine or trying ecstasy

Figure 3.11.2
Percentage Who "Strongly Disapprove" of Drug Use, by Grade Level, 2013 OSDUHS



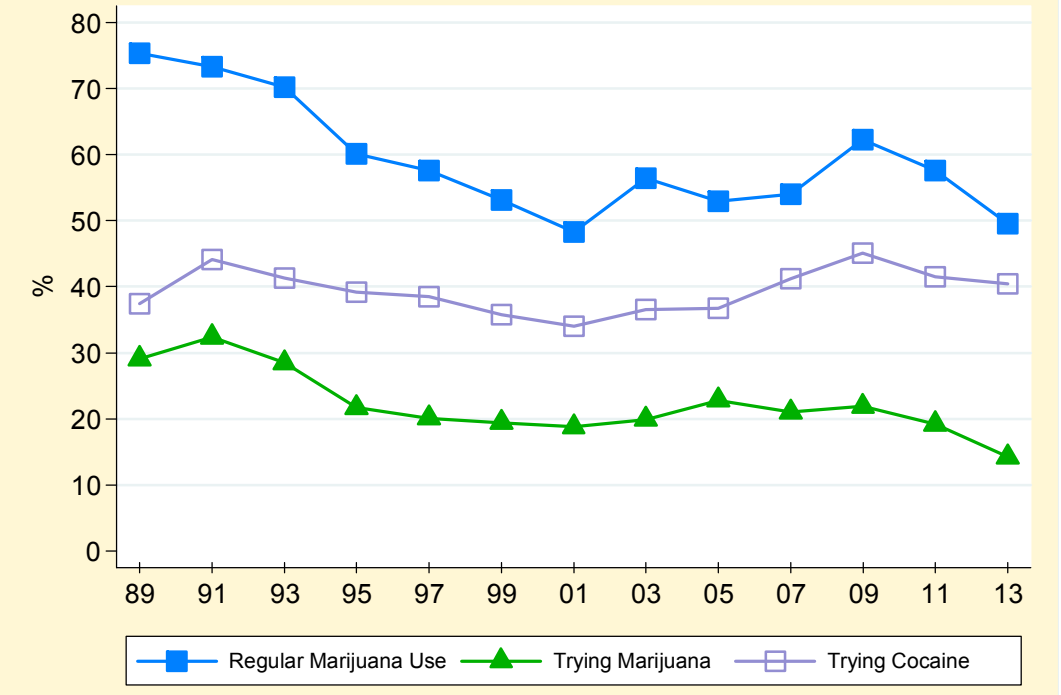
Notes: (1) Binge Drinking=5+ drinks of alcohol on one occasion; (2) Grade 7 and 8 students were not asked about trying cocaine or trying ecstasy

Figure 3.11.3
Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, 1999–2013 OSDUHS (Grades 7–12)



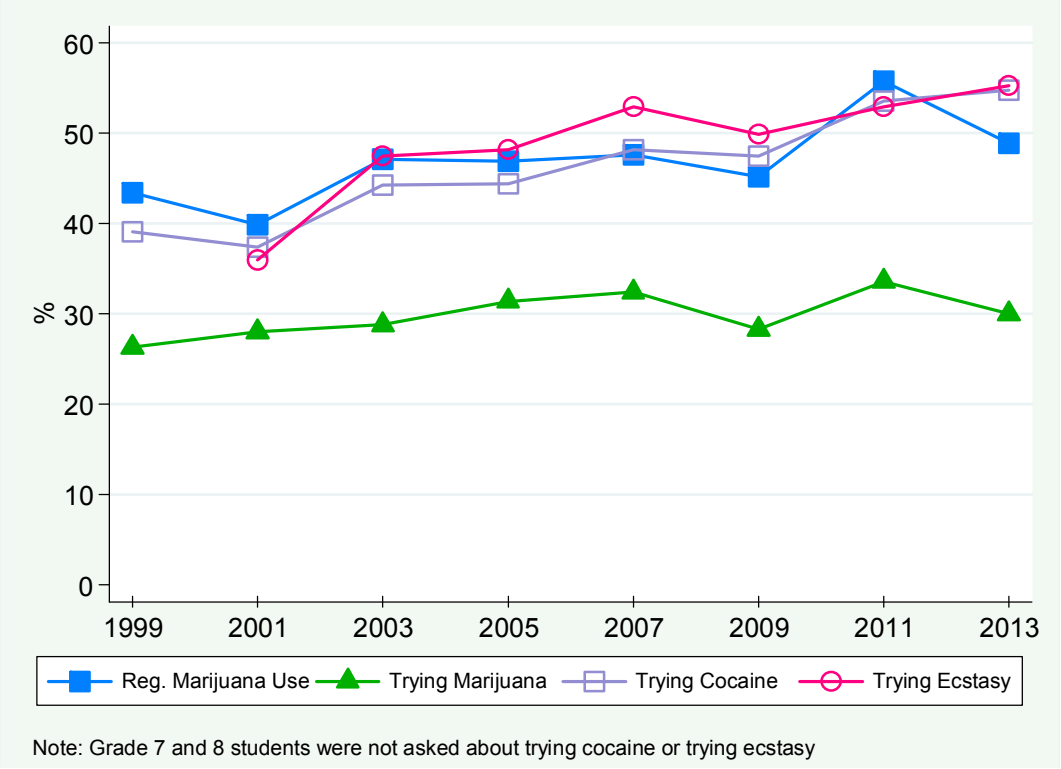
Notes: (1) Binge Drinking=5+ drinks of alcohol on one occasion; (2) Grade 7 and 8 students were not asked about trying cocaine or ecstasy

Figure 3.11.4
Percentage Who Perceive “Great Risk” of Harm Associated with Drug Use, 1989–2013 OSDUHS (Grades 7, 9, and 11 only)



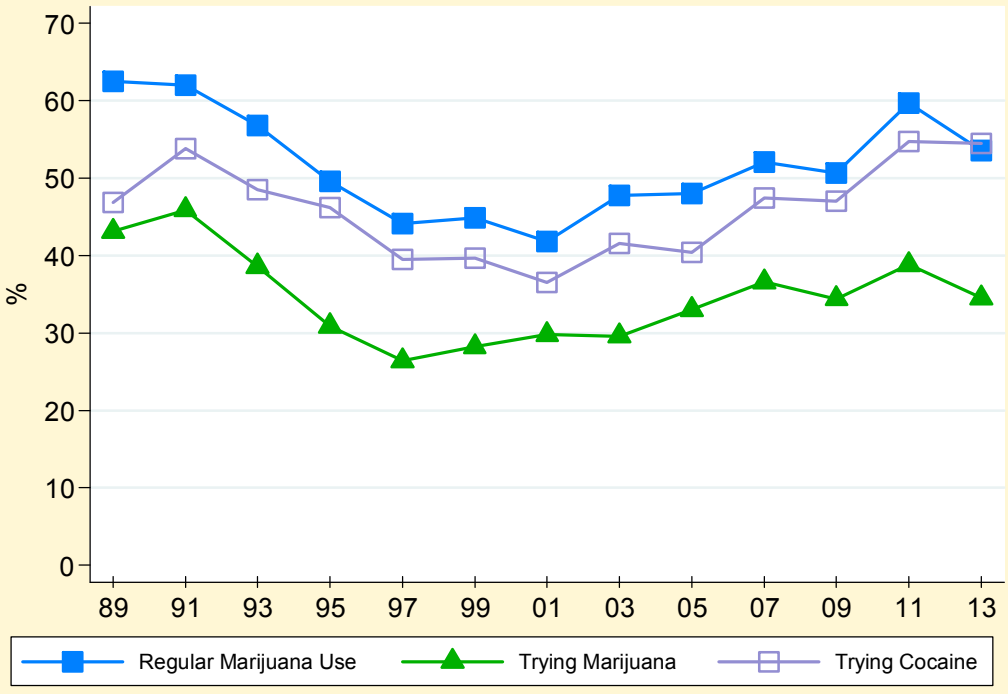
Note: Grade 7 students were not asked about trying cocaine

Figure 3.11.5
Percentage Who “Strongly Disapprove” of Drug Use, 1999–2013 OSDUHS
(Grades 7–12)



Note: Grade 7 and 8 students were not asked about trying cocaine or trying ecstasy

Figure 3.11.6
Percentage Who “Strongly Disapprove” of Drug Use, 1989–2013 OSDUHS
(Grades 7, 9, and 11 only)



Note: Grade 7 students were not asked about trying cocaine

Table 3.11.1: Percentage Who Perceive "Great Risk" of Harm Associated with Drug Use, by Grade, 1989–2013 OSDUHS

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
AMONG GRADES 7–12														
(n[1])						(4447)	(1837)	(3152)	(3648)	(2935)	(4262)	(4472)	(4974)	
(n[2])	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	
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**	abcd
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**	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	
Grade 8	—	—	—	—	—	27.7	30.5	29.4	24.7	27.0	27.1	24.8	13.9	ab
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	
Grade 10	—	—	—	—	—	13.9	16.6	13.3	18.9	14.6	17.4	19.1	12.2	
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	ab
Grade 12	—	—	—	—	—	13.8	16.0	14.6	12.9	14.2	9.6	12.4	6.1	ab
Great Risk in Smoking Marijuana Regularly														
Total [1]	—	—	—	—	—	**52.2**	**49.4**	**54.9**	**53.4**	**52.5**	**56.9**	**55.8**	**44.4**	abd
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**	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	
Grade 8	—	—	—	—	—	60.2	58.7	66.8	59.5	59.8	67.0	63.8	54.5	
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	
Grade 10	—	—	—	—	—	45.5	48.2	48.4	54.9	50.6	52.4	52.3	39.0	a
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	a
Grade 12	—	—	—	—	—	45.2	44.4	46.8	47.8	45.2	42.3	50.1	32.8	ab
Great Risk in Smoking 1 or 2 Cigarettes Daily														
Total [1]	—	—	—	—	—	—	—	**24.0**	**27.9**	**31.2**	**33.4**	**31.7**	**29.4**	bcd
Grade 7								20.4	23.2	24.0	30.3	24.7	24.0	
Grade 8								21.4	19.6	28.3	26.2	25.6	19.6	
Grade 9								22.5	28.0	28.9	35.4	25.5	29.5	
Grade 10								23.8	31.4	31.6	33.8	35.2	32.5	
Grade 11								26.0	28.8	34.5	35.7	32.8	29.6	
Grade 12								29.2	34.6	37.4	36.2	40.5	34.7	
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**	
Grade 7										32.2	31.6	30.3	27.9	
Grade 8										26.4	28.0	30.9	22.0	
Grade 9										27.3	33.1	24.3	28.1	
Grade 10										27.1	28.3	29.5	26.2	
Grade 11										29.8	27.6	25.1	25.3	
Grade 12										23.2	23.1	21.0	20.5	
Great Risk in Smoking a Waterpipe ("Hookah") Regularly														
Total [1]	—	—	—	—	—	—	—	—	—	—	—	—	**18.2**	
Grade 7													21.0	
Grade 8													20.6	
Grade 9													18.9	
Grade 10													19.1	
Grade 11													13.7	
Grade 12													18.0	

(cont'd)

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
Great Risk in Taking a Prescription Opioid Pain Reliever* Without a Prescription														
Total [1]	—	—	—	—	—	—	—	—	—	—	—	—	**41.0**	
Grade 7													35.6	
Grade 8													33.9	
Grade 9													40.9	
Grade 10													41.3	
Grade 11													43.2	
Grade 12													45.8	
AMONG GRADES 9–12 ONLY														
(n^1)						(2883)	(1179)	(2238)	(2725)	(2247)	(2728)	(3025)	(2895)	
(n^2)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(607)	(1168)	(1409)	(1150)	(1320)	(1536)	(1459)	
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**	[bcd]
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**	[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	[b]
Grade 10	—	—	—	—	—	35.4	34.3	33.7	37.6	38.2	48.8	41.8	38.9	
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	
Grade 12	—	—	—	—	—	40.8	40.2	44.0	46.6	46.9	52.9	53.4	46.8	
Great Risk in Trying Ecstasy Once or Twice														
Total [1]	—	—	—	—	—	—	**34.7**	**43.0**	**43.7**	**46.1**	**46.9**	**43.0**	**36.6**	[ad]
Grade 9							31.7	38.7	39.7	40.4	40.7	35.1	29.1	
Grade 10							31.3	43.5	42.9	42.0	45.5	40.6	36.4	
Grade 11							39.4	43.4	42.8	51.2	45.8	42.1	37.2	
Grade 12							39.8	46.9	48.8	50.2	53.2	51.0	41.2	[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) * such as Percocet, Percodan, Tylenol #3, Demerol, OxyNEO, OxyContin, or codeine; (5) [a] significant difference, 2013 vs. 2011, p<.01; [b] significant difference, 2013 vs. 1999, p<.01 (vs. 2001 for ecstasy, vs. 2003 for daily smoking); [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, 1989–2013 OSDUHS

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
AMONG GRADES 7–12														
(n^1)						(4447)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4974)	
(n^2)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	
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**	cd
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**	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	b
Grade 8	—	—	—	—	—	35.0	38.6	38.6	43.2	46.2	38.6	46.2	44.3	
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	b
Grade 10	—	—	—	—	—	18.4	19.0	27.5	31.0	28.3	22.2	29.9	27.8	b
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	
Grade 12	—	—	—	—	—	16.1	22.5	19.0	18.0	16.0	13.6	18.7	15.8	
Strongly Disapprove of Smoking Marijuana Regularly														
Total [1]	—	—	—	—	—	**43.4**	**39.9**	**47.1**	**46.9**	**47.6**	**45.2**	**55.8**	**48.9**	abcd
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**	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	b
Grade 8	—	—	—	—	—	53.5	53.5	62.3	57.8	61.4	60.4	68.2	62.5	
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	b
Grade 10	—	—	—	—	—	35.7	30.6	42.4	44.4	43.8	37.0	54.5	47.6	b
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	a
Grade 12	—	—	—	—	—	33.2	30.1	36.8	37.1	30.5	30.2	41.6	33.8	
Strongly Disapprove of Having 5 Drinks of Alcohol (Binge Drinking) Once/Twice Each Weekend														
Total [1]	—	—	—	—	—	—	—	—	—	**28.1**	**21.9**	—	**15.7**	
Grade 7										49.7	36.9		29.1	
Grade 8										37.1	29.2		19.1	
Grade 9										26.3	23.8		18.7	
Grade 10										23.6	18.3		13.2	
Grade 11										21.6	19.5		12.1	
Grade 12										16.7	11.7		9.9	
AMONG GRADES 9–12 ONLY														
(n^1)						(2883)	(1179)	(2238)	(2725)	(2247)	(2728)	(3025)	(2895)	
(n^2)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(607)	(1168)	(1409)	(1150)	(1320)	(1536)	(1459)	
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**	bc
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**	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	b
Grade 10	—	—	—	—	—	35.0	37.6	46.3	46.3	47.9	44.5	51.1	53.3	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	b
Grade 12	—	—	—	—	—	41.5	40.2	48.4	49.6	49.8	50.5	53.9	56.3	b

(cont'd)

	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
Strongly Disapprove of Trying Ecstasy Once or Twice													
Total [1]	—	—	—	—	—	—	**36.0**	**47.5**	**48.2**	**52.9**	**49.9**	**52.9**	**55.3** [bcd]
Grade 9							35.1	48.5	45.2	52.3	46.9	58.9	56.7 [b]
Grade 10							35.6	51.1	47.7	51.8	48.0	49.1	57.2 [b]
Grade 11							35.7	43.0	47.6	53.1	54.0	51.3	50.5 [b]
Grade 12							38.8	47.4	51.9	53.9	50.2	52.4	56.6 [b]

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] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 significant difference, p<.01 (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, 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.

2013

- In 2013, the three drugs that are most available to students are alcohol, cigarettes, and cannabis.

- Not surprisingly, as grade level increases, students are more likely to report that these drugs are easy to obtain.

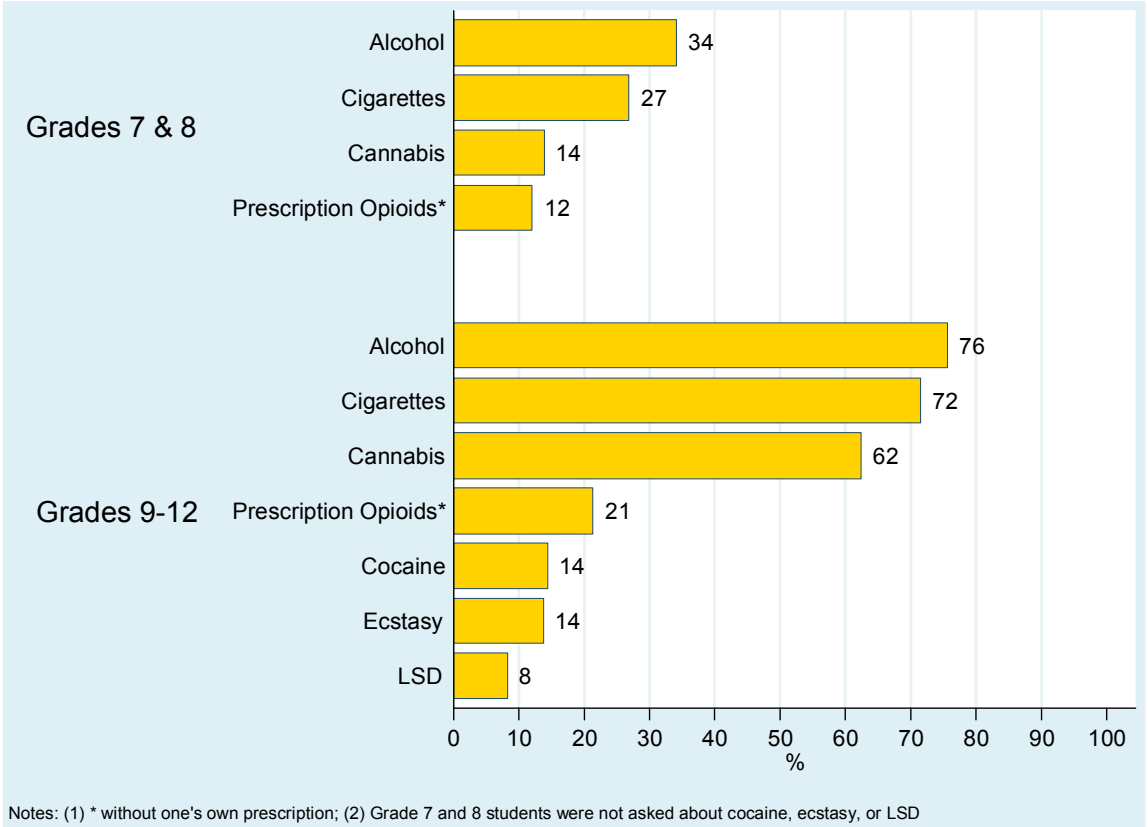
1999–2013

☐ Between 2011 and 2013, the perceived availability of alcohol, cigarettes, and cannabis significantly increased moving back up to levels seen about a decade ago. The availability of cocaine, LSD, and ecstasy significantly decreased between 1999/2001 and 2013.

1981–2013

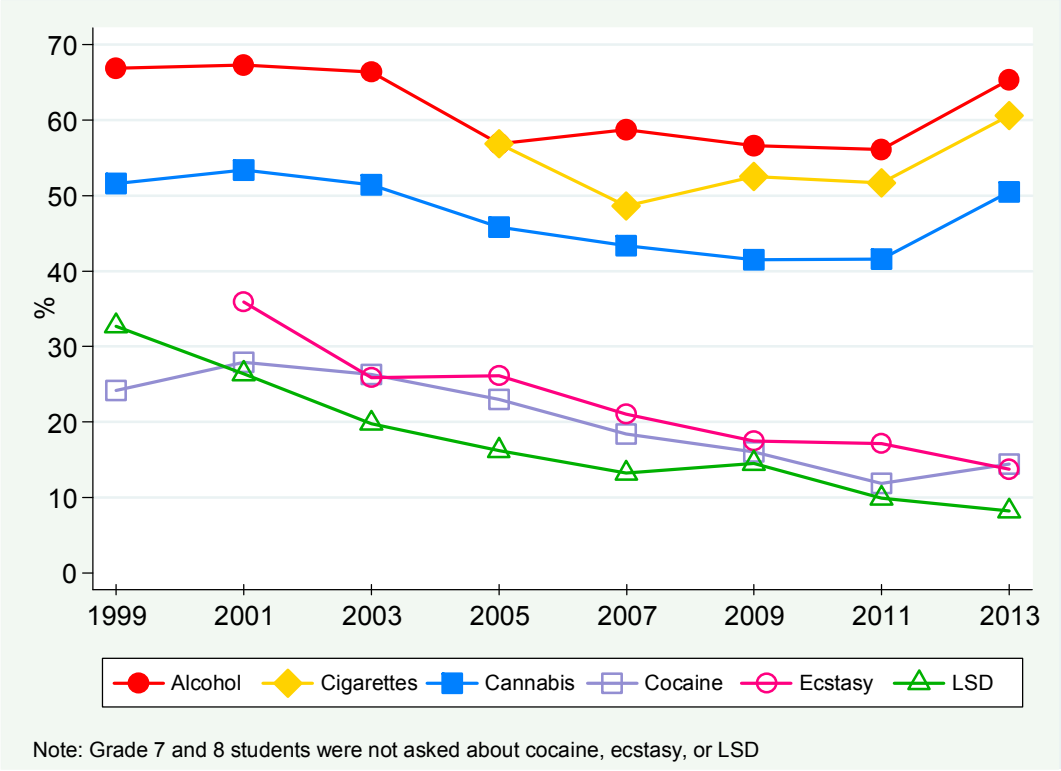
☐ The perceived availability of alcohol increased during the late 1980s/early 1990s, peaking in 1995 after which a steady decrease occurred, followed by a recent increase in 2013. The perceived availability of cannabis was elevated in the early-to-mid 1980s, decreased in the late 1980/early 1990s, peaked again up until 2001, decreased during the 2000s, and increased again in 2013. The availability of cocaine increased between 1989 and 2001, followed by a downward trend. The availability of LSD has been on a downward trend since 1995.

Figure 3.11.7
Percentage Reporting it is "Fairly Easy" or "Very Easy" to Obtain the Drug, by Grade Level, 2013 OSDUHS



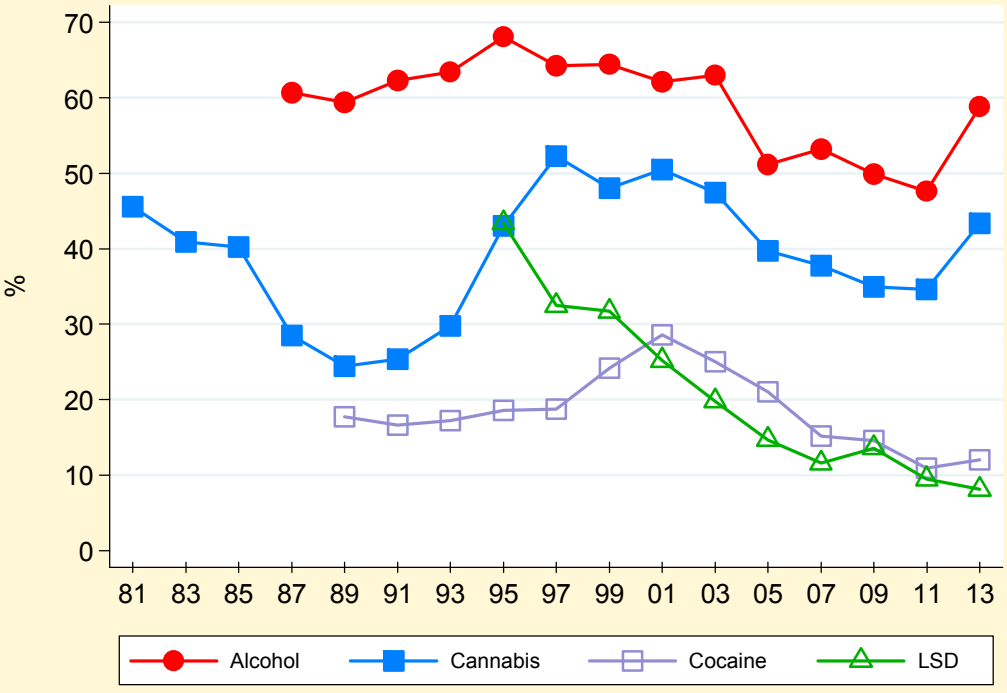
Notes: (1) * without one's own prescription; (2) Grade 7 and 8 students were not asked about cocaine, ecstasy, or LSD

Figure 3.11.8
Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, 1999–2013 OSDUHS (Grades 7–12)



Note: Grade 7 and 8 students were not asked about cocaine, ecstasy, or LSD

Figure 3.11.9
Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, 1981–2013 OSDUHS (Grades 7, 9, and 11 only)



Note: Grade 7 students were not asked about cocaine or LSD

Table 3.11.3: Percentage Reporting it is “Fairly Easy” or “Very Easy” to Obtain the Drug, by Grade, 1981–2013 OSDUHS

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
AMONG GRADES 7–12																		
(n^1)										(4447)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4974)	
(n^2)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	
Alcohol																		
Total [1]	—	—	—	—	—	—	—	—	—	**66.9**	**67.3**	**66.4**	**56.9**	**58.7**	**56.6**	**56.1**	**65.4**	acd
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**	cd
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	b
Grade 8				—	—	—	—	—	—	47.9	52.3	43.9	32.8	35.5	32.8	34.8	45.0	
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	a
Grade 10				—	—	—	—	—	—	79.2	80.0	75.1	66.0	63.8	62.1	56.3	68.3	ab
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	ab
Grade 12				—	—	—	—	—	—	87.6	89.6	86.7	83.8	84.5	82.0	85.8	86.8	
Cannabis																		
Total [1]	—	—	—	—	—	—	—	—	—	**51.6**	**53.4**	**51.4**	**45.8**	**43.4**	**41.5**	**41.6**	**50.5**	acd
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**	cd
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	b
Grade 8	—	—	—	—	—	—	—	—	—	30.9	27.6	28.4	21.4	15.7	13.5	15.6	22.0	
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	a
Grade 10	—	—	—	—	—	—	—	—	—	66.7	68.6	63.5	58.1	54.0	54.0	43.7	56.5	ab
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	
Grade 12	—	—	—	—	—	—	—	—	—	76.2	73.6	70.9	71.3	68.1	63.8	69.6	74.4	
Cigarettes																		
Total [1]	—	—	—	—	—	—	—	—	—	—	—	—	**56.9**	**48.6**	**52.5**	**51.7**	**60.6**	acd
Grade 7													18.5	17.7	12.2	14.0	19.0	
Grade 8													29.4	24.3	26.2	28.9	34.6	
Grade 9													58.1	46.1	48.2	45.3	53.5	
Grade 10													67.8	52.8	61.6	52.5	64.4	
Grade 11													76.1	67.0	72.0	69.7	76.1	
Grade 12													83.6	73.3	74.8	78.0	85.1	a
Prescription Opioid Pain Reliever*																		
Total [1]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	**19.2**	**19.2**	
Grade 7																6.6	13.4	
Grade 8																13.7	11.0	
Grade 9																22.1	14.4	
Grade 10																19.5	17.3	
Grade 11																24.4	25.6	
Grade 12																23.7	26.0	

(cont’d)

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
AMONG GRADES 9–12 ONLY																		
(n^1)										(2883)	(1179)	(2238)	(2725)	(2247)	(2728)	(3025)	(2895)	
(n^2)				(2137)	(1919)	(2020)	(1723)	(1980)	(2221)	(1655)	(607)	(1168)	(1409)	(1150)	(1350)	(1156)	(1459)	
Cocaine																		
Total [1]	—	—	—	—	—	—	—	—	—	**24.2**	**27.9**	**26.3**	**23.0**	**18.4**	**16.0**	**11.9**	**14.4**	bc
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**	cd
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	b
Grade 10				—	—	—	—	—	—	23.6	24.4	24.4	20.6	18.5	13.6	10.7	11.6	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	b
Grade 12				—	—	—	—	—	—	25.1	32.5	31.5	28.5	23.7	20.1	14.4	19.7	
LSD																		
Total [1]	—	—	—	—	—	—	—	—	—	**32.7**	**26.4**	**19.8**	**16.2**	**13.2**	**14.5**	**9.9**	**8.2**	bc
Total [2]								**43.4**	**32.5**	**31.7**	**25.2**	**19.8**	**14.7**	**11.6**	**13.6**	**9.5**	**8.1**	c
Grade 9								29.7	23.1	23.6	21.3	13.9	10.6	8.7	8.4	4.9	4.5	b
Grade 10								—	—	33.3	24.9	19.3	17.4	13.6	12.4	8.9	6.5	b
Grade 11								56.9	41.6	40.9	30.6	25.7	18.9	14.4	18.2	14.1	11.3	b
Grade 12								—	—	35.2	34.3	20.1	17.6	15.6	17.2	11.3	9.6	b
Ecstasy																		
Total [1]	—	—	—	—	—	—	—	—	—	—	**35.9**	**25.9**	**26.1**	**21.0**	**17.5**	**17.1**	**13.7**	bc
Grade 9											28.7	14.4	16.8	12.8	9.7	8.2	7.4	b
Grade 10											37.4	22.3	23.8	18.7	15.9	12.0	9.3	b
Grade 11											36.8	33.3	32.2	22.7	20.8	25.0	16.1	ab
Grade 12											46.0	34.7	30.9	28.3	21.9	21.6	19.3	b

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, OxyContin/OxyNEO, codeine, without visiting a doctor; (6) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 significant difference, p<.01 (vs. 2001 for ecstasy, vs. 2005 for 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 Cigarettes

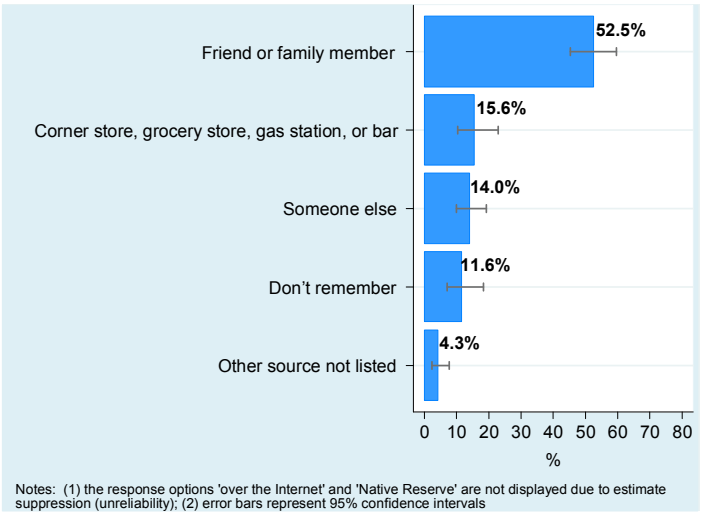
(Figure 3.11.10)

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 cigarette in the past 12 months, where did you get it from? (Please choose only one answer)*." 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; 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.

2013: Smokers in Grades 7–12

- Among underage students who reported smoking at least one whole cigarette in the past 12 months, (*n*=502), the most common source was a friend or relative, followed by a store/gas station/bar. The least common sources were the Internet and a Native Reserve (estimates suppressed).

Figure 3.11.10
Source of Previous Whole Cigarette Among Smokers Under Age 19, 2013 OSDUHS (Grades 7–12)



Notes: (1) the response options 'over the Internet' and 'Native Reserve' are not displayed due to estimate suppression (unreliability); (2) error bars represent 95% confidence intervals

Source of Alcohol

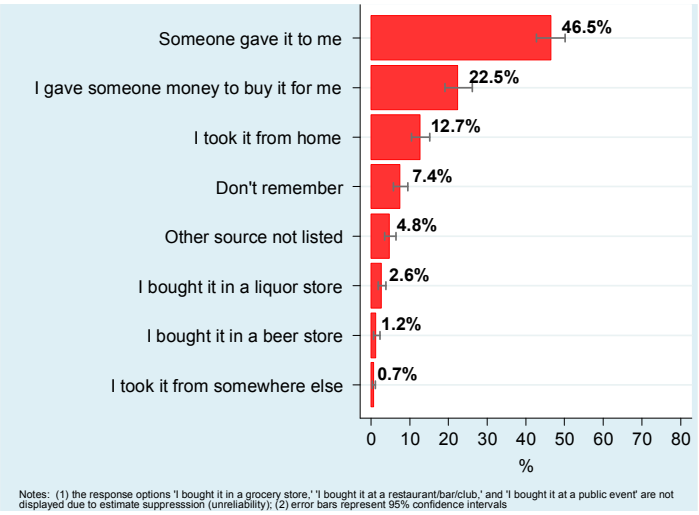
(Figure 3.11.11)

Students were asked how they usually obtain alcohol by 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: *Someone gave it to me; I took it from home; I took it from somewhere else; I bought it in a liquor 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.

2013: Drinkers in Grades 7–12

- Among underage students who reported drinking in the past 12 months, (*n*=2,355), the most common response option was being given alcohol by someone, followed by giving someone money to purchase alcohol. The least common methods of obtaining alcohol were purchasing it in a grocery store or at a public event (estimates suppressed).

Figure 3.11.11
Usual Source of Alcohol Among Drinkers Under Age 19, 2013 OSDUHS (Grades 7–12)



Notes: (1) the response options 'I bought it in a grocery store,' 'I bought it at a restaurant/bar/club,' and 'I bought it at a public event' are not displayed due to estimate suppresssion (unreliability); (2) error bars represent 95% confidence intervals

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, OxyContin, 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.

2013: Users in Grades 7–12

- Among those who used opioid pain relievers nonmedically in the past year (*n*=397), the most common source was someone at home. The least common sources were at a party and "the street."

All sources are listed below:

• a parent or sibling	63.6%
• someone else I live with	6.0%
• a friend	11.5%
• someone else I know	3.4%
• someone at a party	< 0.5%
• someone on the "street" or at a bar/club	< 0.5%
• other source not listed	3.6%
• don't remember	10.2%

3.12 School and Neighbourhood Factors

Recall of Substance Education at School

(Figure 3.12.1)

In 1998, substance use education was mandated for Ontario students in grades 1 through 8 as part of the Health and Physical Education curriculum (Ontario Ministry of Education). In 1999, Ontario introduced a curriculum for high school students stipulating that at least one Health and Physical Education credit is needed in order to graduate. Most students fulfill this requirement in 9th or 10th grade. Substance use education is a course component in both grades 9 and 10.

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?*"; (2) "*Since September, how many classes or presentations did you have that talked about cannabis (marijuana or hashish)?*"; (3) "*Since September, how many classes or presentations did you have that talked about drugs other than alcohol, tobacco, or cannabis?*" We focus on the percentage of students who recall receiving **no class or presentation** about substances. (Note that students who completed the survey in November and December were excluded from this analysis.)

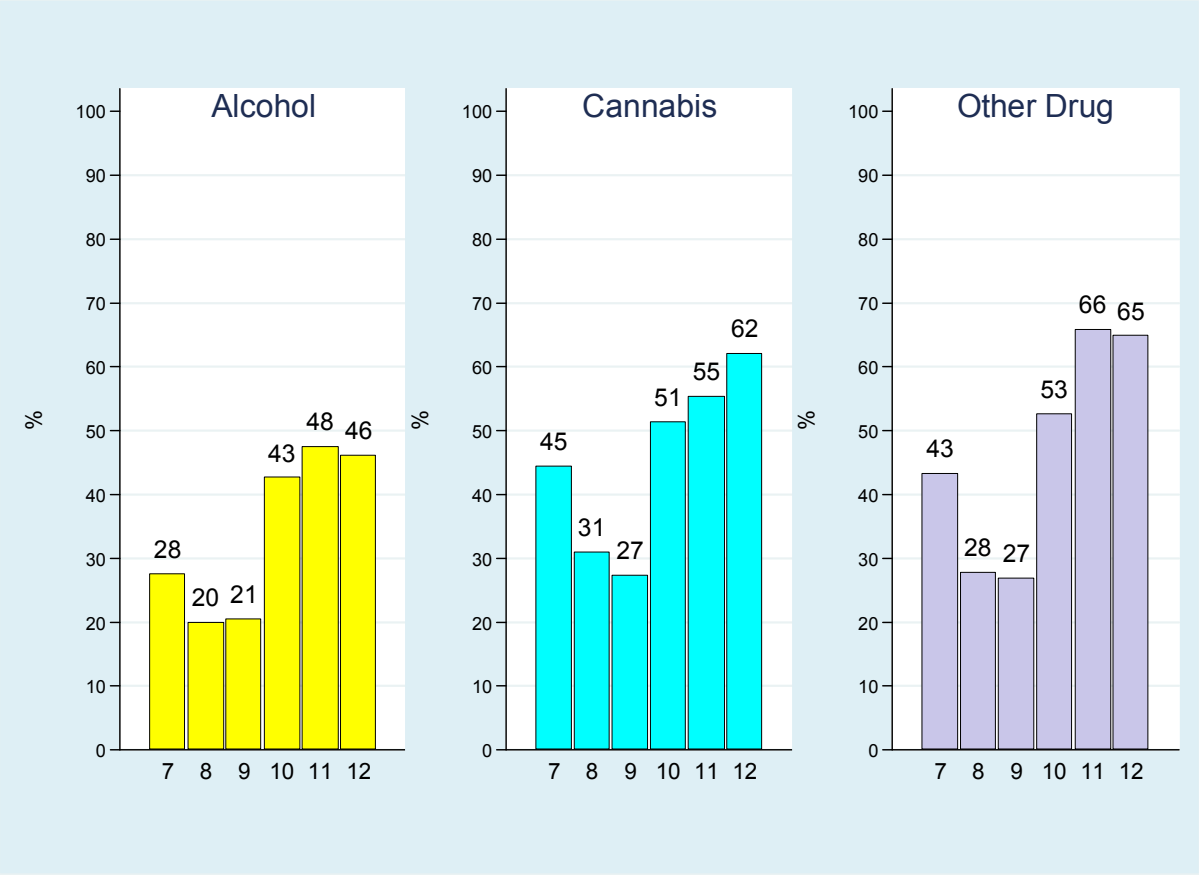
2013: Grades 7–12

- In 2013, 36.2% (95% CI: 31.7%-41.0%) of students could not recall receiving at least one class about alcohol since the start of the school year. This significantly varies by grade, and is lowest in grades 8 and 9 (about 20%).

- About 47.6% (95% CI: 43.2%-52.2%) of students could not recall at least one class about cannabis since the start of the school year. This significantly varies by grade, and is lowest in grade 9 (27.4%).

- About 49.8% (95% CI: 44.9%-54.7%) of students could not recall at least one class about other drugs. This significantly varies by grade, and is lowest in grades 8 and 9 (about 27%).

Figure 3.12.1
Percentage Recalling No Class/Presentation About the Drug Since September by Grade, 2013 OSDUHS (Grades 7–12)



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?*"

2013: Grades 7–12

- In 2013, 24.7% (95% CI: 21.8%-28.0%) of students believe that drug use in their school is a big problem, 53.0% (95% CI: 49.7%-56.3%) believe it is a small problem, and 22.2% (95% CI: 19.7%-25.0%) believe that drug use is not a problem in their school.

- Females (28.3%) are more likely than males (21.3%) to believe that drug use is a big problem in their school.

- Not surprisingly, 7th and 8th graders are least likely to indicate that drug use is a "big problem" in their school.

- There are no significant differences among the regions regarding the perception that drug use in school is a "big problem."

Trends:

☐ Since 1999, there has been no significant change in the perception that drug use is a "big problem" at school.

☐ However, this perception is significantly higher now than in 1993 (14.8%), the first year of monitoring.

Figure 3.12.2
Percentage Reporting that Drug Use at Their School is a Big Problem, Small Problem, or Not a Problem, 2013 OSDUHS (Grades 7–12)

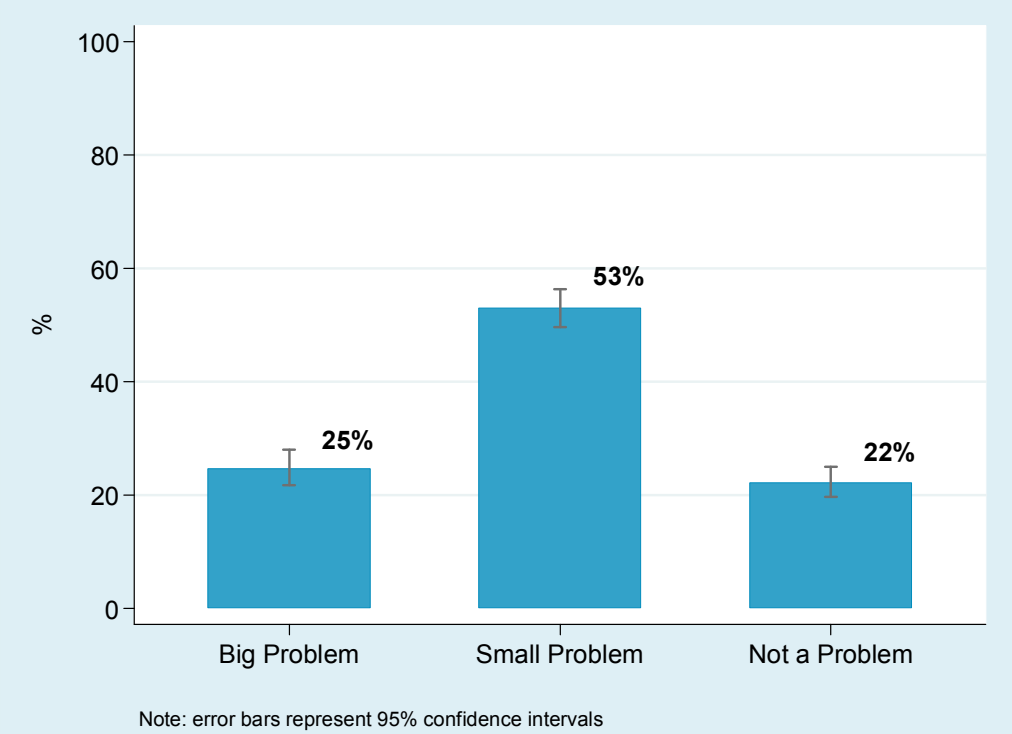


Table 3.12.1: Percentage Reporting the Perception that Drug Use at School is a "Big Problem," 1993–2013 OSDUHS

	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
(n^1)				(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)
(n^2)	(1241)	(1453)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)
Total[1] (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)
Total[2]	**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)
Sex											
Males[1]	—	—	—	22.3	26.7	25.7	23.2	22.2	20.2	21.5	21.3
Males[2]	12.7	23.3	23.9	25.8	26.9	26.3	25.6	20.8	19.7	21.2	19.7
Females[1]	—	—	—	24.6	26.5	29.7	26.9	28.1	27.7	28.5	28.3
Females[2]	16.9	28.9	26.8	26.1	24.1	30.0	22.7	26.4	25.8	26.0	27.7
Grade											
7	9.0	13.7	14.5	17.9	8.1	14.2	12.4	10.9	9.8	8.9	12.7
8	—	—	—	14.6	8.0	14.8	11.3	13.3	9.6	11.4	11.2
9	18.0	31.8	29.1	29.9	35.0	32.6	28.9	27.8	26.6	30.4	24.5
10	—	—	—	21.4	37.0	35.7	34.4	30.3	35.5	34.2	31.5
11	16.5	31.0	31.2	27.8	31.2	34.7	30.3	30.3	26.4	28.2	30.0
12	—	—	—	26.1	37.4	28.8	29.8	32.8	25.8	28.7	29.2
Region											
Toronto[1]	—	—	—	21.8	21.1	25.6	23.6	23.4	22.1	20.5	23.4
Toronto[2]	16.5	21.5	24.9	23.7	21.0	22.8	23.0	22.9	19.8	20.6	21.9
North[1]	—	—	—	26.6	30.7	31.4	30.8	32.0	28.4	33.2	28.3
North[2]	35.5	10.4	35.4	24.2	32.3	32.0	31.7	32.6	29.3	35.1	27.2
West[1]	—	—	—	25.5	29.4	29.0	28.1	27.1	23.3	26.1	24.7
West[2]	11.9	32.7	26.2	30.1	27.8	32.2	27.2	24.7	24.2	20.0	23.4
East[1]	—	—	—	20.6	25.0	26.3	20.3	21.1	24.3	24.2	25.1
East[2]	15.4	23.7	19.3	21.9	24.6	24.2	19.3	19.6	20.7	27.5	24.5

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) question asked of a random half sample in each year; (5) no significant change between 1999 and 2013 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

(Figure 3.12.3; 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 least once in the past year.

2013: Grades 7–12

- Among all students, 12.1% report that they were intoxicated at school at least once during the 12 months before the survey. This percentage represents about 109,700 Ontario students in grades 7 through 12.

- Males (12.4%) and females (11.8%) are equally likely to report being drunk or high at school.

- Students in grades 11 and 12 (about 18%) are significantly more likely than students in the lower grades to report being intoxicated at school.

- There are no significant differences among the regions.

2005–2013: Grades 7–12

☐ Between 2011 and 2013 there was a significant decrease in the percentage of students who reported being intoxicated at school at least once in the past year, from 16.0% to 12.1%. The 2013 estimate is also significantly lower than that found in 2005 (16.6%), the first year of monitoring.

Getting Drugs at School

(Figure 3.12.4; 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?"*

2013: Grades 7–12

- Among all students, 18.5% report that they had been offered, sold, or given a drug at school during the 12 months before the survey. This percentage represents about 167,600 Ontario students in grades 7 through 12.

- Males are significantly more likely than females to report having been offered, sold, or given a drug at school (22.2% vs. 14.6%, respectively).

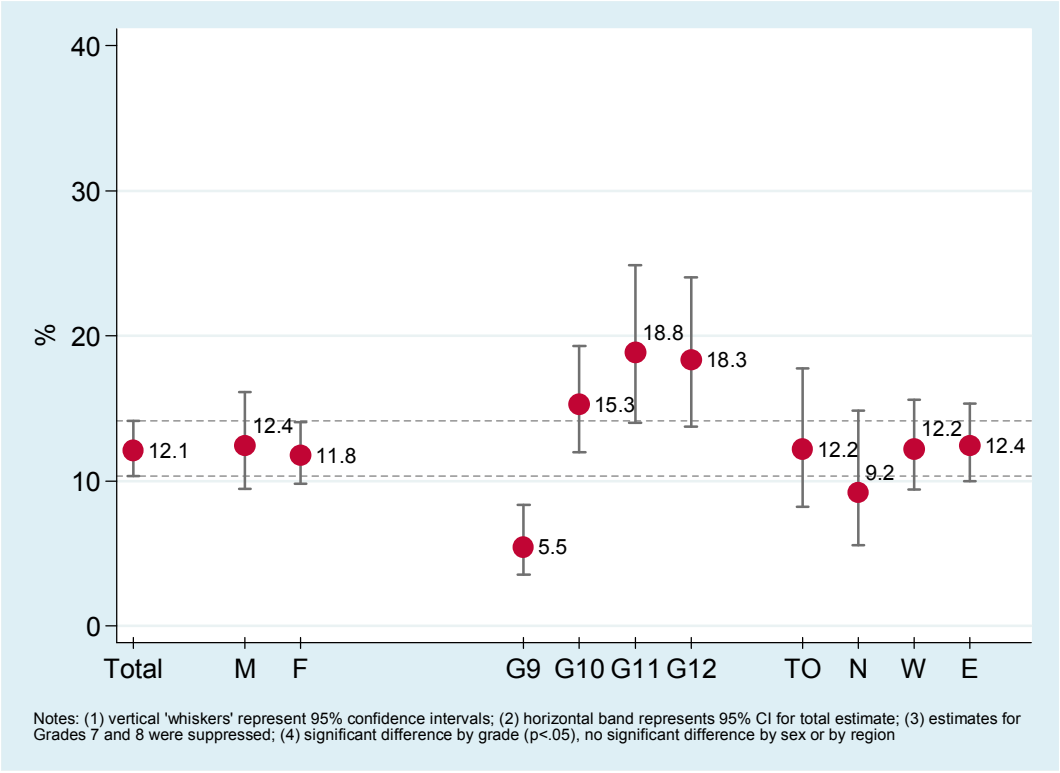
- With increasing grade, students are more likely to be offered, sold, or given a drug, peaking in grade 11 at 26.8%.

- There are no significant differences among the regions.

2005–2013: Grades 7–12

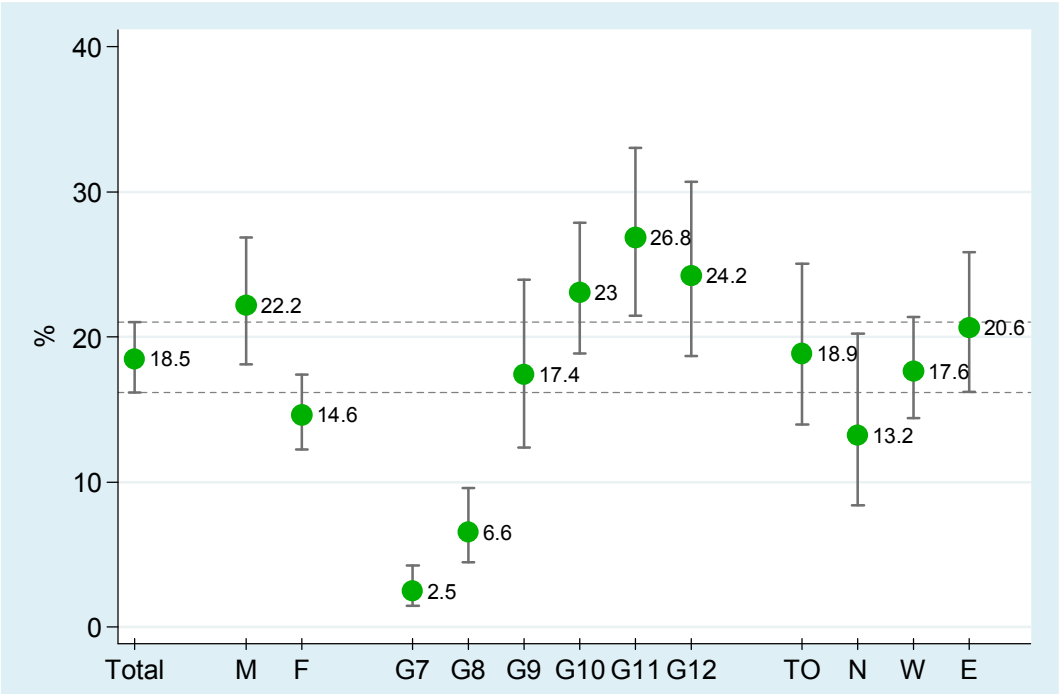
☐ Among the total sample, the 2013 estimate (18.5%) does not significantly differ from the 2011 estimate (20.3%). However, there has been a significant linear downward trend since 2005, the first year of monitoring. Students today are less likely than their counterparts in 2005 to report that someone offered, sold, or gave them a drug on school property (18.5% vs. 23.1%, respectively).

Figure 3.12.3
Percentage Reporting Being Drunk or High at School in the Past Year by Sex, Grade, and Region, 2013 OSDUHS



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

Figure 3.12.4
Percentage Reporting Having Been Offered, Given, or Sold an Illegal Drug at School in the Past Year by Sex, Grade, and Region, 2013 OSDUHS



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

Table 3.12.2: Percentage Reporting Being Drunk or High at School in the Past Year, 2005–2013 OSDUHS

	(*n*=)	2005 (3648)	2007 (2935)	2009 (4261)	2011 (4472)	2013 (4794)
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** [abc] (10.3-14.1)
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** [b] (9.5-16.1)
	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)
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** [b] (3.5-8.3)
	10	**22.0** (18.4-25.9)	**18.4** (13.7-24.3)	**21.4** (16.8-26.9)	**20.4** (14.6-27.7)	**15.3** [b] (12.0-19.3)
	11	**27.8** (22.7-33.5)	**21.8** (17.7-26.6)	**22.9** (18.4-28.1)	**25.1** (19.4-32.0)	**18.8** (14.0-24.9)
	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)
Region						
	Toronto	**13.8** (11.0-17.3)	**14.0** (9.6-20.0)	**13.3** (9.6-18.0))	**12.4** (8.9-17.0)	**12.2** (8.2-17.8)
	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** [a] (5.5-14.8)
	West	**17.9** (15.2-21.0)	**15.8** (13.2-18.8)	**16.9** (13.8-20.7)	**19.2** (15.5-23.6)	**12.2** [b] (9.4-15.6)
	East	**16.3** (13.1-20.0)	**14.1** (10.9-18.1)	**15.1** (12.9-17.6)	**13.4** (11.6-15.4)	**12.4** (10.0-15.3)

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) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 vs. 1999 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, 2005–2013 OSDUHS

		2005	2007	2009	2011	2013
	(*n*=)	(3648)	(2935)	(4261)	(4472)	(4794)
Total		**23.1**	**21.1**	**22.7**	**20.3**	**18.5** [bc]
(95% CI)		(21.0-25.4)	(18.8-23.6)	(20.8-24.7)	(18.5-22.3)	(16.2-21.0)
Sex						
	Males	**26.1**	**24.2**	**26.1**	**23.6**	**22.2**
		(23.4-29.0)	(20.8-27.9)	(23.5-29.0)	(20.7-26.7)	(18.1-26.9)
	Females	**19.9**	**17.7**	**18.8**	**16.7**	**14.6** [b]
		(17.5-22.6)	(15.5-20.1)	(16.8-21.1)	(13.8-20.0)	(12.2-17.4)
Grade						
	7	**3.3**	**4.6**	†	†	**2.5**
		(2.0-5.6)	(2.6-8.0)			(1.4-4.2)
	8	**5.5**	**5.2**	**4.9**	**6.2**	**6.6**
		(3.5-8.4)	(3.2-8.3)	(3.1-7.5)	(3.5-10.8)	(4.4-9.6)
	9	**26.2**	**22.5**	**23.2**	**17.9**	**17.4**
		(21.8-31.2)	(17.9-27.8)	(18.4-28.9)	(14.5-21.8)	(12.4-24.0)
	10	**30.1**	**26.1**	**31.5**	**28.0**	**23.0**
		(25.3-35.3)	(20.4-32.7)	(27.1-36.4)	(22.1-34.8)	(18.8-27.8)
	11	**34.4**	**32.4**	**35.9**	**30.9**	**26.8**
		(29.5-39.8)	(27.8-37.4)	(30.5-41.7)	(25.7-36.7)	(21.4-33.0)
	12	**35.1**	**30.3**	**28.9**	**27.0**	**24.2** [b]
		(30.3-40.2)	(26.0-35.0)	(23.5-35.0)	(23.8-30.4)	(18.7-30.7)
Region						
	Toronto	**21.2**	**20.0**	**18.0**	**18.9**	**18.9**
		(16.0-27.7)	(14.3-27.4)	(13.6-23.3)	(14.6-24.1)	(13.9-25.0)
	North	**22.4**	**22.7**	**27.3**	**20.1**	**13.2**
		(17.9-27.8)	(16.8-30.0)	(21.8-33.5)	(17.0-23.6)	(8.4-20.2)
	West	**25.3**	**20.5**	**24.4**	**21.1**	**17.6** [b]
		(22.1-28.8)	(17.0-24.5)	(21.2-27.8)	(18.2-24.4)	(14.4-21.4)
	East	**21.3**	**22.2**	**22.0**	**20.1**	**20.6**
		(17.8-25.3)	(18.6-26.4)	(19.3-25.0)	(17.2-23.4)	(16.2-25.8)

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 2013 vs. 2011; [b] 2013 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

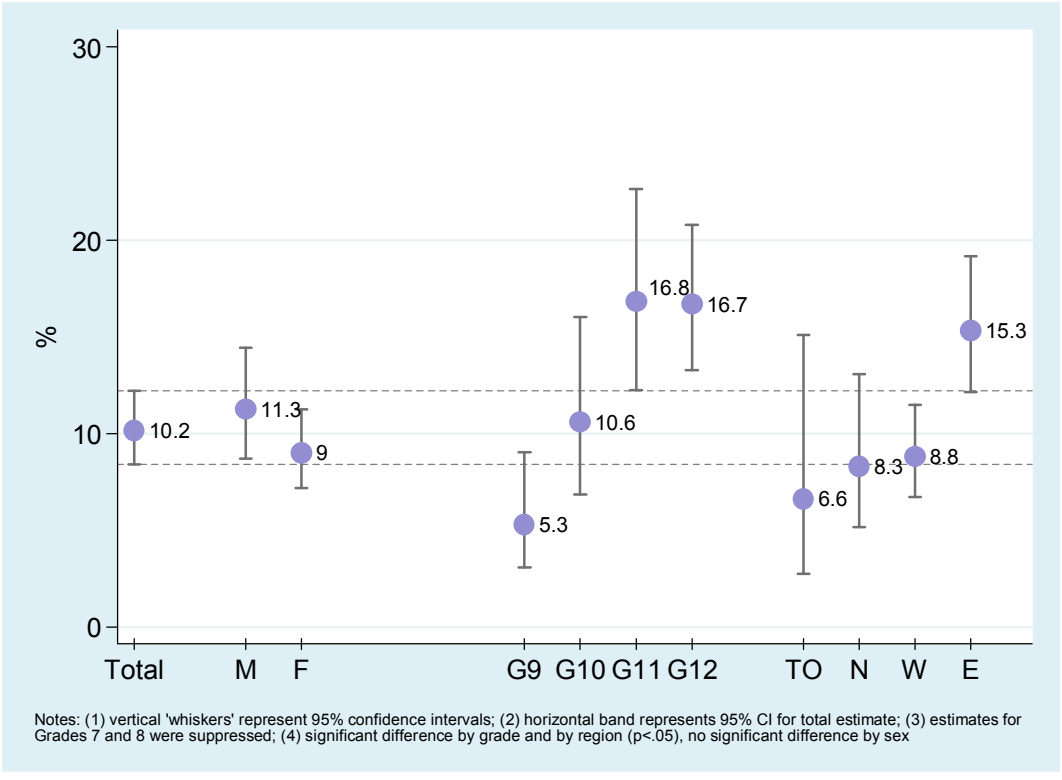
(Figure 3.12.5)

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: (1) *None of my friends*; (2) *Some of my friends*; (3) *About half of my friends*; (4) *Most of my friends*; (5) *All of my friends*; or (6) *Don't know*. Here we present the percentage of students who report that most or all of their closest friends use drugs.

2013: Grades 7–12

- Among the total sample, 10.2% (95% CI: 8.4%-12.2%) of students in grades 7 through 12 report that most or all their friends use drugs.
- Males (11.3%) and females (9.0%) are equally likely 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 (about 16%).
- There are significant regional differences showing that students in Toronto (6.6%) are least likely, while students in the East are most likely (15.3%), to report that most or all their friends use drugs.

Figure 3.12.5
Percentage Reporting that Most or All of Their Closest Friends Use an Illegal Drug by Sex, Grade, and Region, 2013 OSDUHS



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

Exposure to Drug Selling

(Figures 3.12.6, 3.12.7; 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.

2013: Grades 7–12

- In 2013, one-quarter (25.2%) of students report that someone had tried to sell them drugs during the past year. This estimate represents about 228,700 students in grades 7 through 12 in Ontario.

- Males and older students are more likely to report that someone tried to sell drugs to them. Despite some regional variation, there are no significant differences among the four regions.

- Just over one-fifth (21.1%) of students – an estimated 191,400 in Ontario – report seeing someone selling drugs in their neighbourhood in the past year.

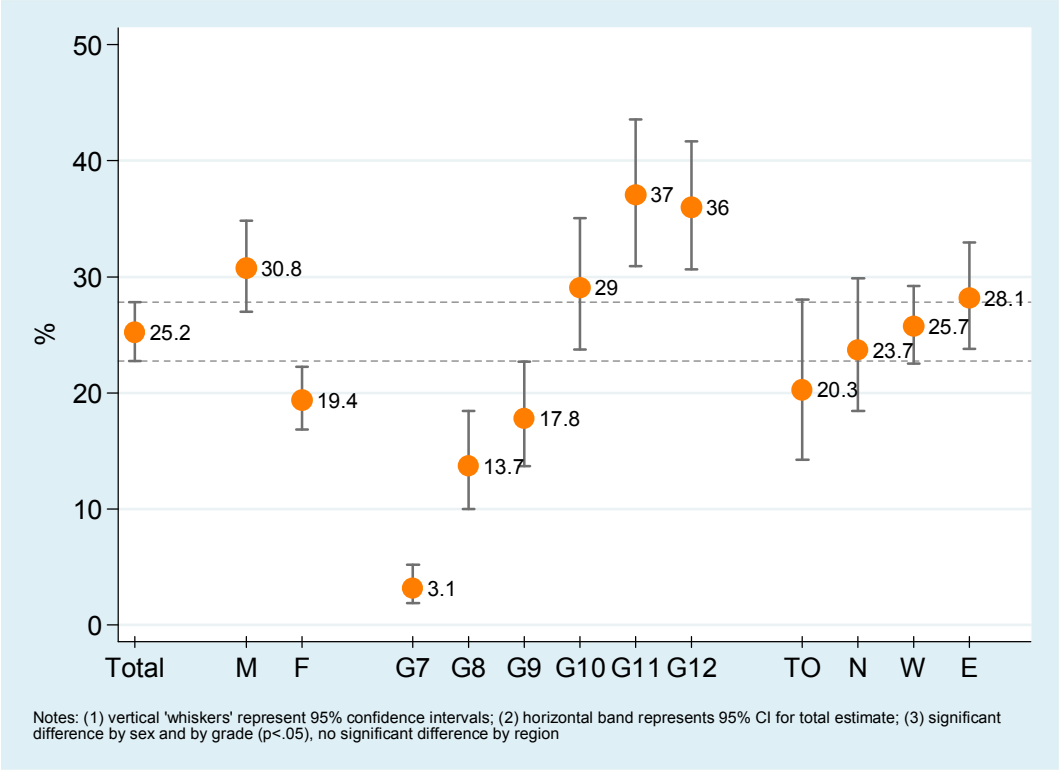
- There is no significant difference between males and females regarding witnessing drug selling in the neighbourhood. Older students are more likely to witness drug selling. Despite some regional variation, there are no significant differences among the four regions in witnessing drug selling in the neighbourhood.

1999–2013: Grades 7–12

- Among the total sample, the percentage reporting that someone had tried to sell them drugs in 2013 (25.2%) is similar to the percentage from 2011 (26.8%). The percentage significantly increased between 1999 and 2001 and has been a downward trend since then.

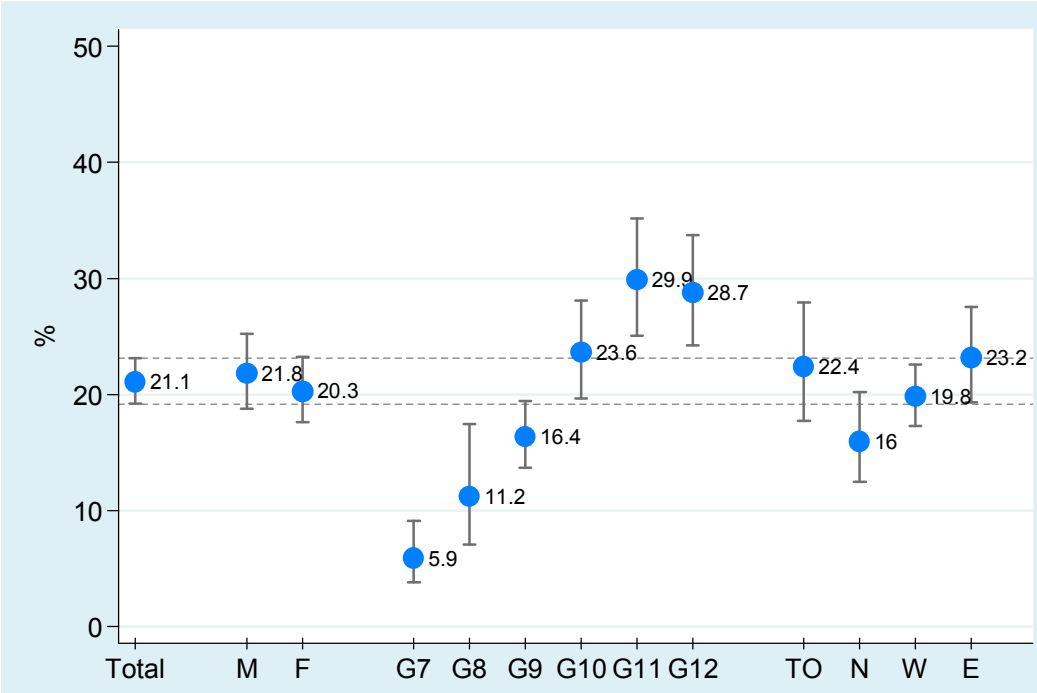
- The percentage of students in 2013 (21.1%) witnessing drug selling in their neighbourhood is significantly lower than the percentage from 2011 (26.0%). Between 1999 and 2003, the percentage remained stable, declined in 2005, followed by stability, and another decline between 2009 and 2013. The 2013 estimate is the lowest on record.

Figure 3.12.6
Percentage Reporting that Someone Had Tried to Sell Them Drugs in the Past Year by Sex, Grade, and Region, 2013 OSDUHS



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

Figure 3.12.7
Percentage Reporting Witnessing Drug Selling in Their Neighbourhood in the Past Year by Sex, Grade, and Region, 2013 OSDUHS



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

Table 3.12.4: Percentage Reporting that Someone Tried to Sell Drugs to Them in the Past Year, 1995–2013 OSDUHS

	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n^1)			(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	
(n^2)	(2907)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	
Total[1] (95% CI)	—	—	**35.4** (32.7-38.3)	**38.8** (35.3-42.5)	**36.7** (34.4-39.1)	**33.0** (30.8-35.2)	**31.0** (28.1-34.0)	**32.2** (30.2-34.2)	**26.8** (24.2-29.5)	**25.2** (22.8-27.8)	bcd
Total[2]	**30.6** (28.0-33.3)	**31.0** (28.8-33.2)	**34.5** (31.2-38.0)	**37.3** (32.4-42.6)	**34.8** (31.9-37.8)	**30.5** (27.5-33.7)	**27.1** (23.9-30.6)	**28.3** (25.6-31.1)	**22.8** (20.4-25.3)	**21.3** (18.1-25.0)	cd
Sex											
Males[1]	—	—	42.8	45.6	45.3	37.8	35.6	38.7	30.0	30.8	b
Males[2]	35.1	38.9	42.5	43.9	44.6	34.2	30.6	34.6	24.9	28.1	
Females[1]	—	—	27.9	32.4	28.7	27.6	25.8	24.9	23.1	19.4	b
Females[2]	26.4	24.1	26.4	31.0	25.8	26.8	23.2	21.2	20.5	14.1	
Grade											
7	11.3	11.7	11.5	13.1	11.9	8.5	10.8	5.7	5.4	3.1	b
8	—	—	23.1	20.2	21.0	16.2	14.2	14.0	10.1	13.7	b
9	30.4	33.5	36.8	46.6	36.8	35.1	29.0	28.1	20.9	17.8	b
10	—	—	45.2	53.7	47.2	43.7	41.5	41.2	33.5	29.0	b
11	46.9	45.3	51.2	50.8	51.2	46.4	39.9	45.4	38.3	37.0	b
12	—	—	44.9	42.0	44.8	43.6	43.4	45.4	39.8	36.0	
Region											
Toronto[1]	—	—	27.8	29.3	32.6	24.4	29.1	27.0	20.9	20.3	
Toronto[2]	27.8	26.7	29.7	32.0	30.5	23.6	21.2	19.4	17.9	18.2	
North[1]	—	—	36.0	34.9	35.8	36.2	35.2	44.2	33.1	23.7	b
North[2]	31.4	35.6	32.4	31.1	39.2	33.0	28.9	38.5	28.6	19.2	
West[1]	—	—	38.9	43.3	39.0	35.1	29.5	32.2	26.4	25.7	b
West[2]	32.4	32.5	37.6	43.5	37.2	30.7	27.0	29.9	21.3	20.0	
East[1]	—	—	34.7	39.7	36.1	34.8	33.6	32.8	29.3	28.1	
East[2]	29.5	30.2	33.6	34.5	32.7	34.0	30.6	29.2	26.1	26.4	

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) question asked of a random half sample in each year except 1995; (4) no significant differences 2013 vs. 2011; [b] 2013 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, 1995–2013 OSDUHS

	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	
(n^1)			(2148)	(1837)	(3152)	(3648)	(2935)	(4261)	(4472)	(4794)	
(n^2)	(2907)	(1527)	(1168)	(953)	(1618)	(1862)	(1488)	(2069)	(2254)	(2433)	
Total[1] (95% CI)	—	—	**31.4** (28.5-34.4)	**32.1** (29.0-35.3)	**32.0** (29.9-34.3)	**27.0** (25.0-29.2)	**28.0** (25.6-30.5)	**28.3** (26.1-30.7)	**26.0** (23.9-28.1)	**21.1** (19.2-23.1)	abcd
Total[2]	**24.5** (21.8-27.5)	**25.5** (22.8-28.4)	**29.3** (25.2-33.7)	**31.9** (27.3-36.8)	**31.5** (28.8-34.2)	**24.7** (22.1-27.4)	**26.7** (24.0-29.6)	**23.6** (21.0-26.5)	**21.9** (19.5-24.5)	**18.8** (16.5-21.4)	cd
Sex											
Males[1]	—	—	36.2	37.6	37.7	29.9	29.4	30.8	27.4	21.8	ab
Males[2]	26.7	30.6	35.2	36.9	38.5	27.0	28.2	26.9	22.5	22.0	
Females[1]	—	—	26.5	26.8	26.7	23.9	26.4	25.6	24.4	20.3	b
Females[2]	22.6	21.0	23.2	27.0	25.0	22.3	25.0	20.0	21.3	15.5	
Grade											
7	8.7	12.8	12.2	14.2	14.3	7.8	12.5	10.2	5.8	5.9	b
8	—	—	22.8	17.8	22.3	13.4	13.1	14.0	10.6	11.2	b
9	24.4	26.4	27.5	36.6	30.8	28.1	30.0	26.3	21.2	16.4	b
10	—	—	43.8	39.9	36.7	34.0	35.3	34.8	30.6	23.6	b
11	38.0	35.6	45.8	44.2	46.2	36.9	36.2	31.4	35.4	29.9	b
12	—	—	38.7	36.7	37.2	38.2	35.7	42.6	39.6	28.7	ab
Region											
Toronto[1]	—	—	26.3	31.1	30.7	23.6	28.9	28.0	19.3	22.4	
Toronto[2]	26.2	26.8	26.7	34.4	30.3	22.6	23.8	24.4	18.5	18.5	
North[1]	—	—	33.0	26.0	27.6	27.8	29.9	24.1	26.8	16.0	ab
North[2]	27.7	24.4	29.0	21.2	28.4	23.8	29.4	21.5	22.1	14.1	
West[1]	—	—	32.5	33.0	33.7	27.5	27.4	28.4	28.6	19.8	ab
West[2]	25.2	26.3	29.4	33.8	34.3	24.2	27.6	24.2	21.8	18.7	
East[1]	—	—	32.3	33.0	31.5	28.4	27.9	29.2	25.9	23.2	b
East[2]	21.5	23.8	30.7	29.3	28.4	26.8	26.5	22.8	23.7	20.1	

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) question asked of a random half sample in each year except 1995; (4) [a] 2013 vs. 2011 significant difference, p<.01; [b] 2013 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 http://www.lhins.on.ca). This section provides the 2013 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. Due to small sample sizes, some adjacent LHINs were merged. The ten LHIN areas presented here are:

- Erie St. Clair & South West (merged)
- Waterloo Wellington
- Hamilton Niagara Haldimand Brant
- 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

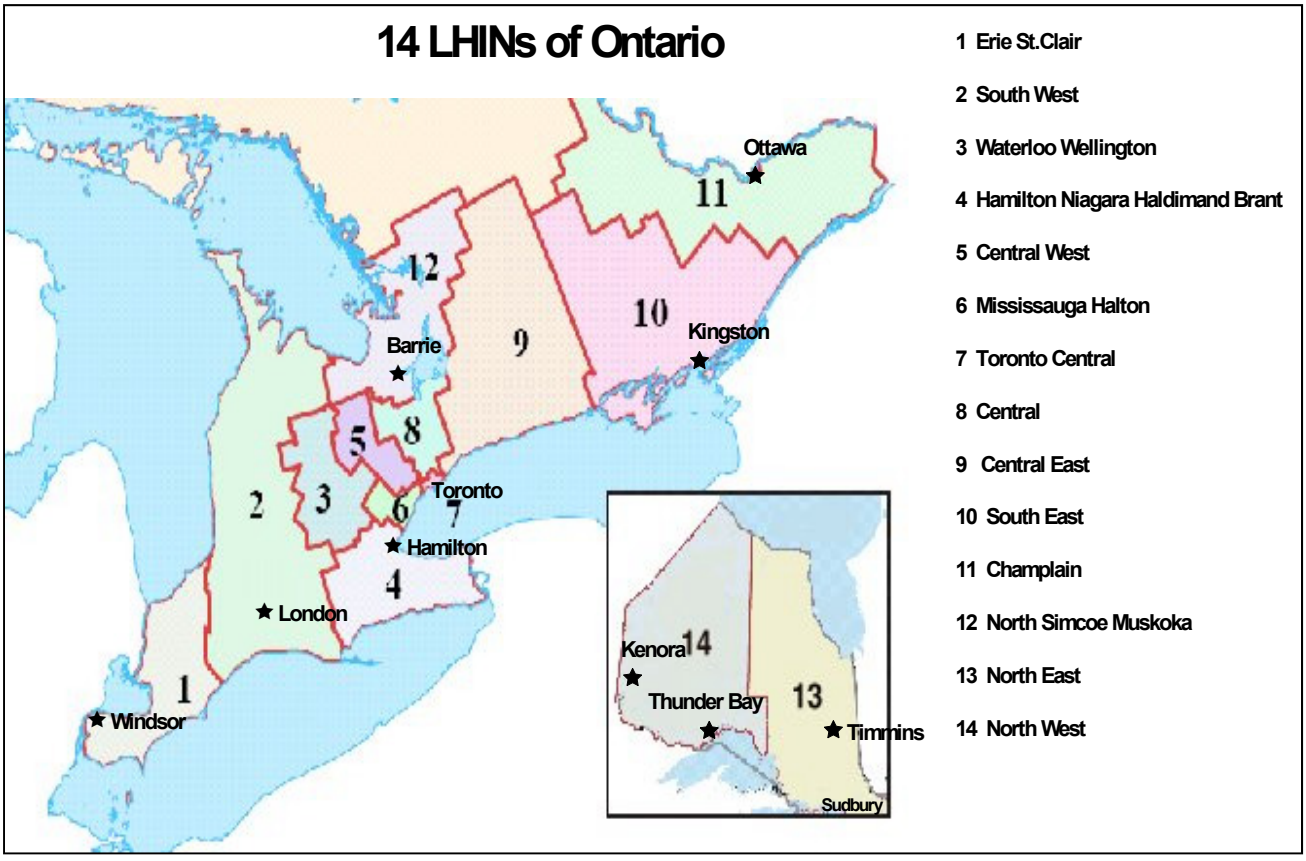


Table 3.13.1: Percentage of Secondary Students (**Grades 9–12**) Reporting Drug Use in the Past Year and Other Selected Indicators, by Local Health Integration Network (LHIN) Areas, 2013 OSDUHS

	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=)*	*(239)* *(5)*	*(221)* *(4)*	*(301)* *(5)*	*(726)* *(12)*	*(781)* *(11)*	*(1,305)* *(22)*	*(832)* *(16)*	*(247)* *(5)*	*(833)* *(13)*	*(674)* *(16)*	*(6,159)* *(109)*
Cigarettes (95% CI)	**11.8** (8.1-17.0)	**9.0** (6.2-13.0)	**9.3** (5.0-16.6)	**14.4** (8.9-22.5)	**7.5** (4.9-11.4)	**13.7** (9.2-20.1)	**8.7** (6.1-12.4)	**11.0** (8.0-15.0)	**10.5** (7.6-14.4)	**9.6** (6.8-13.2)	**10.7** (9.1-12.6)
Smokeless (Chewing) Tobacco	†	**8.9** (4.4-16.9)	**10.2** (6.6-15.3)	†	†	**6.0** (3.6-10.0)	**6.6** (3.8-11.4)	†	**9.1** (5.6-14.7)	†	**7.3** (5.9-9.0)
Waterpipe ("Hookah")	**7.5** (4.5-12.4)	**7.5** (4.1-13.3)	**15.3** (9.0-24.8)	**14.2** (8.6-22.6)	**14.3** (11.1-18.2)	**14.8** (9.6-22.0)	**12.1** (9.1-16.0)	**11.1** (6.5-18.2)	**12.2** (8.4-17.6)	**11.6** (6.4-20.2)	**12.5** (10.6-14.8)
Electronic Cigarettes (Lifetime Use)	**20.2*** (15.2-26.2)	† 	**10.2** (5.3-18.8)	**15.6** (9.0-25.6)	**8.4**** (5.7-12.3)	**16.0** (13.0-19.5)	**9.9** (5.8-16.6)	**13.5** (7.3-23.5)	**19.7*** (15.6-24.7)	**17.4** (9.9-28.9)	**14.6** (12.3-17.3)
Alcohol	**64.3** (51.0-75.6)	**63.5** (47.3-77.1)	**63.7** (59.3-67.9)	**50.2*** (41.1-59.2)	**48.9**** (41.0-56.8)	**54.7** (44.5-64.5)	**61.2** (50.3-71.1)	**64.9** (58.2-71.1)	**63.1** (55.8-69.9)	**72.5**** (65.7-78.4)	**60.0** (56.6-63.3)
Alcohol Mixed with an Energy Drink	**17.6** (12.3-24.5)	**18.4** (10.9-29.3)	**21.2** (11.6-35.5)	**21.1** (15.1-28.6)	**14.0** (9.4-20.3)	**16.2** (10.3-24.7)	**18.4** (14.2-23.6)	**20.5** (10.4-36.5)	**28.0**** (22.6-34.1)	**18.7** (13.4-25.6)	**19.2** (16.5-22.1)
Binge Drinking (Past Month)	**28.7** (24.6-33.2)	**28.1** (18.1-40.8)	**28.7** (20.9-38.1)	**20.5** (13.6-29.7)	**14.9**** (11.4-19.2)	**19.8** (13.4-28.3)	**25.6** (19.7-32.7)	**29.5** (22.0-38.2)	**29.2** (24.9-33.8)	**37.0**** (32.2-42.2)	**25.4** (23.1-27.9)
Drunkenness (Past Month)	**25.7** (21.0-31.0)	**27.0** (16.5-41.0)	**25.4** (17.3-35.5)	**17.9** (12.1-25.5)	**12.0**** (8.6-16.5)	**18.3** (11.2-28.4)	**23.1** (18.0-29.1)	**27.0** (21.8-33.0)	**26.6*** (23.2-30.4)	**29.2**** (26.2-32.3)	**22.7** (20.4-25.3)
Cannabis	**25.7** (19.6-32.8)	**28.9** (22.0-37.1)	**33.9** (23.8-45.6)	**30.5** (21.5-41.2)	**20.5**** (17.0-24.6)	**29.0** (20.2-39.7)	**29.9** (23.8-36.8)	**25.4** (21.6-29.7)	**30.4** (23.9-37.9)	**30.8** (24.3-38.3)	**29.2** (26.2-32.2)
Cannabis and Alcohol (Same Occasion)	**16.7** (9.1-28.6)	**20.2** (13.5-29.1)	**24.2** (14.7-37.2)	**19.7** (15.4-24.9)	**13.1*** (8.9-18.9)	**17.9** (9.0-32.5)	**23.1** (16.4-31.3)	**27.1** (19.2-36.8)	**25.4** (19.0-33.1)	**20.1** (12.4-31.0)	**20.5** (17.4-241)
Cocaine	**2.1** (1.5-2.9)	†	†	†	**1.3** (0.7-2.4)	**2.5** (1.4-4.2)	**2.2** (1.2-3.7)	**3.7** (2.3-5.9)	**2.0** (1.0-4.0)	†	**2.4** (1.7-3.4)
Opioid Pain Relievers (NM)	**11.2** (7.7-16.1)	**12.2** (8.9-16.4)	**15.6** (12.5-19.3)	**16.5**** (14.1-19.2)	**15.5** (10.9-21.5)	**15.6*** (12.8-19.0)	**14.3** (9.8-20.4)	**10.5** (6.3-17.1)	**10.0** (6.1-15.9)	**8.6**** (6.5-11.4)	**13.5** (12.1-15.0)
Tranquillizers (NM)	**4.6**** (2.8-7.6)	**1.9** (1.0-3.4)	†	†	**2.1** (1.4-3.2)	**1.4** (0.8-2.6)	†	†	**2.1** (1.3-3.4)	†	**2.4** (1.8-3.2)
OTC Cough/Cold Medication (NM)	†	**4.4**** (3.1-6.3)	**9.7** (6.5-14.5)	**10.4** (7.7-14.0)	**9.7** (7.7-12.3)	**10.2** (7.7-13.3)	**11.0** (8.4-14.2)	†	†	**8.3** (4.4-14.8)	**9.7** (7.9-11.8)
High-Caffeine Energy Drinks	**43.4** (35.9-51.2)	**45.6** (43.7-47.4)	**48.0** (37.9-58.2)	**43.9** (36.6-51.5)	**34.9**** (30.4-39.8)	**38.7**** (36.6-40.8)	**40.5** (34.0-47.3)	**43.6** (30.3-57.9)	**46.8** (43.3-50.3)	**45.5** (37.2-54.1)	**42.8** (40.6-45.1)
Any NM Prescription Drug Use	**15.4** (11.7-20.0)	**12.9** (9.8-16.8)	**17.6** (13.7-22.2)	**18.5**** (15.5-22.0)	**16.5** (11.8-22.6)	**16.8** (13.7-20.3)	**15.6** (11.3-21.1)	**11.0** (6.8-17.2)	**12.1** (8.3-17.3)	**9.4**** (7.6-11.6)	**15.2** (13.8-16.7)
Any Drug Use Including Cannabis	**35.2** (18.1-57.3)	**34.4** (30.4-38.8)	**42.8** (32.9-53.3)	**48.1** (35.8-60.7)	**36.9** (29.1-45.4)	**41.5** (33.3-50.2)	**41.0** (33.6-48.7)	**37.5** (27.2-49.1)	**38.8** (33.9-44.0)	**36.0** (21.0-54.3)	**40.0** (36.5-43.7)

(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
(Student n=)	*(239)*	*(221)*	*(301)*	*(726)*	*(781)*	*(1,305)*	*(832)*	*(247)*	*(833)*	*(674)*	*(6,159)*
(School n=)	*(5)*	*(4)*	*(5)*	*(12)*	*(11)*	*(22)*	*(16)*	*(5)*	*(13)*	*(16)*	*(109)*
Any Drug Use Excluding Cannabis	**17.5** (9.5-29.8)	**16.7*** (12.0-22.8)	**31.3*** (23.0-40.9)	**36.3*** (23.8-50.9)	**26.1** (19.0-34.8)	**25.8** (20.4-32.2)	**23.3** (17.4-30.3)	**18.8*** (15.7-22.2)	**20.4** (17.1-24.0)	**16.9** (10.2-26.8)	**24.3** (21.3-27.6)
Hazardous/Harmful Drinking (AUDIT)	**21.1** (16.3-26.7)	**18.3** (10.8-29.3)	**19.9** (14.0-27.5)	**14.6** (8.5-24.0)	**10.8**** (8.5-13.5)	**19.3** (14.6-25.0)	**25.7*** (19.6-32.8)	**21.7** (13.9-32.3)	**20.0** (15.2-25.9)	**25.6**** (21.2-30.6)	**20.0** (18.0-22.2)
Drug Use Problem (CRAFFT)	**19.6** (15.2-24.9)	**16.1** (10.1-24.7)	**23.2** (14.0-35.8)	**19.8** (12.5-29.9)	**11.6** (7.6-17.2)	**13.8** (8.1-22.7)	**15.9** (10.9-22.7)	**12.9** (9.7-17.0)	**15.7** (10.6-22.7)	**17.1** (13.5-21.4)	**16.8** (14.5-19.4)
Passenger/Alcohol	**23.3** (18.1-29.5)	**18.6** (13.8-24.8)	**18.8** (13.3-25.9)	**24.8*** (21.1-28.9)	**19.0** (16.3-22.0)	**19.8** (16.9-23.2)	**21.6** (18.0-25.5)	**23.2** (17.9-29.4)	**17.4*** (15.3-19.8)	**16.6** (13.0-21.1)	**20.1** (18.6-21.7)
Passenger/Drugs	**17.6** (13.2-23.0)	**14.3** (9.9-20.3)	**20.4** (12.4-31.8)	**16.6** (12.8-21.4)	**17.0** (14.1-20.2)	**13.2*** (9.7-17.7)	**17.1** (13.5-21.5)	**19.6** (13.2-28.0)	**20.6** (17.0-24.7)	**20.3** (17.1-23.9)	**17.2** (15.5-19.1)
Drinking-Snowmobile/ Motorboat/ATV (G10-12)	†	†	**6.7** (4.3-10.4)	†	†	**2.4** (1.2-4.6)	**5.9** (4.7-7.3)	†	**4.2** (2.7-6.6)	**12.2*** (8.5-17.2)	**5.1** (4.1-6.3)
Cannabis-Driving (Drivers Grades 10-12)	†	**7.2** (4.7-10.7)	**11.2** (6.6-18.2)	**12.8** (7.9-20.0)	**6.6** (4.0-10.6)	**6.7** (4.2-10.6)	**10.2** (7.6-13.6)	†	**12.5** (10.0-15.4)	**7.2** (3.9-12.8)	**9.7** (7.9-11.9)
Intoxicated at School	**15.5** (11.3-20.8)	**11.4*** (9.0-14.2)	**17.5** (11.1-26.5)	**23.0** (13.3-36.7)	**9.6** (5.4-16.6)	**15.6** (10.7-22.1)	**15.1** (11.1-20.2)	**18.2** (11.2-28.2)	**12.7** (7.6-20.6)	**10.9** (6.2-18.6)	**15.0** (12.8-17.6)
Was Given/Offered/ Sold a Drug at School	**24.8** (14.8-38.6)	**19.2** (13.5-26.6)	**18.7** (11.8-28.5)	**32.6**** (24.7-41.7)	**22.2** (18.8-26.1)	**26.1** (20.6-32.5)	**19.9** (13.8-27.8)	**19.3** (12.3-29.1)	**27.7** (21.0-35.5)	**14.6** (8.3-24.4)	**23.1** (20.3-26.3)
Was Offered/Sold a Drug Anywhere	**29.5** (22.5-37.6)	**28.5** (24.2-33.4)	**37.9*** (30.1-46.5)	**35.3** (27.5-43.9)	**25.6*** (22.3-29.2)	**31.7** (25.4-38.6)	**24.8** (18.7-32.2)	**29.0** (17.4-44.3)	**36.0** (29.6-42.9)	**28.5** (22.1-35.9)	**30.8** (28.0-33.8)
Seen Drug Selling in Neighbourhood	**23.9** (15.2-35.6)	**18.6** (13.5-25.2)	**25.6** (18.8-33.7)	**29.9**** (27.9-31.9)	**21.8** (18.4-25.6)	**28.4*** (24.2-32.9)	**27.6** (21.8-34.4)	**20.3** (12.7-30.8)	**23.5** (16.2-32.7)	**19.0** (14.6-24.4)	**25.2** (23.0-27.6)
Easy or Very Easy to Get Cigarettes	**80.4** (60.8-91.6)	**74.2** (69.2-78.5)	**67.6** (62.4-72.5)	**71.2** (65.2-76.6)	**61.5**** (57.0-65.8)	**72.3** (67.0-77.0)	**70.1** (59.1-79.2)	**75.2** (69.6-80.1)	**74.5** (61.3-84.3)	**73.2** (60.0-73.2)	**71.6** (68.5-74.5)
Easy or Very Easy to Get Alcohol	**89.2** (75.2-95.7)	**77.2** (66.6-85.2)	**78.7** (74.1-82.7)	**72.5*** (68.1-76.5)	**68.9**** (61.8-75.2)	**70.9*** (65.0-76.2)	**72.0** (64.4-78.5)	**83.2** (71.4-90.8)	**83.2** (67.5-92.2)	**75.7** (72.9-78.3)	**75.7** (73.0-78.2)
Easy or Very Easy to Get Cannabis	**71.3** (53.6-84.2)	**63.2** (50.9-74.0)	**69.3** (61.2-76.3)	**63.4** (56.8-69.5)	**52.8**** (47.4-58.1)	**61.4** (55.8-66.6)	**59.1** (52.6-65.3)	**58.0** (41.6-72.8)	**64.6** (58.2-70.5)	**56.0** (49.7-62.1)	**62.4** (59.5-65.3)

Notes: (1) due to small sample sizes, the Erie St. Clair and the South West LHINs were merged, the Toronto Central and Central LHINs were merged, the Central East and North Simcoe Muskoka LHINs were merged, and the North West and the North East 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 any one of the following classes of prescription drugs: OxyContin/OxyNEO and other opioids, ADHD drugs, or tranquillizers/ sedatives; (5) "Any Drug Use Including Cannabis" refers to the past year use of any one of the 22 drugs asked about in the survey (excludes tobacco, alcohol, and energy 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 daily cigarette smoking, synthetic cannabis, inhalants, salvia, mushrooms, jimson weed, methamphetamine, crack, heroin, ecstasy, ketamine, methoxetamine, BZP pills, mephedrone ("bath salts"), modafinil, cannabis dependence, and drinking and driving are not presented due to numerous suppressed estimates; (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

3.14 Overview of Drug Use in the Greater Toronto Area (GTA)

In this section, we present estimates of tobacco, alcohol, and other drug use among students from schools in the Greater Toronto Area (GTA) and comparisons with the province as a whole. The GTA encompasses the City of Toronto, Durham Region, York Region, Peel Region, and Halton Region.

Table 3.14.1: Percentage of Students in the Greater Toronto Area (GTA) Reporting Past Year Drug Use, 2011 and 2013 OSDUHS

Past Year Drug Use	2011 GTA % (95% CI)	2013 GTA % (95% CI)		2013 Ontario % (95% CI)
AMONG GRADES 7–12	(*n*=3,726)	(*n*=4,806)		(*n*=10,272)
Cigarette Smoking	9.2 (7.3-11.4)	8.3 (6.2-10.9)		8.5 (7.2-9.9)
Daily Cigarette Smoking	4.1 (3.1-5.3)	2.9 (1.8-4.6)		3.4 (2.6-4.6)
Smokeless (Chewing) Tobacco	4.3 (3.1-5.9)	4.8 (3.4-6.8)		5.7 (4.6-7.0)
Waterpipe ("Hookah")	--	10.6 (8.3-13.5)		9.7 (8.2-11.5)
Alcohol	49.6 (44.5-54.7)	43.6 (38.3-49.0)	*	49.5 (46.4-52.5)
Alcohol mixed with an Energy Drink	--	14.5 (11.3-18.4)		15.9 (13.8-18.3)
Binge Drinking (past month)	18.9 (15.5-22.8)	15.6 (12.4-19.5)	*	19.8 (17.8-22.1)
Drunkenness (past month)	16.1 (13.4-19.2)	14.2 (10.8-18.4)	*	17.6 (15.6-19.9)
Cannabis	19.7 (16.6-23.2)	21.8 (17.7-26.5)		23.0 (20.7-25.6)
Cannabis and Alcohol (same occasion)	--	14.7 (10.7-19.9)		16.0 (13.5-18.8)
Synthetic Cannabis ("Spice" or "K2")	--	2.3 (1.3-3.9)		1.8 (1.2-2.6)
Inhalants (Glue or Solvents)	6.7 (5.2-8.4)	4.6 (3.5-6.1)	*	3.4 (2.7-4.5)
Salvia Divinorum	2.5 (1.7-3.6)	2.8 (1.6-4.7)		2.6 (1.7-3.8)
OTC Cough/Cold Medication	6.9 (5.7-8.4)	10.1 (8.7-11.6)		9.7 (8.2-11.4)
High-Caffeine Energy Drinks	42.9 (39.0-47.0)	36.7 (33.4-40.1)	*	39.7 (37.8-41.7)
OxyContin/OxyNEO (NM)	1.0 (0.6-1.5)	1.1 (0.7-2.0)		1.6 (1.2-2.1)
Opioid Pain Relievers (NM)	14.5 (12.5-16.8)	14.2 (12.3-16.2)	*	12.4 (11.2-13.6)
ADHD Drugs (NM)	0.6 (0.4-1.0)	1.2 (0.7-1.9)		1.4 (1.0-2.0)
AMONG GRADES 9–12 ONLY	(*n*=2,578)	(*n*=3,330)		(*n*=6,159)
LSD	2.1 (1.3-3.2)	1.7 (1.1-2.8)		1.5 (1.0-2.1)
Mushrooms/Mescaline	4.1 (2.6-6.6)	3.5 (2.1-5.9)		3.7 (2.7-5.1)
Methamphetamine (includes Crystal Meth.)	0.9 (0.5-1.4)	0.5 (0.3-0.9)	*	1.0 (0.6-1.5)
Cocaine	1.9 (1.3-2.7)	2.3 (1.6-3.2)		2.4 (1.7-3.4)
Crack	1.3 (0.7-2.3)	0.6 (0.3-1.1)		0.7 (0.5-1.1)
Ecstasy (MDMA)	3.6 (2.2-5.8)	2.9 (1.8-4.6)		3.3 (2.4-4.6)
Tranquillizers/Sedatives (NM)	2.4 (1.8-3.3)	2.0 (1.3-3.0)		2.4 (1.8-3.2)
Electronic Cigarettes (lifetime use)	--	12.2 (9.8-15.0)	*	14.6 (12.3-17.3)
Any NM Use of a Prescription Drug	17.3 (14.8-20.1)	17.5 (15.3-20.0)	*	15.2 (13.8-16.7)
Any Drug Use Including Cannabis	--	42.4 (37.8-47.1)		40.0 (36.5-43.7)
Any Drug Use Excluding Cannabis	--	27.4 (23.7-31.4)		24.3 (21.3-27.6)

Notes: (1) NM=nonmedical use, without a doctor's prescription; (2) ADHD=Attention-Deficit Hyperactivity Disorder; (3) "Any NM Use of a Prescription Drug" refers to nonmedical use of any one of the following prescription drugs or drug classes: OxyContin/OxyNEO, other opioids, ADHD drugs, or tranquillizers/sedatives; (4) "Any Drug Including Cannabis" refers to the use of any one of 22 drugs asked about in the 2013 survey (excludes alcohol, tobacco, and high-caffeine energy drinks); (5) jimson weed, heroin, ketamine, methoxetamine, BZP pills, mephedrone ("bath salts"), and modafinil are not presented due to suppressed estimates; (6) * 2013 GTA estimate differs from the 2013 Ontario estimate, $p<.05$ (not controlling for other factors).

Source: OSDUHS, Centre for Addiction & Mental Health

4. SUMMARY AND DISCUSSION

The Public Health Approach Toward Drug Use

Tobacco, alcohol, and illicit drug use are leading causes of morbidity and mortality, both during adolescence and in adulthood. The OSDUHS performs several public health functions: identifying the extent of drug use in the mainstream student population; identifying its timing and pattern during adolescence; identifying risk and protective factors; and tracking changes in drug use over time. Since 1977, the OSDUHS has been providing a knowledge base for designing and targeting preventive and health promotion programs, informing public health policy, and disseminating information to 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 sample surveys are the most feasible means to monitor substance use in the student population, those interpreting the OSDUHS results should consider the following limitations. First, we must recognize that these data are based on self-reports, which cannot be readily verified. 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; Gfroerer et al., 1997; Griesler et al., 2008; Hibell et al., 2003; O'Malley et al., 2000). Still, we must acknowledge that self-reported drug use likely underestimates 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), but underreporting is not likely to vary over time. Thus, estimates of change should remain valid and unaffected by bias. 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).

Second, another factor that can deflate drug use estimates is the bias caused by non-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.

Third, 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 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 non-coverage 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). The non-school group excluded from our target constitutes about 8% of the total adolescent population between the ages of 12 and 18 in Ontario, based on the 2011 Census numbers (Statistics Canada, 2012).

Fourth, the data reflect a snapshot in time; consequently, because we do not follow the same students across time, we cannot identify

causes of individual change or the direction in which one factor affects another (i.e., whether X causes Y, or Y causes X). Also, we cannot determine from these data to what extent our findings are adolescent-limited – that is, whether drug use declines or ceases with the transition into emerging adulthood.

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 more emphasis on steady trends over time.

Despite these cautions, monitoring studies 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 for 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.

Although a majority of drugs examined in the 2013 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 982,100 students), we estimate that about 25,800 (2.7%) use cannabis daily, about 15,500 (1.6%) used OxyContin nonmedically in the past year, and a similar number of students (about 17,300; 1.8%) used synthetic cannabis ("spice") in the past year.

Encouraging Findings

This report presented findings about the past year use of alcohol, tobacco, illicit drugs, and the nonmedical (NM) use of prescription drugs, and changes since 1977. There are many encouraging findings from the 2013 OSDUHS. We have ordered these findings according to their public health importance. (See Table 4.1 for a trend overview.)

- **Cigarettes**: The vast majority of students in Ontario do not smoke cigarettes. The past year prevalence of cigarette smoking began to decline dramatically during the 2000s, reached its lowest point in 2011 and remained stable in 2013. Not surprisingly, negative perceptions about smoking have also hardened over time. The perceived risk of harm associated with smoking one or two cigarettes daily is currently higher than it was a decade ago.

- **Alcohol**: Past year drinking declined between 2011 and 2013, reaching a historical low. In fact, drinking has been on the decline during the past decade. The magnitude of the decline 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.

- The past year use of **inhalants (glue or solvents)** significantly declined between 2011 and 2013, continuing on a downward trend that began over a decade ago. The current level of use resembles the historic lows seen in the early 1990s.

- The past year use of highly **caffeinated energy drinks** (such as Red Bull, Monster, Rock Star, Amp) showed a significant decline between 2011 and 2013.

- While the **nonmedical use of prescription opioid pain relievers** (e.g., Percocet, Percodan, Tylenol #3, OxyContin) in the past year

remained stable between 2011 and 2013, the level has substantially declined since 2007, the first year of monitoring.

- **Driving after drinking alcohol** among licensed students significantly declined between 2011 and 2013, continuing a decline that began in 2009. Further, the current rate is markedly lower than rates evident in the late 1970s and early 1980s. It is worth noting here that the declines in drinking and driving seen in the last two surveys follow 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 2013 compared with estimates from a decade ago.

- 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 decreased during the past decade.

- Over one-third of students **used no drug** in the past year, including alcohol and cigarettes. This proportion is significantly higher than the estimates from about a decade ago and substantially higher than the estimates from the late 1970s and early 1980s, when only about 20% to 25% of students were abstinent during the past year.

- The **age of initiation** for drinking alcohol, smoking cigarettes, and using cannabis has not declined. In other words, students today are not trying these substances at younger ages than did their counterparts from years ago. Looking over the past decade, our data show that smoking initiation and drinking initiation are actually occurring later in adolescence. Beginning use at a later age predicts fewer substance-related problems later on in life.

- Despite media attention given to **methamphetamine** (including crystal methamphetamine) use in various populations, there is no evidence that this drug has measurably diffused into the student population. In fact, past year use of methamphetamine has significantly decreased since 1999.

- One function of the OSDUHS is to track the **emergence of new drugs** in the Ontario student population. For example, in recent years we have seen the emergence of nonmedical use of prescription opioids and salvia divinorum. Starting in 2011, the OSDUHS asked students about the use of **BZP (benzylpiperazine) pills** and **mephedrone** (4-methylmethcathinone, more commonly known as "bath salts"). The 2013 survey also asked about **synthetic cannabis** ("spice" or "K2") and **methoxetamine** (a synthetic ketamine analog more commonly known as "MXE" or "mket"). All of 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 2013 survey shows that, of these drugs, only synthetic cannabis ("spice") appears to have surfaced among Ontario students as about 2% of students report past year use. The prevalence estimates for methoxetamine ("MXE"), BZP pills, and mephedrone ("bath salts") were suppressed due to negligible estimates. This suggests that these three 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 very low numbers. 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.

- Past year use of almost all illicit drugs monitored is lower in 2013 compared with estimates from a decade or so ago. The use of **cannabis, LSD, mushrooms/mescaline, cocaine, crack, heroin, ecstasy**, and **ketamine**

has decreased. The use of **any drug including** and **excluding cannabis** has also decreased.

- The **perceived availability of cocaine, LSD, and ecstasy** has significantly decreased over the past decade. Thus, these drugs are seen as more difficult to obtain than in the past.

- The perceptions of **risk of harm** and the **disapproval of trying cocaine** are higher in 2013 than estimates seen a decade ago. Thus, students today seem to be more aware of the potential for physical harm cocaine can cause.

- Reported **intoxication at school** significantly declined between 2011 and 2013, and is currently lower than estimates seen a few years ago. **Drug availability at school** is also currently lower than estimates seen a few years ago.

Some Public Health Concerns

The following findings should be viewed as public health concerns. We begin with tobacco and alcohol 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, compared with illicit drugs.

- **Cigarette smoking** is the greatest public health issue impinging on a population's health, as it is the leading preventable cause of disease. Although student smoking has substantially declined over time, there is still a significant proportion – about one-in-ten (9%) – that smoke cigarettes (about 83,100 students in Ontario). The consistent decline in smoking seen over the past decade appears to have levelled off in 2013. Also worrisome is that the perceived availability of cigarettes significantly increased between 2011 and 2013, suggesting that they are easier to obtain.

- For the first time in 2013, the OSDUHS asked about past year use of a **waterpipe** ("hookah" or "shisha") which is a large apparatus typically used to smoke flavoured tobacco in a group setting. We found that about one-in-ten (10%) students in grades 7–12 use a waterpipe (an estimated 88,400 in Ontario). Waterpipe smoking is linked to health risks and diseases similar to cigarette smoking, and infectious diseases may be transmitted due to the sharing of the mouthpiece (Akl, Gaddam, Gunukula, Honeine, Jaoude, & Irani, 2010; Martinasek, McDermott, & Martini, 2011).

- Lifetime use of **electronic cigarettes** (e-cigarettes) was also new to the survey in 2013, asked of secondary students only. E-cigarettes are battery-operated devices that look like cigarettes 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. Little is known yet about the health implications of using e-cigarettes, with or without nicotine. About one-in-seven secondary students (15% or an estimated 99,800 in Ontario) have smoked an e-cigarette in their lifetime. Specifically, 4% reported smoking an e-cigarette with nicotine, and 11% reported smoking an e-cigarette without nicotine.

- About 6% of students (an estimated 51,800 in Ontario) report using **smokeless tobacco**, also known as chewing tobacco, dipping tobacco, or snuff, and among males the prevalence approaches that of cigarette smoking.

- **Alcohol** is the substance most widely used by Ontario students. Despite the recent decline, half (50%) of all students drink alcohol, and this increases to 74% in 12th grade. **Binge drinking** remains at an elevated level, as about one-in-five students (20% or an estimated 193,400 in Ontario) report drinking five or more drinks on the same occasion once in the past month. Among the 12th graders, 39% binge drink.

- About one-in-six students (16%) **drink hazardously/harmfully**, meaning that their drinking puts them at risk for current or future physical and social problems. One-in-five (18%) students could not remember what happened when they were drinking on at least one

occasion in the past year, and 8% report being injured or injuring someone in the past year as a result of their drinking.

- **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 12,700 in Ontario). A higher percentage (10%) of licensed students report driving after using cannabis (an estimated 31,500). About 18% of all students report being a passenger with a driver who had been drinking, and 14% 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-quarter of 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.

- The only drug to show an increase in recent years is over-the-counter (OTC) **cough/cold medication with dextromethorphan** (used to "get high"). In 2013, one-in-ten (10%) students in grades 7–12 used a cough/cold medication to "get high" (an estimated 94,100 in Ontario). This prevalence estimate is significantly higher than the estimate of 7% found in the 2009 survey, the first year of monitoring. Cough/cold medications are among the most commonly used drugs, following alcohol, caffeinated energy drinks, cannabis, and prescription opioids.

- **Cannabis** is the most common illegal drug used by students. Almost one-quarter (23%) of students in grades 7–12 use cannabis (an estimated 225,600 in Ontario). Although the prevalence has declined during the last decade and is currently lower than the two historical peak periods, no further decline was evident in 2013. Further, there was a significant decrease between 2011 and 2013 in the perceived risk of harm from using cannabis either experimentally or regularly, as well as a corresponding decrease in the disapproval of use. Cannabis may be getting easier to obtain, as there was a significant increase in the perceived availability between 2011 and 2013.

- Roughly 3% of secondary students (10% of past year cannabis users) report symptoms of **cannabis dependence**, characterized by loss of control and withdrawal. About 3% of students (an estimated 25,800 in Ontario) use **cannabis daily**. Short-term problems from regular cannabis use include memory impairment, reduced attention and motivation, which negatively affect school and family life (Hall & Degenhardt, 2009; Lisdahl & Price, 2012). 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), cancers (Calabria, Degenhardt, Hall, & Lynskey, 2010; Zhang et al., 1999), neuropsychological impairment (Meier et al., 2012; Raver, Haughwout, & Keller, 2013), depression (Horwood et al., 2012; Lev-Ran et al., 2013), and anxiety (Degenhardt et al., 2012) in adulthood. Further, research is accumulating that suggests an association between heavy or early cannabis use and the onset of psychotic symptoms in individuals who possess an underlying vulnerability to psychosis (Griffith-Lendering et al., 2013; Kuepper et al., 2011; Large, Sharma, Compton, Slade, & Nielssen, 2011; McLaren, Silins, Hutchinson, Mattick, & Hall, 2010; van Os et al., 2002).

- One-in-eight (12%) students report using a **prescription opioid pain reliever** without their own prescription at least once in the past year (representing about 120,100 in Ontario). The nonmedical use of this class of drugs, which includes Tylenol #3, codeine, Percocet, Percodan, and Demerol, ranks just after cannabis 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 abuse of opioids can lead to addiction.

- About 2% (an estimated 17,300) of students in grades 7–12 used **synthetic cannabis** in the past year. Synthetic cannabis, which is sold under many names such as "**spice**," "K2," "K3," "black mamba," or "legal weed," refers to a wide variety of herbal mixtures that contain plant material, preservatives, fragrance, and synthetic cannabinoid compounds. Synthetic cannabis is illegal in Canada, yet wrongly perceived as a "safe" alternative to cannabis. There are over 100 types of synthetic cannabinoids (and new derivatives are continuously emerging), each with differing potency. The short-term effects can vary greatly from euphoria and altered perceptions to extreme anxiety, paranoia, and the long-term effects are unknown (Cohen, Morrison, Greenberg, & Saidinejad, 2012; Hudson & Ramsey, 2011; Seely, Lapoint, Moran, & Fattore, 2012).

- Over one-third (40%) 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 increases with grade, reaching 51% by grade 12. If we remove cannabis, prescription drugs, and OTC drugs from this summated measure, the proportion reporting any other drug use is much lower. Thus, students today are more likely to use cannabis, prescription drugs, and OTC drugs nonmedically rather than other "street" drugs such as hallucinogens, cocaine, or ecstasy.

- One-in-eight (12%) students report having been **drunk or high at school** and this estimate reaches about 20% among grade 11 and 12 students. One-in-five (19%) students report being **offered, sold, or given a drug at school**, and this estimate reaches 25% among grade 11 and 12 students.

- One-quarter (25%) of 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 40% among grade 11 and 12 students, suggesting that drugs are readily available to older adolescents.

- **High-Caffeine Energy Drinks**: The medical community has expressed concern about children and adolescents consuming highly-caffeinated energy drinks, and have called for restrictions on the labelling, sales and marketing of these beverages (MacDonald, Stanbrook, & Hébert, 2010; O'Brien, McCoy, Rhodes, Wagoner, & Wolfson, 2008; Reissig, Strain, & Griffiths, 2009; Seifert, Schaechter, Hershorin, & Lipshultz,, 2011; Sepkowitz, 2013; Wolk, Ganetsky & Babu, 2012). Although the consumption of energy drinks does show a decline since the last survey, use remains quite high with about 40% of all students (an estimated 382,500 in Ontario) reporting past year use. One-in-eight (12% or an estimated 119,700) students report drinking an energy drink in the past week. An additional concern is the approximately 16% of students who reported drinking alcohol mixed with energy drinks in the past year. There are fears that adolescents who mix these beverages increase their risk of harm (Arria et al., 2011; Howland & Rohsenow, 2013).

Overlapping Alcohol and Mental Health Problems

There is an overlap between alcohol and drug use problems and mental health problems among youth. The 2013 OSDUHS shows that about 6% of all students in grades 7 through 12 (an estimated 60,800 Ontario students) report both hazardous/harmful drinking *and* elevated psychological distress (symptoms of anxiety and depression). This increases to 10% by 12th grade.

Important 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 then declines by grade 9.

Sex is also associated with certain types of drug use. As summarized in Figure 4.1 below and Table 4.2, males are significantly more likely to use smokeless tobacco, a waterpipe, cannabis, salvia divinorum, mushrooms, methamphetamine, an ADHD drug (NM), an OTC cough/cold medication, and energy drinks. Females do not exceed males on use of any drug measured in the 2013 survey.

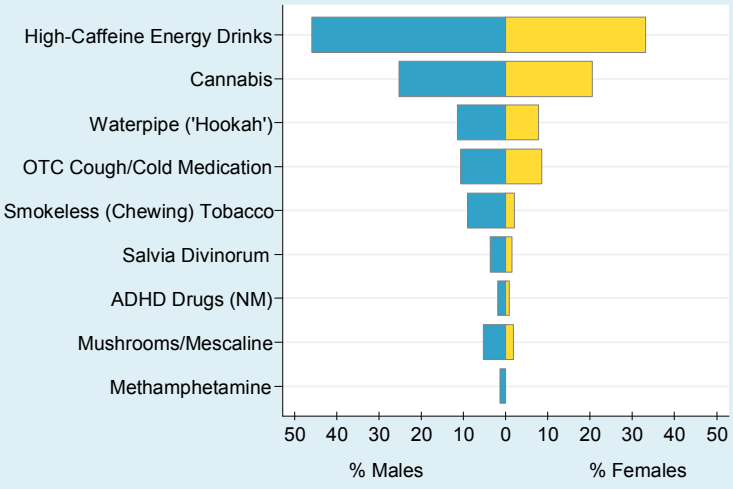
There are important differences in student drug use according to **region** of the province. These are summarized in Table 4.2.

Compared with the provincial average:

- **Toronto** students are less likely to drink alcohol and binge drink. They are more likely to use prescription opioids nonmedically and to report any nonmedical prescription drug use (which is largely due to prescription opioids).

- **Northern** Ontario students are more likely to drink alcohol and binge drink. They are less likely to use prescription opioids nonmedically and to report any nonmedical prescription drug use (which is largely due to prescription opioids).

Figure 4.1
Significant Sex Differences in Past Year Drug Use, 2013 OSDUHS



Notes: (1) all drugs asked of Grades 7-12, except for mushrooms and methamphetamine which were asked of Grades 9-12 only; (2) estimate for methamphetamine use among females was suppressed; (3) NM=nonmedical use, without a doctor's prescription

- **Western** Ontario students are more likely to use prescription opioids nonmedically and to report any nonmedical prescription drug use (which is largely due to prescription opioids).

- **Eastern** Ontario students do not differ from the province as a whole on any drug measure.

Possibilities for Prevention

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, and preventing or minimizing harmful consequences from drug use may be more feasible goals (Nicholson, Duncan, White, & Stickle, 2013; Paglia-Boak & Adlaf, 2007; Toumbourou et al., 2007).

Our survey shows that problem use of alcohol and drugs is not rare among youth. We also found that risk behaviours, such as binge drinking and becoming drunk, driving while intoxicated, and being a passenger with a driver who was using alcohol or drugs are not uncommon occurrences. Thus, there is a need for programs to focus on reducing these behaviours. Special efforts should be made to address the relatively high rate of driving after cannabis use among youth. In addition, messages against impaired driving need to be expanded beyond roadways to include the operation of snowmobiles, boats, and all-terrain vehicles after drinking – as the 2013 OSDUHS found the proportion of students reporting these behaviours was sufficiently large to pose public health harms.

Our findings show that, except for cannabis, a relatively smaller percentage of youth use so-called "street" or "club" drugs such as ecstasy, cocaine, or hallucinogenic drugs (e.g., mushrooms or LSD) 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 (Johnston et al., 2013). 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 and abuse of medication to "get high" by educating youth and parents about the risks of harm associated with the nonmedical use of these drugs.

Other findings in this report 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. Behaviours such as drinking, binge drinking, and other drug use continue increasing in 12th grade, suggesting that prevention efforts should extend into the older grades as well.

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 (Johnston et al., 2013). Our data 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.

Finally, the OSDUHS data 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; Richardson et al., 2009; Stockwell et al., 2005).

Future OSDUHS Monitoring

Cigarette, alcohol, and other drug use by young people are constantly changing, requiring ongoing monitoring and evaluation. As new drugs and new methods of use emerge, it is important to assess their use, related harms, and perceptions. Monitoring health risk behaviours, such as drug use, provides valuable information about determinants, changes, and co-occurrences of the behaviours. 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. Finally, scientific surveys such as the OSDUHS provide a useful tool for comparisons across different youth populations.

Important strides were made during the 1980s in reducing drug use among Ontario students, only to be followed by substantial increases in the late 1990s and early 2000s. The past decade has seen a second dip in prevalence rates for most drugs measured in the survey. 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 emerge regularly, but old ones are rediscovered by a new generation of young people who may not be aware of their adverse effects. Although we cannot be certain what the near future holds for adolescent drug use, we can closely monitor changes 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 report will be in the summer of 2014.

Table 4.1: Significant Changes in Past Year Drug Use by Subgroup, 2013 vs. 2011 and 2013 vs. 1999

	Cigarettes	Alcohol	Binge Drinking	Cannabis	Inhalants	LSD	Mushrooms/Mesc.	Methamphetamine	Cocaine	Crack	Heroin	Ecstasy	Ketamine	OTC Cough/Cold Medication	High-Caffeine Energy Drinks	Opioid Pain Relievers (NM)	Any NM Prescription Drug Use	Any Drug Use Excluding Cannabis
Total	▽	↓▽	▽	▽	↓▽	▽	▽	▽	▽	▽	▽	▽	▽	△	↓	▽	▽	▽
Males	▽	▽	▽	▽	↓▽	▽	▽	▽		▽	▽	▽	▽	△		▽		▽
Females	▽	▽			▽	▽	▽	▽	▽	▽		▽	▽		↓	↓▽	▽	▽
Grade 7	▽	↓▽	▽		↓▽	--	--	--	--	--	--	--	--	↑			--	--
Grade 8	▽	▽	▽	▽		--	--	--	--	--	--	--	--			▽	--	--
Grade 9	▽	↓▽	↓▽	▽	▽	▽	▽	▽	▽			▽		↑	↓	▽	▽	▽
Grade 10	▽	▽	▽	▽		▽	▽	▽	▽	▽		▽				▽	▽	▽
Grade 11	▽		▽	▽		▽	▽	▽	▽	▽		↓▽	▽		↓	↓▽	▽	▽
Grade 12	▽					▽	▽	▽					▽	↑△				▽
Toronto	▽				▽	▽			▽	▽								
North	↓▽	▽			▽	▽	▽		▽						↓	↓▽	▽	▽
West	▽	↓▽	▽	▽	▽	▽	▽	▽	▽	▽		▽	▽		↓	▽	▽	▽
East	▽				▽	▽	▽	▽	▽	▽	▽		▽	↑	↓	▽	▽	▽

Notes: (1) ↑↓ significant increase or decrease in 2013 vs. 2011, p<.01; (2)△▽ significant increase or decrease in 2013 vs. 1999, p<.01 (vs. 2003 for cocaine and ketamine, vs. 2001 for ecstasy, vs. 2009 for cough/cold medication, vs. 2007 for opioid pain relievers and Any NM Prescription Drug Use); (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) NM = nonmedical use, without one's own doctor's prescription; (6) "Any Illicit Drug" indices are based on nine drugs asked about over time; (7) no significant year differences were found for salvia divinorum, jimson weed, ADHD drugs (NM), tranquillizers/sedatives (NM), therefore these drugs are not presented.

Table 4.2: Significant Subgroup Differences in Past Year Drug Use, 2013 OSDUHS

	Cigarettes	Smokeless Tobacco	Waterpipe	Alcohol	Binge Drinking	Alcohol Mixed with an Energy Drink	Cannabis	Cannabis & Alcohol	Synthetic Cannabis	Inhalants	Salvia Divinorum	Mushrooms/Mesc.	Methamphetamine	Ecstasy	OxyContin (NM)	Opioid Pain Relievers (NM)	ADHD Drug (NM)	OTC Cough/Cold Medication	High-Caffeine Energy Drinks	Any NM Prescription Drug Use	Any Drug Use Including Cannabis
Sex Effect	ns	***	**	ns	ns	ns	**	ns	ns	ns	**	***	**	ns	ns	ns	**	*	***	ns	ns
		M ↑	M ↑				M ↑				M ↑	M ↑	M ↑				M ↑	M ↑	M ↑		
Grade Effect	***	***	***	***	***	***	***	***	***	**	***	**	*	**	**	**	*	ns	**	**	***
(compared with previous grade)	8 ↑ 7	8 ↑ 7	8 ↑ 7	8 ↑ 7	8 ↑ 7	8 ↑ 7	8 ↑ 7	8 ↑ 7				--	--	--					8 ↑ 7	--	--
		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					10 ↑ 9							10 ↑ 9
	11 ↑ 10		11 ↑ 10	11 ↑ 10	11 ↑ 10		11 ↑ 10	11 ↑ 10													
				12 ↑ 11	12 ↑ 11	12 ↑ 11							12 ↑ 11	12 ↑ 11		12 ↑ 11			12 ↑ 11	12 ↑ 11	12 ↑ 11
Region Effect	ns	ns	ns	***	***	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	***	ns	ns	ns	***	ns
(region compared with Ontario)				T ↓	T ↓											T ↑				T ↑	
				N ↑	N ↑											N ↓				N ↓	
																W ↑				W ↑	

Notes: (1) overall tests of effect are based on a univariate chi-square statistic, *p<.05, **p<.01, ***p<.001; (2) subgroup comparisons are based on *adjusted logistic regressions*; (3) -- indicates question not asked of grades 7 and 8 students; (4) ns=nonsignificant; (5) binge drinking refers to drinking five or more alcoholic drinks on one occasion at least once in the past month; (6) NM=nonmedical use, without one's own doctor's prescription; (7) past year use of LSD, jimson weed, cocaine, crack, heroin, ketamine, methoxetamine, BZP pills, mephedrone, tranquillizers/sedatives (NM), and modafinil (NM) showed no significant differences according to sex, grade, or region and therefore are not presented.

5. APPENDIX

Table A1
District School Boards in Ontario by Region

TORONTO

TORONTO CATHOLIC DISTRICT
TORONTO DISTRICT

EASTERN ONTARIO

ALGONQUIN AND LAKESHORE CATHOLIC DISTRICT
CATHOLIC DISTRICT OF EASTERN ONTARIO
CONSEIL CATHOLIQUE CENTRE-SUD
CONSEIL CATHOLIQUE DE L'EST ONTARIEN
CONSEIL DES ÉCOLES PUBLIQUES DE L'EST DE L'ONTARIO
CONSEIL DES ÉCOLES CATHOLIQUES DU CENTRE-EST
DURHAM CATHOLIC DISTRICT
DURHAM DISTRICT
HASTINGS AND PRINCE EDWARD DISTRICT
KAWARTHA PINE RIDGE DISTRICT
LIMESTONE DISTRICT
OTTAWA CATHOLIC
OTTAWA-CARLETON DISTRICT
PENETANGUISHENE PROTESTANT SEPARATE
PETERBOROUGH VICTORIA NORTHUMBERLAND & CLARINGTON CATHOLIC DISTRICT
RENFREW COUNTY CATHOLIC DISTRICT
RENFREW COUNTY DISTRICT
SIMCOE COUNTY DISTRICT
SIMCOE MUSKOKA CATHOLIC DISTRICT
TRILLIUM LAKELANDS DISTRICT
UPPER CANADA DISTRICT
YORK CATHOLIC DISTRICT
YORK REGION DISTRICT

WESTERN ONTARIO

AVON MAITLAND DISTRICT
BLUEWATER DISTRICT
BRANT HALDIMAND NORFOLK CATHOLIC DISTRICT
BRUCE-GREY CATHOLIC DISTRICT
CONSEIL SCOLAIRE CATHOLIQUE PROVIDENCE *
CONSEIL VIAMONDE*
DISTRICT OF NIAGARA
DUFFERIN-PEEL CATHOLIC DISTRICT
GRAND ERIE DISTRICT
GREATER ESSEX COUNTY DISTRICT
HALTON CATHOLIC DISTRICT
HALTON DISTRICT
HAMILTON-WENTWORTH CATHOLIC DISTRICT
HAMILTON-WENTWORTH DISTRICT
HURON PERTH CATHOLIC DISTRICT
LAMBTON KENT DISTRICT
LONDON DISTRICT CATHOLIC
NIAGARA CATHOLIC DISTRICT
PEEL 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

ALGOMA DISTRICT
CONSEIL CATHOLIQUE FRANCO-NORD
CONSEIL CATHOLIQUE DES GRANDES RIVIÈRES
CONSEIL CATHOLIQUE DU NOUVEL ONTARIO
CONSEIL DU GRAND NORD DE L'ONTARIO
CONSEIL DU NORD-EST DE L'ONTARIO
CONSEIL CATHOLIQUE DES AURORES BORÉALES
DISTRICT ONTARIO NORTH EAST
HURON-SUPERIOR CATHOLIC DISTRICT
KEEWATIN-PATRICIA DISTRICT
KENORA CATHOLIC DISTRICT
LAKEHEAD DISTRICT
NEAR NORTH DISTRICT
NIPISSING-PARRY SOUND CATHOLIC DISTRICT
NORTH EASTERN CATHOLIC DISTRICT
NORTHWEST CATHOLIC DISTRICT
RAINBOW DISTRICT
RAINY RIVER DISTRICT
SUDBURY CATHOLIC DISTRICT
SUPERIOR-GREENSTONE DISTRICT
SUPERIOR NORTH CATHOLIC DISTRICT
THUNDER BAY CATHOLIC DISTRICT

* board with schools in another region

Table A2
Ontario Public Health Regions Sponsoring Oversamples in the OSDUHS, 2009–2013

Public Health Region	2009	2011	2013
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	--	--	●
Sudbury and District	--	--	●
York Region	●	●	●

Table A3
Student Participation Rate by Year of Survey

		1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
Total	Selected (N)	(5077)	(5092)	(4832)	(4781)	(4640)	(5167)	(5231)	(6564)	(6094)	(9411)	(10922)	(9497)	(14196)	(15005)	(16535)
	Participated %	**82**	**84**	**81**	**83**	**77**	**76**	**77**	**76**	**71**	**72**	**72**	**68**	**65**	**62**	**63**
	Absent (%)	14	12	15	14	13	15	15	12	13	12	12	13	13	12	11
	No consent (%)	4	4	4	3	9	9	8	12	16	16	16	19	22	26	26
Grade 7	Selected (N)	(1257)	(1440)	(1340)	(1106)	(1083)	(1165)	(1054)	(1030)	(1016)	(1446)	(1273)	(1104)	(2632)	(2434)	(3287)
	Participated (%)	84	86	84	86	83	80	81	76	75	68	76	66	63	60	65
	Absent (%)	7	6	7	5	8	6	5	10	7	7	9	9	9	8	8
	No consent (%)	9	7	9	9	9	13	14	14	18	25	14	25	27	32	27
Grade 8	Selected (N)								(1061)	(1038)	(1449)	(1301)	(1085)	(2711)	(2467)	(3245)
	Participated (%)								76	68	68	75	72	63	60	63
	Absent (%)								10	8	9	7	9	10	9	9
	No consent (%)								14	24	23	18	19	26	31	29
Grade 9	Selected (N)	(1315)	(1206)	(1265)	(1029)	(1248)	(1366)	(1442)	(1201)	(1017)	(1671)	(2110)	(1820)	(2111)	(2664)	(2536)
	Participated (%)	82	84	83	88	81	78	80	77	70	75	71	68	68	64	61
	Absent (%)	13	11	13	10	8	11	12	9	12	12	9	11	11	10	11
	No consent (%)	5	5	4	2	10	11	7	14	18	13	20	20	21	26	28
Grade 10	Selected (N)								(855	(1177)	(1654)	(2120)	(1727)	(2332)	(2597)	(2417)
	Participated (%)								76	70	73	68	65	67	60	65
	Absent (%)								10	16	14	13	15	13	14	11
	No consent (%)								14	14	13	19	20	19	25	24
Grade 11	Selected (N)	(1280)	(1341)	(1115)	(1392)	(1068)	(1270)	(1075)	(1046)	(874)	(1672)	(2128)	(1876)	(2140)	(2384)	(2604)
	Participated (%)	80	84	79	81	68	74	75	73	68	72	73	69	65	65	61
	Absent (%)	17	14	20	16	17	18	15	17	18	14	14	15	15	14	15
	No consent (%)	3	2	1	2	15	7	10	10	14	14	13	16	20	20	24
Grade 12	Selected (N)								(789)	(584)	(1519)	(1990)	(1885)	(2270)	(2459)	(2446)
	Participated (%)								76	68	72	69	66	65	66	62
	Absent (%)								19	23	19	18	19	19	15	16
	No consent (%)								5	9	9	13	14	15	19	22

(cont'd)

		1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013
Toronto	Selected (N)	(1140)	(1187)	(856)	(1060)	(1117)	(1113)	(1273)	(1139)	(734)	(1617)	(1609)	(1316)	(1415)	(1886)	(1312)
	Participated (%)	75	78	77	81	80	70	77	74	76	69	74	73	60	66	59
	Absent (%)	18	14	19	16	13	23	16	15	12	15	12	14	15	13	13
	No consent (%)	7	7	4	3	7	7	7	11	12	16	14	13	25	20	27
North	Selected (N)	(626)	(584)	(426)	(327)	(253)	(386}	(490)	(1223)	(1448)	(1868)	(1965)	(1364)	(1079)	(3268)	(2305)
	Participated (%)	84	86	87	86	81	76	79	77	76	70	64	60	61	55	56
	Absent (%)	13	14	12	12	14	16	13	13	14	13	12	16	16	11	13
	No consent (%)	3	0	0	2	5	8	9	10	10	17	24	24	23	33	31
West	Selected (N)	(1914)	(1917)	(2211)	(2054)	(2061)	(2261)	(1992)	(2321)	(2360)	(3628)	(4052)	(4030)	(4447)	(3841)	(5132)
	Participated (%)	84	85	81	82	74	77	78	73	66	71	72	67	65	63	65
	Absent (%)	12	12	14	10	14	13	15	13	14	11	12	13	14	12	9
	No consent (%)	4	3	5	4	12	10	7	13	20	18	16	20	21	25	26
East	Selected (N)	(1397)	(1404)	(1339)	(1340)	(1209)	(1407)	(1476)	(1881)	(1552)	(2298)	(3296)	(2787)	(7255)	(6010)	(7786)
	Participated (%)	83	85	82	85	77	78	74	79	70	76	75	70	67	65	64
	Absent (%)	14	11	14	12	13	13	13	10	12	12	12	12	11	11	11
	No consent (%)	3	4	4	2	9	8	12	11	17	12	13	17	22	24	13

Notes: Surveys from 1985–1997 included grades 7, 9, 11, and 13 only; surveys in 1999 and 2001 included grades 7–13; surveys from 2003–2013 included grades 7–12; "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).

Source: OSDUHS, Centre for Addiction & Mental Health; tabulated by the Institute for Social Research, York University

Table A4
Sample Demographics by Year of Survey

	1977		1979		1981		1983		1985		1987		1989		1991		1993		1995		1997	
	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
M	(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
F	(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
G8																						
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
G10																						
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
G12																						
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)	
TO	(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**	

	1999		2001		2003		2005		2007		2009		2011		2013	
	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%
M	(2252)	50.8	(1917)	49.8	(3163)	48.3	(3720)	51.8	(3068)	51.8	(4341)	51.8	(4334)	51.8	(4651)	51.8
F	(2195)	49.2	(1981)	50.2	(3453)	51.7	(4006)	48.2	(3255)	48.2	(4771)	48.2	(4954)	48.2	(5621)	48.2
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
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
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
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
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
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
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)	
TO	(740)	18.0	(533)	19.8	(1097)	18.3	(1172)	17.9	(943)	17.0	(836)	16.7	(1243)	16.9	(769)	17.8
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
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
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
Total N	**4447**		**3898**		**6616**		**7726**		**6323**		**9112**		**9288**		**10272**	

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 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*
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
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
Grade 8	--	--	--	--	--	--	--	--	--	14.6	1.55	3.11	4.96	3.12	2.12	6.70	11.17
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
Grade 10	--	--	--	--	--	--	--	--	--	12.5	20.4	2.17	1.55	2.80	3.14	2.52	4.25
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
Grade 12	--	--	--	--	--	--	--	--	--	12.6	23.0	3.18	2.90	1.59	3.69	5.50	6.37
Grade 13	6.63	1.39	1.31	5.80	1.38	13.49	0.77	0.01	0.00	8.8	25.8	--	--	--	--	--	--
Toronto	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
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
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
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
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
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
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
Been Drunk	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
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
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
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
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
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
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
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
Mushrooms/Mescal.	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
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
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**

Notes: 1981–1997 deffs are based on grades 7, 9, 11, and 13; 1999 and 2001 deffs are based on grades 7–13; 2003–2013 deffs are based on grades 7–12; NM=nonmedical use; M=medical/prescription use; Mescal.=mescaline; *elevated deffs in 2011 and 2013 are attributed to the oversampling of students in the public health regions.

Source: OSDUHS, Centre for Addiction & Mental Health

STUDY INFORMATION SHEET

&

PARENTAL CONSENT/STUDENT ASSENT FORM

camh OSDUHS

Ontario Student Drug Use and Health Survey

Every two years students across Ontario are asked 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 7–12 in big cities, small towns, and rural areas across the province take part. 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 anytime. 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 under age 18 must get one parent/guardian to sign the consent form before they can participate. Then, on the day of the survey, they complete a questionnaire in their classrooms. It takes about 30-40 minutes. They 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.aspx.** 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.

4603 / 07-2012

Please read, sign, and return the consent form on the other side.

Institute for Social Research
York University

UNIVERSITY of TORONTO

camh
Centre for Addiction and Mental Health
Centre de toxicomanie et de santé mentale

33 Russell Street, Toronto, Ontario, Canada M5S 2S1 Tel: 416 535-8501
33, rue Russell, Toronto (Ontario) Canada M5S 2S1 Tél. : 416 535-8501
www.camh.ca

The 2013 Ontario Student Drug Use and Health Survey

Parent-Student Information and Consent Form

Dear Parents/Guardians and Students:

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 well-being, bullying, illegal behaviours such as theft, gambling, and video gaming.

This year, about 11,000 Ontario students in grades 7 to 12 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** and **neither students nor classes can ever 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 2013 questionnaire are posted on our website at **www.camh.ca/research/osduhs.aspx**. 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. 4496. 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. 6876.

Robert E. Mann, Ph.D.
Study Director

Please sign and return the section below.

.....✂

We (parent and student) have read the request for participation in the *2013 Ontario Student Drug Use and Health Survey*. We have discussed it and...

☐ I (parent) **give permission** for my son/daughter to participate.

☐ I (parent) **do not give permission** for my son/daughter to participate.

☐ I (student) **agree** to participate.

☐ I (student) **do not agree** to participate.

Signature of Parent/Guardian: _____

Signature of Student: _____

Name of Student (please print): _____

Drugs No Longer Monitored by the OSDUHS

In 2011, certain drugs were removed from active surveillance largely due to negligible or suppressed estimates. These were PCP, GHB, Rohypnol, and over-the-counter sleeping medication. In 2013, we removed the question about the nonmedical use of prescription stimulants as a drug class (included both diet pills and stay-awake pills), over-the counter Gravol (nonmedical use), and doda. The following tables present the historic data on the past year prevalence for some of these drugs.

Table A6
Percentage Reporting PCP Use in the Past Year, 1981–2009 OSDUHS

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	
(n^1)										(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	
(n^2)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	
Total[1] (95% CI)	—	—	—	—	—	—	—	—	—	**3.0** (2.4-3.9)	**2.8** (2.2-3.7)	**2.2** (1.9-2.7)	**1.1** (0.8-1.5)	**0.7** (0.5-1.0)	**0.8** (0.5-1.3)	b
Total[2]	**2.4** (1.7-3.4)	**2.2** (1.6-2.8)	**1.7** (1.3-2.2)	**1.4** (0.8-2.3)	**1.2** (0.8-1.8)	**0.6** (0.3-1.1)	**0.6** (0.3-1.2)	**1.8** (1.0-3.1)	**2.1** (1.4-3.0)	**3.2** (2.2-4.5)	**2.6** (1.9-3.5)	**2.0** (1.6-2.6)	**1.1** (0.7-1.6)	**0.8** (05-1.2)	**0.7** (0.4-1.1)	cd
Sex																
Males[1]	—	—	—	—	—	—	—	—	—	**3.2** (2.4-4.2)	**3.3** (2.3-4.6)	**2.9** (2.4-3.6)	**1.4** (0.9-2.0)	**0.9** (0.6-1.3)	**1.0** (0.6-1.9)	b
Males[2]	**2.9** (1.9-4.4)	**2.5** (1.7-3.6)	**2.2** (1.6-3.1)	**2.1** (1.3-3.5)	**1.6** (0.9-2.7)	**0.9** (0.4-2.2)	**0.6** (0.4-1.0)	**2.3** (1.3-4.0)	**2.4** (1.9-3.2)	**3.2** (2.0-4.9)	**2.8** (1.7-4.4)	**2.5** (1.9-3.4)	**1.2** (0.8-2.0)	**1.3** (0.8-2.1)	**0.7** (0.4-1.4)	
Females[1]	—	—	—	—	—	—	—	—	—	**2.9** (1.9-4.2)	**2.3** (1.6-3.4)	**1.6** (1.2-2.2)	**0.7** (0.4-1.2)	**0.5** (0.3-0.9)	**0.5** (0.3-0.9)	b
Females[2]	**1.9** (1.2-2.9)	**1.8** (1.2-2.7)	**1.2** (0.8-1.8)	**0.6** (0.2-1.8)	**0.8** (0.4-1.5)	†	**0.6** (0.2-2.2)	**1.4** (0.8-2.6)	**1.7** (0.9-3.3)	**3.2** (1.8-5.5)	**2.4** (1.5-3.8)	**1.6** (1.0-2.5)	**0.9** (0.5-1.6)	†	**0.7** (0.3-1.4)	
Grade																
7	**1.1** (0.5-2.6)	**1.0** (0.6-1.6)	**1.4** (0.6-3.6)	**1.2** (0.4-3.3)	**0.7** (0.4-1.1)	†	†	**0.6** (0.1-3.6)	**0.6** (0.2-2.0)	**0.7** (0.3-1.6)	**0.8** (0.3-1.8)	**1.3** (0.6-2.6)	†	†	†	
8	—	—	—	—	—	—	—	—	—	**2.7** (1.6-4.4)	**1.2** (0.5-2.7)	**0.8** (0.4-1.5)	**1.0** (0.3-3.2)	†	†	b
9	**2.8** (1.4-5.4)	**3.0** (2.8-3.4)	**1.3** (1.1-1.6)	**1.3** (0.5-3.5)	**1.6** (0.9-2.8)	**1.0** (0.3-2.8)	†	**1.7** (0.8-3.2)	**1.8** (0.7-4.4)	**3.1** (1.9-5.1)	**3.8** (2.5-5.8)	**2.1** (1.4-3.1)	**1.5** (0.9-2.4)	**0.7** (0.3-1.5)	†	b
10	—	—	—	—	—	—	—	—	—	**3.5** (2.0-6.0)	**3.7** (2.0-6.7)	**3.6** (2.4-5.2)	**1.0** (0.6-1.9)	**0.7** (0.3-1.4)	†	b
11	**3.4** (2.6-4.5)	**2.7** (1.2-5.7)	**2.4** (2.0-3.0)	**1.6** (0.7-3.2)	**1.0** (0.4-3.0)	**0.6** (0.2-1.4)	**1.1** (0.5-2.8)	**3.1** (1.4-6.6)	**3.6** (2.4-5.3)	**5.4** (3.3-8.7)	**2.9** (1.9-4.5)	**2.6** (1.8-3.8)	**1.4** (0.8-2.8)	**1.3** (0.7-2.4)	**1.3** (0.7-2.3)	b
12	—	—	—	—	—	—	—	—	—	**2.3** (1.3-4.2)	**4.4** (2.4-8.0)	**2.7** (1.8-4.0)	**1.1** (0.6-2.0)	**0.8** (0.4-1.6)	**1.6** (0.8-3.1)	

(cont'd)

	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009
(n^1)										**(4447)**	**(3898)**	**(6616)**	**(7726)**	**(6323)**	**(9112)**
(n^2)	**(2991)**	**(3614)**	**(3146)**	**(3376)**	**(3040)**	**(2961)**	**(2617)**	**(2907)**	**(3072)**	**(2421)**	**(2013)**	**(3389)**	**(3969)**	**(3215)**	**(4424)**
Region															
Toronto[1]	—	—	—	—	—	—	—	—	—	**2.4** (1.4-4.2)	**2.3** (1.4-3.8)	**1.6** (0.9-2.8)	**1.4** (0.6-3.4)	**0.6** (0.2-1.6)	† [b]
Toronto[2]	**0.9** (0.3-2.9)	**1.9** (0.8-4.2)	**2.0** (1.8-2.2)	**1.0** (0.2-4.1)	**0.6** (0.1-3.8)	**1.1** (0.3-4.3)	**0.5** (0.1-2.1)	**1.0** (0.6-1.6)	**0.8** (0.2-3.1)	**2.4** (1.1-5.3)	**2.9** (2.0-4.2)	**1.2** (0.5-2.7)	**1.0** (0.4-3.0)	**0.7** (0.2-2.2)	†
North[1]	—	—	—	—	—	—	—	—	—	**2.6** (1.7-3.9)	**2.0** (1.1-3.5)	**3.1** (2.2-4.2)	**1.2** (0.6-2.3)	**0.8** (0.3-2.3)	† [b]
North[2]	**2.4** (0.7-7.8)	**1.4** (0.3-6.3)	**2.2** (0.7-6.8)	**2.0** (1.1-3.7)	**1.3** (0.5-3.6)	**2.3** (1.0-5.3)	†	**1.0** (0.1-8.4)	**1.8** (0.4-8.5)	**2.9** (1.7-5.0)	**1.7** (0.7-4.0)	**3.4** (2.1-5.6)	**1.2** (0.4-3.0)	†	†
West[1]	—	—	—	—	—	—	—	—	—	**3.5** (2.3-5.1)	**3.0** (2.1-4.3)	**2.0** (1.6-2.6)	**1.3** (0.8-1.9)	**0.7** (0.4-1.0)	**1.0** (0.5-2.0) [b]
West[2]	**2.8** (1.6-4.8)	**2.2** (1.7-2.8)	**2.0** (1.3-3.1)	**1.7** (0.8-3.6)	**1.1** (0.6-2.1)	†	**0.7** (0.4-1.3)	**2.4** (1.0-5.5)	**2.5** (1.5-4.0)	**4.1** (2.4-6.9)	**2.8** (1.8-4.4)	**2.0** (1.4-2.8)	**1.4** (0.8-2.5)	**1.1** (0.6-1.8)	**0.8** (0.4-1.6)
East[1]	—	—	—	—	—	—	—	—	—	**2.9** (1.9-4.4)	**3.2** (1.7-5.6)	**2.7** (1.9-3.8)	**0.6** (0.3-1.2)	**0.8** (0.4-1.3)	**0.7** (0.3-1.7) [b]
East[2]	**3.1** (2.0-5.0)	**2.5** (1.5-4.2)	**0.8** (0.4-1.4)	**0.8** (0.2-3.0)	**1.5** (0.8-2.8)	†	**0.7** (0.1-3.8)	**1.9** (0.8-4.2)	**2.4** (1.2-4.7)	**2.6** (1.4-4.5)	**2.2** (0.9-5.1)	**2.3** (1.4-3.6)	**0.7** (0.3-1.3)	**0.6** (0.2-1.8)	**0.7** (0.3-1.6)

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) † estimate suppressed due to unreliability; (5) no significant differences 2009 vs. 2007; [b] 2007 vs. 1999 significant difference, p<.01; [c] significant long-term linear trend, p<.01; [d] significant long-term nonlinear trend, p<.01.

Q: In the last 12 months, how often did you use the drug PCP (also known as “angel dust”, “dust”, “horse tranquillizer”, etc.)?

Source: OSDUHS, Centre for Addiction & Mental Health

Table A7
Percentage Reporting GHB Use, Rohypnol Use, and OTC Sleeping Medication Nonmedical Use in the Past Year, 2001–2009 OSDUHS (Grades 7–12)

		GHB					Rohypnol					OTC Sleep Medication	
	(n=)	**2001** (1837)	**2003** (3152)	**2005** (3648)	**2007** (2935)	**2009** (4261)	**2001** (1837)	**2003** (3152)	**2005** (3648)	**2007** (2935)	**2009** (4261)	**2007** (2935)	**2009** (4261)
Total (95% CI)		**1.3** (0.8-2.1)	**0.7** (0.4-1.1)	**0.5** (0.3-0.9)	**0.5** (0.3-1.0)	**0.5** (0.3-0.9)	**3.1** (2.0-4.8)	**1.6** (1.2-2.2)	**1.0** (0.7-1.4)	**0.6** (0.3-0.9)	**0.7** (0.4-1.2)	**4.0** (3.2-5.0)	**2.6** (2.0-3.4)
Sex	Males	**1.8** (1.0-3.4)	**0.8** (0.4-1.5)	**0.6** (0.3-1.3)	†	**0.7** (0.3-1.6)	**3.5** (1.6-7.3)	**1.7** (1.1-2.8)	**1.2** (0.8-1.9)	†	**0.7** (0.4-1.4)	**3.2** (2.3-4.4)	**2.2** (1.4-3.3)
	Females	**0.7** (0.3-1.5)	**0.6** (0.3-1.2)	**0.5** (0.3-0.9)	**0.7** (0.3-1.6)	†	**2.7** (1.6-4.7)	**1.5** (1.0-2.3)	**0.7** (0.4-1.2)	**0.8** (0.4-1.4)	**0.7** (0.3-1.5)	**4.9** (3.7-6.5)	**3.1** (2.2-4.2)
Grade	7	†	†	†	†	†	**1.6** (0.6-4.4)	**1.2** (0.5-2.9)	**0.6** (0.2-1.9)	†	†	†	†
	8	†	†	†	†	†	**2.6** (1.0-6.5)	**1.2** (0.5-2.7)	**1.1** (0.3-3.6)	†	†	†	**1.9** (1.1-3.5)
	9	**1.2** (0.4-3.3)	†	**0.7** (0.3-1.6)	†	†	**5.2** (3.4-7.9)	**1.4** (0.8-2.8)	**2.1** (1.2-3.6)	†	†	**5.6** (3.5-8.9)	**2.6** (1.3-4.8)
	10	**3.6** (1.7-7.1)	**0.9** (0.3-2.3)	**0.5** (0.2-1.2)	†	†	**3.0** (1.3-6.9)	**2.0** (1.0-4.0)	**1.4** (0.7-2.5)	†	†	**2.3** (1.4-3.9)	**2.8** (1.6-4.7)
	11	†	**1.7** (0.8-3.4)	**0.6** (0.3-1.5)	**1.0** (0.4-2.3)	†	**1.2** (0.4-3.5)	**2.3** (1.3-4.0)	**0.6** (0.2-1.6)	**0.8** (0.3-1.8)	**2.0** (0.8-5.0)	**5.0** (3.5-7.0)	**3.9** (2.4-6.4)
	12	**1.2** (0.3-3.8)	†	**0.5** (0.2-1.6)	**1.0** (0.3-2.9)	†	**5.4** (1.3-19.9)	**1.3** (0.5-3.2)	†	†	†	**4.4** (2.8-7.0)	**2.3** (1.1-4.6)
Region	Toronto	**1.6** (0.6-4.2)	**0.8** (0.3-2.1)	†	†	†	**2.9** (1.6-5.1)	**0.9** (0.4-2.0)	**0.8** (0.2-2.8)	†	†	†	†
	North	**0.7** (0.2-2.0)	**1.2** (0.6-2.6)	**0.7** (0.3-1.5)	**0.6** (0.1-4.2)	†	**1.6** (0.6-4.1)	**3.5** (1.9-6.5)	**1.5** (0.7-3.3)	**1.7** (0.6-4.4)	†	**5.4** (3.5-8.1)	**3.6** (2.0-6.3)
	West	**1.5** (0.7-3.1)	**0.5** (0.2-1.0)	**0.6** (0.3-1.1)	**0.5** (0.2-1.6)	†	**4.2** (2.1-8.1)	**1.4** (0.8-2.3)	**1.4** (0.9-2.1)	**0.6** (0.3-1.1)	**0.9** (0.4-2.0)	**4.2** (3.2-5.5)	**2.0** (1.2-3.4)
	East	**0.9** (0.3-2.3)	**0.8** (0.3-1.9)	†	**0.6** (0.3-1.5)	**0.9** (0.3-2.3)	**2.0** (0.9-4.5)	**2.0** (1.1-3.4)	†	**0.6** (0.2-1.6)	**0.7** (0.3-1.9)	**4.2** (2.7-6.6)	**2.8** (2.0-3.9)

Notes: (1) entries in brackets are 95% confidence intervals; (2) OTC = over-the-counter; (3) † estimate suppressed due to unreliability; (4) each drug based on a random half-sample in each year; (5) GHB: no significant changes between 2001 and 2009; Rohypnol: significant difference 2009 vs. 2001 ($p<.01$) for the total sample, males, females, and west region; OTC Sleeping Medication: no significant differences, 2009 vs. 2007.

Q: In the last 12 months, how often did you use GHB (also known as "G", "goop", "grevious bodily harm", "liquid ecstasy")?

Q: In the last 12 months, how often did you use Rohypnol (also known as "roach", "roofies")?

Q: In the last 12 months, how often did you use sleeping medicine from a drugstore, such as Nytol, Sleep-Eze D, Unisom or Sominex, for purposes other than sleeping?"

Source: OSDUHS, Centre for Addiction & Mental Health

Table A8
Percentage Reporting Nonmedical Stimulant Use in the Past Year, 1977–2011 OSDUHS

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)	
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)	
Total[1] (95% CI)	—	—	—	—	—	—	—	—	—	—	—	**7.3** (6.4-8.4)	**6.3** (5.4-7.4)	**5.8** (5.0-6.6)	**4.8** (4.1-5.6)	**5.7** (5.0-6.5)	**4.8** (4.1-5.5)	**4.1** (3.3-5.0)	b
Total[2]	**7.3** (6.4-8.3)	**11.0** (9.5-12.6)	**11.0** (9.4-12.8)	**14.3** (12.2-16.8)	**10.9** (9.4-12.5)	**7.6** (6.4-8.9)	**5.8** (5.0-6.6)	**3.8** (2.9-4.8)	**5.2** (3.7-7.4)	**6.4** (5.3-7.7)	**7.2** (6.2-8.3)	**6.7** (5.3-8.5)	**5.7** (4.6-7.2)	**5.4** (4.6-6.3)	**4.5** (3.6-5.6)	**5.6** (4.8-6.6)	**4.5** (3.7-5.6)	**4.4** (3.1-6.1)	cd
Sex																			
Males[1]	—	—	—	—	—	—	—	—	—	—	—	**5.3** (4.3-6.6)	**4.5** (3.4-6.0)	**4.7** (4.0-5.7)	**4.3** (3.5-5.2)	**4.0** (3.2-5.0)	**3.4** (2.6-4.4)	**3.0** (2.3-3.9)	b
Males[2]	**7.6** (6.4-9.1)	**12.4** (10.7-14.5)	**10.8** (9.4-12.4)	**14.1** (11.6-17.0)	**10.6** (8.6-13.0)	**7.1** (5.4-9.4)	**5.0** (3.6-6.9)	**2.9** (1.8-4.6)	**3.4** (1.9-6.0)	**5.1** (3.8-6.8)	**5.0** (4.1-6.0)	**4.7** (3.4-6.4)	**4.0** (2.6-5.9)	**4.8** (3.8-6.1)	**3.9** (2.9-5.1)	**4.0** (3.1-5.3)	**2.8** (1.9-4.1)	**3.4** (2.4-4.9)	
Females[1]	—	—	—	—	—	—	—	—	—	—	—	**9.4** (8.0-11.0)	**8.0** (6.7-9.6)	**6.7** (5.7-7.8)	**5.4** (4.5-6.5)	**7.5** (6.3-8.8)	**6.3** (5.4-7.2)	**5.3** (4.0-6.9)	b
Females[2]	**7.0** (5.8-8.4)	**9.4** (7.6-11.6)	**11.2** (8.4-14.8)	**14.6** (12.3-17.3)	**11.2** (9.0-13.8)	**8.0** (6.7-9.4)	**6.5** (4.9-8.6)	**4.7** (3.6-6.2)	**7.0** (5.0-9.8)	**7.6** (5.2-11.0)	**9.1** (7.8-10.7)	**8.8** (6.7-11.5)	**7.5** (5.9-9.6)	**5.9** (4.7-7.4)	**5.1** (3.8-7.0)	**7.3** (5.9-8.9)	**6.4** (5.2-7.8)	**5.3** (3.4-8.3)	
Grade																			
7	**3.1** (2.2-4.4)	**4.2** (3.2-5.6)	**2.2** (1.5-3.1)	**3.4** (2.2-5.3)	**3.0** (1.3-6.7)	**2.3** (1.6-3.2)	**1.4** (0.9-2.1)	**0.9** (0.3-2.5)	**1.4** (0.8-2.4)	**2.1** (1.3-3.5)	**2.3** (0.6-8.5)	**1.8** (1.1-3.0)	**1.9** (1.1-3.3)	**1.6** (0.9-2.6)	†	**1.9** (1.0-3.6)	†	†	
8	—	—	—	—	—	—	—	—	—	—	—	**6.3** (4.1-9.4)	**3.3** (2.2-5.0)	**3.7** (2.5-5.5)	**3.9** (2.5-5.8)	**3.3** (2.1-5.0)	**3.6** (2.7-4.8)	**2.5** (1.5-4.0)	b
9	**9.0** (7.5-10.8)	**10.5** (8.6-12.7)	**13.2** (12.5-14.0)	**15.5** (12.6-18.9)	**10.6** (9.1-12.3)	**6.9** (4.6-10.2)	**7.5** (6.0-9.4)	**2.5** (1.9-3.2)	**4.8** (3.4-6.8)	**6.3** (4.2-9.2)	**7.0** (6.0-8.1)	**6.9** (5.3-9.0)	**5.5** (3.6-8.3)	**5.6** (4.2-7.5)	**5.7** (4.0-8.2)	**6.4** (5.1-8.2)	**4.5** (3.2-6.3)	**3.3** (2.3-4.7)	b
10	—	—	—	—	—	—	—	—	—	—	—	**8.4** (6.2-11.3)	**7.8** (5.7-10.6)	**6.6** (4.8-9.1)	**5.3** (3.9-7.2)	**5.4** (3.9-7.4)	**5.1** (3.7-6.9)	**4.0** (2.9-5.6)	b
11	**9.7** (7.6-12.3)	**19.1** (15.5-23.4)	**18.3** (13.8-23.9)	**28.9** (22.8-35.9)	**18.9** (15.8-22.4)	**13.0** (10.2-16.2)	**8.3** (7.5-9.1)	**7.6** (5.6-10.3)	**8.9** (5.1-15.0)	**10.2** (8.2-12.6)	**11.2** (9.9-12.8)	**10.7** (7.5-14.9)	**10.3** (7.4-14.1)	**8.2** (6.4-10.4)	**6.5** (4.9-8.4)	**8.2** (6.7-10.0)	**7.5** (5.8-9.8)	**7.7** (4.7-12.2)	
12	—	—	—	—	—	—	—	—	—	—	—	**10.0** (7.9-12.7)	**10.4** (6.9-15.4)	**7.8** (5.9-10.1)	**6.0** (4.6-7.9)	**7.9** (6.0-10.4)	**5.7** (4.2-7.8)	**4.5** (2.9-6.9)	b

(cont'd)

	1977	1979	1981	1983	1985	1987	1989	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011
(n[1])												(4447)	(3898)	(6616)	(7726)	(6323)	(9112)	(9288)
(n[2])	(3927)	(3920)	(2991)	(3614)	(3146)	(3376)	(3040)	(2961)	(2617)	(2907)	(3072)	(2421)	(2013)	(3389)	(3969)	(3215)	(4424)	(4669)
Region																		
Toronto[1]	—	—	—	—	—	—	—	—	—	—	—	**5.3** (3.9-7.2)	**5.0** (4.0-6.3)	**3.8** (2.8-5.2)	**2.9** (2.0-4.2)	**3.8** (2.4-6.0)	**2.8** (1.7-4.5)	**2.8** [b] (2.1-3.8)
Toronto[2]	—	—	**4.9** (3.3-7.4)	**13.3** (8.6-20.1)	**12.6** (11.1-14.4)	**5.3** (3.3-8.4)	**5.6** (3.1-9.7)	**3.3** (1.8-6.1)	**3.4** (1.4-7.9)	**4.0** (2.1-7.5)	**3.6** (2.5-5.2)	**5.3** (3.5-8.0)	**5.4** (3.6-8.0)	**3.3** (2.0-5.5)	**3.2** (1.8-5.8)	**2.9** (1.5-5.6)	**2.9** (1.2-6.9)	**2.7** (1.7-4.2)
North[1]	—	—	—	—	—	—	—	—	—	—	—	**8.4** (6.5-10.8)	**6.6** (4.9-8.8)	**7.8** (6.1-10.0)	**7.5** (4.5-12.2)	**7.2** (5.7-9.1)	**7.0** (5.2-9.3)	**5.3** (3.4-8.1)
North[2]	—	—	**7.8** (5.0-11.8)	**16.0** (14.7-17.3)	**13.0** (8.7-19.1)	**11.0** (7.1-16.7)	**7.3** (3.9-13.5)	**3.5** (1.1-10.5)	**7.7** (1.6-29.5)	**9.2** (5.2-15.6)	**8.1** (4.8-13.3)	**6.1** (4.3-8.6)	**6.2** (3.9-9.7)	**7.4** (5.3-10.1)	**9.6** (4.9-18.2)	**6.7** (4.3-10.3)	**6.3** (3.8-10.5)	**6.5** (3.8-11.0)
West[1]	—	—	—	—	—	—	—	—	—	—	—	**8.6** (6.8-10.9)	**7.2** (5.5-9.3)	**6.3** (5.1-7.6)	**5.5** (4.4-6.9)	**5.8** (4.8-7.2)	**5.3** (4.2-6.7)	**4.0** [b] (2.7-6.0)
West[2]	—	—	**13.8** (11.0-17.3)	**15.8** (12.5-19.8)	**12.0** (9.1-15.7)	**7.2** (5.3-9.6)	**5.4** (4.8-5.9)	**4.1** (3.0-5.6)	**6.7** (4.3-10.2)	**5.8** (4.2-8.0)	**9.2** (7.4-11.4)	**7.7** (5.1-11.6)	**6.0** (4.0-8.7)	**6.5** (5.1-8.2)	**4.3** (3.0-6.1)	**5.7** (4.6-6.9)	**5.1** (3.7-7.0)	**5.1** (2.8-9.1)
East[1]	—	—	—	—	—	—	—	—	—	—	—	**6.4** (5.0-8.1)	**5.8** (4.1-8.0)	**5.6** (4.3-7.3)	**4.3** (3.3-5.8)	**6.1** (4.9-7.6)	**4.6** (3.8-5.5)	**4.6** (3.6-5.8)
East[2]	—	—	**12.6** (11.7-13.6)	**12.6** (8.7-18.0)	**7.0** (5.4-8.9)	**8.6** (7.2-10.4)	**6.1** (5.2-7.0)	**3.7** (2.2-6.3)	**3.6** (1.9-6.7)	**8.1** (6.2-10.6)	**6.2** (5.1-7.5)	**6.4** (4.6-8.8)	**5.6** (3.5-8.9)	**4.4** (3.3-5.8)	**4.2** (3.2-5.6)	**6.7** (5.1-8.8)	**4.3** (3.2-5.8)	**3.8** (2.9-5.0)

Notes: (1) based on Grades 7-12 (full sample); (2) based on Grades 7, 9, and 11 only (long-term sample); (3) regional stratification differed in 1977 and 1979 and therefore regions are not presented; (4) entries in brackets are 95% confidence intervals; (5) † estimate suppressed due to unreliability; (6) no significant differences 2011 vs. 2009; [b] 2011 vs. 1999 significant difference, p<.01; [c] significant long-term linear trend; [d] significant long-term nonlinear trend.

Q: In the last 12 months, how often did you use stimulants such as diet pills and stay-awake pills (also known as “uppers”, “bennies”, “dexies”, “pep pills”, etc.) without a prescription?

Source: OSDUHS, Centre for Addiction & Mental Health

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