



1977–
2015

CAMH Monitor eReport 2015:

Substance Use, Mental Health and Well-Being Among Ontario Adults

CAMH Research Document Series
No. 45

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THE 2015 CAMH MONITOR eREPORT

Executive Summary

The Centre for Addiction and Mental Health's *CAMH Monitor* is the longest ongoing representative survey of adult substance use in Canada. The study, which spans **39 years**, is based on 30 cross sectional probability surveys, conducted between 1977 and 2015. The 2015 cycle of the *CAMH Monitor* is based on telephone interviews with **5,013** adults aged 18 and older across Ontario (completion rate - 46% of eligible respondents). This report presents the 2015 estimates of

substance use and related harms, as well as mental health and well-being indicators among Ontario adults. It also describes changes in substance use and health indicators since 1996 and since 1977, where available.

New indicators in this report include: use of electronic cigarettes, texting while driving, traumatic brain injuries (lifetime), moderate psychological distress, problem gambling and problematic use of electronic devices.

Substance Use, Mental Health and Well-Being Indicators, 2015 CAMH Monitor

Indicator	Total %	Men %	Women %	Total Population Estimate ¹	
Alcohol					
Percentage drinking alcohol - past 12 months	80.0	83.5	76.7	*	8,125,700
Percentage drinking daily - total sample	7.0	9.8	4.5	*	711,300
- among drinkers	8.8	11.8	5.8	*	
Average number of drinks consumed weekly - among drinkers (<i>mean</i>)	4.3	5.9	2.8	*	-
Percentage exceeding low-risk drinking guidelines ² - total sample	14.2	15.1	13.3		1,447,500
- among drinkers	17.5	17.8	17.1		
Percentage consuming 5 or more drinks on a single occasion weekly (weekly binge drinking) - total sample	7.5	11.3	3.9	*	753,200
- among drinkers	9.3	13.5	5.1	*	
Percentage reporting hazardous or harmful drinking (AUDIT 8+) - total sample	14.6	21.5	8.4	*	1,439,700
- among drinkers	18.4	25.9	11.0	*	
Percentage reporting symptoms of alcohol dependence (based on the AUDIT) - total sample	7.2	8.5	6.0	*	725,400
Tobacco					
Percentage currently smoking cigarettes - smoking daily	13.2	15.6	11.0	*	1,336,100
- among smokers (<i>mean</i>)	10.0	11.6	8.5	*	1,012,200
Average number of cigarettes smoked daily - among smokers (<i>mean</i>)	10.8	11.7	9.6	*	-
Percentage of daily smokers reporting high nicotine dependence - among daily smokers	8.4	9.3	7.3		83,400
Percentage reporting electronic cigarette use - past 12 months	10.9	12.9	9.2		1,113,000

cont'd

Indicator	Total %	Men %	Women %		Total Population Estimate¹
Cannabis					
Percentage using cannabis in lifetime	45.3	51.9	39.2	*	4,576,900
Percentage using cannabis - past 12 months	14.5	19.2	10.2	*	1,467,400
Percentage reporting moderate or high risk of cannabis problems (ASSIST-CIS 4+)					
- total sample	7.5	11.4	3.8	*	753,300
- among users	45.1	51.6	33.1		
Cocaine					
Percentage using cocaine in lifetime	8.3	11.5	5.4	*	840,300
Percentage using cocaine - past 12 months	1.6	2.5	1.0	*	161,900
Prescription opioid pain relievers					
Percentage reporting any use of prescription opioid pain relievers - past 12 months	22.6	21.1	24.1		2,280,400
Percentage using prescription opioid pain relievers for non-medical purposes - past 12 months	4.1	3.8	4.4		414,600
Driving³					
Percentage of drivers who drove after drinking two or more drinks in the previous hour - past 12 months	4.9	9.2	s	*	451,700
Percentage of drivers who drove after using cannabis in the previous hour - past 12 months	2.9	5.6	s	*	266,600
Percentage of drivers who reported texting while driving - past 12 months	36.8	37.9	35.8		3,351,200
Mental Health					
Percentage reporting moderate to serious psychological distress during the past 30 days (K6/5+)	25.7	22.4	28.7	*	2,598,800
Percentage reporting serious psychological distress during the past 30 days (K6/13+)	3.1	2.8	3.4		317,200
Percentage using prescribed antianxiety medication - past 12 months	10.3	7.7	12.7	*	1,042,200
Percentage using prescribed antidepressant medication - past 12 months	8.7	6.1	11.2	*	880,200
Percentage reporting poor mental health in general	6.7	5.9	7.3		676,000
Percentage reporting frequent mental distress days (14+) during the past 30 days	9.7	7.9	11.4		958,900
Percentage reporting suicidal ideation – past 12 months	2.4	2.5	2.2		238,600
Physical Health					
Percentage reporting fair or poor health in general	9.9	9.9	9.8		1,000,000
Percentage reporting frequent physically unhealthy days (14+) during the past 30 days	8.9	6.6	11.1		881,000
Percentage reporting traumatic brain injury (TBI) - lifetime	15.3	19.6	11.2	*	1,542,500
Gambling					
Percentage reporting any gambling - past 12 months	68.1	72.1	64.4	*	6,845,900
Percentage reporting casino gambling - past 12 months	25.4	28.1	22.9	*	2,575,400
Percentage reporting online gambling - past 12 months	3.8	5.4	2.8	*	382,300

Indicator	Total %	Men %	Women %	Total Population Estimate ¹
Percentage reporting problem gambling (PGSI/3+) - past 12 months	1.7	1.9	1.4	169,500
Use of Electronic Devices				
Average no. of hrs/week using email, social media (<i>mean</i>)	11.5	10.7	12.1 *	–
Average no. of hrs/week playing video games (<i>mean</i>)	3.7	4.3	3.2 *	–
Percentage reporting moderate to severe problematic use of electronic devices (3+ symptoms) – past 12 months	7.1	7.6	6.6	716,100

Notes: ¹ population estimates for total sample based on an adult population of 10,157,960 are rounded to the nearest hundred; ² estimates are based on 2014 data; ³ estimates are based on licensed drivers; * indicates a significant sex difference (p<.05) when controlling for other demographic factors; s – estimates have been suppressed due to high sampling variability.

2015 Subgroup Differences for Substance Use, Mental Health and Well-Being Indicators

- **Sex** was significantly associated with most measures analysed.
 - Women** displayed higher prevalence estimates than men for moderate psychological distress, antianxiety and antidepressant medication and average number of hours spent weekly using email/social media.
 - Men** displayed higher prevalence estimates than women on all other measures where differences were observed. Specifically, men were significantly more likely than women to:
 - drink alcohol in the past year
 - drink alcohol daily
 - consume more drinks weekly
 - report weekly binge drinking (5 or more drinks on a single occasion)
 - drink hazardously or harmfully
 - report symptoms of alcohol dependence
 - currently smoke cigarettes
 - smoke cigarettes daily
 - use cannabis during lifetime
 - use cannabis in the past year
 - report cannabis use problems
 - use cocaine during lifetime
 - use cocaine in the past year
 - report drinking and driving
 - report cannabis use and driving
 - report lifetime traumatic brain injuries
- report any gambling participation
- report casino gambling
- report online gambling
- report playing videogames weekly.
- **Age** of respondent was also significantly associated with our substance use and health indicators. In most cases, use declined with age or was highest among 18 to 29 year olds. The only two exceptions were daily drinking and poor health, which increased with age. After adjusting for other demographic characteristics, **18 to 29** year olds were significantly more likely than older respondents to:
 - report weekly binge drinking
 - drink hazardously or harmfully
 - report symptoms of alcohol dependence
 - use e-cigarettes in the past year
 - use cannabis in the past year
 - report cannabis use problems
 - use cocaine in the past year
 - report cannabis use and driving in the past year
 - report moderate psychological distress
 - report suicidal ideation
 - report playing videogames weekly
 - report using email/social media weekly
 - report problematic use of electronic devices.

- **Marital status** was also significantly associated with 14 measures. In all cases, substance use or health concerns were higher among never married or previously married (divorced or widowed) respondents. After adjusting for other factors, **never married** respondents were more likely to:

- drink hazardously or harmfully
- currently smoke cigarettes
- use cannabis during the past year
- use prescription opioids non-medically
- use email/social media weekly.

Previously married respondents were more likely to:

- report weekly binge drinking
- report current and daily smoking
- use cocaine during lifetime
- report poor health
- report poor mental health
- report any gambling.

- **Education level** was significantly associated with 17 substance use indicators. The most common pattern noted was that substance use declined with increasing education. Specifically, when adjusting for other demographic characteristics, respondents holding a **university degree** were significantly less likely to:

- report binge drinking weekly
- report current and daily smoking
- report psychological distress
- report poor health.

Respondents **not completing high school** were significantly more likely to:

- report current smoking
- report daily smoking
- use any prescription opioids
- report psychological distress.

- **Region** was significantly associated with 9 measures. With the exception of frequent physically unhealthy days (which was highest in Toronto), the most common regional pattern noted was that estimates for substance use and other health indicators were lower among Toronto residents. After adjusting for other factors, respondents from **Toronto** were less likely to:

- drink alcohol in the past year
- report weekly binge drinking
- report daily smoking
- report texting while driving
- report any gambling.

- **Income** was significantly associated with 17 measures. The general pattern showed that rates of alcohol use and texting and driving tended to increase with increasing income or were highest among those with higher incomes. Specifically, when adjusting for other demographic characteristics, respondents with **higher incomes** were significantly more likely to:

- drink alcohol in the past year
- drink alcohol daily
- drink hazardously or harmfully
- report texting and driving.

However, rates of prescription opioid use and other health concerns were higher among those with lower incomes. After adjusting for other demographic characteristics, respondents with **lower incomes** were significantly more likely to:

- use prescription opioids
- report psychological distress
- report poor mental health
- use antianxiety medication
- use antidepressants
- report poor health
- report frequent physically unhealthy days.

Past Year Changes 2014 vs. 2015

Only three indicators **increased** significantly among the total sample between 2014 and 2015:

- **Hazardous or harmful drinking** increased significantly from 12.0% to 14.6%, especially among those aged 65 and older.
- **Nonmedical use of prescription opioid** pain relievers increased significantly, from 2.1% to 4.1%, especially among women and older adults.
- Reporting **frequent mental distress days** in the past 30 days, increased from 6.0% to 9.7%, especially among men.

1996–2015 Trends

Alcohol

Some important changes were seen in **alcohol use**. First, we found some significant **declines** in binge drinking and drinking at a level exceeding the low-risk drinking guidelines.

- **Binge drinking** declined from 12.3% in 2006 to 7.5% in 2015 for the total sample and from 15.9% to 9.3% among drinkers. This decline was evident for all demographic factors examined. Such a decline in binge drinking has public health significance because binge drinking has been strongly linked to both intentional and unintentional injury.
- Another overall decline was found for exceeding the **low-risk drinking guidelines** (LRDG). The percent of Ontarians exceeding the LRDG declined significantly from 21.5% in 2005 to 14.2% in 2014, and this decline was evident especially among men and 18 to 29 year olds.

There were, however, some significant **increases** in alcohol use among both men and women.

- **Daily drinking** among drinkers increased significantly from 5.3% in 2002 to 8.8% in 2015. Significant increases were found among both male drinkers (from 7.1% in 2005 to 11.8% in 2015), and female drinkers (from a low of 2.6% in 2001 to 5.8% in 2015).
- The **average number of drinks** consumed weekly increased from 3.3 in 1996 to 4.3 in 2015. This increase was evident among both men and women. The number of drinks consumed among male drinkers increased from 4.8 drinks in 1996 to 5.9 drinks in 2015, and among female drinkers, from 1.9 drinks in 1996 to 2.8 drinks in 2015.

Tobacco

Another important change was the **decline** in **current cigarette smoking**.

- **Current cigarette smoking** declined significantly from 26.7% in 1996 to 13.2% in 2015. There were also significant declines since 1996 for all sex, age, region, marital status and education subgroups.
- **Daily smoking** declined by more than half, from 23.0% in 1996 to 10.0% in 2015, and the 2015 estimates are the lowest on record.
- However, a significant increase was found for **electronic cigarette** use, from 6.9% in 2013 to 10.9% in 2015.

Cannabis

A significant **increase** was evident for past year cannabis use over the long-term.

- Past year **cannabis** use increased from 8.7% in 1996 to 14.5% in 2015, but the overall trend has been generally stable since 2005. This long-term increase was evident among both men and women, and for all region, marital status and education subgroups. Significant increases were found for all age groups, but especially among 18 to 29 year olds (from 18.3% in 1996 to 37.9% in 2015).
- Another important change related to cannabis use has been the **aging** of cannabis users. Between 1996 and 2015, the percentage of cannabis users aged 50 years and older increased from 2% to 23%.

Other Drugs

- Although past year use of **cocaine** remained low (under 2.2%) we found a significant **increase** from 0.8% in 1996 to 1.6% in 2015 and this increase was evident especially among men and 18 to 29 year olds (from 1.1% in 1996 to 5.9% in 2015).
- Past year use of **prescription opioid** pain relievers **declined** significantly from 26.6% in 2010 to 22.6% in 2015.
- Past year **nonmedical use** of prescription opioids declined from 7.7% in 2010 to 2.1% in 2014, but **increased** significantly to 4.1% in 2015.

Driving

- **Driving after drinking** among drivers **declined** significantly from 13.1% in 1996 to 4.9% in 2015. The most striking decline was seen among male drivers (from 21.2% in 1996 to 9.2% in 2015) and among young adult drivers

aged 18 to 29 (from 20.1% in 1996 to 6.7% in 2015).

- **Driving after cannabis use** increased significantly from 1.5% in 2010 to 2.9% in 2015. Significant linear **increases** were found among men (from 1.9% in 2012 to 5.6% in 2015) and among those aged 18 to 29 (from 2.8% in 2009 to 7.5% in 2015).

Mental Health

Some significant **increases** were seen in **mental health** indicators.

- Between 2003 and 2015, there was a significant overall increase in **self-rated poor mental health** (from 4.7% to 6.7%). These increases were especially evident among women (from 4.5% in 2003 to 7.3% in 2015) and among 18 to 29 year olds (from 2.9% in 2009 to 8.5% in 2015).
- There was also a significant increase overall in reporting **frequent mental distress days** in the past 30 days, from 5.4% in 2003 to 9.7% in 2015. This increase was evident among both men and women.
- Use of **antianxiety medication** among the total sample significantly increased from 4.5% in 1999 to 10.3% in 2015, especially among women (from 5.6% to 12.7%) and among 18 to 29 year olds (from 1.7% to 10.7%).
- Use of **antidepressants** also increased significantly, from 3.6% in 1999 to 8.7% in 2015. Significant increases were also evident for all sex, region, marital status, and education subgroups. Increases were strongest among 18 to 29 year olds, from 2.0% in 2007 to 8.5% in 2015.

Gambling

- The past year prevalence of estimates for lottery, Sport Select, bingo, horse racing, and online gambling were **significantly lower** in 2015 compared to the last estimate (2005 or 2003). All gambling activities have shown a significant downward trend between 2000 and 2015.
- Overall, the prevalence of **any gambling** in the past year declined significantly from 80.3% in 2000 to 68.1% in 2015. Significant subgroup declines were also evident for sex, age, region, marital status and education.
- The prevalence of **casino gambling** declined significantly from 33.7% in 2000 to 25.4% in 2015. Significant subgroup declines were also evident for most subgroups analysed.
- The prevalence of **online gambling** declined from 6.6% in 2003 to 3.8% in 2015. Significant subgroup declines were also evident for most subgroups analysed.
- However, although the prevalence of gambling declined, the overall prevalence of **problem gambling** in 2015 (1.7%) was not significantly different from 2005 (1.9%).

Long-Term Trends, 1977–2015

Long-term changes in substance use are particularly noteworthy in two areas.

- The first area is long-term trends showing **increases** in past year **cannabis** use and the **aging** of cannabis users. Past year cannabis use increased significantly, from 8.1% in 1977 to 14.5% in 2015. Current estimates show that, on average, **cannabis** users in 2015 were older than their counterparts in 1977 (average age of 34.9 years vs. 25.6

years, respectively). In 1977, 82% of cannabis users were aged 18-29 compared to 51% in 2015. In contrast, the proportion of past year cannabis users aged 30 to 49 years increased significantly from 15% in 1977 to 26% in 2015, and the proportion of past year cannabis users aged 50 and older increased almost eight-fold, from 3% to 23% during the same period.

- The second area with notable long-term trends is **daily drinking** since 1977. Although the percentage drinking alcohol has varied between 77% and 87%, relatively fewer drinkers today are drinking daily compared to decades ago (8.8% in 2015 vs. 13.4% in 1977). The percentage of past year drinkers who reported drinking daily decreased steadily from 13.4% in 1977 to 5.9% in 1995, and remained around 6% until 2006. During the past decade, however, this trend has reversed, and daily drinking increased significantly from 5.9% in 2006 to 8.8% in 2015. This non-linear trend was especially prominent among male drinkers, whose daily drinking dropped from 19.5% in 1977 to 7.1% in 2005 and then increased to 11.8% in 2015.

Some Encouraging Findings

The following findings should be considered as encouraging.

Cigarettes

The majority of Ontario adults (86.8%) do not smoke cigarettes. Current cigarette smoking has significantly declined since 1996, as has daily smoking (from 23.0% in 1977 to 10.0% in 2015).

Alcohol

Although the majority of Ontario adults (80.0%) are past year drinkers, most do not drink excessively. Indeed, the survey noted that 91% of drinkers do not binge drink weekly, 82.5% do not exceed recommended drinking guidelines and 82% do not exceed

the AUDIT threshold for hazardous or harmful drinking.

There were also significant declines overall in binge drinking (defined as consuming five or more drinks on a single occasion weekly) between 2006 (12.3%) and 2015 (7.5%).

This decline was generally robust, occurring among several subgroups, but was especially evident among men (from 20.7% in 2001 to 11.3% in 2015).

Cannabis

Although the percentage that used cannabis in the past year has increased significantly over the long-term, use is generally infrequent. For example, among lifetime users, only 15.4% reported using cannabis once a month or more frequently.

Driving After Drinking

Between 1996 and 2015, driving after drinking among drivers declined by more than half, from 13.1% to 4.9%. This decline occurred among several subgroups, including men (whose estimate fell from 21.2% to 9.2%). These declines occurred over a period when the province introduced several measures designed to reduce impaired driving rates, including increased sanctions for ‘warn-range’ drivers and measures to increase the use of ignition interlock devices by convicted offenders.

Prescription Opioid Pain Relievers

The proportion of the Ontario adult population who reported nonmedical use of prescription opioid pain relievers declined from 7.7% in 2010 to 4.1% in 2015. This decline occurred during a period when provincial programs and policies to reduce nonmedical use of these substances were introduced.

Gambling

Gambling remains common in the Ontario population, but the proportion reporting any gambling in the past year, as well as lottery, Sport Select, bingo, horse racing, online and casino gambling have declined since the early 2000’s. However, the proportion of the population who are problem gamblers remains unchanged.

Some Public Health Concerns

There are several public health concerns – findings that point to potential public health problems that require attention and monitoring – raised by these *CAMH Monitor* findings.

Cigarettes

Cancer Care Ontario (CCO) set a target to reduce adult smoking to 5% by 2020.

Despite the fact that the rate of cigarette smoking among Ontario adults has declined substantially, the current rate of 13.2% is more than two times higher than the CCO target of 5% and it seems unlikely that this target will be met.

Cannabis

Past year use of cannabis **increased** significantly from 8.7% in 1996 to 14.5% in 2015, for both men and women and among all age groups. Among 18 to 29 year olds, cannabis use increased more than two-fold, from 18.3% in 1996 to 37.9% in 2015. Although cannabis use is generally infrequent (52% of past year users report using less than once a month), the percentage of users reporting **daily use is 19%**. Daily use may increase the likelihood of respiratory illnesses. In addition, the potential medical complications related to the **aging of cannabis users** and especially the increase in past year cannabis use among middle-aged and older adults is worthy of further study.

Alcohol

A sizeable percentage of drinkers consume alcohol at levels exceeding recommended **low-risk drinking guidelines**. Nearly one-in-six drinkers (17.5%) reported exceeding these guidelines in 2014. **Harmful or hazardous drinking**, as defined by the AUDIT, increased significantly from 12.0% to 14.6% of the adult population between 2014 and 2015. There was also a significant increase in the **average number of drinks** consumed weekly, from 3.3 in 1996 to 4.3 in 2015, and increases were also found in **daily drinking** among past year drinkers, from 5.3% in 2002 to 8.8% in 2015. This

increase was especially prominent among women (from 2.6 % in 2001 to 5.8% in 2015). Such an increase in alcohol use among women is of concern given the harmful effects of heavy alcohol use.

Driving

Motor vehicle collisions are leading causes of preventable death and injury, and driving under the influence of alcohol, cannabis and other drugs, and driving while distracted, have been identified as major causes of these collisions. **Driving after cannabis use** has displayed a significant linear **increase** from 1.5% in 2010 to 2.9% in 2015 (about 266,600 licensed drivers). In addition, in 2015, an estimated 36.5% of Ontario adults with a valid driver's licence reported **texting** while driving at least once during the past 12 months (about 3,350,000 drivers) and 10.7% reported texting while driving 30 times or more in the past 12 months.

Prescription Opioid Pain Relievers

In spite of a decline in use, 4.1% of the Ontario adult population (about 415,000 adults) report **nonmedical use** of prescription opioid pain relievers in 2015. These are powerful and addictive drugs that have been linked to increased use of illicit opiates and death from overdose.

Mental Health

About 25.7% (2.6 million Ontario adults) experienced moderate psychological distress in 2015 and we found a significant **increase** in self-reports of **poor mental health** from 4.7% in 2003 to 6.7% in 2015. About one in ten adults (10.3%) used prescribed medication to treat **anxiety** (1 million Ontario adults) and one in eleven (8.7%) used prescribed medication to treat **depression** (880,000 adults). The percentage of Ontario adults reporting past year use of prescribed depression and anxiety medication increased significantly between 1999 and 2015 (from 3.6% to 8.7%, and from 4.5% to 10.3%, respectively). In addition, in 2015, an estimated 2.4% of Ontario adults (about 238,600) reported that they seriously contemplated **suicide** during the 12 months before the survey.

L'INDICATEUR DE CAMH 2015 (rapport électronique)

Résumé

L'Indicateur de CAMH, publié par le Centre de toxicomanie et de santé mentale, est la plus ancienne étude représentative continue sur l'utilisation de substances intoxicantes par les adultes au Canada. Effectuée depuis **39 ans**, cette étude porte sur 30 sondages probabilistes transversaux menés entre 1977 et 2015. Le cycle de 2015 de L'Indicateur de CAMH repose sur des entrevues téléphoniques menées auprès de **5 013** adultes en Ontario âgés de 18 ans et plus (taux de réponse : 46 % des répondants admissibles). Le rapport présente les estimations des problèmes liés à l'utilisation de substances intoxicantes et des méfaits connexes en 2015, ainsi que les

indicateurs de la santé mentale et du bien-être chez les adultes ontariens. Il décrit également l'évolution des indicateurs de l'utilisation de substances intoxicantes et de la santé depuis 1996 et depuis 1977, dans les cas où des données ont été obtenues.

Le rapport 2015 comprend de nouveaux indicateurs, notamment : utilisation de cigarettes électroniques, envoi de textos au volant, traumatismes cérébraux (tout au long de la vie), détresse psychologique modérément grave, jeu problématique et utilisation problématique de dispositifs électroniques.

L'Indicateur de CAMH 2015 : Indicateurs de l'utilisation de substances intoxicantes, de la santé mentale et du bien-être

Indicateur	Total %	Hommes %	Femmes %		Population estimative totale ¹
Alcool					
Pourcentage de personnes ayant bu de l'alcool au cours des 12 mois écoulés	80	83,5	76,7	*	8 125 700
Pourcentage de personnes ayant bu tous les jours	7	9,8	4,5	*	711 300
- échantillon total	7	9,8	4,5	*	
- chez les buveurs	8,8	11,8	5,8	*	
Nombre moyen de verres consommés par semaine					-
- chez les buveurs (<i>moyenne</i>)	4,3	5,9	2,8	*	
Pourcentage de personnes ayant bu plus d'alcool que la quantité jugée acceptable dans les directives de consommation d'alcool à faible risque ²					
- échantillon total	14,2	15,1	13,3	*	1 447 500
- chez les buveurs	17,5	17,8	17,1	*	
Pourcentage de personnes ayant bu cinq verres ou plus en une occasion, par semaine (excès d'alcool hebdomadaires)					
- échantillon total	7,5	11,3	3,9	*	753 200
- chez les buveurs	9,3	13,5	5,1	*	
Pourcentage de personnes ayant signalé une consommation d'alcool dangereuse ou nocive (AUDIT 8+)					
- échantillon total	14,6	21,5	8,4	*	1 439 700
- chez les buveurs	18,4	25,9	11	*	
Pourcentage de personnes ayant signalé des symptômes de dépendance à l'alcool (selon le questionnaire AUDIT)					
- échantillon total	7,2	8,5	6	*	725 400
Tabac					
Pourcentage de personnes qui fument la cigarette (au moment de l'étude)	13,2	15,6	11	*	1 336 100
- personnes qui fument tous les jours	10	11,6	8,5	*	1 012 200

Indicateur	Total %	Hommes %	Femmes %	Population estimative totale ¹
Nombre moyen de cigarettes fumées tous les jours - tous les fumeurs (<i>moyenne</i>)	10,8	11,7	9,6 *	-
Pourcentage de fumeurs quotidiens ayant une forte dépendance au tabac	8,4	9,3	7,3	83 400
Pourcentage de personnes ayant fumé une cigarette électronique au cours des 12 mois écoulés	10,9	12,9	9,2	1 113 000
Cannabis				
Pourcentage de personnes ayant pris du cannabis au cours de leur vie	45,3	51,9	39,2 *	4 576 900
Pourcentage de personnes ayant pris du cannabis au cours des 12 mois écoulés	14,5	19,2	10,2 *	1 467 400
Pourcentage de personnes ayant signalé un risque modéré ou élevé de problèmes liés à la consommation de cannabis (ASSIST-CIS 4+)				
- échantillon total	7,5	11,4	3,8 *	753 300
- chez les usagers	45,1	51,6	33,1	
Cocaïne				
Pourcentage de personnes ayant pris de la cocaïne au cours de leur vie	8,3	11,5	5,4 *	840 300
Pourcentage de personnes ayant pris de la cocaïne au cours des 12 mois écoulés	1,6	2,5	1 *	161 900
Analgsiques opioïdes sur ordonnance				
Pourcentage de personnes ayant pris des analgsiques opioïdes sur ordonnance au cours des 12 mois écoulés	22,6	21,1	24,1	2 280 400
Pourcentage de personnes ayant pris des analgsiques opioïdes sur ordonnance à des fins non médicales au cours des 12 mois écoulés	4,1	3,8	4,4	414 600
Conduite³				
Pourcentage de conducteurs ayant pris le volant après avoir bu deux verres d'alcool ou plus dans la dernière heure, au cours des 12 mois écoulés	4,9	9,2	s *	451 700
Pourcentage de conducteurs ayant pris le volant après avoir consommé du cannabis dans la dernière heure, au cours des 12 mois écoulés	2,9	5,6	s *	266 600
Pourcentage de personnes ayant envoyé des textos au volant au cours des 12 mois écoulés	36,8	37,9	35,8	3 351 200
Santé mentale				
Pourcentage de personnes ayant signalé un niveau modéré ou élevé de détresse psychologique au cours des 30 jours écoulés (K6/5+)	25,7	22,4	28,7 *	2 598 800
Pourcentage de personnes ayant signalé un niveau élevé de détresse psychologique au cours des 30 jours écoulés (K6/13+)	3,1	2,8	3,4	317 200
Pourcentage de personnes ayant pris des anxiolytiques sur ordonnance au cours des 12 mois écoulés	10,3	7,7	12,7 *	1 042 200
Pourcentage de personnes ayant pris des antidépresseurs sur ordonnance au cours des 12 mois écoulés	8,7	6,1	11,2 *	880 200
Pourcentage de personnes ayant une mauvaise santé mentale en général	6,7	5,9	7,3	676 000
Pourcentage de personnes ayant éprouvé un nombre élevé de jours de détresse mentale (14 ou plus) au cours des 30 jours écoulés	9,7	7,9	11,4	958 900
Pourcentage de personnes ayant eu des idées suicidaires au cours des 12 mois écoulés	2,4	2,5	2,2	238 600

Indicateur	Total %	Hommes %	Femmes %	Population estimative totale ¹
Santé physique				
Pourcentage de personnes ayant une santé passable ou mauvaise en général	9,9	9,9	9,8	1 000 000
Pourcentage de personnes ayant signalé un nombre élevé de jours de mauvaise santé physique (14 ou plus) au cours des 30 jours écoulés	8,9	6,6	11,1	881 000
Pourcentage de personnes ayant signalé un traumatisme cérébral au cours de leur vie	15,3	19,6	11,2 *	1 542 500
Jeux de hasard et d'argent				
Pourcentage de personnes ayant joué à des jeux de hasard ou d'argent au cours des 12 mois écoulés	68,1	72,1	64,4 *	6 845 900
Pourcentage de personnes ayant joué à un jeu de casino au cours des 12 mois écoulés	25,4	28,1	22,9 *	2 575 400
Pourcentage de personnes ayant joué à des jeux en ligne au cours des 12 mois écoulés	3,8	5,4	2,8 *	382 300
Pourcentage de personnes ayant signalé un problème de jeu (PGSI/3+) au cours des 12 mois écoulés	1,7	1,9	1,4	169 500
Utilisation de dispositifs électroniques				
Nombre moyen d'heures par semaine consacrées aux courriels ou aux médias sociaux (<i>moyenne</i>)	11,5	10,7	12,1 *	–
Nombre moyen d'heures par semaine consacrées aux jeux vidéo (<i>moyenne</i>)	3,7	4,3	3,2 *	–
Pourcentage de personnes ayant fait un usage modérément ou très problématique de dispositifs électroniques (trois symptômes ou plus) au cours des 12 mois écoulés	7,1	7,6	6,6	716 100

Nota : ¹ Population estimative pour l'échantillon total, d'après une population adulte de 10 157 960, arrondie à une centaine près ; ² les estimations reposent sur les données de 2014 ; ³ les estimations reposent sur le nombre de titulaires d'un permis de conduire ; un « * » indique qu'il y a une différence importante entre les hommes et les femmes ($p < 0,05$) en tenant compte d'autres facteurs démographiques ; un « s » indique une estimation supprimée en raison de la forte variabilité de l'échantillonnage.

Utilisation de substances intoxicantes, santé mentale et bien-être : Différences entre sous-groupes en 2015

- **Le sexe** des répondants a une influence considérable sur la plupart des indicateurs.

La prévalence estimative est plus élevée chez les **femmes** que chez les hommes pour la détresse psychologique modérée, l'utilisation d'anxiolytiques et d'antidépresseurs et le nombre moyen d'heures par semaine consacrées aux courriels et aux médias sociaux.

La prévalence estimative est plus élevée chez les **hommes** que chez les femmes pour toute autre mesure où des différences ont été relevées. Les hommes sont nettement plus susceptibles :
- d'avoir bu de l'alcool au cours de l'année écoulée ;
- de boire de l'alcool tous les jours ;
- de prendre davantage de verres d'alcool par semaine ;
- de signaler des excès d'alcool hebdomadaires (boire cinq verres ou plus en une occasion) ;
- de boire de l'alcool de façon dangereuse ou nocive ;
- de signaler des symptômes de dépendance à l'alcool ;
- de fumer des cigarettes au moment de l'étude ;
- de fumer des cigarettes tous les jours ;
- d'avoir pris du cannabis au cours de leur vie ;

- d'avoir pris du cannabis au cours de l'année écoulée ;
 - de signaler des problèmes liés à l'usage de cannabis ;
 - d'avoir pris de la cocaïne au cours de leur vie ;
 - d'avoir pris de la cocaïne au cours de l'année écoulée ;
 - d'avoir pris le volant en état d'ivresse ;
 - d'avoir pris le volant après avoir pris du cannabis ;
 - d'avoir eu un traumatisme cérébral au cours de leur vie ;
 - d'avoir participé à des jeux de hasard et d'argent ;
 - d'avoir participé à un jeu de casino ;
 - d'avoir participé à des jeux en ligne ;
 - d'avoir participé chaque semaine à des jeux vidéo.
- **L'âge** des répondants a lui aussi une influence importante sur les indicateurs de l'utilisation de substances et de la santé. Dans la plupart des cas, l'utilisation diminue avec l'âge ou est la plus élevée chez les personnes de 18 à 29 ans. Les deux seules exceptions sont la consommation quotidienne d'alcool et une mauvaise santé, lesquelles augmentent avec l'âge. En tenant compte d'autres caractéristiques démographiques, les personnes de **18 à 29 ans** sont nettement plus susceptibles que les personnes plus âgées :
 - de signaler des excès d'alcool hebdomadaires ;
 - de boire de l'alcool de façon dangereuse ou nocive ;
 - de signaler des symptômes de dépendance à l'alcool ;
 - d'avoir fumé des cigarettes électroniques au cours de l'année écoulée ;
 - d'avoir pris du cannabis au cours de l'année écoulée ;
 - de signaler des problèmes liés à l'usage de cannabis ;
- d'avoir pris de la cocaïne au cours de l'année écoulée ;
 - d'avoir pris le volant après avoir pris du cannabis au cours de l'année écoulée ;
 - de signaler un niveau modéré de détresse psychologique ;
 - de signaler des idées suicidaires ;
 - de participer chaque semaine à des jeux vidéo ;
 - d'avoir recours chaque semaine aux courriels et aux médias sociaux ;
 - de signaler un problème lié à leur usage de dispositifs électroniques.
- **L'état civil** a également une influence considérable sur 14 indicateurs. Dans tous les cas, le niveau d'utilisation de substances et de problèmes de santé mentale est plus élevé parmi les répondants qui n'ont jamais été mariés ou qui ne le sont plus (répondants divorcés ou veufs). Après avoir tenu compte d'autres facteurs, on a constaté que les répondants qui n'ont **jamais été mariés** sont les plus susceptibles :
 - de boire de l'alcool de façon dangereuse ou nocive ;
 - de fumer au moment de l'étude ;
 - d'avoir pris du cannabis au cours de l'année écoulée ;
 - d'utiliser des opioïdes sur ordonnance pour des raisons non médicales ;
 - d'avoir recours chaque semaine aux courriels et aux médias sociaux.
- Les répondants qui **ne sont plus mariés** sont plus susceptibles :
- de signaler des excès d'alcool hebdomadaires ;
 - de fumer au moment de l'étude et tous les jours ;
 - d'avoir pris de la cocaïne au cours de leur vie ;
 - de signaler un mauvais état de santé ;
 - de signaler une mauvaise santé mentale ;

- de participer aux jeux de hasard et d'argent.
- **Le niveau de scolarité** a une influence considérable sur 17 indicateurs. Selon la tendance dominante, l'utilisation d'une substance diminue lorsque le niveau de scolarité augmente. En tenant compte d'autres caractéristiques démographiques, on a constaté que les répondants ayant un **diplôme universitaire** sont nettement moins susceptibles :
 - de signaler des excès occasionnels d'alcool hebdomadaires ;
 - de fumer au moment de l'étude et tous les jours ;
 - de signaler une détresse psychologique ;
 - de signaler un mauvais état de santé.

Les répondants **n'ayant pas terminé leurs études secondaires** sont nettement plus susceptibles :

- de fumer au moment de l'étude ;
- de fumer tous les jours ;
- d'utiliser des opioïdes sur ordonnance ;
- de signaler une détresse psychologique.

Les différences régionales ont une influence considérable sur neuf indicateurs. À l'exception du nombre de jours de mauvaise santé physique (dont la plus grande fréquence a été signalée à Toronto), la tendance régionale la plus marquée est une estimation plus faible, chez les résidents de Toronto, pour l'utilisation de substances et certains autres indicateurs de la santé. En tenant compte d'autres facteurs, on a constaté que les répondants vivant à **Toronto** sont moins susceptibles :

- d'avoir bu de l'alcool au cours de l'année écoulée ;
- de signaler des excès d'alcool hebdomadaires ;

- de fumer tous les jours ;
- d'envoyer des textos au volant ;
- de participer aux jeux de hasard et d'argent.
- **Le revenu** a une influence considérable sur 17 indicateurs de la consommation de substances intoxicantes. On a constaté une tendance générale selon laquelle les taux de consommation d'alcool et d'envoi de textos au volant augmentent avec le revenu et sont les plus élevés chez les personnes à revenu supérieur. Plus précisément, en tenant compte d'autres caractéristiques démographiques, on a constaté que les répondants à **revenu élevé** sont nettement plus susceptibles :
 - d'avoir bu de l'alcool au cours de l'année écoulée ;
 - de boire de l'alcool tous les jours ;
 - de boire de l'alcool de façon dangereuse ou nocive ;
 - d'envoyer des textos au volant.

Toutefois, les taux d'utilisation d'opioïdes sur ordonnance et certains autres indicateurs de la santé sont plus élevés parmi les personnes à faible revenu. En tenant compte d'autres caractéristiques démographiques, on a constaté que les répondants à **faible revenu** sont nettement plus susceptibles :

- d'utiliser des opioïdes sur ordonnance ;
- de signaler une détresse psychologique ;
- de signaler une mauvaise santé mentale ;
- d'utiliser des anxiolytiques ;
- d'utiliser des antidépresseurs ;
- de signaler un mauvais état de santé physique ;
- de signaler une fréquence élevée de jours de mauvaise santé physique.

Changements survenus entre 2014 et 2015

Seuls trois indicateurs ont nettement **augmenté** entre 2014 et 2015 dans l'échantillon total :

- **La consommation d'alcool dangereuse ou nocive** a considérablement augmenté, passant de 12 % à 14,6 %, en particulier chez les personnes de 65 ans ou plus.
- **L'usage non médical d'analgésiques opioïdes sur ordonnance** a considérablement augmenté, passant de 2,1 % à 4,1 %, en particulier chez les femmes et les personnes âgées.
- Le pourcentage de personnes qui signalent des **jours fréquents de détresse mentale** au cours des 30 jours écoulés est passé de 6 % à 9,7 %, une augmentation particulièrement marquée chez les hommes.

Tendances de 1996 à 2015

Alcool

On a constaté plusieurs changements importants dans la **consommation d'alcool**. Premièrement, les excès occasionnels d'alcool et une consommation d'alcool dépassant la quantité jugée acceptable dans les directives de consommation d'alcool à faible risque ont considérablement **diminué**.

- **Les excès d'alcool occasionnels** ont diminué, passant de 12,3 % en 2006 à 7,5 % en 2015 pour l'échantillon total, et de 15,9 % à 9,3 % parmi les buveurs. Ce changement est évident pour l'ensemble des facteurs démographiques mesurés. Un tel déclin est important pour la santé publique, car les excès occasionnels d'alcool sont étroitement liés aux blessures intentionnelles aussi bien qu'aux blessures accidentelles.

- Il y a également eu un déclin général de la consommation d'alcool dépassant la quantité jugée acceptable dans les **directives de consommation d'alcool à faible risque**. Le pourcentage d'Ontariens dans cette catégorie a nettement diminué, passant de 21,5 % en 2005 à 14,2 % en 2014, un déclin particulièrement évident chez les hommes de 18 à 29 ans.

On a toutefois constaté une **augmentation** considérable pour deux indicateurs de la consommation d'alcool, tant chez les hommes que les femmes :

- **La consommation d'alcool quotidienne** chez les buveurs a considérablement augmenté, passant de 5,3 % en 2002 à 8,8 % en 2015. Cette hausse est importante tant chez les hommes qui boivent (de 7,1 % en 2005 à 11,8 % en 2015) que chez les femmes qui boivent (depuis un creux de 2,6 % en 2001 à 5,8 % en 2015).
- **Le nombre moyen de verres standard** consommés par semaine a augmenté, passant de 3,3 en 1996 à 4,3 en 2015, une augmentation observée chez les deux sexes. Chez les hommes qui boivent, ce nombre est passé de 4,8 en 1996 à 5,9 en 2015, et chez les femmes qui boivent, de 1,9 en 1996 à 2,8 en 2015.

Tabac

Autre changement important : la **diminution de l'usage de la cigarette au moment de l'étude**.

- **L'usage de la cigarette** au moment de l'étude a nettement diminué, passant de 26,7 % en 1996 à 13,2 % en 2015. Il y a également eu des baisses considérables depuis 1996 dans tous les sous-groupes : hommes et femmes, âge, région, état civil et niveau de scolarité.

- **L'usage quotidien de la cigarette** a diminué de plus de la moitié, passant de 23 % en 1996 à 10 % en 2015, et les estimations de 2015 sont les plus faibles jamais enregistrées.
- On a toutefois enregistré une augmentation considérable du taux d'usage de la **cigarette électronique**, qui est passé de 6,9 % en 2013 à 10,9 % en 2015.
- L'usage d'**opioïdes analgésiques sur ordonnance** au cours de l'année écoulée a considérablement **diminué**, passant de 26,6 % en 2010 à 22,6 % en 2015.
- **L'usage non médical** d'opioïdes sur ordonnance au cours de l'année écoulée a diminué, passant de 7,7 % en 2010 à 2,1 % en 2014, puis a considérablement **augmenté** pour atteindre 4,1 % en 2015.

Cannabis

On a constaté une **augmentation** considérable de l'**usage de cannabis** au cours de l'année écoulée :

- L'usage de **cannabis** au cours de l'année écoulée a **augmenté** de façon constante, passant de 8,7 % en 1996 à 14,5 % en 2015. Cette augmentation est évidente dans tous les sous-groupes : chez les hommes et les femmes et pour tous les sous-groupes (âge, région, état civil, niveau de scolarité). Une augmentation considérable a également été observée dans tous les groupes d'âge, particulièrement chez les 18 à 29 ans (passant de 18,3 % en 1996 à 37,9 % en 2015).
- Autre changement important lié à l'usage de cannabis : la **hausse de la moyenne d'âge** des usagers. Entre 1996 et 2015, le pourcentage d'usagers de cannabis âgés de 50 ans ou plus a augmenté, passant de 2 % à 23 %.

Autres drogues

- Bien que le taux d'utilisation de la **cocaïne** au cours de l'année écoulée demeure faible (moins de 2,2 %), il a nettement **augmenté**, passant de 0,8 % en 1996 à 1,6 % en 2015, une hausse particulièrement prononcée chez les hommes de 18 à 29 ans (de 1,1 % en 1996 à 5,9 % en 2015).

Conduite

- **La conduite en état d'ivresse** parmi les conducteurs a considérablement **diminué**, passant de 13,1 % en 1996 à 4,9 % en 2015. La baisse la plus marquante s'est produite chez les conducteurs de sexe masculin (de 21,2 % en 1996 à 9,2 % en 2015), ainsi que chez les jeunes conducteurs de 18 à 29 ans (de 20,1 % en 1996 à 6,7 % en 2015).
- Le pourcentage de répondants qui ont **pris le volant après avoir pris du cannabis** a nettement augmenté, passant de 1,5 % en 2010 à 2,9 % en 2015. Une **augmentation** linéaire importante a été enregistrée chez les hommes (de 1,9 % en 2012 à 5,6 % en 2015) et chez les 18 à 29 ans (de 2,8 % en 2009 à 7,5 % en 2015).

Santé mentale

On a constaté des **augmentations** considérables pour plusieurs indicateurs de la **santé mentale**.

- Entre 2003 et 2015, le pourcentage de personnes qui **jugent leur santé mentale mauvaise** a nettement augmenté globalement, passant de 4,7 % à 6,7 %, et cette hausse est particulièrement évidente chez les femmes (de 4,5 % en 2003 à 7,3 % en 2015) et chez les 18 à 29 ans (de 2,9 % en 2009 à 8,5 % en 2015).

- On a également observé une augmentation globale considérable du pourcentage de personnes qui disent avoir éprouvé des **jours fréquents de détresse mentale** au cours des 30 jours écoulés, passant de 5,4 % en 2003 à 9,7 % en 2015. Cette hausse est évidente tant chez les hommes que chez les femmes.
- Dans l'ensemble de l'échantillon, on a observé une augmentation linéaire considérable de l'usage de **médicaments anxiolytiques**, passant de 4,5 % en 1999 à 10,3 % en 2015, particulièrement chez les femmes (de 5,6 % à 12,7 %) et chez les 18 à 29 ans (de 1,7 % à 10,7 %).
- L'usage d'**antidépresseurs** a également augmenté considérablement, passant de 3,6 % en 1999 à 8,7 % en 2015. Cette hausse est évidente dans tous les sous-groupes (hommes et femmes, âge, région, état civil et niveau de scolarité), et est particulièrement marquée chez les 18 à 29 ans, passant de 2 % en 2007 à 8,5 % en 2015.
- La prévalence des **jeux de casino** a nettement diminué, passant de 33,7 % en 2000 à 25,4 % en 2015. On a également relevé une diminution significative dans la plupart des sous-groupes.
- La prévalence des **jeux en ligne** a diminué, passant de 6,6 % en 2003 à 3,8 % en 2015. On a également relevé une diminution significative dans la plupart des sous-groupes.
- Toutefois, et bien que la prévalence des jeux de hasard ait diminué, la prévalence générale du **jeu problématique** en 2015 (1,7 %) n'est pas significativement différente de celle de 2005 (1,9 %).

Tendances à long terme, de 1977 à 2015

Deux changements à long terme dans l'utilisation de substances méritent d'être soulignés :

Jeux de hasard et d'argent

- La prévalence estimative pour les loteries, le pari sportif, le bingo, les courses de chevaux et les jeux en ligne au cours de l'année écoulée a **considérablement diminué** en 2015 par rapport aux dernières estimations (2005 ou 2003). Une nette tendance à la baisse a été relevée entre 2000 et 2015 pour toute forme de jeu.
- En général, la prévalence de **toute forme de jeu** au cours de l'année écoulée a considérablement diminué, passant de 80,3 % en 2000 à 68,1 % en 2015. On a également relevé une diminution considérable dans les sous-groupes démographiques (hommes et femmes, région, état civil et niveau de scolarité).
- Le premier est une **augmentation** importante du taux d'utilisation de **cannabis** au cours de l'année écoulée, accompagnée d'une **moyenne d'âge plus élevée** des usagers. L'utilisation de cannabis au cours de l'année écoulée a considérablement augmenté, passant de 8,1 % en 1977 à 14,5 % en 2015. On estime que les usagers de **cannabis** en 2015 étaient en moyenne plus âgés que ceux de 1977 (34,9 ans contre 25,6 ans). En 1977, 82 % des usagers avaient entre 18 et 29 ans comparativement à 51 % seulement en 2015. En revanche, la proportion de personnes de 30 à 49 ans ayant pris du cannabis au cours de l'année écoulée a nettement augmenté, passant de 15 % en 1977 à 26 % en 2015, et la proportion de personnes de 50 ans ou plus ayant pris du cannabis au cours de l'année écoulée est passée de 3 % à 23 % pendant la même période, une augmentation de presque 800 %.

- Le deuxième grand changement à long terme relevé depuis 1977 est la **consommation quotidienne d'alcool**. Bien que le pourcentage de personnes qui boivent de l'alcool varie entre 77 % et 87 %, relativement moins de buveurs boivent tous les jours qu'il y a une quarantaine d'années (13,4 % en 1977, 8,8 % en 2015). Le pourcentage de personnes qui ont bu au cours de l'année écoulée et qui ont déclaré avoir bu tous les jours a diminué de façon constante, passant de 13,4 % en 1977 à 5,9 % en 1995, puis s'est stabilisé à environ 6 % jusqu'en 2006. Toutefois, cette tendance s'est inversée, passant de 5,9 % en 2006 à 8,8 % en 2015, ce qui représente une augmentation importante. Cette tendance non linéaire est particulièrement marquée chez les hommes buveurs : la proportion d'hommes qui boivent tous les jours a d'abord diminué, chutant de 19,5 % en 1977 à 7,1 % en 2005, pour revenir à 11,8 % en 2015.

Constatations encourageantes

Les constatations suivantes devraient être considérées comme encourageantes.

Cigarettes

La plupart des adultes ontariens (86,8 %) ne fument pas la cigarette. L'usage de la cigarette au moment de l'étude a considérablement diminué depuis 1996, tout comme l'usage quotidien de la cigarette (de 23 % en 1977 à 10 % en 2015).

Alcool

Bien que la majorité des adultes ontariens (80 %) aient bu de l'alcool au cours de l'année écoulée, la plupart d'entre eux boivent sans faire d'excès. En effet, l'étude a montré que 91 % des buveurs ne font pas d'excès d'alcool hebdomadaires, que 82,5 % ne dépassent pas la quantité jugée acceptable dans les directives de consommation d'alcool à faible risque, et que 82 % ne dépassent pas le seuil de consommation

d'alcool dangereuse ou nocive selon le questionnaire AUDIT.

On a également relevé une diminution générale importante des excès occasionnels d'alcool (cinq verres ou plus en une occasion par semaine) entre 2006 (12,3 %) et 2015 (7,5 %). Cette baisse était conséquente dans l'ensemble, se produisant dans plusieurs sous-groupes, mais elle était particulièrement marquée chez les hommes (passant de 20,7 % en 2001 à 11,3 % en 2015).

Cannabis

Bien que le pourcentage de personnes ayant pris du cannabis au cours de l'année écoulée ait considérablement augmenté à long terme, l'usage de cannabis est généralement peu fréquent. Par exemple, parmi les personnes en ayant pris au cours de leur vie, seulement 15,4 % ont déclaré en prendre une fois par mois ou plus souvent.

Conduite en état d'ivresse

La conduite en état d'ivresse parmi les titulaires d'un permis de conduire a diminué de plus de la moitié entre 1996 et 2015, passant de 13,1 % à 4,9 %. Cette diminution a eu lieu dans plusieurs sous-groupes, notamment chez les hommes (l'estimation pour ce sous-groupe est passée de 21,2 % à 9,2 %). Ces baisses sont survenues à une époque où le gouvernement de l'Ontario a introduit plusieurs mesures pour réduire les taux de conduite avec facultés affaiblies, y compris des sanctions accrues pour les conducteurs dont l'alcoolémie se situe dans la fourchette d'avertissement et des mesures visant à accroître l'utilisation d'un antidémarrreur par les personnes reconnues coupables.

Analgsiques opioïdes sur ordonnance

La proportion de la population adulte de l'Ontario qui signale un usage non médical d'analgsiques opioïdes sur ordonnance a diminué, passant de 7,7 % en 2010 à 4,1 % en 2015. Cette baisse s'est produite au cours d'une période où des politiques et programmes provinciaux visant à réduire

l'usage non médical de ces substances ont été introduits.

Jeux de hasard et d'argent

Les jeux de hasard sont fréquents dans la population de l'Ontario, mais la proportion de joueurs ayant déclaré toute forme de jeu au cours de l'année écoulée, ainsi que la prévalence estimative pour les loteries, le pari sportif, le bingo, les courses de chevaux et les jeux en ligne au cours de l'année écoulée ont considérablement diminué depuis le début des années 2000. Cependant, la prévalence générale du jeu problématique reste inchangée.

Préoccupations en matière de santé publique

L'Indicateur de CAMH a permis de repérer plusieurs problèmes potentiels de santé publique devant être surveillés et étudiés plus à fond.

Cigarettes

Action Cancer Ontario (ACO) a pour objectif de réduire le pourcentage d'adultes qui consomment du tabac à 5 % de la population d'ici 2020. Bien que la proportion d'adultes ontariens qui fument la cigarette ait considérablement diminué, le taux actuel de 13,2 % est plus de deux fois supérieur à l'objectif de 5 % d'ACO. Il est donc peu probable que ce dernier soit atteint.

Cannabis

L'usage de cannabis au cours de l'année écoulée a considérablement **augmenté**, passant de 8,7 % en 1996 à 14,5 % en 2015, tant chez les hommes que chez les femmes et pour tous les groupes d'âge. Son usage a plus que doublé chez les personnes de 18 à 29 ans, passant de 18,3 % en 1996 à 37,9 % en 2015. Bien que l'usage de cannabis soit généralement peu fréquent (52 % des personnes en ayant pris au cours de l'année écoulée disent en prendre moins d'une fois par mois), **19 %** des usagers disent en prendre **tous les jours**. Un usage quotidien peut augmenter le risque de maladies

respiratoires. De plus, le risque de complications médicales liées à la **hausse de la moyenne d'âge des usagers de cannabis** et, plus particulièrement, le nombre accru d'adultes d'âge moyen et de personnes âgées ayant pris du cannabis au cours de l'année écoulée méritent d'être étudiés plus à fond.

Alcool

La consommation d'alcool pour un pourcentage important de buveurs dépasse le niveau recommandé dans les **directives sur la consommation d'alcool à faible risque**. Près d'un buveur sur six (17,5 %) a dit avoir dépassé ce niveau en 2014. Entre 2014 et 2015, la **consommation d'alcool dangereuse ou nocive**, telle que définie par le questionnaire AUDIT, a nettement augmenté, passant de 12 % à 14,6 % de la population adulte. De plus, on a observé une hausse importante du **nombre moyen de verres d'alcool** consommés par semaine (de 3,3 en 1996 à 4,3 en 2015), et une hausse du taux de **consommation d'alcool quotidienne** chez les personnes ayant bu de l'alcool au cours de l'année écoulée (de 5,3 % en 2002 à 8,8 % en 2015). Cette hausse était particulièrement marquée chez les femmes (de 2,6 % en 2001 à 5,8 % en 2015). Une telle augmentation de la consommation d'alcool chez les femmes est préoccupante compte tenu des effets nocifs d'une consommation élevée.

Conduite

Les collisions entre véhicules motorisés sont une des premières causes de décès et de blessures évitables, et la conduite en état d'ivresse ou sous l'influence du cannabis ou d'autres drogues, ainsi que la distraction au volant, sont désormais les causes majeures d'accidents automobiles. On a relevé une **augmentation** linéaire considérable de la **conduite sous l'influence du cannabis**, qui est passée de 1,5 % en 2010 à 2,9 % en 2015 (soit environ 266 600 titulaires d'un permis de conduire). De plus, on estime qu'en 2015, 36,5 % des adultes de l'Ontario titulaires d'un permis de conduire valide ont envoyé des **textos** au volant au moins une fois au cours des 12 mois écoulés (soit environ 3 350 000 conducteurs), et que 10,7 % ont

envoyé des textos au volant 30 fois ou plus au cours des 12 mois écoulés.

Analgésiques opioïdes sur ordonnance

Malgré une baisse de l'utilisation de ces médicaments, en 2015, 4,1 % des adultes de l'Ontario (environ 415 000 personnes) ont pris des analgésiques opioïdes sur ordonnance **à des fins non médicales**. Ces médicaments puissants peuvent entraîner une dépendance, et sont liés à une utilisation accrue d'opiacés illicites présentant un risque de mort par surdose.

Santé mentale

Environ 25,7 % des adultes ontariens (2,6 millions de personnes) ont éprouvé un niveau modéré de détresse psychologique en 2015. On a constaté une **augmentation** considérable du pourcentage de répondants déclarant avoir une **mauvaise santé mentale**, qui est passé de 4,7 % en 2003 à 6,7 % en 2015. Environ un adulte sur dix (10,3 %) a pris des **anxiolytiques** sur ordonnance (environ 1 million d'adultes ontariens), et un adulte sur onze (8,7 %) a pris des **antidépresseurs** sur ordonnance (environ 880 000 adultes ontariens). Le pourcentage de répondants adultes en Ontario qui déclarent avoir pris des anxiolytiques et des antidépresseurs sur ordonnance au cours de l'année écoulée a considérablement augmenté entre 1999 et 2015, passant de 3,6 % à 8,7 %, et de 4,5 % à 10,3 %, respectivement. De plus, en 2015, environ 2,4 % des adultes ontariens (environ 238 600 personnes) ont déclaré qu'ils avaient sérieusement envisagé de **se suicider** au cours des 12 mois précédant le sondage.

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1. INTRODUCTION

Knowledge derived from population surveillance studies, such as the *CAMH Monitor*, about the shifting pattern, character and social demography of substance use, its harms, and mental health impairments in the general population is essential to informed prevention programming, health and social policy, and any assessment of future treatment needs.

Our knowledge regarding substance use has shown that the ability of a given drug to cause harms to its users, their families, friends, and communities depends on at least three fundamental factors: (1) the **prevalence** of use in the population – what percentage use the substance; (2) its **dependence liability** – the ability of the drug to produce dependence; and (3) its **hazard liability** – the ability of the drug to produce lethal and other adverse consequences (Brands, Sproule, & Marshman, 1998). Thus, we should not simply equate prevalence of drug use with the prevalence of its attributable harm. The important point is that drug use prevalence in the population is only one factor in determining the harm potential of a given substance.

Similarly, population surveillance of mental health indicators is imperative for informed health policy and for treatment response. Screening instruments assessing compromised mental health can assist in identifying not only the prevalence of impaired mental and emotional functioning, but also the related determinants and risk factors (Tsuang & Tohen, 2002). These two domains – addiction and mental health impairment – have strong connections, and the ability to investigate their co-occurrence, risk profiles, and changes over time further enhance their public health utility.

The *CAMH Monitor* (CM) is a substance use and mental health population survey of Ontario adults aged 18 and older. It is the longest

ongoing surveillance program of adult drug use in Canada. The purpose of this report is threefold. *First*, we describe the prevalence of substance use – alcohol, tobacco, cannabis and other drugs and their attributable harms–, indicators of impaired health and mental health –self-rated poor health, psychological distress, use of antianxiety and antidepressant medication and mental health-related quality of life indicators–, as well as distracted driving and gambling indicators among Ontario adults in 2015.¹ *Second*, we examine the question, “Who is at risk?” by assessing the demographic correlates and risk factors related to these outcomes; and *third*, based on 30 repeated cross-sectional surveys conducted during a 39-year period between 1977 and 2015, we examine trends in alcohol and other drug use, health and mental health indicators.²

Why is it important to monitor addiction and mental health indicators? Because such phenomena are influenced by ongoing demographic shifts and market forces, as well as societal changes in values, attitudes and consequent stigmatization of such conditions, their character is rarely static. Such forces may combine to create tipping points resulting in favourable conditions for drug taking and the emergence of drug-related outbreaks and full-fledged epidemics. Thus, the need for surveillance is paramount not only to enhance

¹ The Province of Ontario has the largest population of the ten Canadian provinces, representing over one in three Canadians (38%).

² Mental health and other health measures were introduced into the *CAMH Monitor* after 2000, thus limiting the available trends to a shorter period.

knowledge of addiction and mental health in the population, but also to build strategies to reduce their drug-attributable harms (Sloboda, 2005; Stockwell, Gruenewald, Toumbourou, & Loxley, 2005) and health inequities (Schmidt, Makela, Rehm & Room, 2010).

Specifically, monitoring addiction and mental health indicators provides several important **benefits:**

- First and foremost, monitoring **provides a surveillance function** to identify emerging change and to monitor its development. By definition, emerging outbreaks or epidemics can only be identified with the presence of pre-existing surveillance data.
- Second, monitoring **builds knowledge** and increases understanding of the processes that bring about population changes in addiction and mental health indicators, of the methods to best measure them, and of associated public sentiment and stigmatization. This knowledge applies, not only to identifying changes in health indicators, but also whether the influence of risk factors are strengthening or weakening with time.
- Third, monitoring **informs policy**. To be effective, policies intended to reduce the harm caused by drugs and impaired mental health must be informed by the most current and trustworthy data.
- Fourth, monitoring serves as **a tool for the evaluation** of health programs, interventions, legislation, objectives and targets set by governmental and advisory bodies.³ Monitoring studies inform both needs assessment as well as outcome and impact evaluation.

There are several means, including population surveys and administrative or archival aggregate data, to estimate and track addiction and mental health indicators (Sloboda, McKetin, & Kozel, 2005). Examples of administrative aggregate data include per capita alcohol consumption, the number of alcohol

and drug-related arrests, convictions and seizures, and the number of illnesses or injuries as represented by hospitalizations, treatment cases, nonfatal overdoses and fatalities.

Although aggregate data are useful in describing population level or change, or social patterning of addiction and mental health indicators because they are based on case or event counts rather than individuals, they can be somewhat remote from individual behaviour. This is because a given individual may contribute multiple events making the estimation of prevalence difficult. For example, per capita alcohol consumption, based on sales data, is a measure summed across both drinkers and non-drinkers. Although such indicators are useful on a total population basis, especially for the purpose of cross-national, national and provincial trends, the influence of various individual-level risk factors cannot be derived.

The connection between criminal justice data and population drug use need not be a strong one. Indeed, arrest and conviction data can reflect factors other than the rate of drug use, such as the degree of enforcement and drug availability. In addition, such data often apply to atypical cases, namely individuals who are detected and apprehended for their use of drugs. It is generally found that most adult recreational drug users have little criminal justice system involvement and that legal barriers are a minor obstruction (e.g., Erickson et al., 1994). Thus, there need not be a direct and necessary relationship between drug arrests, seizures and the size of the drug-using population. Also, changes in such data must be carefully interpreted. For example, an increase in drug arrests or seizures may reflect mechanisms other than increasing drug use. It may reflect more funds or a higher priority given to enforcement; it may reflect the same number of users using greater quantities or more users consuming fixed quantities; or it may reflect increases in use among restricted and typically small populations whose behaviour readily comes to the attention of authorities. Therefore, although administrative aggregate indicators are important to help define the particular contours of the drug problem, they should not be

³ e.g., Healthy People 2020: <http://www.healthypeople.gov/2020/topicsobjectives2020/>

confused with direct indicators of the prevalence, amount, and harms of use experienced by individuals in the population.

The Strengths and Limitations of Surveys

The most direct means of estimating and monitoring addiction and mental health indicators in the population are based on sample surveys. Although the sample survey method has its limitations, it remains the most feasible technique to track individual-level health behaviours and outcomes in the population. The strength of the survey method is the requirement of the random selection of individuals from a known population. Thus, assuming no systematic bias in the selection process, drug users and those with mental health difficulties drawn for the sample should represent these groups in the population.

The CM's random-digit-dial (RDD) telephone sampling procedure has several **advantages**, the most relevant of which are the following:⁴

- a dedicated addiction and mental health survey has greater depth of content than general health surveys with limited addiction and mental health content;
- a population with a high telephone coverage rate;
- elimination of travel costs over a wide geographical area;
- reduced cost per interview;
- better access to populations such as older adults who may be reticent about answering their door to strangers (i.e., unknown interviewers). Also, access may be

restricted from personal visit interviewers in many multi-unit dwellings, such as apartments and condominiums;

- advantages of computerized interviewing systems; and
- elimination of separate data entry processing resulting in ready access to a final dataset.

The survey method also has its **limitations**. To begin, estimates can be biased – i.e., systematically different from the true population value – if the survey is used to project outside the target population or if the survey frame population is an inadequate representation of the target population. For example, the 2015 CM is based on a sampling frame of landline and cell phone numbers (unlisted and unpublished phone numbers are also included). Whether estimates would be measurably biased by projecting to *all* households depends on (1) the size of non-telephone household population and (2) whether the non-telephone household population differs appreciably from the telephone household population. Fortunately, Canada traditionally has one of the highest telephone coverage rates in the world. For example, based on the most recent *Residential Telephone Service Survey* (RTSS), Statistics Canada estimated that although almost one in three Canadian households in 2013 had no landline telephone, of which 21% had a cellphone only and 12% had a cable-phone, only a negligible 0.5% were phoneless (Statistics Canada, 2014). Given this high penetration rate, we would not expect appreciable coverage bias (Biemer & Lyberg, 2003).

Another limitation is that general population surveys commonly employ a target population consisting of noninstitutionalized residents and are not intended as a census of the full adult population. Thus, those residing in jails, prisons, hospitals, military establishments, and transient populations such as the homeless or marginally housed are commonly excluded by design. Many of these out-of-scope groups tend to contain an elevated proportion of drug users, heavy drinkers and those experiencing mental

⁴ In 1991, a mode effect study investigated a mode switch from personal-visit to RDD surveys. During 1991, the existing area-based personal-visit survey continued as usual, but a parallel RDD survey was also administered concurrently. The objective of this study was to assess whether the two modes, and their respective packages of methods and procedures, provided similar estimates. Similar to a handful of mode studies, the results showed that holding values of sex and age fixed, mode differences were minimal for alcohol and other drug use measures (mental health measures had not yet been introduced). Consequently, in 1992, the surveillance program migrated to RDD selection.

health difficulties (Adlaf, Smart, & Canale, 1991; Rossi, 1989; Sloboda, 2005). However, the bias caused by such non-coverage depends not only upon the *difference* in drug use (or mental health impairments) between respondents and non-respondents, but also on the *size of the group* not surveyed. Thus, even if indicators of addiction and mental health are appreciably higher in the excluded group (e.g., homeless, phoneless) than those in the sampled group, if the size of the excluded group is small relative to the total population then the bias is not expected to be considerable (Groves & Couper, 1998; Heeringa, West, & Berglund, 2010; Kandel, 1991). This point also infers that even a high nonresponse rate does not necessarily translate to nonresponse bias if the difference between respondents and non-respondents is negligible.

The topic of a survey also has the potential to influence response quality in two ways: (1) topic relevance can affect the propensity to participate, and (2) topic sensitivity can influence the quality of responses (e.g., social desirability bias). Regarding the former, drug users, or those with mental health difficulties, of high social standing may be unwilling to participate in such a survey. The reliance on self-reported behaviours in surveys covering sensitive topics such as drug use or other illegal behaviours is another source of bias. However, reviews of such methods for alcohol and drug use surveys suggest that although surveys tend to **underestimate** true usage, they are still regarded as the best available means to estimate and monitor such individual-level behaviours for public health assessment (Harrison, Haaga, & Richards, 1993; Sloboda, 2005; Heeringa, West, & Berglund, 2010; Turner, Lessler, & Gfroerer, 1992). Moreover, although these biases may operate to understate drug use or mental health estimates at a single point in time, they should have lesser impact on estimating trends so long as the magnitude of underreporting remains constant across time (Cochran, 1977).

Repeated cross-sectional surveys – repeated surveys interviewing different respondents each time – can assess only specific types of change.

Because the same individuals are not surveyed at different times, repeated cross-sectional surveys cannot evaluate development patterns or individual change (e.g., how patterns of drinking change with increasing age), nor can they fully resolve issues of causal order (e.g., whether unemployment causes drinking problems or impaired mental health or whether drinking problems or impaired mental health causes unemployment).

Nonetheless, repeated cross-sectional surveys are especially adept at *identifying* and *measuring* population change (e.g., changes in the percentage of the population affected by impairments or disabilities caused by alcohol and other drug use and mental difficulties). In comparison to re-interview (longitudinal or follow-up) studies, the advantages of repeated cross-sectional studies is that each survey accounts for population change and that estimates combine effects of changing values and changing populations, and thus provide an efficient estimate of net population change.

The next section describes the sampling procedures used in selecting respondents, features of the Computer Assisted Telephone Interview (CATI), the measures used in estimating and monitoring substance use and mental health and methods of estimation used in drawing conclusions about the population of Ontario adults. In addition to describing features of the 2015 CM, we also describe the series of surveys conducted since 1977.

2. METHOD

2.1 Sampling Designs

The series of data described in this report are based on 30 repeated cross-sectional surveys conducted during a 39-year period between the years 1977 and 2015 and targeting a population of noninstitutionalized Ontarians aged 18 and older.⁵ To capture this target population, we employed a survey population frame – the list of eligible units from which the population is drawn – of Ontario telephone numbers and their adult household members.

This surveillance program was initiated and supported by the Addiction Research Foundation (ARF) and administered from 1977 through 1998, and continued by the Centre for Addiction and Mental Health (CAMH) since 1999 (see Table 2.1.1).⁶ These data – which amalgamate previous monitoring research, including the *Ontario Adult Drug Use* series (1977–1994) (Adlaf, Ivis, & Smart, 1994) and the *Ontario Alcohol and Other Drug Opinion Survey* series (1992–1995) (Ialomiteanu & Bondy, 1997) – represent the longest and most comprehensive surveillance program of adult drug use in Canada.⁷

⁵ The target population for all surveys includes noninstitutionalized adults aged 18 and older residing in Ontario; however, the frame population varied from geo-based (1977 through 1989) to telephone number elements (1991 onward).

⁶ In 1998, the Government of Ontario amalgamated the ARF with three other substance abuse and mental health organizations into the newly formed CAMH, a full affiliate of the University of Toronto and a Pan American Health Organization/ World Health Organization Collaborating Centre.

⁷ Each cycle of the *CAMH Monitor* procedures and interviews was approved by the CAMH Research Ethics Board and the CATI instrument and data collection procedures related to ISRs contractual

2.1.1 Sampling Designs 1977–1995 Series

As seen in Table 2.1.1, the five modified-probability (a stratified, three-stage area sample)⁸ periodic surveys conducted between 1977 and 1989 employed personal-visit interviews administered by Ian Sone and Associates (1977) and Gallup Canada (1982–1989).

In contrast, the 25 surveys conducted annually between 1991 and 2015 employed computer assisted telephone interviewing (CATI) (see Textbox 3). Using a random-digit-dialling selection (RDD), these surveys employed a stratified two-stage (telephone number–household respondent) probability selection of telephone numbers and were administered at the CATI facility at York University’s Institute for Social Research (ISR).⁹

involvement were also approved by the York University REB.

⁸ Although such designs typically result in a sample with “representative” characteristics, these five surveys do not technically qualify for a *full probability* designation because (1) respondents within households were not randomly selected (in all households, the youngest male aged 18 and older was interviewed until the quota was filled), and (2) quota sampling was employed in rural areas.

⁹ ISR, which operates a fully-supervised, centralized CATI laboratory with 75 workstations, was responsible for generating the sampling frame and drawing the sample; pretesting and deploying the CATI; developing the sampling weights; and preparing the data and dataset. The *CAMH Monitor* research team was responsible for the overall management and direction of the survey; the interview content, the post-collection data preparation (e.g., creation of derived variables and post-stratified weighting adjustments); the monitoring of cross-cycle process quality; building the multi-year dataset; and all surveillance data analysis and interpretation.

2.1.2 The *CAMH Monitor* Series 1996–2015

In 1996, general population survey research at the Addiction Research Foundation was amalgamated into the *Ontario Drug Monitor* (ODM). The major change was a transition to a continuously administered CATI similar to the US NHANES survey (Centers for Disease Control and Prevention, 2011). In 1999, this development continued, and the expanded survey questionnaire introduced modules of health and mental health indicators to better capture the wider institutional work of CAMH. To more formally recognize this wider scope, the survey was rebranded the *CAMH Monitor* (CM).¹⁰

There are four major differences between the current *CAMH Monitor* and earlier surveys:

1. Each *CAMH Monitor* cycle is based on the **annual cumulation of four quarterly rolling samples** (versus the typical 4 to 8 week interviewing period employed in earlier cycles). Such “rolling” or continuous data collecting systems have several advantages over periodic fieldwork including the following:

- greater capacity to detect seasonal and secular trends;
- greater capacity to provide timely data;¹¹
- ability to accumulate rare populations across time (Kalton, 2009; Kish, 1999);
- multiple repeated samples lead to better statistical estimation (Kish, 1965);
- reduction of administration costs by efficiencies in assigning interviewer workload across time;

¹⁰ The *CAMH Monitor* is supported by the Ontario Ministry of Health and Long-term Care (MOHLTC) and supplemented by investigator- and organization-initiated and extramural research activities.

¹¹ Because changes to the CATI can be made within days, if not hours, emerging issues can be quickly administered.

- more efficient detection of interview error and ability to make adjustments during fieldwork; and
- potential for quickly fielding new material and evaluating changes in programs, policies and legislation, and for assessing potential drug-related outbreaks.

2. The *CAMH Monitor* is regionally stratified with **equal allocation** of respondents within each of the six regional areas (versus proportional allocation employed in earlier cycles, see Table 2.4.1 for more details). This equal allocation results in disproportional-to-population stratification. As a result, the precision of estimates from areas such as Northern Ontario is improved compared with earlier surveys. (However, this improvement comes at a cost to larger regions, such as the Central East, whose equally allocated sample size is reduced versus proportional allocation). As well, the potential for pooling or cumulating data across time (i.e., samples) for regional or rare subgroup analyses is greatly enhanced (see, for example, Chapter 10).

3. Beginning in 2000, the *CAMH Monitor* sampling plan introduced **list-assisted** sampling, thus including cell phones (as well as newly connected or listed and unpublished numbers) into the survey population frame.

4. The *CAMH Monitor* **sample size was increased** from earlier cycles, approaching or exceeding 3,000 per year. Between 1996 and 2014, the annual sample size varied from 2,005 to 3,039 respondents.¹² In 2015 the sample size was significantly increased to **5,013** respondents.

¹² Beginning in 2010, the allocated sample was increased to 3,000 completions. Thus, compared to most similar national surveys, the *CAMH Monitor*'s Ontario sample often exceeds the Ontario strata from many national surveys.

The CAMH Monitor Sampling Plan

The 2015 *CAMH Monitor* **target population** – the population which we intend to make inferences about – was noninstitutionalized adults aged 18 and older residing in Ontario during the calendar year 2015 (N=10,157,960). To represent this target population, we employed a **sample (or frame) population** – the population that has an actual chance of being selected – based on telephone numbers from which corresponding adult household members residing in Ontario during 2015 and who were capable of completing the interview in English were selected. Thus, **excluded from selection** were adults without a phone, those who were institutionalized, and those who were unable to complete the interview in English.

The *CAMH Monitor* sampling plan employs a **stratified** (by six equally allocated regional area codes¹³) **two-stage** (telephone number–respondent) **list-assisted RDD**¹⁴ rolling quarterly¹⁵ probability sampling procedure, interviewing Ontario residents aged 18 and older, capable of completing a telephone interview in English. Each calendar year, the four quarterly (or 12 monthly, for cycles before 2011) non-overlapping samples were cumulated to provide single calendar year data (Alexander, 2002; Kish, 1999).

The *CAMH Monitor* series has been administered by the Institute for Social Research, York University since 1991.

Textbox 1 2015 CAMH Monitor Target and Sample Population
<p>Target population</p> <ul style="list-style-type: none"> ▪ noninstitutionalized Ontario adults aged 18 and older residing in Ontario during 2015 (N=10,157,960) <p>Sample (frame) population</p> <ul style="list-style-type: none"> ▪ telephone numbers (including landline, cell/wireless or mobile phones, unlisted or newly connected or listed numbers) and their household members aged 18 and older residents of Ontario during 2015 ▪ able to complete telephone interview in English <p>Excluded from sample frame</p> <ul style="list-style-type: none"> ▪ phoneless households <p>Excluded from sample population</p> <ul style="list-style-type: none"> ▪ institutionalized (hospitals, prisons) ▪ under 18 years ▪ language barrier <p>Note: Military personnel residing in civilian residences are not excluded</p>

Textbox 2 The CAMH Monitor Sampling Design		
Stage of Selection	Primary Sampling Unit (PSU) / Secondary Sampling Unit (SSU)	Strata
1.	Telephone number ; selected with equal probability and without replacement for each quarterly sample using list-assisted RDD rolling sampling	Six aggregated area code-based regions; equally allocated (disproportional to population allocation)
2.	Respondent aged 18+, selected using last birthday method	None

¹³ See Table 2.4.1 for area code-region designations. In instances where area codes overlapped, multiple regional strata, postal codes and other sources were used to generate non-overlapping regional strata.

¹⁴ Between 1991 and 1999, the stage 1 sampling frame consisted of landline telephone numbers only. In 2000, the frame was expanded to a list-assisted RDD, including the possible selection of cell/wireless/mobile phones, unlisted and newly listed or connected numbers.

¹⁵ In 2011, the field period was lengthened from 12 monthly to 4 quarterly samples to allow for a longer period to re-contact unanswered calls.

Building the List-Assisted Frame

Since 2000, the sampling frame has been built using 10-digit telephone numbers in Ontario consisting of (1) an area code, (2) a central office code, exchange or prefix (the first three digits of the telephone number), and (3) a suffix or bank (the last four digits of the telephone number).

A list of telephone numbers in Ontario was generated from CD-ROM versions of telephone directories and other commercially available lists. Telephone numbers from these sources, as well as numbers on either side of selected listed numbers are included in the sampling frame. For example, if the selected directory-published number is xxx-xxx-8513 then all numbers from xxx-xxx-8510 through xxx-xxx-8519 are added to the sampling frame *even if they are cell phone numbers, unlisted or newly connected or listed numbers* (unless they are known not-in-service numbers). A computer then generates a random (i.e., EPSEM) sample of telephone numbers from this list from which each quarterly (or monthly in earlier cycles) sample is drawn. Because **unlisted numbers, cell phone numbers and newly connected or published numbers** are interspersed among published numbers, this strategy provides a superior sample than one based on listed landline numbers alone.¹⁶

¹⁶ Including cell phone numbers should improve the sample quality given the increased coverage and the recent research suggesting that exclusive landline surveys underestimate several health behaviours including binge drinking and smoking (Blumberg, Luke, & Cynamon, 2006). More recently, Voigt et al. (2011) in their description of select national US surveys similarly found elevated prevalence of current smoking and alcohol use among cell-only users than landline users.

Sample Selection

Stage 1 — Telephone number selection (PSU – primary sampling unit): Within each of the six aggregated area code regional strata, each quarter a random sample of 10-digit telephone numbers (i.e., area code – exchange – suffix) was selected with equal probability (EPSEM) and without replacement (WOR) from the list-assisted frame.

Stage 2 — Respondent selection (SSU – secondary sampling unit): Within the household of selected telephone numbers, one respondent age 18 or older who could complete the interview in English¹⁷ was usually selected according to the last-birthday method (Binson, Canchola, & Catania, 2000; Rizzo, Brick, & Park, 2004).¹⁸

In 2015, the question on the selection of the respondent in a household was slightly modified to increase the probability of selecting a younger adult (aged 18 to 30) as the respondent in a household to increase sample representativeness. In the past, interviewers had asked, *“Including yourself, how many people 18 years of age or older live in your household?”* In 2015, interviewers asked, *“Including yourself, how many people between 18 and 30 years of age live in your household?”* If there was only one person who was between the ages of 18 to 30 living in a household, this person

¹⁷ With the introduction of the RDD series in 1991, both English and French CATIs were available to all respondents. However, because most Francophone respondents preferred to complete the English interview, in 1998 the CATI became exclusively English.

¹⁸ Such methods are frequently employed because there is a desire to employ unobtrusive strategies to draw a probability sample (i.e., a full listing of all household residents) without depressing response rates. The potential limitation of such methods is that if the month/day of a birthday is correlated with the survey variables there is potential for sample bias (Groves et al., 2009).

was identified as the respondent. If there were two or more younger adults in a household, one of the younger adults was randomly selected using the next birthday method. In households where there was no one 30 years of age or younger, there was no change in the probabilities of selection and the next birthday selection method was used. Since the total number of adults in a household (age 18 and over) does not change regardless of the age of the adult respondent being selected, and only the total number of adults in a household is used to calculate weights in a household, the calculation of weights for 2015 did not differ from previous cycles of CAMH Monitor.

A minimum of 12 call backs were placed to unanswered numbers¹⁹ and **refusal conversion attempts** were made with all respondents who refused to participate on the first contact.²⁰

To help maximize the response rate, all selected telephone subscribers were mailed (addresses retrieved from reverse directories) a **pre-notification letter**, about one week before the phone call, describing the purpose of the survey and that they would soon be invited to participate in the survey.

To increase the precision of estimates within different areas of the province, the sample was equally allocated among six strata derived from adjacent telephone area codes, thus resulting in a **disproportional-to-population** allocation (see Appendix A, Table A1).²¹

¹⁹ Call attempts ranged from 1 through 41 (mean = 5.7 calls; 85% were contacted by the 11th call).

²⁰ These refusal conversion attempts are conducted by the most experienced interviewers. Respondents who refuse by requesting to be put on the 'do-not-call list' (even though researchers are exempt from this list) or are distressed about the request are never re-contacted.

²¹ Earlier proportional stratified sampling posed difficulties for analyses because the region often displaying elevated indicators (i.e., Northern Ontario)

also had one of the smallest sample sizes due to their smaller population share. Consequently, although the North displayed elevated indicators, especially for alcohol, such differences did not reach statistical significance and therefore we were unable to report such findings despite their potential public health importance.

Table 2.1.1: ARF/CAMH – Ontario Adult Population Survey Program, 1977–2015

Year	Mode of Interview	Survey Organization	Sample Design	Sample (N) Date	RR <i>deff</i>	Standard Error Calculation Model	Source
1977 (1)	Face-to-face	Gallup	<p>Area-based modified-probability design: The sample design incorporated stratification by six community size groups, based on the most recent census figures: cities of 500,000 populations and over; those between 100,000 and 500,000; 30,000 to 100,000; 10,000 to 30,000; 1,000 to 10,000, and rural farm and rural non-farm areas. The population was arrayed in geographic order, by census enumeration areas. Enumeration areas, on the average, contain about 500 to 1,000 people. Stage 1: Up to 105 enumeration areas were selected randomly from this array. Within urban centres, a random block sampling procedure was used to select starting points for interviewers. Stage 2: The interviewer was provided with a map of the enumeration area, showing the location of the starting point and was required to follow a specified route in the selection of households. Stage 3: Within the household, the youngest male, 18 years and over at home at the time of the interview, was surveyed. If there is no male available, or when the male quota was filled, the youngest available female, 18 years and over, was interviewed. The selection of rural and rural non-farm interviewing locations followed the sample design established for the urban centres in terms of geographic dispersion and random selection of enumeration areas. Because of the low population density and wide dispersion of households, the random block sampling procedure was replaced by quota sampling based on sex and age. Sampling weights for the 1977 through 1989 surveys employed poststratified classes according to the sex and age distribution of the most recent census year.</p>	N=1,059 Periodic: June 16-18	NA		(Smart & Goodstadt, 1977)
1982 (2)	Face-to-face	Gallup		N=1,040 Periodic: Feb. 22-28	NA		(Smart & Adlaf, 1982)
1984 (3)	Face-to-face	Gallup		N=1,050 Periodic: Feb. 27- March 3	NA		(Smart & Adlaf, 1984)
1987 (4)	Face-to-face	Gallup		N=1,084 Periodic: Jan. 8-23	NA		(Smart & Adlaf, 1987)
1989 (5)	Face-to-face	Gallup		N=1,101 Periodic: Feb. 11 - March 4	NA		(Adlaf & Smart, 1989)
1991 (6)	Telephone	ISR	<p>Full-probability landline RDD: The survey used random-digit-dialing (RDD) techniques through computer assisted telephone interviewing (CATI) methods. The design employed <i>single-strata, two-stage probability RDD survey</i> administered during a 2-3 month period. Stage 1: From a sampling frame of all active area codes and exchanges in Ontario provided by the ATT Long Lines Tape, a random sample of 10-digit telephone numbers was selected with equal probability. Stage 2: Within selected telephone households, one respondent was selected according to the household member with the most recent birthday. A minimum of 12 callbacks were made to each nonresponding household, and all households who refused to participate were re-contacted in order to secure participation. Sampling weights were a function of the number of household members.</p>	N=1,047 Periodic: Feb 20-March 18	RR=67% <i>deff</i> =1.14	1 SE strata; 1047 SECU; 1046 design df	(Adlaf et al., 1991)
1992 (7)	Telephone	ISR		N=1,058 Periodic: June 14- Aug 20	RR=63% <i>deff</i> =1.19	1 SE strata; 1058 SECU; 1057 design df	(Ferris, Templeton, & Wong, 1994)
1993 (8)	Telephone	ISR		N=1,034 Periodic: April 19- May 24	RR=65% <i>deff</i> =1.10	1 SE strata; 1034 SECU; 1033 design df	(Bondy, 1994)

Year	Mode of Interview	Survey Organization	Sample Design	Sample (N) Date	RR <i>deff</i>	Standard Error Calculation Model	Source
1994 (9)	Telephone	ISR		N=2,022 Periodic: March 1- May 5	RR=63% <i>deff</i> =1.16	1 SE strata; 2022 SECU; 2021 design df	(Adlaf et al., 1994; Paglia, 1995)
1995 (10)	Telephone	ISR		N=994 Periodic: March 28- May 9	RR=62% <i>deff</i> =1.16	1 SE strata; 994 SECU; 993 design df	(Anglin, 1995)
1996 (11)	Telephone	ISR	<p>Ontario Drug Monitor (ODM)</p> <p>Full-probability monthly landline RDD: The survey used RDD techniques through CATI methods. The design employed a rolling monthly <i>two-stage probability RDD survey</i> stratified by six geographical/area-code regions with sample sizes allocated equally (disproportionally). Stage 1: From a sampling frame of all active area codes and exchanges in Ontario provided by the ATT Long Lines Tape, within each regional stratum a random sample of telephone numbers was selected with equal probability. Stage 2: Within selected telephone households, one respondent was selected according to the most recent birthday of household members. A minimum of 12 call-backs were made to each non-responding household, and all households who refused to participate were re-contacted in order to secure participation. Twelve monthly samples were cumulated to provide annual estimates. Sampling weights were a function of the number of household members, regional probabilities and month.</p>	N=2,721 12m rolling: April 8 - Jan 8	RR=64%	6 SE strata; 2721 SECU; 2715 design df	(Adlaf, Ivis, Bondy et al., 1997; Adlaf, Ivis, Ialomiteanu, Walsh, & Bondy, 1997)
1997 (12)	Telephone	ISR		N=2,776 12m rolling: Jan 14 - Dec 21	RR=67%	6 SE strata; 2776 SECU; 2770 design df	(Adlaf, Ivis, & Ialomiteanu, 1998; Adlaf, Ivis, Ialomiteanu et al., 1998)
1998 (13)	Telephone	ISR		N=2,509 12m rolling: Jan 21- Dec 20	RR=69%	6 SE strata; 2509 SECU; 2503 design df	(Adlaf, Paglia, & Ialomiteanu, 1999; Adlaf, Paglia, Ivis, & Ialomiteanu, 1999)
1999 (14)	Telephone	ISR			N=2,436 12m rolling: Jan 20- Dec 21	RR=69%	6 SE strata; 2436 SECU; 2430 design df
2000 (15)	Telephone	ISR	<p>CAMH Monitor (CM)</p> <p>Full-probability monthly RDD: The survey used RDD techniques through CATI methods. The design employed a rolling monthly <i>two-stage probability list-assisted RDD survey stratified by six geographical/area-code regions</i> with sample sizes allocated equally (disproportionally). A list of 10-digit telephone numbers in Ontario can be constructed from CD-ROM versions of telephone books and the other commercially available lists of telephone numbers. Entries from these sources, as well as telephone numbers between or on either side of listed numbers are included in the sampling frame. Since unlisted numbers, cell phone numbers and newly published numbers are interspersed among published numbers, this strategy provides a superior sample than one based on listed numbers alone.</p>	N=2,406 12m rolling: Jan 20- Dec 21	RR=61%	6 SE strata; 2406 SECU; 2400 design df	(Adlaf & Ialomiteanu, 2001; Adlaf, Ialomiteanu, & Paglia, 2001)
2001 (16)	Telephone	ISR		N= 2,627 12m rolling: Jan 25- Dec 20	RR=61%	6 SE strata; 2627 SECU; 2621 design df	(Adlaf & Ialomiteanu, 2002a, 2002b)
2002 (17)	Telephone	ISR		N= 2,421 12m rolling: Jan 10- Dec 22	RR=58%	6 SE strata; 2421 SECU; 2415 design df	(Ialomiteanu & Adlaf, 2003)

Year	Mode of Interview	Survey Organization	Sample Design	Sample (N) Date	RR <i>deff</i>	Standard Error Calculation Model	Source
2003 (18)	Telephone	ISR	<p>Stage 1: Within each of the six regional strata, each month a random sample of telephone numbers was selected with equal probability. Stage 2: Within selected telephone households, one respondent age 18 or older who could complete the interview in English was selected according to the “last birthday” method of household members. A minimum of 12 call-backs were placed to unanswered numbers and most households who refused to participate on the first contact were re-contacted in order to secure participation. Twelve monthly samples were cumulated to provide annual estimates. Sampling weights were a function of the number of household members, regional probabilities and month.</p> <p>In 2000, the stage one selection was revised to a list-assisted RDD selection, with a sampling frame including landline, cell, unlisted and unpublished telephone numbers..</p> <p>In 2006, the target sample was reduced to 2,000 completions.</p> <p>In 2009, all selected numbers received advance letter.</p> <p>In 2010, the target sample was increased to 3,000 completions; Sampling revised to 4 quarterly (from 12 monthly) samples..</p>	N= 2,411 12m rolling: Jan 10- Dec 30	RR=58%	6 SE strata; 2411 SECU; 2405 design df	(Ialomiteanu & Adlaf, 2004)
2004 (19)	Telephone	ISR		N= 2,611 12m rolling: Jan 03- Dec 30	RR=59%	6 SE strata; 2611 SECU; 2605 design df	(Ialomiteanu & Adlaf, 2005)
2005 (20)	Telephone	ISR		N= 2,445 12m rolling: Jan 10- Dec 22	RR=61%	6 SE strata; 2445 SECU; 2439 design df	(Adlaf, Ialomiteanu, & Rehm, 2008; Ialomiteanu & Adlaf, 2006)
2006 (21)	Telephone	ISR		N= 2,016 12m rolling: Jan 03- Dec 30	RR=61%	6 SE strata; 2016 SECU; 2010 design df	(Ialomiteanu & Adlaf, 2007)
2007 (22)	Telephone	ISR		N= 2,005 12m rolling: Jan 02- Dec 30	RR=53%	6 SE strata; 2005 SECU; 1999 design df	(Ialomiteanu & Adlaf, 2008; Ialomiteanu, Adlaf, Mann, & Rehm, 2009)
2008 (23)	Telephone	ISR		N= 2,024 12m rolling: Jan 05- Dec 28	RR=55%	6 SE strata; 2024 SECU; 2018 design df	(Ialomiteanu & Adlaf, 2009)
2009 (24)	Telephone	ISR		N=2,037 12m rolling: Jan 2- Dec 30	RR=57%	6 SE strata; 2037 SECU 2031 design df	(Ialomiteanu & Adlaf, 2010; Ialomiteanu, Adlaf, Mann, & Rehm, 2011)
2010 (25)	Telephone	ISR		N=3,030 12m rolling: Jan 2- Dec 28	RR=51%	6 SE strata; 3030 SECU 3024 design df	(Ialomiteanu & Adlaf, 2011)
2011 (26)	Telephone	ISR		N=3039 4Q rolling: Jan 4–Dec 20	RR=51%	6 SE strata; 3039 SECU 3033 design df	(Ialomiteanu & Adlaf, 2012; Ialomiteanu, Adlaf, Hamilton, & Mann, 2012)

Year	Mode of Interview	Survey Organization	Sample Design	Sample (N) Date	RR <i>deff</i>	Standard Error Calculation Model	Source
2012 (27)	Telephone	ISR		N=3030 4Q rolling: Jan 3–Dec 28	RR=51%	6 SE strata; 3030 SECU 3024 design df	(Ialomiteanu & Adlaf, 2013)
2013 (28)	Telephone	ISR		N=3021 4Q rolling: Jan 2–Dec 20	RR=48%	6 SE strata; 3021 SECU 3015 design df	(Ialomiteanu & Adlaf, 2013; Ialomiteanu, Adlaf, Hamilton, & Mann, 2014)
2014 (29)	Telephone	ISR		N=3043 Jan 02–Dec 17	RR=45%	6 SE strata; 3043 SECU 3037 design df	(Ialomiteanu & Adlaf, 2015)
2015 (30)	Mixed Mode Telephone + Online experiment	ISR		N=5013 Jan 05–Dec 23	RR=41% CR=46%	6 SE strata; 5013 SECU 5007 design df	(Ialomiteanu, Adlaf, & Mann, 2016; Ialomiteanu, Hamilton, Adlaf, & Mann, 2016)
Notes: ARF , Addiction Research Foundation; ISR = Institute for Social Research, York University, RR = unweighted unit response rate; CR = completion rate; deff = average design effect; SE = standard error; SECU =Standard Error Calculation Unit (respondents).							

2.2 Computer Assisted Telephone Interviewing (CATI)

To reduce the response load or burden while maximizing questionnaire content and flexibility, the *CAMH Monitor* employs a matrix interview design, whereby within each panel, random subsets of respondents are asked various modules of questions, while other respondents are concurrently asked modules of alternative questions.

Three split-ballot interview panels were employed in the 2015 *CAMH Monitor*. All three included core items – questions asked among all respondents – and panel items – questions asked among only a single panel of respondents. The CATI system randomized respondents to one of three panels, **Panel A**, **Panel B** or **Panel C**. All three panels were administered concurrently throughout the 2015 calendar year.²²

The major advantage of this approach is that the interview content can be maximized without increasing the response load or burden on a single respondent. In addition, the CATI system's ability to randomize respondents between different question versions and formats readily allows for methodological substudies on question wording, order, etc.²³ A disadvantage of matrix interviews, however, is that sample sizes for split sample analysis are reduced (unless imputation methods are used to restore the sample size). Some discussion of matrix sampling can be found in the literature (Heeringa et al., 2010; Thomas, Raghunathan, Schenker, Katzoff, & Johnson, 2006).

²² Beginning in 2010, the two CATI panels (A and B) became concurrently administered in 12-month periods and were reallocated to produce samples of 1,000 and 2,000 completions, respectively. Panel A is allocated to tobacco content (and sponsored by the Ontario Tobacco Research Unit), while the larger Panel B is allocated to general prevalence and surveillance. In 2015, a third panel (panel C) allocated to gambling was added.

²³ As well, potential questions can be assessed and pretested on a subsample prior to live field interviewing.

Textbox 3 CATI Systems

CATI systems are one of the most widely used of the computer assisted interviewing technologies. Interviewer-administered CATI systems function to manage aspects of the interview process, including such functions as editing, coding and data collection. Operating from a centralized facility, CATI systems employ computerized instruments to manage the interaction between the interviewer and respondent. The process can be described as follows.

Interview questions, precoded and open-ended responses, and related interviewer instructions are keyed and saved electronically. The CATI system stores this information and then the presented order of questions and any question branching instructions (i.e., item skipping) is programmed. This programming automates the interview process and ensures that only designated questions are asked of each respondent.

Once the system is ready, telephone numbers (previously stored) are randomly selected and dialed by the system. In most software, the calling schedule is also automated to maximize respondent contact. After the interviewer establishes contact and eligibility of the respondent, the interviewer begins the interview. One-by-one, each question appears on the interviewer's computer screen. The interviewer then reads the question over the telephone headset to the respondent and waits for a response. The respondent's answer is entered directly into the system by the interviewer, thus automatically capturing interview data and eliminating the need for a separate stage of data entry, and, in turn, provides quick access to the final data file.

Questions automatically route to the next designated question depending on the respondent's prior answers (e.g., past year drinking) or based on their demographic characteristics (e.g., sex, age) or any prior questions.

The CATI system employed by the *CAMH Monitor* since 1991 has been continuously operated since 1996.

See (Biemer & Lyberg, 2003; Caitlin & Ingram, 1988; Couper & Nicholls II, 1998) for reviews of CATI systems.

To assess usability – how well the instrument works in practice – full interviews with special attention paid to new items in the CM 2015 were field pretested with a minimum of 25 respondents. Pretest assessments also included interviewer debriefing and expert questionnaire review provided by ISR and CAMH staff.

The 2015 interview averaged **26.6 minutes** (range 9–81 min.; median 24.8 min.; 86% of interviews completed within 30 min). Interviews were conducted by 60 ISR interviewers, many of whom had considerable CATI experience and had completed interviews on prior CAMH surveys.²⁴ In addition, all respondents who refused to participate on the first contact were recontacted by a seasoned interviewer with the purpose of converting the respondents initial refusal to participation (16.1% of initial refusers were converted).

The Web Survey Experiment

An experiment using a “web survey pilot” was implemented between July and September, 2015. The main purpose of piloting this mode of data collection was to examine whether the web-survey can capture younger respondents than the telephone survey, and, if possible, to supplement the data collected by telephone with data collected via the web (“online”). The online survey component was designed as an additional panel (called “Panel D”) and was added to the survey starting July 21, 2015. The online panel included only a subset of questions that were asked in the telephone survey.

More details describing the 2015 *CAMH Monitor* survey and the online experiment can be found in a companion technical document (Ialomiteanu, Adlaf, & Mann, 2016) available in PDF at http://ww.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx

Three different types of recruitment methods were used for the web survey:

1. First, an advance letter was sent to a random selection of households (n=277) in 6 regional areas selected for the CAMH Monitor’s telephone survey sample to invite a member of their household to participate in the telephone or the online survey. The

letter contained the link to the online survey. Informed consent from the participants to the online survey was obtained online.

2. Second, CAMH promoted the online survey on the CAMH website and social media (e.g. CAMH e-newsletter, CAMH Twitter account). This approach is an example of a web survey that uses a *non-probability sample of an unrestricted self-selected* on-line survey by offering all visitors to the website the possibility to complete the survey via a hyperlink (clickable link). Informed consent was obtained online.
3. Third, e-mail invitations with hyper link (clickable link) to the online survey were sent to a *non-probability online panel* (age 18-29, residents of Ontario) of 31,310 e-mail subscribers of “Shopper’s Voice”. Informed consent was also obtained online.

The sample size obtained using the three recruitment methods was N=833. Because of the extremely *low response rate* (RR) and *participation rate* (PR) obtained using this mode of data collection (the final RR was 27.3% and the PR was 35.9% for the first recruitment method, and the final PR was 2.5% for the second method), we decided to discontinue the data collection using the first two recruitment methods at the end of September 2015. Finally, although the web-survey mode of data collection captured younger respondents (mean age =33 years) compared to the telephone survey (unweighted mean age = 56 years), due to the *non-probability sampling frame* of the web survey pilot, the *low participation rates* mentioned above, and *significant gender bias* (more than 86% of the web-survey sample were women), the data collected using the web survey mode was **not included** in the final public use CM2015 data file.

²⁴ Interviews were conducted from 10 AM to 5 PM and 6 PM to 9:45 PM, Monday through Thursday and from 10 AM to 6 PM on Saturday and 2 PM to 9:45 PM on Sunday. Two-thirds (65%) of interviews were completed during the evening, 25% during the afternoon and 10% during the morning.

2.3 Data Quality: Participation, Sample Characteristics and Representativeness

Participation

Of the 16,629 telephone numbers selected during the four quarters of 2015 (of which 11,852 were known, or estimated, to be eligible),²⁵ **5,013 respondents participated** (1,006 respondents in Panel A, 1,005 respondents in Panel B, and 3,002 respondents in Panel C), representing a **completion rate of 46%** and an eligibility-adjusted unit **response rate of 41%** (quarterly response rates varied from 38% to 43% and regional rates varied from 36% to 46% – 36% for Toronto, 37% for the Central East, 41% for the Central West, 43% for the East, 49% for the West, and 46% for the North).

The CM2015 unit response rates are still comparable to those of other Canadian alcohol and drug use surveys, including the 2011 and 2012 CADUMS (*Canadian Alcohol and Drug Use Monitor Survey*) (Health Canada, 2012), which obtained an overall response rate of **44%** and **40%**, respectively. In the US, the *Behavioral Risk Factor Surveillance Survey* (BRFSS), the largest health risk RDD survey coordinated by the Centers for Disease Control and Prevention, obtained, in 2010, a median state response rate of **53%** and a median overall response rate of **36%**.²⁶

CAMH Monitor Response Rate Trends

Like many large-scale surveys, the *CAMH Monitor's* response rate continues to decline over time. Unit response rates for the 25 RDD surveys conducted between 1991 and 2015 (see **Table 2.1.1**) varied from 69% to 41%, with a mean and median of 58% and 61%, respectively. Although the year-to-year change in the response rate is small, the cumulative reduction is significant and worrisome. The decline in response rates in the past two decades

is common to many large-scale surveys (Groves et al, 2009:186–188).

CAMH Monitor's response rate has declined from 45% in 2014 to 41% in 2015. Part of this decline in response rate can be attributed to including a mixed-mode methodology (telephone and web) to 2015 data collection process.

We found a notable decline in response rate from Wave 2 of data collection (April-June) (43%) to Wave 3 of data collection (July-September) (34%), when the web survey option was introduced. Providing an option for respondents to participate in the web survey has resulted in many less productive calls and delayed data collection. While many respondents 'promised' to get to the web survey, final data analysis shows that they did not do so. As a result, for Wave 4 (October-December) of telephone data collection process, when the web-survey option was removed and only the telephone-survey option was offered in the advance letter, the response rate increased to 40%. These findings align with other research findings that suggest providing households with mixed mode options to complete a survey (e.g. a mail survey and an on-line survey), encourage potential respondents to defer a decision, and not respond at all, hence lowering the overall response rate (Medway & Fulton, 2012).

Yet, despite the downtrend in response rates, recent evidence suggests that this decline need not translate into a corresponding decline in sample representativeness (Chang & Krosnick, 2009; Curtin et al., 2005; Keeter, Miller, Kohut, Groves, & Presser, 2000).

We cannot ignore the possible link between the nonresponse rate and nonresponse bias. Although the response rate is a key marker of data quality, the caveat is that we rarely know to what extent the response rate represents nonresponse bias. Rather, the magnitude of the response rate is best viewed as indicating the *potential*, not the presence of nonresponse bias (Biemer & Lyberg, 2003; Groves et al., 2004; Groves & Peytcheva, 2008).

²⁵ Whether eligible respondents reside in noncontacted households is unknown, but is estimated based on the eligible proportion of respondents derived among contacted households.

²⁶ CDC, www.cdc.gov/brfss/annual_data/2010/2010_Summary_Data_Quality_Report.docx (Accessed March 5, 2014).

Another interpretative challenge with response rates is the difficulty establishing an accepted threshold – some argue it is even dangerous to do so (Lohr, 1999) – because of the wide variation in their calculation, and varying definitions of components of the numerator and denominator. Moreover, defining an acceptable threshold is futile without knowledge of the difference between respondents and nonrespondents (which is rarely known) (Biemer & Lyberg, 2003:90).

Sample Representativeness

The 2015 *CM* sample represents noninstitutionalized residents aged 18 and older residing in Ontario during calendar year 2015 (a population of approximately 10,157,960 adults). To evaluate the representativeness of our sample, we compared characteristics of respondents aged 18 and older with comparable 2011 Ontario Census figures (Statistics Canada, 2012).²⁷

Of the four comparisons available, two – sex and age – showed no significant differences between the 2015 *CM* and 2011 Census distributions, indicating that the sample with its postadjusted weights calibrate well to the population for these characteristics. Additional demographic comparisons were available only for marital status and region.

There were differences between the Census and *CM*2015 figures only for marital status. Compared to Ontario Census figures from 2011, the 2015 *CM* sample *underrepresented* those never married (27.6% vs. 23.3%, respectively), and those widowed, divorced or separated (17.9% vs. 10.5%, respectively), and *overrepresented* those married or living with a partner (54.5% vs. 66.2%, respectively). Information regarding selected sample characteristics is presented in Appendix A.

One of the measurable indicators of response quality is item missingness – the propensity to answer every designated question. In this report, *CAMH Monitor* data are neither

imputed nor adjusted for item missingness, but are removed listwise.

2.4 Measures Used in this Report

Measuring the spectrum of alcohol and other drug use requires the collection of multiple indicators. Some of the data required to estimate consumption are *prevalence* – what percentage of the population consumes a given drug, *frequency* – how often the drug is consumed, *quantity* – how much is consumed, and *concentration* – how potent is the substance. In this report, we limit our attention to a few of these factors. For alcohol consumption, we describe the prevalence, frequency, and quantity, whereas, for other drug use, we describe the prevalence and, data permitting, frequency. To assess the harms of alcohol, tobacco, other drug use and impaired mental wellbeing, we also employ validated screeners assessing hazardous or harmful patterns of alcohol (*AUDIT – Alcohol Use Disorders Identification Test*), tobacco (*HIS – Heaviness of Smoking Index*), and cannabis use (*ASSIST–CIS- Cannabis Involvement Score*) and psychological distress (*Kessler K6*) (see Table 2.4.2). Additional standardized measures include health and mental health related items – self-rated health and mental health status and physically and mentally unhealthy days – from the CDC developed *Health-Related Quality of Life* scale (*HRQoL–4*) and the *Problem Gambling Severity Index* (*PGSI*).

Although questions and modules have been added, deleted, or periodically repeated over the lifecycle of this study, to ensure valid trend comparisons, drug use and mental health questions have remained similar across each of the available 30 surveys. In addition to internal comparability across time, several surveillance items employed in the *CAMH Monitor* are drawn from standard survey practice (e.g., alcohol and other drug use question formats and wordings) as are the use of validated screeners currently being employed in other national settings.

²⁷ 2015 *CM* respondent characteristics were derived using final postadjusted weights. Significant differences were determined if the Census figure fell outside the 2015 *CM* confidence interval.

This comparability not only enhances the potential for cross-national and cross-provincial research, but also is deemed a key dimension of data quality (Biemer & Lyberg, 2003).²⁸

Regarding demographic characteristics, we have restricted our attention to the few critical social determinants of addiction and mental health risk factors (sex, age, region, marital status, education and income) (Tables 2.4.1 and 2.4.2).

More details about the 2015 CAMH Monitor survey are available at http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx.

Textbox 4 The 2015 CAMH Monitor Sample

- Target population: noninstitutionalized Ontario adults aged 18 or older. Telephone numbers drawn by a list-assisted RDD stratified (6 equally allocated area code regions), two-stage (telephone number; then respondent) sampling plan.
- 16,629 randomly selected telephone numbers (including landline, cable-phone, cell/mobile, unlisted and newly-published), of which 11,852 were estimated to be eligible.
- **5,013** respondents aged 18 or older completed computer assisted telephone interviews (CATI), representing a **46% completion rate** and **41% unit response rate**.
- Computer assisted telephone interviews (CATI) were conducted in English throughout the 2015 calendar year (January 05 – December 23), and averaged **26.6** minutes in length
- Sample represents **10,157,960** Ontarians aged 18 or older; each respondent represents **2,026** Ontario adults.
- **48%** men ($n=1912$); **52%** women ($n=3,101$)
- Mean age of **47.6** years (range 18–100 years)
- Sample equally allocated within six telephone area code regions
- Compared to the available demographic characteristics for Ontario residents from the 2011 Census, the *CM2015* respondents were *similar* for gender, age and region; *underrepresented* those never married, widowed, divorced or separated; and *overrepresented* those married or living with a partner.

²⁸ The remaining six quality dimensions identified by Eurostat include the following: relevance, accuracy, timeliness, accessibility and clarity of information, coherence and completeness.

Table 2.4.1
Socio-Demographic/ Risk Factor Measures

Measure	Number of Categories and Category Type	
Sex	2	Men; women
Age (in years)	5	18–29; 30–39; 40–49; 50–64; 65+
	4	18–29; 30–39; 40–49; 50+
Marital Status	4	Never married; married; living with partner; previously married (i.e. widowed, divorced or separated).
	3	Never married; married (including living as married); previously married (i.e. widowed, divorced or separated).
Region	6	Region - Design Strata – based on adjacent regional area codes: Toronto (416, 647 area codes); Central East (705, 905, 289); Central West (519, 905, 289) ; West (519, 226); East (613, 343); North (705, 807) (Also see Appendix A, Table A-1)
	14	Local Health Integration Networks (LHIN) – based on 14 geographical areas of Ontario: Erie St. Clair; South West; Waterloo Wellington; Hamilton Niagara Haldimand Brant; Central West; Mississauga Halton; Toronto Central; Central; Central East; South East; Champlain; North Simcoe Muskoka; North East; and North West (see appended map in Chapter 9)
Highest Education	4	Not completed high school; completed high school; some college or university (includes completed college); completed university degree (BA or higher)
Gross Annual Household Income ('000)	5	Less than \$30K; \$30–\$49K; \$50–\$79K; \$80K+; not stated

Table 2.4.2: **Definition of Addiction and Mental Health Measures**

Measure	Definition
ALCOHOL USE	
Drinking Status	Percentage classified to one of three categories: <i>lifetime abstainers</i> (those never drinking alcohol in their lifetime); <i>former drinkers</i> (those drinking alcohol in lifetime, but not in past 12 months); and <i>current drinkers</i> (those reporting drinking alcohol in past 12 months) (Available 1977, 1982, 1984, 1987, 1989, 1991–2015)
Past Year Drinking	Percentage reporting drinking alcohol at least once during the 12 months before the survey (Available 1977, 1982, 1984, 1987, 1989, 1991–2015).
Daily Drinking	Percentage reporting drinking at least one alcoholic drink every day during the 12 months before the survey (Available 1977, 1982, 1984, 1987, 1989, 1991–2015)
Five or More Drinks (Binge Drinking)	Percentage reporting drinking five or more alcoholic drinks on a single occasion on a weekly basis during the 12 months before the survey (Available 1977, 1982, 1984, 1987, 1989, 1991, 1994–2015)
Number of Drinks Consumed in Past Year	Estimated number of alcoholic drinks consumed in the past 12 months is the product of the frequency of drinking during the past 12 months and the number of drinks typically consumed per occasion (Available 1992–2015)
Exceeding Low-Risk Drinking Guidelines	Percentage exceeding the 2011 Canadian Low-Risk Drinking Guidelines. Based on exceeding weekly and daily sex specific limits (for men: no more than 15 standard drinks per week and 3 drinks in a single day; for women: no more than 10 standard drinks per week and 2 drinks in a single day). Also, alcohol intake on any one day should not exceed 2 standard drinks. (Available 2003–2009; 2011–2014; Panel subsample)
Hazardous or Harmful Drinking (AUDIT)	Percentage scoring 8+ on the AUDIT screener. Based on 10 items assessing alcohol intake and past 12 month alcohol-related harms and hazards. See Table 3.6.1 for items. (Available 1998–2015)
CIGARETTE USE	
Smoking Status	Percentage classified to one of five categories: <i>never smokers</i> (never smoked 100+ cigarettes in lifetime); <i>former non-daily</i> (never smoked daily and did not smoke in the past 30 days); <i>former daily</i> (smoked daily but did not smoke in the past 30 days); <i>non-daily</i> (never smoked daily but smoked occasionally in the past 30 days); <i>daily smoker</i> (smoked daily and smoked in the past 30 days) (Available 1996–2015)
Current Smoking	Percentage reporting 1) smoking daily or occasionally, 2) having smoked over 100 cigarettes in their lifetime, and 3) having smoked within the past 30 days (Available 1991–2015)
Daily Smoking	Percentage reporting (1) smoking at least one cigarette daily, 2) having smoked over 100 cigarettes in their lifetime, and 3) having smoked within the past 30 days (Available 1996–2015)
High Nicotine Dependence (Heaviness of Smoking Index -HSI)	Percentage of daily smokers who score 5 or 6 (high dependence) on the 2-item HSI. Based on (1) time to first cigarette in morning and (2) number cigarettes smoked per day. (Available 1996–2015)
CANNABIS USE	
Lifetime Cannabis Use	Percentage reporting the use of marijuana or hashish at least once in their lifetime (Available 1977, 1982, 1984, 1987, 1989, 1991–2015, excl. 1993, 1995)
Past Year Cannabis Use	Percentage reporting the use of marijuana or hashish at least once during the 12 months before the survey (Available 1977, 1982, 1984, 1987, 1989, 1991–2015; excl. 1993, 1995)

Measure	Definition
Hazardous or Harmful Cannabis Use (ASSIST-CIS)	Percentage scoring 4+ on the Cannabis Involvement Score on the ASSIST screener. Based on 6 items assessing cannabis consumption and past 3 month cannabis-related problems. See Table 5.1.5 for items. (Available 2004–2015; Panel subsample)
OTHER DRUG USE	
Lifetime Cocaine Use	Percentage reporting the use of cocaine at least once in their lifetime (Available 1984, 1987, 1989, 1991, every even year since 1994 until 2010; 2011–2015; Panel subsample)
Past Year Cocaine Use	Percentage reporting the use of cocaine at least once during the 12 months before the survey (Available 1984, 1987, 1989, 1991, every even year since 1994 until 2010; 2011–2015; Panel subsample)
Medical and Nonmedical Use of Prescription Opioid Pain Relievers	Percentage reporting medical and nonmedical use of prescription opioid pain relievers at least once during the 12 months before the survey (Available 2010–2015; Panel subsample)
DRUGS AND DRIVING	
Driving after Drinking	Percentage of drivers with a valid licence reporting driving within one hour of consuming two or more drinks of alcohol during the past 12 months (Available 1996–2015)
Driving after Cannabis Use	Percentage of drivers with a valid licence reporting driving within two hours of consuming cannabis during the past 12 months (Available 2002–2015)
OVERALL HEALTH	
Health-Related Quality of Life (HRQoL)	Percentage reporting two health related HRQoL items: self-rated <i>fair/poor health</i> (defined as self-ratings of <i>fair</i> or <i>poor</i> health in general); and <i>frequent physically unhealthy days</i> (defined as reporting 14 or more days of physically unhealthy days during the past 30 days) (Available 2003–2015; Panel subsample)
MENTAL HEALTH	
Psychological Distress (K6) (5+ cut-off)	Percentage reporting moderate or high level of distress using the Kessler K6 screener (cut-off of 5 or more out of 24). The 6 items assess nonspecific psychological distress (symptoms of anxiety and depression) over the past 30 days. (Available 2014–2015; Panel subsample)
Use of Prescribed Antianxiety Medication	Percentage reporting the use of prescribed antianxiety medication at least once during the 12 months before the survey (Available 1997, 1999–2015, excl. 2000, 2005, 2007; Panel subsample)
Use of Prescribed Antidepressant Medication	Percentage reporting the use of prescribed antidepressant medication at least once during the 12 months before the survey (Available 1997, 1999–2015, excl. 2000, 2005, 2007; Panel subsample).
Mental Health-Related Quality of Life (MHRQoL)	Percentage reporting two mental-health related HRQoL items: <i>fair/poor mental health</i> (defined as self-ratings of <i>fair</i> or <i>poor</i> mental health); and <i>frequent mental distress days</i> (defined as reporting 14 or more days of unhealthy mental health days during the past 30 days) (Available 2003–2015; Panel subsample)
GAMBLING	
Problem Gambling Severity Index (PGSI) (3+ cut-off)	Percentage reporting moderate or high risk of developing gambling problems (cut-off of 3 or more out of 27). Gambling problems were measured using the 9 items of the Canadian Problem Gambling Index (CPGI) and its Problem Gambling Severity index (PGSI).

2.5 Data Weighting & Estimate Suppression

Data Weighting

For many good reasons, most notably the control of precision, most sample surveys do not select respondents at a probability matching their representation in the population.

Consequently, such data require sample or case weights attached to each respondent to ensure that their share of the sample equals their share of the population (see Appendix B). The weights are based on the inverse of the product of (1) the probability of selecting a telephone number within a stratum; (2) the probability of selecting one respondent within the telephone household (components 1 and 2 form the base weight); and (3) post-stratified calibration to census figures based on eight age-by-sex classes.²⁹ In the CM2015, on average, each respondent represents or “stands in” for 2,026 Ontario adults.³⁰

Estimate Quality & Trustworthiness

There are two key aspects to the statistical quality of survey estimates: *precision* – measured by the lower and upper limits of the 95% confidence interval; and *stability* – measured by the ratio of the standard error to its estimate. Design-based confidence intervals indicate the probable error of a given survey estimate being correct while accommodating the inflated error induced by the complex survey data. Thus, a $\pm 1.9\%$, 95% CI with the maximum limits (48.1%, 51.9%) (based on a *CAMH Monitor* sample of 3,000 with a percentage estimate of 50%)³¹ indicates that

²⁹ The eight post-strata are represented by the cross classification of the 2 sexes and 4 age groups: 18–24, 25–44, 45–64 and 65 and older.

³⁰ Both relative (i.e., sample size scaled) and expansion (i.e., population scaled) weights employed in the *CM2015* are rescaled versions of one other. The **relative weights** are scaled to sum to the interviewed sample size ($n=5013$). The **expansion weights**, are scaled to sum to the Ontario adult population ($N=10,157,960$).

³¹ For percentages, 50% represents the maximum variance. Thus, CIs calculated on this value will provide the widest confidence limits.

with repeated sampling using the same sampling plan, 95% of the sample CIs would contain the true, but unknown, population value. In essence, CIs provide a probability statement of how often we expect this interval to correctly capture the population value.

Confidence intervals, however, do not quantify total errors or accuracy, but quantify errors due to our surveying only a single sample of the total population. Errors as measured by confidence intervals do not include nonsampling errors such as question nonresponse, problems of respondent memory and recall, interviewer effects, underreporting of stigmatized behaviours (such as drug use and impaired mental health). Thus, the reader should be mindful that the statistical precision of an estimate, as indicated by the confidence interval, is not synonymous with total accuracy, but rather, is a component of it. Indeed, accuracy (also known as mean square error) is a function of both precision and bias; heuristically, $accuracy = precision + bias^2$.

The ratio of the standard error to its estimate, the coefficient of variation, (CV) (or relative standard error), is a measure of relative variability and is especially useful when comparing the precision of different measures based on different sample sizes and is also used to identify estimates with considerable statistical inaccuracy suggesting the need for possible data suppression (Kalton, 2009).³²

Data Suppression

Statistically, some estimates are less trustworthy than others – namely, those based on a sparse number of respondents in the numerator or denominator, or estimates based on low percentage values. To assist readers and data users in assessing the accuracy of 2015 *CM* estimates (Kalton, 2009), we suppressed any estimate as statistically untrustworthy if the coefficient of variation exceeded 33.3 (a standard practice employed by national

³² An additional application of the CV is in evaluating whether the use of sampling weights signals inefficiency in estimation (Korn & Graubard, 1999:172–176).

statistical agencies) or, regardless of the sample size, if the estimated percentage was less than 1%. Estimates replaced with a dagger (‘†’) indicate suppressed values; those adjacent to a dagger should be cautiously interpreted due to moderate sampling variability (i.e., $16.6 \geq CV \leq 33.3$).

Textbox 5 Complex Sample Estimation
<p>Why do different sampling procedures affect the precision of sample estimates?</p> <p>A key reason is that some sampling procedures (e.g., stratification and weighting) violate the assumption of independence, a necessary assumption for standard statistical estimation. The assumption of independence holds that the selection of one respondent must be independent of the selection of all other respondents. This assumption is typically violated in complex samples. The <i>CAMH Monitor</i>, for example, employs stratification by telephone area code. Analytically, this improves the sample because now, we can ensure that (1) there are sufficient cases in the North for estimation, and (2) when we compare regions, each has a sufficient and near equal number of respondents.</p> <p>This desirable design feature, however, induces the criterion of independence to be violated because although proportional allocation typically leads to increased precision, the <i>CAMH Monitor</i> employs disproportional stratification, resulting in unequal probabilities of selection and the need for analysis or case weights, both of which combine to deflate the precision of estimates (relative to a SRS) and effectively reducing the effective sample size.</p> <p>We are left with an ironic trade-off: while the stratification improves the precision and fitness for use of estimates, the consequence of stratification (i.e., sampling weights with potentially high variability) introduces the need for statistical analyses to accommodate the violations introduced by this stratification.</p>

Based on this CV suppression rule, estimates for the 2015 *CM* total sample are reportable as low as 1.5% without suppression and estimates above 18% are deemed trustworthy without the need for caution. (Note that reportable percentage estimates for subpopulations, e.g., men, women, with smaller samples will have higher maximum suppression thresholds.)

2.6 Complex Survey Analysis

Complex survey data do not conform to many estimating assumptions, including maximum likelihood, generalized linear and, most importantly, simple random sampling.³³ Complex sampling methods employ procedures that violate the independent selection of respondents. These procedures, such as disproportional stratification (culminating in unequal sampling fractions and the need for sampling weights), clustering (not employed in the *CAMH Monitor*), weighting, and multistage selection, combine to **underestimate the variance (or error)** when simple random sampling (SRS) formulas – the default used in standard statistical systems – are used inappropriately. The consequence of naively applying SRS-based assumptions when estimating variance from complex sampling designs is that we are likely to understate the error, and thereby compute a **narrower confidence interval than truly exists**. In turn, we also will be more likely to find an inflated number of statistically significant differences than actually exist (i.e., inflated false positive findings).

The **design effect** (*deff*), an indicator of design efficiency, measures the net combined influence of clustering, stratification, weighting and multistage selection. The *deff* has been defined as:

“the ratio of the variance of an estimator accounting for the sample design to the variance that would have been obtained if a SRS with same sample size had been employed” (Kish, 1999), and as,

“ a measure of the precision gained or lost by use of the complex design instead of an SRS” (Lohr, 1999:239).

A *deff* of 1.0 indicates equal precision between a SRS and an equivalent alternative sample, while a *deff* of 1.56, for example, indicates that the variance of a given variable of a complex

³³ Indeed, MLE is contraindicated in the presence of complex survey data.

sample is 56% inflated relative to an equivalent SRS. Stated differently, the complex survey sample results in a loss of sample information, by reducing the actual sample by 56% to an **effective sample size** (ESS) of 1,948 (i.e., 3039/1.56). Most variables in complex samples tend to have *deffs* larger than 1.0, and variances and standard errors larger than an equivalent SRS.³⁴ Although the average *deff* across variables differs from one sample design to another, within the same sample, *deffs* will vary from one item to another.

Textbox 6 The Combined Effect of the Deff
Generally, the <i>deff</i> is a <i>net function</i> of (1) the <i>loss</i> in precision due to clustering (not used in the CM), (2) the <i>gain</i> in the precision due to stratification, and (3) the <i>loss</i> in precision due to variable sampling weights.

Given the potentially costly loss of sample information and precision, *why would complex surveys be considered a viable methodology?* The answer is simple: complex samples provide the highest precision for the lowest cost. Indeed, features of complex sampling – multistage selection, clustering and disproportional stratification (with its consequent sampling weights) optimize the variance/cost ratio of the final design (Heeringa et al., 2010). Although the *CAMH Monitor* design does not employ clustering, it does involve stratification and its related unequal sampling fractions and consequent sampling weights, and multistage selection, all of which require accommodation to resolve the possible violation of most statistical model assumptions.

In this context, one advantage of telephone surveys compared with other sampling strategies (especially those with highly clustered PSU selection), is that telephone

³⁴ Although less common, a *deff* can also be less than 1.0 (more efficient than an SRS), resulting in lower variance and statistical tests with greater power relative to an SRS.

surveys tend to produce lower *deffs*,³⁵ often due to the selection of only one respondent per household (i.e., a final stage, non-clustered selection) and many RDD designs do not exceed two stages (Groves et al., 2009; Groves & Kahn, 1979).

Our analyses have several features:

- All 2015 estimates (and estimates since 1996) are based on robust³⁶ methods implemented in the Stata[®] (version 13) suite of survey estimation procedures, which employ **pseudo-maximum likelihood estimation (PMLE)**³⁷ (also known as weighted MLE) in estimating point estimates (e.g., percentages, totals, means) and by default **Taylor series linearization (TSL)**, a sandwich-type variance estimator, in estimating variances (e.g., standard errors, CIs) (StataCorp, 2013). In short, these methods use various strategies to accommodate the violations in data assumptions induced by the complex sample data. Design-based percentage point-estimates and their CIs were based on the *svy: tabulate* command (i.e., univariable and bivariable tabulations) and subgroup risk analyses were based on the *svy: logit* command.³⁸

³⁵ This is often due to the selection of nonclustered primary stage units and the selection of only one respondent per household, and that many RDD designs do not exceed two stages (Groves et al., 2009; Groves & Kahn, 1979). Indeed, for 47 major demographic categories of this CM2013 monograph, *deffs* range from 0.7 through 2.9 (Ialomiteanu, Adlaf, & Mann, 2016: Table 3.8)

³⁶ Robust variance estimators – estimators robust to SRS violations – are also known as sandwich-type variance estimators, which include the Huber–White estimator.

³⁷ In pseudo-likelihood the standard errors are not derived directly from the log-likelihood of the model (Hilbe, 2009). PMLE is required to accommodate the violation of MLE assumptions generated by complex survey data.

³⁸ The Stata *sampling error calculation model* used for this analysis was as follows: *svyset IDNUM [pweight = FWGHT], strata (REGION)*, where IDNUM represents respondents (the PSU or cluster codes); FWGHT represents the final normalized (or “sample-scaled”) weight factor, whereas XWGHT represents the expansion “population-scaled” weights used to calculate population

- Population estimates are provided for select health behaviours using Stata's *svy: total* command and expansion-scaled weights.
- For variance estimation**, the 2-stage design can be approximated by the primary stage selection 5,013 telephone numbers (PSUs) from each of the six area code strata. In addition, our negligible sampling fraction allows us to ignore the finite population correction factor (fpc) in our estimation.³⁹
- Complex sampling estimation employs a design-based fixed-rule calculation for the **degrees of freedom**: $df = (\# \text{ PSUs}) - (\# \text{ strata})$. In the 2015 CM this value for the total sample is $5,007 = (5,013) - (6)$.
- Estimates of sampling error (CIs) for surveys conducted between 1977 and 1995 are adjusted based on the effective sample size derived from the average design effect (see Table 2.1.1).
- One complicating feature of complex survey analysis is the **estimation among subpopulations** (e.g., drinking problems among drinkers or drinking men; distress among women; DWI among drivers). When such analyses are implemented by simply omitting observations outside the subpopulation (as is done with the use of conditional selection methods (e.g., *select if drinker*)) the software does not retain access to the original sampling error codes to properly compute degrees of freedom and variances, thereby resulting in understated variances and overstated

estimates); and REGION represents the six area code based regions (stratum codes). We also impose a standard simplifying assumption by restricting design specification to stage 1 sampling units given that stage 2 variances "roll-up" into stage 1 PSUs (Heeringa et al., 2010:67). In all, the 2015 CM has 6 sampling error strata and 5,013 sampling error computation units (respondents), resulting in 5,007 design-based degrees of freedom.

³⁹ The fpc reflects the expected reduction in the sampling variance due to sampling without replacement and is applied when the sampling fraction n/N exceeds 5%–10%. Given the negligible sampling fraction of the 2015 CM ($n/N=.03\%$) and the resulting fpc is ~ 1.0 , we have employed the standard practice of ignoring the fpc in variance estimation (Korn & Graubard, 1999).

inferences.⁴⁰ In this report, all subgroup analyses employ **unconditional subclass analysis** by specifying a *SUBPOP* procedure ensuring the correct identification of design codes of the sampling structure.⁴¹

- In the case of region, when the combined influence of a multi-categorical risk factor (i.e., the joint or overall test,) is not statistically significant according to the Wald test, but one or more category ORs are statistically significant, we interpret some of these ORs.⁴² Otherwise, we display both the overall and OR category tests, but do not comment on category ORs in the absence of a significant overall test.
- All analyses are based on those who provided responses to *all* model variables (i.e., listwise deletion).
- None of our analyses required the need to combine strata due to sparse data.

2.7 Outline of the Report

The 2015 Cross-Sectional Analyses

In reporting the 2015 CM findings, we present design-based percentage estimates and associated confidence intervals. As well, we examine associations between substance use

⁴⁰ This underestimation occurs because a conditional IF restriction removes all cases not satisfying the logical statement, *including their PSU and stratum codes*. Consequently, the correct denominator for the number of PSUs and strata for the original design, which are components of the calculation of the degrees of freedom and variances, are understated. The *SUBPOP ()* option is especially critical for thinly sampled subpopulations.

⁴¹ Such a procedure rather than removing respondents, assigns a weight of zero to all cases outside the subclass and retains the original weight for subclass cases thereby retaining the relevant design codes necessary for estimation (Heeringa et al., 2010; Korn & Graubard, 1999).

⁴² We interpret such instances for several reasons. First, the needs of survey users are diverse, and it is quite appropriate for a user from the North to ask whether differences in the North are statistically significant, *regardless of the overall association*. Second, our analyses are descriptive and based on a common set of risk factors; the analyses are not a model-building activity. It is also important to note that there are reasons for the overall Wald test and the OR category test might differ.

and mental health with six demographic characteristics or epidemiologically-relevant risk factors described in Table 2.4.1 – sex, age, marital status, region, education, and household income.

Our analysis is descriptive, though we rely on statistical methods holding values of risk factors fixed among these six factors. Although such multivariable analysis complicates the reporting of results, we contend that this approach will reduce misinterpretation of data that are common to simple descriptive reporting, and will provide a more useful and accurate interpretation of these data. For example, it is often reported that alcohol and other drug use varies by marital status, being especially elevated among never married respondents. However, those who have never been married are typically the youngest, a group also displaying elevated rates. Thus, without concurrently separating the influence of age from marital status, we cannot know whether marital status differences in drug use are due to the unique aspects of marital status and its roles and obligations, or whether they are rather due to age differences. Holding values of age (and other predictors) constant when assessing the influence of marital status reduces the possible misinterpretation of such relationships.

Our **2015 cross-sectional analyses** employ **design-based multivariable logit models**.⁴³

For each binary indicator or response, we employ a predictor set of maximum six risk factors represented by 25 categories and 19 regressors (i.e., 25 categories – 6 referents). The categories *women* (SEX), *18–29* (AGE), *Toronto* (REGION), *married* (MARITAL STATUS), *not having completed high school* (EDUCATION), and *less than \$30,000* (HOUSEHOLD INCOME) are set to the reference or contrast category. With the exception of REGION (which contrasted regional categories to the weighted

⁴³ The cross-sectional model fitted was as follows:
svy: logit DV sex i.agecat5 i.marstat3 i.educat4 i.hinccat5
i.regph7, or
estat gof
contrast ar.agecat5 gw.regph7 r.marstat3 r.hinccat5, or
asobserved effects

grand mean),⁴⁴ all predictor variables employed indicator coding. Regarding the regional contrasts, for greater clarity of readers, we interpret this weighted grand mean contrast as one that contrasts the estimate of a specific region to the provincial estimate (i.e., the mean of all regional means).

In addition to OR testing the contribution of each category, overall tests for each factor are also assessed.⁴⁵ Sample size, percentage estimate and 95% confidence intervals and adjusted odds ratios are presented for each nonreference category (i.e., regressor). All risk factor analyses of binary indicators (e.g., drug use versus nonuse; distress versus not) employ design-based logit regression (Heeringa et al., 2010; Hilbe, 2009).

The Multi Year Trend Data

We also describe relatively **recent and long-term** changes in drug use and mental health outcomes. For **trend analyses**, we stacked (i.e., combined) all 20 surveys for the years 1996 through 2015, culminating in a 20-year data set with **53,621** respondents dispersed among 120 strata (6 area code strata × 20 survey years).⁴⁶ (Earlier surveys from 1977 to 1995 were not combined due to differing sample designs.⁴⁷)

⁴⁴ Weighted grand mean contrasts compare a regional category to the mean of all regional means. The weighted aspect of this contrast allows for regions to have varying sample sizes.

⁴⁵ The contribution of each OR is assessed by the z test, whereas, the contribution of each multi-category factor is assessed by the overall Wald test.

⁴⁶ For trend analyses, we treat each survey as a stratum representing a distinct population. This allows us to assess changes in the population at different times (Korn & Graubard, 1999:287). Because we employed sample-scaled weights (rather than population weights) there is no need to rescale these weights in the cumulated data file. Moreover, when one is estimating time differences using cross-sectional surveys administered at different times, the original weights are appropriate to use (Korn & Graubard, 1999: 278–79; 284).

⁴⁷ See Alexander, 2002, Kish, 1999, and Korn & Graubard, 1999 for advice on combining and cumulating multiple complex survey datasets.

Textbox 7
A Comment on Subgroup Trends

Pairwise or two-way interactions are relationship in which the association between two factors (e.g., year and drinking) are moderates (or differentially vary) by a third factor (e.g., sex). Thus, a significant year-by-sex interaction identifies that trends in drinking (the year factor) are different for men and women.

In assessing trends, our analytic strategy proceeded in two stages. First, we assessed cross-time **change in the target population** by contrasting 2015 to all prior years through 1996, with a special emphasis on the most recent period between 2015 and 2014. Differences between years were assessed by odds ratios of a logit model.⁴⁸ Following an assessment of 2015 contrasts, we evaluated **linear (straight line) and nonlinear trends** for the 20-year period from 1996 through 2015.⁴⁹ This analysis informs us as to the pattern of trends in our data.

Second, we evaluated whether trends evident in the total population equally held for all categories of sex, age, region, marital status, education, and income. To this end, we assessed six pairwise YEAR × FACTOR interactions.⁵⁰

⁴⁸ Each logit model assessed the YEAR factor by contrasting 2015 to each prior year through 1996. The Stata command was as follows: `svy: logit RESPONSE ib(last).YEAR`, or.

⁴⁹ Linear and nonlinear trends were evaluated by orthogonal polynomials with the following Stata command (following the logit command): `.contrast q.YEAR`, or `asobserved effects`.

⁵⁰ Each of the six pairwise interactions was assessed separately with a logit model containing YEAR, CATEGORICAL FACTOR, YEAR × CATEGORICAL FACTOR, with the following Stata commands (SEX example): `svy: logit RESPONSE SEX## ib(last).YEAR`, or `contrast q.YEAR@SEX`, or `asobserved contrast q(1/3).YEAR@SEX`, or `asobserved`

2.8 Presentation of Findings

Readers should note the following:

- Tables and figures typically provide a logit transformed, design-based 95% confidence interval, which indicates the probability of capturing the true population value within the specified interval, while accommodating features of the sample design.
- With the exception of population estimates, sample sizes displayed in all tables refer to the number of adults interviewed (i.e., the unweighted sample size).
- Some tabular estimates were deemed untrustworthy and were consequently suppressed (see Section 2.5).

Table Description

Below is a brief description of the tabular material.

Percentage *Drinking Alcohol* in the Past 12 Months, Adjusted Group Differences, Ontarians Aged 18 and older

		%	95% CI	Adjusted Odds Ratios
Total Sample		80.0	(78.5, 81.4)	
1) Sex				***
Men		83.5	(81.3, 85.6)	1.47**
Women	(Comparison Group)	76.7	(74.7, 78.6)	—
2) Age		①	②	③ NS
18-29	(Comparison Group)	79.4	(74.5, 83.6)	---
30-39		82.2	(77.6, 86.0)	0.93
40-49		83.6	(80.3, 86.5)	1.00
50-64		81.6	(79.3, 83.7)	1.01
65+		73.8	(71.2, 76.2)	0.86

① **Percentage estimate:** Displays the estimated percentage among the total and by risk factor (e.g., sex, age group, etc.) We display estimates for six multi-category factors containing a total of 25 subgroups.

② **Confidence limits and interval:** Displays the confidence limits which define the confidence interval, the probable accuracy of the estimate – the *true* population value would be expected within this range in 95 of 100 sample CIs. Design-based confidence intervals account for characteristics of the sample design (i.e., stratification, weighting and multistage selection). In the table above, we see that 80.0% reported past 12 month drinking. Thus, ignoring nonsampling errors, we can be reasonably confident that while accommodating for the complex sampling plan, with repeated sampling *the true percentage of Ontario adults drinking in the population would be included within the interval 78.5% and 81.4% in 95 of 100 samples.* In addition, our CIs employ a logit transformation which, especially for estimates nearing 0 or 100, ensures that confidence limits will neither exceed 100 nor subceed 0.

Consequently, CIs may become asymmetric (i.e., unequal) when the outcome nears either extremity.

③ **Adjusted (Net) Odds Ratio:** Displays adjusted odds ratios holding values of the remaining five risk factors in the table fixed or constant. For example, *holding fixed values of the model predictors and accommodating the sampling design, the adjusted odds of past year drinking among men are 1.47 times higher (or 49% greater) than the odds for women.* Odds ratios less than 1 represent a net decrease in the odds, whereas ORs greater than 1 represent a net increase.

3. ALCOHOL

3.1. Alcohol Prevalence

The prevalence of past year drinking – the percentage consuming alcohol at least once during the 12 months before the survey – is an indicator of the relative size of the drinking population, and establishes the extent of potential exposure to alcohol-related problems.

2015.....Table 3.1.1; Fig. 3.1.1–3.1.2

The estimated percentage of Ontario adults who have used alcohol in the 12 months before the survey is **80.0%** (95% CI: 78.5% to 81.4%). In addition, 13.5% did not drink alcohol during the past 12 months and 6.5% were lifetime abstainers. The corresponding population estimate is 8,125,700 past year drinkers (95% CI: 7,901,000 to 8,350,000).

After adjusting for demographic characteristics, **sex, region, education and income** were significantly related to past year use of alcohol.

- The adjusted odds of drinking among men were 1.5 times higher than among women (83.5% vs. 76.7%; OR=1.47).
- Compared to the provincial average, prevalence of drinking was significantly higher among those living in the North (85.5%; OR=1.64) and significantly lower among those living in Toronto (76.6%; OR=0.76).
- The use of alcohol tended to increase with education. Use was lowest among those who have not completed high school (63.4%) and highest among those with university education (83.6%; OR=2.09).
- Past year drinking increased significantly with income. Relative to those with a household income of less than \$30,000 (65.0%), the odds of drinking were significantly higher for those with incomes of \$50,000 to \$79,999 (78.1%;

OR=1.63) and three times higher for those with incomes of \$80,000 or more (87.7%; OR=3.10).

There were no significant differences in past year drinking by age and marital status.

Frequency of Drinking

Fig. 3.1.3–3.1.4

Among past year drinkers, the most common frequency of drinking in 2015 was two to three times a week (22.7%). One-in-six drinkers (18.2%) drank less than once a month and about one in 11 (8.8%) drank on a daily basis.

Trends

1977–2015.....Tables 3.1.2-3.1.3; Fig. 3.1.5

2014–2015

Between 2014 and 2015, past year drinking did not change significantly (81.2% vs. 80.0%). In addition, prevalence of past year drinking was stable for most sex, age, region, marital status, and education subgroups. There was only one significant subgroup **decline** among respondents living in the Central West region, from 85.8% in 2014 to 80.9% in 2015.

1996–2015

Overall, between 1996 and 2015, past year drinking did not change significantly, varying between 77.1% and 81.5%.

Of the six demographic factors analysed, we found a **significant year interaction** only for

region, indicating that the temporal trends for past year drinking differed among regions.

Between 1996 and 2015, past year drinking was **stable** among respondents living in Toronto, among those living in the East and those living in the West, whereas past year drinking **increased** significantly among respondents living in the North (from 74.6% in 2006 to 85.5% in 2015) and among those living in the Central-East (from 75.9% in 2010 to 80.4% in 2015).

Trend analyses done separately for each subgroup showed a significant non-linear decline among 18 to 29 year olds (from 89.5% in 2007 to 79.4% in 2015), and a significant increase among those aged 50 to 64 (from 76.0% in 1996 to 81.6% in 2015) and among those aged 65 years and older (from 58.8% in 1997 to 73.8% in 2015). There were also significant non-linear variations in past year drinking among married, previously married and never married respondents, and those who completed high school.

1977–2015

Long-term trend analysis between 1977 and 2015 revealed both a significant linear and non-linear trend in past year drinking with peaks in the mid-1980s, in the early 1990s and again in 2014.

Table 3.1.1: Percentage *Drinking Alcohol* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N= 4902)
Total	5013	80.0	(78.5, 81.4)	—
Sex				***
Men	1912	83.5	(81.3, 85.6)	1.47**
Women (<i>Comparison Group</i>)	3101	76.7	(74.7, 78.6)	—
Age				NS
18-29 (<i>Comparison Group</i>)	410	79.4	(74.5, 83.6)	—
30-39	482	82.2	(77.6, 86.0)	0.93
40-49	782	83.6	(80.3, 86.5)	1.00
50-64	1700	81.6	(79.3, 83.7)	1.01
65+	1597	73.8	(71.2, 76.2)	0.86
Region				***
Toronto (<i>vs. Provincial Average</i>)	833	76.6	(72.7, 80.1)	0.76*
Central East	833	80.4	(77.1, 83.4)	1.00
Central West	820	80.9	(77.4, 83.9)	1.06
West	839	81.0	(77.7, 83.8)	1.17
East	838	80.1	(76.6, 83.2)	0.97
North	850	85.5	(82.7, 87.9)	1.64*
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	3172	81.4	(79.8, 83.0)	—
Previously Married	1091	75.1	(71.8, 78.1)	1.06
Never Married	703	78.6	(74.3, 82.4)	0.95
Education				***
High school not completed (<i>Comparison Group</i>)	405	63.4	(57.5, 68.8)	—
Completed high school	1075	75.3	(71.8, 78.6)	1.51*
Some college or university	1749	81.6	(79.8, 95.0)	1.97**
University degree	1747	83.6	(81.2, 85.7)	2.09**
Household Income				***
< \$30,000 (<i>Comparison Group</i>)	444	65.0	(58.8, 70.7)	—
\$30,000-\$49,999	565	72.9	(67.8, 77.5)	1.38
\$50,000-\$79,999	819	78.1	(74.1, 81.6)	1.63**
\$80,000+	1993	87.7	(85.8, 89.4)	3.10**
Not stated	1192	71.5	(67.8, 74.9)	1.29

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of drinking are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of drinking are lower in the group being compared to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education, and income (complete case sample N=4902).
Q: *During the past 12 months, have you had a drink of any alcoholic beverage?*
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.1.2: Percentage *Drinking Alcohol* in the Past 12 Months, by Demographic Characteristics, Ontarians Aged 18+, 1977–1995

	1977	1982	1984	1987	1989	1991	1992	1993	1994	1995
(N=)	(1059)	(1040)	(1051)	(1084)	(1101)	(1047)	(1058)	(941)	(2022)	(994)
Total	79.9	77.6	84.5	83.1	82.6	80.3	86.6	83.3	82.1	84.4
(95%CI) ^a	(73.6, 86.2)	(75.1, 80.1)	(82.3, 86.7)	(80.9, 85.3)	(80.4, 84.8)	(77.9, 82.7)	(84.5, 88.7)	(80.9, 85.7)	(80.4, 83.8)	(82.1, 86.7)
Sex										
Men	85.9	81.6	86.8	87.6	85.8	81.8	89.7	91.6	84.7	86.8
	(82.9, 88.9)	(78.3, 84.9)	(83.9, 89.7)	(84.8, 90.4)	(82.9, 88.7)	(78.4, 85.2)	(87.0, 92.4)	(89.1, 94.1)	(82.6, 86.8)	(83.8, 89.8)
Women	73.4	73.6	82.3	78.8	79.6	78.7	83.9	75.4	79.8	82.0
	(69.6, 77.2)	(69.8, 77.4)	(79.0, 85.6)	(75.4, 82.2)	(76.2, 83.0)	(75.3, 82.1)	(80.9, 87.0)	(71.8, 79.0)	(77.2, 82.4)	(78.7, 85.3)
Age										
18 - 29	85.8	82.5	89.8	92.1	88.1	87.2	90.9	89.2	86.0	86.7
	(81.8, 89.8)	(78.0, 87.0)	(86.2, 93.3)	(88.7, 95.5)	(84.0, 92.2)	(83.2, 91.2)	(87.5, 94.3)	(85.3, 93.1)	(82.9, 89.1)	(82.4, 91.0)
30 - 39	86.0	82.5	91.1	87.7	90.8	84.2	86.7	81.7	85.1	85.2
	(81.4, 90.6)	(77.8, 87.2)	(87.5, 94.7)	(83.9, 91.5)	(87.5, 94.1)	(79.8, 88.6)	(82.7, 90.7)	(77.2, 86.2)	(82.1, 88.1)	(80.7, 89.7)
40 - 49	88.6	80.6	88.6	87.7	87.3	81.2	90.4	85.7	84.1	86.0
	(84.0, 93.2)	(74.0, 87.1)	(84.1, 93.1)	(82.8, 92.6)	(82.4, 92.2)	(7.60, 86.4)	(86.4, 94.4)	(80.9, 90.5)	(80.7, 87.5)	(81.3, 90.7)
50 - 64	76.2	76.2	80.0	80.9	74.2	73.8	83.1	81.0	78.2	86.4
	(70.2, 82.2)	(70.4, 82.0)	(74.5, 85.5)	(75.6, 86.2)	(68.3, 80.1)	(66.7, 80.9)	(77.1, 89.1)	(74.9, 87.1)	(73.7, 82.7)	(81.2, 91.6)
65+	53.5	58.5	64.8	58.2	66.8	63.8	73.6	72.0	67.0	71.6
	(45.6, 61.4)	(49.8, 67.2)	(56.3, 73.3)	(50.7, 65.7)	(59.5, 74.1)	(55.6, 72.0)	(66.0, 81.2)	(64.3, 79.7)	(61.0, 73.0)	(63.6, 79.6)
Marital Status										
Married/Partner	—	—	—	—	—	79.3	87.4	82.0	81.5	85.1
Previously Married	—	—	—	—	—	73.6	81.1	76.5	76.8	80.5
Never Married	—	—	—	—	—	85.8	87.5	89.5	85.8	84.8
Education										
HS not completed	—	—	—	—	—	64.3	84.0	78.2	72.1	79.1
Completed HS	—	—	—	—	—	81.4	84.4	81.7	83.1	83.0
Some college or university	—	—	—	—	—	87.2	90.2	81.8	85.9	84.2
University degree	—	—	—	—	—	87.4	88.2	92.4	85.3	91.4

Notes: ^a 95% confidence interval; — data not available; regional data not available.

Q: During the past 12 months, have you had a drink of any alcoholic beverage?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.1.3: Percentage *Drinking Alcohol* in the Past 12 Months, by Demographic Characteristics, Ontarians Aged 18+, 1996–2015

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2721)	(2776)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)	
Total	79.3	79.9	77.1	79.1	77.1	79.5	79.5	80.4	81.2	78.9	77.7	81.5	80.3	79.1	78.0	81.2	78.9	78.4	81.2	80.0	–
(95%CI) ^a	(77.5, 81.1)	(78.1, 81.6)	(75.0, 79.0)	(77.2, 80.9)	(75.1, 79.1)	(77.6, 81.3)	(77.6, 81.3)	(78.5, 82.1)	(79.3, 83.0)	(77.0, 80.7)	(75.5, 79.8)	(79.4, 83.4)	(78.0, 82.3)	(76.8, 81.2)	(76.0, 79.8)	(79.4, 82.9)	(77.0, 80.6)	(76.4, 80.3)	(79.3, 83.0)	(78.5, 81.4)	
Sex																					NSI
Men	82.7	83.2	82.1	85.1	81.7	83.6	82.3	83.4	85.2	83.3	84.2	85.3	84.2	80.9	81.6	83.7	83.6	83.1	84.7	83.5	–
	(80.6, 84.8)	(81.1, 85.3)	(79.2, 84.6)	(82.4, 87.4)	(78.8, 84.3)	(80.8, 86.0)	(79.5, 84.8)	(80.8, 85.8)	(82.5, 87.5)	(80.3, 85.9)	(81.5, 86.6)	(82.4, 87.9)	(80.8, 87.0)	(77.5, 83.9)	(78.8, 84.0)	(80.9, 86.1)	(80.8, 86.0)	(80.1, 85.8)	(81.8, 87.2)	(81.3, 85.6)	
Women	76.4	76.9	72.5	73.6	73.0	75.7	76.9	77.5	77.5	72.4	73.9	77.8	76.7	77.4	74.6	78.9	74.5	74.1	78.0	76.7	–
	(74.3, 78.5)	(74.8, 79.0)	(69.6, 75.3)	(70.7, 76.3)	(70.1, 75.7)	(73.0, 78.3)	(74.1, 79.4)	(74.8, 80.0)	(74.8, 80.0)	(69.2, 75.4)	(71.1, 76.6)	(74.8, 80.6)	(73.5, 79.5)	(74.3, 80.3)	(71.8, 77.1)	(76.6, 81.1)	(71.9, 77.0)	(71.3, 76.6)	(75.4, 80.4)	(74.7, 78.6)	
Age																					NSI
18 - 29	83.5	83.6	82.5	86.5	85.7	84.9	84.6	87.4	86.9	82.5	84.5	89.5	86.5	83.6	82.4	85.8	80.7	80.1	84.4	79.4	T
	(80.3, 86.7)	(80.5, 86.7)	(77.9, 86.3)	(82.4, 89.8)	(81.5, 89.1)	(80.4, 88.6)	(79.9, 88.3)	(83.4, 90.5)	(82.3, 90.4)	(77.4, 86.7)	(78.6, 89.1)	(83.8, 93.3)	(79.6, 91.4)	(76.6, 88.8)	(76.6, 87.0)	(80.1, 90.0)	(73.8, 86.1)	(72.3, 86.1)	(77.6, 89.3)	(74.5, 83.6)	
30 - 39	83.6	84.4	81.5	81.4	80.3	86.5	81.6	83.0	85.5	82.6	78.2	81.9	84.0	79.0	78.2	83.1	80.9	78.4	82.3	82.2	–
	(80.8, 86.4)	(81.6, 87.2)	(77.5, 84.9)	(77.0, 85.0)	(75.8, 84.1)	(82.8, 89.5)	(77.3, 85.3)	(78.5, 86.7)	(81.1, 89.0)	(78.2, 86.3)	(72.8, 82.8)	(76.4, 86.3)	(78.0, 88.6)	(72.8, 84.1)	(72.9, 82.7)	(78.3, 87.0)	(75.9, 85.0)	(72.3, 83.4)	(76.5, 86.9)	(77.6, 86.0)	
40 - 49	81.6	85.2	78.0	81.5	79.2	79.1	84.0	81.6	82.9	83.1	82.4	82.8	82.5	83.5	82.3	85.5	80.9	83.6	83.7	83.6	–
	(78.4, 84.78)	(82.3, 88.1)	(73.4, 81.9)	(77.1, 85.2)	(74.8, 83.0)	(74.7, 82.9)	(79.9, 87.4)	(77.7, 85.0)	(78.8, 86.4)	(79.3, 86.3)	(77.7, 86.3)	(78.0, 86.7)	(77.6, 86.5)	(78.8, 87.3)	(78.4, 85.7)	(81.6, 88.6)	(76.5, 84.6)	(79.6, 87.0)	(79.3, 87.3)	(80.3, 86.5)	
50 - 64	76.0	77.4	77.2	78.0	76.5	78.0	80.1	78.8	81.5	77.8	77.2	82.3	82.1	81.1	78.3	80.8	82.4	79.4	82.9	81.6	T
	(72.2, 79.8)	(73.8, 81.0)	(72.2, 81.6)	(73.2, 82.1)	(71.7, 80.7)	(73.7, 81.9)	(75.9, 83.7)	(74.3, 82.6)	(77.8, 84.7)	(73.7, 81.5)	(72.8, 80.9)	(78.2, 85.7)	(78.1, 85.5)	(77.0, 84.7)	(75.1, 81.3)	(77.6, 83.7)	(79.3, 85.1)	(76.3, 82.2)	(79.8, 85.7)	(79.3, 83.7)	
65+	66.2	58.8	65.5	66.6	61.9	67.0	65.9	69.9	70.6	67.6	65.9	73.5	69.5	68.6	70.0	71.8	69.5	70.5	74.3	73.8	T
	(61.6, 70.8)	(54.0, 63.6)	(59.8, 70.9)	(61.2, 71.6)	(56.2, 67.3)	(61.6, 72.0)	(60.2, 71.1)	(64.7, 74.8)	(65.6, 75.2)	(62.3, 72.5)	(60.4, 71.0)	(68.5, 77.9)	(64.4, 74.2)	(63.6, 73.3)	(66.0, 73.8)	(68.1, 75.2)	(65.9, 72.9)	(67.0, 73.8)	(71.1, 77.2)	(71.2, 76.2)	
Region																					**
Toronto	74.1	74.2	74.1	71.9	69.7	78.8	75.1	78.4	76.0	73.9	76.4	73.6	76.0	77.6	72.3	75.4	72.3	72.4	77.9	76.6	–
	(69.1, 78.5)	(69.2, 78.6)	(68.9, 78.7)	(66.7, 76.6)	(64.4, 74.5)	(74.1, 82.9)	(70.1, 79.5)	(73.7, 82.4)	(70.9, 80.5)	(68.9, 78.4)	(70.8, 81.2)	(67.8, 78.7)	(70.4, 80.9)	(71.7, 82.7)	(67.3, 76.7)	(70.5, 79.7)	(67.3, 76.9)	(66.9, 77.2)	(73.3, 82.0)	(72.7, 80.1)	
C-East	81.7	80.0	79.4	84.6	80.8	79.3	82.2	84.3	86.8	83.3	77.4	83.6	76.0	76.2	75.9	82.5	78.3	75.9	78.7	80.4	T
	(77.6, 85.3)	(75.6, 83.8)	(74.6, 83.5)	(80.5, 87.9)	(76.4, 84.5)	(74.8, 83.3)	(77.7, 85.9)	(80.0, 87.8)	(82.9, 89.9)	(79.3, 86.7)	(71.9, 82.1)	(78.7, 87.5)	(70.5, 80.8)	(70.8, 80.9)	(71.3, 79.9)	(78.4, 85.9)	(73.8, 82.2)	(71.1, 80.1)	(73.9, 82.8)	(77.1, 83.4)	
C-West	81.7	83.8	77.5	79.7	74.6	80.3	77.4	81.1	80.4	76.2	78.7	81.8	84.4	81.1	81.7	83.3	81.8	83.1	85.8	80.9	T 2Y
	(77.4, 85.3)	(79.8, 87.2)	(72.6, 81.8)	(75.1, 83.6)	(69.5, 79.1)	(75.4, 84.5)	(72.4, 81.7)	(76.6, 85.0)	(75.8, 84.4)	(71.2, 80.6)	(73.6, 83.1)	(76.7, 86.0)	(78.9, 88.6)	(75.9, 85.4)	(77.6, 85.1)	(79.3, 86.7)	(77.4, 85.5)	(79.1, 86.6)	(82.3, 88.7)	(77.4, 83.9)	
West	78.0	81.1	76.7	79.0	81.6	77.9	83.6	80.1	83.3	79.0	82.3	84.3	82.7	78.2	80.6	83.4	82.1	78.0	82.5	81.0	–
	(73.9, 81.7)	(77.1, 84.6)	(71.8, 81.0)	(74.2, 83.1)	(77.1, 85.3)	(73.4, 81.8)	(79.2, 87.1)	(75.5, 84.1)	(79.2, 86.7)	(74.5, 82.9)	(77.8, 86.0)	(79.7, 88.0)	(78.1, 86.5)	(73.1, 82.6)	(76.2, 84.4)	(79.7, 86.5)	(78.3, 85.3)	(73.4, 82.0)	(78.0, 86.2)	(77.7, 83.8)	
East	81.1	81.2	79.5	81.7	80.8	81.4	83.3	78.2	82.6	81.6	76.0	85.6	86.3	85.6	80.0	82.4	83.5	83.7	83.1	80.1	–
	(77.0, 84.5)	(77.2, 84.7)	(74.9, 83.5)	(76.9, 85.6)	(76.2, 84.7)	(77.1, 85.1)	(79.0, 86.9)	(73.6, 82.2)	(78.4, 86.2)	(77.1, 85.4)	(70.5, 80.8)	(81.5, 89.0)	(81.9, 89.7)	(81.4, 89.1)	(75.8, 83.7)	(78.3, 85.8)	(79.8, 86.7)	(79.6, 87.2)	(79.0, 86.6)	(76.6, 83.2)	
North	82.0	81.1	74.8	81.2	83.2	79.7	77.7	79.5	81.1	82.2	74.6	84.5	82.9	78.5	84.2	82.2	77.3	82.9	82.5	85.5	T
	(78.1, 85.4)	(77.0, 84.5)	(69.9, 79.2)	(76.7, 84.9)	(79.1, 86.7)	(76.0, 83.0)	(73.1, 81.7)	(74.9, 83.5)	(77.6, 84.2)	(78.0, 85.8)	(69.0, 79.5)	(80.1, 88.0)	(78.4, 86.6)	(73.3, 82.8)	(80.5, 87.3)	(78.4, 85.5)	(72.9, 81.2)	(78.9, 86.2)	(78.2, 86.0)	(82.7, 87.9)	

Cont'd

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2721)	(2776)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)	
Marital Status																					NSI
Married/ Partner	79.8	79.9	77.7	78.9	76.5	80.0	81.3	79.9	82.0	79.8	77.5	81.4	81.8	79.5	78.7	81.8	81.3	80.6	82.4	81.4	T –
Previously Married	72.5	74.3	65.3	69.5	68.9	73.7	70.8	72.6	74.0	72.5	66.0	77.7	71.3	74.4	71.3	73.8	73.7	70.3	73.6	75.1	T –
Never Married	82.5	82.8	81.4	85.7	83.4	82.4	80.8	86.0	84.3	80.6	85.1	85.0	81.1	81.7	79.7	84.3	74.7	76.4	82.0	78.6	T –
Education																					NSI
HS not completed	69.4	68.7	68.4	66.7	61.1	65.7	68.6	68.2	68.3	63.4	67.0	68.4	67.9	71.5	67.9	68.9	63.9	62.0	65.2	63.4	– –
Completed HS	79.8	77.0	73.0	78.7	76.6	80.8	77.6	80.1	82.0	79.2	74.8	81.9	81.6	72.8	72.8	77.3	75.2	73.7	77.7	75.3	T –
Some College or University	82.4	86.1	81.7	83.0	84.6	83.6	83.3	82.4	85.2	82.9	80.5	84.7	81.3	83.0	82.5	84.3	81.3	81.0	83.8	81.6	– –
University Degree	84.0	83.4	83.4	83.9	79.2	81.4	83.6	85.8	83.2	80.7	81.9	83.2	82.6	82.0	80.4	84.2	83.1	83.5	84.5	83.6	– –

Notes: (1) All analyses are sample design adjusted; ^a 95% confidence interval.
(2) Trend Analysis: – change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction.

Q: *During the past 12 months have you had a drink of any alcoholic beverage?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 3.1.1
Drinking Status, Ontarians Aged 18+, 2015 (N=5013)

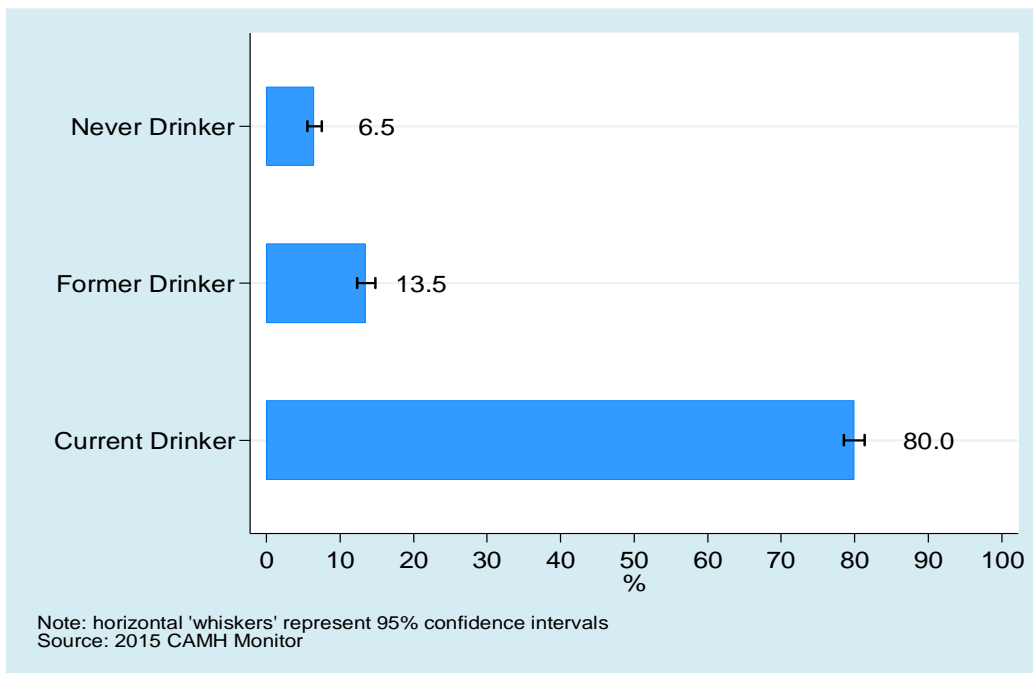


Figure 3.1.2
Past Year Alcohol Use by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

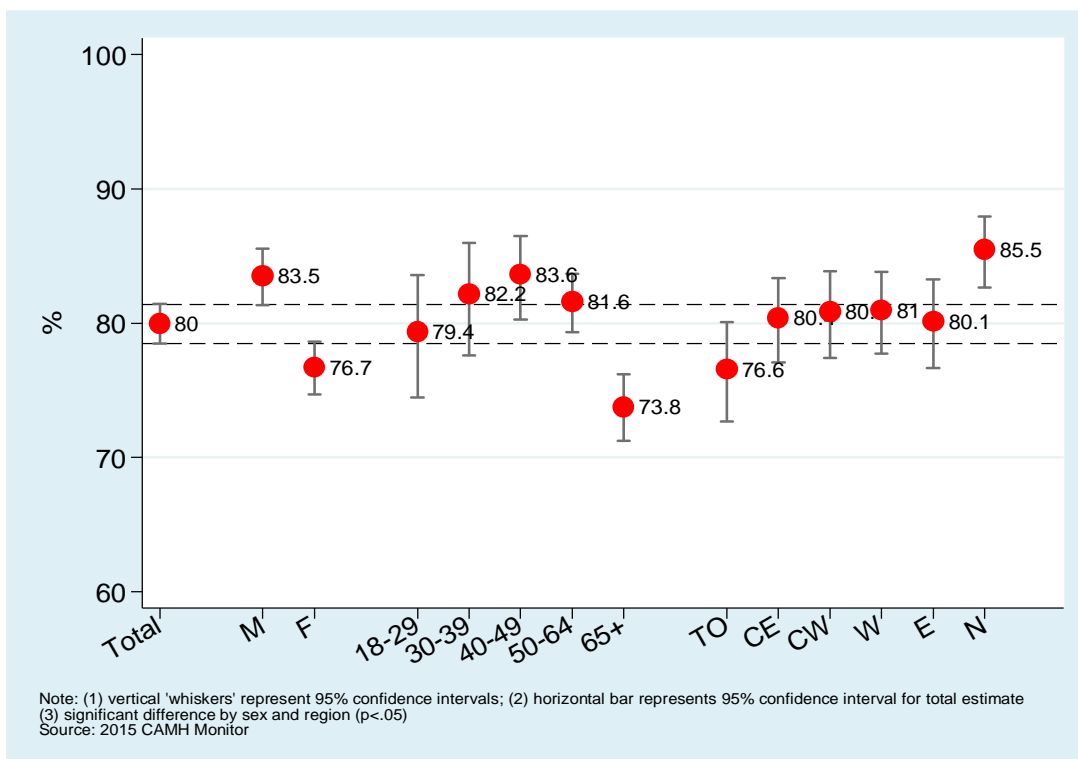


Figure 3.1.3
Past Year Frequency of Drinking Among Ontarians Aged 18+, 2015 (N=5013)

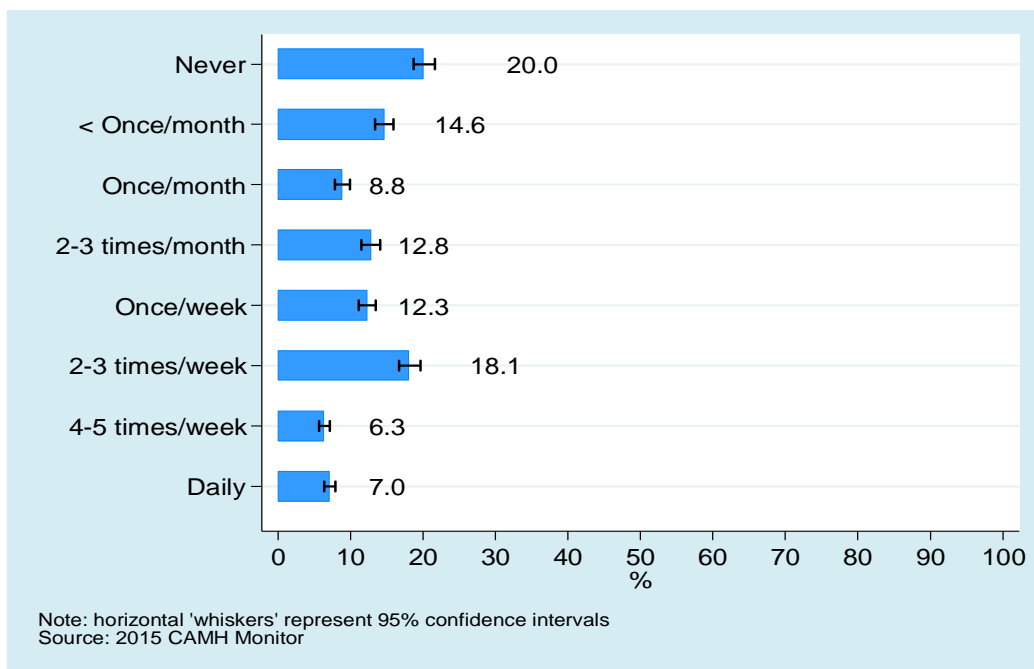


Figure 3.1.4
Frequency of Drinking Among Past Year Drinkers, Ontarians Aged 18+, 2015 (N=3967)

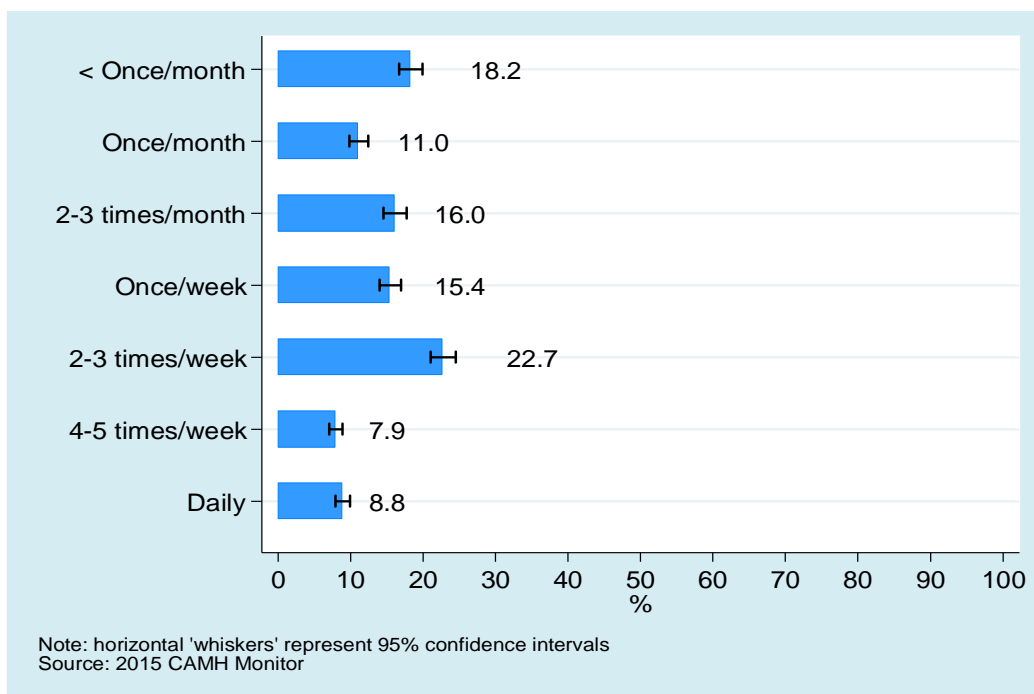
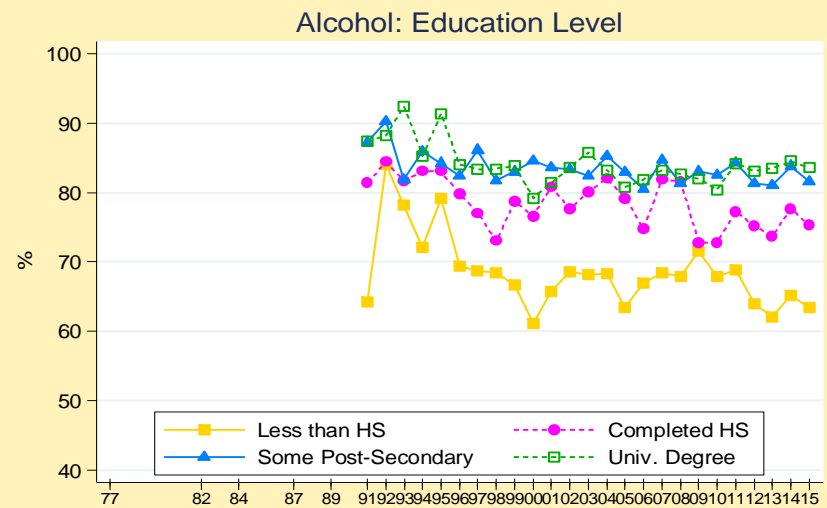
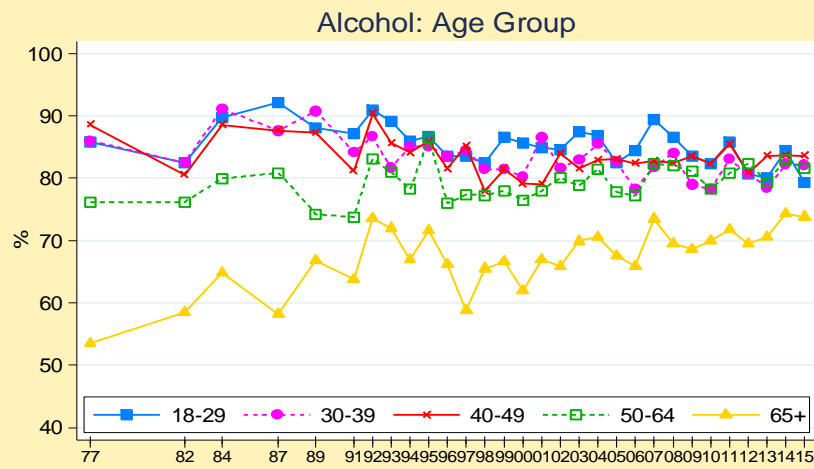
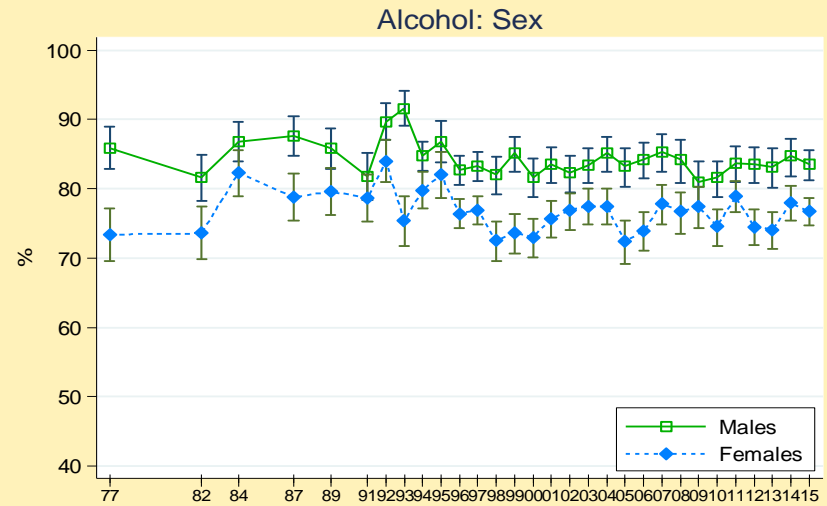
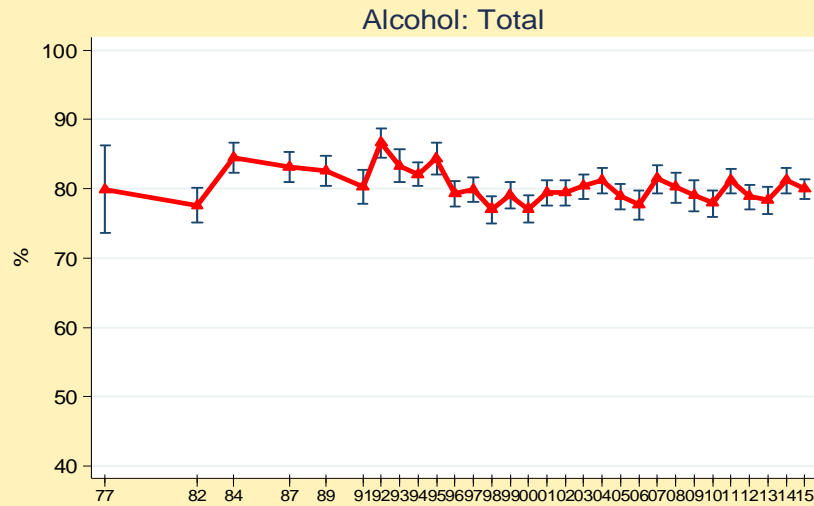


Figure 3.1.5
Past Year Alcohol Use, Ontarians Aged 18+, 1977–2015



Note: vertical 'whiskers' represent 95% confidence intervals
 Source: CAMH Monitor

3.2. Daily Drinking

The percentage drinking alcohol on a daily basis is an indicator of a regular pattern of drinking. This indicator, however, is not synonymous with a problematic drinking pattern.

2015.....Tables 3.2.1, 3.2.2; Fig. 3.2.1

An estimated **7.0%** (95% CI: 6.3% to 7.9%) of Ontario adults drank alcohol daily in the 12 months before the survey. Among past year drinkers, the prevalence was **8.8%** (95% CI: 7.9% to 9.9%). The corresponding population estimate is 711,300 daily drinkers (95% CI: 630,600 to 792,000).

Sex, age, education and household income were significantly related to daily drinking among Ontario adults, when controlling for other characteristics.

- The adjusted odds of daily drinking were 2.5 times higher for men than women (9.8% vs. 4.5%; OR=2.48).
- Past year daily drinking increases significantly with age, from 4.3% of those aged 30 to 39 to 14.8% of those aged 65 and older. Two of the four age group comparisons were statistically significant: compared to those aged 18 to 29, the adjusted odds of daily drinking were about 4.5 times higher among those aged 50 to 64 (OR=4.49) and almost 9 times higher among those aged 65 and older (OR=8.52).
- Daily drinking tended to increase with education. Use was lowest among those who have not completed high school (6.7%) and highest among those who completed high school (8.9%; OR=2.05) and those with university education (8.0%; OR=1.88).
- Past year daily drinking increased significantly with income. Relative to those with a household income of less than \$30,000 (4.3%), the odds of daily drinking were two times higher for each of the other income categories.

Region and marital status were not significantly related to daily drinking when controlling for other demographics.

Past year drinkers displayed similar patterns related to daily drinking. The adjusted odds of daily drinking were 2.4 times higher for drinking men than drinking women (11.8% vs. 5.8%), those aged 65 and older reported the highest rates of daily drinking (20.1%), and those in the higher income categories reported higher rates of daily drinking.

Trends

1977–2015.....Tables 3.2.3-3.2.4; Fig. 3.2.2

2014–2015

Daily drinking among past year drinkers in 2015 (8.8%) was not significantly different from 2014 (8.1%). In addition, daily drinking was stable for all subgroups.

1996–2015

Between 1996 and 2015, there was a significant **increase** in daily drinking among drinkers, from a low of 5.3% in 2002 to 8.8% in 2015.

Year did not interact significantly with any of the demographic factors analysed, suggesting that subgroup trends were similar.

Trend analyses done separately for each subgroup showed a significant upward trend for men and women and for those aged 65 and older. There was a significant increase in daily drinking among drinking men (from a low of 7.1% in 2005 to 11.8% in 2015), drinking women (from a low of 2.6% in 2001 to 5.8% in 2015), and a non-linear upward trend among those aged 65 and older (from a low of 13.2% in 2003 to 20.1% in 2015).

There were also significant increases for all regions, for married and previously married respondents, and for all education sub-groups.

1977–2015

In the longer term, between 1977 and 2015, daily drinking among drinkers decreased considerably until 2006. From a high of 13.4% in 1977, it decreased by about two thirds to a low of 4.1% in 1992 and has varied between 5.3% and 7.4% until 2007. But this trend has reversed in the past decade, **increasing** significantly from 5.9% in 2006 to 8.8% in 2015. This non-linear change was especially prominent among drinking men, whose daily drinking dropped from 19.5% in 1977 to 7.1% in 2005 and then increased to 11.8% in 2015.

Table 3.2.1: Percentage *Drinking Alcohol Daily* in the Past 12 Months and Adjusted Group Differences, *Ontarians Aged 18+, 2015*

	N	%	95% CI	Adjusted Odds Ratio (N=4879)
Total	5013	7.0	(6.3, 7.9)	—
Sex				***
Men	1912	9.8	(8.5, 11.4)	2.48**
Women (<i>Comparison Group</i>)	3101	4.5	(3.8, 5.3)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	†	—	—
30-39	482	† 4.3	(2.6, 6.9)	2.09
40-49	782	† 4.3	(3.0, 6.1)	2.04
50-64	1700	9.2	(7.6, 11.1)	4.49**
65+	1597	14.8	(12.9, 16.9)	8.52**
Region				NS
Toronto (<i>vs. Provincial Average</i>)	833	7.3	(5.6, 9.3)	1.02
Central East	833	6.2	(4.7, 8.3)	0.93
Central West	820	6.1	(4.7, 8.0)	0.86
West	839	7.7	(5.9, 10.0)	1.09
East	838	8.1	(6.3, 10.3)	1.17
North	850	8.5	(6.5, 10.9)	1.19
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	3172	8.6	(7.6, 9.8)	—
Previously Married	1091	8.4	(6.6, 10.7)	0.89
Never Married	703	† 2.1	(1.2, 3.8)	0.57
Education				**
High school not completed (<i>Comparison Group</i>)	405	† 6.7	(4.3, 10.4)	—
Completed high school	1075	8.9	(6.9, 11.5)	2.05*
Some college or university	1749	5.0	(4.1, 6.2)	1.26
University degree	1747	8.0	(6.8, 9.5)	1.88*
Household Income				*
< \$30,000 (<i>Comparison Group</i>)	444	† 4.3	(2.7, 6.8)	—
\$30,000-\$49,999	565	9.5	(7.1, 12.7)	2.23**
\$50,000-\$79,999	819	8.6	(6.7, 11.1)	2.16**
\$80,000+	1993	6.8	(5.7, 8.1)	1.97*
Not stated	1192	6.3	(4.9, 8.0)	1.92*

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † estimates unstable or suppressed.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that daily alcohol use is more likely to occur in the group being compared to the comparison group; ORs less than 1.0 indicate that daily alcohol use is less likely to occur in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample size N=4879).

Q: Response of “daily” or “almost daily” to the question: *How often did you drink alcoholic beverages during the past 12 months?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.2.2: Percentage *Drinking Alcohol Daily* in the Past 12 Months and Adjusted Group Differences, Ontarian *Past Year Drinkers* Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3869)
Total	3967	8.8	(7.9, 9.9)	—
Sex				***
Men	1564	11.8	(10.1, 13.7)	2.37**
Women (<i>Comparison Group</i>)	2403	5.8	(4.9, 6.9)	—
Age				***
18-29 (<i>Comparison Group</i>)	331	†	—	—
30-39	404	† 5.2	(3.2, 8.3)	2.14
40-49	660	† 5.2	(3.6, 7.3)	2.12
50-64	1376	11.3	(9.3, 13.5)	4.68**
65+	1170	20.1	(17.6, 22.9)	9.40**
Region				NS
Toronto (<i>vs. Provincial Average</i>)	647	9.5	(7.4, 12.2)	1.04
Central East	654	7.8	(5.8, 10.4)	0.95
Central West	653	7.6	(5.8, 9.8)	0.83
West	656	9.5	(7.3, 12.4)	1.09
East	662	10.1	(7.8, 12.8)	1.18
North	695	9.9	(7.7, 12.7)	1.10
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	2579	10.6	(9.3, 12.0)	—
Previously Married	810	11.2	(8.8, 14.2)	0.91
Never Married	546	† 2.7	(1.5, 4.8)	0.59
Education				**
High school not completed (<i>Comparison Group</i>)	245	† 10.7	(6.8, 16.3)	—
Completed high school	806	11.9	(9.2, 15.2)	1.84*
Some college or university	1424	6.2	(5.0, 7.6)	1.04
University degree	1468	9.6	(8.1, 11.3)	1.59
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	283	† 6.7	(4.2, 10.4)	—
\$30,000-\$49,999	421	13.1	(9.7, 17.3)	2.02*
\$50,000-\$79,999	642	11.1	(8.6, 14.2)	1.80*
\$80,000+	1760	7.8	(6.5, 9.3)	1.49
Not stated	861	8.8	(6.9, 11.2)	1.71

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no significant difference; † estimates unstable or suppressed.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that daily alcohol use is more likely to occur in the group being compared to the comparison group; ORs less than 1.0 indicate that daily alcohol use is less likely to occur in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample size N= 3869).

Q: Response of “daily” or “almost daily” to the question: How often did you drink alcoholic beverages during the past 12 months?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.2.3: Percentage *Drinking Daily* in the Past 12 Months, by Demographic Characteristics, Ontarian *Past Year Drinkers* Aged 18+, 1977–1995

	1977	1982	1984	1987	1989	1991	1992	1993	1994	1995
(N=)	(818)	(795)	(885)	(893)	(906)	(841)	(916)	(783)	(1660)	(839)
Total (95%CI) ^a	13.4 (11.1,15.7)	10.7 (8.5,12.9)	12.9 (10.7, 15.1)	11.8 (9.7,13.9)	10.0 (8.0,12.0)	6.2 (4.6, 7.8)	4.1 (2.8, 5.4)	6.9 (5.7, 8.1)	6.1 (4.9, 7.3)	5.9 (4.3, 7.5)
Sex										
Men	19.5	15.6	17.3	16.6	13.3	8.3	5.2	10.0	8.5	8.6
Women	5.7	5.2	8.6	6.7	6.7	4.1	3.0	3.6	3.8	2.9
Age										
18 - 29	7.8	† 4.1	† 5.0	6.0	† 3.7	† 3.0	† 1.8	† 2.7	† 2.0	† 1.3
30 – 39	10.9	7.8	10.0	11.6	5.5	† 4.5	† 1.8	6.1	† 4.2	† 3.6
40 - 49	18.2	19.1	15.6	12.9	11.8	8.8	† 5.8	6.1	9.0	† 5.8
50 - 64	22.1	15.7	22.2	15.7	17.6	7.9	7.8	9.7	8.0	8.2
65+	13.2	19.9	21.8	19.6	23.0	11.8	8.5	20.0	15.0	23.6
Marital Status										
Married/Partner	—	—	—	—	—	4.7	4.5	7.8	6.0	6.6
Previously Married	—	—	—	—	—	8.1	6.7	7.8	5.5	9.7
Never Married	—	—	—	—	—	† 4.5	† 1.8	† 4.5	† 2.2	† 2.3
Education										
High school not completed	—	—	—	—	—	6.4	7.2	9.1	6.3	6.3
Completed high school	—	—	—	—	—	† 4.6	† 2.7	5.9	5.1	6.7
Some college or university	—	—	—	—	—	† 4.1	† 2.7	† 4.2	† 2.3	6.0
University degree	—	—	—	—	—	5.2	5.2	9.9	7.6	† 4.4

Notes: ^a 95% confidence interval; — data not available; † Estimate suppressed or unstable;

Q: Response of “daily” or “almost daily” to the question: How often, if ever, did you drink alcoholic beverages during the past 12 months?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.2.4: Percentage *Drinking Daily* in the Past 12 Months, by Demographic Characteristics, Ontarian *Past Year Drinkers* Aged 18+, 1996–2015

(N=)	1996 (2141)	1997 (2219)	1998 (1777)	1999 (1938)	2000 (1887)	2001 (2088)	2002 (1933)	2003 (1933)	2004 (2101)	2005 (1906)	2006 (1527)	2007 (1618)	2008 (1599)	2009 (1602)	2010 (2352)	2011 (2401)	2012 (2355)	2013 (2330)	2014 (2422)	2015 (3967)	Trend
Total	6.0	5.9	7.4	7.0	6.3	5.8	5.3	6.0	6.4	5.6	5.9	7.3	8.6	9.3	8.7	8.6	7.9	8.5	8.1	8.8	T –
(95% CI) ^a	(5.0,7.2)	(4.8,7.1)	(6.0,9.1)	(5.9,8.5)	(5.2,7.7)	(4.7,7.1)	(4.3,6.5)	(4.9,7.3)	(5.3,7.8)	(4.6,6.8)	(4.8,7.3)	(6.0,8.8)	(7.3,10.2)	(7.7,11.1)	(7.5,10.0)	(7.4,10.0)	(6.8,9.2)	(7.4,9.9)	(7.0,9.3)	(7.9,9.9)	
Sex																					NSI
Men	8.2	8.4	9.8	10.0	8.6	8.8	7.4	7.3	8.9	7.1	7.3	9.2	10.9	12.5	11.2	11.6	10.6	11.4	10.7	11.8	T –
	(6.4,10.3)	(6.7,10.5)	(7.6,12.6)	(2.7,5.4)	(6.8,10.8)	(7.0,11.1)	(5.7,9.6)	(5.6,9.5)	(7.1,11.3)	(5.6,9.1)	(5.6,9.6)	(7.1,11.7)	(8.8,13.5)	(9.9,15.6)	(9.3,13.5)	(9.4,14.0)	(8.7,12.8)	(9.4,13.7)	(8.8,12.8)	(10.1,13.7)	
Women	3.9	3.4	5.0	3.9	4.1	2.6	3.1	4.6	3.9	3.9	4.4	5.3	6.3	6.1	6.1	5.7	5.2	5.6	5.5	5.8	T –
	(2.9,5.3)	(2.3,4.9)	(3.5,7.0)	(8.1,12.4)	(2.8,5.9)	(1.7,3.9)	(2.2,4.4)	(3.4,6.2)	(2.8,5.3)	(2.7,5.5)	(3.1,6.1)	(3.9,7.1)	(4.8,8.3)	(4.4,8.3)	(4.8,7.7)	(4.5,7.2)	(4.1,6.4)	(4.5,7.1)	(4.4,6.8)	(4.9,6.9)	
Age																					NSI
18 - 29	† 1.4	† 1.8	† 3.5	† 2.1	† 1.3	† 1.9	†	† 2.3	† 2.6	†	†	†	† 4.0	† 7.2	† 3.3	† 3.1	†	†	†	†	T –
	(0.6,3.3)	(0.8,4.0)	(1.7,7.1)	(1.1,4.3)	(0.6,2.9)	(0.8,4.1)	-	(1.0,5.4)	(1.2,5.7)	-	-	-	(1.8,8.4)	(3.4,14.5)	(1.6,6.7)	(1.3,7.3)	-	-	-	-	
30 - 39	† 3.6	† 3.3	† 3.9	† 3.4	† 3.8	† 3.9	† 2.0	† 3.9	† 3.4	† 2.4	† 4.1	† 3.9	† 3.5	† 3.9	† 3.9	† 4.4	† 3.4	† 5.5	†	† 5.2	T –
	(2.0,6.1)	(2.0,5.5)	(2.1,7.0)	(2.0,5.7)	(2.3,6.2)	(2.3,6.5)	(1.0,4.2)	(2.0,7.5)	(1.8,6.4)	(1.1,5.0)	(1.9,8.4)	(1.9,7.7)	(1.8,6.8)	(1.9,7.8)	(2.1,7.0)	(2.6,7.6)	(1.6,7.3)	(3.1,9.6)	-	(3.2,8.3)	
40 - 49	6.5	6.3	† 5.0	† 5.1	† 5.0	† 4.0	† 3.0	† 4.1	† 3.9	† 5.8	† 3.8	† 5.9	† 7.3	† 5.1	† 6.3	† 7.1	† 4.4	† 6.1	† 5.4	† 5.2	T –
	(4.5,9.4)	(4.0,9.7)	(3.0,8.2)	(3.0,8.3)	(3.2,7.6)	(2.5,6.3)	(1.7,5.2)	(2.5,6.5)	(2.2,6.9)	(3.7,8.9)	(2.2,6.5)	(3.5,9.8)	(4.6,11.2)	(3.1,8.1)	(4.2,9.4)	(4.7,10.7)	(2.8,6.8)	(4.0,9.3)	(3.3,8.8)	(3.6,7.3)	
50 - 64	9.8	9.6	12.0	13.7	10.9	7.2	9.6	10.6	10.6	8.0	9.7	8.4	11.1	12.1	11.2	11.1	9.6	10.7	9.5	11.3	T –
	(7.0,13.6)	(6.8,13.5)	(8.1,17.5)	(10.1,18.4)	(7.3,16.0)	(4.9,10.5)	(7.0,13.1)	(7.7,14.4)	(7.8,14.4)	(5.5,11.4)	(7.0,13.2)	(6.1,11.6)	(8.3,14.6)	(8.8,16.2)	(8.9,14.0)	(8.7,14.1)	(7.5,12.2)	(8.5,13.4)	(7.5,12.0)	9.35,13.5)	
65+	16.9	17.1	19.2	16.4	16.9	16.2	16.2	13.2	15.8	14.3	14.0	20.2	21.1	22.2	22.0	22.8	20.9	18.1	21.0	20.1	T –
	(12.0,23.2)	(12.3,23.4)	(13.7,26.2)	(11.9,22.1)	(12.3,22.8)	(11.3,22.6)	(11.5,22.4)	(9.4,18.2)	(11.8,20.9)	(10.4,19.3)	(9.9,19.4)	(15.2,26.2)	(16.4,26.6)	(17.5,27.8)	(17.9,26.8)	(17.1,25.1)	(17.3,25.0)	(15.1,21.7)	(17.8,24.5)	(17.6,22.9)	
Region																					NSI
Toronto	8.5	8.4	10.6	8.5	† 5.4	† 5.8	† 6.6	† 6.5	† 7.2	† 4.9	† 6.6	† 8.6	† 8.4	† 8.0	† 7.5	† 9.5	† 7.9	† 8.0	10.0	9.5	T –
	(5.7,12.4)	(5.6,12.4)	(7.1,15.6)	(5.7,12.7)	(2.9,9.6)	(3.5,9.5)	(4.2,10.4)	(3.9,10.6)	(4.6,10.9)	(2.9,8.2)	(3.9,10.9)	(5.5,13.3)	(5.6,12.3)	(5.0,12.5)	(5.1,11.0)	(6.9,12.9)	(5.6,11.0)	(5.6,11.2)	(7.2,13.6)	(7.4,12.2)	
C-East	† 6.4	† 5.1	† 8.0	† 8.0	† 7.8	† 3.7	† 4.1	† 5.8	† 5.4	† 5.3	† 6.3	† 8.3	† 7.4	† 11.2	† 9.0	† 7.6	† 7.7	† 7.1	† 6.2	7.8	T –
	(4.3,9.6)	(3.2,7.9)	(5.0,12.7)	(5.4,11.8)	(5.3,11.4)	(2.0,6.5)	(2.4,7.0)	(3.6,9.1)	(3.3,8.6)	(3.4,8.3)	(4.0,9.8)	(5.6,12.1)	(4.7,11.4)	(7.3,16.7)	(6.3,12.5)	(5.1,11.0)	(5.3,11.2)	(4.8,10.5)	(4.2,9.0)	(5.8,10.4)	
C-West	† 4.4	† 6.8	† 4.7	† 6.3	† 7.0	† 6.6	† 5.0	† 4.4	† 5.9	† 5.4	† 5.0	† 6.2	† 9.4	† 11.3	9.9	† 8.3	† 8.1	† 9.0	† 6.7	7.6	T –
	(2.7,7.2)	(4.5,10.0)	(2.5,8.5)	(4.0,9.7)	(4.5,10.7)	(4.2,10.3)	(3.1,8.1)	(2.6,7.2)	(3.6,9.6)	(3.1,9.2)	(3.0,8.3)	(3.8,9.9)	(6.4,13.8)	(8.0,15.8)	(7.2,13.5)	(5.8,11.7)	(5.8,11.2)	(6.4,12.7)	(4.8,9.4)	(5.8,9.8)	
West	† 4.2	† 4.3	† 7.2	† 6.2	† 3.4	† 7.1	† 5.5	† 5.4	† 6.8	† 7.4	† 5.5	† 7.7	† 7.1	† 5.3	8.8	† 7.2	† 7.7	9.2	9.5	9.5	T –
	(2.4,7.0)	(2.4,7.5)	(4.3,11.8)	(3.9,9.6)	(1.9,6.2)	(4.6,10.9)	(3.5,8.6)	(3.4,8.5)	(4.4,10.3)	(5.0,10.8)	(3.4,8.7)	(5.0,11.5)	(4.6,10.7)	(3.1,8.9)	(6.4,12.0)	(5.0,10.3)	(5.4,10.9)	(6.7,12.6)	(6.9,12.9)	(7.3,12.4)	
East	† 5.9	† 4.8	† 6.7	† 5.7	† 6.2	† 5.2	† 4.6	† 7.0	† 7.6	† 5.0	† 5.9	† 7.1	† 10.9	† 8.1	† 7.4	11.5	7.4	9.8	9.3	10.1	T –
	(3.9,8.9)	(2.9,7.7)	(4.2,10.5)	(3.5,9.1)	(3.9,9.7)	(3.2,8.3)	(2.7,7.8)	(4.5,10.7)	(5.1,11.2)	(3.1,8.0)	(3.7,9.4)	(4.6,10.7)	(7.6,15.5)	(5.6,11.7)	(5.3,10.4)	(8.4,15.7)	(5.4,10.2)	(7.2,13.2)	(6.7,12.7)	(7.8,12.8)	
North	† 5.4	† 3.6	† 6.0	† 6.6	† 8.4	† 7.2	† 6.1	† 8.5	† 6.0	† 6.6	† 6.0	† 3.1	† 9.7	† 10.1	9.7	† 8.2	9.5	10.0	8.8	9.9	T –
	(3.4,8.4)	(2.1,6.1)	(3.4,10.3)	(4.2,10.2)	(5.7,12.2)	(5.1,10.3)	(3.8,9.7)	(5.7,12.5)	(4.2,8.6)	(4.3,10.1)	(3.7,9.8)	(1.7,5.8)	(6.5,14.2)	(6.7,14.7)	(7.1,13.2)	(5.7,11.7)	(6.9,13.1)	(7.3,13.5)	(6.4,11.9)	(7.7,12.7)	

Cont'd

(N=)	1996 (2141)	1997 (2219)	1998 (1777)	1999 (1938)	2000 (1887)	2001 (2088)	2002 (1933)	2003 (1933)	2004 (2101)	2005 (1906)	2006 (1527)	2007 (1618)	2008 (1599)	2009 (1602)	2010 (2352)	2011 (2401)	2012 (2355)	2013 (2330)	2014 (2422)	2015 (3967)	Trend
Marital Status																					NSI
Married/ Partner	6.6	6.6	8.1	8.1	7.4	6.6	6.1	7.2	6.9	6.8	5.9	8.2	9.3	10.3	9.7	10.1	8.7	9.7	9.2	10.6	T –
Previously Married	9.2	9.3	9.7	8.8	10.8	6.4	7.4	6.6	8.0	8.4	10.1	10.2	10.9	11.8	13.4	11.4	12.1	11.7	12.2	11.2	T –
Never Married	†3.1	†2.7	†4.4	† 3.2	† 1.8	† 3.0	†1.7	†2.4	†4.5	†	†3.6	†2.1	†4.5	†4.7	†3.2	†3.3	†3.4	†3.6	†2.8	†2.7	– –
Education																					NSI
High School not completed	†7.5	9.8	†5.6	12.2	9.8	12.0	†7.2	11.0	9.6	†8.5	†8.7	†11.5	15.9	18.8	†13.8	17.0	†18.5	†13.9	†14.2	†10.7	T –
Completed high school	†5.3	†6.0	8.7	†7.7	†6.6	†5.7	†4.3	†5.2	†6.3	†7.1	†5.9	†7.6	†8.3	9.1	†7.8	†7.1	10.7	†8.6	9.9	11.9	T –
Some college or university	5.1	†4.5	6.2	†4.5	†4.5	† 3.8	5.6	†4.3	†5.7	†4.6	†5.0	†5.2	8.1	7.1	7.2	†6.0	5.1	7.7	7.0	6.2	T –
University degree	6.7	†4.9	8.0	6.8	6.7	5.6	†4.5	6.6	6.1	†4.6	†5.9	7.7	7.3	8.9	9.8	10.4	7.4	8.1	7.0	9.6	T –

Notes: (1) All analyses are sample design adjusted; ^a 95% confidence interval; † Estimate suppressed or unstable;

(2) Trend Analysis: – change not statistically significant (p<.05); **T** statistically significant change (p<.05) between 1996-2015; **2Y** statistically significant change (p<.05) between last two estimates.

(3) **NSI**, non-significant YEAR × FACTOR interaction.

Q: Response of “daily” or “almost daily” to the question: How often, if ever, did you drink alcoholic beverages during the PAST TWELVE months?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 3.2.1
Past Year Daily Drinking by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

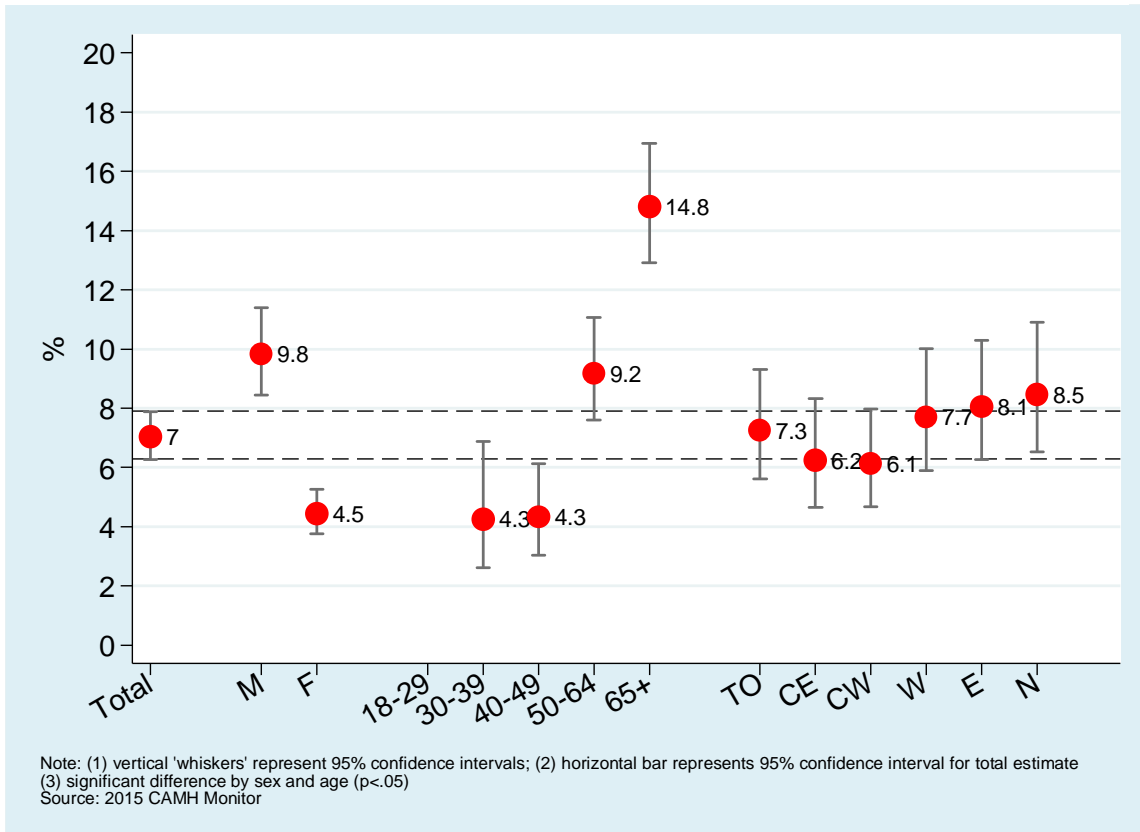
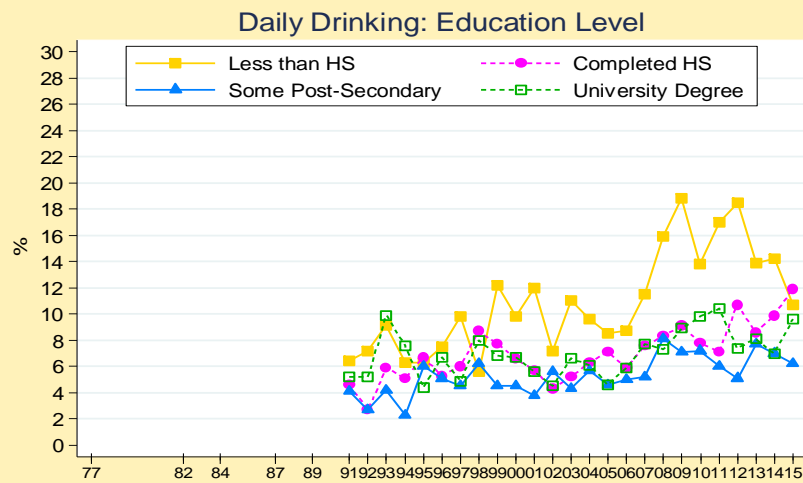
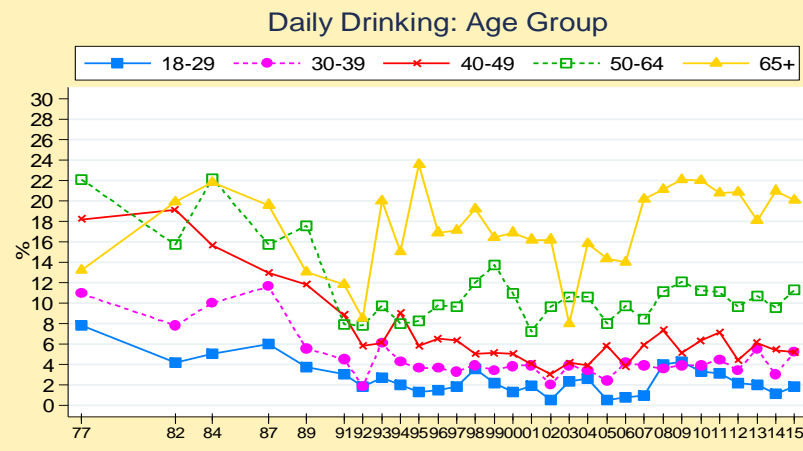
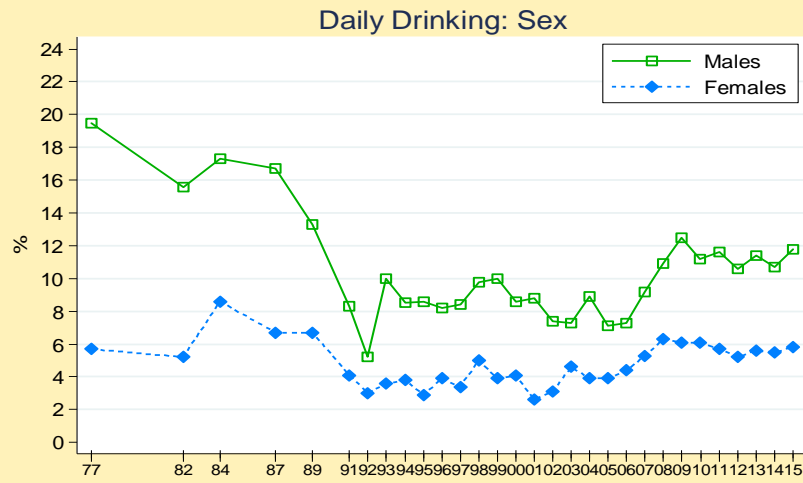
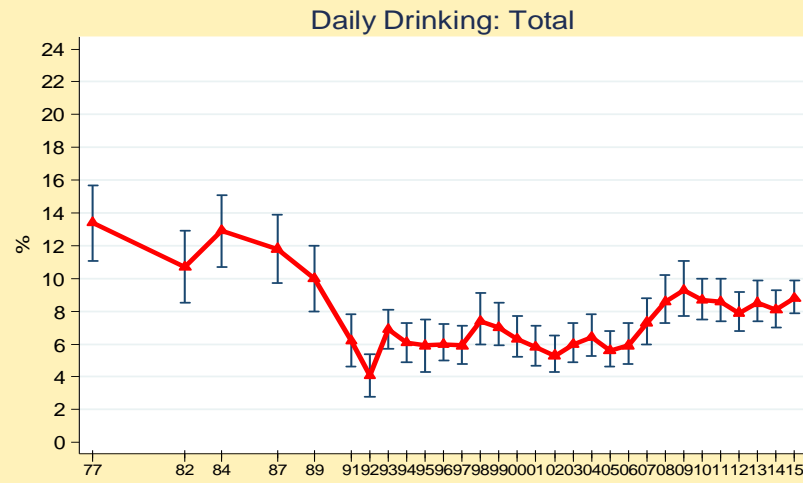


Figure 3.2.2
Daily Drinking, Ontarian Past Year Drinkers Aged 18+, 1977–2015



Note: vertical 'whiskers' represent 95% confidence intervals
 Source: CAMH Monitor

3.3 Estimated Number of Drinks Consumed Weekly Among Past Year Drinkers

The estimated number of drinks consumed is based on the respondent's recall of both the frequency of drinking and the amount consumed on a typical drinking occasion. In contrast to the prevalence of past year drinking, which describes the size of the drinking population, and the prevalence of daily drinking, which describes the percentage drinking regularly, the estimated number of drinks consumed is an indicator of the quantity of alcohol typically consumed.

2015.....Table 3.3.1

On average, Ontarian **past year drinkers** reported consuming **4.3** (95% CI: 4.1 to 5.8) **drinks weekly**.

Of the five demographic factors examined, there were significant univariate effects only for **sex** and **age**.

- Male drinkers consumed an average of 5.9 drinks weekly, compared to 2.8 drinks for female drinkers.
- The average number of drinks tended to increase with age. It was highest among the older age groups (4.9 drinks) and lowest among those aged 30 to 49 (3.8 drinks).

There were no significant differences for region, marital status, education and income.

Trends

1996–2015.....Table 3.3.1; Fig.3.3.1

2014–2015

The average number of drinks consumed weekly did not change significantly between 2014 and 2015 (4.4 vs. 4.3).

In addition, the number of drinks consumed was **stable** for all sex, age, region, marital status, education and income subgroups.

1996–2015

Between 1996 and 2015, there was a significant **increase** in the average number of drinks consumed weekly, from 3.3 in 1996 to 4.3 in 2015.

There were also significant increases in the number of drinks consumed among drinking men (from 4.8 in 1997 to 5.9 in 2015), among drinking women (from 1.9 in 1996 to 2.8 in 2015), and for all demographic factors examined (all age groups, all regions, all marital status and all education subgroups).

Table 3.3.1: Estimated *Average Number of Drinks per Week* in the Past 12 Months, Ontarian *Past Year Drinkers* Aged 18+, 1996–2015

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2141)	(2219)	(1582)	(1938)	(1887)	(2088)	(1933)	(1933)	(2101)	(1906)	(1527)	(1618)	(1599)	(1602)	(2352)	(2401)	(2355)	(2330)	(2422)	(3967)	
Total	3.32	3.38	3.90	3.58	3.53	3.44	3.51	3.50	3.69	3.81	3.88	3.67	5.04	4.62	4.56	4.69	4.41	5.13	4.42	4.34	T –
(95% CI)	(2.97,3.68)	(3.09,3.66)	(3.50,4.30)	(3.25,3.91)	(3.19,3.88)	(3.14,3.75)	(3.05,3.97)	(3.18,3.83)	(3.36,4.02)	(3.47,4.15)	(3.45,4.31)	(3.33,4.02)	(4.52,5.55)	(4.02,5.22)	(4.18,4.93)	(4.25,5.14)	(4.06,4.75)	(4.43,5.84)	(4.03,4.81)	(4.10,4.58)	
Sex																					
Men	4.84	4.82	5.62	5.12	5.01	5.00	4.85	4.84	4.97	4.97	5.36	4.96	7.03	6.48	6.13	6.67	6.03	7.41	5.87	5.85	T –
	(4.16,5.52)	(4.31,5.32)	(4.91,6.34)	(4.55,5.69)	(4.40,5.61)	(4.44,5.53)	(4.05,5.65)	(4.27,5.41)	(4.41,5.52)	(4.44,5.49)	(4.60,6.13)	(4.37,5.54)	(6.14,7.92)	(5.36,7.61)	(5.48,6.78)	(5.83,7.50)	(5.43,6.63)	(6.08,8.73)	(5.16,6.58)	(5.42,6.28)	
Women	1.87	1.97	2.19	1.94	2.06	1.85	2.16	2.14	2.38	2.54	2.28	2.36	3.01	2.79	2.96	2.76	2.74	2.78	2.99	2.84	T –
	(1.67,2.08)	(1.74,2.19)	(1.89,2.49)	(1.68,2.21)	(1.77,2.34)	(1.64,2.06)	(1.75,2.57)	(1.86,2.41)	(2.06,2.70)	(2.14,2.95)	(1.98,2.57)	(2.04,2.68)	(2.55,3.46)	(2.44,3.14)	(2.64,3.28)	(2.51,3.01)	(2.49,2.99)	(2.50,3.05)	(2.67,3.30)	(2.65,3.03)	
Age																					**
18 - 29	4.16	3.74	5.14	3.84	3.29	3.85	3.92	4.00	4.67	4.41	4.76	4.50	6.73	5.56	5.39	5.83	5.11	7.06	4.01	4.14	T –
	(3.04,5.28)	(3.10,4.37)	(4.04,6.24)	(3.01,4.68)	(2.72,3.86)	(3.11,4.60)	(2.79,5.06)	(3.20,4.81)	(3.69,5.66)	(3.63,5.21)	(3.44,6.08)	(3.54,5.46)	(5.01,8.46)	(3.17,7.95)	(4.15,6.62)	(4.33,7.34)	(3.83,6.38)	(4.58,9.55)	(2.86,5.17)	(3.46,4.82)	
30 - 39	2.64	2.98	3.33	3.55	2.88	3.49	2.83	3.15	2.99	3.09	3.72	2.49	3.98	4.21	3.86	4.02	4.06	5.38	3.93	3.78	T –
	(2.20,3.07)	(2.50,3.46)	(2.49,4.17)	(2.80,4.31)	(2.37,3.38)	(2.80,4.17)	(2.34,3.32)	(2.49,3.82)	(2.45,3.54)	(2.52,3.67)	(2.69,4.75)	(1.91,3.06)	(3.12,4.85)	(3.16,5.26)	(3.06,4.65)	(3.14,4.91)	(3.25,4.87)	(2.56,8.19)	(2.78,5.08)	(3.24,4.32)	
40 - 49	3.11	2.99	3.18	3.11	3.67	2.96	3.38	2.81	3.23	4.25	3.31	3.15	4.96	4.37	4.01	4.78	3.62	4.10	4.48	3.76	T –
	(2.52,3.70)	(2.45,3.53)	(2.61,3.74)	(2.61,3.61)	(2.82,4.54)	(2.39,3.52)	(1.91,4.85)	(2.34,3.28)	(2.50,3.96)	(3.26,5.24)	(2.64,3.96)	(2.65,3.65)	(3.90,6.02)	(3.51,5.23)	(3.47,4.55)	(3.87,5.70)	(3.12,4.12)	(3.41,4.78)	(3.70,5.26)	(3.26,4.25)	
50 - 64	3.44	3.42	3.95	3.87	4.53	3.43	3.96	3.92	3.90	3.45	3.60	4.15	4.64	4.49	4.79	4.53	4.50	5.23	4.99	4.90	T –
	(2.86,4.03)	(2.82,4.02)	(3.18,4.73)	(3.18,4.56)	(3.42,5.64)	(2.88,3.99)	(3.20,4.73)	(3.10,4.75)	(3.32,4.48)	(2.93,3.97)	(3.02,4.18)	(3.32,4.98)	(3.83,5.45)	(3.65,5.32)	(4.12,5.46)	(3.95,5.12)	(4.03,4.97)	(4.27,6.19)	(4.22,5.75)	(4.45,5.35)	
65+	3.39	4.17	4.14	3.58	3.50	3.73	3.76	3.96	4.01	4.06	4.06	4.00	4.89	4.81	4.77	4.57	4.95	4.25	4.47	4.84	T –
	(2.73,4.04)	(3.08,5.25)	(3.11,5.18)	(2.83,4.32)	(2.73,4.27)	(2.78,4.67)	(2.90,4.63)	(3.00,4.92)	(3.27,4.75)	(3.33,4.79)	(3.14,4.98)	(3.15,4.85)	(3.94,5.85)	(3.86,5.76)	(4.01,5.53)	(3.54,5.60)	(4.12,5.77)	(3.73,4.77)	(3.96,4.98)	(3.36,5.35)	
Region																					NS
Toronto	3.59	3.15	4.20	3.67	3.07	3.22	3.21	3.50	3.54	3.18	3.61	3.65	4.27	3.70	4.15	4.04	4.21	4.96	4.63	4.36	T –
	(2.89,4.29)	(2.55,3.76)	(3.26,5.14)	(2.91,4.42)	(2.43,3.70)	(2.67,3.76)	(2.38,4.04)	2.70,4.30)	(2.82,4.28)	(2.59,3.77)	2.68,4.54)	(2.92,4.37)	(2.99,5.55)	(2.94,4.47)	(3.37,4.93)	(3.04,5.03)	(3.42,5.00)	(3.58,6.34)	(3.56,5.71)	(3.80,4.92)	
C- East	3.07	3.51	3.39	3.57	3.80	3.15	3.24	3.70	3.77	4.26	4.54	3.58	5.64	5.38	4.34	4.52	4.05	6.03	4.25	4.08	T –
	(2.61,3.53)	(2.91,4.11)	(2.51,4.27)	(2.80,4.33)	(2.89,4.71)	(2.52,3.79)	(2.52,3.96)	(2.87,4.53)	(2.87,4.67)	(3.49,5.03)	(3.28,5.80)	(2.77,4.40)	(4.39,6.90)	(3.45,7.31)	(3.52,5.15)	(3.59,5.45)	(3.40,4.69)	(3.80,8.25)	(3.37,5.12)	(3.59,4.57)	
C-West	2.89	3.43	2.86	3.30	3.25	3.17	3.77	2.78	3.47	3.73	3.11	3.13	4.99	5.32	5.19	4.99	4.19	4.63	4.38	4.08	T –
	(2.44,3.34)	(2.80,4.06)	(2.20,3.51)	(2.65,3.96)	(2.67,3.84)	(2.45,3.89)	(2.30,5.25)	(2.27,3.29)	(2.78,4.17)	(2.85,4.61)	(2.35,3.86)	(2.42,3.84)	(3.77,6.21)	(4.16,6.47)	(4.17,6.21)	(3.75,6.24)	(3.35,5.02)	(3.65,5.61)	(3.62,5.14)	(3.51,4.66)	
West	3.67	2.99	3.97	3.79	3.49	4.03	3.81	3.05	4.22	4.14	4.31	4.56	4.27	3.33	4.51	4.94	4.43	4.66	4.45	4.75	T –
	(1.84,5.50)	(2.26,3.72)	(3.04,4.90)	(2.96,4.63)	(2.67,4.31)	(3.21,4.84)	(2.50,5.13)	(2.49,3.61)	(3.38,5.05)	(3.38,4.89)	(3.39,5.23)	(3.57,5.54)	(3.46,5.08)	(2.71,3.95)	(3.65,3.38)	(4.00,5.88)	(3.76,5.10)	(3.20,6.11)	(3.71,5.19)	(4.14,5.35)	
East	3.39	4.07	4.33	3.46	3.53	3.51	3.92	3.97	3.44	3.22	3.99	4.27	5.71	4.18	4.24	5.11	5.12	4.91	4.40	4.38	T –
	(2.48,4.29)	(3.20,4.94)	(3.40,5.26)	(2.66,4.26)	(2.57,4.48)	(2.76,4.25)	(2.70,3.88)	(3.08,4.86)	(2.82,4.06)	(2.69,3.75)	(3.19,4.79)	(3.33,5.20)	(4.58,6.83)	(3.24,5.11)	(3.58,4.90)	(4.15,6.08)	(4.21,6.02)	(4.18,5.63)	(3.48,5.31)	(3.80,4.97)	
North	3.65	2.92	4.03	3.92	4.23	4.42	3.64	4.19	3.83	4.67	3.67	2.78	5.69	5.67	5.26	4.93	5.52	5.19	4.60	5.07	T –
	(2.53,4.77)	(2.29,3.56)	(3.09,4.96)	(2.65,5.19)	(2.97,5.48)	(2.99,5.85)	(2.84,4.45)	(3.16,5.22)	(3.09,4.57)	(2.92,6.40)	(2.69,4.65)	(2.14,3.43)	(4.53,6.85)	(4.38,6.96)	(4.01,6.50)	(4.02,5.84)	(4.06,6.98)	(4.33,6.05)	(3.73,5.48)	(4.40,5.74)	

Cont'd

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2141)	(2219)	(1582)	(1938)	(1887)	(2088)	(1933)	(1933)	(2101)	(1906)	(1527)	(1618)	(1599)	(1602)	(2352)	(2401)	(2355)	(2330)	(2422)	(3967)	
Marital Status																					NS
Married/ Partner	2.70	3.04	3.02	3.26	3.30	3.21	3.09	3.30	3.28	3.58	3.29	3.30	4.41	4.52	4.22	4.40	4.23	4.40	4.36	4.32	T –
Prev. Married	3.94	4.05	3.36	3.45	3.39	3.09	2.85	3.94	3.48	4.36	4.57	3.69	5.30	5.39	5.02	5.48	3.99	4.43	4.95	5.19	T –
Never married	4.63	3.75	5.41	4.57	4.91	4.23	5.09	3.92	4.99	4.21	5.20	4.85	6.67	4.60	5.33	5.29	5.16	7.92*	4.35	4.06	T –
Education																					NS
HS not completed	3.41	4.13	4.39	4.86	3.67	4.62	6.20	4.14	4.70	6.06	4.82	4.92	8.31	8.80	5.00	5.86	5.52	8.09	5.99	4.77	T –
Completed HS	3.31	3.57	4.26	3.82	3.81	3.97	3.01	3.96	3.80	4.33	4.41	4.44	6.07	4.25	4.64	4.76	5.08	5.99	4.87	4.87	T –
Some College or Univ.	3.65	3.19	3.82	3.27	3.40	2.96	3.22	3.44	3.81	3.67	3.72	3.15	4.54	4.04	4.86	4.76	4.08	5.15	4.36	4.26	T –
Univ Degree	2.93	2.84	3.32	3.08	3.36	3.08	2.98	3.02	3.15	2.88	3.40	3.24	3.84	4.05	4.05	4.39	4.15	4.03	4.01	4.13	T –

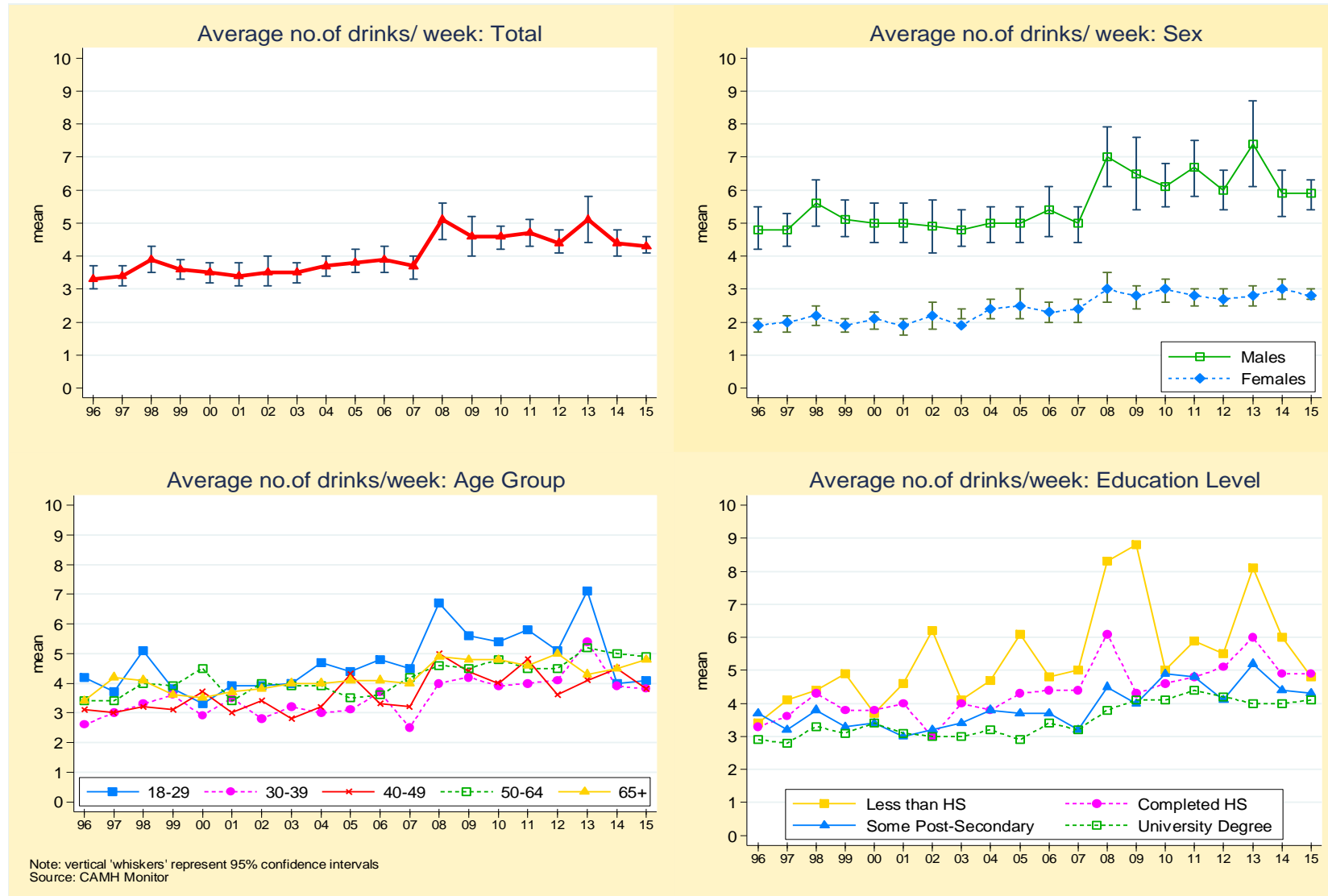
Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; based on F-tests; CI = 95% confidence interval; NS – no statistically significant difference.
(2) Trend Analysis: – change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates.

Def: *Product of the frequency of drinking and the amount consumed on a typical drinking occasion*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 3.3.1

Average Number of Drinks Consumed Weekly, Ontarian Past Year Drinkers Aged 18+, 1996–2015



3.4 Exceeding Low-Risk Drinking Guidelines

Canadian guidelines referring to “low-risk drinking” were initially disseminated in 1994 following an international conference on health benefits and risks (Ashley et al., 1994). In 1997, updated guidelines were released by the former Addiction Research Foundation (currently CAMH) and the Canadian Centre on Substance Abuse (Bondy et al., 1999).

Released on November 25, 2011, the revised [Canada’s Low-Risk Alcohol Drinking Guidelines](#) (LRDG) were developed by the [National Alcohol Strategy Advisory Committee](#) (NASAC) to help Canadians make healthier choices about their alcohol consumption (Butt, Beirness, Gliksmann, Paradis, & Stockwell, 2011).

The revised LRDG recommend no more than *two drinks a day OR 10 standard drinks a week for women, and no more than three drinks a day OR 15 standard drinks a week for men*. They also recommend that Canadians plan non-drinking days each week, to help avoid developing a habit. The LRDG suggest limits to reduce harm on single occasions, and highlight situations where alcohol should be avoided altogether, such as when taking medication, driving, or when living with mental or physical health problems. Also, caution should be taken to avoid intoxication and injury. The guidelines are intended to represent low risk of the most important forms of harm and to address usual drinking over many years. The compliance with LRDG is derived from the respondents’ self-reported consumption of standard drinks consumed during the past seven days, measured daily.

Respondents were considered as exceeding the guidelines if they reported a total weekly consumption of 16 drinks or more for men and 11 or more drinks for women, OR if they exceeded three drinks (for men) or two drinks (for women) on any given day over the past week. Data for LRDG items are available only for **2014**. In 2014, the LRDG items were asked of a **random subsample** of respondents (Panel A, n=1039).

2014..... Table 3.4.1; Fig. 3.4.1

An estimated **14.2%** (95% CI: 11.6% to 17.2%) of Ontarians exceeded the low-risk drinking guidelines during the past 12 months. Among past year drinkers, the prevalence was **17.5%** (95% CI: 14.5% to 21.2%). The corresponding population estimate is 1,447,500 Ontario adults who exceeded the guidelines (95% CI: 1,152,300 to 1,742,700).

When controlling for other demographic factors, **age** and **education** were significantly related to exceeding the drinking guidelines during the past year.

- Compared to those aged 18 to 29 (16.2%), the adjusted odds of exceeding the low-risk drinking guidelines were significantly higher (OR=3.43) among those aged 40 to 49 (20.3%) and significantly

lower (OR=0.45) among those aged 65 and older (8.2%).

- The rate of drinking at a level exceeding the low-risk guidelines showed a significant association with education. Compared to those not completing high school, the odds of drinking at this level were significantly higher among those with completed high school education only (OR=2.14; 8.1% vs. 20.9%, respectively).

Sex, region, marital status and income were not significantly related to exceeding the low-risk drinking guidelines, after adjusting for other demographic factors.

Trends

2003–2014 Table 3.4.2; Fig 3.4.2

2013–2014

The percent of Ontarians exceeding the low-risk drinking guidelines was significantly **lower** in 2014 (14.2%) compared to 2013 (18.8%). In addition, significant declines were evident among other subgroups. These declines were visible especially among **men** (15.1% vs. 26.0%), among those aged **18 to 29** and those aged 30 to 39, among **Toronto** residents and among those never married.

2003–2014

Between 2003 and 2014, exceeding the drinking guidelines has displayed a significant linear **decline** from a low of 21.5% in 2005 to 14.2% in 2014.

Year did not interact significantly with any of the demographic categories analysed, suggesting that subgroup trends were similar.

Although there was no evidence of measurable differential subgroup trends, significant non-linear declining trends were found among men, among those aged 30 to 39, among respondents living in the West and in the East, among those never married, and among those with university education.

Table 3.4.1: Percentage *Exceeding Low-Risk Drinking Guidelines* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2014

	N	%	95% CI	Adjusted Odds Ratio (N=1010)
Total¹	1039	14.2	(11.6, 17.2)	—
Sex				
Men	418	15.1	(11.6, 19.5)	1.06
Women (<i>Comparison Group</i>)	621	13.3	(9.8, 17.8)	—
Age				
18-29 (<i>Comparison Group</i>)	66	† 16.2	(8.7, 28.3)	—
30-39	96	† 6.7	(3.0, 14.4)	0.46
40-49	152	† 20.3	(13.6, 29.2)	3.43*
50-64	343	17.4	(13.1, 22.7)	0.84
65+	361	† 8.2	(5.6, 11.9)	0.49*
Region				
Toronto (<i>vs. Provincial Average</i>)	177	† 10.4	(6.5, 16.2)	0.81
Central East	181	† 15.1	(9.6, 23.0)	0.99
Central West	177	† 16.8	(10.8, 25.2)	1.21
West	152	† 13.8	(8.4, 21.8)	0.97
East	179	† 12.0	(7.7, 18.2)	0.87
North	173	† 18.9	(12.5, 27.6)	1.51
Marital Status				
Married/Partner (<i>Comparison Group</i>)	636	14.3	(11.5, 17.7)	—
Previously Married	261	† 12.7	(6.6, 22.9)	1.08
Never Married	134	† 14.9	(8.7, 24.4)	1.33
Education				
High school not completed (<i>Comparison Group</i>)	112	† 8.1	(4.1, 15.1)	—
Completed high school	232	† 20.9	(14.2, 29.6)	2.14*
Some college or university	346	15.8	(11.5, 21.3)	1.37
University degree	343	† 10.3	(7.0, 14.8)	0.81
Household Income				
< \$30,000 (<i>Comparison Group</i>)	111	† 11.4	(5.8, 21.1)	—
\$30,000-\$49,999	132	† 11.0	(5.7, 20.2)	1.01
\$50,000-\$79,999	168	† 12.6	(7.0, 21.5)	1.33
\$80,000+	351	18.6	(14.3, 23.9)	2.00
Not stated	277	† 9.8	(5.8, 16.2)	1.04

Notes: ¹LRDG items were asked of a random subsample in 2014 (N= 1039); all analyses are sample design adjusted.
(1) *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of the outcome are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of the outcome are lower in the group being compared to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=1010).
Def'n: *Based on total weekly consumption of 16 drinks or more for males or 11 drinks or more for females, or, over the past week, a daily consumption exceeding two drinks for women or three drinks for men.*
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.4.2: Percentage *Exceeding Low-Risk Drinking Guidelines* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2003-2014

(N=)	2003 (2411)	2004 (2611)	2005 (2445)	2006 (2016)	2007 (2005)	2008 (2024)	2009 (2037)	2011 (1040)	2012 (2015)	2013 (961)	2014 (1039)	Trend
Total (95%CI) ^a	17.6 (15.9, 19.5)	19.5 (17.7, 21.4)	21.5 (19.6, 23.6)	20.6 (18.5, 22.9)	19.1 (17.1, 21.3)	17.6 (15.6, 19.8)	17.8 (15.8, 20.0)	18.4 (15.2, 22.1)	17.6 (15.3, 19.6)	18.8 (15.3, 22.8)	14.2 (11.6, 17.2)	T 2Y
Sex												NSI
Men	21.2 (18.5, 24.2)	22.7 (19.9, 25.9)	26.5 (23.4, 29.8)	26.8 (23.3, 30.5)	21.7 (18.6, 25.2)	21.4 (18.2, 24.9)	21.1 (18.0, 24.6)	23.0 (17.9, 29.1)	20.8 (17.5, 24.5)	26.0 (19.8, 33.3)	15.1 (11.6, 19.5)	T 2Y
Women	14.2 (12.2, 16.5)	16.4 (14.2, 18.9)	17.0 (14.8, 19.5)	14.8 (12.4, 17.4)	16.7 (14.3, 19.4)	14.1 (11.8, 16.7)	14.7 (12.3, 17.6)	13.9 (10.5, 18.3)	14.2 (11.9, 16.9)	12.8 (9.8, 16.6)	13.3 (9.8, 17.8)	– –
Age												NSI
18-29	27.1 (22.4, 32.4)	34.9 (29.5, 40.8)	33.5 (28.1, 39.5)	33.7 (27.4, 40.7)	34.3 (27.7, 41.4)	28.3 (21.9, 35.8)	29.1 (22.3, 37.0)	†29.0 (19.3, 41.1)	25.7 (18.8, 34.1)	†35.9 (22.2, 52.3)	†16.2 (8.7, 28.3)	– 2Y
30-39	20.9 (16.9, 25.5)	18.9 (15.3, 23.0)	24.0 (19.8, 28.8)	23.1 (18.5, 28.5)	17.5 (13.5, 22.3)	19.0 (14.3, 24.7)	16.2 (12.2, 21.2)	†22.2 (14.9, 31.7)	20.2 (15.3, 26.2)	†22.9 (14.4, 34.4)	†6.7 (3.0, 14.4)	T 2Y
40-49	16.9 (13.8, 20.5)	18.0 (14.7, 21.9)	24.0 (20.2, 28.3)	18.9 (14.9, 23.6)	19.9 (15.9, 24.6)	20.0 (15.9, 24.8)	20.7 (16.8, 25.3)	†21.7 (15.5, 29.5)	17.8 (13.9, 22.4)	†16.7 (11.3, 24.0)	†20.3 (13.6, 29.2)	– –
50-64	12.2 (9.4, 15.6)	16.8 (13.6, 20.6)	15.9 (12.9, 19.6)	17.1 (13.7, 21.1)	16.3 (13.1, 20.2)	14.2 (11.3, 17.7)	14.5 (11.3, 18.4)	†15.2 (14.7, 22.2)	16.1 (13.1, 19.7)	15.5 (11.4, 20.6)	17.4 (13.1, 22.7)	– –
65+	9.1 (6.3, 12.8)	7.9 (5.3, 11.5)	7.7 (5.2, 11.2)	8.6 (5.8, 12.6)	8.4 (5.8, 12.1)	7.6 (5.3, 10.7)	9.7 (7.1, 13.1)	†4.0 (2.0, 7.7)	8.8 (6.5, 11.9)	†8.3 (5.3, 12.8)	†8.2 (5.6, 11.9)	– –
Region												NSI
Toronto	18.1 (14.1, 22.97)	15.7 (12.1, 20.1)	18.5 (14.4, 23.4)	15.5 (11.6, 20.6)	14.3 (10.6, 19.1)	12.6 (9.1, 17.2)	17.1 (12.6, 22.7)	†15.9 (9.9, 24.7)	14.1 (10.5, 18.8)	†20.1 (12.4, 30.8)	†10.4 (6.5, 16.2)	– 2Y
Central East	18.9 (15.1, 23.4)	22.9 (18.5, 28.0)	25.4 (20.9, 30.5)	22.2 (17.2, 28.0)	19.0 (14.5, 24.4)	17.8 (13.5, 23.1)	18.0 (13.6, 23.4)	†21.6 (14.5, 30.8)	16.7 (12.2, 22.4)	†20.5 (12.9, 31.0)	†15.1 (9.6, 23.0)	– –
Central West	16.1 (12.4, 20.5)	17.6 (13.8, 22.3)	18.8 (14.8, 23.5)	18.4 (13.9, 24.0)	17.4 (13.0, 22.8)	18.4 (13.8, 24.0)	21.2 (16.7, 26.5)	†14.0 (8.1, 23.1)	17.3 (13.0, 22.8)	†17.1 (10.8, 26.0)	†16.8 (10.8, 25.2)	– –
West	17.8 (14.1, 22.2)	23.9 (19.4, 28.9)	25.1 (20.8, 29.9)	27.2 (22.0, 33.1)	22.2 (17.4, 27.8)	17.1 (13.1, 22.2)	13.6 (10.0, 18.2)	†21.9 (14.7, 31.4)	17.8 (13.5, 23.1)	†13.6 (8.5, 21.0)	†13.8 (8.4, 21.8)	T –
East	17.1 (13.4, 21.6)	20.5 (16.6, 25.0)	20.4 (16.3, 25.2)	25.1 (20.0, 31.0)	24.2 (19.2, 30.1)	23.2 (18.0, 29.3)	15.3 (11.5, 20.1)	†15.0 (9.6, 22.7)	21.6 (16.8, 27.2)	†19.2 (12.6, 28.1)	†12.0 (7.7, 18.2)	T –
North	17.7 (13.9, 22.2)	18.9 (15.7, 22.6)	21.9 (17.8, 26.7)	16.6 (12.5, 21.5)	23.5 (18.7, 29.1)	21.0 (16.3, 26.5)	23.1 (17.8, 29.3)	†23.4 (17.1, 31.1)	21.1 (16.1, 27.2)	†21.3 (14.5, 30.2)	†18.9 (12.5, 27.7)	– –

Cont'd

(N=)	2003	2004	2005	2006	2007	2008	2009	2011	2012	2013	2014	Trend
	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(1040)	(2015)	(961)	(1039)	
Marital Status												NSI
Married/Partner	15.5	15.9	20.2	18.0	16.1	15.6	15.9	17.2	16.6	15.5	14.3	- -
Previously Married	15.5	16.2	14.7	13.3	19.4	14.5	16.5	†10.6	11.3	†14.2	†12.7	- -
Never Married	24.8	32.4	29.7	33.3	29.0	26.0	25.2	†25.8	22.4	†31.0	†14.9	T 2Y
Education												NSI
High school not completed	14.3	13.7	15.8	18.6	†17.9	20.5	†21.5	†8.8	10.2	†12.7	†8.1	T -
Completed high school	20.6	20.5	21.5	20.5	21.2	18.8	15.7	†19.6	15.5	†20.4	†20.9	- -
Some college or university	19.1	21.4	27.1	21.6	21.8	18.8	20.4	20.7	19.9	22.0	15.8	- -
University degree	15.5	19.7	17.1	20.8	14.6	14.6	15.5	18.3	18.0	16.2	†10.3	T -

Notes: (1) All analyses are sample design adjusted; ^a95% confidence interval; † Estimate suppressed or unstable;
(2) Trend Analysis: - change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2014; 2Y statistically significant change (p<.05) between last two estimates;
(3) NSI, non-significant YEAR × FACTOR interaction.

Def'n: Based on total weekly consumption of 16 drinks or more for males or 11 or more drinks for females, or, over the past week, a daily consumption exceeding two drinks for women or three drinks for men.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 3.4.1
Percentage Exceeding Low-Risk Drinking Guidelines in the Past Year by Sex, Age and Region, Ontarians Aged 18+, 2014 (N=1039)

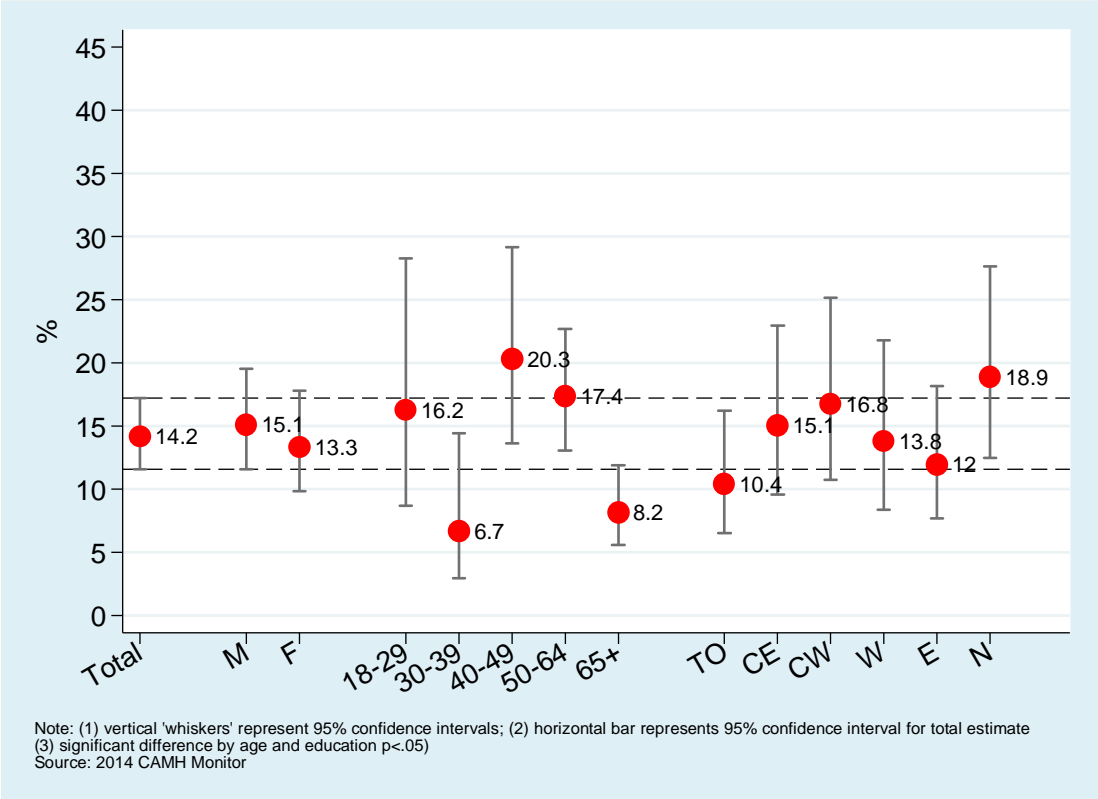
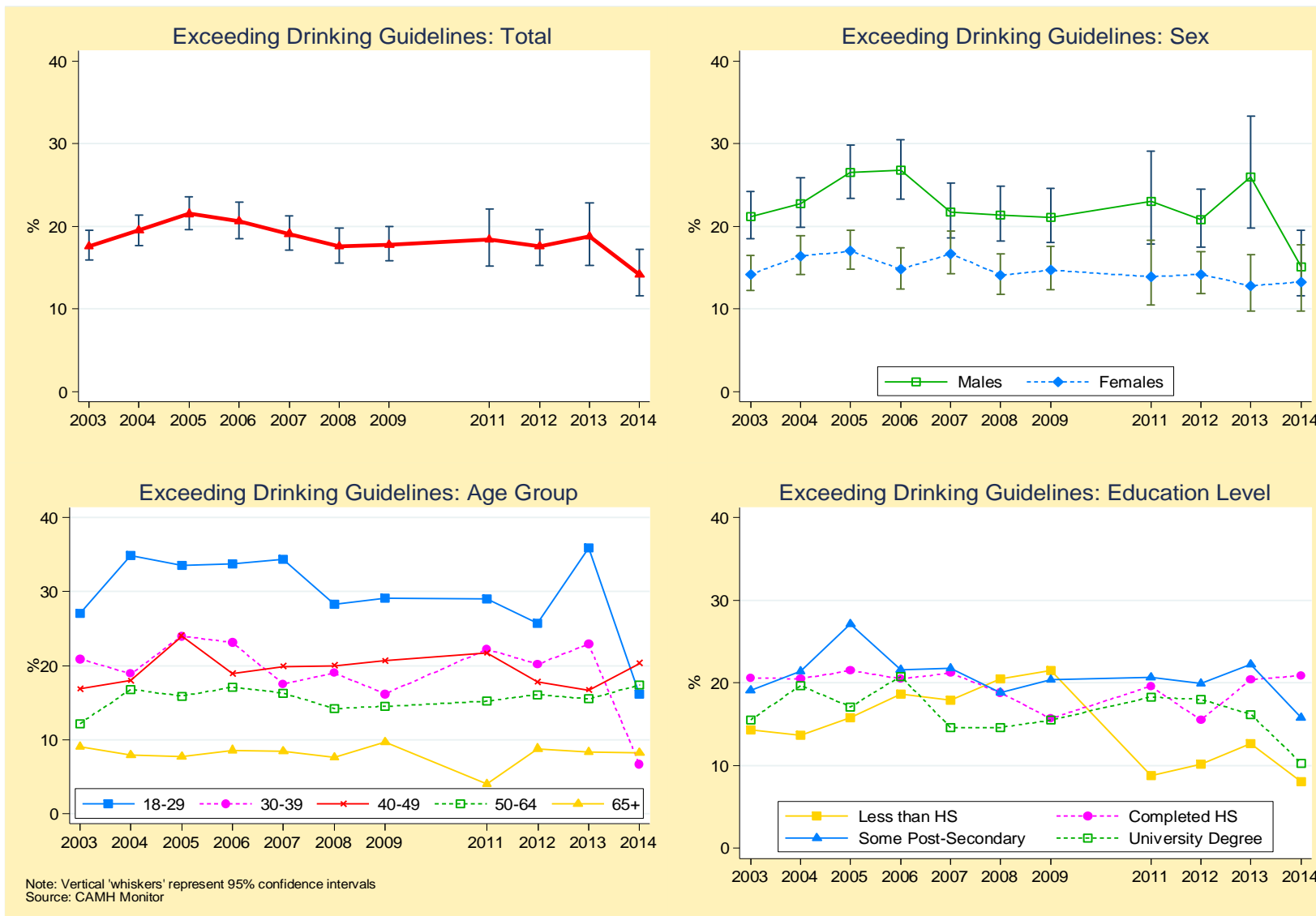


Figure 3.4.2

Percentage Exceeding Low-Risk Drinking Guidelines in the Past Year, Ontarians Aged 18+, 2003–2014



3.5 Weekly Binge Drinking: Five or More Drinks on a Single Occasion Weekly

The percentage reporting the consumption of five or more drinks on a single occasion on a weekly basis (“binge drinking”) during the 12 months before the survey is an indicator of regular heavy intake of alcohol. Although we retain the “binge” drinking label for reader recognition, readers should note that this concept is equivalent to the terms “heavy episodic drinking,” and more recently, “risky single occasion drinking” (RSOD).

2015.....Tables 3.5.1, 3.5.2; Fig. 3.5.1

Overall, the estimated percentage of Ontarians who binge drink weekly – drink five or more drinks on a single occasion on a weekly basis in the 12 months before the survey – was **7.5%** (95% CI: 6.5% to 8.6%). Among past year drinkers, the prevalence was **9.3%** (95% CI: 8.1% to 10.7%). The corresponding population estimate is 753,200 Ontario adults who binge drink weekly (95% CI: 645,900 to 860,500).

Sex, age, region, marital status, and education were significantly related to weekly binge drinking, when controlling for other demographics:

- The adjusted odds of weekly binge drinking among men were 3.2 times higher than women (11.3% vs. 3.9%; OR=3.19).
- Weekly binge drinking declined with age. Those aged 18 to 29 reported the highest percentage of weekly binge drinking (13.9%), whereas those aged 65 and older reported the lowest rate (4.4%). All four age group comparisons were statistically significant: compared to those aged 18 to 29, the adjusted odds of weekly binge drinking were significantly lower among all the other age groups.
- Compared to the provincial average, weekly binge drinking was significantly higher among those living in the Central East (9.8%; OR=1.4) and significantly lower among those living in Toronto (5.1%; OR=0.7).

- The adjusted odds of weekly binge drinking among those previously married were 1.9 times higher than among married respondents (8.1% vs. 5.3%; OR=1.94).
- Weekly binge drinking showed a significant association with education. The distinguishing feature was a higher rate among those who completed high school and those with some college or university education and a lower rate among those who completed university education.

Income was not significantly related to weekly binge drinking.

Past year drinkers displayed similar characteristics related to weekly binge drinking: men, those aged 18 to 29, and those previously married were most likely to report weekly binge drinking among their respective demographic subgroups.

Trends

1977–2015.....Tables 3.5.3, 3.5.4; Fig. 3.5.2

2014–2015

Between 2014 and 2015, the prevalence of weekly binge drinking for the total sample did not change significantly (6.1% vs. 7.5%), and rates of weekly binge drinking were stable for most subgroups. There were, however, several significant subgroup **increases** between 2014 and 2015 among women (2.3% vs. 3.9%), among those aged 65 and older (2.4% vs. 4.4%) and among those previously married (4.3% vs. 8.1%).

Past year drinkers displayed similar characteristics. The estimate of weekly binge drinking was not significantly different between 2015 (9.3%) and 2014 (7.6%), and the rate increased significantly among women, those aged 65 and older and those previously married.

1996–2015

Although estimates of weekly binge drinking remained stable between 1996 and 2007, varying between 10.5% and 12.7% among the total sample, and between 13.1% and 16.5% among past year drinkers, there was a significant non-linear **decline** in binge drinking between 2007 and 2015. Estimates declined from 11.2% in 2007 to 7.5% in 2015 for the total sample, and from 13.8% to 9.3% among drinkers.

Year did not interact significantly with any of the demographic categories analysed, suggesting that subgroup declines were similar. Indeed, significant subgroup declines were evident during this period for sex, age, region, marital status and education.

1977–2015

Since 1977, estimates of weekly binge drinking have ranged from a low of 7.0% (8.2% among drinkers) in 1995 to a high of 12.7% (16.5% among drinkers) in 2000.

Three distinct periods are evident between 1977 and 2015. Binge drinking remained stable between 1977 and 1995, and then increased significantly in 1996 among the total sample (from 7.0% to 11.7%) and among past year drinkers (from 8.2% to 14.8%) and remained at this elevated level until 2007.

The increases were especially notable among men (trending upward from 10.7% in 1995 to 20.7% in 2001), and 18 to 29 year olds (trending from 10.6% in 1995 to 26.1% in 2007). Weekly binge drinking began its decline again in 2008 and significant subgroup declines were evident for sex, age, region, marital status and education subgroups.

Table 3.5.1: **Weekly Binge Drinking** – Percentage Drinking **Five or More Drinks** on a Single Occasion Weekly in the Past 12 Months and Adjusted Group Differences, **Ontarians Aged 18+, 2015**

	N	%	95% CI	Adjusted Odds Ratio (N=4877)
Total	5013	7.5	(6.5, 8.6)	—
Sex				***
Men	1912	11.3	(9.6, 13.3)	3.19**
Women (<i>Comparison Group</i>)	3101	3.9	(3.0, 5.1)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	13.9	(10.5, 18.3)	—
30-39	482	† 5.9	(3.9, 8.5)	0.42**
40-49	782	† 5.4	(3.8, 7.6)	0.38**
50-64	1700	7.2	(5.9, 8.8)	0.47**
65+	1597	4.4	(3.3, 5.7)	0.28**
Region				*
Toronto (<i>vs. Provincial Average</i>)	833	† 5.1	(3.7, 7.2)	0.69*
Central East	833	9.8	(7.4, 13.0)	1.42*
Central West	820	7.2	(5.2, 9.9)	0.96
West	839	8.1	(6.0, 10.9)	1.17
East	838	† 6.1	(4.3, 8.6)	0.80
North	850	8.3	(6.2, 11.0)	1.20
Marital Status				**
Married/Partner (<i>Comparison Group</i>)	3172	5.7	(4.8, 6.8)	—
Previously Married	1091	8.1	(6.0, 10.8)	1.94**
Never Married	703	12.2	(9.3, 15.9)	1.08
Education				**
High school not completed (<i>Comparison</i>)	405	† 5.8	(3.8, 8.9)	—
Completed high school	1075	10.4	(8.1, 13.3)	1.53
Some college or university	1749	9.2	(7.4, 11.5)	1.31
University degree	1747	4.2	(3.2, 5.6)	0.67*
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	444	† 7.6	(4.4, 12.7)	—
\$30,000-\$49,999	565	† 8.3	(5.6, 12.1)	1.13
\$50,000-\$79,999	819	† 5.3	(3.6, 7.8)	0.60
\$80,000+	1993	8.1	(6.6, 9.8)	1.10
Not stated	1192	7.2	(5.2, 9.8)	0.85

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that drinking is higher in the group being compared to the comparison group; ORs less than 1.0 indicate that drinking is lower in the group being compared to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N = 4877).
Q: *About how often during the past 12 months would you say you had five or more drinks at the same sitting or occasion?*
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.5.2: **Weekly Binge Drinking** – Percentage Drinking **Five or More Drinks** on a Single Occasion Weekly in the Past 12 Months and Adjusted Group Differences, Ontarian **Past Year Drinkers** Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3868)
Total	3967	9.3	(8.1, 10.7)	—
Sex				
Men	1564	13.5	(11.5, 15.8)	3.04**
Women (<i>Comparison Group</i>)	2403	5.1	(3.9, 6.6)	—
Age				
18-29 (<i>Comparison Group</i>)	331	17.6	(13.3, 22.9)	—
30-39	404	† 7.2	(4.8, 10.7)	0.40**
40-49	660	† 6.4	(4.5, 9.1)	0.37**
50-64	1376	8.9	(7.2, 10.8)	0.47**
65+	1170	5.9	(4.5, 7.8)	0.29**
Region				
Toronto (<i>vs. Provincial Average</i>)	647	† 6.7	(4.8, 9.3)	0.75
Central East	654	12.2	(9.2, 16.1)	1.37*
Central West	653	8.9	(6.5, 12.2)	0.96
West	656	10.0	(7.5, 13.4)	1.15
East	662	† 7.6	(5.4, 10.7)	0.78
North	695	9.7	(7.2, 12.9)	1.10
Marital Status				
Married/Partner (<i>Comparison Group</i>)	2579	7.0	(5.9, 8.3)	—
Previously Married	810	10.8	(8.0, 14.4)	2.00**
Never Married	546	15.5	(11.88, 20.1)	1.12
Education				
High school not completed (<i>Comparison</i>)	245	† 9.3	(6.0, 14.1)	—
Completed high school	806	13.9	(10.9, 17.6)	1.33
Some college or university	1424	11.3	(9.1, 14.0)	1.06
University degree	1468	5.1	(3.8, 6.7)	0.54*
Household Income				
< \$30,000 (<i>Comparison Group</i>)	283	† 11.7	(6.8, 19.2)	—
\$30,000-\$49,999	421	† 11.4	(7.8, 16.5)	0.94
\$50,000-\$79,999	642	† 6.8	(4.6, 9.9)	0.47*
\$80,000+	1760	9.2	(7.6, 11.2)	0.83
Not stated	861	10.1	(7.4, 13.6)	0.77

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that drinking is higher in the group being compared to the comparison group; ORs less than 1.0 indicate that drinking is lower in the group being compared to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N =3868).

Q: *About how often during the past 12 months would you say you had five or more drinks at the same sitting or occasion?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.5.3: **Weekly Binge Drinking** – Percentage Drinking **Five or More Drinks** on a Single Occasion Weekly in the Past 12 Months, by Demographic Characteristics, **Ontarians Aged 18+, 1977–1995**

	1977 (N=) (1059)	1982 (1040)	1984 (1051)	1987 (1084)	1989 (1101)	1991 (1047)	1994 (2022)	1995 (994)
Total	8.9	8.3	9.3	8.7	9.5	7.4	8.4	7.0
(95%CI) ^a	(7.2, 10.6)	(6.6, 10.0)	(4.5, 11.1)	(7.0, 10.4)	(7.8, 11.2)	(5.8, 9.0)	(7.2, 9.6)	(5.4, 8.6)
Sex								
Men	14.2	13.3	15.5	13.9	16.0	10.4	13.0	10.7
	(11.2, 17.2)	(10.4, 16.2)	(12.4, 18.6)	(11.0, 16.8)	(12.9, 19.1)	7.7, 13.1	(11.0, 15.0)	(7.9, 13.5)
Women	3.1	3.3	3.6	3.8	3.4	4.5	4.3	3.2
	(1.6, 4.6)	(1.8, 4.8)	(2.0, 5.2)	(2.2, 5.4)	(1.9, 4.9)	(2.8, 6.2)	(3.0, 5.6)	(1.7, 4.7)
Age								
18 - 29	13.6	13.7	12.2	14.2	15.8	10.0	12.7	10.6
	(9.7, 17.5)	(9.6, 17.8)	(8.3, 16.1)	(9.8, 18.6)	(11.2, 20.4)	(6.4, 13.6)	(9.7, 15.7)	(6.7, 14.5)
30 - 39	4.3	9.0	11.6	8.7	6.9	8.3	9.2	9.2
	(1.6, 7.0)	(5.5, 12.6)	(7.6, 15.6)	(5.4, 12.0)	(4.0, 9.8)	(5.0, 11.6)	(6.8, 11.6)	(5.5, 12.9)
40 - 49	13.0	6.5	9.9	8.5	8.8	6.4	6.5	† 5.0
	(8.1, 17.9)	(2.4, 10.6)	5.6, 14.2)	(4.3, 12.7)	(4.7, 12.9)	(3.1, 9.7)	(4.2, 8.8)	(2.1, 7.9)
50 - 64	6.6	5.8	6.0	5.6	7.9	7.3	4.9	† 4.2
	(3.1, 10.1)	(2.7, 8.9)	(2.7, 9.3)	(2.5, 8.7)	(4.3, 11.5)	(3.1, 11.5)	(2.5, 7.3)	(1.2, 7.2)
65+	4.0	† 0.6	4.5	† 2.1	† 4.1	† 1.4	† 4.5	† 3.0
	(0.9, 7.1)	(0.8, 2.0)	(0.8, 8.2)	(0.07, 4.3)	(1.0, 7.2)	(0.6, 3.4)	(1.9, 7.1)	(0.02, 6.0)
Marital Status								
Married/ Partner	—	—	—	—	—	4.5	6.7	5.3
Previously Married	—	—	—	—	—	12.3	7.3	† 5.5
Never Married	—	—	—	—	—	11.9	12.7	11.3
Education								
HS not completed	—	—	—	—	—	8.8	8.9	9.9
Completed HS	—	—	—	—	—	10.6	10.6	10.4
Some College or University	—	—	—	—	—	6.2	8.9	6.1
University Degree	—	—	—	—	—	† 3.0	† 4.0	† 1.8

Notes: ^a95% confidence interval. — data not available; † Estimate suppressed or unstable.

Q. How often during the past 12 months would you say you had five or more drinks at the same sitting or occasion?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.5.4: **Weekly Binge Drinking** – Percentage Drinking *Five or More Drinks* on a Single Occasion Weekly in the Past 12 Months, by Demographic Characteristics, *Ontarians* Aged 18+, 1996–2015

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend	
(N=)	(2721)	(2776)	(2232)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)		
Total	11.7	11.1	11.8	11.8	12.7	12.3	10.5	11.0	11.4	10.8	12.3	11.2	8.8	7.1	7.5	7.4	7.0	6.8	6.1	7.5	T –	
(95%CI) ^a	(10.3, 13.3)	(9.8, 12.6)	(10.3, 13.4)	(10.4, 13.4)	(11.2, 14.3)	(10.9, 13.9)	(9.1, 11.9)	(9.6, 12.6)	(9.9, 13.1)	(9.4, 12.4)	(10.6, 14.3)	(9.6, 13.1)	(7.3, 10.6)	(5.8, 8.6)	(6.3, 8.8)	(6.1, 8.8)	(5.8, 8.4)	(5.5, 8.3)	(5.0, 7.5)	(6.5, 8.6)		
Sex																						*
Men	18.7	17.8	20.0	19.8	18.8	20.7	16.3	16.7	17.6	17.5	18.8	17.5	14.6	11.4	11.5	12.4	11.0	12.5	10.4	11.3	T –	
	(16.3, 21.5)	(15.5, 20.4)	(17.1, 23.2)	(17.3, 22.7)	(16.3, 21.7)	(18.1, 23.6)	(14.0, 18.8)	(14.2, 19.5)	(15.1, 20.5)	(15.0, 20.3)	(15.0, 20.3)	(14.6, 20.8)	(11.9, 17.9)	(9.1, 14.1)	(9.6, 13.9)	(10.1, 15.2)	(8.9, 13.5)	(10.1, 15.4)	(8.3, 13.0)	(9.6, 13.3)		
Women	5.5	5.1	4.4	4.4	7.1	4.4	4.9	5.7	5.6	4.6	6.2	5.3	†3.4	†3.1	†3.7	†2.7	†3.3	†1.5	†2.3	3.9	T 2Y	
	(4.3, 7.1)	(4.0, 6.6)	(3.4, 5.8)	(3.3, 5.9)	(5.7, 8.8)	(3.3, 5.9)	(3.7, 6.5)	(4.4, 7.4)	(4.3, 7.4)	(3.4, 6.1)	(4.7, 8.3)	(3.9, 7.3)	(2.2, 5.1)	(1.9, 4.9)	(2.6, 5.2)	(1.9, 3.8)	(2.2, 4.8)	(0.9, 2.4)	(1.4, 3.6)	(3.0, 5.1)		
Age																						NSI
18 - 29	21.0	19.7	18.9	20.2	21.3	18.4	16.5	19.4	21.8	16.2	24.0	26.1	20.5	†11.5	15.4	16.2	†15.3	†13.0	†10.2	13.9	T –	
	(17.1, 25.4)	(16.3, 23.7)	(14.5, 23.8)	(16.2, 25.1)	(17.3, 25.9)	(14.7, 22.9)	(13.0, 20.7)	(15.3, 24.2)	(17.0, 27.3)	(12.3, 21.1)	(18.4, 30.7)	(20.1, 33.2)	(15.0, 27.4)	(7.2, 17.8)	(11.3, 20.7)	(11.6, 22.0)	(10.5, 21.0)	(8.3, 19.9)	(6.1, 16.5)	(10.5, 18.3)		
30 - 39	11.7	10.7	11.1	11.0	13.1	13.8	9.7	11.6	11.8	9.9	12.8	7.9	9.4	8.0	†6.4	†6.2	7.6	†8.0	†4.8	†5.9	T –	
	(9.2, 14.9)	(8.3, 13.6)	(8.5, 14.5)	(8.6, 14.1)	(10.3, 16.6)	(10.8, 17.4)	(7.1, 13.0)	(8.5, 15.8)	(8.7, 15.8)	(7.1, 13.7)	(9.3, 17.2)	(5.2, 11.8)	(6.1, 14.4)	(5.4, 11.8)	(4.1, 9.6)	(3.9, 9.7)	(4.8, 11.9)	(5.0, 12.5)	(2.5, 9.0)	(3.9, 8.5)		
40 - 49	9.6	7.7	10.1	11.8	11.9	9.1	11.1	8.4	10.6	13.0	11.1	8.6	7.0	8.8	†6.2	7.8	†5.4	†6.0	†7.6	†5.4	T –	
	(7.2, 12.5)	(5.6, 10.5)	(7.5, 13.6)	(8.8, 15.6)	(9.1, 15.4)	(6.6, 12.4)	(8.3, 14.7)	(6.2, 11.2)	(7.9, 14.2)	(10.0, 16.7)	(8.0, 15.2)	(6.1, 11.9)	(4.7, 10.1)	(6.2, 12.4)	(4.3, 8.8)	(5.6, 10.9)	(3.5, 8.2)	(3.8, 8.1)	(5.3, 10.9)	(3.8, 7.6)		
50 - 64	8.2	7.2	11.1	8.6	9.4	12.3	7.8	8.7	7.6	7.4	7.5	8.8	†5.5	†5.0	6.3	4.8	5.4	6.4	6.3	7.2	T –	
	(5.9, 11.2)	(5.1, 10.1)	(8.0, 15.1)	(6.2, 11.8)	(6.8, 12.9)	(9.4, 16.0)	(5.6, 10.8)	(6.3, 11.8)	(5.6, 10.3)	(5.4, 10.1)	(5.3, 10.4)	(6.5, 11.8)	(3.6, 8.4)	(3.2, 7.8)	(4.8, 8.2)	(3.6, 6.5)	(4.0, 7.3)	(4.8, 8.6)	(4.6, 8.4)	(5.9, 8.8)		
65+	†2.6	†5.8	†5.8	†6.3	†4.6	†5.5	6.7	†6.0	†5.6	†6.4	†5.6	†5.8	†2.5	†2.6	†3.4	†2.6	†3.0	†2.0	†2.4	4.4	T 2Y	
	(1.4, 4.8)	(3.5, 9.5)	(3.4, 9.6)	(3.9, 9.8)	(2.5, 8.1)	(3.4, 8.9)	(4.3, 10.2)	(3.9, 9.1)	(3.7, 8.2)	(4.1, 9.8)	(3.4, 9.0)	(3.8, 8.9)	(1.4, 4.7)	(1.5, 4.5)	(2.1, 5.4)	(1.6, 4.4)	(1.8, 4.9)	(1.2, 3.2)	(1.5, 3.8)	(3.3, 5.7)		
Region																						NSI
Toronto	13.0	11.0	11.4	10.7	11.9	14.8	8.9	11.0	8.7	11.1	10.7	†7.8	†6.8	†4.7	†7.0	†5.5	†5.6	†5.3	†6.2	†5.1	T –	
	(9.5, 17.4)	(8.2, 14.6)	(8.1, 15.9)	(7.8, 14.6)	(8.8, 16.1)	(11.3, 19.2)	(6.3, 12.3)	(7.9, 15.2)	(5.9, 12.6)	(7.8, 15.4)	(7.5, 15.2)	(5.0, 12.0)	(4.2, 11.0)	(2.8, 7.8)	(4.6, 10.5)	(3.2, 9.3)	(2.8, 7.8)	(2.9, 9.6)	(3.8, 10.1)	(3.7, 7.2)		
C- East	10.4	11.2	†9.8	12.1	14.5	11.6	12.0	12.0	†12.6	11.4	16.5	†12.5	†10.1	†7.9	†7.3	†5.8	†6.7	†6.7	†6.9	9.8	T –	
	(7.7, 13.8)	(8.4, 14.8)	(6.9, 13.7)	(9.0, 16.1)	(11.1, 18.8)	(8.8, 15.2)	(8.9, 16.2)	(8.9, 16.0)	(9.0, 17.2)	(8.3, 15.5)	(12.1, 22.2)	(8.7, 17.6)	(6.8, 14.7)	(4.9, 12.4)	(5.0, 10.6)	(3.6, 9.2)	(4.3, 10.2)	(4.3, 10.3)	(4.4, 10.6)	(7.4, 13.0)		
C- West	11.4	12.3	†9.3	13.3	12.1	10.2	†9.8	†10.0	12.8	†9.2	†8.7	†8.7	†9.7	†10.0	†7.8	†8.5	†5.0	†7.5	†6.4	7.2	T –	
	(8.6, 15.0)	(9.4, 16.0)	(6.7, 12.9)	(10.0, 17.5)	(9.0, 16.0)	(7.3, 14.0)	(7.0, 13.5)	(7.1, 14.0)	(9.4, 17.2)	(6.5, 12.7)	(5.7, 13.0)	(5.6, 13.2)	(6.2, 14.8)	(6.8, 14.6)	(5.3, 11.2)	(5.7, 12.4)	(2.9, 8.4)	(4.9, 11.4)	(4.1, 9.8)	(5.2, 9.9)		
West	13.0	9.1	14.0	12.5	11.8	14.5	12.3	11.0	14.6	14.1	17.0	13.1	†6.7	†5.2	†7.7	10.9	10.1	†6.6	†5.4	8.1	T –	
	(9.7, 17.1)	(6.5, 12.6)	(10.4, 18.5)	(9.4, 16.6)	(8.7, 15.9)	(11.1, 18.7)	(9.3, 16.1)	(8.0, 14.9)	(11.1, 19.1)	(10.8, 18.2)	(12.7, 22.4)	(9.2, 18.2)	(4.2, 10.7)	(3.1, 8.7)	(5.3, 11.0)	(7.7, 15.2)	(3.1, 8.7)	(4.0, 10.5)	(3.6, 8.0)	(6.0, 10.9)		
East	10.1	11.8	14.4	11.7	12.0	10.5	11.6	11.2	9.7	9.1	10.5	17.3	†8.8	†5.4	†7.0	8.1	†8.4	†8.2	†4.7	†6.1	T –	
	(7.5, 13.6)	(8.8, 15.5)	(10.8, 19.0)	(8.7, 15.6)	(8.9, 15.9)	(7.6, 14.3)	(8.6, 15.5)	(8.2, 15.0)	(7.0, 13.2)	(6.3, 13.0)	(7.2, 15.2)	(12.8, 23.0)	(5.6, 13.5)	(3.4, 8.6)	(4.6, 10.5)	(5.6, 11.5)	(3.4, 8.6)	(5.5, 12.1)	(2.9, 7.7)	(4.3, 8.6)		
North	12.9	12.7	13.2	9.1	14.4	11.2	9.2	11.2	10.9	10.8	†8.3	†9.7	12.4	†9.3	†9.8	†7.5	†9.4	†6.9	†6.3	8.3	T –	
	(9.8, 16.9)	(9.7, 16.5)	(9.7, 17.7)	(6.5, 12.5)	(10.9, 18.7)	(8.7, 14.3)	(6.5, 12.7)	(8.2, 15.1)	(8.4, 14.0)	(7.9, 14.6)	(5.5, 12.4)	(6.4, 14.4)	(8.6, 17.5)	(6.2, 13.8)	(6.8, 13.9)	(4.8, 11.5)	(6.2, 13.8)	(4.4, 10.6)	(4.2, 9.3)	(6.2, 11.0)		

Cont'd

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2721)	(2776)	(2232)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)	
Marital Status																					NSI
Married/ Partner	8.0	8.6	7.3	8.9	10.4	10.5	7.7	8.6	8.6	9.6	9.0	7.7	6.1	6.6	6.0	5.7	5.0	5.3	5.5	5.7	T –
Previously married	9.4	9.6	10.3	9.0	10.4	9.6	8.7	9.9	8.7	8.0	8.3	12.1	6.9	†6.3	†4.4	8.9	†5.3	†3.2	†4.3	8.1	T 2Y
Never married	22.7	17.8	18.8	22.5	19.4	18.8	19.3	18.5	21.4	16.0	25.0	22.5	18.3	9.2	13.8	11.9	13.5	†13.2	†8.7	12.2	T –
Education																					NSI
High school not completed	10.9	11.0	15.2	14.9	10.1	12.7	14.4	11.7	14.2	9.4	9.6	11.9	12.1	12.7	†8.0	10.1	†7.0	†8.0	†9.4	†5.8	T –
Completed high school	14.6	13.0	13.8	12.2	15.0	18.0	12.0	13.3	12.4	14.8	17.8	17.3	13.4	†7.7	9.0	10.6	†7.9	†9.5	†8.8	10.4	T –
Some college or university	13.1	12.3	10.0	12.0	15.0	11.8	11.5	11.7	13.0	11.1	10.9	12.6	8.3	†7.1	9.4	7.2	†7.5	7.4	6.9	9.2	T –
University degree	8.1	7.4	9.1	9.0	8.9	7.0	†5.7	7.9	8.2	7.6	10.7	†4.3	†4.9	†5.0	†4.3	5.2	†5.9	†4.0	†3.4	4.2	T –

Notes: (1) All analyses are sample design adjusted; 95% confidence interval; † Estimate suppressed or unstable.
(2) Trend Analysis: – change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates;
(3) NSI, non-significant YEAR × FACTOR interaction.

Q. How often during the past 12 months would you say you had five or more drinks at the same sitting or occasion?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.5.5: **Weekly Binge Drinking** – Percentage Drinking **Five or More Drinks** in a Single Occasion Weekly in the Past 12 Months, by Demographic Characteristics, Ontarian **Past Year Drinkers**, Aged 18+, 1977–1995

	1977	1982	1984	1987	1989	1991	1994	1995
(N=)	(818)	(792)	(891)	(889)	(908)	(841)	(1660)	(839)
Total Drinkers	10.9	10.6	11.1	10.5	11.5	9.2	10.2	8.2
(95%CI) ^a	(13.0, 8.8)	(12.7, 8.5)	(13.2, 9.0)	(12.5, 8.5)	(13.6, 9.4)	(11.3, 7.1)	(11.6, 8.8)	(10.1, 6.3)
Sex								
Men	16.3	16.1	18.0	15.9	18.6	12.7	15.4	12.4
Women	4.1	4.5	4.4	4.9	4.3	5.7	5.4	3.9
Age								
18 - 29	16.0	16.8	13.6	15.4	18.0	11.5	14.8	12.2
30 - 39	5.0	10.5	12.8	10.0	7.6	9.8	10.8	10.8
40 - 49	14.4	8.1	11.2	9.7	10.2	7.9	7.8	5.8
50 - 64	7.9	7.1	7.6	7.0	10.6	9.9	6.3	†4.8
65+	6.6	†1.1	7.0	†3.7	6.2	†2.2	6.8	†4.1
Marital Status								
Married/Partner	—	—	—	—	—	5.7	8.3	6.2
Previously Married	—	—	—	—	—	16.7	9.5	6.8
Never Married	—	—	—	—	—	13.9	14.8	13.4
Education								
HS not completed	—	—	—	—	—	13.7	12.4	12.5
Completed HS	—	—	—	—	—	13.1	12.8	12.5
Some College/Univ	—	—	—	—	—	7.1	10.4	7.2
University Degree	—	—	—	—	—	†3.4	†4.7	†2.0

Notes: ^a95% confidence interval; — data not available; † Estimate suppressed or unstable.

Q. How often during the past 12 month would you say you had five or more drinks at the same sitting or occasion?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.5.6: **Weekly Binge Drinking** – Percentage Drinking **Five or More Drinks** on a Single Occasion Weekly in the Past 12 Months, by Demographic Characteristics, Ontarian **Past Year Drinkers**, Aged 18+, 1996–2015

(N=)	1996 (2141)	1997 (2219)	1998 (1777)	1999 (1938)	2000 (1887)	2001 (2088)	2002 (1933)	2003 (1933)	2004 (2101)	2005 (1906)	2006 (1527)	2007 (1618)	2008 (1599)	2009 (1602)	2010 (2352)	2011 (2401)	2012 (2355)	2013 (2330)	2014 (2422)	2015 (3967)	Trend
Total Drinkers	14.8	13.9	14.9	15.0	16.5	15.5	13.1	13.7	14.1	13.8	15.9	13.8	11.0	9.0	9.6	9.1	8.9	8.7	7.6	9.3	T –
(95%CI) ^a	(13.1, 16.7)	(12.4, 15.7)	(13.0, 16.9)	(13.2, 17.0)	(14.6, 18.5)	(13.7, 17.5)	(11.5, 15.0)	(12.0, 15.7)	(12.3, 16.1)	(12.0, 15.7)	(13.7, 18.4)	(11.8, 16.1)	(9.1, 13.2)	(7.3, 10.9)	(8.2, 11.3)	(7.6, 10.8)	(7.4, 10.6)	(7.1, 10.5)	(6.2, 9.3)	(8.1, 10.7)	
Sex																					NSI
Men	22.7	21.4	23.7	23.4	23.1	24.8	19.8	20.1	20.7	20.8	22.6	20.6	17.4	14.1	14.2	14.9	13.2	15.1	12.3	13.5	T –
	(19.7, 25.9)	(18.7, 24.4)	(20.4, 27.2)	(20.4, 26.6)	(20.1, 26.5)	(21.8, 28.1)	(17.0, 22.8)	(17.2, 23.3)	(17.8, 24.0)	(17.9, 24.1)	(17.9, 24.1)	(17.2, 24.4)	(14.2, 21.2)	(11.3, 17.4)	(11.8, 17.0)	(12.2, 18.1)	(10.8, 16.2)	(12.3, 18.5)	(9.8, 15.4)	(11.5, 15.8)	
Women	7.3	6.7	5.8	6.0	9.8	5.8	6.4	7.4	7.3	6.2	8.6	6.8	†4.4	†4.0	5.0	†3.4	†4.4	†2.0	†2.9	5.1	T 2Y
	(5.7, 9.3)	(5.2, 8.6)	(4.4, 7.7)	(4.5, 8.0)	(7.8, 12.1)	(4.4, 7.8)	(4.8, 8.5)	(5.7, 9.5)	(5.5, 9.5)	(4.7, 8.3)	(6.5, 11.4)	(5.0, 9.3)	(2.9, 6.6)	(2.5, 6.3)	(3.5, 7.0)	(2.4, 4.8)	(3.0, 6.5)	(1.3, 3.2)	(1.8, 4.6)	(3.9, 6.6)	
Age																					NSI
18 - 29	25.1	23.6	22.5	23.5	24.3	21.7	19.5	22.2	25.0	19.7	28.4	29.2	23.7	13.7	18.8	18.9	†18.7	†16.3	†12.1	17.6	T –
	(20.6, 30.3)	(19.6, 28.2)	(17.9, 28.1)	(18.8, 28.9)	(20.2, 30.1)	(17.4, 26.8)	(15.4, 24.3)	(17.6, 27.5)	(19.7, 31.2)	(14.9, 25.4)	(21.9, 35.9)	(22.5, 36.8)	(17.4, 31.4)	(8.7, 21.1)	(13.8, 24.9)	(13.7, 25.5)	(13.2, 25.9)	(10.4, 24.6)	(7.2, 19.4)	(13.3, 22.9)	
30 - 39	14.0	12.6	13.3	13.6	16.4	16.0	11.8	14.1	13.8	12.0	16.4	9.6	11.2	10.1	†8.1	†7.5	†9.4	†10.2	†5.8	†7.2	T –
	(11.0, 17.7)	(9.9, 16.0)	(10.2, 17.2)	(10.6, 17.2)	(12.9, 20.6)	(12.5, 20.1)	(8.7, 15.8)	(10.3, 19.0)	(10.2, 18.4)	(8.6, 16.5)	(12.2, 21.9)	(6.3, 14.4)	(7.3, 17.0)	(6.8, 14.9)	(5.3, 12.2)	(4.8, 11.7)	(6.0, 14.6)	(6.5, 15.8)	(3.0, 10.9)	(4.8, 10.7)	
40 - 49	11.8	9.1	12.7	14.5	15.1	11.5	13.2	10.3	12.8	15.7	13.5	10.4	†8.5	10.6	†7.6	9.2	†6.7	†6.7	†9.1	†6.4	T –
	(8.9, 15.4)	(6.6, 12.3)	(9.4, 17.0)	(10.9, 19.1)	(11.6, 19.4)	(8.4, 15.6)	(9.9, 17.4)	(7.6, 13.7)	(9.6, 17.0)	(12.1, 20.0)	(9.7, 18.4)	(7.4, 14.4)	(5.8, 12.3)	(7.4, 14.8)	(5.3, 10.7)	(6.5, 12.7)	(4.4, 10.1)	(4.6, 9.7)	(6.3, 13.0)	(4.5, 9.1)	
50 - 64	10.8	9.3	14.0	11.0	12.4	15.8	9.7	11.1	9.4	9.6	9.7	10.7	†6.7	†6.2	8.0	6.0	6.6	8.2	7.6	8.9	T –
	(7.8, 14.7)	(6.6, 13.0)	(10.1, 19.0)	(7.9, 15.1)	(9.0, 16.8)	(12.1, 20.4)	(7.0, 13.4)	(8.1, 14.9)	(6.9, 12.7)	(7.0, 12.9)	(6.9, 13.4)	(7.9, 14.3)	(4.4, 10.2)	(3.9, 9.7)	(6.1, 10.5)	(4.4, 8.0)	(4.8, 8.9)	(6.1, 10.8)	(5.6, 10.2)	(7.2, 10.8)	
65+	4.0	9.9	8.4	9.5	7.5	8.3	10.1	8.5	7.9	9.5	8.6	8.0	†3.7	†3.8	†4.9	†3.7	†4.3	†2.8	†3.3	5.9	T 2Y
	(2.2, 7.2)	(6.0, 15.9)	(5.0, 13.8)	(6.0, 14.6)	(4.2, 13.1)	(5.1, 13.2)	(6.6, 15.2)	(5.5, 12.9)	(5.3, 11.6)	(6.2, 14.4)	(5.3, 13.6)	(5.1, 12.1)	(2.0, 6.8)	(2.2, 6.6)	(3.1, 7.7)	(2.2, 6.1)	(2.7, 6.9)	(1.7, 4.5)	(2.1, 5.1)	(4.5, 7.8)	
Region																					NSI
Toronto	17.5	13.5	15.0	15.0	17.2	18.9	11.8	14.1	11.5	15.0	14.1	10.1	9.0	†6.1	†9.7	†7.3	†7.8	†7.4	†8.0	†6.7	T –
	(13.0, 23.2)	(10.1, 17.9)	(10.7, 20.6)	(10.9, 20.3)	(12.7, 22.9)	(14.4, 24.3)	(8.4, 16.3)	(10.1, 19.3)	(7.9, 16.4)	(10.7, 20.7)	(10.7, 20.7)	(6.9, 16.2)	(5.5, 14.3)	(3.6, 10.0)	(6.4, 14.4)	(4.3, 12.2)	(4.8, 12.3)	(4.1, 13.1)	(4.9, 12.9)	(4.8, 9.3)	
C-East	12.7	14.0	†12.7	14.3	18.0	14.7	14.7	14.3	14.5	13.7	21.3	†15.0	†13.3	†10.4	†9.6	†7.1	†8.6	†8.8	†8.7	12.2	T –
	(9.5, 16.8)	(10.5, 18.4)	(9.0, 17.7)	(10.7, 19.0)	(13.8, 23.2)	(11.2, 19.1)	(10.8, 19.5)	(10.6, 18.9)	(10.5, 19.8)	(10.0, 18.6)	(15.7, 28.3)	(10.5, 20.9)	(9.1, 19.2)	(6.5, 16.2)	(6.6, 13.9)	(4.4, 11.2)	(5.6, 12.9)	(5.7, 13.5)	(5.6, 13.4)	(9.2, 16.1)	
C-West	14.0	14.7	†12.5	16.8	16.3	12.7	12.7	†12.4	16.0	†12.0	†11.1	†10.6	†11.5	†12.4	†9.5	†10.2	†6.1	†9.1	†7.4	8.9	T –
	(10.6, 18.3)	(11.2, 19.0)	(8.9, 17.3)	(12.7, 21.9)	(12.2, 21.3)	(9.2, 17.4)	(9.1, 17.4)	(8.8, 17.1)	(11.8, 21.3)	(8.6, 16.6)	(7.3, 16.4)	(6.9, 16.0)	(7.4, 17.5)	(8.4, 17.9)	(6.6, 13.7)	(6.9, 14.9)	(3.5, 10.3)	(6.0, 13.6)	(4.8, 11.4)	(6.5, 12.2)	
West	16.7	12.3	17.6	16.0	14.6	18.6	14.8	13.8	17.7	17.9	20.7	15.5	8.2	†6.7	†9.6	13.1	12.3	†8.5	†6.5	10.0	T –
	(12.6, 21.8)	(8.8, 16.9)	(13.1, 23.1)	(12.0, 20.9)	(10.8, 19.5)	(14.3, 23.9)	(11.2, 19.2)	(10.0, 18.6)	(13.5, 22.9)	(13.8, 22.9)	(15.6, 27.0)	(11.0, 21.5)	(5.1, 12.8)	(4.0, 11.1)	(6.7, 13.6)	(9.3, 18.1)	(8.9, 16.9)	(5.2, 13.4)	(4.3, 9.7)	(7.5, 13.4)	
East	12.5	14.5	17.6	14.4	14.9	12.9	13.9	14.3	11.7	11.2	13.9	20.2	10.3	†6.3	†8.8	9.8	†10.2	†9.8	†5.7	†7.6	T –
	(9.3, 16.7)	(10.9, 19.0)	(13.3, 22.9)	(10.7, 19.1)	(11.1, 19.6)	(9.4, 17.5)	(10.3, 18.5)	(10.6, 19.0)	(8.5, 16.0)	(7.7, 15.9)	(9.5, 19.8)	(15.0, 26.6)	(6.6, 15.7)	(3.9, 10.0)	(5.8, 13.1)	(6.8, 13.9)	(6.6, 15.4)	(6.6, 14.4)	(3.5, 9.2)	(5.4, 10.7)	
North	15.8	15.7	17.2	11.4	17.3	14.1	11.8	14.1	13.4	13.3	11.3	11.4	15.0	12.1	†11.8	†9.2	†12.3	†8.4	†7.7	9.7	T –
	(12.0, 20.6)	(12.0, 20.3)	(12.7, 22.8)	(8.2, 15.6)	(13.2, 22.4)	(10.9, 17.9)	(8.4, 16.2)	(10.4, 18.9)	(10.4, 17.2)	(9.8, 17.9)	(7.5, 16.5)	(7.6, 16.9)	(10.4, 21.0)	(8.1, 17.8)	(8.2, 16.5)	(5.9, 14.0)	(8.1, 18.3)	(5.4, 12.9)	(5.1, 11.4)	(7.2, 12.9)	

Cont'd

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2141)	(2219)	(1777)	(1938)	(1887)	(2088)	(1933)	(1933)	(2101)	(1906)	(1527)	(1618)	(1599)	(1602)	(2352)	(2401)	(2355)	(2330)	(2422)	(3967)	
Marital Status																					NSI
Married/ Partner	10.0	10.8	12.3	11.3	13.7	13.1	9.4	10.8	10.6	12.0	11.7	9.5	7.5	8.3	7.7	7.0	6.2	6.6	6.7	7.0	T –
Previously married	13.1	13.0	10.9	13.2	15.2	13.2	12.2	13.6	11.8	11.2	12.6	15.6	9.8	†8.5	†6.2	12.2	†7.2	†4.5	†5.9	10.8	T 2Y
Never married	27.5	21.5	23.4	26.5	23.3	22.9	23.9	21.6	25.4	19.9	29.4	26.5	22.6	11.3	17.4	14.2	18.2	17.4	†10.6	15.5	T –
Education																					NSI
High school not completed	15.8	16.1	21.4	22.8	16.7	19.6	20.9	17.3	21.0	15.1	14.4	17.5	17.9	17.8	†9.7	14.8	†11.0	†13.0	†14.8	†9.3	T –
Completed high school	18.3	16.9	17.9	15.7	19.6	22.3	15.4	16.7	15.1	18.7	23.8	21.1	16.4	†10.6	†10.1	13.8	†10.6	†12.9	†11.4	13.9	T –
Some college or university	15.9	14.3	11.9	14.5	17.7	14.2	13.7	14.2	15.3	13.4	13.5	14.9	10.2	†8.6	†8.8	8.5	9.2	9.2	8.2	11.3	T –
University degree	9.6	8.9	11.0	10.8	11.2	8.7	6.8	9.2	9.8	9.5	13.1	†5.2	†6.0	†6.0	†9.6	6.2	†7.1	†4.7	†4.0	5.1	T –

Notes: (1) All analyses are sample design adjusted; *95% confidence interval; † Estimate suppressed or unstable.
(2) Trend Analysis: – change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates;
(3) NSI, non-significant YEAR × FACTOR interaction.

Q. How often during the past 12 months would you say you had five or more drinks at the same sitting or occasion?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 3.5.1

Percentage Drinking Five or More Drinks on a Single Occasion Weekly in the Past Year by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

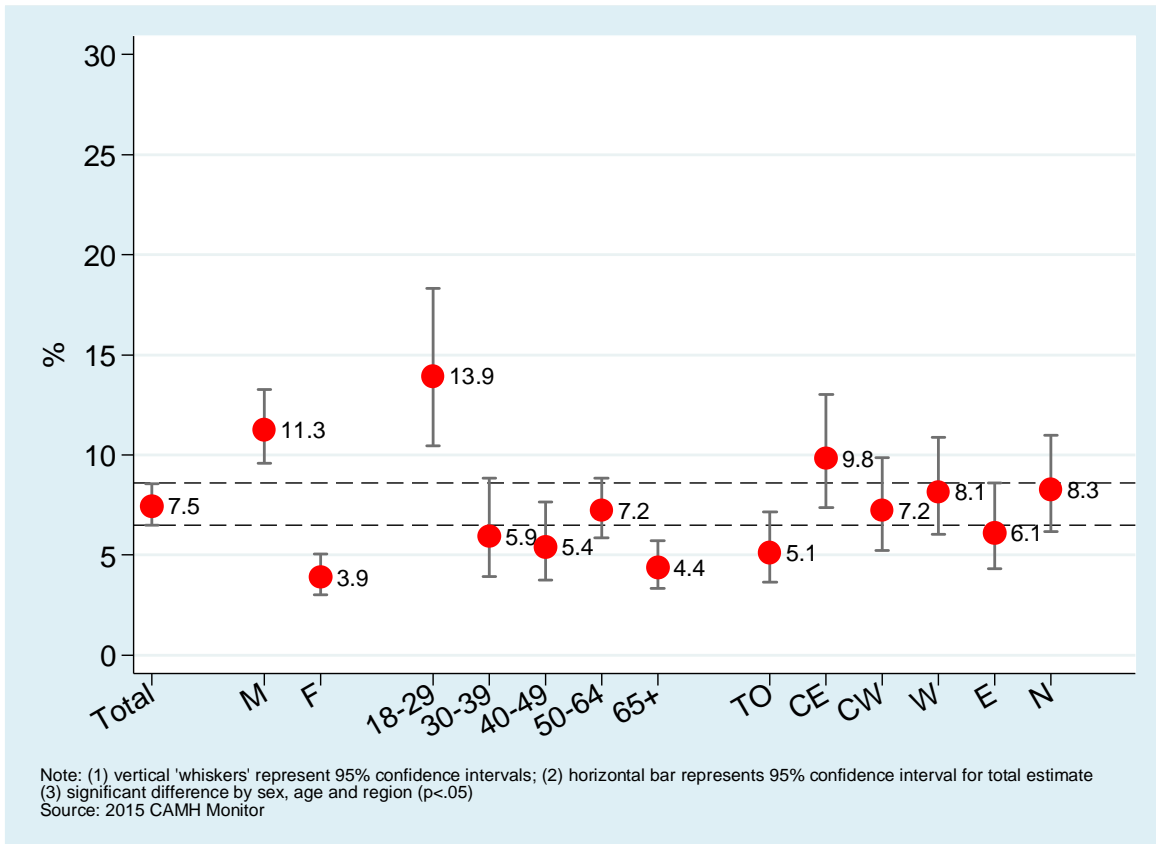
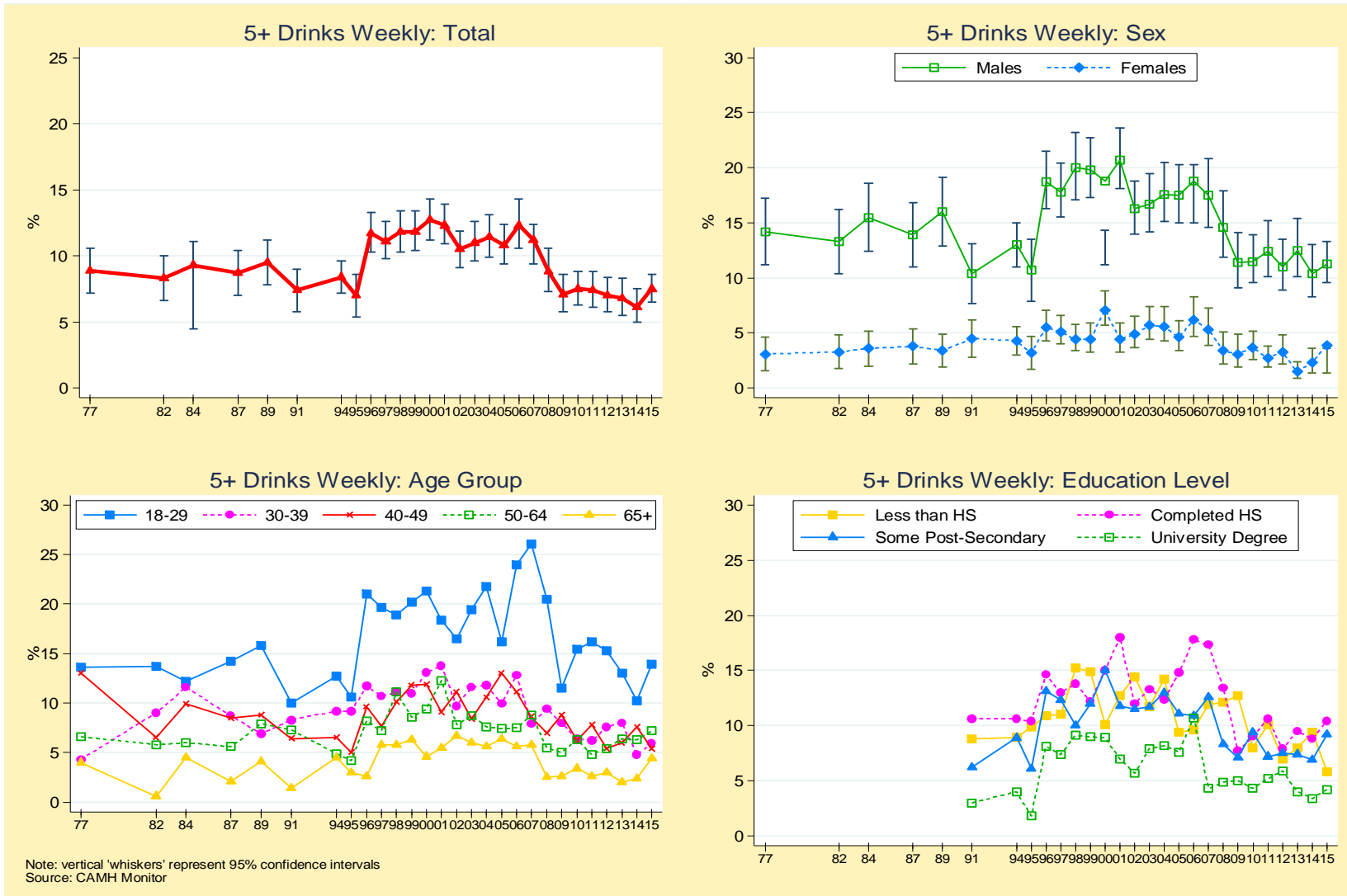


Figure 3.5.2
Percentage Drinking Five or More Drinks on a Single Occasion Weekly in the Past Year, Ontarians Aged 18+, 1977–2015



3.6 Hazardous or Harmful Drinking (AUDIT)

The consequences of problematic drinking vary in their nature and quality. Alcohol problems are multidimensional; they can be indicated by excessive consumption, problematic consequences, and dependence.

The *Alcohol Use Disorders Identification Test* (AUDIT), whose development was sponsored by the World Health Organization, was designed to detect problem drinkers at the less severe end of the spectrum of alcohol problems. The AUDIT identifies **hazardous** alcohol use – an established pattern of drinking that *increases the likelihood of future* physical and mental health problems (e.g., liver disease) – as well as **harmful** consequences of that use – a pattern of drinking that is *already causing damage to* health (e.g., alcohol-related injuries, depression) and indications of dependence (Babor et al., 2001; Saunders et al., 1993). The AUDIT is a 10-item screener (including lack of control over one’s own drinking, failure to meet expectations, drinking in the morning, feelings of guilt, black-outs, injuries resulting from drinking, and having someone express concern about drinking) and a protocol for scoring responses to these items (see **Table 3.6.1**).

Conventionally, a score of **8 or more** out of 40 on the AUDIT scale is used to identify drinkers that **drink at hazardous or harmful levels** or are at risk of becoming dependent. A score of 8 or more should not be viewed as “alcoholism”, but as a pattern of drinking that is causing current problems or likely to cause future problems.

2015.....Tables 3.6.1–3.6.3; Fig. 3.6.1

An estimated, **14.6%** (95% CI: 13.2% to 16.1%) of Ontario **adults drank** hazardously or harmfully during the past 12 months before the survey. Among **past year drinkers**, the prevalence was **18.4%** (95% CI: 16.7% to 20.3%). The corresponding population estimate is 1,439,700 hazardous/harmful drinkers (95% CI: 1,288,100 to 1,591,300).

Sex, age, marital status, education and income were all significantly related to hazardous/harmful drinking, when controlling for other characteristics.

- The adjusted odds of hazardous/harmful drinking among men were 3 times higher than among women (21.5% vs. 8.4%; OR=3.08).
- Hazardous/harmful drinking declined significantly with age, dropping from 29.3% among 18 to 29 year olds to 6.8% among those aged 65 and older. Compared to those aged 18 to 29, the adjusted odds of hazardous/harmful drinking were significantly lower among all the other age groups analysed.
- Compared to married respondents, the adjusted odds of hazardous/harmful drinking were 1.2 times higher among those never married and 2.1 times higher among those previously married.
- Hazardous/harmful drinking was significantly associated with education. The rate was lowest among those who have not completed high school (8.8%) and highest among those with completed high school (17.5%) and those with some college or university (17.1%).
- Household income also showed a significant association to hazardous/harmful drinking. The distinguishing feature was a higher rate among those with incomes of \$80,000 or higher (17.1%) than among those with incomes of less than \$30,000 (13.0%).

Region was not significantly related to hazardous/harmful drinking.

Similarly, **among past year drinkers**, sex, age, marital status, education and income were all significantly related to hazardous/harmful drinking. Men, those aged 18 to 29, those never married, and those with only a high school education displayed the highest rates of hazardous/harmful drinking.

Past year drinkers displayed similar patterns. Hazardous/harmful drinking among drinkers did not vary significantly between 1998 and 2015. Year did not interact significantly with any of the demographic categories analysed between 1998 and 2015, but significant non-linear subgroup **increases** were found among women and among drinkers aged 30 to 39.

Trends

1998–2015Tables 3.6.4-3.6.5;
Fig 3.6.2

2014–2015

The percentage of Ontarians reporting hazardous/harmful drinking was significantly **higher** in 2015 (14.6%) compared to 2014 (12.0). This increase was evident especially among those aged 65 and older, those living in Toronto and those previously married.

Past year drinkers also displayed significant **increases**. Overall, hazardous/harmful drinking among Ontario drinkers was significantly higher in 2015 (18.4%) compared to 2014 (14.9%). Rates of hazardous/harmful drinking were significantly higher among drinking men, drinkers aged 18 to 29 and those aged 65 and older, among drinkers living in Toronto and among those never married.

1998–2015

Between 1998 and 2015 hazardous/harmful drinking remained generally stable among Ontario adults. It was lowest in 2005 (10.4%) and highest in 2007 (15.6%), but has subsequently stabilized.

Year did not interact significantly with any of the demographic factors analysed, suggesting that subgroup trends moved similarly.

We found however a significant **increase** among **women**, from 4.8% in 1998 to 8.4% in 2015.

Table 3.6.1: Percentage Reporting *Hazardous and Harmful Drinking (AUDIT) Symptoms, Ontarians and Ontarian Past Year Drinkers, Aged 18+, 2015*

AUDIT ITEMS		Total Sample (N=5,013)	Drinkers (N=3,967)
Alcohol Intake		%	%
1. How often did you drink alcoholic beverages during the past 12 months?	0. Never	20.1	—
	1. Monthly or less	23.4	29.3
	2. 2-4 times/month	25.0	31.3
	3. 2-3 times/week	18.1	22.7
	4. 4+ times/week	13.3	16.7
	Mean (SE)	1.81 (.02)	2.27 (.02)
2. On those days when you drink, how many drinks do you usually have?	0. One or less (including none)	52.0	39.7
	1. Two to Three	36.1	45.3
	2. Four	4.7	5.9
	3. Five to Seven	5.1	6.4
	4. Eight or more	2.1	2.6
	Mean (SE)	0.69 (.02)	0.87 (.02)
3. About how often during the past 12 months would you say that you had five or more drinks at the same sitting or occasion?	0. Never	58.7	48.4
	1. Less than monthly	20.9	26.2
	2. Monthly	12.9	16.1
	3. Weekly	6.5	8.7
	4. Daily or almost daily	†0.5	†0.6
	Mean (SE)	0.69 (.02)	0.87 (.02)
Dependence Indicators			
4. How often during the last year have you found that you were not able to stop drinking once you had started?	0. Never	95.5	94.4
	1. Less than monthly	2.4	3.0
	2. Monthly	†1.1	†1.4
	3. Weekly	†0.7	†0.8
	4. Daily or almost daily	†	†
	Mean (SE)	0.08 (.01)	0.10 (.01)
5. How often during the last year have you failed to do what was normally expected from you because of drinking?	0. Never	96.1	95.1
	1. Less than monthly	2.7	3.4
	2. Monthly	†0.8	†1.0
	3. Weekly	†	†
	4. Daily or almost daily	†	†
	Mean (SE)	0.06 (.008)	.07 (.01)

AUDIT ITEMS		Total Sample (N=5,013)	Drinkers (N=3,967)
6. How often during the last year have you needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session?	0. Never	98.8	98.6
	1. Less than monthly	†0.9	†1.1
	2. Monthly	†	†
	3. Weekly	†	†
	4. Daily or almost daily	†	†
	Mean (SE)	0.02 (.003)	0.02 (.004)
Adverse Consequences			
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	0. Never	89.5	86.9
	1. Less than monthly	8.2	10.3
	2. Monthly	1.6	2.0
	3. Weekly	†0.3	†0.4
	4. Daily or almost daily	†	†
	Mean (SE)	0.14 (.009)	0.17 (.01)
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?	0. Never	91.4	89.3
	1. Less than monthly	7.0	8.8
	2. Monthly	†1.3	†1.7
	3. Weekly	†	†
	4. Daily or almost daily	†	†
	Mean (SE)	0.10 (.008)	0.13 (.009)
9. Have you or someone else ever been injured as a result of your drinking?	0. No	93.0	91.2
	2. Yes, but not last year	4.9	6.1
	4. Yes, during last year	2.2	2.7
	Mean (SE)	0.18 (.02)	0.23 (.02)
10. Has a relative or friend or a doctor or other health worker ever been concerned about your drinking or suggested that you cut down?	0. No	95.0	93.8
	2. Yes, but not last year	3.3	4.1
	4. Yes, during last year	1.7	2.2
	Mean (SE)	0.13 (.01)	0.17 (.02)

Notes: All analyses are sample design adjusted; † Estimate less than 1%;

Def: The AUDIT screener measures hazardous and harmful drinking, as indicated by a score of 8 or more out of 40.

Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Table 3.6.2: Percentage Reporting *Hazardous or Harmful Drinking (AUDIT 8+)* in the Past 12 Months and Adjusted Group Differences, *Ontarians Aged 18+*, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=4763)
Total	5013	14.6	(13.2, 16.1)	—
Sex				***
Men	1912	21.5	(19.1, 24.1)	3.08**
Women (<i>Comparison Group</i>)	3101	8.4	(7.0, 9.9)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	29.3	(24.4, 34.8)	—
30-39	482	15.2	(11.6, 19.6)	0.47**
40-49	782	11.8	(9.2, 14.9)	0.35**
50-64	1700	11.6	(9.8, 13.6)	0.31**
65+	1597	6.8	(5.4, 8.5)	0.18**
Region				NS
Toronto (<i>vs. Provincial Average</i>)	833	15.2	(12.1, 18.9)	1.03
Central East	833	16.4	(13.3, 20.2)	1.17
Central West	820	12.5	(9.8, 15.9)	0.85
West	839	12.4	(9.7, 15.7)	0.84
East	838	13.9	(11.0, 17.5)	0.91
North	850	17.0	(13.8, 20.7)	1.30
Marital Status				***
Married/Partner (<i>Comparison Group</i>)	3172	10.9	(9.6, 12.5)	—
Previously Married	1091	13.5	(10.7, 17.0)	2.05**
Never Married	703	26.0	(21.8, 30.7)	1.17*
Education				*
High school not completed (<i>Comparison Group</i>)	405	†8.8	(5.9, 12.9)	—
Completed high school	1075	17.5	(14.2, 21.3)	1.37
Some college or university	1749	17.1	(14.6, 19.9)	1.31
University degree	1747	11.5	(9.7, 13.7)	0.90
Household Income				*
< \$30,000 (<i>Comparison Group</i>)	444	†13.0	(8.1, 20.2)	—
\$30,000-\$49,999	565	14.0	(10.1, 19.1)	1.01
\$50,000-\$79,999	819	11.3	(8.4, 14.9)	0.68
\$80,000+	1993	17.1	(14.9, 19.4)	1.14
Not stated	1192	12.3	(9.6, 15.6)	0.74

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that drinking is higher in the group being compared to the comparison group; ORs less than 1.0 indicate that drinking is lower in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N= 4763).

Defn: The AUDIT screener measures hazardous and harmful drinking, as indicated by a score of 8 or more out of 40.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.6.3: Percentage Reporting *Hazardous or Harmful Drinking (AUDIT 8+)* in the Past 12 Months and Adjusted Group Differences, Ontarian *Past Year Drinkers* Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3753)
Total	3967	18.4	(16.7, 20.3)	—
Sex				***
Men	1564	25.9	(23.1, 29.0)	3.02**
Women (<i>Comparison Group</i>)	2403	11.0	(9.3, 13.0)	—
Age				***
18-29 (<i>Comparison Group</i>)	331	37.3	(31.3, 43.6)	—
30-39	404	18.7	(14.4, 23.9)	0.44**
40-49	660	14.1	(11.1, 17.8)	0.32***
50-64	1376	14.3	(12.2, 16.7)	0.29***
65+	1170	9.3	(7.4, 11.6)	0.17***
Region				NS
Toronto (<i>vs. Provincial Average</i>)	647	20.1	(16.1, 24.8)	1.17
Central East	654	20.6	(16.7, 25.1)	1.13
Central West	653	15.6	(12.2, 19.6)	0.83
West	656	15.4	(12.1, 19.4)	0.80
East	662	17.5	(13.9, 21.9)	0.90
North	695	19.9	(16.3, 24.2)	1.18
Marital Status				***
Married/Partner (<i>Comparison Group</i>)	2579	13.5	(11.9, 15.3)	—
Previously Married	810	18.2	(14.5, 22.6)	2.14**
Never Married	546	33.5	(28.3, 39.1)	1.22
Education				*
High school not completed (<i>Comparison Group</i>)	245	†14.3	(9.6, 20.7)	—
Completed high school	806	23.4	(19.2, 28.2)	1.15
Some college or university	1424	21.1	(18.1, 24.4)	1.01
University degree	1468	13.9	(11.7, 16.4)	0.67
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	283	†20.6	(13.2, 30.7)	—
\$30,000-\$49,999	421	19.3	(14.1, 26.0)	0.84
\$50,000-\$79,999	642	14.5	(10.9, 19.1)	0.52*
\$80,000+	1760	19.5	(17.2, 22.2)	0.84
Not stated	861	17.6	(13.9, 22.0)	0.67

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that drinking is higher in the group being compared to the comparison group; ORs less than 1.0 indicate that drinking is lower in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N =3753)

Def: The AUDIT screener measures hazardous and harmful drinking, as indicated by a score of 8 or more out of 40.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.6.4: Percentage *Reporting Hazardous or Harmful Drinking (AUDIT 8+)* in the Past 12 Months, by Demographic Characteristics, *Ontarians*, Aged 18+, 1998–2015

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend	
(N=)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)		
Total	13.3	13.2	13.3	12.9	13.0	13.2	13.9	10.4	13.8	15.6	14.7	13.0	14.8	14.4	12.9	13.7	12.0	14.6	– 2Y	
(95% CI) ^a	(11.7, 15.0)	(11.7, 14.9)	(11.8, 15.0)	(11.4, 14.4)	(11.5, 14.6)	(11.6, 14.9)	(12.3, 15.7)	(9.0, 12.0)	(11.9, 15.8)	(13.6, 17.7)	(12.7, 16.9)	(11.2, 15.1)	(13.2, 16.5)	(12.7, 16.2)	(11.3, 14.6)	(12.0, 15.7)	(10.4, 13.8)	(13.2, 16.1)		
Sex																				NSI
Men	22.9	21.7	20.0	19.7	19.9	19.4	20.6	15.5	21.6	23.2	22.2	19.0	21.3	21.5	19.5	22.1	17.8	21.5	– –	
	(20.1, 26.0)	(18.9, 24.8)	(17.4, 23.0)	(17.2, 22.4)	(17.3, 22.7)	(16.7, 22.4)	(17.8, 23.7)	(13.0, 18.3)	(18.4, 25.2)	(19.9, 26.8)	(18.8, 25.9)	(16.0, 22.4)	(18.6, 24.2)	(18.6, 24.7)	(16.8, 22.5)	(18.9, 25.7)	(15.0, 20.9)	(19.1, 24.1)		
Women	4.8	5.6	7.4	6.6	6.6	7.5	7.8	5.6	6.5	8.4	7.8	7.5	8.7	7.9	7.5	6.1	6.8	8.4	T –	
	(3.7, 6.2)	(4.3, 7.2)	(6.0, 9.0)	(5.3, 8.4)	(5.1, 8.5)	(5.9, 9.4)	(6.1, 9.8)	(4.3, 7.3)	(4.9, 8.5)	(6.6, 10.8)	(5.8, 10.5)	(5.6, 9.9)	(7.1, 10.7)	(6.3, 9.8)	(5.5, 8.8)	(4.7, 8.0)	(5.3, 8.7)	(7.0, 9.9)		
Age																				NSI
18-29	26.9	25.7	25.5	24.9	22.4	27.2	31.2	25.5	28.2	39.1	31.4	27.5	31.8	29.6	23.4	30.5	21.9	29.3	– –	
	(22.4, 31.9)	(21.2, 30.9)	(21.2, 30.4)	(20.7, 29.7)	(18.2, 27.2)	(22.4, 32.5)	(25.9, 37.1)	(20.6, 31.2)	(22.2, 35.0)	(32.2, 46.4)	(24.4, 39.4)	(20.9, 35.3)	(26.2, 38.1)	(23.7, 36.3)	(17.8, 30.1)	(23.3, 38.7)	(15.8, 29.5)	(24.4, 34.8)		
30-39	11.4	13.1	11.9	14.8	15.5	16.0	15.6	7.1	14.5	11.7	16.0	14.7	14.9	14.7	17.0	17.2	†11.9	15.2	– –	
	(8.8, 14.6)	(10.2, 16.6)	(9.4, 15.1)	(11.7, 18.6)	(12.2, 19.6)	(12.3, 20.5)	(12.1, 20.0)	(5.0, 9.9)	(10.8, 19.3)	(8.3, 16.2)	(11.5, 21.7)	(10.8, 19.6)	(11.3, 19.2)	(11.1, 19.2)	(12.9, 22.1)	(12.8, 22.9)	(8.3, 16.8)	(11.6, 19.6)		
40-49	11.6	11.0	10.9	9.5	11.2	10.1	10.4	9.3	11.7	10.1	13.5	11.8	12.5	16.2	13.0	10.5	14.2	11.8	– –	
	(8.8, 15.1)	(8.2, 14.6)	(8.2, 14.2)	(7.2, 12.5)	(8.4, 14.6)	(7.6, 13.2)	(7.8, 13.7)	(6.8, 12.6)	(8.5, 15.8)	(7.3, 14.0)	(9.9, 18.0)	(8.9, 15.7)	(9.8, 15.9)	(12.8, 20.2)	(10.1, 16.7)	(7.8, 13.9)	(10.9, 18.3)	(9.2, 14.9)		
50-64	9.3	9.0	9.8	10.9	8.7	7.4	7.5	6.1	8.3	13.5	10.3	8.0	10.5	8.8	9.2	10.2	10.3	11.6	– –	
	(6.6, 12.9)	(6.2, 12.7)	(7.1, 13.4)	(8.2, 14.4)	(6.2, 12.0)	(5.2, 10.5)	(5.3, 10.4)	(4.2, 8.8)	(6.0, 11.5)	(10.5, 17.2)	(7.7, 13.6)	(5.6, 11.4)	(8.6, 12.9)	(6.7, 11.5)	(7.3, 11.6)	(8.1, 12.6)	(8.3, 12.7)	(9.8, 13.6)		
65+	†4.7	†4.7	†5.2	†2.4	†5.7	†3.2	†5.4	†3.1	†4.6	†4.5	†3.4	†5.0	†4.5	†4.3	†5.4	4.4	†4.1	6.8	– 2Y	
	(2.7, 8.1)	(2.9, 7.6)	(3.0, 9.1)	(1.2, 4.7)	(3.3, 9.5)	(1.8, 5.9)	(3.3, 8.6)	(1.7, 5.7)	(2.7, 7.8)	(2.7, 7.5)	(2.1, 5.7)	(3.2, 7.7)	(3.1, 6.6)	(2.9, 6.37)	(3.8, 7.6)	(3.1, 6.2)	(2.9, 5.7)	(5.4, 8.5)		
Region																				NSI
Toronto	13.3	12.7	12.6	13.0	11.7	12.9	13.4	†7.3	11.2	13.4	12.2	12.4	12.9	10.8	11.9	13.3	†8.9	15.2	– 2Y	
	(9.9, 17.7)	(9.3, 17.2)	(9.3, 16.7)	(9.8, 17.0)	(8.5, 15.7)	(9.5, 17.5)	(9.9, 17.9)	(4.8, 10.8)	(7.6, 16.1)	(9.6, 18.4)	(8.1, 18.1)	(8.6, 17.7)	(9.6, 17.0)	(7.7, 15.0)	(8.8, 15.9)	(9.5, 18.4)	(6.3, 12.6)	(12.1, 18.9)		
C-East	13.5	12.0	14.8	14.7	12.8	17.0	15.0	12.7	16.7	†14.2	15.5	†13.5	12.8	13.6	11.6	14.4	12.6	16.4	– –	
	(10.0, 18.0)	(8.8, 16.1)	(11.4, 19.1)	(11.3, 18.9)	(9.5, 17.1)	(13.2, 21.6)	(11.0, 11.9)	(9.2, 17.2)	(12.2, 22.4)	(10.2, 19.5)	(11.4, 20.8)	(9.5, 18.9)	(9.6, 16.9)	(10.0, 18.2)	(8.5, 15.7)	(10.6, 19.3)	(9.1, 17.2)	(13.4, 20.2)		
C- West	10.1	14.3	12.8	†8.9	14.9	11.7	13.9	†8.3	†9.6	†14.7	†14.7	15.7	14.6	14.1	†10.4	14.5	†11.7	12.5	– –	
	(7.4, 13.7)	(10.8, 18.7)	(9.6, 16.8)	(6.4, 12.3)	(11.4, 19.3)	(8.5, 15.8)	(10.4, 18.4)	(5.6, 12.2)	(6.5, 13.9)	(10.6, 20.2)	(10.5, 20.3)	(11.6, 20.8)	(11.2, 19.0)	(10.4, 18.8)	(7.4, 14.5)	(10.6, 19.5)	(8.3, 16.3)	(9.8, 15.9)		
West	15.4	14.5	12.2	15.9	12.0	12.9	15.8	13.2	19.2	17.8	11.9	9.1	16.6	20.6	15.3	10.7	14.6	12.4	– –	
	(11.6, 20.0)	(11.1, 18.7)	(9.0, 16.4)	(12.3, 20.3)	(9.0, 15.8)	(9.7, 16.9)	(12.2, 20.3)	(9.8, 17.5)	(14.7, 24.5)	(13.4, 23.3)	(8.1, 17.1)	(6.1, 13.2)	(12.8, 21.1)	(16.2, 25.7)	(11.8, 19.6)	(7.4, 15.1)	(11.0, 19.0)	(9.7, 15.7)		
East	13.9	12.5	12.1	13.2	13.6	11.8	11.1	10.4	14.9	22.0	18.7	12.1	16.8	14.6	17.2	14.3	12.6	13.9	– –	
	(10.4, 18.2)	(9.2, 16.8)	(8.9, 16.2)	(10.0, 17.3)	(10.2, 17.9)	(8.5, 16.1)	(8.2, 15.0)	(7.3, 14.6)	(10.6, 20.4)	(16.9, 28.0)	(13.8, 24.7)	(8.7, 16.6)	(13.0, 21.5)	(11.2, 18.9)	(13.2, 22.2)	(10.7, 18.9)	(9.3, 16.8)	(11.0, 17.5)		
North	16.4	13.6	17.1	13.1	12.2	12.0	14.2	12.7	11.3	11.3	18.2	13.3	21.1	16.6	14.9	15.3	14.5	17.0	– –	
	(12.6, 21.0)	(10.3, 17.8)	(13.3, 21.6)	(10.3, 16.5)	(9.0, 16.2)	(8.8, 16.1)	(11.3, 17.8)	(9.4, 17.0)	(7.9, 15.8)	(7.8, 16.1)	(13.8, 23.8)	(9.6, 18.2)	(16.8, 26.2)	(12.6, 21.7)	(10.9, 20.1)	(11.4, 20.2)	(10.9, 18.9)	(13.8, 20.7)		

Cont'd

(N=)	1998 (2509)	1999 (2436)	2000 (2406)	2001 (2627)	2002 (2421)	2003 (2411)	2004 (2611)	2005 (2445)	2006 (2016)	2007 (2005)	2008 (2024)	2009 (2037)	2010 (3030)	2011 (3039)	2012 (3030)	2013 (3021)	2014 (3043)	2015 (5013)	Trend
Marital Status																			NSI
Married/ Partner	9.9	9.7	10.4	9.8	10.4	10.0	9.7	7.2	9.8	10.6	10.8	10.8	11.8	11.0	10.7	10.2	10.1	10.9	- -
Previously Married	8.7	9.7	11.5	8.7	10.9	11.8	8.4	7.3	†9.8	13.2	10.1	8.0	9.2	12.5	†10.0	7.3	9.3	13.5	- 2Y
Never Married	25.3	26.3	21.8	24.0	21.3	23.5	29.9	21.8	28.3	33.7	29.7	23.7	26.7	25.8	20.5	28.2	19.0	26.0	- -
Education																			NSI
High school not completed	15.8	13.7	10.3	9.4	14.8	12.3	17.6	10.0	†12.7	†13.1	17.8	16.4	†15.7	14.2	†13.0	13.9	†14.4	†8.8	- -
Completed high school	12.9	15.0	15.5	17.9	14.7	15.3	16.4	†14.7	16.9	22.0	18.2	11.9	16.1	14.8	13.0	15.5	14.3	17.5	- -
Some college or university	14.9	13.0	15.0	13.1	13.6	14.4	15.0	11.7	13.4	17.1	14.7	15.4	17.0	16.4	14.2	15.9	13.8	17.1	- -
University degree	10.0	11.4	10.8	9.6	9.4	10.7	9.9	†5.2	12.2	†9.4	11.1	10.3	11.4	12.3	11.2	10.4	8.7	11.5	- -

Notes: (1) All analyses are sample design adjusted; *95% confidence interval; † Estimate suppressed or unstable.
(2) Trend Analysis: - change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction.

Def: The AUDIT screener measures hazardous and harmful drinking, as indicated by a score of 8 or more out of 40.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.6.5: Percentage *Reporting Hazardous or Harmful Drinking (AUDIT 8+)* in the Past 12 Months, by Demographic Characteristics, Ontarian *Past Year Drinkers*, Aged 18+, 1998–2015

(N=)	1998 (1777)	1999 (1938)	2000 (1887)	2001 (2088)	2002 (1933)	2003 (1933)	2004 (2101)	2005 (1906)	2006 (1527)	2007 (1618)	2008 (1599)	2009 (1602)	2010 (2352)	2011 (2401)	2012 (2355)	2013 (2330)	2014 (2422)	2015 (3967)	Trend	
Total Drinkers	17.4	16.9	16.7	16.7	16.5	16.5	17.3	13.3	17.9	19.3	18.4	16.7	19.1	17.8	16.5	17.7	14.9	18.4	– 2Y	
(95%CI) ^a	(15.4, 19.6)	(15.0, 19.1)	(14.9,18.8)	(14.9,18.6)	(14.6, 18.6)	(14.6, 18.6)	(15.3, 19.5)	(11.6, 15.4)	(15.5, 20.5)	(16.9,21.8)	(16.0, 21.1)	(14.3,19.1)	(17.1, 21.2)	(15.8,20.1)	(14.6,18.6)	(15.5, 20.2)	(13.0, 17.1)	(16.7, 20.3)		
Sex																				NSI
Men	28.0	25.9	23.9	24.7	24.4	23.5	24.4	18.6	26.2	27.4	26.5	23.7	26.2	25.8	23.6	26.9	21.3	25.9	– 2Y	
	(24.5, 31.8)	(22.6, 29.4)	(20.8, 27.3)	(21.7, 27.9)	(21.4, 27.8)	(20.4, 27.0)	(21.2, 28.0)	(15.7, 21.9)	(22.4,30.4)	(23.6,31.5)	(22.6,30.8)	(20.0,27.8)	(23.0,29.7)	(22.4,29.6)	(20.4, 27.0)	(23.1, 31.0)	(18.0, 24.9)	(23.1, 29.0)		
Women	6.8	7.7	9.5	8.3	8.6	9.7	10.1	7.8	9.0	10.9	10.3	9.7	11.8	10.0	9.4	8.3	8.8	11.0	T –	
	(5.2, 8.8)	(5.9, 9.9)	(7.7,11.7)	(6.6,10.5)	(6.7, 11.1)	(7.6, 12.2)	(8.0, 12.8)	(6.0, 10.1)	(6.0, 10.1)	(8.6,13.9)	(7.7,13.6)	(7.3,12.8)	(9.7, 14.3)	(8.0,12.5)	(7.4,11.8)	(6.4, 10.8)	(6.8, 11.2)	(9.3, 13.0)		
Age																				NSI
18–29	32.1	29.9	29.6	30.3	26.6	31.4	36.2	31.2	33.5	43.9	36.4	33.0	38.8	34.7	29.4	38.2	26.2	37.3	– 2Y	
	(26.7, 38.0)	(24.7, 35.7)	(24.8,35.0)	(25.3,35.7)	(21.8, 32.2)	(26.0, 37.3)	(30.1, 42.7)	(25.3, 37.7)	(26.6,41.1)	(36.5,51.6)	(28.5,45.1)	(25.3,41.7)	(32.2, 45.8)	(27.9,42.1)	(22.5, 37.3)	(29.7, 47.5)	(19.2, 34.9)	(31.3, 43.6)		
30–39	13.8	16.2	14.4	15.9	19.2	19.4	18.4	8.6	18.7	14.3	19.1	18.6	19.1	17.7	21.1	22.2	14.7	18.7	T –	
	(10.5, 17.9)	(12.7, 20.4)	(11.3,18.2)	(12.6,20.0)	(15.2, 23.9)	(15.0, 24.7)	(14.3, 23.5)	(6.1, 12.1)	(13.9,24.6)	(10.2,19.7)	(13.8,25.7)	(13.8,24.6)	(14.6, 24.4)	(13.4,22.9)	(16.1, 27.2)	(16.6, 29.0)	(10.3, 20.5)	(14.4, 23.9)		
40–49	14.6	13.7	12.7	13.1	13.4	12.5	12.6	11.3	14.2	12.3	16.5	14.3	15.3	19.0	16.2	12.6	17.1	14.1	– –	
	(11.0, 19.1)	(10.3, 18.1)	(9.7, 16.6)	(10.1,16.8)	(10.1, 17.5)	(9.4, 16.2)	(9.5, 16.6)	(8.3, 15.3)	(10.4,19.2)	(8.9,16.9)	(12.3,21.9)	(10.7,18.8)	(12.0,19.3)	(15.2,23.6)	(12.6, 20.6)	(9.5, 16.6)	(13.2, 21.8)	(11.1, 17.8)		
50–64	12.7	11.6	12.5	13.5	10.9	9.5	9.3	7.9	10.9	16.6	12.6	9.9	13.5	11.0	11.3	12.9	12.5	14.3	– –	
	(9.0, 17.6)	(8.1, 16.3)	(9.0,17.0)	(10.2,17.7)	(7.8, 15.0)	(6.6, 13.4)	(6.6, 12.8)	(5.5, 11.3)	(7.8,14.9)	(12.9,21.0)	(9.4, 16.6)	(6.9,14.0)	(11.0,16.5)	(8.4,14.2)	(10.0, 14.1)	(10.4, 16.0)	(10.1, 15.4)	(12.2, 16.7)		
65+	8.0	7.5	8.1	†5.2	8.9	†4.7	7.8	†4.8	7.2	†6.2	†5.0	7.4	†6.5	6.1	7.9	6.3	†5.6	9.3	– –	
	(4.6, 13.6)	(4.6, 11.9)	(4.6,13.8)	(3.1, 8.6)	(5.3, 14.7)	(2.5, 8.4)	(4.8, 12.4)	(2.6, 8.7)	(4.2,12.1)	(3.7, 10.3)	(3.0, 8.2)	(4.7, 11.3)	(4.4, 9.5)	(4.1, 8.9)	(5.6, 11.1)	(4.5, 8.9)	(4.0, 7.7)	(7.4, 11.6)		
Region																				NSI
Toronto	18.5	18.2	17.0	18.6	15.9	16.7	17.8	10.1	14.9	18.4	16.2	16.2	18.0	14.5	16.5	18.6	†11.5	20.1	– 2Y	
	(13.7, 24.4)	(13.4, 24.3)	(12.6,22.5)	(14.3,23.8)	(11.7, 21.3)	(12.3, 22.3)	(13.3, 23.6)	(6.7, 14.8)	(10.2,21.2)	(13.3,25.0)	(10.9,23.6)	(11.2, 22.7)	(13.6, 23.5)	(10.4,19.9)	(12.3, 21.9)	(13.4, 25.3)	(8.1, 16.1)	(16.1, 24.8)		
C- East	16.2	14.4	18.5	18.7	15.7	20.3	17.4	15.4	21.7	17.2	20.5	†17.9	17.0	16.6	15.0	19.2	16.2	20.6	– –	
	(11.9, 21.7)	(10.6, 19.2)	(14.3, 23.6)	(14.4, 23.8)	(11.7, 20.8)	(15.8, 25.7)	(12.9, 23.0)	(11.3, 20.7)	(16.1, 28.7)	(12.4, 23.4)	(15.2, 27.2)	(12.7, 24.6)	(12.8, 22.2)	(12.3,22.0)	(11.1, 20.1)	(14.3, 25.4)	(11.8, 21.8)	(16.7, 25.1)		
C-West	13.3	18.0	17.2	†11.2	19.5	14.6	17.5	†11.1	†12.2	18.1	†17.6	19.4	18.0	17.0	†12.9	17.6	†13.8	15.6	– –	
	(9.6, 18.2)	(13.7, 23.4)	(13.0, 22.4)	(8.0,15.4)	(15.0, 24.9)	(10.7, 19.6)	(13.2, 22.9)	(7.5, 16.1)	(8.3,17.7)	(13.1, 24.6)	(12.6,24.0)	(14.5, 25.5)	(13.8, 23.1)	(12.6, 22.6)	(9.2, 17.7)	(13.0, 23.4)	(9.8, 19.0)	(12.2, 19.6)		
West	20.5	18.7	15.5	20.3	14.5	16.1	19.2	16.9	23.5	21.2	14.4	11.7	20.7	24.8	18.8	13.9	17.8	15.4	– –	
	(15.5, 26.5)	(14.4, 23.9)	(11.6,20.4)	(15.8,25.6)	(10.9, 18.9)	(12.2, 21.0)	(14.9, 24.5)	(12.6, 22.2)	(18.1,29.8)	(16.0,27.5)	(9.9, 20.6)	(7.9,16.9)	(16.2, 26.2)	(19.7,30.7)	(14.5, 23.9)	(9.7, 19.4)	(13.6, 23.0)	(12.1, 19.4)		
East	17.9	15.5	15.3	15.8	16.4	15.2	13.6	12.9	19.8	25.8	21.8	14.2	21.1	17.8	20.8	17.1	15.2	17.5	– –	
	(13.5, 23.3)	(11.4, 20.6)	(11.4,20.2)	(12.0,20.5)	(12.4, 21.4)	(11.1, 20.5)	(10.0, 18.3)	(9.1, 17.9)	(14.2,26.7)	(20.0,32.6)	(16.2,28.6)	(10.2,19.3)	(16.4, 26.8)	(13.6,22.9)	(16.0,26.6)	(12.9, 22.5)	(11.3, 20.2)	(13.9, 21.9)		
North	22.4	17.0	21.0	17.8	15.8	15.2	17.7	15.7	15.4	13.4	22.2	17.3	25.4	20.6	19.6	18.7	17.7	19.9	– –	
	(17.2, 28.7)	(12.9, 22.0)	(16.5,26.3)	(14.3,18.6)	(11.7, 20.9)	(11.2, 20.2)	(15.3, 19.5)	(11.6, 20.9)	(11.0, 20.5)	(9.2,19.0)	(16.8,28.7)	(12.5,23.5)	(20.3, 31.2)	(15.6,26.7)	(14.4,26.0)	(14.0, 24.6)	(13.4, 23.0)	(16.3, 24.2)		

Cont'd

(N=)	1998 (1777)	1999 (1938)	2000 (1887)	2001 (2088)	2002 (1933)	2003 (1933)	2004 (2101)	2005 (1906)	2006 (1527)	2007 (1618)	2008 (1599)	2009 (1602)	2010 (2352)	2011 (2401)	2012 (2355)	2013 (2330)	2014 (2422)	2015 (3967)	Trend
Marital Status																			NSI
Married/ Partner	12.7	12.5	12.5	12.2	12.9	12.6	11.9	9.1	12.8	13.1	13.3	13.6	15.1	13.6	13.3	12.7	12.3	13.5	- -
Previously Married	12.7	14.4	17.5	11.9	15.6	16.5	11.6	10.5	15.3	17.2	14.4	10.9	13.1	17.1	13.9	10.5	12.8	18.2	- -
Never Married	31.8	31.0	26.6	31.0	26.7	27.5	35.8	27.4	33.4	40.0	36.8	29.1	33.7	30.7	27.8	37.2	23.4	33.5	- 2Y
Education																			NSI
High school not completed	24.4	21.6	17.6	16.0	22.3	18.2	27.0	16.8	19.8	19.8	26.6	23.4	23.6	21.2	20.9	23.3	†23.3	†14.3	- -
Completed high school	18.4	19.4	20.3	23.0	19.1	19.3	20.1	18.8	22.9	27.1	22.5	16.5	22.4	19.5	17.5	21.4	18.6	23.4	- -
Some college or university	17.3	15.8	17.4	16.3	16.5	17.6	17.8	14.2	16.7	20.4	18.3	18.7	20.7	19.6	17.7	19.7	16.6	21.1	T -
University degree	12.2	13.7	11.8	10.9	11.3	12.5	12.0	6.5	15.0	11.4	13.5	12.6	14.2	14.6	13.6	12.5	10.3	13.9	- -

Notes: (1) All analyses are sample design adjusted; *95% confidence interval;
(2) Trend Analysis: - change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction.

Def: The AUDIT screener measures hazardous and harmful drinking, as indicated by a score of 8 or more out of 40.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 3.6.1
Percentage Drinking Hazardously or Harmfully (AUDIT 8+) in the Past Year by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

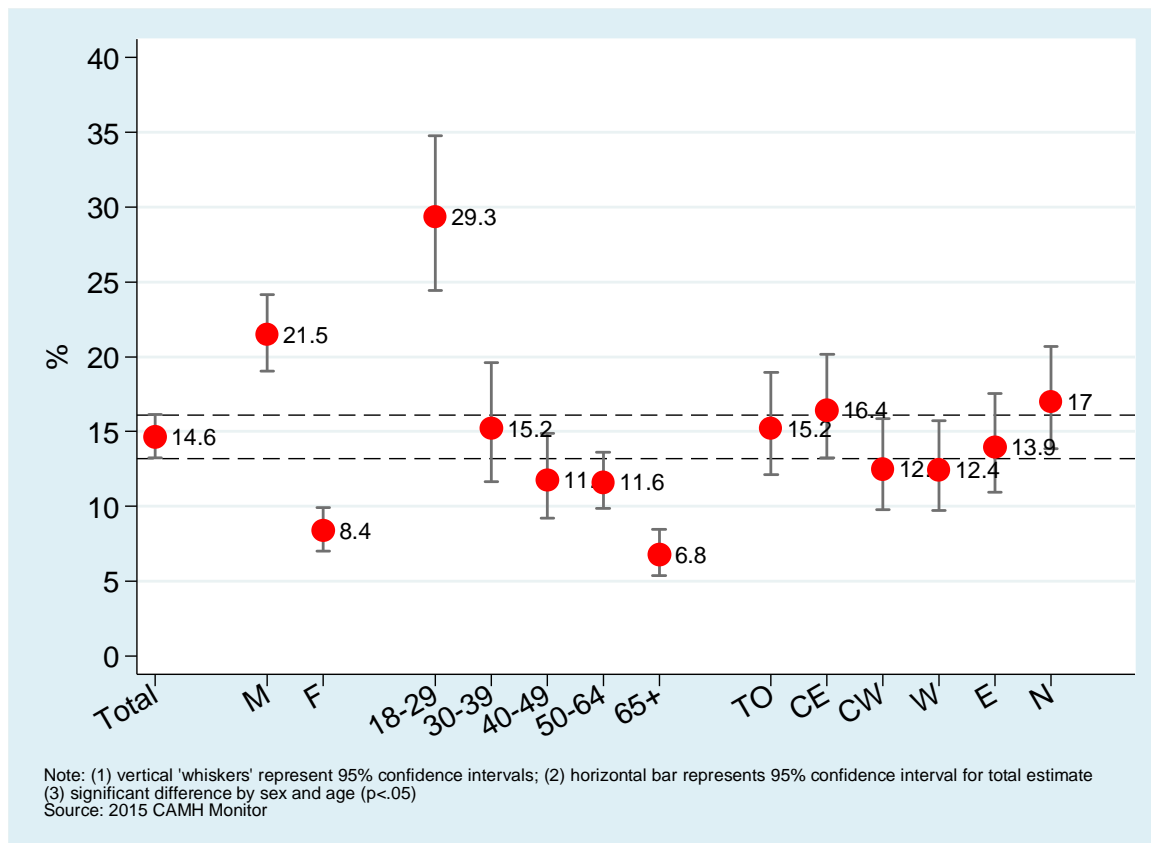
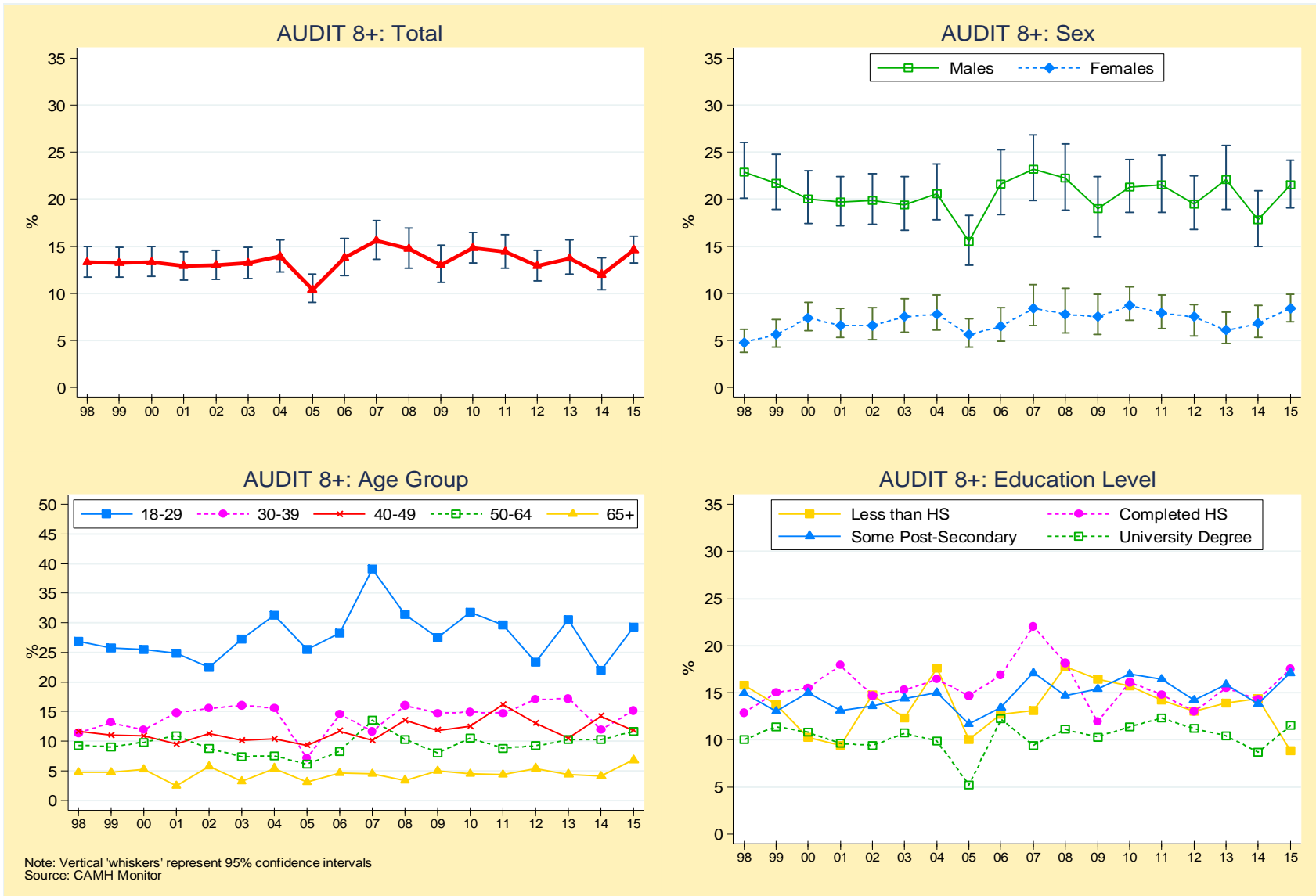


Figure 3.6.2
Percentage Drinking Hazardously or Harmfully (AUDIT 8+) in the Past Year, Ontarians Aged 18+, 1998–2015



3.6.1 Symptoms of Alcohol Dependence (AUDIT)

While the previous section examined the prevalence of hazardous/harmful drinking, this section describes AUDIT symptoms of **alcohol dependence** experienced in the past year among Ontario adults.

Of the 10 AUDIT items, three (Q4–Q6 in Table 3.6.1) are indicators of alcohol dependence. In this section, we present the proportion of Ontario adults reporting **one or more of the three dependence indicators** included in the AUDIT: (1) *not able to stop drinking once you had started*; (2) *failed to do what was normally expected from you because of drinking*; and (3) *needed a first alcoholic drink in the morning to get yourself going after a heavy drinking session*.

2015.....Table 3.6.6, Fig 3.6.3

An estimated **7.2%** (95% CI: 6.2% to 8.3%) of Ontario adults experienced at least one dependence symptom during the past year. The corresponding population estimate is 725,400 Ontario adults (95% CI: 616,400 to 834,300).

Sex, age, and income were significantly related to reporting at least one dependence symptom, when controlling for our set of risk factors.

- The odds of experiencing a dependence symptom were 1.5 times greater among men than women (8.5% vs. 6.0%, respectively).
- The prevalence of experiencing at least one dependence symptom declined significantly with age. Symptoms were highest among 18 to 29 year olds (13.3%) and lowest among those aged 65 and older (3.4%). Two of the four age group comparisons were statistically significant: the adjusted odds of reporting at least one dependence symptom was significantly lower among 50 to 64 year olds and among those 65 and older (OR=0.35 and OR=0.25) when compared to 18 to 29 year olds.

- Household income also showed a significant association with experiencing at least one dependence symptom. The distinguishing feature was a lower rate among those with incomes of \$50,000 to \$79,000 (4.1%).

Trends

1998–2015.....Table 3.6.7, Fig 3.6.4

2014–2015

The proportion of Ontario adults reporting at least one of the dependence indicators in 2015 (7.2%) was unchanged from 2014 (7.3%). In addition, rates were stable between 2014 and 2015 for all subgroups.

1998–2015

Between 1998 and 2015, there was a significant **non-linear change** in reporting at least one of the dependence indicators among Ontario adults. The percentage experiencing at least one dependence symptom declined significantly from 9.4% in 1998 to 5.9% in 2003, then increased to 8.1% in 2011, but has subsequently stabilized to 7.2% in 2015.

Year did not interact significantly with any of the demographic categories analysed, suggesting that subgroup trends were not measurably dissimilar between factor categories. Significant non-linear subgroup variation was found during this period only for respondents who were married and those with completed high school education.

Table 3.6.6: Percentage *Reporting One or More Alcohol Dependence Symptoms (based on AUDIT)* in the Past 12 Months and Adjusted Group Differences, *Ontarians*, Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=4869)
Total	5013	7.2	(6.2, 8.3)	—
Sex				**
Men	1912	8.5	(6.9, 10.4)	1.47*
Women (<i>Comparison Group</i>)	3101	6.0	(4.8, 7.4)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	13.3	(10.0, 17.5)	—
30-39	482	† 7.3	(5.0, 10.8)	0.61
40-49	782	8.8	(6.5, 11.8)	0.74
50-64	1700	4.6	(3.5, 5.9)	0.35**
65+	1597	† 3.4	(2.4, 4.7)	0.25**
Region				NS
Toronto (<i>vs. Provincial Average</i>)	833	8.9	(6.5, 11.9)	1.30
Central East	833	8.3	(6.0, 11.2)	1.15
Central West	820	† 6.0	(4.3, 8.3)	0.84
West	839	† 4.6	(3.1, 6.9)	0.66
East	838	† 6.8	(4.8, 9.4)	0.95
North	850	† 6.2	(4.3, 8.9)	0.92
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	3172	5.7	(4.7, 6.8)	—
Previously Married	1091	† 6.5	(4.5, 9.3)	1.68*
Never Married	703	12.1	(9.2, 15.7)	1.23
Education				NS
High school not completed (<i>Comparison Group</i>)	405	† 4.9	(2.5, 9.3)	—
Completed high school	1075	† 6.6	(4.5, 9.5)	0.83
Some college or university	1749	8.7	(6.9, 10.9)	1.13
University degree	1747	6.4	(5.1, 8.1)	0.81
Household Income				*
< \$30,000 (<i>Comparison Group</i>)	444	† 8.6	(4.6, 15.3)	—
\$30,000-\$49,000	565	† 7.2	(4.6, 11.2)	0.74
\$50,000-\$79,000	819	† 4.1	(2.6, 6.6)	0.36*
\$80,000+	1993	8.6	(7.1, 10.3)	0.77
Not stated	1192	† 6.0	(4.2, 8.6)	0.52

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that drinking is higher in the group being compared to the comparison group; ORs less than 1.0 indicate that drinking is lower in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N= 4869).

Def: Percent reporting at least 1 or more (of 3) AUDIT dependence indicators.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 3.6.7: Percentage *Reporting One or More Alcohol Dependence Symptoms* in the Past 12 Months, by Demographic Characteristics, *Ontarians*, Aged 18+, 1998–2015

	1998 (N=)	1999 (2509)	2000 (2436)	2001 (2406)	2002 (2627)	2003 (2421)	2004 (2411)	2005 (2611)	2006 (2445)	2007 (2016)	2008 (2005)	2009 (2024)	2010 (2037)	2011 (3030)	2012 (3039)	2013 (3030)	2014 (3021)	2015 (3043)	2015 (5013)	Trend
Total Drinkers	9.4	8.5	7.7	8.1	6.7	5.9	6.3	6.8	6.8	7.1	7.5	6.4	7.9	8.1	5.9	6.6	7.3	7.2	7.2	T –
	(8.1,10.9)	(7.3, 9.8)	(6.5,9.0)	(6.9,9.4)	(5.6,7.9)	(4.9,7.1)	(5.2,7.6)	(5.7,8.2)	(5.4,8.4)	(5.8,8.7)	(6.0,9.3)	(5.2,7.9)	(6.7, 9.3)	(6.8, 9.6)	(4.9,7.2)	(5.4, 8.0)	(6.1, 8.9)	(6.2, 8.3)		
Sex																				NSI
Men	13.7	12.2	10.3	11.9	10.0	7.2	8.6	9.6	9.8	8.6	10.6	8.3	9.6	10.2	7.9	9.1	9.8	8.5	8.5	T –
	(11.5,16.3)	(10.2,14.7)	(8.4,12.5)	(9.9,14.3)	(8.2,12.2)	(5.7,9.2)	(6.8,10.9)	(7.6,11.9)	(7.5,12.7)	(6.5,11.3)	(8.2,13.6)	(6.4,10.7)	(7.7,11.9)	(8.0,12.8)	(6.3, 10.0)	(7.0, 11.7)	(7.6, 12.5)	(6.9, 10.4)		
Women	5.6	5.1	5.3	4.5	† 3.6	4.7	4.1	4.3	† 4.0	5.7	† 4.7	† 4.6	6.4	6.2	† 4.1	4.3	5.1	6.0	6.0	– –
	(4.3,7.2)	(3.9,6.6)	(4.1,6.8)	(3.3,6.1)	(2.5,5.1)	(3.5,6.2)	(2.9,5.6)	(3.2,5.8)	(2.8,5.7)	(4.2,7.6)	(3.1,7.0)	(3.1,6.8)	(5.0,8.1)	(4.7,8.0)	(2.9, 5.7)	(3.2, 5.7)	(3.8, 6.8)	(4.8, 7.4)		
Age																				NSI
18-29	18.6	14.0	17.1	17.1	12.3	14.0	11.8	16.1	15.1	17.3	17.8	13.3	19.9	19.0	† 12.3	† 13.4	† 15.5	13.3	13.3	– –
	(14.7,23.1)	(10.7,18.1)	(13.6,21.3)	(13.4,21.5)	(9.2,16.3)	(10.7,18.2)	(8.5,16.2)	(12.3,20.9)	(10.6,21.0)	(12.3,23.9)	(12.2,25.1)	(8.8,19.7)	(15.2,25.5)	(14.1,25.0)	(8.3,17.8)	(8.7, 20.1)	(10.4,22.6)	(10.0,17.5)		
30-39	10.4	11.1	6.0	8.1	8.7	† 6.2	8.4	† 5.7	7.7	† 5.3	7.4	8.7	8.2	7.3	† 7.1	† 7.8	† 7.1	† 7.3	† 7.3	– –
	(7.9,13.6)	(8.5,14.3)	(4.2,8.4)	(5.9,11.2)	(6.4,11.8)	(4.2,9.1)	(5.8,12.1)	(3.8,8.5)	(4.9,11.7)	(3.2,8.6)	(4.4,12.0)	(5.8,13.0)	(5.7,11.6)	(4.6,11.2)	(4.6,10.9)	(5.0, 11.9)	(4.5, 11.2)	(5.0, 10.8)		
40-49	† 7.5	† 7.8	† 5.5	† 7.7	† 4.7	† 3.9	† 5.9	† 6.3	† 6.9	† 6.2	† 6.5	† 6.4	† 4.8	9.6	† 4.9	† 5.6	9.3	8.8	8.8	– –
	(5.4,10.4)	(5.5,10.9)	(3.7,8.2)	(5.4,10.9)	(3.0,7.2)	(2.5,6.0)	(3.9,8.7)	(4.2,9.3)	(4.5,10.4)	(4.1,9.2)	(4.3,9.9)	(4.3,9.5)	(3.3,6.8)	(7.0,13.0)	(3.2, 7.4)	(3.8, 8.1)	(6.7, 12.7)	(6.5, 11.8)		
50-64	† 6.6	† 5.7	† 5.3	† 4.5	† 3.2	† 3.2	† 2.8	† 2.9	† 2.4	† 5.2	† 4.1	† 3.6	5.3	† 3.5	† 4.3	5.7	4.7	4.6	4.6	– –
	(4.2,10.0)	(3.5,9.1)	(3.4,8.2)	(2.7,7.4)	(1.8,5.7)	(1.9,5.2)	(1.7,4.8)	(1.6,5.0)	(1.4,4.4)	(3.5,7.8)	(2.6,6.5)	(2.3,5.6)	(3.9,7.1)	(2.4,5.2)	(3.0, 6.0)	(4.2, 7.6)	(3.4, 6.4)	(3.5, 5.9)		
65+	†	†	† 2.3	†	† 3.5	†	†	† 2.3	†	†	† 2.7	†	† 2.3	† 2.3	† 2.6	† 1.8	† 2.0	† 3.4	† 3.4	– –
	–	–	(1.1,4.8)	–	(1.7,7.3)	–	–	(1.3,4.3)	–	–	(1.4,5.0)	–	(1.3,3.9)	(1.3,4.0)	(1.5, 4.4)	(1.1, 3.0)	(1.1, 3.4)	(2.4, 4.7)		
Region																				NSI
Toronto	10.6	† 8.3	† 7.8	10.8	† 6.8	† 5.4	† 5.9	† 5.8	† 6.2	† 5.9	† 8.4	† 6.5	† 9.8	† 8.3	† 4.7	† 6.9	† 6.4	† 8.9	† 8.9	– –
	(7.7, 14.4)	(5.7,11.9)	(5.5,11.0)	(7.8,14.7)	(4.6,10.1)	(3.5,8.3)	(3.7,9.3)	(3.6,9.1)	(3.7,10.3)	(3.6,9.4)	(5.0,13.7)	(4.0,10.7)	(6.9,13.7)	(5.6,12.2)	(2.9, 7.4)	(4.3, 10.6)	(4.2, 9.5)	(6.6, 11.9)		
C-East	11.0	† 8.7	† 8.8	† 7.4	† 6.0	† 5.6	† 4.9	† 7.2	† 7.8	† 6.6	† 7.9	† 6.3	† 4.3	† 8.0	† 4.7	† 6.6	† 8.2	8.3	8.3	– –
	(7.9, 15.0)	(6.2, 12.1)	(6.2, 12.5)	(5.1, 10.7)	(3.9, 9.4)	(3.6, 8.5)	(2.8, 8.5)	(4.9, 10.6)	(4.8, 12.3)	(3.9, 11.2)	(5.0, 12.3)	(3.7, 10.5)	(2.6, 7.1)	(5.3, 11.9)	(2.6, 8.3)	(4.2, 10.4)	(5.3, 12.4)	(6.1, 11.2)		
C-West	† 8.4	† 9.0	† 7.0	† 8.2	† 7.8	† 6.1	† 7.1	† 7.0	† 6.2	† 6.6	† 9.4	† 7.0	† 7.5	† 8.9	† 6.0	† 6.9	† 7.5	† 6.0	† 6.0	– –
	(5.7, 12.1)	(6.4, 12.6)	(4.6, 10.4)	(5.5, 11.9)	(5.3, 11.3)	(3.9, 9.4)	(4.6, 10.7)	(4.5, 10.6)	(3.6, 10.5)	(3.9, 11.1)	(6.0, 14.5)	(4.5, 10.9)	(5.0, 11.0)	(6.0, 13.0)	(3.9, 9.2)	(4.6, 10.3)	(4.9, 11.5)	(4.3, 8.4)		
West	† 8.7	† 9.4	† 5.7	† 7.3	† 6.2	† 5.5	† 7.4	† 7.3	† 7.9	† 8.7	† 5.0	† 6.0	† 8.1	† 7.7	† 8.2	† 6.5	† 7.6	† 4.6	† 4.6	– –
	(6.0, 12.6)	(6.6, 13.2)	(3.7, 8.7)	(5.1, 10.5)	(4.1, 9.2)	(3.5, 8.7)	(5.0, 10.7)	(4.8, 10.8)	(5.1, 12.1)	(5.7, 12.9)	(3.0, 8.4)	(3.5, 9.9)	(5.6, 11.8)	(5.0, 11.7)	(5.5, 11.9)	(4.0, 10.3)	(5.1, 11.3)	(3.1, 6.9)		
East	† 7.3	† 6.9	† 6.7	† 6.1	† 6.3	† 7.3	† 6.1	† 6.4	† 5.6	† 9.2	† 4.9	† 6.2	† 9.8	† 7.7	† 7.2	† 5.4	† 6.6	† 6.8	† 6.8	– –
	(5.1, 10.4)	(4.7, 10.2)	(4.4, 10.0)	(4.1, 9.0)	(4.0, 9.7)	(4.9, 10.8)	(4.0, 9.4)	(4.1, 9.9)	(3.2, 9.6)	(5.9, 14.0)	(2.6, 9.1)	(3.9, 9.7)	(6.8, 14.0)	(5.3, 11.1)	(4.9, 10.6)	(3.4, 8.6)	(4.2, 10.2)	(4.8, 9.4)		
North	† 9.5	† 7.9	† 10.7	† 6.1	† 6.2	† 6.1	† 6.6	† 8.2	† 6.9	† 6.3	† 8.3	† 5.0	† 12.6	† 6.4	† 7.3	† 6.9	† 7.2	† 6.2	† 6.2	– –
	(6.8, 13.1)	(5.6, 11.2)	(7.8, 14.5)	(4.3, 8.6)	(4.0, 9.4)	(3.9, 9.5)	(4.7, 9.2)	(5.5, 12.0)	(4.3, 10.8)	(3.8, 10.2)	(5.4, 12.5)	(2.9, 8.6)	(9.0, 17.3)	(4.1, 9.7)	(4.3, 12.2)	(4.4, 10.5)	(4.5, 11.2)	(4.3, 8.9)		

Cont'd

	1998 (N=) (2509)	1999 (2436)	2000 (2406)	2001 (2627)	2002 (2421)	2003 (2411)	2004 (2611)	2005 (2445)	2006 (2016)	2007 (2005)	2008 (2024)	2009 (2037)	2010 (3030)	2011 (3039)	2012 (3030)	2013 (3021)	2014 (3043)	2015 (5013)	Trend	
Marital Status																			NSI	
Married/ Partner	6.9	7.2	5.2	5.7	5.0	4.1	4.9	4.8	4.3	5.3	4.9	5.2	5.1	5.4	4.4	5.2	5.6	5.7	T	-
Previously Married	†5.5	†4.8	†6.8	†4.0	†4.6	†5.0	†5.3	†4.4	†4.6	†5.0	†8.2	†6.2	†5.1	†8.1	†5.1	†4.2	†5.3	†6.5	-	-
Never Married	18.7	14.7	14.8	16.9	12.5	11.7	11.2	14.2	15.7	†14.6	†15.2	†10.7	18.2	16.7	†10.8	†12.3	†13.1	12.1	-	-
Education																			NSI	
High school not completed	†9.5	†7.1	†7.5	†4.5	†7.8	†5.3	†5.8	†8.4	†5.9	†6.8	†8.7	†7.8	†8.2	†11.2	†5.9	†8.5	†9.2	†4.9	-	-
Completed High school	9.9	9.4	9.2	11.6	†6.3	†7.4	†6.3	†7.9	†7.2	†9.0	†10.2	†7.4	†5.8	†6.9	†7.0	†5.4	†8.9	†6.6	T	-
Some College or University	11.6	9.2	7.9	8.4	7.2	6.3	6.9	8.1	†7.6	8.7	†7.0	†6.9	9.6	8.4	6.2	7.7	8.1	8.7	-	-
University Degree	†6.0	†7.6	†5.7	†5.8	†5.8	†4.8	†5.9	†3.5	†6.0	†3.6	†5.7	†4.9	7.6	8.0	†5.1	†5.7	†5.5	6.4	-	-

Notes: (1) All analyses are sample design adjusted; ^a 95% confidence interval; † Estimate suppressed or unstable.
(2) Trend Analysis: - change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction.

Def'n: Percent reporting at least 1 or more (of 3) AUDIT dependence indicators.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 3.6.3

Percentage Reporting One or More Alcohol Dependence Symptoms (based on AUDIT) in the Past Year by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

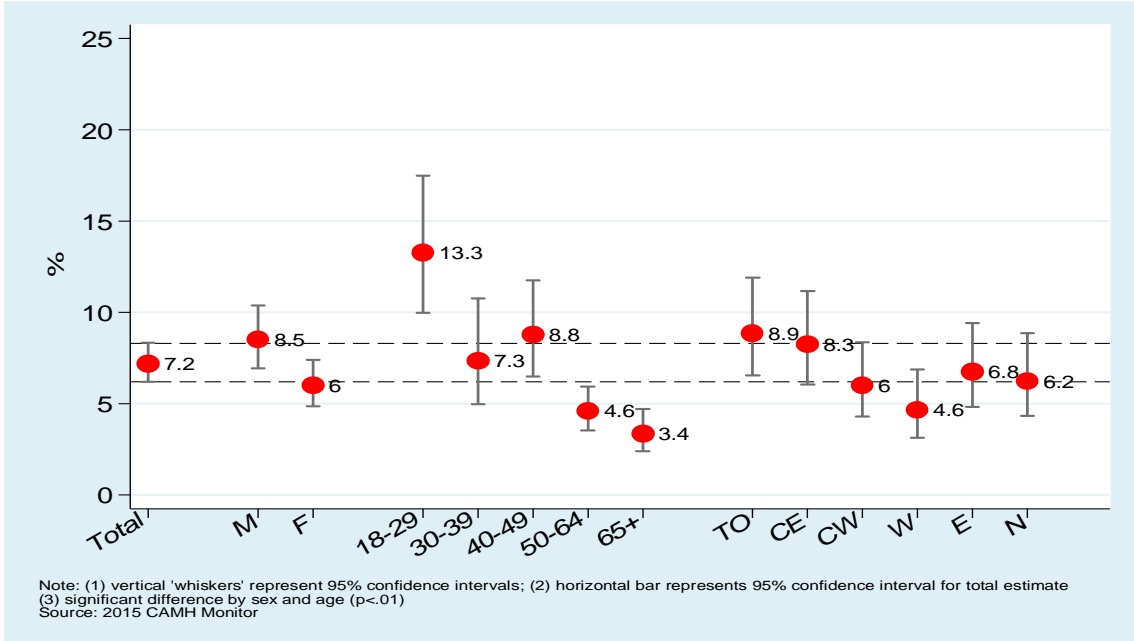
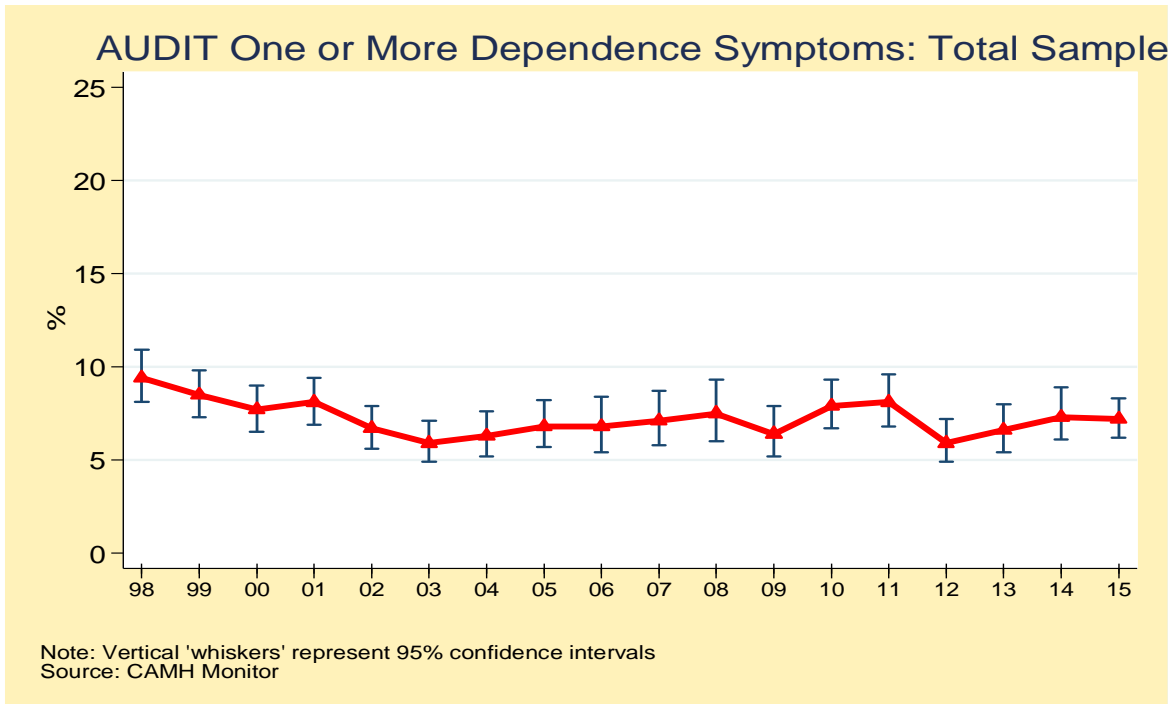


Figure 3.6.4

Percent Reporting One or More Alcohol Dependence Symptoms (based on AUDIT) in the Past Year, Ontarians Aged 18+, 1998–2015



4. TOBACCO AND ELECTRONIC CIGARETTE USE

4.1.1 Cigarette Smoking

2015 Table 4.1.1; Fig. 4.1.1–4.1.3

Overall, the estimated percentage of *current* smokers – respondents who (1) smoked 100 or more cigarettes in their lifetime, *and* (2) smoked occasionally or daily during the past year, *and* (3) smoked during the past 30 days – was **13.2%** (95% CI: 12.0% to 14.5%).⁵¹ The corresponding population estimate is 1,336,100 current smokers (95% CI: 1,199,900 to 1,472,400).

More than half (58.6%) of Ontarians were classified as *non-smokers* (never smoked more than 100 cigarettes in their lifetime). Over one quarter of the population (28.2%) are estimated to be former smokers comprising *former daily* (24.8%) and *former nondaily* (3.4%) smokers. Finally, *daily smokers* are estimated 10.0% of the population, while *nondaily smokers* are estimated 3.2% of Ontario adults.

Sex, age, marital status, and education were significantly related to current smoking, when adjusting for other demographic factors.

- The adjusted odds of current smoking were 1.5 times higher among men than women (15.6% vs. 11.0%, respectively; OR=1.47).
- Current smoking was significantly related to age. Compared to those aged 18 to 29, the adjusted odds of current smoking were significantly lower among those aged 65 and older (OR=0.40).
- Relative to married respondents, the adjusted odds of current smoking were 2.2 times higher among those previously married and 1.8 times higher among those never married.

- Smoking decreased significantly with increasing education. It was highest among those not completing high school (20.7%), and lowest among those holding a university degree (5.8%). Relative to those not completing high school, the adjusted odds of smoking were significantly lower among respondents with some postsecondary education (OR=0.53) and among those with a university degree (OR=0.19).
- On average, current smokers smoked 10.8 cigarettes per day. This number varied significantly by sex and age. Men smoked significantly more cigarettes daily compared to women (11.7 among men vs. 9.6 among women). The number of cigarettes smoked daily was highest among those aged 40 to 49 and those 65 and older (12.4) and lowest among those aged 18 to 29 (6.6).

4.1.2 Daily Smoking

2015 Table 4.1.2; Fig. 4.1.1, 4.1.3

An estimated, **10.0%** (95% CI: 8.9% to 11.2%) of Ontario adults smoked cigarettes daily. The corresponding population estimate is 1,012,200 daily smokers (95% CI: 897,400 to 1,126,900).

Daily smokers displayed similar characteristics as current smoking: women, those aged 65 and older, those married, those with higher education, and those with higher incomes reported significantly lower rates of daily smoking within their respective demographic risk factors.

There were however significant differences in daily smoking by region when adjusting for other risk factors. Compared to the provincial average, daily smoking was significantly higher among those living in the North (13.7%; OR=1.34).

⁵¹ Standard to Health Canada guidelines

4.1.3 Nicotine Dependence (HSI) Fig. 4.1.4

2015

Since 1996, the *CAMH Monitor* has assessed nicotine dependence among daily smokers⁵² using the *Heaviness of Smoking Index* (HSI).

The 2-item HSI, derived from the Fagerström scale (Fagerström, 1978), is based on scores assigned to the *time to the first cigarette each morning* and *number of cigarettes smoked per day* (Heatherton et al., 1989). Scores of 0-2, 3-4 and 5-6 indicates classifications of low, moderate and high dependence on nicotine.

An estimated **8.4%** (95% CI: 5.7% to 12.3%) of daily smokers ($n=499$) met the HSI cut-off for **high nicotine dependence**. The corresponding population estimate is 83,400 Ontarian daily smokers (95% CI: 50,800 to 115,900). An additional 39.0% and 52.6% of daily smokers were classified as experiencing moderate or low nicotine dependence, respectively.

Trends

1991–2015..... Tables 4.1.3-4.1.4; Fig. 4.1.5

2014–2015

Prevalence of **current cigarette smoking** in 2015 (13.2%) was not significantly different from 2014 (15.0%). In addition, rates of smoking were stable for most subgroups. The only significant decline was found among respondents not completing high school (from 29.6% in 2014 to 20.7% in 2015).

1991–2015

Since 1991, the prevalence of **current smoking** moved downward from 28.5% in 1991 to 23.5% in 1993, and then rebounded to 28.5% in 1995. Since 1996, current smoking

has steadily **declined** (from 26.7% in 1996 to 13.2% in 2015), most noticeably since 2007.

Year interacted significantly only with **education**, indicating that declining trends in smoking differed among education subgroups. Differential education-group trends suggest that decreases were stronger among those not completing high school, whereas among those with some postsecondary education the decline was less noticeable.

Year did not interact significantly with sex, age, region and marital status, suggesting similar trends in each subgroup. Indeed, there were significant declines during this period for both men and women, and virtually all age, regions, and marital status subgroups.

Daily smoking displayed similar patterns to current smoking. Prevalence of daily smoking in 2015 (10.0%) was unchanged from 2014 (11.4%). In addition, rates of smoking were stable for most subgroups. There was a significant decline in daily smoking only among those not completing high school, from 26.4% in 2014 to 17.8% in 2015.

Since 1996, daily smoking **declined** significantly from 23.0% to 10.0% in 2015. Significant subgroup declines were also evident for sex, age, region, marital status and education.

Year interacted significantly with **age** and **education** indicating that trends in daily smoking differed among age and education subgroups. Although daily smoking declined significantly for all age groups, declines were strongest among those aged 30 to 39 and those aged 40 to 49. In contrast, among those aged 50 to 64, daily smoking showed a weaker decline with a significant upturn between 2011 and 2014. Differential education-group trends suggest that decreases were stronger among those not completing high school, whereas among those with some postsecondary education the decline was less noticeable.

⁵² The HSI is more meaningful among daily smokers than current smokers because a sizeable proportion of the latter are occasional smokers or smokers attempting to quit.

Table 4.1.1: Percentage Reporting *Current Cigarette Smoking* and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=4885)
Total	5013	13.2	(12.0, 14.5)	—
Sex				**
Men	1912	15.6	(13.5, 17.9)	1.47**
Women (<i>Comparison Group</i>)	3101	11.0	(9.6, 12.6)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	16.4	(12.5, 21.2)	—
30-39	482	15.0	(11.6, 19.2)	1.55
40-49	782	12.3	(9.9, 15.2)	1.29
50-64	1700	14.9	(13.1, 17.1)	1.30
65+	1597	6.8	(5.5, 8.3)	0.40**
Region				NS
Toronto (<i>vs. Provincial Average</i>)	833	10.2	(7.8, 13.3)	0.82
Central East	833	15.4	(12.5, 18.9)	1.26*
Central West	820	12.2	(9.8, 15.2)	0.89
West	839	12.4	(9.8, 15.5)	0.85
East	838	14.3	(11.4, 17.7)	1.11
North	850	16.2	(13.4, 19.4)	1.20
Marital Status				***
Married/Partner (<i>Comparison Group</i>)	3172	10.7	(9.4, 12.1)	—
Previously Married	1091	18.5	(15.6, 21.8)	2.19**
Never Married	703	18.2	(14.8, 22.4)	1.75*
Education				***
High school not completed (<i>Comparison Group</i>)	405	20.7	(16.0, 26.4)	—
Completed high school	1075	19.0	(15.9, 22.6)	0.67
Some college or university	1749	16.3	(14.0, 18.9)	0.53**
University degree	1747	5.8	(4.6, 7.3)	0.19**
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	444	20.6	(15.6, 26.7)	—
\$30,000-\$49,999	565	17.2	(13.2, 22.1)	0.96
\$50,000-\$79,999	819	14.8	(11.5, 18.7)	0.81
\$80,000+	1993	11.6	(9.9, 13.6)	0.69
Not stated	1192	12.4	(10.0, 15.3)	0.65

Notes: (1) All analyses are sample design adjusted ; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of smoking are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of smoking are lower in the group being compared to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=4855).

Defn: *Current smokers are those who (1) reported smoking 100 or more cigarettes in their lifetime, (2) smoked cigarettes daily or occasionally during the past year; and (3) smoked during the past 30 days.*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 4.1.2: Percentage Reporting *Daily Cigarette Smoking* and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=4885)
Total	5013	10.0	(8.9, 11.2)	—
Sex				**
Men	1912	11.6	(9.8, 13.6)	1.41**
Women (<i>Comparison Group</i>)	3101	8.5	(7.4, 9.9)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	10.9	(7.8, 15.0)	—
30-39	482	10.7	(7.9, 14.4)	1.62
40-49	782	9.7	(7.6, 12.4)	1.54
50-64	1700	12.2	(10.5, 14.1)	1.52
65+	1597	5.5	(4.3, 6.9)	0.43*
Region				*
Toronto (<i>vs. Provincial Average</i>)	833	6.9	(5.1, 9.4)	0.76
Central East	833	11.3	(8.9, 14.4)	1.22
Central West	820	10.8	(8.4, 13.6)	1.06
West	839	8.9	(6.9, 11.5)	0.78
East	838	10.5	(8.1, 13.6)	1.08
North	850	13.7	(11.1, 16.7)	1.34*
Marital Status				***
Married/Partner (<i>Comparison Group</i>)	3172	8.2	(7.1, 9.4)	—
Previously Married	1091	15.7	(13.0, 18.9)	2.2**
Never Married	703	12.6	(9.8, 16.2)	1.59
Education				***
High school not completed (<i>Comparison Group</i>)	405	17.8	(13.3, 23.3)	—
Completed high school	1075	15.7	(12.9, 19.1)	0.70
Some college or university	1749	12.1	(10.2, 14.3)	0.50**
University degree	1747	3.6	(2.7, 4.7)	0.16**
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	444	18.4	(13.5, 24.5)	—
\$30,000-\$49,999	565	14.5	(10.8, 19.1)	0.91
\$50,000-\$79,999	819	11.0	(8.3, 14.4)	0.68
\$80,000+	1993	7.9	(6.6, 9.5)	0.55*
Not stated	1192	10.2	(8.0, 13.0)	0.64

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of smoking are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of smoking are lower in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=4885).

Defn: *Daily smokers are those who (1) reported using 100 or more cigarettes in their lifetime, (2) smoked cigarettes occasionally or daily during the past year; and (3) smoked cigarettes daily at the time of the survey.*

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 4.1.3: Percentage Reporting *Current Cigarette Smoking*, by Demographic Characteristic, Ontarians Aged 18+, 1991–1995

	1991	1992	1993	1994	1995
(N=)	(1047)	(1058)	(941)	(2022)	(994)
Total	28.5	26.1	23.5	25.3	28.5
(95%CI) ^a	(25.8,31.2)	(23.5,28.7)	(20.8,26.2)	(23.4,27.2)	(25.7,31.3)
Sex					
Men	28.5	29.5	28.2	26.4	30.4
	(24.5,32.5)	(25.5,33.5)	(24.2,32.2)	(23.8,29.0)	(26.3,34.5)
Women	28.6	23.2	19.7	24.3	26.7
	(24.8,32.4)	(19.7,26.7)	(16.4,23.0)	(21.5,27.1)	(22.9,30.5)
Age					
18 - 29 years	29.4	31.4	26.0	34.2	33.7
	(23.9,34.9)	(25.9,36.9)	(20.5,31.5)	(29.9,38.5)	(27.7,39.7)
30 - 39 years	31.4	30.4	29.5	28.2	31.9
	(25.8,37.0)	(25.0,35.8)	(24.1,34.9)	(24.4,32.0)	(26.0,37.8)
40 - 49 years	28.7	25.8	24.9	21.6	30.3
	(22.6,34.8)	(19.8,31.8)	(19.0,30.8)	(17.7,25.5)	(24.1,36.5)
50 - 64 years	31.3	18.2	17.6	19.1	25.6
	(23.9,38.7)	(12.1,24.3)	(11.7,23.5)	(14.8,23.4)	(19.0,32.2)
65+ years	18.8	12.7	10.0	12.4	10.8
	(12.2,25.4)	(6.9,18.5)	(4.9,15.1)	(8.2,16.6)	(5.3,16.3)
Marital Status					
Married/Partner	26.8	25.0	21.0	22.7	26.4
Previously Married	39.4	31.8	30.4	30.7	34.9
Never Married	28.2	27.0	27.2	29.5	31.0
Education					
High school not completed	40.5	37.5	35.5	33.8	26.4
Completed high school	29.8	27.8	25.4	29.8	35.8
Some college or university	26.0	23.9	22.9	23.3	30.0
University degree	16.9	14.9	10.1	14.2	19.4

Notes: (1)^a 95% confidence interval; — data not available; all analyses are sample design adjusted.

Defn: *Current smokers are those that report (1) consuming 100 or more cigarettes in their lifetime, and (2) smoked cigarettes occasionally or daily during the past year; and (3) smoked during the past 30 days.*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 4.1.4: Percentage Reporting *Current Cigarette Smoking*, by Demographic Characteristic, Ontarians Aged 18+, 1996–2015

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2721)	(2776)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)	
Total	26.7	26.8	25.9	25.4	25.6	24.7	22.8	22.5	21.4	20.3	20.6	21.6	19.7	18.6	17.6	15.4	16.6	16.8	15.0	13.2	T –
(95%CI) ^a	(25.0,28.4)	(25.2,28.4)	(24.0,27.9)	(23.5,27.4)	(23.7,27.6)	(22.8,26.7)	(20.1,24.8)	(20.7,24.5)	(19.6, 23.4)	(18.5, 22.2)	(18.5,22.8)	(19.5,23.9)	(17.6,21.9)	(16.6,20.8)	(15.9, 19.3)	(13.8, 17.0)	(15.0,18.4)	(15.0,18.6)	(13.3,16.9)	(12.0,14.5)	
Sex																					NSI
Men	27.8	29.3	28.2	28.2	31.1	28.0	25.6	25.2	24.8	21.7	23.7	23.7	23.7	21.2	20.7	17.9	20.1	19.3	17.9	15.6	T –
	(25.3,30.3)	(26.8,31.8)	(25.2,31.4)	(25.2,31.3)	(28.0,34.4)	(25.2,31.1)	(22.8,28.6)	(22.4,28.3)	(21.9, 27.9)	(19.0, 24.7)	(20.4,27.3)	(20.4,27.3)	(20.4,27.3)	(18.1,24.7)	(18.1,23.6)	(15.4, 20.7)	(17.4, 23.0)	(16.5, 22.4)	(15.1, 21.0)	(13.5, 17.9)	
Women	25.7	24.5	23.8	22.9	20.6	21.5	20.2	20.0	18.3	19.1	17.6	19.6	15.9	16.2	14.6	13.0	13.5	14.4	12.3	11.0	T –
	(23.5,27.9)	(22.3,26.7)	(21.4,26.3)	(20.4,25.5)	(18.3,23.1)	(19.1,24.1)	(17.8,22.8)	(17.7,22.6)	(16.1, 20.7)	(16.8, 21.5)	(15.2,20.3)	(17.1,22.4)	(13.5,18.6)	(13.7,19.0)	(12.7,16.7)	(11.3, 14.9)	(11.7, 15.5)	(12.4, 16.7)	(10.4, 14.4)	(9.6, 12.6)	
Age																					NSI
18 - 29	29.1	34.2	31.6	31.8	32.7	32.0	28.4	31.0	24.9	27.8	27.0	31.2	24.3	24.7	18.1	16.9	17.7	19.0	19.5	16.4	T –
	(25.2,33.0)	(30.3,38.1)	(26.9,36.7)	(27.1,36.8)	(28.0,37.8)	(27.2,37.1)	(23.8,33.5)	(26.3,36.2)	(20.1, 30.4)	(22.7, 33.5)	(21.4,33.5)	(24.9,38.4)	(18.3,31.6)	(18.6,32.1)	(13.7, 23.5)	(12.6, 22.3)	(12.9, 23.8)	(13.5, 26.1)	(13.7, 26.9)	(12.5, 21.2)	
30 - 39	31.8	31.2	32.4	31.8	28.3	30.4	29.4	23.9	25.6	23.6	22.6	21.8	19.8	21.9	20.3	15.9	21.4	21.6	15.3	15.0	T –
	(28.3,35.3)	(27.6,34.8)	(28.4,36.7)	(27.6,36.3)	(24.3,32.6)	(26.2,35.0)	(25.1,34.1)	(19.6,28.7)	(21.3, 30.3)	(19.6, 28.2)	(18.0,27.9)	(17.2, 27.2)	(14.9,25.7)	(17.0, 27.7)	(16.1, 25.4)	(12.3, 20.4)	(17.1, 26.4)	(16.6, 27.6)	(11.0, 20.8)	(11.6, 19.2)	
40 - 49	29.0	28.1	27.1	26.7	29.6	25.6	25.2	23.9	23.4	22.4	21.7	26.3	23.6	17.1	19.8	19.2	17.5	19.5	16.0	12.3	T –
	(25.2,32.8)	(24.4,31.8)	(23.2,31.4)	(22.7,31.1)	(25.4,34.2)	(21.8,29.8)	(21.6,29.9)	(20.3,27.8)	(19.5, 27.9)	(18.8, 26.6)	(17.4,26.6)	(21.6,31.5)	(19.2,28.6)	(13.4,21.5)	(16.4,23.6)	(15.8, 23.2)	(14.2, 21.3)	(15.9, 23.7)	(12.5, 20.2)	(9.9, 15.2)	
50 - 64	23.2	21.2	20.2	20.2	20.6	23.1	21.1	20.7	22.6	18.6	21.2	19.4	20.7	20.2	18.8	14.7	18.1	17.3	16.4	14.9	T –
	(19.4,27.0)	(17.6,24.8)	(16.3,24.8)	(16.4,24.7)	(16.9,24.9)	(19.1,27.6)	(17.5,25.2)	(16.9,25.1)	(19.1,26.5)	(15.3, 22.4)	(17.4,25.6)	(16.0,23.3)	(16.9,25.0)	(16.5,24.4)	(16.1,22.0)	(12.2, 17.5)	(15.4, 21.2)	(14.7, 20.2)	(13.8, 19.3)	(13.1, 17.1)	
65+	14.1	9.3	15.2	13.3	13.6	10.1	6.6	11.2	8.2	8.0	9.1	8.9	10.3	9.2	10.1	9.0	8.3	7.4	7.6	6.8	T –
	(10.7,17.5)	(6.5,12.1)	(11.5,19.8)	(9.8,17.7)	(10.0,18.1)	(7.3,13.8)	(4.4, 9.7)	(8.1,15.4)	(6.0, 11.3)	(5.7, 11.2)	(6.4,12.9)	(6.4,12.3)	(7.6,13.8)	(6.6,12.5)	(7.8, 13.1)	(6.8, 11.8)	(6.4, 10.5)	(5.7, 9.5)	(6.0, 9.6)	(5.5, 8.3)	
Region																					NSI
Toronto	24.1	27.2	23.6	21.0	21.5	24.9	17.2	22.3	19.7	15.4	13.5	20.7	16.8	17.9	17.4	11.7	16.8	14.5	14.2	10.2	T –
	(19.8,29.0)	(22.8,32.1)	(19.3,28.5)	(16.9,25.8)	(17.4,26.3)	(20.5,29.9)	(13.5,21.8)	(18.0,27.2)	(15.7, 24.4)	(11.9, 19.7)	(9.8,18.2)	(15.9, 26.5)	(12.6,22.1)	(13.5,23.3)	(13.9,21.7)	(8.6, 15.7)	(13.3,20.9)	(11.0, 19.0)	(10.5, 19.0)	(7.8, 13.3)	
C-East	25.7	28.2	26.4	24.8	28.6	23.3	21.3	21.4	18.8	22.0	21.2	20.1	19.0	19.6	15.7	13.1	14.0	18.9	15.6	15.5	T –
	(21.7,30.1)	(23.9,32.8)	(22.0,31.3)	(20.6,29.6)	(24.1,33.6)	(19.2,27.9)	(17.3,25.9)	(17.4,26.0)	(15.0, 23.3)	(17.9, 26.7)	(16.5, 26.8)	(15.6, 25.4)	(14.6, 24.5)	(15.3,24.9)	(12.2, 20.0)	(10.2, 16.7)	(10.7, 18.0)	(15.0, 23.7)	(11.9, 20.2)	(12.5, 18.9)	
C- West	28.2	24.3	24.4	25.0	21.5	23.6	27.4	20.4	24.2	23.9	23.2	20.1	20.1	22.4	18.8	18.4	15.5	16.5	15.6	12.2	T –
	(23.9,33.0)	(20.3,28.7)	(20.2,29.1)	(20.6,29.9)	(17.5,26.1)	(19.5,28.4)	(22.9,32.5)	(16.4,25.0)	(19.9, 29.1)	(19.6, 28.9)	(18.3,29.0)	(15.5,25.7)	(15.6,25.5)	(17.6,27.9)	(15.1,23.1)	(14.7, 22.8)	(12.0, 19.8)	(12.9, 20.9)	(11.9, 20.1)	(9.8, 15.2)	
West	26.1	29.4	27.3	31.6	28.1	23.3	24.6	24.0	20.7	20.4	24.6	24.0	19.7	14.9	17.5	17.1	18.6	16.9	12.4	12.4	T –
	(19.8,29.0)	(25.2,34.0)	(22.9,32.1)	(26.9,36.7)	(23.5,33.2)	(19.2,28.0)	(20.4,29.3)	(19.8,28.7)	(16.8, 25.2)	(16.5, 24.9)	(20.0,29.8)	(19.3, 29.4)	(15.2,25.1)	(10.9,20.0)	(14.1, 21.6)	(13.4, 21.5)	(15.1, 22.8)	(13.3, 21.2)	(9.5, 16.0)	(9.8, 15.5)	
East	27.5	21.7	27.7	26.4	28.1	25.3	20.8	21.4	22.1	15.8	22.3	22.5	21.3	13.3	18.8	15.4	17.5	14.2	13.2	14.3	T –
	(23.4,32.0)	(17.9,26.0)	(23.3,32.7)	(22.1,31.2)	(23.6,33.2)	(21.2,30.0)	(16.8,25.3)	(17.4,26.1)	(18.2, 26.6)	(12.3, 20.0)	(17.7,27.8)	(17.7,28.1)	(16.5,27.1)	(9.8,17.8)	(15.1, 23.1)	(12.1, 19.4)	(14.1,21.7)	(11.0,18.2)	(10.1,17.0)	(11.4,17.7)	
North	31.5	32.9	29.5	28.8	32.2	29.9	29.6	31.0	24.5	27.6	20.9	26.7	26.4	24.6	18.9	23.3	24.1	20.2	21.2	16.2	T –
	(27.1,36.3)	(28.3,37.8)	(25.1,34.4)	(24.3,33.8)	(27.5,37.3)	(26.0,34.1)	(25.3,34.5)	(26.3,36.2)	(21.0, 28.4)	(18.5, 22.2)	(16.5, 26.2)	(21.9,32.2)	(21.5,32.0)	(19.8,30.2)	(15.2, 23.3)	(19.2, 27.9)	(19.8,29.1)	(16.4, 24.6)	(17.3, 25.7)	(13.4, 19.4)	

Cont'd

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2721)	(2776)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)	
Marital Status																					NSI
Married/ Partner	24.3	21.8	23.6	23.4	22.7	22.0	20.7	20.0	18.7	18.9	18.3	18.1	17.2	17.3	15.6	14.8	13.6	14.2	12.1	10.7	T –
Previously Married	32.9	35.4	29.4	25.6	26.2	27.8	25.4	23.1	26.5	21.8	24.2	26.6	27.3	23.7	24.3	20.7	22.1	22.4	21.4	18.5	T –
Never Married	29.9	34.6	30.9	32.0	32.4	30.7	26.8	30.0	26.6	24.0	26.1	30.1	22.4	20.3	20.1	14.3	22.8	21.9	20.3	18.2	T –
Education																					*
HS not completed	38.2	37.0	35.4	30.1	30.5	28.8	27.0	29.3	28.7	28.5	27.6	35.1	30.0	31.0	23.3	27.0	26.3	29.1	29.6	20.7	T 2Y
Completed HS	30.0	29.5	28.6	29.4	30.2	29.0	30.4	31.4	25.8	24.4	32.0	26.8	27.6	24.3	22.7	19.5	19.5	24.2	20.8	19.0	T –
Some College or Univ	26.8	28.6	25.7	29.0	27.3	27.2	22.4	22.1	23.2	22.6	20.0	25.4	20.1	19.0	21.0	17.4	18.7	18.4	15.4	16.3	T –
University Degree	14.6	14.7	15.8	13.1	15.9	15.3	14.4	12.9	13.7	11.2	9.5	7.6	10.4	10.8	8.9	7.7	9.2	7.2	8.2	5.8	T –

Notes: (1) ^a 95% confidence interval; — data not available; all analyses are sample design adjusted.
(2) Trend Analysis: – change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction.

Defn: Current smokers are those that report (1) consuming 100 or more cigarettes in their lifetime, and (2) smoked cigarettes occasionally or daily during the past year; and (3) smoked during the past 30 days.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 4.1.5: Percentage Reporting *Daily Cigarette Smoking*, by Demographic Characteristic, Ontarians Aged 18+, 1996–2015

	1996 (N=)	1997 (2721)	1998 (2776)	1999 (2509)	2000 (2436)	2001 (2406)	2002 (2627)	2003 (2421)	2004 (2411)	2005 (2611)	2006 (2445)	2007 (2016)	2008 (2005)	2009 (2024)	2010 (2037)	2011 (3030)	2012 (3039)	2013 (3030)	2014 (3021)	2015 (3043)	2015 (5013)	Trend
Total	23.0	23.1	22.0	20.7	20.3	19.0	18.0	17.8	16.5	16.1	15.6	17.0	15.6	14.5	14.2	11.5	12.7	13.2	11.4	10.0	T	–
(95%CI) ^a	(21.3, 24.9)	(21.4, 25.0)	(20.2, 23.9)	(19.0, 22.6)	(18.5, 22.1)	(17.4, 20.8)	(16.4, 19.8)	(16.2, 19.6)	(14.9, 18.3)	(14.5, 17.8)	(13.8, 17.6)	(15.1, 19.5)	(13.7, 17.6)	(12.7, 16.5)	(12.8, 15.9)	(10.2, 12.9)	(11.3, 14.2)	(11.6, 14.9)	(9.9, 13.1)	(8.9, 11.2)		
Sex																						NSI
Men	23.6	26.1	24.4	23.5	24.9	21.7	20.3	19.9	18.9	17.0	16.6	18.1	19.6	17.0	16.6	12.3	14.8	15.3	13.6	11.6	T	–
	(21.1, 26.4)	(23.4, 29.0)	(21.5, 27.5)	(20.8, 26.4)	(22.1, 28.0)	(19.1, 24.6)	(17.8, 23.1)	(17.3, 22.7)	(16.3, 21.8)	(14.6, 19.8)	(13.8, 19.6)	(15.2, 21.5)	(16.6, 23.1)	(14.2, 20.2)	(14.2, 19.3)	(10.2, 14.7)	(12.6, 17.4)	(12.8, 18.2)	(11.2, 16.5)	(9.8, 13.6)		
Women	22.5	20.4	19.8	18.2	16.1	16.5	15.8	15.9	14.3	15.2	14.8	15.9	11.7	12.2	12.1	10.8	10.8	11.2	9.3	8.5	T	–
	(20.2, 25.0)	(18.2, 22.8)	(17.6, 22.2)	(16.1, 20.6)	(14.1, 18.4)	(14.5, 18.8)	(13.8, 18.2)	(13.8, 18.2)	(12.3, 16.5)	(13.1, 17.4)	(12.6, 17.3)	(13.6, 18.5)	(9.7, 14.1)	(10.1, 14.7)	(10.3, 14.0)	(9.2, 12.5)	(9.2, 12.5)	(9.5, 13.2)	(7.8, 11.2)	(7.4, 9.9)		
Age																						*
18-29	23.0	28.3	26.5	24.2	25.7	22.5	20.3	22.9	16.1	20.2	19.2	23.3	16.0	16.8	13.8	11.0	10.1	13.7	12.7	10.9	T	–
	(19.2, 27.3)	(24.2, 32.8)	(22.0, 31.4)	(20.0, 28.9)	(21.4, 30.6)	(18.4, 27.1)	(16.4, 24.8)	(18.7, 27.6)	(12.2, 20.9)	(15.8, 25.4)	(14.5, 24.9)	(17.5, 30.2)	(11.1, 22.5)	(11.8, 23.5)	(9.9, 18.8)	(7.6, 15.7)	(6.7, 15.2)	(9.1, 20.2)	(8.0, 19.5)	(7.8, 15.0)		
30-39	27.8	26.1	26.7	24.4	20.6	22.7	24.1	18.8	20.4	17.8	15.6	17.0	14.8	16.9	15.2	11.8	13.8	15.7	10.3	10.7	T	–
	(24.2, 31.5)	(22.7, 30.0)	(22.9, 30.8)	(20.8, 28.3)	(17.2, 24.5)	(19.0, 26.9)	(20.1, 28.6)	(15.1, 23.2)	(16.6, 24.9)	(14.3, 22.0)	(11.8, 20.5)	(13.0, 22.0)	(10.7, 20.3)	(10.7, 20.3)	(11.4, 19.9)	(8.8, 15.7)	(10.4, 18.0)	(11.3, 21.4)	(6.9, 15.2)	(7.9, 14.4)		
40-49	26.3	25.6	23.7	24.0	23.6	21.3	20.3	20.6	19.4	18.2	19.0	20.9	20.3	12.7	16.8	14.2	15.3	14.4	12.7	9.7	T	–
	(22.4, 30.6)	(21.7, 29.8)	(20.0, 27.9)	(20.2, 28.3)	(19.7, 27.9)	(17.8, 25.3)	(16.8, 24.3)	(17.3, 24.4)	(15.8, 23.7)	(14.9, 22.0)	(15.0, 23.8)	(16.7, 25.9)	(16.2, 25.1)	(9.5, 16.7)	(13.6, 20.4)	(11.3, 17.7)	(12.2, 19.0)	(11.3, 18.0)	(9.6, 16.7)	(7.6, 12.4)		
50-64	20.6	19.4	18.3	17.9	17.9	19.7	18.0	16.3	18.1	17.1	16.6	15.2	18.5	18.3	15.7	11.6	15.7	15.4	14.2	12.2	T	–
	(17.0, 24.8)	(16.0, 23.3)	(14.6, 22.7)	(14.2, 22.2)	(14.4, 21.9)	(15.9, 24.0)	(14.6, 22.0)	(13.0, 20.2)	(15.0, 21.8)	(14.0, 20.9)	(13.2, 20.6)	(12.2, 18.9)	(14.9, 22.7)	(14.8, 22.4)	(13.1, 18.6)	(9.4, 14.2)	(13.2, 18.7)	(12.9, 18.2)	(11.8, 17.0)	(10.5, 14.1)		
65+	13.4	8.5	12.8	11.5	11.8	6.9	5.4	9.4	6.6	6.5	6.8	8.3	8.2	7.0	9.3	7.9	7.1	6.2	6.0	5.5	T	–
	(9.8, 18.1)	(5.8, 12.3)	(9.5, 17.2)	(8.4, 15.6)	(8.4, 16.2)	(4.7, 10.1)	(3.5, 8.2)	(6.5, 13.5)	(4.6, 9.3)	(4.5, 9.3)	(4.6, 9.9)	(5.9, 11.6)	(5.9, 11.4)	(4.8, 10.1)	(7.1, 12.2)	(5.8, 10.7)	(5.4, 9.3)	(4.7, 8.1)	(4.5, 7.9)	(4.3, 6.9)		
Region																						NSI
Toronto	19.3	22.1	19.5	15.3	16.4	19.1	11.9	17.4	15.7	10.1	9.7	17.2	13.4	15.5	14.3	6.8	12.1	11.7	9.1	6.9	T	–
	(15.5, 23.8)	(18.0, 26.8)	(15.5, 24.3)	(12.0, 19.4)	(12.8, 20.9)	(15.2, 23.6)	(8.8, 15.9)	(13.7, 21.8)	(12.1, 20.2)	(7.4, 13.6)	(6.6, 14.1)	(12.7, 22.8)	(9.7, 18.4)	(11.4, 20.6)	(11.1, 18.4)	(4.6, 10.0)	(9.2, 15.8)	(8.5, 15.9)	(6.3, 12.9)	(5.1, 9.4)		
C-East	21.9	24.0	22.9	22.6	24.3	17.8	17.2	16.3	13.8	17.5	16.9	14.5	14.8	14.3	12.5	10.1	10.4	14.4	12.3	11.3	T	–
	(18.2, 26.2)	(20.0, 28.4)	(18.7, 27.6)	(18.5, 27.2)	(20.1, 29.1)	(14.2, 22.1)	(13.6, 21.6)	(12.8, 20.6)	(10.6, 17.7)	(13.8, 22.0)	(12.6, 22.2)	(10.7, 19.3)	(13.5, 27.5)	(10.6, 18.9)	(9.3, 16.6)	(7.5, 13.4)	(7.8, 13.8)	(10.9, 18.7)	(9.0, 16.7)	(8.9, 14.4)		
C- West	24.9	21.1	22.7	19.2	15.8	18.1	21.4	16.4	18.5	19.1	16.6	15.2	15.2	17.5	15.3	15.2	12.2	13.2	12.1	10.8	T	–
	(20.8, 29.6)	(17.4, 25.4)	(18.7, 27.3)	(15.4, 23.7)	(12.4, 20.0)	(14.4, 22.4)	(17.3, 26.1)	(12.8, 20.8)	(14.7, 23.1)	(15.1, 23.7)	(12.6, 21.5)	(11.2, 20.2)	(11.3, 20.1)	(13.3, 22.7)	(12.1, 19.3)	(11.8, 19.2)	(9.1, 16.0)	(10.0, 17.2)	(8.9, 16.3)	(8.4, 13.6)		
West	23.8	25.6	21.5	26.8	23.5	18.1	21.4	19.6	16.1	18.0	19.8	20.6	15.8	12.9	14.8	12.2	15.2	13.3	10.6	8.9	T	–
	(19.9, 28.3)	(21.6, 30.0)	(17.5, 26.0)	(22.4, 31.7)	(19.2, 28.4)	(14.4, 22.5)	(17.5, 25.9)	(15.7, 24.1)	(12.6, 20.3)	(14.3, 22.5)	(15.7, 24.6)	(16.2, 25.9)	(11.8, 20.8)	(9.1, 17.9)	(11.7, 18.7)	(9.3, 15.8)	(12.0, 19.2)	(10.2, 17.2)	(8.1, 13.8)	(6.9, 11.5)		
East	24.3	20.0	21.6	21.3	22.7	19.0	17.2	16.0	16.1	12.0	15.6	16.3	16.6	9.3	13.9	12.1	13.8	11.1	10.1	10.5	T	–
	(20.5, 28.6)	(16.3, 24.2)	(17.7, 26.2)	(17.3, 25.8)	(18.5, 27.6)	(15.4, 23.3)	(13.5, 21.6)	(12.6, 20.2)	(12.8, 20.1)	(9.0, 15.9)	(11.8, 20.2)	(12.3, 21.3)	(12.4, 22.0)	(6.4, 13.3)	(10.8, 17.8)	(9.2, 15.7)	(10.8, 17.5)	(8.3, 14.7)	(7.5, 13.5)	(8.1, 13.6)		
North	28.1	30.0	26.3	25.2	23.9	25.9	23.0	26.5	21.0	24.3	18.4	23.1	23.6	18.1	16.6	18.7	17.7	16.2	16.7	13.7	T	–
	(23.8, 32.1)	(25.6, 34.8)	(22.0, 31.0)	(20.9, 30.0)	(19.7, 28.7)	(22.3, 29.9)	(18.9, 27.7)	(22.1, 31.4)	(17.7, 24.6)	(20.0, 29.3)	(14.2, 23.6)	(18.5, 28.3)	(18.9, 29.1)	(14.0, 23.0)	(13.0, 20.8)	(15.0, 23.1)	(14.0, 22.1)	(12.8, 20.4)	(13.2, 20.8)	(11.1, 16.7)		

Cont'd

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend	
(N=)	(2721)	(2776)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)		
Marital Status																						NSI
Married/ Partner	21.9	19.0	19.9	19.8	18.1	16.9	16.0	16.2	14.8	15.1	14.2	14.3	14.1	13.8	12.4	10.5	11.5	11.3	9.3	8.2	T	-
Previously Married	29.4	30.8	27.2	22.2	22.2	22.4	21.9	20.2	22.1	17.8	18.2	23.4	21.9	18.2	20.9	19.2	17.6	17.9	19.3	15.7	T	-
Never Married	22.7	29.2	25.4	23.1	24.8	22.5	20.9	21.6	18.5	18.3	19.3	21.9	16.3	14.9	16.5	10.7	13.9	16.6	14.0	12.6	T	-
Education																						*
HS not completed	35.0	35.0	32.6	28.7	26.2	23.8	23.7	26.2	24.4	26.5	24.3	30.9	26.7	28.3	21.7	23.1	21.3	27.0	26.4	17.8	T	2Y
Completed HS	27.0	26.6	24.5	25.7	23.9	23.0	23.7	26.1	21.9	22.0	25.3	21.1	21.4	20.5	20.4	15.5	14.1	20.6	17.0	15.7	T	
Some College or Univ	22.9	24.0	20.9	22.5	21.8	20.5	17.8	17.7	15.8	16.5	14.7	19.8	16.5	14.4	16.7	13.3	15.0	13.2	11.3	12.1	T	-
University Degree	9.9	10.2	12.4	7.6	11.3	10.7	9.9	7.2	10.4	6.7	5.8	4.8	7.0	4.8	5.5	4.4	6.3	4.6	5.1	3.6	T	-

Notes: (1) ^a 95% confidence interval; all analyses are sample design adjusted.
(2) Trend Analysis: – change not statistically significant (p<.05); **T** statistically significant change (p<.05) between 1996-2015; **2Y** statistically significant change (p<.05) between last two estimates.
(3) **NSI**, non-significant YEAR × FACTOR interaction; *p<.05; **p<.01; ***p<.001.

Defn: Daily smokers are those who (1) reported using 100 or more cigarettes in their lifetime, (2) smoked cigarettes occasionally or daily during the past year; and (3) smoked cigarettes daily at the time of the survey.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 4.1.1
Cigarette Smoking Status, Ontarians Aged 18+, 2015 (N=5013)

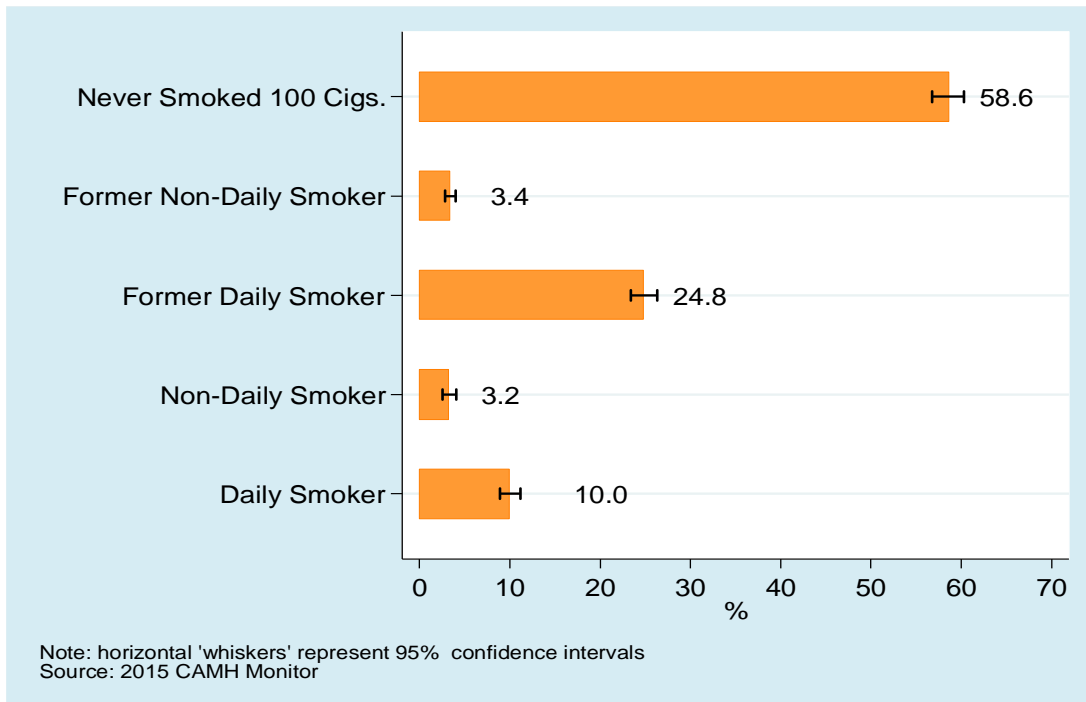


Figure 4.1.2
Current Cigarette Use by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

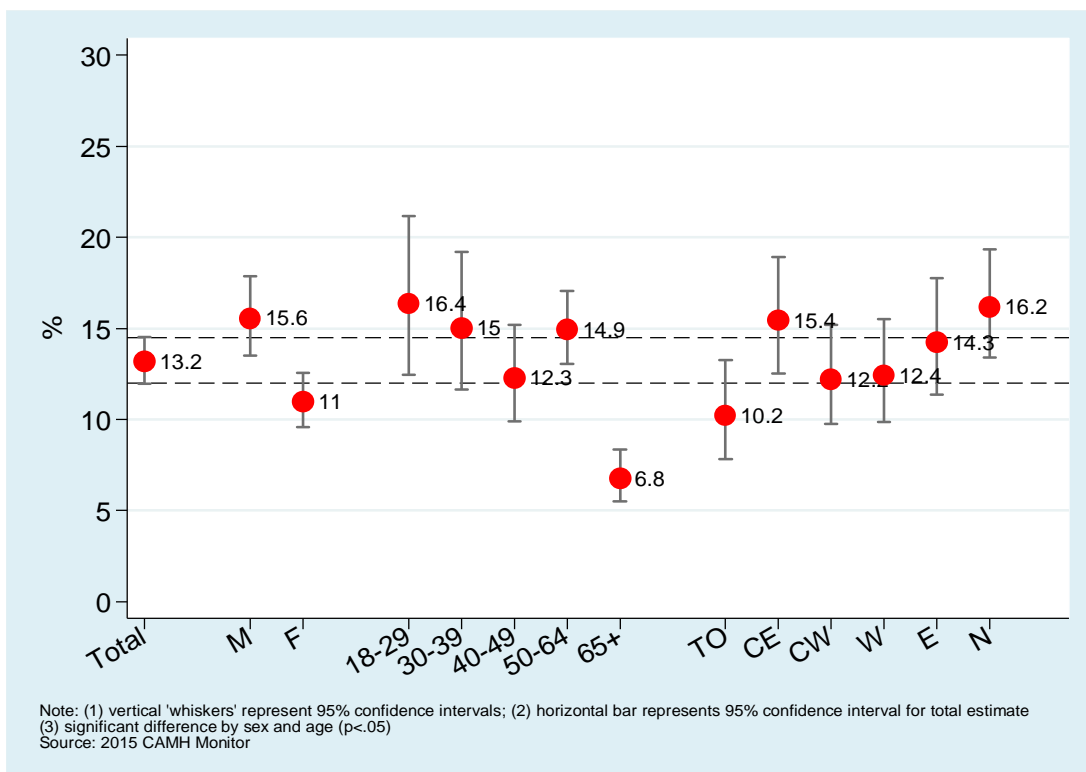


Figure 4.1.3
Average Number of Cigarettes Smoked Daily, Current Smokers Aged 18+, 2015 (n=626)

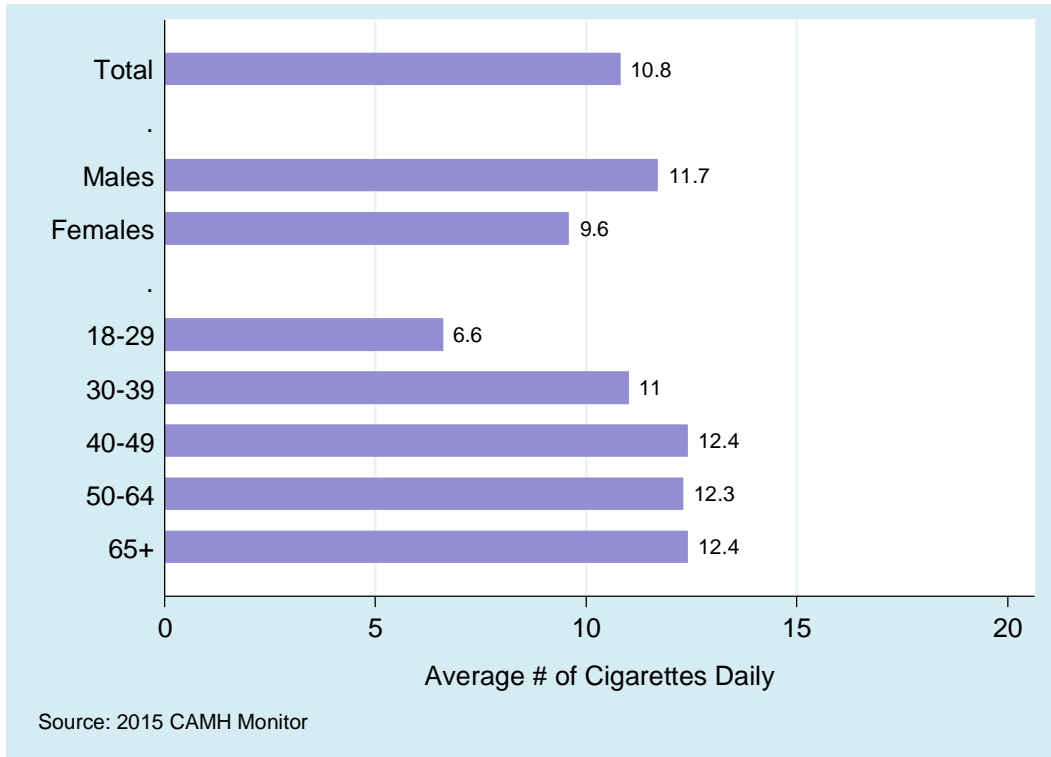


Figure 4.1.4
Nicotine Dependence (HSI), Daily Smokers Aged 18+, 2015 (n=499)

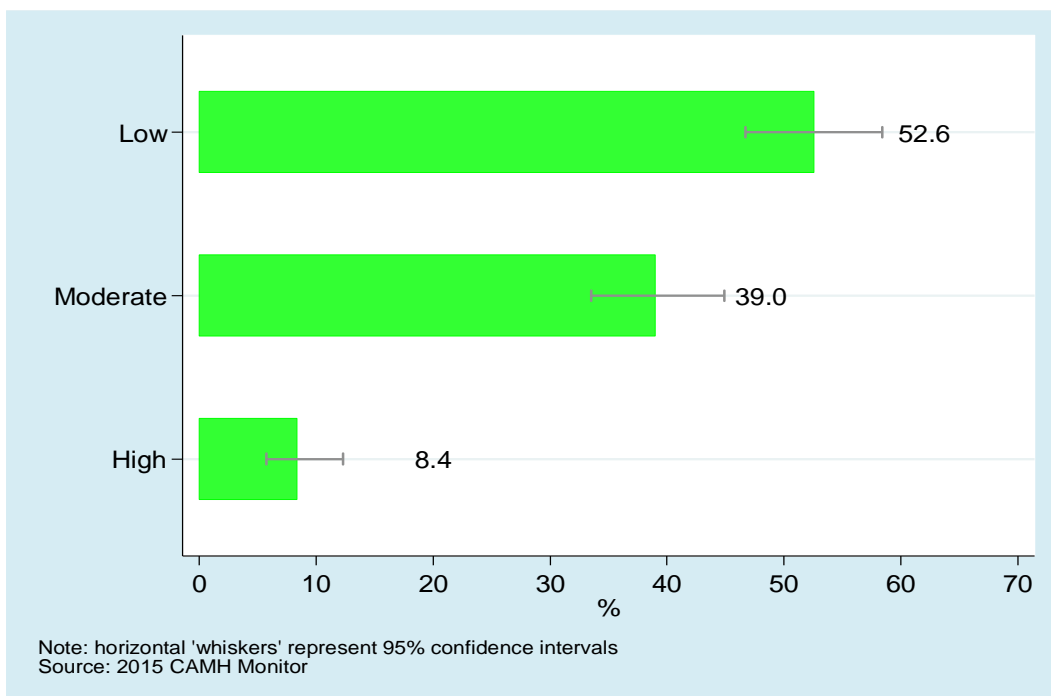
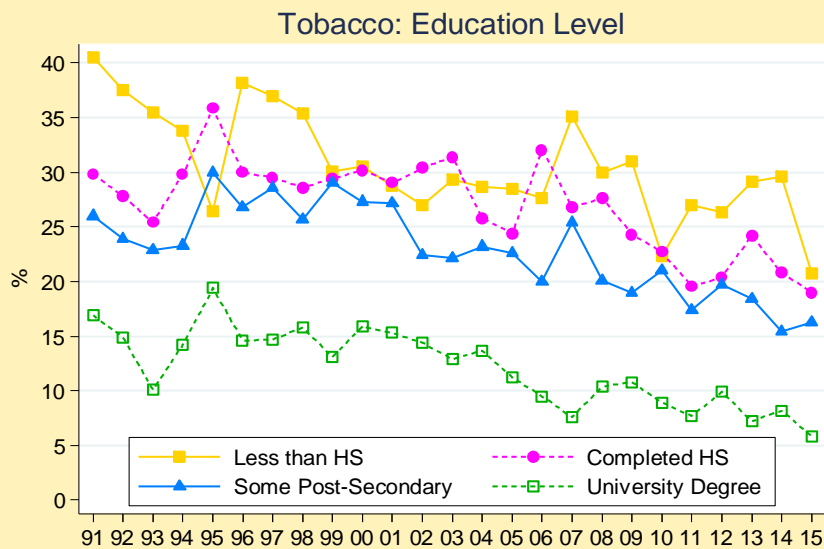
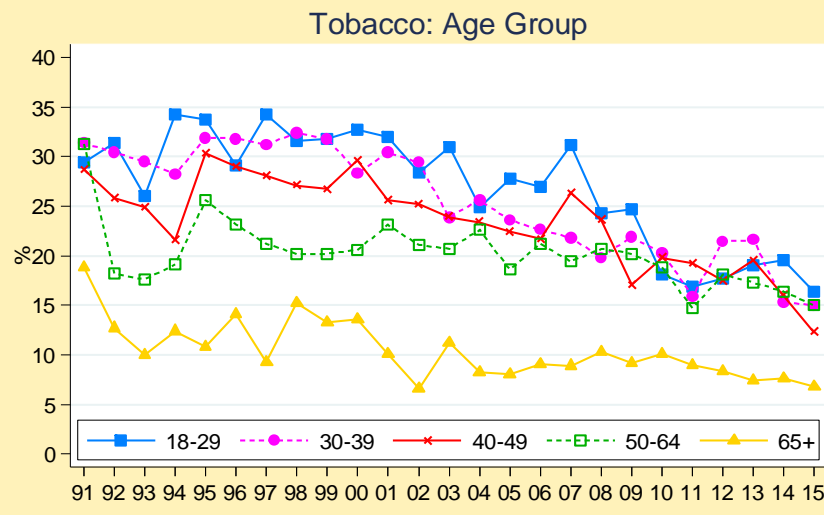
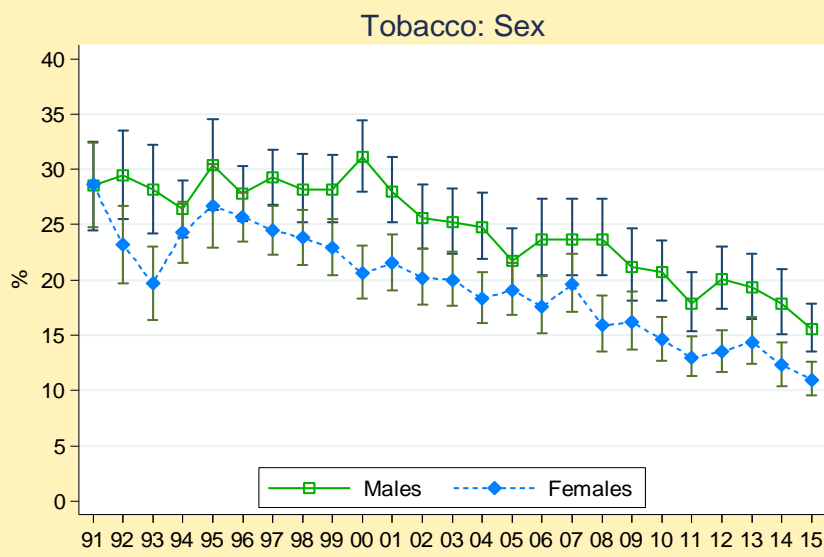
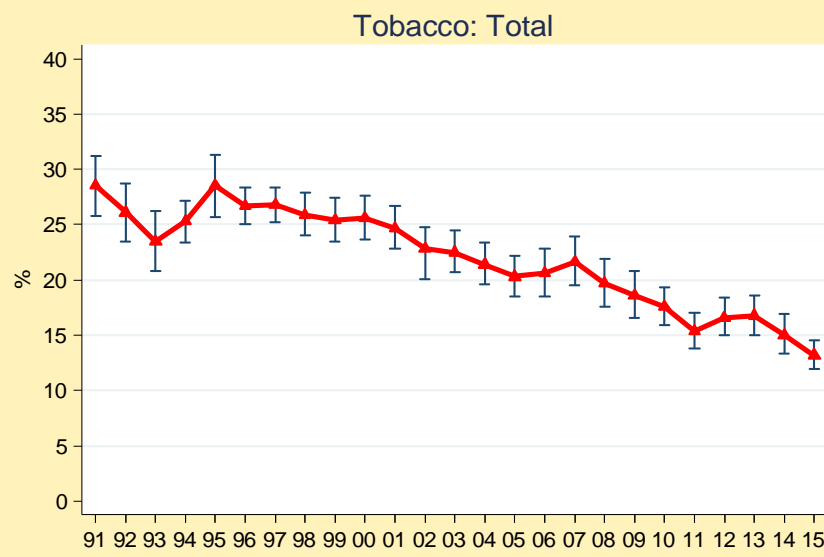


Figure 4.1.5
Current Cigarette Use Among Ontarians Aged 18+, 1991–2015



Note: vertical 'whiskers' represent 95% confidence intervals
 Source: CAMH Monitor

4.2.1 Electronic Cigarette Use

Questions about the use of electronic cigarettes were included in the CAMH Monitor for the first time in 2013.

An electronic cigarette (e-cigarette) is a battery-powered cigarette-shaped canister used to simulate the sensation of smoking. Other names for an e-cigarette include “vape pen,” “hookah pen,” and “e-hookah.” A liquid-filled cartridge is heated and releases vapour. The vapour, which resembles smoke, is inhaled. Some e-cigarettes contain nicotine, and most are flavoured.

In Canada, the sale of e-cigarettes with nicotine is prohibited, yet they are widely available over the Internet. E-cigarettes without nicotine can be legally sold in Canada and they are not regulated. To date, Health Canada has not approved an e-cigarette product and warns that e-cigarettes with or without nicotine may pose health risks.

In 2015, a random sub-sample was asked the following: *“E-cigarettes, also known as “vape pipes”, “hookah pens” and “e-hookahs” are electronic devices that create an inhaled mist, simulating the act of smoking. Have you ever taken at least one puff from an e-cigarette?”*

Two follow-up questions asked respondents whether they used an e-cigarette in the past year and if the e-cigarette they smoked the last time contained nicotine. Specifically, the following two questions were asked:

- 1) *“Was it in the past 12 months that you had at least one puff of an e-cigarette?”*
- 2) *“The last time you used an e-cigarette, did it contain nicotine?”*

2015 Tables 4.2.1; 4.2.2; Fig. 4.2.1–4.2.2

Overall, the estimated percentage of electronic cigarette use in the past 12 months was **10.9%** (95% CI: 9.0% to 13.2%). The corresponding population estimate is 1,113,000 current users (95% CI: 890,500 to 1,334,800).

Age and **education** were significantly related to electronic cigarette use, when adjusting for other demographic factors.

- Compared to those aged 18 to 29 (27.1%), the adjusted odds of electronic cigarette use were significantly lower among those aged 40 to 49 (6.6%; OR=0.30) and among those aged 50 and older (5.3%; OR=0.22).
- Electronic cigarette use was higher among those not completing high school (12.3%), and among those with some college or university (17.8%) and lowest among those holding a university degree (4.0%).

About **45.6%** of past 12 months users report using e-cigarettes with **nicotine**, 38.3% report using e-cigarettes without nicotine, and 16.1% were not sure what they used (Fig. 4.2.2).

Trends

2013–2015..... Table 4.2.2

Prevalence of **electronic cigarette** use in 2015 (11.0%) was unchanged from 2014 (10.1%), but was significantly higher than in 2013 (6.9%).

Year did interact significantly only with **education**, indicating that trends in e-cigarette use differed among education subgroups. Differential education-group trends suggest that increases were significant among those with some postsecondary education, whereas among those without a high school degree there was a significant decline in use.

Year did not interact significantly with sex, age, region and marital status, suggesting similar trends in each subgroup.

Table 4.2.1: Percentage Reporting *Electronic Cigarette Use* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=1955)
Total¹	2011	10.9	(9.0, 13.2)	—
Sex				NS
Men	743	12.9	(9.8, 16.8)	1.34
Women (<i>Comparison Group</i>)	1268	9.2	(7.1, 11.8)	—
Age				**
<i>(Comparison Group is previous age group)</i>				
18-29	168	27.1	(20.1, 35.6)	—
30-39	183	† 11.5	(7.1, 17.9)	0.52
40-49	322	† 6.6	(4.2, 10.2)	0.30**
50+	1319	† 5.3	(4.0, 7.1)	0.22**
Public Health Region				NS
<i>(vs. Provincial Average)</i>				
Toronto	341	† 8.8	(5.3, 14.1)	0.63
Central East	337	† 12.0	(7.9, 17.7)	1.19
Central West	330	† 12.5	(8.2, 18.5)	1.28
West	321	† 8.6	(5.3, 13.7)	0.93
East	336	† 11.4	(7.3, 17.5)	0.95
North	346	† 13.7	(9.6, 19.2)	1.70*
Marital Status				NS
<i>(Comparison Group)</i>				
Married/Partner	1265	6.7	(5.1, 8.6)	—
Previously Married	450	† 8.3	(5.1, 13.1)	1.42
Never Married	266	24.8	(18.5, 32.4)	1.69
Education				*
<i>(Comparison Group)</i>				
High school not completed	166	† 6.4	(3.1, 13.1)	—
Completed high school	458	† 12.3	(8.6, 17.3)	1.25
Some college or university	694	17.8	(13.8, 22.7)	2.13
University degree	680	† 4.0	(2.5, 6.4)	0.41
Household Income				NS
<i>(Comparison Group)</i>				
< \$30,000	176	† 12.1	(5.3, 25.4)	—
\$30,000-\$49,999	227	† 17.3	(10.6, 26.9)	1.46
\$50,000-\$79,999	343	† 6.8	(4.1, 11.2)	0.47
\$80,000+	783	† 9.8	(7.3, 13.0)	0.82
Not stated	482	† 13.3	(9.1, 19.1)	0.81

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate unstable or suppressed; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of smoking are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of smoking are lower in the group being compared to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=1955).

Q: *Have you ever taken at least one puff from an e-cigarette? Was this in the past 12 months?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 4.2.2: Percentage Reporting *Electronic Cigarette Use* in the Past 12 Months, by Demographic Characteristics, Ontarians Aged 18+, 2013-2015

	2013 (3021)	2014 (3043)	2015 (2011)	Trend	
(N=)					
Total	6.9	10.1	10.9	T	-
(95%CI) ^a	(5.7, 8.4)	(8.5, 11.8)	(9.0, 13.2)		
Sex				NSI	
Men	7.9	11.6	12.9	T	-
	(6.0, 10.4)	(9.1, 14.6)	(9.8, 16.8)		
Women	6.0	8.7	9.2	T	-
	(4.7, 7.8)	(7.0, 10.7)	(7.1, 11.8)		
Age				NSI	
18-29	† 13.4	† 21.0	27.1	T	-
	(8.8, 19.8)	(14.9, 28.6)	(20.1, 35.6)		
30-39	† 7.5	† 12.2	† 11.5	-	-
	(4.7, 11.7)	(8.6, 17.0)	(7.1, 17.9)		
40-49	† 7.0	11.5	† 6.6	-	-
	(4.8, 10.0)	(8.4, 15.5)	(4.2, 10.2)		
50+	4.4	4.9	† 5.3	-	-
	(3.3, 5.7)	(3.8, 6.2)	(4.0, 7.1)		
Region				NSI	
Toronto	† 4.2	† 9.1	† 8.8	-	-
	(2.3, 7.7)	(6.0, 13.8)	(5.3, 14.1)		
Central East	† 7.3	† 12.3	† 12.0	-	-
	(4.8, 11.0)	(8.8, 16.9)	(7.9, 17.7)		
Central West	† 9.1	10.8	† 12.5	-	-
	(6.2, 13.2)	(7.8, 14.8)	(8.2, 18.5)		
West	† 8.2	† 7.3	† 8.6	-	-
	(5.5, 12.0)	(4.8, 10.9)	(5.3, 13.7)		
East	† 6.4	† 9.2	† 11.4	-	-
	(4.3, 9.3)	(6.6, 12.7)	(7.3, 17.5)		
North	† 5.3	† 8.3	† 13.7	T	-
	(3.3, 8.4)	(5.6, 12.0)	(9.6, 19.2)		
Marital Status				NSI	
Married/ Partner	5.2	7.2	6.7	-	-
Previously Married	† 6.5	† 8.8	† 8.3	-	-
Never Married	† 12.3	18.9	24.8	T	-
Education				*	
Less than high school	† 9.3	† 12.8	† 6.4	-	-
Completed high school	† 9.5	14.9	† 12.3	-	-
Some college or university	8.1	10.0	17.8	T	-
University degree	† 3.5	† 6.9	† 4.0	T	-

Notes: (1) All analyses are sample design adjusted; ^a95% confidence interval; † Estimate suppressed or unstable.

(2) Trend Analysis: – change not statistically significant at p<.05; **T** significant change (p<.05) between 2013-2015; **2Y** significant change (p<.05) between last two estimates.

(3) **NSI**, non-significant YEAR × FACTOR interaction.

Q: *Have you ever taken at least one puff from an e-cigarette? Was this in the past 12 months?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 4.2.1
Past Year Electronic Cigarette Use by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=2011)

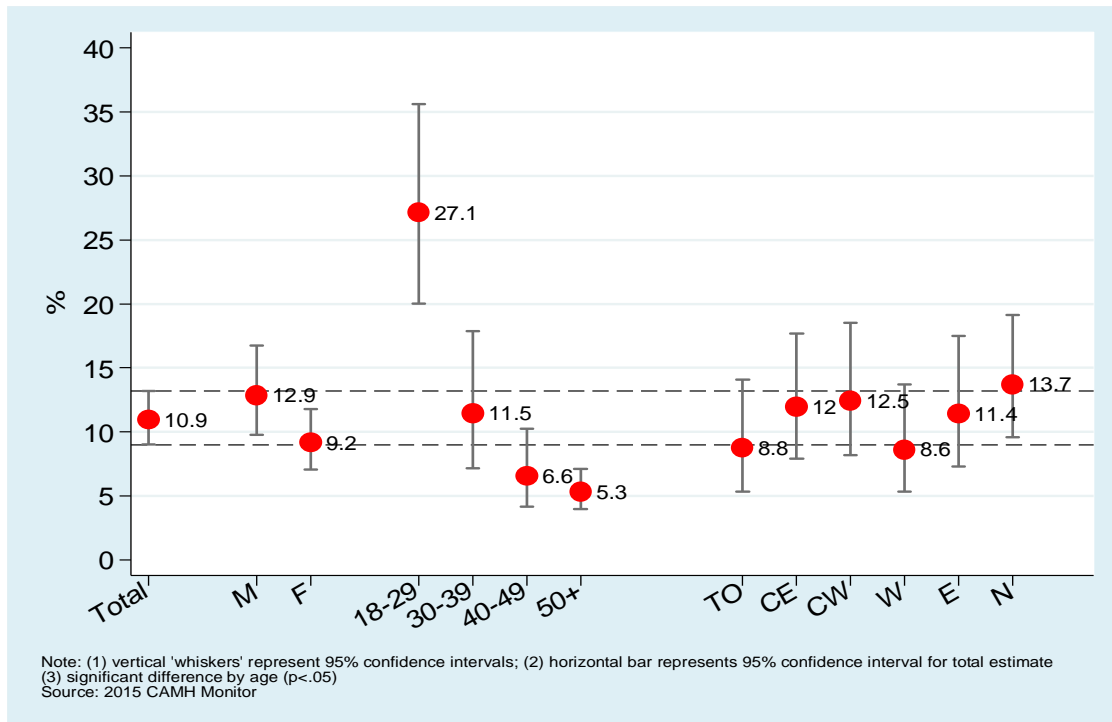
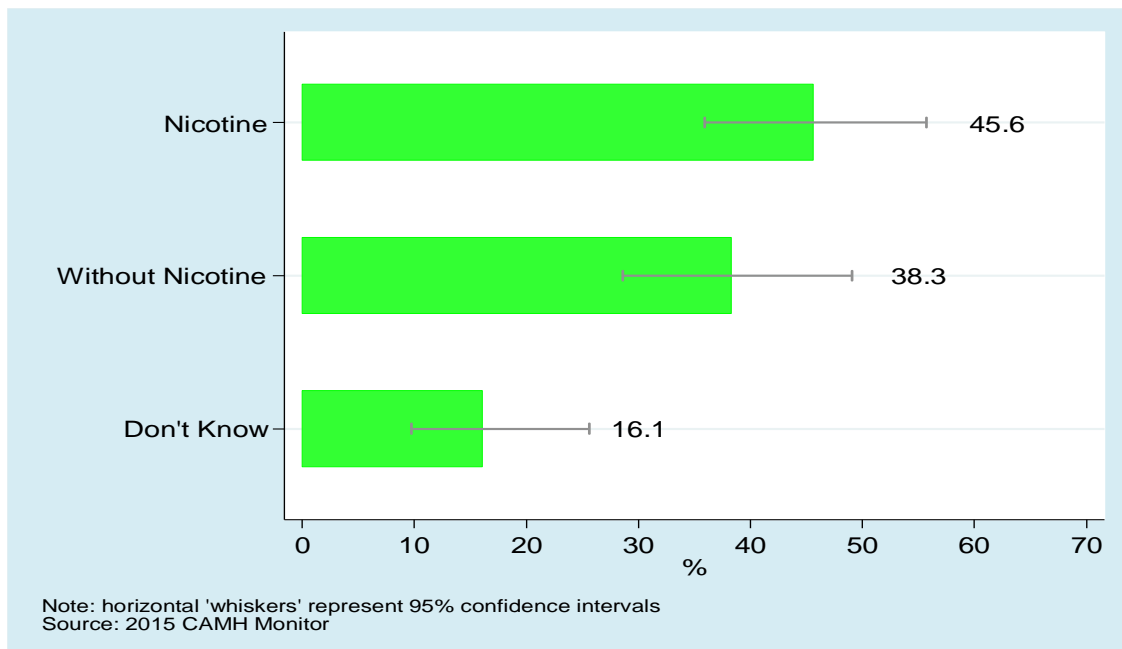


Figure 4.2.2
Type of Electronic Cigarette Used, Past Year Users Aged 18+, 2015 (n=158)



5. CANNABIS and OTHER DRUGS

5.1 Cannabis Use

2015.....Tables 5.1.1 - 5.1.3;
Fig. 5.1.1 - 5.1.2

Overall, an estimated **45.3%** (95% CI: 43.5 to 47.2) of Ontario adults used cannabis at least once in their lifetime, while **14.5%** (95% CI: 13.1% to 16.1%) used it in the 12 months before the survey. Population estimates for lifetime and past year use are 4,576,900 (95% CI: 4,358,900 to 4,795,000) and 1,467,400 (95% CI: 1,307,500 to 1,627,300) Ontario adults, respectively.

Use of cannabis is generally infrequent. Overall, only 7% of Ontario adults used cannabis once a month or more frequently. Among lifetime users, 68.0% did not use cannabis during the 12 months before the survey, 17% used less than once a month, and 15% used once a month or more frequently. Among past year cannabis users, 52% used less than once a month and 48% used more frequently.

Sex, age, marital status, education and household income were all significantly related to past year use of cannabis. While holding values of risk factors constant, adjusted group differences showed the following:

- The adjusted odds of use were significantly higher among men than women (19.2% vs. 10.2%; OR=2.1).

- Past year cannabis use showed a significant decline with age, dropping from 37.9% among 18 to 29 year olds to 7.2% among those 50 years and older. Compared to 18 to 29 year olds, the adjusted odds of past year cannabis use were significantly lower among 30 to 39 year olds (OR = 0.39), among 40 to 49 years olds (OR=0.22), and among those 50 and older (OR=0.17).
- Relative to married respondents, the adjusted odds of cannabis use were 1.6 times higher among those never married (33.0% vs. 8.9%; OR=1.61).
- The past year use of cannabis tended to increase with education. Use was lowest among those who have not completed high school (7.9%) and higher among those with completed high school and among those with some college or university education (18.5% and 18.2%, respectively).
- Household income showed a weak, but significant association with past year cannabis use. The distinguishing feature was a higher rate among those with incomes of \$30,000 to \$49,999 (17.7%; OR=1.43).

There were no significant differences according to region after adjusting for other demographics.

Trends

1977–2015..... Table 5.1.5;
Fig. 5.1.2 – 5.1.3

2014–2015

Prevalence of past year cannabis use in 2015 (14.5%) was not significantly different from 2014 (12.9%). In addition, rates of use were stable for all subgroups.

1996–2015

Since 1996, cannabis use among the total sample has **increased significantly**, from 8.7% to 14.5% in 2015, although the trend has been generally stable since 2005.

Year interacted significantly with age, indicating that trends in cannabis use differed among the age groups. Year did not interact with sex, region, marital status and education level, suggesting similar trends in each subgroup.

Differential age group trends suggest that increases are strongest among the youngest respondents and weaken with increasing age. Between 1996 and 2015, cannabis use increased among 18 to 29 year olds from 18.3% to 37.9%, whereas use among 30 to 39 year olds only increased from 11.3% to 15.0%, and among 40 to 49 year olds from 6.1% to 8.8%. However, we found a significant increase among those aged 50 and older, from 1.4% in 1998 to 7.2% in 2015, and the 2015 estimate is the **highest** on record for this age group.

Significant **increases** also occurred among men and women, and virtually all region, marital status and education subgroups.

1977–2015

Since 1977, past year use of cannabis has increased appreciably. The current rate of 14.5% is significantly higher than the 8.1% found in 1977. There were also significant increases over the longer term among **men** (from 9.1% in 1992 to 19.2% in 2015), **women** (from 4.5% in 1977 to 10.2% in 2015) and **all age groups**, especially 18 to 29 year olds (from 19.0% in 1987 to 37.9% in 2015) and those 50 years and older (from 1.2% in 1977 to 7.2% in 2015).

Another important change is the aging of cannabis users (Figure 5.1.2). In 1977, 82% of past year cannabis users were aged 18 to 29 versus 51% in 2015. In contrast, the proportion of cannabis users aged 30 to 49 increased from 15% to 26%, and the proportion aged 50 and older increased seven-fold from 3% to 23% during the same period.

Table 5.1.1: Percentage Reporting *Cannabis Use* in their *Lifetime* and *Past 12 Months*, Ontarians Aged 18+, 2015

Total sample (N=5013)	Lower Limit %	Estimate %	Upper Limit %
Lifetime Use	43.5	45.3	47.2
Past 12 Months Use	13.1	14.5	16.1

Note: All estimates are sample design adjusted.

Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Table 5.1.2: Frequency of *Cannabis Use* among *Lifetime* and *Past Year Users*, Ontarians Aged 18+, 2015

Frequency of Cannabis Use	Lifetime Users (N=2066)	Past year Users (N=492)
	% (95% CI)	% (95% CI)
Used in lifetime, but not past 12 months	67.9 (65.0, 70.6)	—
Used less than once a month during past 12 months	16.7 (14.6, 19.1)	52.1 (46.4, 57.8)
Used once a month or more often during past 12 months	15.4 (13.2, 17.9)	47.9 (42.3, 53.6)

Note: All estimates are sample design adjusted.

Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Table 5.1.3: Percentage *Using Cannabis* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=4869)
Total	5013	14.5	(13.1, 16.1)	—
Sex				***
Men	1912	19.2	(16.8, 21.9)	2.07**
Women (<i>Comparison Group</i>)	3101	10.2	(8.7, 12.0)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	37.9	(32.6, 43.5)	—
30-39	482	15.0	(11.6, 19.2)	0.39**
40-49	782	8.8	(6.6, 11.6)	0.22**
50+	3297	7.2	(6.1, 8.3)	0.17**
Region				NS
Toronto (<i>vs. Provincial Average</i>)	833	13.9	(10.9, 17.5)	0.86
Central East	833	18.1	(14.8, 22.1)	1.32
Central West	820	13.1	(10.2, 16.6)	0.95
West	839	10.6	(8.0, 13.8)	0.76
East	838	13.9	(10.9, 17.5)	0.92
North	850	15.5	(12.5, 19.1)	1.23
Marital Status				*
Married/Partner (<i>Comparison Group</i>)	3172	8.9	(7.6, 10.3)	—
Previously Married	1091	9.5	(7.3, 12.3)	1.31
Never Married	703	33.0	(28.5, 37.8)	1.61*
Education				**
High school not completed (<i>Comparison Group</i>)	405	† 7.9	(4.7, 13.0)	—
Completed high school	1075	18.5	(15.2, 22.3)	1.43
Some college or university	1749	18.2	(15.6, 21.2)	1.45
University degree	1747	9.7	(8.0, 11.8)	0.80
Household Income				*
< \$30,000 (<i>Comparison Group</i>)	444	† 12.7	(8.2, 19.2)	—
\$30,000-\$49,999	565	17.7	(13.2, 23.4)	1.42
\$50,000-\$79,999	819	12.2	(9.2, 16.1)	0.82
\$80,000+	1993	15.8	(13.7, 18.2)	1.19
Not stated	1192	12.8	(10.1, 16.1)	0.70

Notes: (1) All analyses are sample design adjusted; * p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate unstable.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of cannabis use are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of cannabis use are lower in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values of sex, age, region, marital status, education and income (complete case sample size N=4,869).

Q: *How many times, if any, have you used cannabis, marijuana or hash during the past 12 months?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 5.1.4: Percentage *Using Cannabis* in the Past 12 Months by Demographic Characteristic, Ontarians Aged 18+, 1977–1994

	1977	1982	1984	1987	1989	1991	1992	1994
(N=)	(1059)	(1026)	(1043)	(1075)	(1098)	(1047)	(1058)	(2022)
Total	8.1	8.2	11.2	9.5	10.5	8.7	6.2	9.0
(95% CI) ^a	(6.5,9.7)	(5.9,0.5)	(9.3,13.1)	(7.7,11.3)	(8.7,12.3)	7.0,10.4)	(4.7,7.7)	(7.8,10.2)
Sex								
Men	11.2	12.3	15.6	12.3	13.0	11.5	9.1	11.4
	(8.5,13.9)	(9.5,15.1)	(12.5,18.7)	(9.5,15.1)	(10.2,15.8)	(8.7,14.3)	(6.6,11.6)	(9.5,13.3)
Women	4.5	4.1	7.1	6.8	8.2	6.0	3.6	7.0
	(2.7,6.3)	(2.4,5.8)	(4.9,9.3)	(4.7,8.9)	(5.9,10.5)	(4.0,8.0)	(2.1,5.1)	(5.4,8.6)
Age								
18 - 29	22.6	22.7	28.5	19.0	24.6	19.9	13.3	19.6
	(17.8,27.4)	(17.7,27.7)	(23.1,33.9)	(14.9,24.2)	(19.2,30.0)	(15.1,24.7)	(9.3,17.3)	(16.0,23.2)
30 - 39	3.9	4.2	9.5	11.6	11.8	9.1	6.6	10.2
	(1.3,6.5)	(1.7,6.7)	(5.8,13.2)	(7.9,15.3)	(8.1,15.5)	(5.6,12.6)	(3.7,9.5)	(7.6,12.8)
40 - 49	† 2.3	†	† 2.2	5.4	† 3.9	† 3.0	† 2.4	4.3
	(0.1,4.5)	—	(0.1,4.3)	(2.0,8.8)	(1.1,6.7)	(0.7,5.3)	(0.3,4.5)	(2.4,6.2)
50 +	† 1.2	† 1.3	† 1.8	†	† 1.4	†	† 1.3	†
	(0.3,2.7)	(0.2,2.8)	(0.2,3.6)	—	(0.1,3.0)	—	(0.5,3.1)	—
Marital Status								
Married	—	—	—	—	—	4.0	3.5	4.1
Previously Married	—	—	—	—	—	6.5	6.3	8.6
Never Married	—	—	—	—	—	20.2	13.7	20.9
Education								
High school not completed	—	—	—	—	—	6.3	6.3	8.5
Completed high school	—	—	—	—	—	9.8	5.2	9.6
Some college or university	—	—	—	—	—	10.7	6.7	10.3
University degree	—	—	—	—	—	7.6	7.2	7.0

Notes: All estimates and analyses are sample design adjusted; ^a 95% confidence interval; — data not available;

† Estimate unstable or suppressed.

Q: How many times, if any, have you used cannabis, marijuana or hash during the past 12 months?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 5.1.5: Percentage *Using Cannabis* in the Past 12 Months by Demographic Characteristic, Ontarians Aged 18+, 1996–2015

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend	
(N=)	(2721)	(2776)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)		
Total	8.7	9.1	8.6	10.4	10.8	11.2	11.5	12.8	12.4	14.4	13.4	12.5	13.1	13.3	14.2	13.4	13.5	14.1	12.9	14.5	T –	
(95% CI) ^a	(7.6, 9.8)	(7.8, 10.3)	(7.3, 10.0)	(9.1, 11.9)	(9.4, 12.4)	(9.9, 12.8)	(10.1, 13.1)	(11.4, 14.5)	(10.8, 14.1)	(12.7, 16.2)	(11.5, 15.6)	(10.8, 14.5)	(11.2, 15.3)	(11.5, 15.4)	(12.6, 16.0)	(11.8, 15.2)	(11.8, 15.3)	(12.2, 16.1)	(11.2, 14.8)	(13.1, 16.1)		
Sex																						NSI
Men	12.6	11.4	12.1	13.2	14.3	15.4	15.3	16.0	16.0	18.8	18.6	15.2	18.2	17.4	19.9	16.3	16.8	17.6	15.8	19.2	T –	
	(10.7, 14.5)	(9.3, 13.5)	(9.9, 14.7)	(11.1, 15.8)	(12.0, 16.9)	(13.2, 18.0)	(12.9, 17.9)	(13.6, 18.7)	(13.5, 18.9)	(16.0, 21.9)	(15.4, 22.3)	(12.5, 18.2)	(15.0, 21.9)	(14.4, 20.7)	(17.2, 22.9)	(13.7, 19.3)	(14.2, 19.8)	(14.7, 20.9)	(13.0, 19.0)	(16.8, 21.9)		
Women	5.3	7.0	5.4	7.8	7.7	7.3	8.0	9.9	9.0	10.3	8.5	10.1	8.4	9.5	8.8	10.8	10.5	10.8	10.2	10.2	T –	
	(4.2, 6.4)	(5.4, 8.5)	(4.2, 6.9)	(6.3, 9.7)	(6.2, 9.6)	(5.7, 9.2)	(6.4, 10.0)	(8.2, 11.9)	(7.3, 11.1)	(8.4, 12.5)	(6.6, 10.8)	(8.0, 12.6)	(6.3, 11.0)	(7.3, 12.2)	(7.2, 10.7)	(8.8, 13.0)	(8.5, 12.8)	(8.9, 13.3)	(8.2, 12.6)	(8.7, 12.0)		
Age																						***
18 - 29	18.3	21.4	25.2	27.1	28.2	26.8	26.6	33.6	34.3	38.2	38.2	33.6	34.6	35.8	33.8	33.5	34.3	40.4	28.3	37.9	T –	
	(15.0, 21.6)	(17.4, 25.3)	(20.8, 30.1)	(22.6, 32.0)	(23.7, 33.2)	(22.5, 31.7)	(22.1, 31.7)	(28.7, 38.9)	(28.9, 40.2)	(32.4, 44.2)	(31.6, 45.4)	(27.3, 40.5)	(27.4, 42.7)	(28.6, 43.7)	(28.0, 40.0)	(27.4, 40.2)	(27.6, 41.8)	(32.8, 48.6)	(21.6, 36.1)	(32.6, 43.5)		
30 - 39	11.3	9.8	8.2	10.3	12.3	15.8	14.7	12.0	14.7	16.9	14.1	12.5	15.2	12.9	18.9	16.1	15.4	17.3	19.6	15.0	T –	
	(8.9, 13.7)	(7.3, 12.3)	(6.1, 11.1)	(7.9, 13.4)	(9.4, 15.9)	(12.5, 19.8)	(11.5, 18.7)	(9.1, 15.7)	(11.3, 19.0)	(13.1, 21.6)	(10.4, 18.9)	(9.0, 17.2)	(11.0, 20.6)	(9.2, 17.7)	(14.6, 24.0)	(12.5, 20.5)	(11.8, 19.9)	(13.0, 22.8)	(14.6, 25.9)	(11.6, 19.2)		
40 - 49	6.1	4.3	4.6	6.8	6.4	7.2	7.6	9.5	7.3	10.8	8.4	9.9	9.9	11.7	10.1	9.2	10.8	8.4	10.4	8.8	T –	
	(4.1, 8.1)	(2.6, 6.1)	(3.1, 6.7)	(4.8, 9.5)	(4.5, 9.1)	(5.3, 9.7)	(5.4, 10.5)	(7.3, 12.3)	(5.2, 10.2)	(8.2, 14.1)	(5.8, 12.1)	(7.0, 13.8)	(7.0, 13.9)	(8.5, 15.8)	(7.7, 13.0)	(6.8, 12.3)	(8.2, 14.1)	(6.1, 11.4)	(7.5, 14.1)	(6.6, 11.6)		
50 +	†	†1.7	†1.4	4.1	†2.9	†3.3	†3.3	†3.1	†3.0	†2.6	†2.6	†4.6	†4.0	†4.7	5.4	5.2	6.4	5.9	6.3	7.2	T –	
	—	(0.6, 2.8)	(0.3, 2.5)	(2.3, 5.9)	(1.4, 4.4)	(1.8, 4.8)	(2.2, 5.0)	(2.0, 4.8)	(2.4, 4.4)	(1.7, 3.9)	(1.7, 3.8)	(3.3, 6.4)	(2.7, 5.8)	(3.4, 6.3)	(4.3, 6.8)	(4.1, 6.6)	(5.1, 7.9)	(4.7, 7.5)	(5.1, 7.8)	(6.1, 8.3)		
Region																						NSI
Toronto	10.2	10.9	13.0	10.1	14.2	14.3	13.0	14.7	13.7	19.0	13.7	15.8	12.4	15.9	15.6	12.2	12.9	15.0	13.5	13.9	T –	
	(7.5, 13.8)	(8.1, 14.7)	(9.7, 17.3)	(7.3, 13.6)	(10.9, 18.4)	(10.9, 18.7)	(9.7, 17.2)	(11.3, 19.0)	(10.2, 18.1)	(14.7, 24.1)	(9.7, 19.0)	(11.6, 21.0)	(8.6, 17.5)	(11.6, 21.5)	(12.1, 20.0)	(9.1, 16.3)	(9.7, 16.9)	(10.9, 20.3)	(9.9, 18.2)	(10.9, 17.5)		
C-East	†7.9	†8.0	†7.5	11.6	†5.7	11.7	12.4	12.0	13.6	16.9	†14.9	†8.6	16.9	†12.3	14.7	12.6	12.4	15.5	13.6	18.1	T –	
	(5.7, 10.9)	(5.6, 11.5)	(5.0, 11.1)	(8.5, 15.7)	(3.6, 9.0)	(8.8, 15.5)	(9.2, 16.4)	(9.0, 15.7)	(9.9, 18.4)	(13.0, 21.6)	(10.6, 20.5)	(5.7, 12.9)	(2.2, 23.0)	(8.6, 17.3)	(11.1, 19.1)	(9.2, 17.0)	(9.0, 17.0)	(11.6, 20.3)	(9.9, 18.3)	(14.8, 22.1)		
C-West	9.7	†8.5	†9.1	10.6	†6.8	9.5	12.1	11.9	11.7	11.9	†12.7	†9.4	†10.5	12.5	12.6	15.2	15.2	17.2	16.0	13.1	T –	
	(7.0, 13.3)	(6.0, 11.7)	(6.5, 12.6)	(7.6, 14.5)	(4.5, 10.3)	(6.9, 13.0)	(8.8, 16.2)	(8.7, 16.1)	(8.5, 15.8)	(8.7, 16.2)	(8.6, 18.4)	(6.3, 14.0)	(7.1, 15.4)	(9.0, 17.1)	(9.3, 16.9)	(11.5, 20.0)	(11.4, 20.0)	(13.0, 22.4)	(12.0, 21.1)	(10.2, 16.6)		
West	7.6	8.0	4.6	10.6	11.0	9.6	10.0	11.6	11.1	11.6	15.9	14.0	13.0	13.8	12.1	15.4	16.0	†10.3	†8.7	10.6	T –	
	(5.2, 10.8)	(5.6, 11.3)	(2.8, 7.4)	(7.7, 14.4)	(7.8, 15.2)	(7.0, 13.2)	(7.2, 13.7)	(8.5, 15.6)	(8.1, 15.0)	(8.5, 15.6)	(11.7, 21.3)	(10.1, 19.0)	(8.8, 18.8)	(9.4, 19.7)	(8.8, 16.3)	(11.4, 20.3)	(12.3, 20.5)	(7.1, 14.8)	(6.1, 12.4)	(8.0, 13.8)		
East	8.0	11.0	7.4	9.7	9.0	10.9	8.2	14.4	11.9	11.4	10.1	16.8	12.0	11.4	13.9	12.9	†12.4	†10.6	†9.1	13.9	T –	
	(5.6, 11.3)	(8.1, 14.7)	(5.0, 11.0)	(7.0, 13.3)	(6.2, 12.7)	(8.0, 14.8)	(5.6, 11.8)	(11.0, 18.6)	(8.8, 15.9)	(8.2, 15.6)	(6.6, 15.2)	(12.3, 22.6)	(8.1, 17.3)	(7.6, 16.6)	(10.5, 18.3)	(9.6, 17.2)	(8.8, 17.0)	(7.5, 14.8)	(6.3, 13.0)	(10.9, 17.5)		
North	6.6	5.5	7.2	9.0	8.5	8.8	11.8	11.5	11.1	10.9	11.5	13.0	†11.9	†14.4	16.6	12.7	†11.7	†9.4	13.4	15.5	T –	
	(4.4, 9.7)	(3.7, 8.2)	(4.8, 10.7)	(6.3, 12.9)	(5.9, 12.3)	(6.6, 11.7)	(8.8, 15.7)	(8.5, 11.3)	(8.6, 14.3)	(7.8, 15.1)	(8.2, 16.1)	(9.3, 18.0)	(8.2, 16.9)	(10.0, 20.3)	(12.7, 21.4)	(9.2, 17.2)	(8.3, 16.3)	(6.6, 13.2)	(9.9, 17.9)	(12.5, 19.1)		

Cont'd

(N=)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
	(2721)	(2776)	(2509)	(2436)	(2406)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)	
Marital Status																					NSI
Married/ Partner	4.9	5.1	4.3	6.4	6.2	6.7	7.4	7.6	6.4	7.2	7.4	7.8	7.4	9.3	9.6	8.3	8.2	8.4	8.3	8.9	T –
Previously Married	6.7	6.0	3.9	6.2	†6.0	9.0	9.2	10.5	9.9	10.0	9.4	8.4	9.4	7.8	10.7	11.2	10.3	9.1	11.4	9.5	T –
Never Married	19.5	20.1	22.9	25.3	26.4	25.4	24.3	29.2	31.9	31.6	34.4	31.8	34.4	30.1	30.5	30.2	31.3	34.5	27.2	33.0	T –
Education																					NSI
HS not completed	6.1	9.8	6.8	7.7	10.4	†7.8	11.0	9.9	7.0	10.3	13.1	†7.7	13.1	13.2	†12.6	†11.8	†16.0	†11.1	†10.3	†7.9	T –
Completed HS	9.5	10.4	10.7	10.6	9.5	13.1	13.2	15.8	12.7	15.0	15.2	17.1	15.2	15.0	16.5	14.7	12.6	18.5	12.9	18.5	T –
Some college or university	11.3	9.0	10.2	13.5	15.7	12.3	13.3	15.4	15.7	17.0	14.2	15.9	14.2	14.8	16.1	15.1	15.1	15.3	14.7	18.2	T –
University degree	7.0	7.4	5.6	8.5	7.0	10.2	8.8	9.2	11.2	12.4	11.7	†7.4	11.7	11.0	11.1	11.4	12.0	11.0	12.0	9.7	T –

Notes: (1) All estimates and analyses are sample design adjusted; ^a 95% confidence interval; † Estimate unstable or suppressed.
(2) Trend Analysis: – change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates;
(3) NSI, non-significant YEAR × FACTOR interaction; *p<.05; **p<.01; ***p<.001;

Q: How many times, if any, have you used cannabis, marijuana or hash during the past 12 months?

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 5.1.1
Past Year Cannabis Use by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

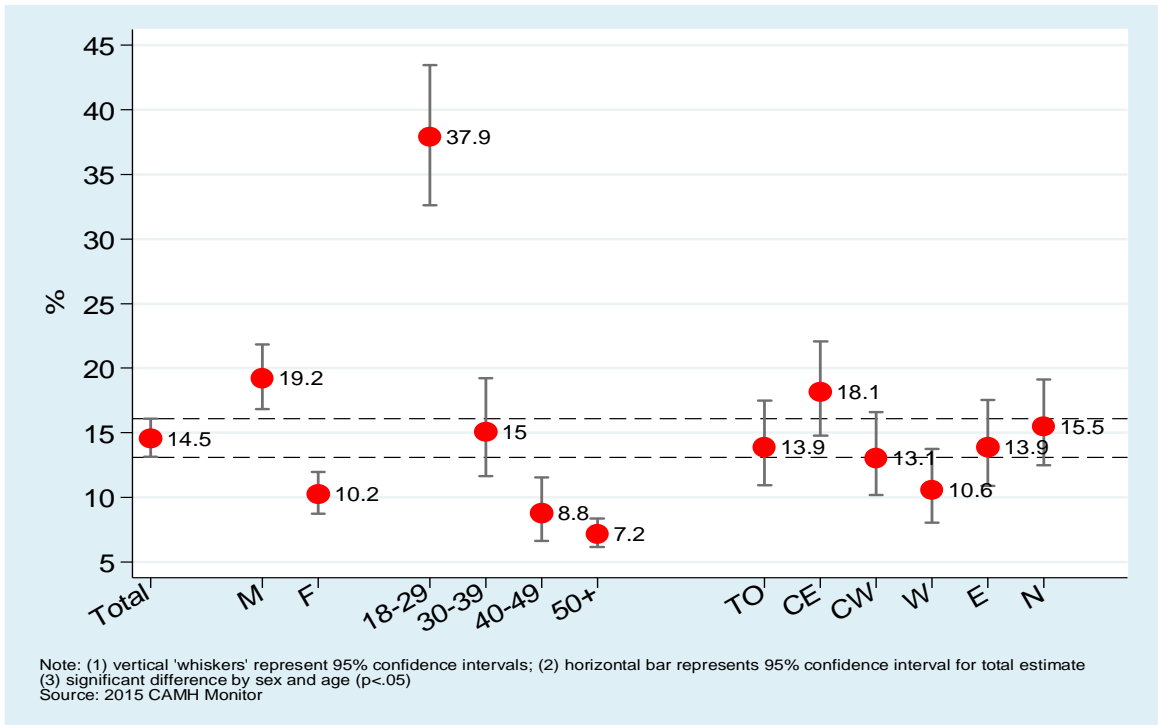


Figure 5.1.2
Age Distribution of Past Year Cannabis Users, Ontarians Aged 18+, 1977–2015

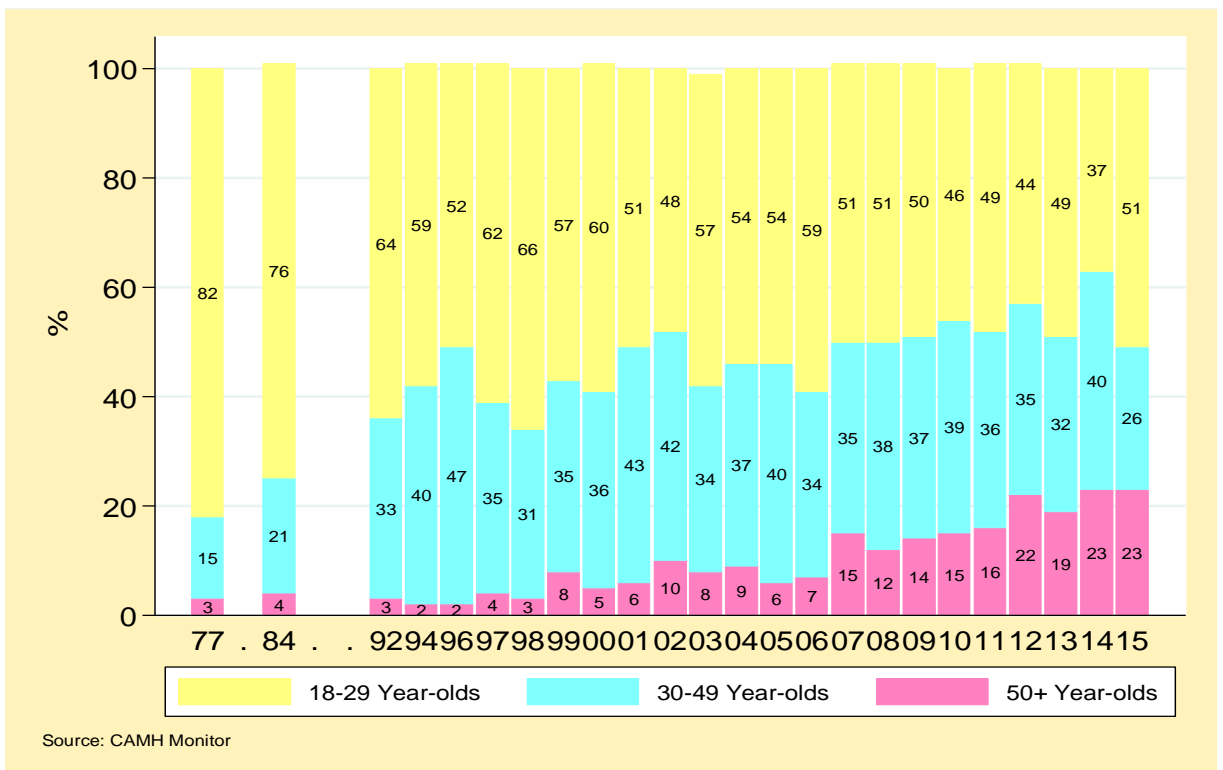
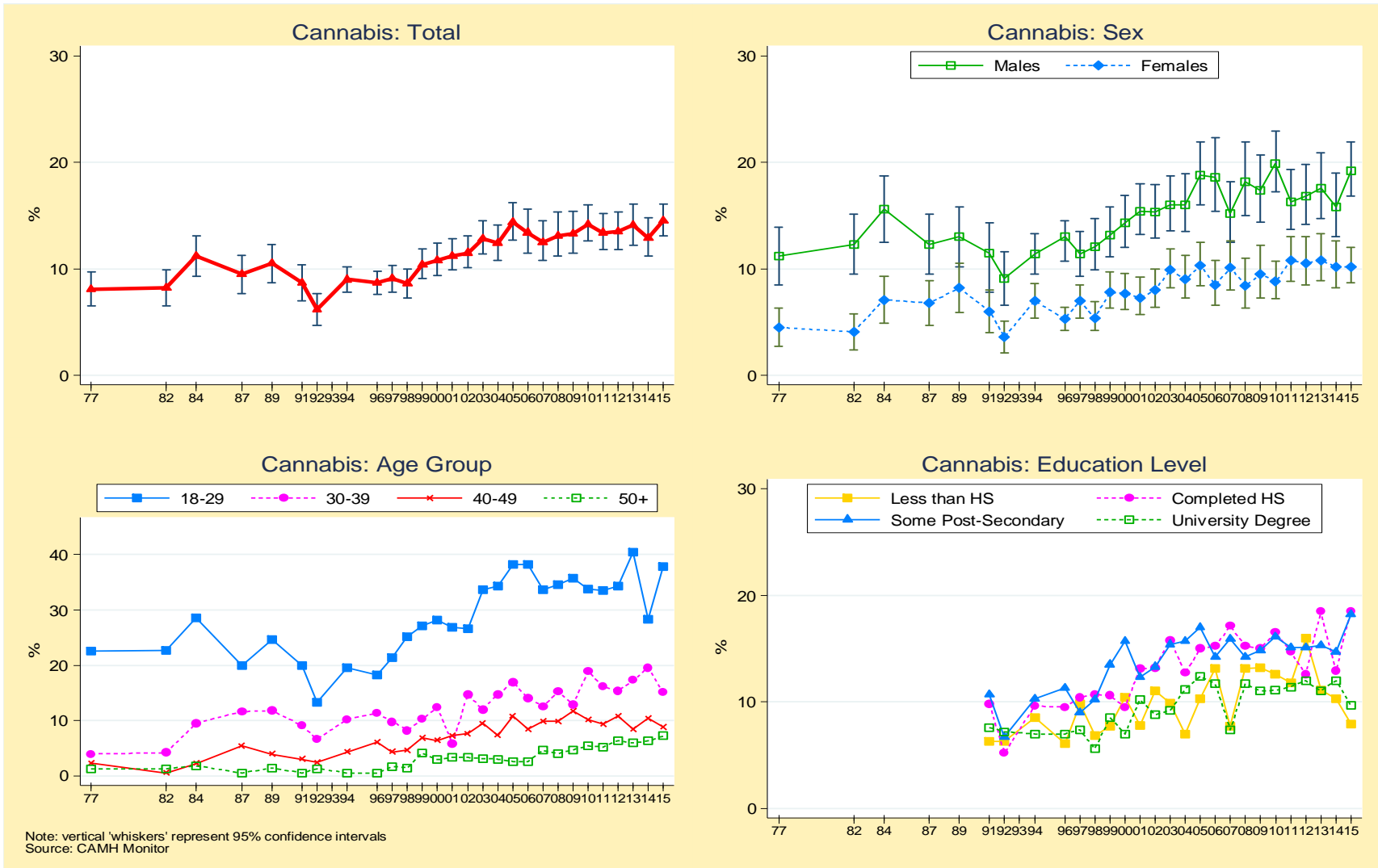


Figure 5.1.3
Past Year Cannabis Use, Ontarians Aged 18+, 1977–2015



5.1.1. Cannabis Use Problems (ASSIST–CIS)

To provide estimates of cannabis use problems, we used the *Cannabis Involvement Score (CIS)* from the World Health Organization’s *Alcohol, Smoking and Substance Involvement Screening Test (ASSIST V3.0)*. The WHO developed the ASSIST as a screening instrument designed to assess the risk of experiencing health and other problems (e.g. social, financial, legal, relationship) from their current pattern of use (WHO ASSIST Working Group, 2002).

The ASSIST–CIS was first introduced in the CM in 2004 and is asked only of past 3 month cannabis users. It consists of a 6-item screener (addressing frequency of use, strong desire to use, legal or financial problems from use, lack of control over one’s own use, failure to meet expectations, and having someone express concern about using) and a protocol for scoring responses (see **Table 5.1.6**).

The ASSIST–CIS, which ranges in value from 0 to 39, captures aspects of harmful/hazardous use, abuse and dependence and provides three categories to assess the risk of experiencing health and other problems: 1) *low risk* (scores of 0–3) indicating a pattern of use associated with a low risk of experiencing problems; 2) *moderate risk* (scores of 4–26) indicating a pattern of use associated with a moderate risk of experiencing problems; and 3) *high risk* (scores of 27 or more) indicating a pattern of use that is associated with a high risk of experiencing problems and is likely to lead to dependency.

We use a score of **4 or more** on the ASSIST–CIS screener as a cut-off to estimate the percentage of respondents who present a moderate or high risk of experiencing cannabis use problems. In 2015, ASSIST-CIS items were asked only of a random subsample of respondents (N=1,005).

2015Tables 5.1.7 - 5.1.8; Fig. 5.1.4

Overall, an estimated **7.5%** (95% CI: 5.3% to 10.5%) of Ontario adults and **45.1%** (95% CI: 34.2% to 56.5%) of past year cannabis users met the criteria for **moderate or high risk** of cannabis use problems. The population estimate is 753,300 adults (95% CI: 484,800 to 1,021,800).

Among the **total sample**, adjusted group differences show the following:

- The odds of experiencing cannabis problems were about three times higher among men than women (11.4% vs. 3.8%; OR=2.9).
- The odds of experiencing cannabis problems were 4 times higher among those aged 18 to 29 (18.2%), than among those aged 30 and older (4.6%).

Among **past year users** there were no differences by sex or age.

Trends

2004–2015.....Tables 5.1.9 - 5.1.10; Fig. 5.1.5

2014–2015

Overall, prevalence of past year cannabis use problems was not significantly different in 2015 compared to 2014 (7.5% vs. 6.5%), and rates were stable for both men and women and both age groups for the same period.

Among past year users we found similar patterns. The estimate of past year cannabis problems among past year cannabis users was not significantly different in 2015 compared to 2014 (45.1% vs. 46.3%) and rates were stable for all subgroups.

2004–2015

Estimates between 2004 and 2015 were generally stable among the total sample, varying between 5.2% and 7.5%, and between 41.4% and 55.4% among users.

Year interacted significantly with sex for the total sample. Estimates for women were stable, but there was a significant non-linear change for men, showing that problem use was lower (6.3%) in 2007 and higher in 2015 (11.5%). Year did not interact with age, suggesting that subgroup trends were similar.

There were no significant year interactions among past year users, suggesting that subgroup trends were similar.

Table 5.1.6: Percentage Reporting *Cannabis Involvement Indicators (ASSIST-CIS)*, Ontarians Overall and Ontarian Past Year Cannabis Users, Aged 18+, 2015

ASSIST ITEMS	Response Weight and Response Category	Total ¹ (N=1005)	Cannabis Users ² (N=122)
ASSIST Q1. How often have you used cannabis, marijuana or hash during the past 3 months? Abuse indicator	0. Never	88.6	31.9
	2. Once or twice	†4.9	†29.5
	3. Monthly	†2.8	†16.5
	4. Weekly	†2.1	†12.3
	6. Daily or almost daily	†6.6	†9.8
	Mean (SE)	.36 (.05)	2.16 (.19)
ASSIST Q2. During the past 3 months, how often have you had a strong desire or urge to use cannabis, marijuana or hash? Dependence indicator	0. Never	94.7	68.3
	3. Once or twice	†3.2	†19.2
	4. Monthly	†	†
	5. Weekly	†	†
	6. Daily or almost daily	†3.3	†7.6
	Mean (SE)	.21 (.04)	1.24 (.22)
ASSIST Q3. During the past 3 months, how often has your use of cannabis, marijuana or hash led to health, social, legal or financial problems? Abuse and harmful use indicator	0. Never	99.6	97.4
	4. Less than monthly	†	†
	5. Monthly	†	†
	6. Weekly	†	†
	7. Daily or almost daily	†	†
	Mean (SE)	.02 (.02)	.10 (.10)
ASSIST Q4. During the past 3 months, how often have you failed to do what was normally expected of you because of your use of cannabis, marijuana or hash? Abuse indicator	0. Never	98.9	93.6
	5. Less than monthly	†	†
	6. Monthly	†	†
	7. Weekly	†	†
	8. Daily or almost daily	†	†
	Mean (SE)	.06 (.04)	.35 (.20)
ASSIST Q5. Has a friend, relative, a doctor or anyone else ever expressed concern about your use of cannabis, marijuana or hash? Abuse and dependence indicator	0. Never	98.0	88.4
	3. Yes, not past 3 months	†1.6	†9.3
	6. Yes, past 3 months	†	†
	Mean (SE)	.07 (.02)	.42 (.14)
ASSIST Q6. Have you ever tried and failed to control, cut down or stop using cannabis, marijuana or hash? Dependence indicator	0. Never	98.3	90.1
	3. Yes, not past 3 months	†	†
	6. Yes, past 3 months	†1.2	†7.0
	Mean (SE)	.09 (.03)	.51 (.19)

Notes: ¹ASSIST-CIS items were asked only of a random subsample of respondents (N=1,005); ²Analysis based on unconditional subclass of past year cannabis users (N=122); all analyses are sample design adjusted; † Estimate unstable or suppressed.

Def'n: The ASSIST-CIS (WHO) screener measures risk of experiencing cannabis use problems.

Source: CAMH Monitor, Centre for Addiction and Mental Health

Table 5.1.7: Percentage Reporting Moderate or High *Risk of Cannabis Use Problems (ASSIST-CIS/4+)* in the Past Three Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (993)
Total	1005	† 7.5	(5.3, 10.5)	—
Sex				**
Men	366	† 11.4	(7.5, 17.0)	2.89**
Women (<i>Comparison Group</i>)	639	† 3.8	(2.1, 6.7)	—
Age				***
18-29	88	† 18.2	(10.5, 29.6)	4.18**
30+ (<i>Comparison Group</i>)	907	† 4.6	(3.0, 6.9)	—

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no significant difference; † Estimate suppressed or unstable; ¹ASSIST-CIS items were asked only of a random subsample of respondents (N=1005).

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of cannabis problems are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of cannabis problems are lower in the group being compared to the comparison group;

(4) Adjusted odds ratio holding fixed values for sex, and age (complete case sample size N=993).

Def'n: The ASSIST-CIS (WHO) screener measures risk of experiencing cannabis problems as indicated by a score of 4 or more.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 5.1.8: Percentage Reporting Moderate or High *Risk of Cannabis Use Problems (ASSIST-CIS/4+)* in the Past Three Months and Adjusted Group Differences, Ontarian *Cannabis Users*¹, Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=120)
Total ¹	122	45.1	(34.2, 56.5)	—
Sex				NS
Men	68	51.6	(37.2, 65.8)	2.40
Women (<i>Comparison Group</i>)	54	† 33.1	(19.5, 50.3)	—
Age				NS
18-29	34	† 55.9	(37.2, 73.1)	2.38
30+ (<i>Comparison Group</i>)	88	† 37.1	(25.5, 50.3)	—

Notes: ¹Analysis based on unconditional subclass of past year cannabis users (N=122); all estimates and analyses are sample design adjusted.

(1) *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of cannabis problems are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of cannabis problems are lower in the group being compared to the comparison group;

(4) Adjusted odds ratio holding fixed values for sex and age (complete case sample size N=120).

Def'n: The ASSIST (WHO) screener measures risk of experiencing cannabis problems as indicated by a score of 4.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 5.1.9: Percentage Reporting Moderate or High *Risk of Cannabis Use Problems (ASSIST-CIS 4+)* in the Past Three Months, by Demographic Characteristics, Ontarians Aged 18+, 2004–2015

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2611)	(1255)	(2016)	(2005)	(2024)	(2037)	(2024)	(1999)	(2015)	(2060)	(2004)	(1005)	
Total	5.8	6.3	6.0	5.2	5.6	6.9	7.1	5.6	4.7	7.5	6.5	7.5	– –
(95% CI) ^a	(4.7, 7.1)	(4.8, 8.2)	(4.6, 7.7)	(4.1, 6.5)	(4.3, 7.3)	(5.5, 8.6)	(5.6, 8.9)	(4.3, 7.2)	(3.5, 6.4)	(5.9, 9.5)	(4.9, 8.5)	(5.3, 10.5)	
Sex													*
Men	8.6	8.2	10.1	6.3	8.3	9.4	11.8	7.7	† 6.6	9.6	† 8.2	† 11.4	T –
	(6.8, 11.0)	(5.7, 11.7)	(7.5, 13.4)	(4.7, 8.5)	(6.2, 11.0)	(7.1, 12.3)	(9.1, 15.1)	(5.5, 10.6)	(4.6, 9.3)	(7.1, 12.9)	(5.7, 11.7)	(7.5, 17.0)	
Women	† 3.1	† 4.6	† 2.1	† 4.0	† 3.2	4.5	† 2.4	† 3.7	† 3.1	† 5.4	† 4.8	† 3.8	– –
	(2.2, 4.4)	(3.1, 6.9)	(1.2, 3.5)	(2.7, 5.9)	(1.8, 5.5)	(3.1, 6.6)	(1.5, 3.8)	(2.4, 5.7)	(1.8, 5.3)	(3.7, 7.9)	(3.2, 7.2)	(2.1, 6.7)	
Age													NSI
18–29	18.4	16.5	19.2	14.9	16.3	22.2	17.6	15.8	† 13.2	† 22.9	† 17.6	† 18.2	– –
	(14.3, 23.3)	(11.2, 23.6)	(13.9, 26.0)	(10.6, 20.5)	(10.9, 23.5)	(16.3, 29.4)	(12.3, 24.5)	(10.6, 22.9)	(10.6, 22.9)	(16.0, 31.8)	(11.3, 26.4)	(10.5, 29.6)	
30 +	2.8	3.9	2.6	3.0	3.2	3.5	4.4	3.1	3.0	4.3	† 4.2	† 4.6	– –
	(2.0, 3.9)	(2.7, 5.7)	(1.7, 3.8)	(2.2, 4.1)	(2.3, 4.4)	(2.6, 4.7)	(3.3, 5.9)	(2.3, 4.3)	(2.3, 4.3)	(3.3, 5.7)	(3.0, 5.9)	(3.0, 6.9)	

Notes: (1)^a 95% confidence interval; † Estimate suppressed or unstable; all analyses are sample design adjusted.
(2) Trend Analysis: – change not statistically significant (p<.05); T significant change (p<.05) between 2004–2015;
2Y significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction; *p<.05;
Def'n: The WHO ASSIST screener measures the risk of experiencing cannabis problems as indicated by a score of 4 or more.
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 5.1.10: Percentage Reporting Moderate or High *Risk of Cannabis Use Problems (ASSIST-CIS 4+)* in the Past Three Months, by Demographic Characteristics, Ontarian *Cannabis Users*¹ Aged 18+, 2004–2015

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(279)	(145)	(209)	(222)	(209)	(211)	(249)	(196)	(192)	(181)	(193)	(122)	
Total ¹	47.2	47.1	44.9	41.4	43.4	51.9	43.6	41.7	38.5	55.4	46.3	45.1	– –
(95% CI) ^a	(40.1, 54.3)	(37.7, 60.7)	(36.6, 53.4)	(33.9, 49.2)	(35.0, 52.3)	(43.8, 59.8)	(36.2, 51.3)	(33.5, 50.4)	(29.9, 47.9)	(46.3, 64.1)	(37.4, 55.5)	(34.2, 56.5)	
Sex													NSI
Men	54.4	47.5	54.8	40.0	38.3	54.2	52.3	49.6	43.3	62.4	49.5	51.6	– –
	(45.1, 63.4)	(35.0, 60.4)	(44.2, 64.9)	(28.8, 52.3)	(24.2, 54.6)	(44.2, 63.9)	(42.8, 61.7)	(38.2, 61.1)	(32.2, 55.1)	(50.7, 72.9)	(37.2, 61.9)	(37.2, 65.8)	
Women	35.0	46.6	† 24.4	42.3	46.0	47.9	† 24.0	32.1	† 31.6	46.3	41.9	† 33.1	– –
	(25.5, 45.9)	(32.9, 60.7)	(15.0, 37.2)	(32.7, 52.6)	(35.7, 56.7)	(34.7, 61.3)	(15.2, 35.6)	(21.5, 44.9)	(19.3, 47.3)	(33.3, 59.9)	(29.8, 55.2)	(19.5, 50.3)	
Age													NSI
18–29	54.0	46.1	50.6	44.3	47.4	62.0	47.3	46.2	† 43.0	59.0	58.7	† 55.9	– –
	(43.6, 64.1)	(32.5, 60.2)	(38.8, 62.2)	(32.9, 56.3)	(34.0, 61.3)	(48.8, 73.7)	(35.2, 59.8)	(32.5, 60.5)	(27.7, 59.8)	(43.8, 72.6)	(41.2, 74.3)	(37.2, 73.1)	
30 +	39.0	48.3	36.7	39.0	39.4	41.6	39.7	36.1	34.9	51.8	39.0	† 37.1	– –
	(30.0, 49.1)	(35.9, 61.0)	(26.6, 48.2)	(29.7, 49.1)	(29.7, 49.9)	(32.4, 51.5)	(31.0, 49.2)	(27.2, 46.1)	(26.3, 44.6)	(41.7, 61.7)	(29.5, 49.4)	(25.5, 50.3)	

Notes: ¹ Analysis based on unconditional subclass of past year cannabis users.
(1)^a 95% confidence interval; † Estimate suppressed or unstable; all analyses are sample design adjusted.
(2) Trend Analysis: – change not statistically significant (p<.05); T significant change (p<.05) between 2004–2015;
2Y significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction
Def'n: The WHO ASSIST screener measures the risk of experiencing cannabis problems as indicated by a score of 4 or more.
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 5.1.4
Percentage Reporting Cannabis Use Problems in the Past Three Months by Sex and Age, Ontarians Aged 18+, 2015 (N=1005)

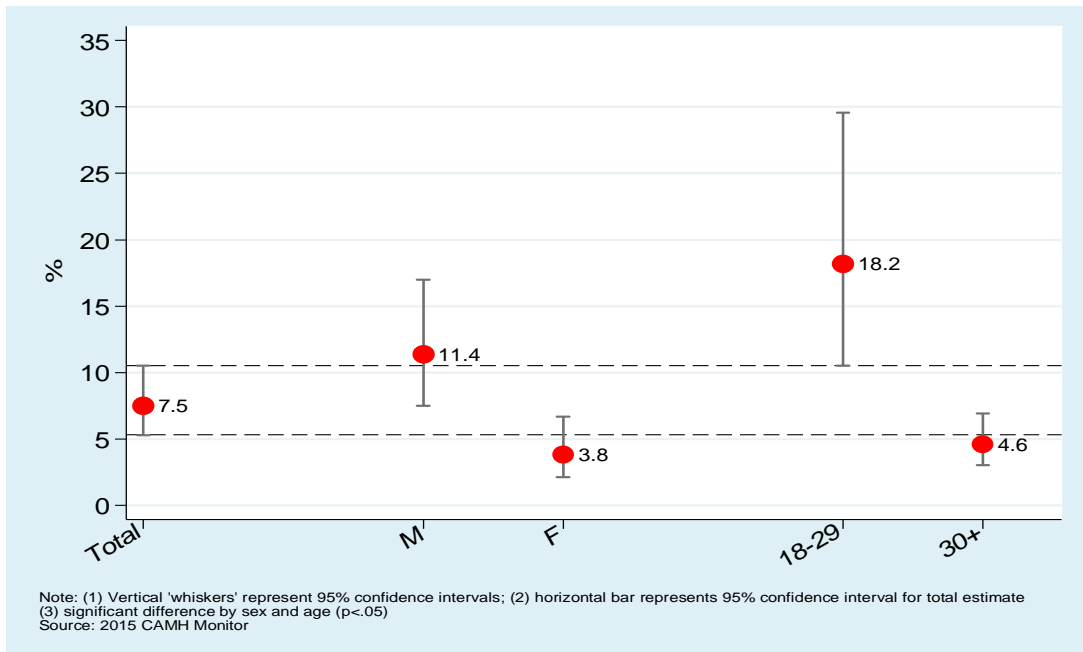
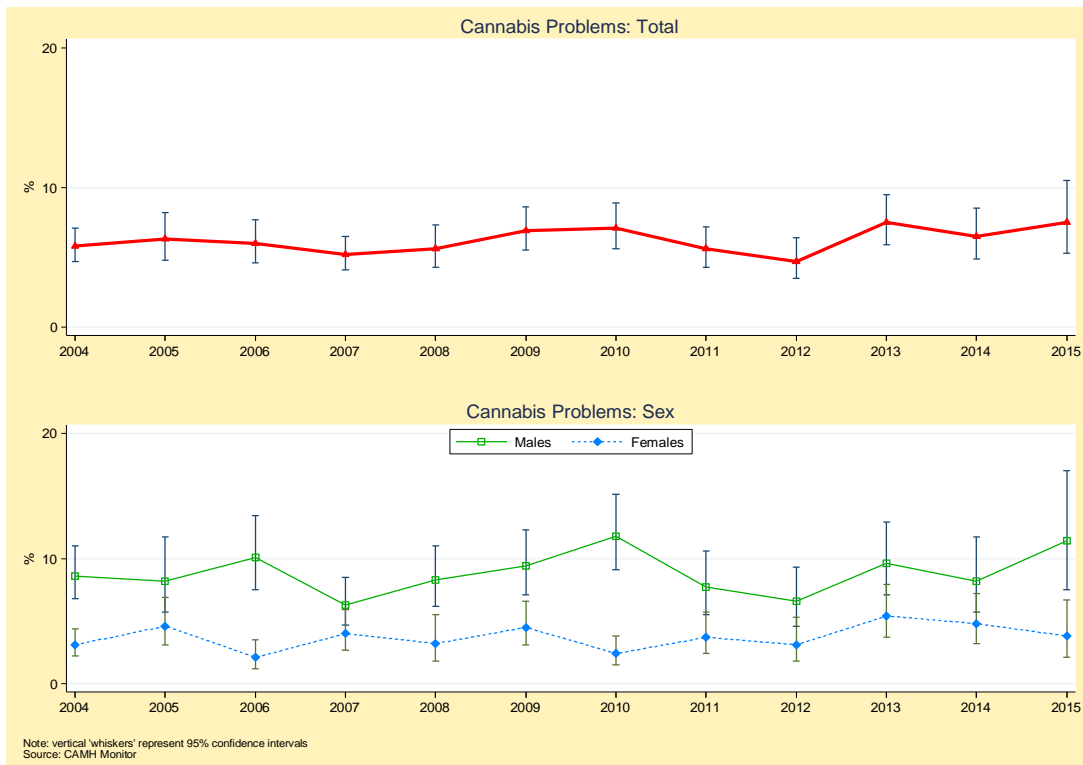


Figure 5.1.5
Percentage Reporting Cannabis Use Problems in the Past Three Months, Ontarians Aged 18+, 2004–2015



5.2 Cocaine Use

2015 Tables 5.2.1, 5.2.2, Fig. 5.2.1

In this section we emphasize lifetime cocaine use given that estimates of past year use are statistically unstable.

Overall, an estimated **8.3%** (95% CI: 7.2% to 9.6%) of Ontario adults used cocaine in their lifetime, and **1.6%** (95% CI: 1.1% to 2.4%) used it in the 12 months before the survey. The respective population estimates for lifetime and past year use are 840,300 (95% CI: 719,200 to 961,300) and 161,900 adults (95% CI: 98,200 to 225,500). Among those reporting lifetime use, the majority (80.7%) did not use in the past 12 months. In 2015, cocaine use items were asked of a random subsample of respondents (N=4,007).

Lifetime Use

Sex, marital status, education and income were significantly related to **lifetime use** of cocaine. Holding values of risk factors constant, adjusted group differences showed the following:

- The adjusted odds of lifetime cocaine use were 2.2 times higher among men than women (11.5% vs. 5.4%).
- Marital status was also significantly related to lifetime cocaine use. The adjusted odds of lifetime cocaine use were two times higher among those never married compared to married respondents (12.8% vs. 6.7%; OR=2.1)
- Lifetime cocaine use was lower among those with high school not completed (5.7%) and among those with a university degree (6.1%), and highest among those with some college or university education (11.2%).
- Household income showed a weak, but significant association with lifetime cocaine use. We found a higher rate among those with incomes of \$30,000 or lower (10.8%), and a significantly lower rate among those who did not declare their income (4.9%).

There were no dominant associations for age and region, after adjusting for other factors.

Past year use

Sex and age were significantly related to **past year use** of cocaine.

- The adjusted odds of past year cocaine use were 3.2 times higher among men than among women (2.5% vs. 0.8%).
- Past year use of cocaine was reported almost exclusively by the younger respondents aged 18 to 29 (5.9%), with other age groups reporting very low estimates.

Trends

1984–2015.....Tables 5.2.3, 5.2.4, Fig. 5.2.2

2014–2015

Lifetime use of cocaine was stable between the two most recent surveys (8.3% in 2015 vs. 9.8% in 2014). Although past year cocaine use was numerically lower in 2015 (1.6%) than 2014 (2.0%), this difference failed to reach a statistical significance.

1984–2015

Lifetime cocaine use **increased significantly** between 1984 and 2015, from 3.3% to 8.3%, but seems to have stabilized since 2010. This increase was also evident among both men and women and among the age groups analysed. There were no significant year by sex or year by age interactions.

Although **past year cocaine use** remained low (under 2.2%) during the same period, there was a significant increase from 0.8% in 1996 to 1.6% in 2015. There were no significant year by sex or year by age interactions. We found, however, a **significant increase** in past year cocaine use among men from 1.1% in 1996 to 2.5% in 2015 and among 18 to 29 year olds, from 1.1% in 1996 to 5.9% in 2015.

Table 5.2.1: Percentage *Using Cocaine* in *Lifetime* and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3907)
Total	4007	8.3	(7.2, 9.6)	—
Sex				***
Men	1535	11.5	(9.6, 13.8)	2.23**
Women (<i>Comparison Group</i>)	2472	5.4	(4.3, 6.7)	—
Age				NS
18-29 (<i>Comparison Group</i>)	330	† 12.2	(8.7, 16.9)	—
30-39	383	† 8.1	(5.5, 11.7)	1.02
40-49	610	† 6.2	(4.4, 8.7)	0.82
50+	2651	7.7	(6.5, 9.1)	1.12
Region				NS
Toronto (<i>vs. Provincial Average</i>)	655	9.5	(7.2, 12.4)	1.17
Central East	677	† 8.2	(5.8, 11.4)	1.00
Central West	644	† 7.7	(5.4, 11.1)	0.96
West	681	† 5.2	(3.6, 7.4)	0.60
East	664	10.1	(7.5, 13.5)	1.24
North	686	8.8	(6.4, 11.9)	1.06
Marital Status				**
Married/Partner (<i>Comparison Group</i>)	2532	6.7	(5.7, 8.0)	—
Previously Married	876	8.6	(6.4, 11.6)	1.55*
Never Married	567	12.8	(9.6, 16.8)	2.09**
Education				***
High school not completed (<i>Comparison Group</i>)	317	† 5.7	(3.2, 9.8)	—
Completed high school	854	† 8.0	(5.7, 11.2)	1.17
Some college or university	1414	11.2	(9.1, 13.7)	1.77
University degree	1390	6.1	(4.8, 7.7)	0.89
Household Income				***
< \$30,000 (<i>Comparison Group</i>)	353	† 9.4	(5.2, 16.4)	—
\$30,000-\$49,999	446	† 10.8	(6.9, 16.5)	1.14
\$50,000-\$79,999	645	† 7.1	(4.7, 10.7)	0.67
\$80,000+	1602	9.9	(8.2, 11.9)	1.18
Not stated	961	† 4.9	(3.3, 7.2)	0.46**

Notes: (1) All estimates and analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of cocaine use are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of cocaine use are lower in the group being compared to the comparison group;

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample size N=3907).

Q: *Have you ever in your lifetime used cocaine?*

Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Table 5.2.2: Percentage *Using Cocaine* in the *Past 12 Months* and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3958)
Total	4007	† 1.6	(1.1, 2.4)	—
Sex				*
Men	1535	† 2.5	(1.6, 3.9)	3.21*
Women (<i>Comparison Group</i>)	2472	† 0.8	(0.3, 1.7)	—
Age				***
18-29	330	† 5.9	(3.6, 9.6)	10.22**
30+ (<i>Comparison Group</i>)	3644	† 0.6	(0.3, 1.0)	—

Notes: (1) All estimates and analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of cocaine use are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of cocaine use are lower in the group being compared to the comparison group;

(4) Adjusted odds ratio holding fixed values for sex and age (complete case sample size N = 3958).

Q: *How many times, if any, have you used cocaine in the past 12 months?*

Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Table 5.2.3: Percentage *Using Cocaine in Lifetime*, by Demographic Characteristics, Ontarians Aged 18+, 1984–2015

(N=)	1984	1987	1989	1991	1994	1996	1998	2000	2002	2003	2004	2006	2008	2010	2011	2012	2013	2014	2015	Trend	
(N=)	(1050)	(1081)	(1101)	(1047)	(2022)	(2721)	(2509)	(2406)	(2421)	(2411)	(2611)	(2016)	(2024)	(2024)	(1999)	(2015)	(3021)	(2004)	(4007)		
Total																					
Lifetime Use	3.3	6.1	5.6	6.2	5.7	4.9	4.6	6.4	6.6	6.6	6.0	7.1	7.4	9.6	7.0	7.9	7.7	9.8	8.3	T –	
(95% CI) ^a	(2.2, 4.4)	(4.7, 7.5)	(4.2, 7.0)	(4.7, 7.7)	(4.7, 6.7)	(4.1, 5.7)	(3.8, 5.7)	(5.4, 7.6)	(5.5, 7.8)	(5.5, 7.7)	(4.9, 7.3)	(5.8, 8.7)	(6.1, 9.0)	(8.1, 11.4)	(5.6, 8.7)	(6.8, 9.3)	(6.5, 9.1)	(8.1, 11.1)	(7.2, 9.6)		
Sex																					NSI
Men	—	—	—	—	—	†6.9	†6.9	†8.3	†8.6	†8.8	†9.8	†10.1	†9.8	†12.5	†10.2	†11.3	†10.8	13.3	11.5	T –	
						(5.5, 8.5)	(5.3, 8.9)	(6.6, 10.3)	(6.9, 10.8)	(6.9, 10.8)	(6.9, 10.8)	(7.8, 12.9)	(7.5, 12.6)	(10.1, 15.4)	(7.7, 13.3)	(9.2, 13.7)	(8.6, 13.3)	(10.3, 17.1)	(9.6, 13.8)		
Women	—	—	—	—	—	†3.1	†2.6	†4.8	†4.7	†4.5	†2.5	†4.4	†5.1	†6.7	†4.7	†4.8	†4.9	6.5	5.4	T –	
						(2.2, 4.4)	(1.9, 3.5)	(3.7, 6.2)	(3.5, 6.2)	(3.4, 5.8)	(1.8, 3.5)	(3.2, 6.0)	(3.9, 6.8)	(5.1, 8.8)	(3.4, 6.5)	(3.7, 6.2)	(3.8, 6.4)	(4.9, 8.7)	(4.3, 6.7)		
Age																					NSI
18-29	—	—	—	—	—	†4.0	†6.6	†8.0	†8.0	†6.1	†10.4	†10.7	†10.1	†11.2	†10.4	†10.6	†9.8	†15.0	†12.2	T –	
						(2.5, 6.2)	(4.4, 9.8)	(5.6, 11.3)	(5.4, 11.7)	(3.9, 9.3)	(7.2, 14.9)	(6.9, 16.2)	(6.1, 16.2)	(7.4, 16.4)	(6.0, 17.5)	(6.9, 15.9)	(6.0, 15.8)	(8.9, 24.1)	(8.7, 16.9)		
30+	—	—	—	—	—	†5.3	†4.2	†6.1	†6.4	†6.8	†5.0	†6.3	†7.0	†9.5	†6.7	†7.5	†7.4	9.0	7.4	T –	
						(4.3, 6.4)	(3.3, 5.4)	(5.0, 7.3)	(5.2, 7.8)	(5.7, 8.1)	(3.9, 6.8)	(5.1, 7.9)	(5.7, 8.5)	(7.9, 11.3)	(5.4, 8.3)	(6.4, 8.8)	(6.2, 8.7)	(7.4, 10.9)	(6.4, 8.6)		

Notes: (1)^a 95% confidence interval; †Estimate suppressed or unstable; all estimates and analyses are sample design adjusted; — data not available;
 (2) Trend Analysis: – change not statistically significant at p<.05; **T** significant change (p<.05) between 1996 and 2015; (3) **NSI**, non-significant YEAR × FACTOR interaction;
 Q: *Have you ever in your lifetime used cocaine?*
 Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Table 5.2.4: Percentage *Using Cocaine in the Past 12 Months*, by Demographic Characteristics, Ontarians Aged 18+, 1984–2015

(N=)	1984	1987	1989	1991	1994	1996	1998	2000	2002	2003	2004	2006	2008	2010	2011	2012	2013	2014	2015	Trend	
(N=)	(1050)	(1081)	(1101)	(1047)	(2022)	(2721)	(2509)	(2406)	(2421)	(2411)	(2611)	(2016)	(2024)	(2024)	(1999)	(2015)	(3021)	(2004)	(4007)		
Total																					
Past Year Use	†1.7	†1.8	†2.1	†1.6	†1.0	†0.8	†1.0	†1.4	†1.5	†1.6	†1.4	†1.7	†1.0	†1.8	†1.1	†1.2	†1.5	†2.0	†1.6	T –	
(95% CI) ^a	(0.9, 2.5)	(1.0, 2.6)	(1.3, 2.9)	(0.8, 2.4)	(0.3, 1.3)	(0.3, 1.1)	(0.4, 1.4)	(0.9, 2.2)	(1.0, 2.3)	(1.1, 2.3)	(0.8, 2.0)	(1.0, 2.8)	(0.4, 1.4)	(1.1, 2.8)	(0.6, 2.3)	(0.7, 1.9)	(1.0, 2.4)	(1.2, 3.5)	(1.1, 2.4)		
Sex																					NSI
Men	†2.9	†2.5	†2.4	†3.1	†	†1.1	†1.6	†2.1	†2.3	†1.9	†2.6	†3.0	†	†2.6	†2.0	†1.6	†2.2	†3.5	†2.5	T –	
	(1.5, 4.3)	(1.2, 3.8)	(1.1, 3.7)	(1.6, 4.6)	—	(0.5, 1.7)	(0.9, 2.8)	(1.3, 3.5)	(1.3, 3.6)	(1.1, 3.2)	(1.1, 3.2)	(1.7, 5.1)	—	(1.6, 4.4)	(0.9, 4.4)	(0.9, 3.0)	(1.2, 3.8)	(1.9, 6.4)	(1.6, 3.9)		
Women	†	†1.1	†1.8	†	†	†	†	†	†	†1.2	†	†	†	†	†	†	†1.0	†	†0.8	– –	
	—	(0.2, 2.0)	(0.7, 2.9)	—	—	—	—	—	—	(0.7, 2.1)	—	—	—	—	—	—	(0.5, 1.8)	–	(0.3, 1.7)		
Age																					NSI
18-29	†4.1	†4.7	6.1	†2.0	†1.6	†1.1	†2.9	†5.1	†4.3	†4.3	†4.9	†4.9	†1.5	†3.5	†3.5	†4.9	†5.0	†7.3	†5.9	T –	
	(1.7, 6.5)	(2.0, 7.4)	(3.1, 9.1)	(0.3, 3.7)	(0.5, 2.7)	(0.2, 2.0)	(1.5, 5.5)	(3.1, 8.1)	(2.4, 7.8)	(2.5, 7.3)	(2.9, 8.1)	(2.5, 9.5)	(0.5, 4.6)	(1.6, 7.6)	(1.2, 9.3)	(2.6, 8.8)	(2.5, 9.7)	(3.4, 15.1)	(3.6, 9.6)		
30+	†	†	†	†1.1	†	†	†	†	†0.8	†0.8	†	†	†	†1.4	†	†	†0.9	†1.0	†0.6	– –	
	—	—	—	(0.1, 2.3)	—	—	—	—	(0.4, 1.4)	(0.5, 1.3)	—	—	—	(0.8, 2.4)	—	—	(0.5, 1.4)	(0.5, 1.9)	(0.3, 1.0)		

Notes: (1)^a 95% confidence interval; †Estimate suppressed or unstable; all estimates and analyses are sample design adjusted;
 (2) Trend Analysis (total only): – change not statistically significant at p<.05; **T** significant change (p<.05) between 1996 and 2015; (3) **NSI**, non-significant YEAR × FACTOR interaction;
 Q: *How many times, if any, have you used cocaine during the past 12 months?*
 Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Figure 5.2.1
Lifetime Cocaine Use by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=4007)

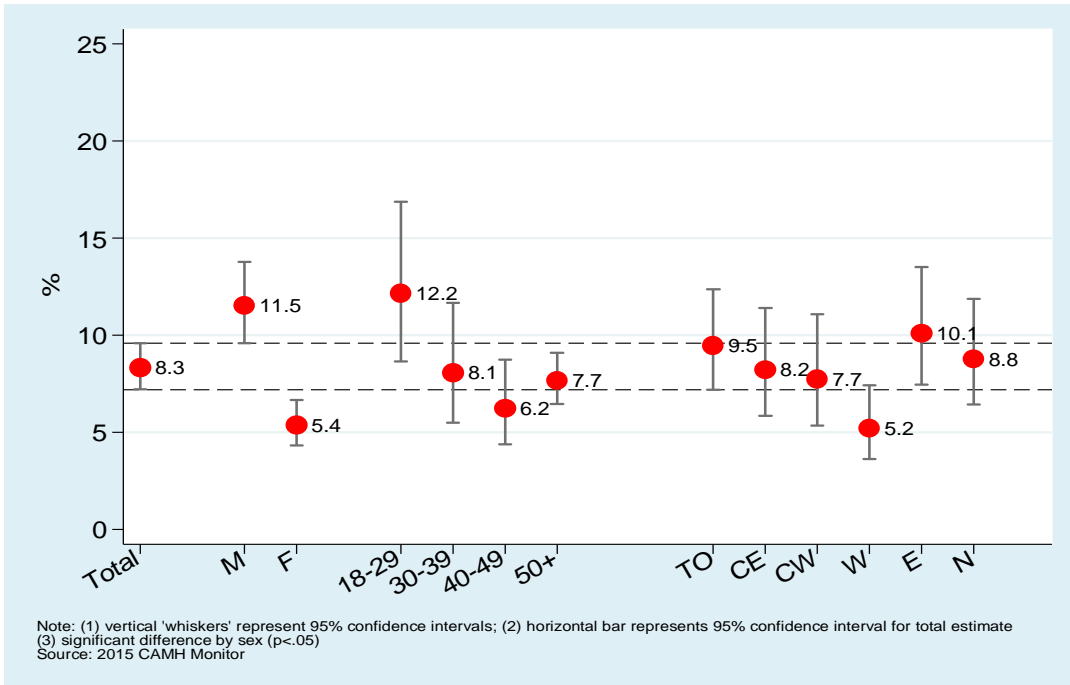
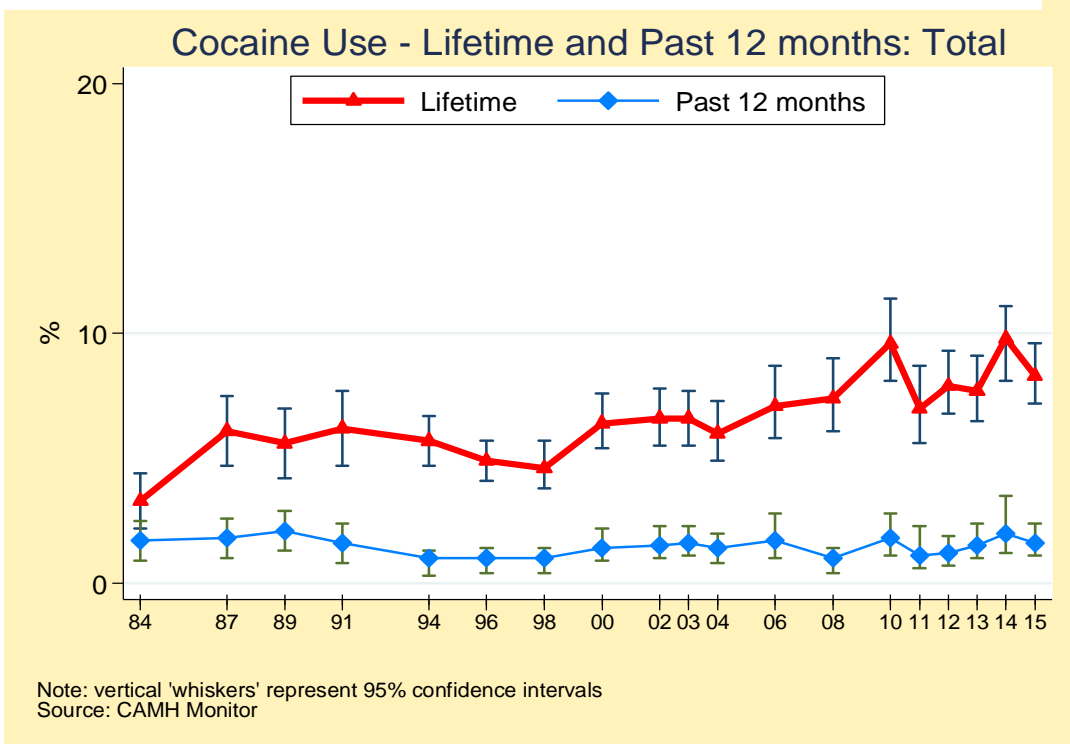


Figure 5.2.2
Cocaine Use, Ontarians Aged 18+, 1984–2015



5.3 Use of Prescription Opioid Pain Relievers

In response to relatively recent American increases in the use of pain relievers (Fischer, 2008), a module about the use of the general class of prescription opioid pain relievers was added in 2010. Specifically, we asked respondents about their use of prescription opioid pain relievers, such as Percocet™, Demerol™, Tylenol™ #3 or other pain relievers with codeine that are usually obtained by a prescription from a doctor. Opioids suppress pain and may cause a relaxed or euphoric feeling. They also can be dangerous when not used as prescribed or are not used under a doctor’s supervision. If taken with depressants (e.g., alcohol) or in large quantities they can impede breathing and lead to respiratory failure.

Any past year use (i.e., medical or nonmedical) of prescription opioid pain relievers was assessed by the item: “*In the past 12 months how often, if at all, have you used any pain relievers (such as Percocet, Demerol, Endocet, Tylenol #3 or other products)?*” Responses were coded as *any past year use* (coded 1) versus *no use* (coded 0).

Any past year nonmedical use of prescription opioid pain relievers was assessed by the item: “*During the past 12 months, how often did you use pain relievers without a prescription or without a doctor telling you to take them?*” Responses were coded as *any nonmedical past year use* (coded 1) versus *no use* (coded 0). The opioid pain reliever module was asked only of a random subsample of respondents (N=4,007).

2015 Table 5.3.1
Fig. 5.3.1; 5.3.2

Overall, an estimated **22.6%** (95% CI: 21.0% to 24.3%) of Ontario adults reported **any use** of prescription pain relievers in the past year, and **4.1%** (95% CI: 3.4% to 5.0%) reported **any nonmedical use**. The population estimates for any past year use and any past year nonmedical use are, respectively, 2,280,400 (95% CI: 2,109,400 to 2,451,400) and 414,600 Ontario adults (95% CI: 330,400 to 498,800).

Age, education and household income were significantly related to **any past year use** of prescription pain relievers.

- Past year use of pain relievers tended to increase with age, from 20.3% of those aged 18 to 29 and those aged 30 to 39 to 26.0% of those aged 65 and older.
- Any past year use of pain relievers was significantly lower among those with higher education. Relative to those not completing high school, the adjusted odds of any past year use of pain relievers were significantly lower among those with a university degree (19.2% vs. 31.5%; OR=0.6).
- Any past year use of pain relievers declined significantly with income. Relative to those with a household income of less than \$30,000 (36.5%), the odds of use were significantly lower for those with incomes of \$50,000 to \$79,999 (24.8%; OR=0.64) and for those with incomes of \$80,000 or more (20.2%; OR=0.55).

There were no other significant differences by subgroups after adjusting for other demographic characteristics.

Only **marital status** and **household income** were significantly related to any past year **nonmedical use** of pain relievers after controlling for other predictors.

- Past year nonmedical use of pain relievers was significantly lower among married respondents (3.3%) than among those never married (6.5%; OR=2.5).
- Any past year nonmedical use of pain relievers declined significantly with income. Relative to those with a household income of less than \$30,000 (10.1%), the odds of use were significantly lower for those with incomes of \$30,000 to \$49,999 (4.1%; OR=0.41), for those with incomes of \$50,000 to \$79,999 (3.9%; OR=0.42) and for those with incomes of \$80,000 or more (3.1%; OR=0.39).

Trends

2010–2015 Tables 5.3.2; 5.3.3
Fig. 5.3.3

Past year **use of any prescription opioid** declined significantly from 26.6% in 2010 to 22.6% in 2015.

Year did not interact significantly with any of the demographic factors analysed, suggesting trends in each subgroup are similar. We found significant declines during this period for those aged 40 to 49 and for those aged 50 years or older, for the Central East region, and for those with completed high school.

Past year **nonmedical use** of prescription opioid pain relievers also displayed significant changes. The proportion of Ontario adults who reported past year **nonmedical use** of prescription opioid pain relievers declined significantly from 7.7% in 2010 to 2.1% in 2014 but **increased** to 4.1% in 2015.

Year interacted significantly with **sex, age, and region**, indicating that trends in nonmedical use of prescription opioids differed among these groups.

Differential **sex trends** suggest that estimates for men significantly **declined** from 8.1% in 2010 to 3.8% in 2015, whereas among **women** use declined until 2014 (from 7.4% to 1.1%), but **increased** significantly to 4.4% in 2015.

Differential **age group trends** suggest that estimates for the younger group (18 to 29 year olds) were stable during this period, whereas among the other age groups, past year nonmedical use of prescription opioids declined until 2014, but **increased** significantly in 2015.

Differential **regional trends** suggest that estimates for Toronto and the Central East **declined** significantly during this period, whereas among respondents from the West region, past year nonmedical use of prescription opioids declined until 2014, but **increased** significantly in 2015. For the other 3 regions (Central East, East and North) estimates were stable during this period.

Year did not interact with marital status and education level, suggesting similar trends in each subgroup.

Table 5.3.1: Percentage Reporting *Any Use* and *Any Nonmedical Use* of *Prescription Opioid (PO) Pain Relievers* in the Past 12 Months and Adjusted Group Differences Ontarians, Aged 18+, 2015

	Any use of PO				Any nonmedical use of PO		
	N	%	95% CI	Adjusted Odds Ratio (N=3890)	%	95% CI	Adjusted Odds Ratio (N=3890)
Total	4007	22.6	(21.0, 24.3)	—	4.1	(3.4, 5.0)	—
Sex				NS			NS
Men	1535	21.1	(18.7, 23.7)	0.86	3.8	(2.8, 5.2)	0.84
Women (<i>Comparison Group</i>)	2472	24.1	(22.0, 26.3)	—	4.4	(3.4, 5.6)	—
Age				*			NS
18-29 (<i>Comparison Group</i>)	330	20.3	(15.9, 25.6)	—	† 5.1	(2.9, 8.6)	—
30-39	383	20.3	(16.0, 25.4)	1.04	† 5.2	(3.1, 8.5)	2.09
40-49	610	18.3	(15.1, 22.2)	0.92	† 3.5	(2.1, 5.6)	1.59
50+	2651	26.0	(24.0, 28.0)	1.33	3.5	(2.8, 4.4)	1.47
Public Health Region				NS			NS
Toronto (<i>vs. Provincial Average</i>)	655	22.0	(18.4, 26.1)	1.00	† 3.7	(2.2, 6.0)	0.91
Central East	677	20.8	(17.5, 24.6)	0.92	† 3.7	(2.3, 5.9)	0.91
Central West	644	23.9	(20.2, 28.0)	1.06	† 4.3	(2.7, 6.8)	1.01
West	681	25.3	(21.7, 29.3)	1.11	† 4.0	(2.5, 6.3)	0.96
East	664	22.7	(19.1, 26.8)	1.00	† 4.6	(2.9, 7.4)	1.20
North	686	23.4	(19.5, 27.7)	0.98	† 5.7	(3.8, 8.4)	1.42
Marital Status				NS			*
Married/Partner (<i>Comparison Group</i>)	2532	22.2	(20.3, 24.2)	—	3.3	(2.6, 4.2)	—
Previously Married	876	28.9	(25.2, 32.8)	1.09	† 4.0	(2.7, 5.7)	0.96
Never Married	567	21.2	(17.4, 25.6)	1.03	† 6.5	(4.4, 9.7)	2.48**
Education				*			NS
High school not completed (<i>Comparison</i>)	317	31.5	(25.6, 38.2)	—	† 5.8	(3.5, 9.5)	—
Completed high school	854	22.1	(18.9, 25.7)	0.73	† 5.4	(3.8, 7.6)	1.01
Some college or university	1414	25.2	(22.3, 28.3)	0.92	† 4.9	(3.5, 6.8)	0.92
University degree	1390	19.2	(16.8, 21.8)	0.68*	† 2.4	(1.5, 3.7)	0.50
Household Income				*			*
< \$30,000 (<i>Comparison Group</i>)	353	36.5	(30.0, 43.5)	—	† 10.1	(6.5, 15.3)	—
\$30,000-\$49,999	446	28.7	(23.2, 34.9)	0.76	† 4.1	(2.5, 6.8)	0.41*
\$50,000-\$79,999	645	24.8	(20.7, 29.4)	0.64*	† 3.9	(2.6, 5.9)	0.42*
\$80,000+	1602	20.2	(18.0, 22.7)	0.55**	† 3.1	(2.2, 4.4)	0.39**
Not stated	961	21.1	(17.8, 24.7)	0.54*	† 4.9	(3.1, 7.5)	0.52

Notes: Opioid pain reliever items were asked of a random sub-sample; all estimates and analyses are sample design adjusted.
 (1) *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate unstable.
 (2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
 (3) ORs greater than 1.0 indicate that the odds of opioid use are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of opioid use are lower in the group being compared to the comparison group.
 (4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete sample size N= 3890 for both any use and any nonmedical use).

Def'n: “Any use of pain relievers” defined as reporting any medical or nonmedical use in the past 12 months; “Any nonmedical use of pain relievers” defined as reporting use “without a prescription or without a doctor telling you to take them” in the past 12 months.

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 5.3.2: Percentage Reporting *Any Use of Prescription Opioid Pain Relievers* in the Past 12 Months, by Demographic Characteristics, Ontarians Aged 18+, 2010–2015

(N=)	2010 (2024)	2011 (1999)	2012 (2015)	2013 (2060)	2014 (2004)	2015 (4007)	Trend
Total Sample	26.6	23.9	21.1	22.2	22.2	22.6	T –
(95% CI) ^a	(23.3, 29.1)	(21.7, 26.3)	(18.9, 23.4)	(20.0, 24.6)	(19.9, 24.7)	(21.0, 24.3)	
Sex							NSI
Men	25.3	24.1	19.3	21.5	21.5	21.1	– –
	(21.9, 29.0)	(20.6, 28.0)	(16.2, 22.9)	(18.3, 25.0)	(18.1, 25.5)	(18.7, 23.7)	
Women	27.9	23.8	22.7	22.9	22.9	24.1	– –
	(24.9, 31.2)	(21.0, 26.8)	(19.9, 25.9)	(20.0, 26.2)	(20.0, 26.1)	(22.0, 26.3)	
Age							NSI
18-29	22.4	26.0	† 21.8	† 19.3	† 20.1	20.3	– –
	(16.5, 29.7)	(19.4, 33.8)	(15.3, 30.2)	(13.0, 27.7)	(13.5, 28.7)	(13.5, 28.7)	
30-39	21.4	22.3	16.7	23.0	24.4	20.3	– –
	(16.3, 26.6)	(17.0, 28.6)	(12.1, 22.5)	(17.3, 29.9)	(18.1, 32.0)	(16.0, 25.4)	
40-49	27.1	22.9	20.4	21.6	20.7	18.3	T –
	(22.3, 32.6)	(18.4, 28.2)	(15.9, 25.7)	(17.2, 26.7)	(16.1, 26.2)	(15.1, 22.2)	
50+	30.4	24.8	23.4	23.5	23.7	26.0	T –
	(27.3, 33.6)	(22.0, 27.8)	(20.8, 26.3)	(20.9, 26.4)	(20.9, 26.6)	(24.0, 28.0)	
Region							NSI
Toronto	24.2	22.3	23.9	25.4	16.0	22.0	– –
	(19.1, 30.1)	(17.3, 28.1)	(18.4, 30.3)	(20.0, 31.6)	(11.9, 21.2)	(18.4, 26.1)	
Central East	29.5	22.8	18.2	16.9	23.8	20.8	T –
	(24.3, 35.3)	(18.1, 28.4)	(14.0, 23.4)	(12.9, 21.8)	(18.7, 29.9)	(17.5, 24.6)	
Central West	23.5	26.1	25.4	24.3	23.4	23.9	– –
	(18.7, 29.0)	(21.0, 32.0)	(20.5, 30.9)	(19.3, 30.1)	(18.3, 29.5)	(20.2, 28.0)	
West	27.9	22.6	15.5	24.9	26.3	25.3	– –
	(22.8, 33.7)	(18.1, 27.9)	(11.7, 20.1)	(19.9, 30.7)	(21.2, 32.1)	(21.7, 29.3)	
East	27.3	24.1	20.6	20.8	19.8	22.7	– –
	(22.2, 33.1)	(19.2, 29.7)	(16.2, 25.8)	(16.4, 26.0)	(15.1, 25.5)	(19.1, 26.8)	
North	28.2	29.0	23.0	25.9	28.8	23.4	– –
	(22.9, 34.9)	(23.4, 35.4)	(18.1, 28.7)	(20.6, 32.0)	(23.3, 35.0)	(19.5, 27.7)	
Marital Status							NSI
Married/Partner	26.2	23.3	20.3	22.4	22.6	22.2	– –
Previously Married	31.2	29.2	24.3	26.6	26.9	28.9	– –
Never Married	25.5	23.4	22.2	19.4	20.3	21.2	– –
Education							NSI
High school not completed	29.5	28.9	27.0	31.0	31.3	31.5	– –
Completed high school	29.9	26.2	23.5	17.8	25.1	22.1	T –
Some college or university	27.6	24.3	19.5	23.9	23.8	25.2	– –
University degree	22.9	20.8	19.5	20.6	17.1	19.2	– –

Notes: (1) All analyses are sample design adjusted; ^a 95% confidence interval; † Estimate unstable; (2) Trend Analysis: – change not statistically significant at p<.05; **T** significant change (p<.05) between 2010–2015; **2Y** significant change (p<.05) between last two estimates; (3) **NSI**, non-significant YEAR × FACTOR interaction.

Def'n: "Any use of pain relievers" defined as reporting any medical or nonmedical use in the past 12 months;

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 5.3.3: Percentage Reporting *Any Nonmedical Use of Opioid Pain Relievers* in the Past 12 Months, by Demographic Characteristics, Ontarians, Aged 18+, 2010-2015

(N=)	2010 (2024)	2011 (1999)	2012 (2015)	2013 (2060)	2014 (2004)	2015 (4007)	Trend	
Total Sample	7.7	3.9	† 1.9	† 2.8	† 2.1	4.1	T	2Y
(95%CI) ^a	(6.4, 9.3)	(2.9, 5.3)	(1.2, 2.9)	(1.9, 4.1)	(1.3, 3.4)	(3.4, 5.0)		
Sex								*
Men	8.1	† 5.5	† 2.1	† 3.6	† 3.2	3.8	T	–
	(6.2, 10.6)	(3.6, 8.1)	(1.1, 4.1)	(2.1, 5.9)	(1.7, 5.9)	(2.8, 5.2)		
Women	7.4	† 2.6	† 1.7	† 2.0	† 1.1	4.4	T	2Y
	(5.7, 9.5)	(1.8, 3.8)	(1.0, 2.8)	(1.2, 3.6)	(0.6, 2.0)	(3.4, 5.6)		
Age								*
18-29	† 7.0	† 7.0	†	† 7.4	† 4.4	† 5.1	–	–
	(4.1, 11.6)	(3.6, 13.2)	–	(3.8, 14.1)	(1.5, 12.2)	(2.9, 8.6)		
30-39	† 6.6	†	†	† 3.6	† 3.1	† 5.2	T	–
	(3.8, 11.2)	–	–	(1.6, 7.9)	(1.2, 7.8)	(3.1, 8.5)		
40-49	† 8.9	† 5.7	†	† 2.3	† 1.1	† 3.5	T	2Y
	(5.9, 13.4)	(3.5, 9.1)	–	(1.1, 4.7)	(0.5, 2.9)	(2.1, 5.6)		
50+	7.9	† 2.1	† 1.5	† 1.1	† 1.5	3.5	T	2Y
	(6.2, 10.0)	(1.4, 3.1)	(0.8, 2.6)	(0.6, 1.9)	(0.9, 2.4)	(2.8, 4.4)		
Region								*
Toronto	† 8.4	† 4.3	†	† 2.6	†	† 3.7	T	–
	(5.4, 12.9)	(2.4, 7.5)	–	(1.0, 6.4)	–	(2.2, 6.0)		
Central East	† 9.6	† 4.2	†	† 4.0	†	† 3.7	T	–
	(6.6, 13.8)	(2.0, 8.4)	–	(1.9, 8.0)	–	(2.3, 5.9)		
Central West	† 5.7	† 4.1	† 4.3	† 3.1	† 3.1	† 4.3	–	–
	(3.5, 9.1)	(2.1, 8.2)	(2.3, 8.0)	(1.5, 6.4)	(1.3, 7.1)	(2.7, 6.8)		
West	† 8.6	† 3.4	†	† 2.7	†	† 4.0	T	–
	(5.7, 12.8)	(1.8, 6.3)	–	(1.3, 5.8)	–	(2.5, 6.3)		
East	† 5.5	† 2.7	†	†	† 2.2	† 4.6	–	–
	(3.4, 8.9)	(1.3, 5.3)	–	–	(1.0, 4.7)	(2.9, 7.4)		
North	† 6.8	† 5.1	†	†	†	† 5.7	–	–
	(4.1, 10.9)	(3.0, 8.4)	–	–	–	(3.8, 8.4)		
Marital Status								NSI
Married/Partner	6.9	† 3.2	† 1.5	† 2.1	† 1.2	3.3	T	–
Previously Married	† 9.8	†	†	† 1.3	† 2.4	† 4.0	T	–
Never Married	† 9.0	† 6.3	†	† 6.0	† 4.7	† 6.5	–	–
Education								NSI
High school not completed	† 6.9	†	†	† 8.2	†	† 5.8	–	–
Completed high school	† 10.5	† 4.2	†	† 3.7	† 3.5	† 5.4	T	–
Some college or university	† 6.1	† 4.8	† 1.4	† 1.9	† 2.1	† 4.9	T	2Y
University degree	† 7.9	† 3.1	†	†	†	† 2.4	T	–

Notes: (1) All analyses are sample design adjusted; ^a 95% confidence interval; † Estimate unstable;
(2) Trend Analysis: – change not statistically significant at p<.05; **T** significant change (p<.05) between 2010–2015;
2Y significant change (p<.05) between last two estimates;
(3) **NSI**, non-significant YEAR × FACTOR interaction.

Def'n: "Any nonmedical use of pain relievers" defined as reporting use "without a prescription or without a doctor telling you to take them" in the past 12 months.

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Figure 5.3.1
Past Year Use of Any Prescription Opioid Pain Relievers by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=4007)

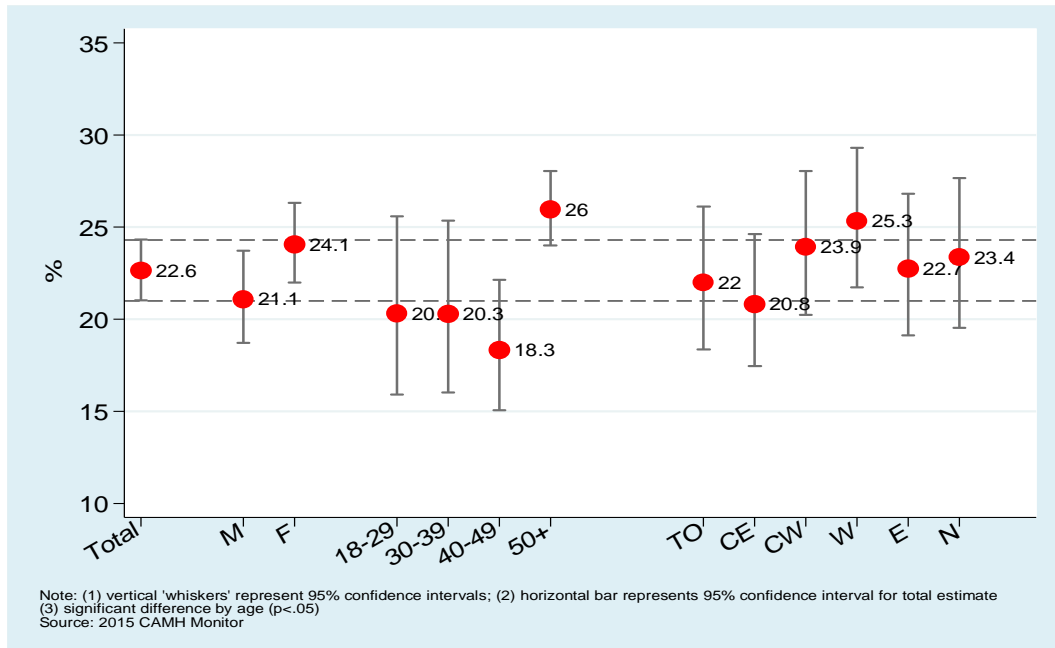


Figure 5.3.2
Past Year Nonmedical Use of Prescription Opioid Pain Relievers by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=4007)

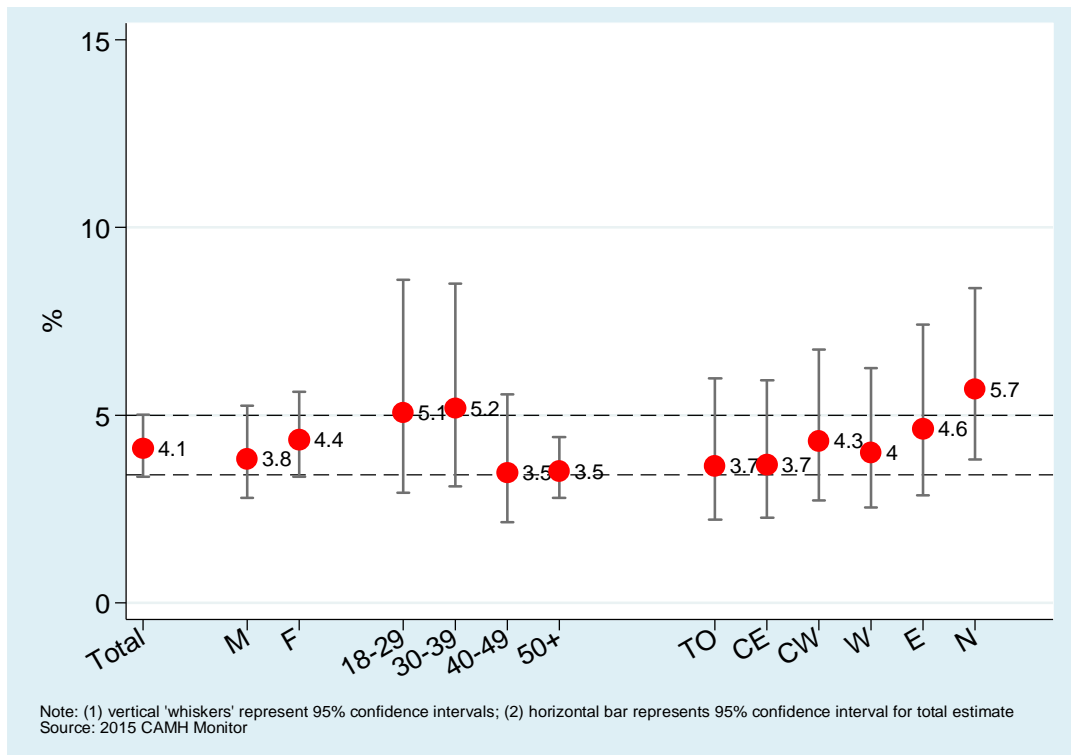
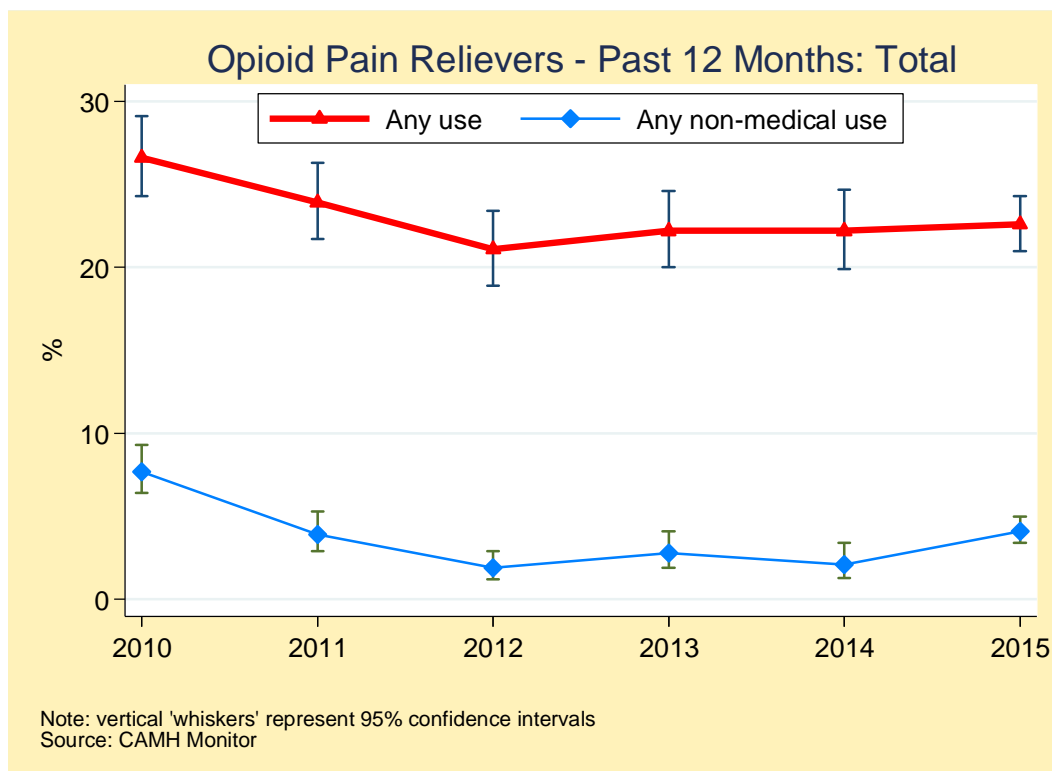


Figure 5.3.3
Past Year Use of Prescription Opioid Pain Reliever, Ontarians Aged 18+, 2010–2015



6. IMPAIRED AND DISTRACTED DRIVING

6.1 Driving after Drinking

2015.....Table 6.1.1, Fig. 6.1.1

Provincially, an estimated **4.9%** (95% CI: 3.3% to 7.2%) of Ontario adults with a valid driver's licence reported driving after drinking – **driving after consuming two or more drinks in the previous hour** – at least once during the past 12 months. This prevalence corresponds to a population estimate of 451,700 Ontario licensed drivers (95% CI: 273,400 to 630,000). Driving items were asked only of a random subsample of respondents in 2015 (N=1,005).

After adjusting for demographic risk factors, only **sex**, and **education** were significantly related to driving after drinking.

- The adjusted odds of driving after drinking were 14 times higher among male drivers than female drivers (9.2% vs. less than 1.0%; OR=14.1).
- The rate of driving after drinking showed a significant association with education. Compared to those not completing high school, the odds of driving after drinking were significantly lower among drivers with only completed high school education.

There were no other dominant effects after adjusting for other demographic factors.

Trends.....Table 6.1.2, Fig. 6.1.2
1996–2015

2014–2015

Prevalence of driving after drinking in 2015 (4.9%) was unchanged from 2014 (4.9%) and 2013 (5.1%). In addition, rates were stable for most demographic subgroups.

1996–2015

Since 1996, driving after drinking has displayed a significant **linear decline** from 13.1% to 4.9% in 2015.

Year did not interact significantly with any of the demographic factors analysed, suggesting similar trends in each subgroup. There were significant declines since 1996 for almost all demographic subgroups.

Significant declines were evident for both men and women and most age categories. There were significant declines especially among **male drivers**, from 21.2% in 1996 to 9.2% in 2015 and among young adult drivers **aged 18 to 29**, from 20.1% in 1996 to 6.7% in 2015.

A significant declining linear trend between 1996 and 2015 was found for **all regions**, but especially for drivers living in **Toronto** (from 13.8% to 2.5%). Moreover, significant declines between 1996 and 2015 also occurred among all three marital status categories and among all four education subgroups.

Table 6.1.1: Percentage *Driving within One Hour after Consuming 2 or More Drinks* in the Past 12 Months and Adjusted Group Differences, Ontario Licensed Drivers, Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=894)
Total Drivers¹	924	4.9	(3.3, 7.2)	—
Sex				***
Men	341	9.2	(6.0, 13.7)	14.05***
Women (<i>Comparison Group</i>)	583	†	—	—
Age				NS
18-29 (<i>Comparison Group</i>)	73	† 6.7	(2.5, 16.5)	—
30-39	78	†	—	0.06
40-49	142	† 5.8	(2.2, 14.5)	0.25
50-64	336	† 5.1	(2.8, 8.9)	0.23
65+	287	† 4.8	(2.6, 8.6)	0.25
Region				NS
Toronto (<i>vs. Provincial Average</i>)	144	† 2.5	(1.0, 6.3)	0.50
Central East	167	† 5.7	(2.6, 12.1)	1.27
Central West	139	† 4.9	(1.6, 13.8)	1.01
West	154	† 5.7	(2.7, 11.5)	1.19
East	151	† 6.0	(2.1, 15.9)	1.22
North	169	† 6.0	(3.0, 11.5)	1.82
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	595	5.3	(3.4, 8.1)	—
Previously Married	209	† 3.7	(1.6, 8.2)	0.74
Never Married	109	† 4.5	(1.5, 12.9)	0.25
Education				NS
High school not completed (<i>Comparison Group</i>)	66	†	—	—
Completed high school	203	† 2.5	(1.2, 5.5)	0.13*
Some college or university	338	† 6.2	(3.5, 11.0)	0.47
University degree	312	† 4.1	(2.0, 8.3)	0.24
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	65	†	—	—
\$30,000-\$49,999	97	† 5.3	(1.7, 15.7)	6.74
\$50,000-\$79,999	163	† 4.5	(2.2, 9.0)	5.41
\$80,000+	383	† 5.8	(3.5, 9.5)	8.32
Not stated	216	†	—	—

Notes: ¹Driving items were asked only of a random subsample of respondents;
(1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of driving after drinking are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of driving after drinking are lower in the group being compared to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample size N =894).

Q: *During the past 12 months, have you driven a motor vehicle after having two or more drinks in the previous hour?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 6.1.2: Percentage *Driving within One Hour after Consuming 2 or More Drinks* in the Past 12 Months, by Demographic Characteristics, Ontario Licensed Drivers, Aged 18+, 1996–2015

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend	
(N=)	(2360)	(2432)	(2183)	(2101)	(2066)	(2308)	(2132)	(2124)	(2283)	(2126)	(1730)	(1745)	(1809)	(1833)	(2711)	(1812)	(1830)	(1856)	(1816)	(924)		
Total Drivers¹	13.1	10.6	10.1	10.5	8.6	10.9	8.1	8.5	7.7	6.2	5.9	6.1	7.1	6.9	5.0	5.8	4.7	5.1	4.9	4.9	T	–
(95% CI) ^a	(11.6,14.7)	(9.3,12.1)	(8.8,11.7)	(9.1,12.1)	(7.3,10.1)	(9.5,12.5)	(6.9,9.5)	(7.2,9.9)	(6.4, 9.2)	(5.1, 7.5)	(4.7, 7.4)	(4.9, 7.5)	(5.8, 8.8)	(5.5, 8.5)	(4.1, 6.1)	(4.6, 7.4)	(3.7, 6.0)	(3.9, 6.6)	(3.8, 6.4)	(3.3, 7.2)		
Sex																						NSI
Men	21.2	18.6	16.0	16.5	13.6	17.9	12.5	13.7	12.6	10.1	9.4	9.6	11.4	11.6	7.3	10.6	7.9	8.2	8.4	9.2	T	–
	(18.5,24.1)	(16.1,21.3)	(13.7,18.7)	(14.1,19.2)	(11.3,16.2)	(15.4,20.7)	(10.4,14.9)	(11.4,16.3)	(10.3, 15.2)	(8.2, 12.5)	(7.3,12.0)	(7.5, 12.2)	(9.0, 14.4)	(9.2,14.5)	(5.8, 9.0)	(8.2,13.7)	(6.0, 10.3)	(6.2, 10.8)	(6.3, 11.2)	(6.0, 13.7)		
Women	4.9	†2.9	4.1	4.1	3.4	3.5	3.5	3.0	†2.6	†2.1	†2.3	†2.5	†3.0	†2.3	†2.8	†1.4	†1.6	†2.0	†1.5	†	T	–
	(3.8,6.4)	(2.1,4.1)	(3.0,5.6)	(3.0,5.5)	(2.4,4.9)	(2.5,4.9)	(2.5,4.8)	(2.0,4.3)	(1.8, 3.8)	(1.4, 3.2)	(1.3,3.9)	(1.6, 3.9)	(1.9,4.7)	(1.4, 3.8)	(1.9, 4.2)	(0.9, 2.3)	(0.9, 3.1)	(1.1, 3.6)	(0.8, 2.7)			
Age																						NSI
18-29	20.1	13.0	14.0	13.9	11.2	12.5	11.9	12.4	14.6	†7.7	10.2	10.3	12.4	12.8	†5.7	†5.6	†6.7	†8.9	†3.2	†6.7	T	–
	(16.7,24.7)	(10.0,16.8)	(10.4,18.4)	(10.4,18.4)	(8.2,15.1)	(9.3, 16.6)	(8.8,15.9)	(9.0,16.9)	(10.5, 19.9)	(5.0, 11.8)	(6.3,15.9)	(6.6, 15.8)	(7.8,19.2)	(8.5,19.0)	(3.4, 9.4)	(2.6,11.4)	(3.7, 11.7)	(4.7, 16.4)	(1.1, 8.9)	(2.5, 16.5)		
30-39	15.4	11.4	10.3	12.6	10.2	13.2	8.5	11.1	†7.1	†8.0	†3.4	†4.6	†6.0	9.0	†7.0	†5.0	†5.1	†5.1	†8.3	†	T	–
	(12.4,19.0)	(8.8,16.5)	(7.5,13.3)	(10.0,15.8)	(7.5,13.8)	(10.1,17.0)	(6.0,11.9)	(8.1,15.0)	(4.6, 10.7)	(5.4, 11.8)	(1.8, 6.3)	(2.6, 7.9)	(3.5, 10.0)	(5.6,14.3)	(4.6, 10.4)	(2.7, 9.3)	(2.7, 9.3)	(2.5, 9.9)	(4.6, 14.4)			
40-49	11.8	10.1	11.3	10.3	8.3	11.9	†6.3	8.7	†6.4	†8.0	†6.7	†5.8	†6.9	†7.3	†5.2	†7.8	†2.9	†4.0	†7.1	†5.8	T	–
	(9.1,15.1)	(7.3,13.8)	(8.6,14.9)	(7.5,13.9)	(6.0,11.4)	(9.0,15.5)	(4.3,9.2)	(6.3,11.9)	(4.4, 9.2)	(5.8, 11.0)	(4.4,10.1)	(3.7, 9.1)	(4.5,10.6)	(4.9,10.8)	(3.4, 7.8)	(4.8,12.5)	(1.6, 5.5)	(2.3, 6.9)	(4.5, 11.0)	(2.2, 14.5)		
50-64	7.0	9.4	8.1	8.0	†5.9	9.9	9.6	†5.8	†5.6	†2.6	†5.8	†6.1	†5.6	†3.9	†3.9	†6.9	†5.5	†4.7	†3.6	†5.1	T	–
	(4.7,10.2)	(6.9,12.6)	(5.8,11.4)	(5.5,11.6)	(3.7,9.3)	(7.1, 13.5)	(7.0,13.2)	(3.8,8.7)	(3.9, 8.2)	(1.5, 4.6)	(3.8,8.9)	(4.1, 9.0)	(3.8,8.4)	(2.5,6.1)	(2.8, 5.6)	(4.8, 9.8)	(3.7, 8.1)	(3.1, 6.9)	(2.3, 5.7)	(2.8, 8.9)		
65+	5.8	7.8	6.4	6.8	†6.0	†5.0	†3.7	†3.4	†5.3	†4.3	†3.2	†4.4	†5.3	†2.5	†3.7	†3.7	†3.5	†4.1	†3.4	†4.8	–	–
	(3.3,9.9)	(5.2,10.4)	(4.0,10.2)	(4.1,11.0)	(3.3,10.7)	(2.7, 9.4)	(1.9,7.1)	(1.8,6.6)	(3.1, 8.8)	(2.4, 7.6)	(1.5,6.6)	(2.3, 8.3)	(3.2, 8.7)	(1.2,4.8)	(2.4, 5.6)	(2.2, 6.1)	(1.9, 6.1)	(2.6, 6.4)	(2.0, 5.7)	(2.6, 8.6)		
Region																						NSI
Toronto	13.8	†7.8	†9.9	†8.5	†9.0	†10.4	†5.0	†9.1	†7.3	†2.5	†4.5	†3.5	†5.4	†5.1	†4.6	†5.1	†2.9	†4.1	†3.8	†2.5	T	–
	(10.3,18.9)	(5.0,12.0)	(6.9,14.1)	(5.7,12.7)	(5.9,13.4)	(7.2,14.8)	(2.9,8.5)	(6.2,13.2)	(4.5, 11.7)	(1.3, 4.8)	(2.3,8.8)	(1.7,6.9)	(3.1, 9.2)	(2.8, 9.1)	(2.9, 7.5)	(3.1, 8.3)	(1.4, 6.1)	(2.0, 8.4)	(1.8, 7.8)	(1.0, 6.3)		
C-East	16.2	9.9	11.2	†10.7	†6.3	10.5	†8.5	†9.4	†7.7	†7.9	†4.6	†7.4	†7.2	†5.9	†3.0	†5.6	†3.9	†5.1	†4.5	†5.7	T	–
	(12.7,20.5)	(7.3,13.3)	(8.1,15.3)	(7.6,14.8)	(4.3,9.2)	(7.6,14.2)	(5.7,12.5)	(6.6,13.2)	(5.1, 11.5)	(5.2, 11.8)	(2.5, 8.5)	(4.7,11.4)	(4.4, 11.8)	(3.4,9.8)	(1.7, 5.3)	(3.2,9.6)	(2.0, 7.2)	(2.9, 8.7)	(2.4, 8.1)	(2.6, 12.1)		
C-West	11.2	11.5	†8.3	†9.4	†8.6	†9.5	†6.8	†7.7	†6.3	†6.7	†5.8	†2.8	†7.8	†7.5	†6.5	†7.5	†4.5	†4.5	†7.8	†4.9	T	–
	(8.4,14.8)	(8.6,15.3)	(5.7,11.8)	(6.6,13.1)	(6.0,12.1)	(6.5,13.7)	(4.5,10.2)	(5.1,11.6)	(3.9, 10.0)	(4.5, 9.9)	(3.3,10.2)	(1.3,5.9)	(4.8,12.3)	(4.8,11.7)	(4.3, 9.8)	(4.5,12.3)	(2.5, 7.9)	(2.4, 8.3)	(4.9, 12.3)	(1.6, 13.8)		
West	13.1	11.4	10.4	12.4	†9.3	15.6	13.2	†8.5	13.1	†9.2	†7.2	†10.8	†5.2	†5.2	†6.6	†5.9	†6.6	†	†4.9	†5.7	T	–
	(9.9,17.1)	(8.5,15.1)	(7.5,14.2)	(9.3,16.3)	(6.2,13.7)	(12.0,20.0)	(10.0,17.3)	(5.9,12.2)	(9.7, 17.3)	(6.5, 12.9)	(4.4,11.5)	(7.3,15.6)	(3.1,8.5)	(3.1, 8.5)	(4.4, 9.9)	(3.4,10.1)	(4.0, 10.8)		(2.7, 8.8)	(2.7, 11.5)		
East	†9.5	12.2	10.0	11.7	†7.6	10.5	†7.5	†7.0	†5.4	†4.4	†7.9	†8.7	†9.2	†10.8	†5.4	†5.1	†6.3	†7.4	†4.2	†6.0	T	–
	(6.8,13.2)	(9.2,16.1)	(7.1,13.8)	(8.5,15.8)	(5.0,11.5)	(7.7,14.3)	(5.0,11.0)	(4.6,10.5)	(3.4, 8.3)	(2.4, 8.0)	(5.1,12.0)	(5.5,13.6)	(5.9,14.2)	(7.0,16.4)	(3.4, 8.3)	(2.8,9.0)	(3.8, 10.4)	(4.4, 12.1)	(2.3, 7.7)	(2.1, 15.9)		
North	13.9	11.5	12.8	12.8	13.2	9.9	†8.1	†9.0	†6.8	†6.3	†7.3	†5.0	†10.7	†9.3	†5.6	†5.0	†7.0	†7.7	†3.6	†6.0	T	–
	(10.4,18.3)	(8.5,15.3)	(9.4,17.0)	(9.3,17.3)	(9.7,10.1)	(7.3,13.4)	(5.4,12.1)	(6.2,12.9)	(4.8, 9.5)	(3.9,10.0)	(4.6,11.5)	(2.7, 9.2)	(6.9,16.3)	(5.6,14.9)	(3.5, 8.6)	(2.5, 9.6)	(4.1, 11.9)	(4.8, 12.3)	(1.8, 6.7)	(3.0, 11.5)		

Cont'd

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2360)	(2432)	(2183)	(2101)	(2066)	(2308)	(2132)	(2124)	(2283)	(2126)	(1730)	(1745)	(1809)	(1833)	(2711)	(1812)	(1830)	(1856)	(1816)	(924)	
Marital Status																					NSI
Married/ Partner	10.5	9.0	9.1	9.7	7.4	9.8	7.5	7.6	6.5	5.6	5.5	5.4	6.4	5.8	5.1	5.5	4.7	4.0	5.4	5.3	T –
Previously Married	13.1	14.8	12.4	9.4	10.5	9.0	6.2	†5.4	†4.5	†5.7	†6.1	†4.1	†7.0	†3.8	†4.4	†6.4	†5.4	†7.4	†5.2	†3.7	T –
Never Married	20.7	13.4	12.5	14.1	11.3	15.6	11.1	12.9	13.6	†8.5	†7.2	†9.7	†10.3	13.0	5.3	†6.8	†4.6	†8.0	†2.7	†4.5	T –
Education																					NSI
HS not completed	10.6	12.7	11.3	5.9	† 6.2	11.4	9.3	†7.8	†6.1	†6.1	†4.5	†5.8	10.7	†4.3	†5.2	†3.9	†	†5.1	†4.1	†	T –
Completed HS	14.0	9.9	9.1	11.5	11.3	12.6	7.5	10.0	6.9	†6.0	†6.1	†8.6	†5.3	8.3	†3.5	†5.0	†6.3	†4.8	†8.0	†2.5	T 2Y
Some college or university	15.9	12.5	13.0	12.4	9.5	11.0	8.9	7.6	8.1	7.0	6.8	7.6	7.1	8.7	5.7	†7.5	†3.9	†6.2	†4.2	†6.2	T –
University degree	10.8	8.1	6.9	9.6	† 5.9	8.7	7.0	8.9	8.4	†5.4	†5.1	†2.8	†7.7	†5.0	†5.4	†4.8	†5.3	†3.9	†4.3	†4.1	T –

Notes: ¹Driving items were asked only of a random subsample of respondents (Panel B only).

(1) *95% confidence interval; † Estimate suppressed or unstable; all estimates and analyses are sample design adjusted.

(2) Trend Analysis: – change not statistically significant (p<.05); T statistically significant change (p<.05) between 1996-2015; 2Y statistically significant change (p<.05) between last two estimates.

(3) NSI, non-significant YEAR × FACTOR interaction.

Q: *During the past 12 months, have you driven a motor vehicle after having two or more drinks in the previous hour?* (Asked among drivers currently holding a valid licence)

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 6.1.1
Past Year Driving after Drinking by Sex, Age and Region, Ontario Licensed Drivers Aged 18+, 2015 (N=924)

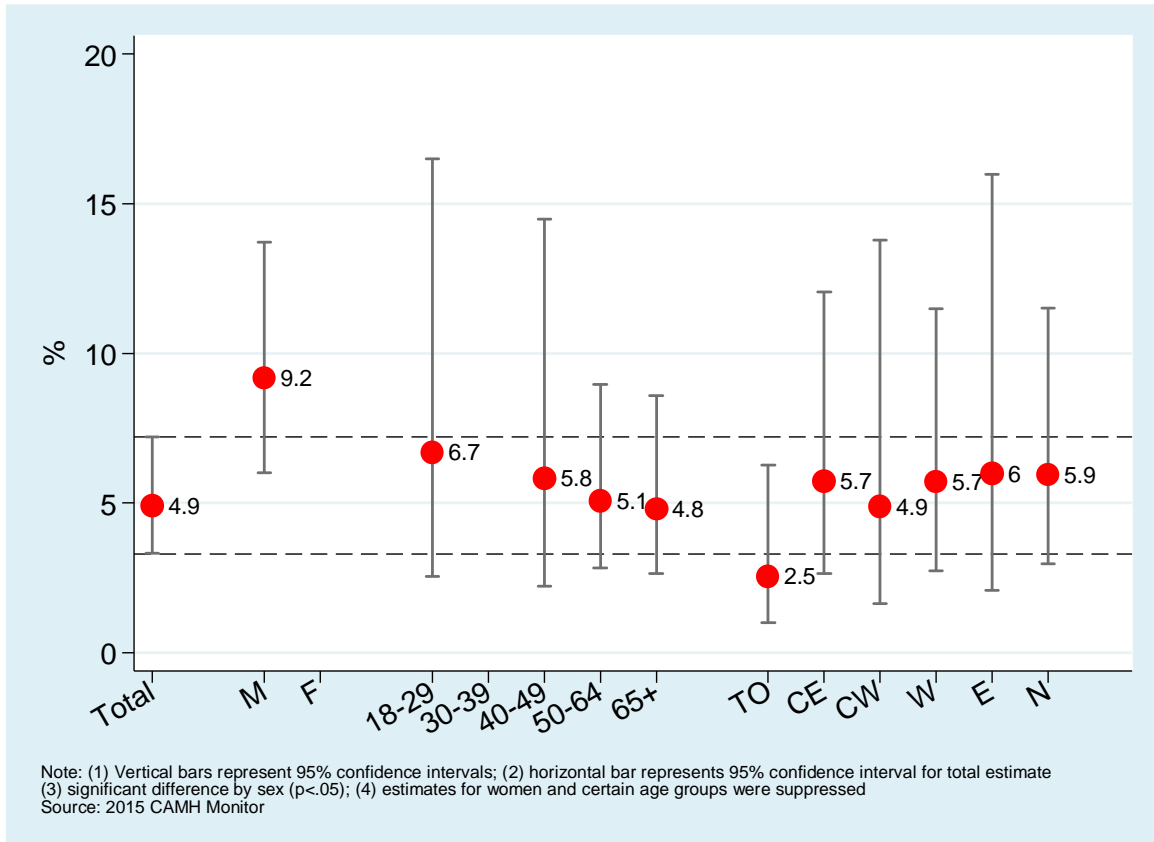
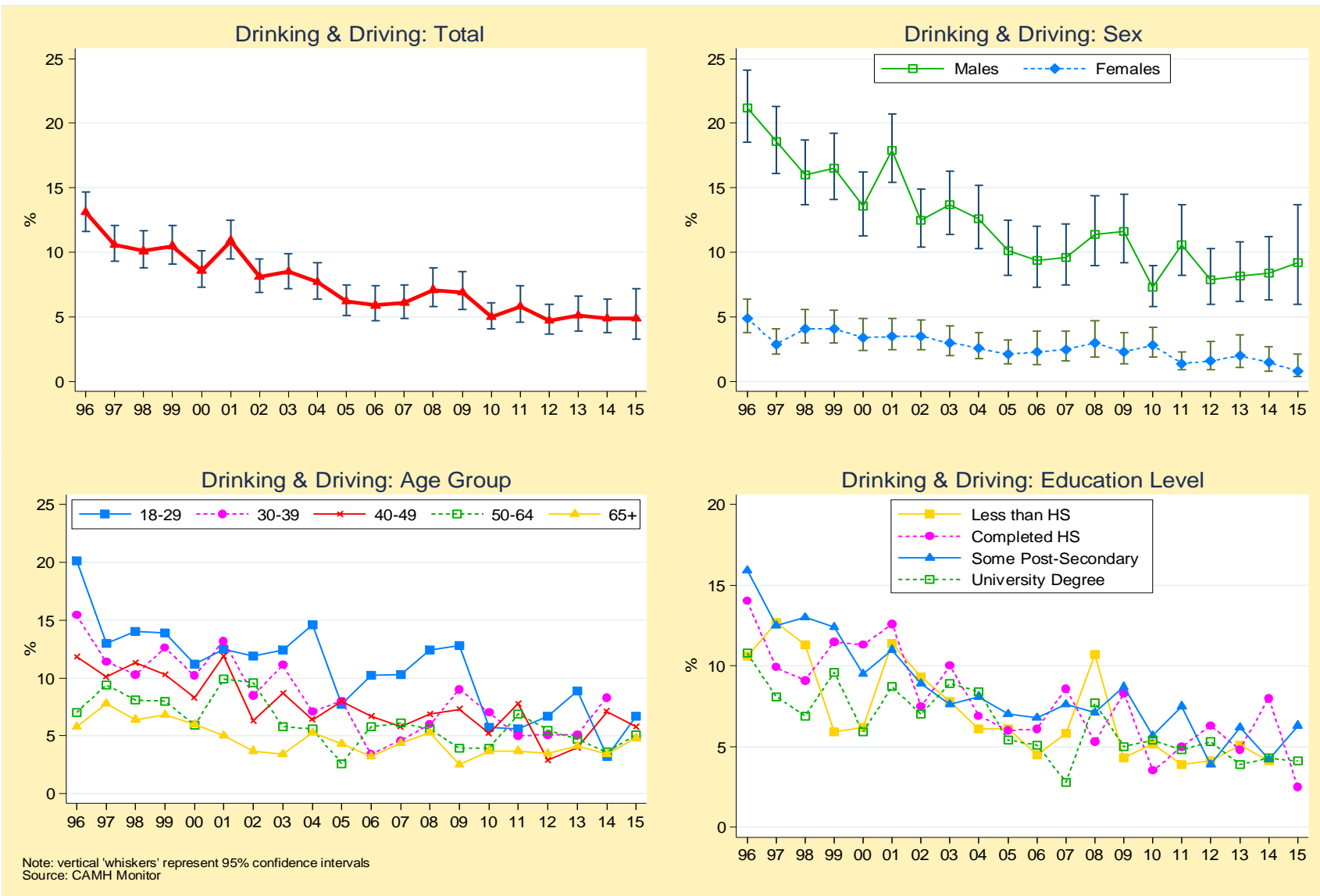


Figure 6.1.2
Past Year Driving after Drinking, Ontario Licensed Drivers Aged 18+, 1996–2015



6.2 Driving after Cannabis Use

2015.....Table 6.2.1, Fig. 6.2.1

Readers should note that given the moderate sample sizes and low estimated prevalence, most of the cannabis-driving estimates are statistically unstable and therefore only estimates by sex and age are reported.

Provincially, an estimated **2.9%** (95% CI: 1.6% to 5.2%) of Ontario adults with a valid driver's licence reported **driving within one hour of consuming cannabis** at least one time during the past 12 months. This prevalence corresponds to a population estimate of 266,600 licensed drivers (95% CI: 105,000 to 428,300).

Assessing the effects of sex and age showed the following:

- The adjusted odds of driving after cannabis use were almost 16 times higher among **men** (5.6%) than women (OR=15.9).
- Driving after cannabis use was reported almost exclusively among young drivers **aged 18 to 29** (7.5%), with other age groups reporting very low estimates (estimates that were statistically unstable were suppressed).

Trends

2002–2015.....Table 6.2.2, Fig. 6.2.2

2014–2015

The percentage of Ontario adult drivers reporting driving within one hour of consuming cannabis at least one time during the past 12 months in 2015 (2.9%) was higher but not significantly different from 2014 (1.6%) and 2013 (2.3%). In addition, rates were stable for all demographic subgroups.

2002–2015

Over the study period, driving after cannabis use has displayed a significant linear **increase**⁵³ from 1.5% in 2010 to 2.9% in 2015.

Year did not interact significantly with any of the demographic categories analysed, suggesting similar trends in each subgroup. Significant linear **increases** were evident especially among **men** and among young drivers aged **18 to 29**.

Driving after consuming cannabis increased significantly among **men**, from 1.9% in 2012 to 5.6% in 2015, and among **young drivers** from 7.3% in 2002 to 11.9% in 2006, then declined to 2.8% in 2009 and then increased again almost three-fold to 7.5% in 2015. No other subgroup changes were evident.

⁵³ All these trend results must be interpreted with caution because moderate sample sizes (with sizeable sampling errors) and low prevalence estimates result in unreliable measures of change.

Table 6.2.1: Percentage *Driving within One Hour after Consuming Cannabis* in the Past 12 Months and Adjusted Group Differences, Ontario Licensed Drivers, Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=913)
Total Drivers¹	924	† 2.9	(1.6, 5.2)	—
Sex				**
Men	341	† 5.6	(3.0, 10.2)	15.9**
Women (<i>Comparison Group</i>)	583	†	—	—
Age				*
18-29 (<i>Comparison Group</i>)	73	† 7.5	(2.9, 17.9)	—
30+	846	† 1.8	(0.9, 3.7)	0.26*

Notes: ¹Driving items were asked only of a random subsample of respondents (Panel B only).

(1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of driving after cannabis use are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of driving after cannabis use are lower in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex and age (complete case sample size N=913).

Q: *During the past 12 months, have you driven a motor vehicle within an hour of using cannabis, marijuana or hash?*
(Asked among drivers currently holding a valid licence)

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 6.2.2: Percentage *Driving within One Hour after Consuming Cannabis* in the Past 12 Months, by Demographic Characteristics, Ontario Licensed Drivers, Aged 18+, 2002–2015

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2132)	(2124)	(2283)	(2126)	(1730)	(1745)	(1809)	(1833)	(2711)	(1812)	(1830)	(1856)	(1816)	(924)	
Total Drivers¹	2.9	3.0	2.5	2.9	2.9	1.8	2.2	†1.8	†1.5	†2.4	†1.3	†2.3	†1.6	†2.9	T –
(95% CI) ^a	(2.1, 4.1)	(2.2, 4.0)	(1.7, 3.6)	(2.1, 4.1)	(1.9, 4.3)	(1.2, 2.7)	(1.4, 3.6)	(1.2, 2.8)	(1.0, 2.2)	(1.5, 3.7)	(0.7, 2.2)	(1.5, 3.5)	(0.9, 2.7)	(1.6, 5.2)	
Sex															NSI
Men	4.8	4.6	4.1	4.5	4.8	†2.2	†2.9	†3.3	†2.8	†2.9	†1.9	†3.4	†2.8	†5.6	T –
	(3.4, 6.7)	(3.2, 6.4)	(2.8, 6.1)	(3.0, 6.6)	(3.1, 7.6)	(1.3, 3.8)	(1.7, 4.8)	(2.1, 5.1)	(1.9, 4.0)	(1.6, 5.2)	(1.0, 3.6)	(2.1, 5.5)	(1.6, 4.9)	(3.0, 10.2)	
Women	†1.0	1.3	†1.0	†1.3	†1.0	†1.3	†1.6	†	†	†1.9	†	†1.2	†	†	– –
	(0.5, 2.3)	(0.7, 2.4)	(0.4, 1.8)	(0.7, 2.4)	(0.5, 2.2)	(0.7, 2.6)	(0.6, 4.2)	–	–	(1.0, 3.6)	–	(0.5, 2.8)	–	–	
Age															NSI
18 - 29	†7.3	9.0	†8.6	†8.0	†11.9	†6.3	†7.0	†2.8	†3.2	†8.6	†4.3	†8.3	†4.8	†7.5	T –
	(4.6, 11.3)	(6.0, 13.2)	(5.3, 13.5)	(5.0, 12.5)	(7.4, 18.4)	(3.5, 11.0)	(3.4, 13.8)	(1.3, 6.1)	(1.7, 5.9)	(4.7, 15.2)	(2.1, 8.7)	(4.3, 15.4)	(2.1, 10.6)	(2.9, 17.9)	
30 - 39	†4.2	†2.1	†1.0	†3.1	†1.5	†	†2.1	†3.4	†2.3	†	†	†	†	†	– –
	(2.3, 7.6)	(1.0, 4.2)	(0.3, 2.4)	(1.5, 6.6)	(0.5, 5.8)	–	(0.7, 6.1)	(1.5, 7.2)	(1.1, 4.8)	–	–	–	–	–	
40 - 49	†	†2.4	†1.8	†2.4	†	†	†1.8	†1.7	†	†	†	†	†	†	– –
	–	(1.4, 4.2)	(0.8, 4.0)	(1.2, 4.6)	–	–	(0.9, 3.7)	(0.7, 4.4)	–	–	–	–	–	–	
50+	†	†	†	†	†	†	†	†	†	†1.1	†	†1.1	†	†1.1	– –
	–	–	–	–	–	–	–	–	–	(0.6, 2.2)	–	(0.6, 2.3)	–	(0.4, 2.7)	

Notes: ¹Driving items were asked only of a random subsample of respondents (Panel B only).

(1) All analyses are sample design adjusted; ^a95% confidence interval; † Estimate suppressed or unstable;

(2) Trend Analysis: – change not statistically significant (p<.05); **T** statistically significant change (p<.05) between 1996-2015; **2Y** statistically significant change (p<.05) between last two estimates;

(3) **NSI**, non-significant YEAR × FACTOR interaction.

Q: During the past 12 months, have you driven a motor vehicle within one hour of using cannabis, marijuana or hash? (Asked among drivers currently holding a valid licence)

Source: CAMH Monitor, Centre for Addiction and Mental Health

Figure 6.2.1
Past Year Driving after Cannabis Use by Sex and Age, Ontario Licensed Drivers Aged 18+, 2015 (N=924)

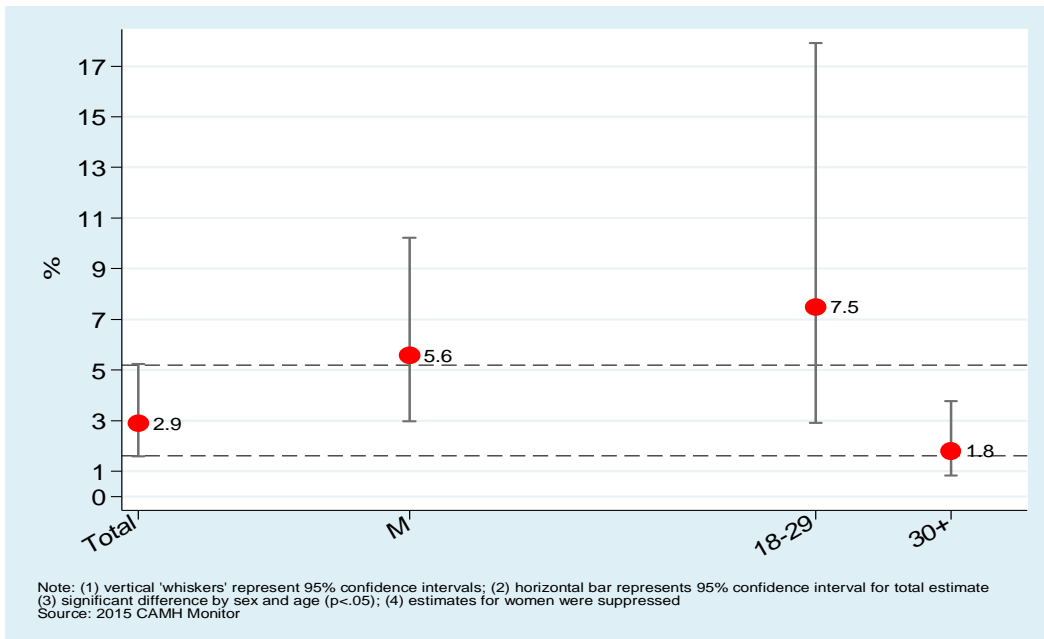
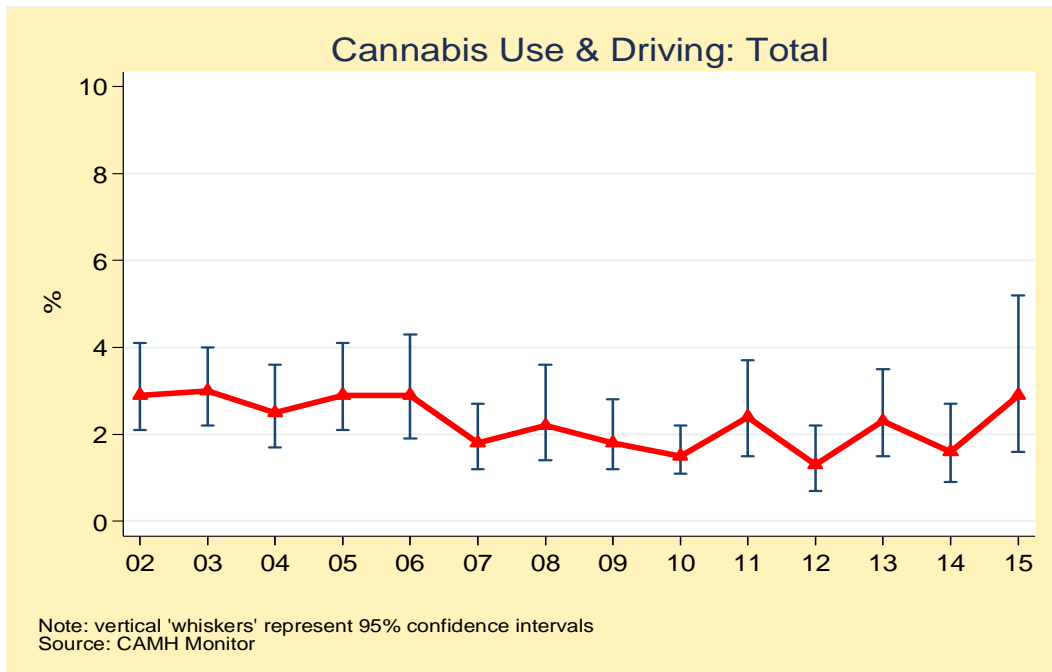


Figure 6.2.2
Past Year Driving after Cannabis Use, Ontario Licensed Drivers Aged 18+, 2002–2015



6.3 Texting While Driving

2015.....Tables 6.3.1 - 6.3.2;
Fig. 6.3.1 - 6.3.2

For the first time in 2015, the survey asked about **texting while driving**. The question was “*During the past 12 months, how many times, if at all, did you send or read a text message or an email while you were driving a vehicle?*”

In Table 6.3.1 we present the percentage of licensed drivers who reported **texting while driving** a vehicle at least once in the past year.

Provincially, an estimated **36.8%** (95% CI: 32.6% to 41.2%) of Ontario adults with a valid driver’s licence reported **texting while driving** at least once during the past 12 months. This prevalence corresponds to a population estimate of 3,351,200 licensed drivers (95% CI: 2,886,900 to 3,815,500). In addition, **10.7%** (95% CI: 8.1% to 14.0%) of licensed drivers reported texting while driving 30 times or more in the past 12 months.

After adjusting for demographic risk factors, only **age** and **income** were significantly related to texting while driving.

- Texting while driving showed a significant decline with age, dropping from 61.7% among 30 to 39 year olds to 25.7% among those 50 to 64 year olds and to 6.4% among those 65 years and older. Compared to the youngest age group (18 to 29 years old), the adjusted odds of texting while driving were significantly lower among those 50 to 64 year olds (OR=0.27) and among those aged 65 and older (OR=0.06).
- The rate of texting while driving showed a significant association with income. Compared to those with the lowest incomes, the adjusted odds of texting while driving were significantly higher among drivers with the highest incomes (OR=3.93).

- Although we found no overall significant differences according to region, two significant regional differences should be mentioned. Compared to the provincial average, the prevalence of texting while driving was significantly lower in Toronto (28.6%, OR=0.55), and significantly higher in the Central East region (47.8%, OR=1.68).

There were no other dominant effects, after adjusting for other demographic factors.

Table 6.3.1: Percentage Reporting *Texting while Driving* in the Past 12 Months and Adjusted Group Differences, Ontario Licensed Drivers, Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=893)
Total Drivers¹	924	36.8	(32.6, 41.2)	—
Sex				NS
Men	815	37.9	(30.7, 41.2)	0.99
Women (<i>Comparison Group</i>)	1041	35.8	(31.2, 45.0)	—
Age				***
18-29 (<i>Comparison Group</i>)	107	51.0	(37.6, 64.2)	—
30-39	190	61.7	(48.8, 73.1)	1.41
40-49	363	50.0	(40.2, 59.8)	0.70
50-64	618	25.7	(20.4, 31.8)	0.27**
65+	549	† 6.4	(3.6, 11.0)	0.06***
Region				NS
Toronto (<i>vs. Provincial Average</i>)	265	28.6	(20.3, 38.7)	0.55*
Central East	142	47.8	(38.5, 57.3)	1.68***
Central West	260	34.6	(25.5, 45.0)	1.06
West	315	32.9	(24.4, 42.6)	0.96
East	307	37.0	(27.8, 47.3)	0.86
North	298	31.4	(23.2, 40.8)	1.16
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	1257	35.2	(30.4, 40.2)	—
Previously Married	361	23.3	(16.5, 31.8)	1.92
Never Married	221	48.2	(36.2, 60.5)	1.37
Education				NS
High school not completed (<i>Comparison Group</i>)	198	† 23.9	(11.6, 43.0)	—
Completed high school	368	27.2	(19.2, 37.0)	0.35*
Some college or university	681	40.7	(33.5, 48.3)	0.68
University degree	592	40.7	(33.9, 47.9)	0.60
Household Income				***
< \$30,000 (<i>Comparison Group</i>)	158	†	—	—
\$30,000-\$49,999	212	† 18.6	(9.5, 33.2)	0.99
\$50,000-\$79,999	355	† 24.5	(17.2, 33.7)	1.48
\$80,000+	717	48.9	(42.8, 55.2)	3.93*
Not stated	414	† 26.6	(18.1, 37.3)	1.22

Notes: ¹Driving items were asked only of a random subsample of respondents (Panel B only); Percentage reporting texting while driving at least once in the past 12 months.

(1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of driving after drinking are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of driving after drinking are lower in the group being compared to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=893).

Q: *During the past 12 months, how many times, if at all, did you send or read a text message or an email while you were driving?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 6.3.1
Percentage Reporting Texting while Driving in the Past Year by Sex, Age and Region, Ontario Licensed Drivers Aged 18+, 2015 (N=924)

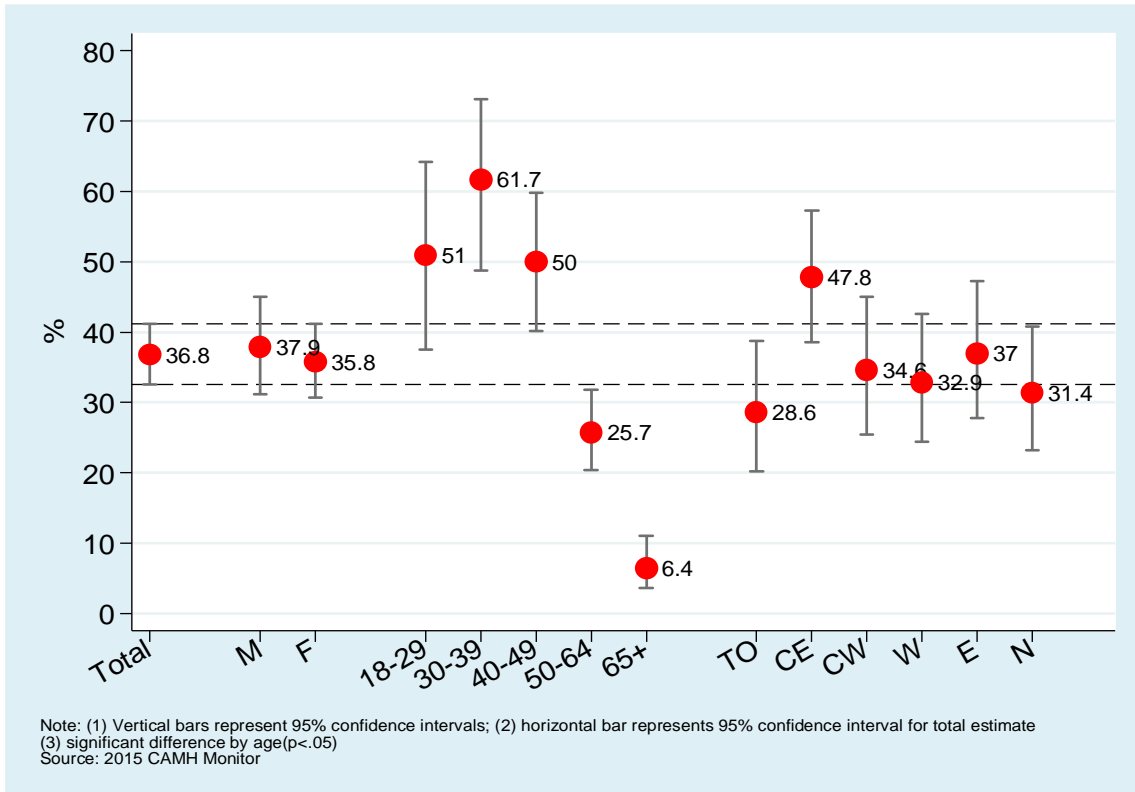


Table 6.3.2:

Percentage Reporting *Texting while Driving* in the Past Year, Ontario Licensed Drivers Aged 18+, 2015

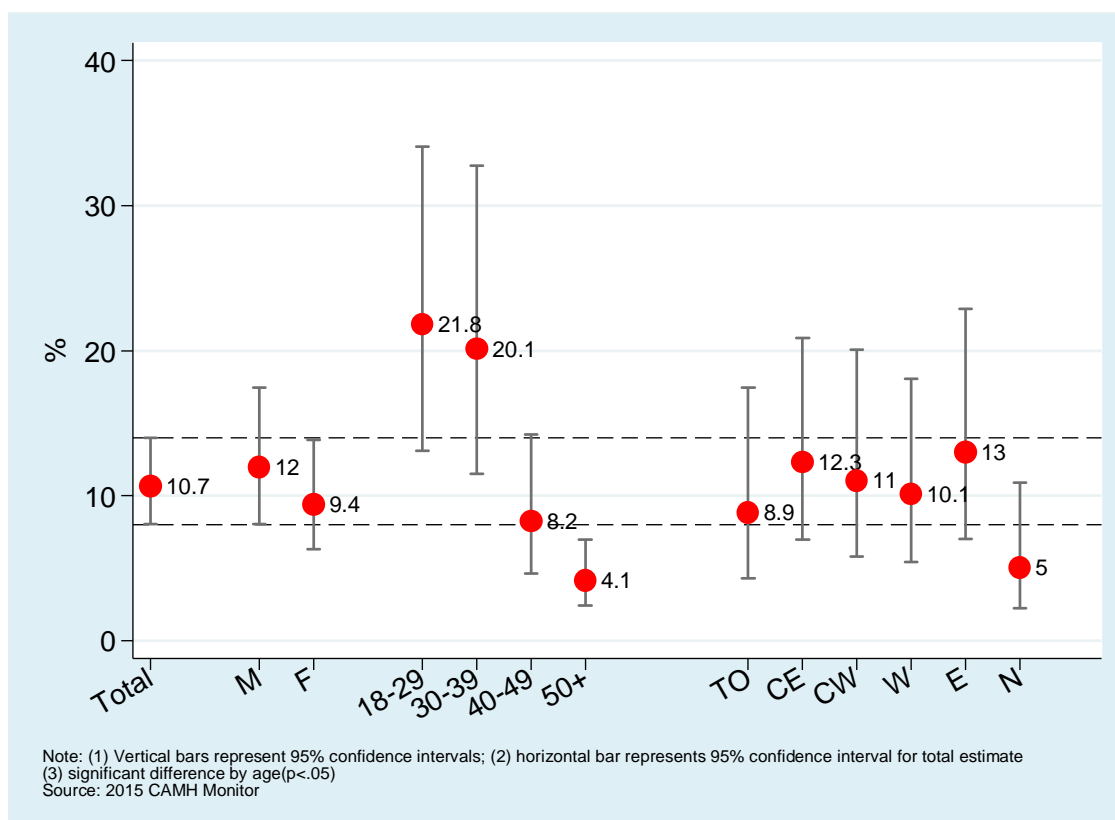
Total drivers (N=924)	Lower Limit %	Estimate %	Upper Limit %
At least once in the past year	32.6	36.8	41.2
Less than 30 times in the past year	22.4	26.1	30.3
30 times or more in the past year	8.1	10.7	14.0

Note: All estimates are sample design adjusted.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 6.3.2

Percentage Reporting Texting while Driving (30 times or more) in the Past Year by Sex, Age and Region, Ontario Licensed Drivers Aged 18+, 2015



7. MENTAL HEALTH

7.1 Psychological Distress

For the first time in 2014, the *Kessler 6-Item Psychological Distress Scale (K6)*, a screening instrument designed to detect nonspecific psychological distress (symptoms of anxiety and depression) was included in the survey. The *Kessler K6* screener is a screening instrument and is not used for clinical diagnoses (Kessler et al., 2002, Kessler et al., 2003). In 2015 these items were asked of a random subsample of respondents (N=4,007).

Each of the six questions begins with the wording: "In the past 30 days how often did you...." The following symptoms comprise the K6 screener:

- *feel nervous*
- *feel hopeless*
- *feel restless or fidgety*
- *feel so depressed that nothing could cheer you up*
- *feel that everything was an effort*
- *feel worthless*

Response categories are on a 5-point frequency scale ranging from (1) "None of the time" to (5) "All of the time". Responses to each of the six items were rescaled to a 0–4 scale for summation. A summated score ranging from 0 to 24 was computed for respondents who answered all 6 items. Higher scores indicate higher levels of psychological distress.

For our purposes, we used a cut-off score of five or higher (of 24) to estimate the percentage experiencing a moderate-to-serious level of psychological distress (henceforth, called moderate psychological distress) (Prochaska et al., 2012).

Another cut-off score of 13 or higher was used to estimate the percentage experiencing serious psychological distress (Kessler et al., 2003).

Psychological Distress Symptoms

2015 Fig. 7.1.1–7.1.2

The three most common symptoms experienced by respondents "most of the time" or "all of the time" during the past 30 days were: feeling restless or fidgety (6.8%), feeling that everything was an effort (6.3%), and feeling nervous (4.9%). The least reported symptom was thinking of oneself as worthless (2.0%).

7.1.1 Moderate Psychological Distress

2015Table 7.1.1; Fig. 7.1.3

An estimated **25.7%** (95% CI: 23.9% to 27.5%) of Ontario adults met the criteria for **moderate psychological distress** (a score of 5 or higher) during the past 30 days. The corresponding population estimate is 2,598,800 Ontario adults (95% CI: 2,395,300 to 2,802,400).

Sex, age, marital status, education and household income were significantly related to moderate distress. While holding values of risk factors constant, adjusted group differences showed the following:

- The adjusted odds of reporting moderate distress were significantly lower among men than women (22.4% vs. 28.7%; OR=0.68).
- Moderate distress declined with age, dropping from 42.7% among 18 to 29 year olds to 16.5% among those 65 and older. Three of the four age group comparisons were statistically significant: the adjusted

odds of moderate distress were lower among those aged 40 to 49 (OR=0.47), those aged 50 to 64 (OR=0.56) and among those 65 and older (OR=0.28), compared to those aged 18 to 29.

- Relative to married respondents, the adjusted odds of moderate distress were 1.5 times higher among those never married (41.1% vs. 19.9%; OR=1.53) and among those previously married (28.0% vs. 19.9%; OR=1.47).
- Relative to those not completing high school, the adjusted odds of moderate distress were significantly lower among respondents with higher education.
- Household income showed a significant association with moderate distress. The distinguishing feature was a higher rate among those with the lowest income and a lower rate among those with higher incomes. Moderate distress decreased significantly from 35.8% among those with incomes of less than \$30,000 to 21.5% among those with incomes of \$80,000 and higher (OR=0.54).

There were no significant differences for region when holding values of demographics constant.

7.1.2 Serious Psychological Distress

2015Table 7.1.2; Fig. 7.1.4

An estimated **3.1%** (95% CI: 2.4% to 4.1%) of Ontario adults met the criteria for **serious psychological distress** (a score of 13 or higher) during the past 30 days. The corresponding population estimate is 317,200 Ontario adults (95% CI: 232,000 to 402,400).

Age, region, marital status, education and household income were all significantly related to serious distress when holding values of the set of risk factors fixed.

- Serious distress declined with age, dropping from 6.8% among 18 to 29 year olds to 1.4% among those 65 and older (OR=0.23).
- Relative to respondents living in Toronto, the adjusted odds of serious distress were significantly lower among respondents living in the West and North regions of Ontario (1.8% and 1.6% vs. 4.4%; OR=0.60 and OR=0.44, respectively)
- Relative to married respondents, the adjusted odds of serious distress were almost three times higher among those never married (7.0% vs. 1.5%; OR=2.65) and among those previously married (4.9% vs. 1.5%; OR=2.90).
- Relative to those not completing high school, the adjusted odds of serious distress were significantly lower among respondents with university education (1.2% vs. 4.4%; OR=0.22).
- Household income showed a significant association with serious distress. Serious distress decreased significantly from 7.2% among those with incomes of less than \$30,000 to 1.4% among those with incomes of \$80,000 and higher (OR=0.24).

There were no significant differences for sex when holding values of other demographics constant.

Table 7.1.1: Percentage Reporting *Moderate to Serious Psychological Distress (K6/5+)* in the Past 30 Days and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3923)
Total ¹	4007	25.7	(23.9, 27.5)	—
Sex				***
Men	1535	22.4	(19.7, 25.4)	0.68**
Women (<i>Comparison Group</i>)	2472	28.7	(26.3, 31.1)	—
Age				**
18-29 (<i>Comparison Group</i>)	330	42.7	(36.7, 49.0)	—
30-39	383	27.9	(23.0, 33.4)	0.77
40-49	610	19.1	(15.9, 22.8)	0.47**
50-64	1379	23.2	(20.6, 25.9)	0.56**
65+	1272	16.5	(14.2, 19.0)	0.28**
Region				NS
Toronto (<i>vs. Provincial Average</i>)	655	27.5	(23.4, 32.0)	1.10
Central East	677	27.3	(23.3, 31.8)	1.08
Central West	644	25.1	(21.1, 29.6)	0.98
West	681	20.4	(16.9, 24.4)	0.74**
East	664	26.1	(22.0, 30.6)	1.06
North	686	23.6	(19.7, 27.9)	0.88
Marital Status				**
Married/Partner (<i>Comparison Group</i>)	2532	19.9	(18.1, 21.8)	—
Previously Married	876	28.0	(24.3, 31.9)	1.47**
Never Married	567	41.1	(35.9, 46.5)	1.53*
Education				**
High school not completed (<i>Comp. Group</i>)	317	31.4	(25.3, 38.2)	—
Completed high school	854	28.9	(24.8, 33.3)	0.67*
Some college or university	1414	29.1	(25.8, 32.6)	0.70*
University degree	1390	19.7	(17.2, 22.4)	0.48**
Household Income				**
< \$30,000 (<i>Comparison Group</i>)	353	35.8	(29.1, 43.0)	—
\$30,000-\$49,999	446	33.3	(27.7, 39.5)	0.99
\$50,000-\$79,999	645	26.3	(21.8, 31.4)	0.67
\$80,000+	1602	21.5	(19.0, 24.2)	0.54**
Not stated	961	28.7	(24.8, 33.0)	0.70

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate unstable or suppressed; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=3923).
Def'n: *Moderate Psychological Distress is defined as reporting a score of 5 or more (out of 24) on the K6 scale.*
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 7.1.2: Percentage Reporting *Serious Psychological Distress (K6/13+)* in the Past 30 Days and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3923)
Total ¹	4007	3.1	(2.4, 4.1)	—
Sex				NS
Men	1535	† 2.8	(1.8, 4.4)	0.75
Women (<i>Comparison Group</i>)	2472	3.4	(2.5, 4.7)	—
Age				**
18-29 (<i>Comparison Group</i>)	330	† 6.8	(4.1, 11.2)	—
30-39	383	† 2.6	(1.2, 5.5)	0.79
40-49	610	† 2.3	(1.3, 3.9)	0.79
50-64	1379	† 2.6	(1.9, 3.7)	0.70
65+	1272	† 1.4	(0.9, 2.3)	0.23**
Region				*
Toronto (<i>vs. Provincial Average</i>)	655	† 4.4	(2.6, 7.4)	1.53
Central East	677	† 3.2	(1.8, 5.8)	1.10
Central West	644	† 3.2	(1.8, 5.6)	1.03
West	681	† 1.8	(1.1, 3.0)	0.60*
East	664	† 2.8	(1.5, 5.0)	0.97
North	686	† 1.6	(0.8, 2.9)	0.44*
Marital Status				**
Married/Partner (<i>Comparison Group</i>)	2532	† 1.5	(1.0, 2.1)	—
Previously Married	876	† 4.9	(3.4, 7.0)	2.90**
Never Married	567	† 7.0	(4.5, 10.7)	2.65*
Education				**
High school not completed (<i>Comp. Group</i>)	317	† 4.4	(2.3, 8.1)	—
Completed high school	854	† 4.3	(2.7, 6.6)	0.62
Some college or university	1414	† 4.2	(2.8, 6.5)	0.62
University degree	1390	† 1.2	(0.7, 2.0)	0.22**
Household Income				**
< \$30,000 (<i>Comparison Group</i>)	353	† 7.2	(4.6, 11.2)	—
\$30,000-\$49,999	446	† 4.2	(2.1, 8.2)	0.59
\$50,000-\$79,999	645	† 5.3	(2.9, 9.7)	0.79
\$80,000+	1602	† 1.4	(0.8, 2.4)	0.24**
Not stated	961	† 3.9	(2.3, 6.5)	0.50

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate unstable or suppressed; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=3923).
Deff: *Serious Psychological Distress is defined as reporting a score of 13 or more (out of 24) on the K6 scale.*
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Figure 7.1.1
Percentage Reporting Symptoms of Psychological Distress (K6) “Most of the Time” or “All of the Time” in the Past Month, Ontarians Aged 18+, 2015 (N=4007)

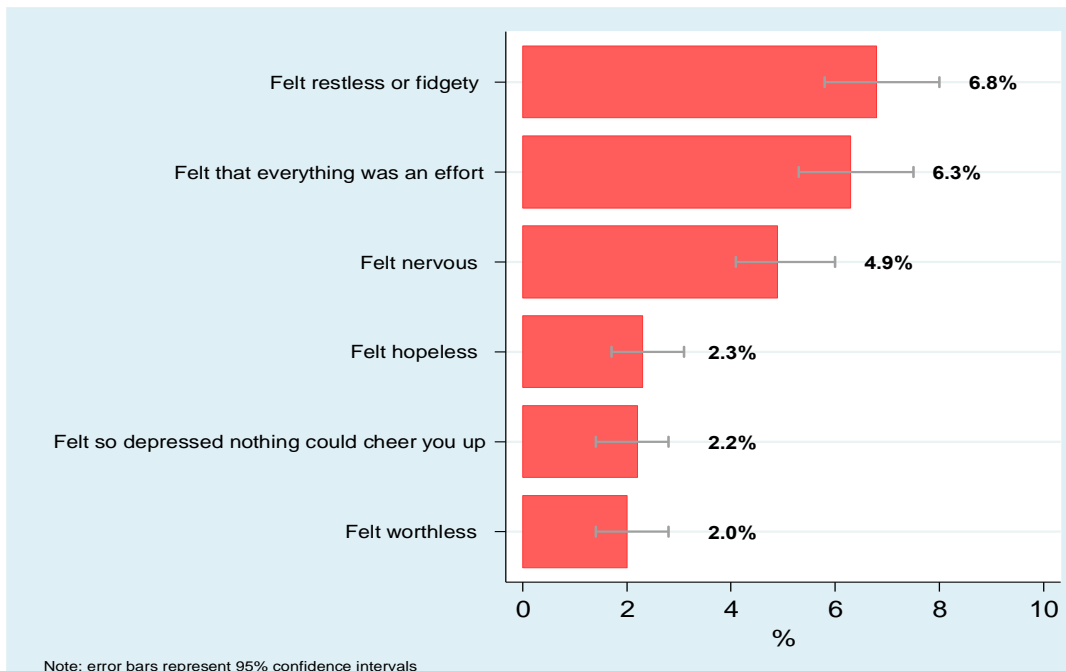


Figure 7.1.2
Percentage Reporting Symptoms of Psychological Distress (K6) “Most of the Time” or “All of the Time” in the Past Month by Sex, Ontarians Aged 18+, 2015 (N=4007)

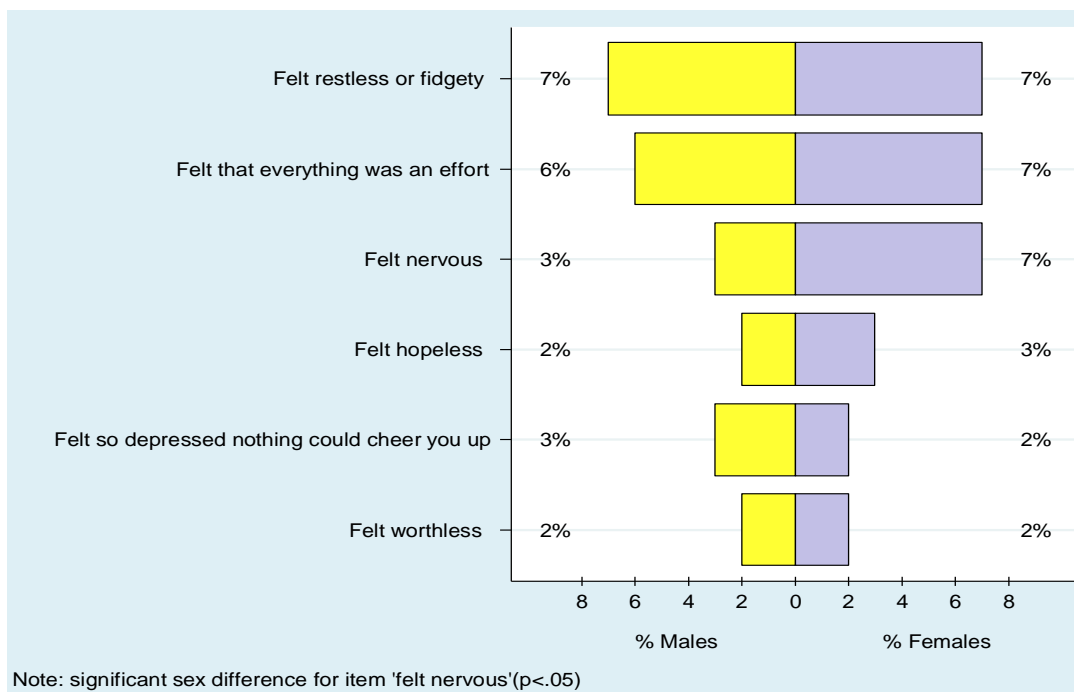


Figure 7.1.3

Percentage Reporting Moderate-to-Serious Psychological Distress (K6/5+) in the Past Month by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=4007)

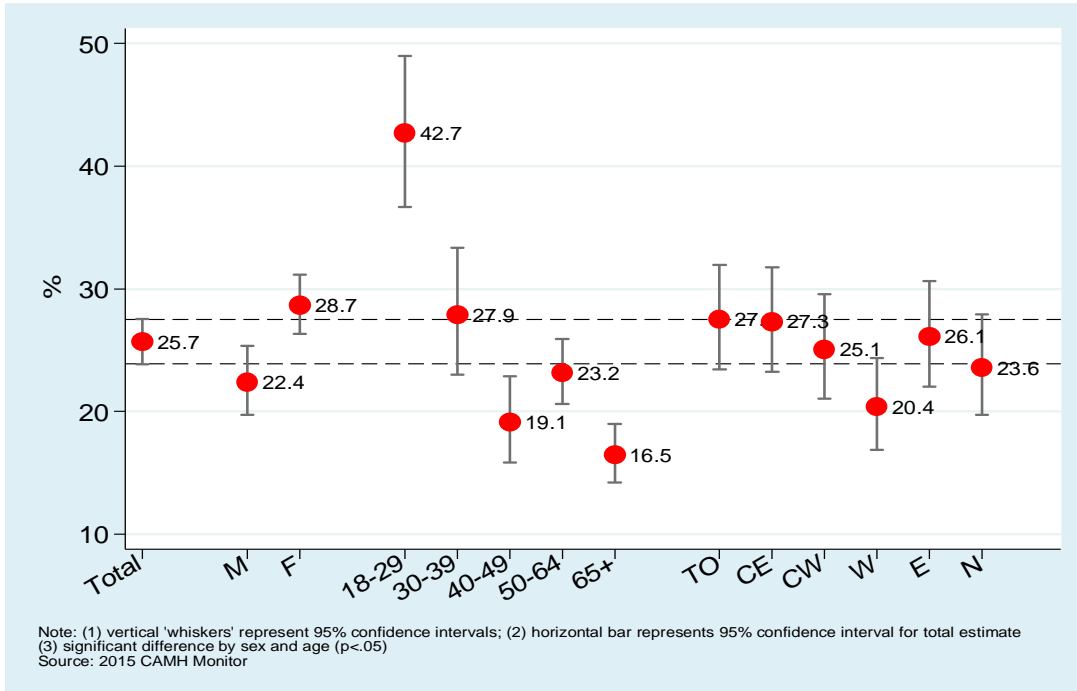
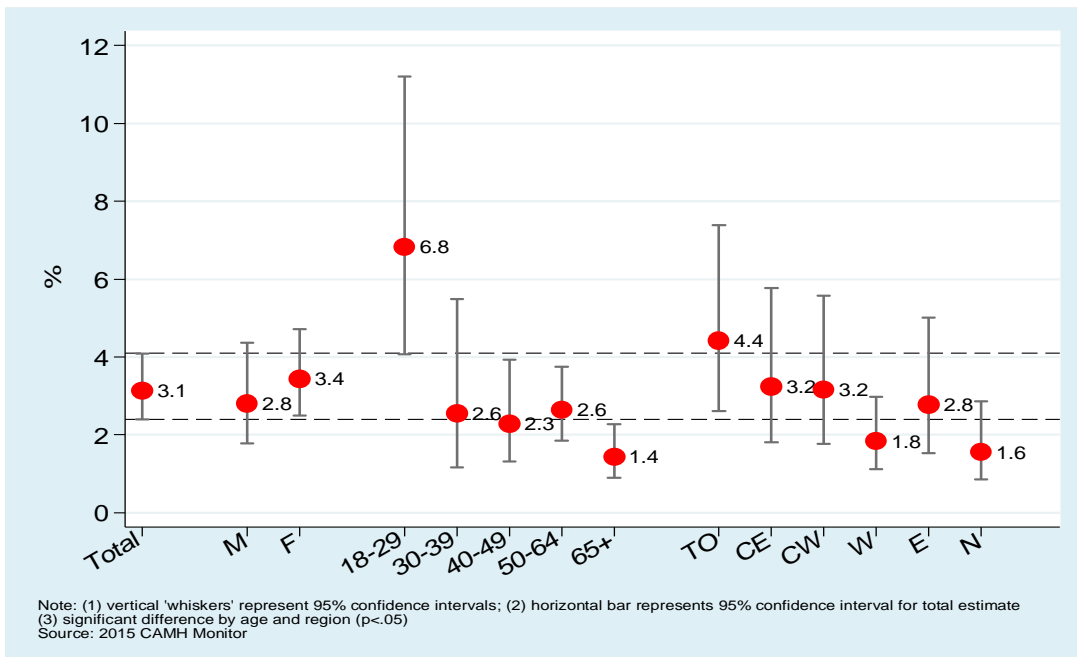


Figure 7.1.4

Percentage Reporting Serious Psychological Distress (K6/13+) in the Past Month by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=4007)



7.2 Prescription Medication for Anxiety and Depression

Anxiety and depression are some of the most prevalent mental health conditions experienced by adults. For monitoring purposes, we assess the percentage reporting having used prescription medication to treat anxiety (anxiolytics) and depression (antidepressants) during the 12 months before the survey.

The following questions were asked:

- 1) *In the past 12 months, have you taken any prescription medication to treat anxiety or panic attacks?*
- 2) *In the past 12 months, have you taken any prescription medication to treat depression?*

Estimates for past year use of antianxiety and antidepressant medications are available beginning 1997. In 2015 these items were asked of a random subsample of respondents (N=4,007).

7.2.1 Antianxiety Medication

2015Table 7.2.1; Fig. 7.2.1

Overall, an estimated **10.3%** (95% CI: 9.2% to 11.6%) of Ontario adults used a prescribed medication to treat anxiety – anxiolytics – during the 12 months before the survey. The corresponding population estimate is 1,042,200 adults (95% CI: 923,000 to 1,161,300).

Sex, marital status and household income were significantly related to past year use of antianxiety medication, when holding values of risk factors constant.

- The adjusted odds of use were significantly lower among men than among women (OR=0.59; 7.7% vs. 12.7%, respectively).
- Relative to married respondents, the adjusted odds of use were 1.8 times higher among those never married (12.5% vs. 8.7%; OR=1.79) and 1.5 times higher among those previously married (16.0% vs. 8.7%; OR=1.52).

- Household income showed a significant association with use of antianxiety medication. The adjusted odds of use were significantly higher among those with incomes of less than \$30,000 (18.1%) than among those with incomes of \$80,000 and higher (7.9%; OR=0.24).

There were no significant differences according to age, region, and education when holding values of the set of risk factors constant.

Trends

1997–2015.....Table 7.2.3; Fig. 7.2.3

2014–2015

Use of antianxiety medication in 2015 (10.3%) was not significantly different from 2014 (11.3%) and rates were stable between these two years for all subgroups.

1997–2015

Since 1997, use of anxiolytics among the total sample has displayed a significant **linear increase**, from 4.7% to 10.3% in 2015.

Year interacted significantly only with age, indicating that trends in the use of anxiolytics differed among age categories. Year did not interact with sex, region, marital status, or education suggesting similar increasing trends in most subgroups.

Differential age group trends suggest that the changes in use of anxiolytics show a different pattern depending on age group. Between 1997 and 2015, the use of anxiolytics showed a steady linear increase among 18 to 29 year olds from 1.7% to 10.7%, whereas among 40 to 49 year olds, use increased from 6.3% in 2001 to 9.2% in 2009, then declined to 6.9% in 2013 and increased again to 8.3% in 2015.

7.2.2. Antidepressant Medication

2015Table 7.2.2; Fig. 7.2.2

An estimated **8.7%** (95% CI: 7.7% to 9.9%) of Ontario adults used a prescribed medication for depression – antidepressants – during the 12 months before the survey. The corresponding population estimate is 880,200 adults (95% CI: 766,100 to 994,300).

While holding values of risk factors constant, adjusted group differences showed that use of antidepressants was significantly related to **sex, age, region, marital status** and **income**.

- The adjusted odds of use were significantly lower among men than women (OR=0.52; 6.1% vs. 11.1%, respectively).
- Past year use of antidepressants was significantly related to age. Two of the four age group comparisons were statistically significant: compared to those aged 18 to 29, the adjusted odds of use were two times higher among those aged 30 to 39 and among those aged 50 to 64 (OR=1.99).
- Compared to the provincial average, use of antidepressants was significantly lower among those living in the West (5.2%; OR=0.56).
- The adjusted odds of antidepressant use were almost two times higher among those never married and among those previously married than among married respondents (OR=1.95 and OR=1.81, respectively).
- Household income was significantly associated with past year antidepressant use. The distinguishing feature was a higher rate among those with the lowest income and a lower rate among those with higher incomes. Past year antidepressant use decreased significantly from 14.2% among those with incomes of less than \$30,000 to 6.9% among those with incomes of \$80,000 and higher.

There were no significant differences for education when holding fixed our set of risk factors.

Trends

1997–2015 Table 7.2.4; Fig. 7.2.4

2014–2015

Prevalence of past year use of antidepressants in 2015 (8.7%) was virtually unchanged from 2014 (8.9%). In addition, rates of use were stable between these two years for most subgroups. We found only one significant difference during this period: a decline among respondents with less than high school education from 17.8% in 2014 to 8.6% in 2015.

1997–2015

Since 1997, use of antidepressants among the total population has significantly **increased**, from 3.9% to 8.7% in 2013.

Year interacted significantly only with **age**, indicating that trends in past year use of antidepressants differed among age groups. Between 1997 and 2015, use of antidepressants increased steadily among 18 to 29 year olds from 2.0% to 8.5%, whereas among respondents aged 40 to 49, use increased from 4.6% in 1999 to 9.4% in 2006, but then declined to 6.9% in 2015.

Significant increases were found among both men and women. Use has increased among women from 4.9% in 1997 to 11.1% in 2015 and among men, from 2.8% in 1997 to 6.1% in 2015. Significant subgroup increases were also evident for region, marital status and education.

Table 7.2.1 Percentage Reporting *Using Prescription Medication to Treat Anxiety or Panic Attacks* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3907)
Total ¹	4007	10.3	(9.2, 11.6)	—
Sex				*
Men	1535	7.7	(6.2, 9.6)	0.59*
Women (<i>Comparison Group</i>)	2472	12.7	(11.2, 14.5)	—
Age				NS
18-29 (<i>Comparison Group</i>)	330	† 10.7	(7.5, 15.1)	—
30-39	383	† 10.0	(7.0, 13.9)	1.40
40-49	610	8.3	(6.4, 10.7)	1.16
50-64	1379	11.3	(9.5, 13.3)	1.56
65+	1272	11.0	(9.1, 13.1)	1.20
Region				NS
Toronto (<i>vs. Provincial Average</i>)	655	9.1	(7.1, 11.7)	0.88
Central East	677	10.1	(7.7, 13.1)	0.99
Central West	644	12.0	(9.3, 15.3)	1.17
West	681	9.8	(7.6, 12.7)	0.92
East	664	10.9	(8.2, 14.4)	1.12
North	686	10.4	(8.1, 13.4)	0.95
Marital Status				**
Married/Partner (<i>Comparison Group</i>)	2532	8.7	(7.6, 10.0)	—
Previously Married	876	16.0	(13.2, 19.3)	1.52*
Never Married	567	12.5	(9.5, 16.2)	1.79*
Education				NS
High school not completed (<i>Comparison Group</i>)	317	14.6	(10.5, 19.9)	—
Completed high school	854	10.9	(8.5, 13.9)	0.74
Some college or university	1414	11.3	(9.3, 13.7)	0.81
University degree	1390	8.3	(6.9, 10.0)	0.65
Household Income				**
< \$30,000 (<i>Comparison Group</i>)	353	18.1	(13.6, 23.6)	—
\$30,000-\$49,999	446	16.1	(12.0, 21.2)	1.02
\$50,000-\$79,999	645	14.0	(10.7, 18.1)	0.94
\$80,000+	1602	7.9	(6.5, 9.5)	0.55**
Not stated	961	9.3	(7.1, 12.1)	0.58*

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate suppressed or unstable; ¹ Asked only of a random subsample.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of anxiolytics use are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of anxiolytics use are lower relative to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case N= 3907).

Q: *In the past 12 months, have you taken any prescription medication to reduce anxiety or panic attacks?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 7.2.2 Percentage Reporting *Using Prescription Medication to Treat Depression* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3909)
Total ¹	4007	8.7	(7.7, 9.9)	—
Sex				***
Men	1535	6.1	(4.8, 7.9)	0.52**
Women (<i>Comparison Group</i>)	2472	11.1	(9.7, 12.8)	—
Age				**
18-29 (<i>Comparison Group</i>)	330	† 8.5	(5.6, 12.8)	—
30-39	383	† 9.9	(6.9, 13.9)	1.99*
40-49	610	6.9	(5.1, 9.2)	1.34
50-64	1379	10.3	(8.6, 12.2)	1.99*
65+	1272	7.7	(6.1, 9.6)	1.17
Region				*
Toronto (<i>vs. Provincial Average</i>)	655	9.7	(7.4, 12.6)	1.16
Central East	677	7.8	(5.6, 10.7)	0.90
Central West	644	10.4	(7.8, 13.6)	1.22
West	681	† 5.2	(3.7, 7.2)	0.56**
East	664	10.0	(7.6, 13.1)	1.25
North	686	9.0	(6.8, 11.7)	0.99
Marital Status				***
Married/Partner (<i>Comparison Group</i>)	2532	7.1	(6.1, 8.4)	—
Previously Married	876	14.5	(11.9, 17.7)	1.81**
Never Married	567	10.7	(7.9, 14.5)	1.95**
Education				NS
High school not completed (<i>Comparison Group</i>)	317	† 8.6	(5.8, 12.7)	—
Completed high school	854	9.8	(7.5, 12.8)	1.08
Some college or university	1414	10.3	(8.3, 12.7)	1.18
University degree	1390	6.6	(5.3, 8.1)	0.76
Household Income				*
< \$30,000 (<i>Comparison Group</i>)	353	14.2	(10.2, 19.5)	—
\$30,000-\$49,999	446	14.7	(10.7, 19.8)	1.19
\$50,000-\$79,999	645	11.7	(8.8, 15.5)	0.98
\$80,000+	1602	6.9	(5.6, 8.5)	0.61
Not stated	961	7.3	(5.3, 10.0)	0.59*

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate suppressed or unstable; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of antidepressant use are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of antidepressant use are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case N= 3909).
Q: *In the past 12 months, have you taken any prescription medication to treat depression?*
Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 7.2.3: Percentage Reporting *Using Prescription Medication to Treat Anxiety or Panic Attacks* in the Past 12 Months, by Demographic Characteristics, Ontarians Aged 18+, 1997–2015

	1997	1999	2001	2002	2003	2004	2006	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2568)	(2436)	(2627)	(2421)	(2411)	(2611)	(2016)	(2024)	(2037)	(2024)	(1999)	(2015)	(2060)	(2004)	(4007)	
Total	4.7	4.5	4.7	5.6	5.7	5.4	5.7	6.5	6.8	8.9	7.1	8.8	8.9	11.3	10.3	T –
(95% CI) ^a	(3.8, 5.6)	(3.7, 5.4)	(3.9, 5.7)	(4.7, 6.8)	(4.8, 6.8)	(4.5, 6.5)	(4.7, 6.8)	(5.4, 7.8)	(5.7, 8.2)	(7.5, 10.3)	(5.8, 8.5)	(7.5, 10.4)	(7.4, 10.7)	(9.5, 13.4)	(9.2, 11.6)	
Sex																NSI
Men	3.7	2.8	3.4	3.1	4.1	3.3	3.4	5.2	5.0	6.1	†5.4	†6.6	†7.1	9.2	7.7	T –
	(2.7, 4.7)	(2.0, 4.1)	(2.2, 4.3)	(2.1, 4.6)	(3.1, 5.5)	(2.3, 4.8)	(2.4, 4.7)	(3.7, 7.3)	(3.7, 6.9)	(4.5, 8.0)	(3.7, 7.9)	(4.9, 9.0)	(5.1, 9.8)	(6.7, 12.6)	(6.2, 9.6)	
Women	5.6	6.0	6.3	8.0	7.2	7.3	7.9	7.7	8.5	11.5	8.6	10.8	10.7	13.3	12.7	T –
	(4.4, 6.8)	(4.8, 7.5)	(5.0, 7.8)	(6.5, 9.9)	(5.8, 8.8)	(5.9, 9.1)	(6.3, 9.8)	(6.1, 9.5)	(6.8, 10.6)	(9.5, 13.9)	(7.0, 10.5)	(8.9, 13.1)	(8.7, 13.1)	(10.9, 16.1)	(11.2, 14.5)	
Age																**
18-29	†1.7	†2.3	†2.5	†3.4	†3.7	†5.3	†2.9	†4.1	†5.0	†5.4	†5.8	†8.7	†10.8	†13.9	†10.7	T –
	(0.6, 2.8)	(1.3, 3.9)	(1.4, 4.5)	(1.9, 5.8)	(2.1, 6.2)	(3.2, 8.8)	(1.5, 5.5)	(1.9, 8.7)	(2.6, 9.6)	(3.0, 9.7)	(2.9, 11.2)	(4.8, 15.0)	(6.1, 18.5)	(8.4, 22.3)	(7.5, 15.1)	
30-39	†4.8	†4.0	†5.1	†5.4	†6.1	†5.1	†3.4	†5.2	†4.2	†10.8	†7.1	†8.5	†8.9	†14.0	†10.0	T –
	(3.2, 6.4)	(2.6, 6.1)	(3.5, 7.4)	(3.5, 8.4)	(4.0, 9.0)	(3.3, 7.8)	(2.0, 5.8)	(3.1, 8.9)	(2.4, 7.1)	(7.3, 15.8)	(4.5, 10.8)	(5.6, 12.8)	(5.5, 14.2)	(9.0, 21.1)	(7.0, 13.9)	
40-49	7.8	7.4	†6.3	7.2	8.5	†4.7	†7.1	8.7	9.2	†6.9	†8.7	†8.3	†6.9	†9.2	8.3	– –
	(5.6, 10.0)	(5.2, 10.4)	(4.5, 8.7)	(5.1, 10.0)	(6.4, 11.1)	(2.9, 7.3)	(4.8, 10.2)	(6.2, 12.1)	(6.5, 12.9)	(4.7, 10.1)	(6.0, 12.5)	(5.9, 11.6)	(4.6, 10.4)	(6.1, 13.5)	(6.4, 10.7)	
50-64	†5.2	†4.2	†5.9	†4.3	†6.5	8.5	8.4	9.2	9.3	12.8	7.7	10.7	9.5	11.5	11.3	T –
	(3.3, 7.1)	(2.7, 6.4)	(4.0, 8.7)	(2.8, 6.6)	(4.7, 9.0)	(6.4, 11.2)	(6.3, 11.2)	(6.8, 12.3)	(6.9, 12.4)	(10.1, 16.0)	(5.7, 10.5)	(8.4, 13.5)	(7.3, 12.3)	(8.8, 14.8)	(9.5, 13.3)	
65+	†4.9	†5.2	†4.1	8.2	†3.4	†3.3	†7.2	†5.4	†6.0	†8.2	†6.3	†7.0	8.9	8.6	11.0	T –
	(2.8, 7.0)	(3.4, 8.0)	(2.5, 6.8)	(5.6, 12.0)	(1.9, 5.9)	(2.0, 5.2)	(4.7, 11.0)	(3.5, 8.1)	(4.1, 8.9)	(5.8, 11.5)	(4.3, 9.2)	(4.8, 10.0)	(6.7, 11.9)	(6.3, 11.6)	(9.1, 13.1)	
Region																NSI
Toronto	†3.7	†2.2	†3.1	†6.9	†4.4	†6.4	†4.4	†6.1	†5.0	†8.1	†6.2	†7.9	†9.9	†13.0	9.1	T –
	(2.2, 6.0)	(1.2, 4.1)	(1.7, 5.4)	(4.6, 10.3)	(2.8, 6.9)	(4.2, 9.6)	(2.7, 7.1)	(4.0, 9.1)	(3.1, 7.8)	(5.4, 12.1)	(4.0, 9.6)	(5.0, 12.1)	(6.5, 14.6)	(9.1, 18.3)	(7.1, 11.7)	
Central East	†6.1	†6.2	†3.8	†9.3	†6.4	†3.5	†4.8	†6.0	†6.5	†6.7	†5.8	†6.8	†8.6	†12.0	10.1	T –
	(4.1, 8.9)	(4.2, 9.1)	(2.3, 6.2)	(6.0, 14.3)	(4.3, 9.6)	(2.1, 6.0)	(3.0, 7.8)	(3.7, 9.5)	(4.1, 10.2)	(4.5, 9.8)	(3.4, 9.8)	(4.3, 10.6)	(5.5, 13.2)	(8.0, 17.7)	(7.7, 13.1)	
Central West	†4.7	†3.9	†3.4	†6.6	†5.1	†3.1	†5.1	†5.7	†7.9	†11.6	†6.7	†9.1	†7.9	†9.2	12.0	T –
	(3.0, 7.5)	(2.4, 6.4)	(2.0, 5.6)	(4.1, 10.5)	(3.1, 8.2)	(1.7, 5.4)	(3.2, 8.2)	(3.5, 9.0)	(5.3, 11.6)	(8.1, 16.2)	(4.3, 10.2)	(6.3, 13.0)	(5.2, 11.7)	(6.2, 13.3)	(9.3, 15.3)	
West	†3.6	†6.9	†5.3	†5.1	7.5	†5.3	9.1	†5.8	†7.2	†8.8	†6.4	12.4	†9.3	†9.6	9.8	T –
	(2.2, 6.0)	(4.7, 10.0)	(3.5, 8.1)	(3.3, 7.9)	(5.2, 10.7)	(3.6, 7.9)	(6.3, 12.9)	(3.6, 9.1)	(4.8, 10.7)	(6.0, 12.8)	(4.2, 9.6)	(9.0, 16.7)	(6.3, 13.7)	(6.5, 14.0)	(7.6, 12.7)	
East	†5.2	†3.7	†6.6	†6.8	8.7	9.9	†5.6	10.2	†7.6	†9.7	10.5	†9.9	†9.7	†11.1	10.9	T –
	(3.4, 8.0)	(2.2, 6.1)	(4.6, 9.5)	(4.5, 10.0)	(6.0, 12.3)	(7.2, 13.6)	(3.7, 8.4)	(7.0, 14.7)	(4.9, 11.6)	(6.7, 13.8)	(7.1, 15.4)	(6.8, 14.2)	(7.0, 13.4)	(7.3, 16.5)	(8.2, 14.4)	
North	†4.8	†5.6	†5.5	†4.8	†6.7	†5.9	†7.5	†6.0	†8.5	†9.3	†9.9	†9.8	†8.7	†12.7	10.4	T –
	(3.1, 7.4)	(3.7, 8.5)	(3.8, 7.8)	(3.0, 7.6)	(4.5, 9.5)	(4.1, 8.5)	(5.0, 11.0)	(3.7, 10.1)	(6.2, 13.4)	(6.3, 13.6)	(6.6, 14.6)	(6.6, 14.3)	(5.9, 12.7)	(8.9, 17.7)	(8.1, 13.4)	

Cont'd

	1997	1999	2001	2002	2003	2004	2006	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2568)	(2436)	(2627)	(2421)	(2411)	(2611)	(2016)	(2024)	(2037)	(2024)	(1999)	(2015)	(2060)	(2004)	(4007)	
Marital Status																NSI
Married/Partner	4.4	4.5	4.4	5.0	5.4	4.0	5.5	5.6	6.0	8.3	5.8	7.1	8.1	10.0	8.7	T –
Previously Married	10.4	6.9	8.3	10.2	7.5	9.3	11.2	13.4	15.2	14.1	†13.9	15.9	12.2	†13.2	16.0	T –
Never Married	†2.7	†2.6	†3.6	†4.3	†5.6	7.1	†3.5	†5.2	†5.5	†7.7	†7.5	†9.5	†10.3	†14.1	12.5	T –
Education																NSI
High school not completed	†5.8	7.8	†3.4	†6.1	†7.0	†5.3	†8.1	†8.8	†8.6	†12.6	†10.5	†11.1	†12.2	†17.5	14.6	T –
Completed high school	†5.5	†5.4	†5.5	†5.8	†6.6	†7.7	†6.3	†3.8	†7.7	†10.6	†5.6	†6.5	†9.2	†10.0	10.9	T –
Some college or university	†4.0	†3.6	†4.6	†7.2	†5.5	†5.3	†4.8	8.6	6.8	7.6	8.9	9.5	8.8	13.5	11.3	T –
University degree	†4.0	†2.1	†5.0	†3.4	†4.8	†3.9	†5.2	†5.4	†5.8	7.7	†5.8	8.5	†7.7	†8.6	8.3	T –

Notes: (1) † Estimate suppressed or unstable; ^a95% confidence interval; all analyses are sample design adjusted.

(2) Trend Analysis: – change not statistically significant at p<.05 between 1997-2015; **T** significant change (p<.05) between 1997-2015; **2Y** significant change (p<.05) between last two estimates.

(3) YEAR × FACTOR interaction: **NSI**, non-significant; *p<.05; **p<.01; ***p<.001.

Q: *In the past 12 months have you taken any prescription medication to reduce anxiety or panic attacks?*

Source: *CAMH Monitor*, Centre for Addiction and Mental Health

Table 7.2.4: Percentage Reporting *Using Prescription Medication to Treat Depression* in the Past 12 Months, by Demographic Characteristics, Ontarians Aged 18+, 1997–2015

	1997	1999	2001	2002	2003	2004	2006	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2568)	(2436)	(2627)	(2421)	(2411)	(2611)	(2016)	(2024)	(2037)	(2024)	(1999)	(2015)	(2060)	(2004)	(4007)	
Total	3.9	3.6	4.6	5.2	6.0	5.3	6.6	6.0	6.2	7.2	7.1	6.7	7.5	8.9	8.7	T –
(95% CI) ^a	(3.1, 4.7)	(2.9, 4.4)	(3.8, 5.5)	(4.4, 6.3)	(5.0, 7.1)	(4.4, 6.5)	(5.5, 7.8)	(5.0, 7.3)	(5.1, 7.5)	(6.0, 8.5)	(5.9, 8.5)	(5.6, 7.9)	(6.1, 9.1)	(7.4, 10.6)	(7.7, 9.9)	
Sex																NSI
Men	†2.8	†1.9	†2.8	†2.7	4.1	3.5	†3.6	†4.1	5.5	4.8	5.0	†4.0	†5.2	†6.3	6.1	T –
	(1.9, 3.7)	(1.2, 2.9)	(2.0, 4.0)	(1.9, 3.9)	(3.0, 5.6)	(2.4, 5.2)	(2.6, 5.0)	(2.8, 6.0)	(3.9, 7.5)	(3.5, 6.5)	(3.4, 7.3)	(2.8, 5.6)	(3.4, 7.7)	(4.5, 8.9)	(4.8, 7.9)	
Women	4.9	5.2	6.2	7.6	7.7	7.1	9.3	7.8	6.9	9.5	9.0	9.1	9.7	11.3	11.1	T –
	(3.8, 6.0)	(4.1, 6.5)	(5.0, 7.8)	(6.2, 9.3)	(6.3, 9.4)	(5.7, 8.7)	(7.6, 11.4)	(6.3, 9.7)	(5.5, 8.6)	(7.7, 11.7)	(5.9, 8.5)	(7.6, 11.0)	(7.8, 12.0)	(9.2, 13.8)	(9.7, 12.8)	
Age																**
18-29	†2.0	†2.5	†1.9	†3.3	†3.7	†3.5	†5.2	†4.4	†3.5	†4.2	†7.2	†2.4	†8.0	†10.6	†8.5	T –
	(0.8, 3.2)	(1.4, 4.3)	(1.0, 3.5)	(2.0, 5.5)	(2.2, 6.1)	(1.9, 6.5)	(3.1, 8.6)	(2.1, 9.1)	(1.6, 7.8)	(2.2, 7.9)	(3.9, 12.8)	(1.0, 5.6)	(4.1, 14.9)	(6.0, 18.3)	(5.6, 12.8)	
30-39	†3.6	†4.1	†4.9	†4.6	6.3	6.3	†4.6	†4.2	†2.9	†5.2	†7.7	†7.1	†9.5	†6.8	†9.9	T –
	(2.2, 5.0)	(2.8, 6.1)	(3.3, 7.1)	(2.9, 7.2)	(4.2, 9.3)	(4.3, 9.1)	(2.9, 7.3)	(2.4, 7.3)	(1.5, 5.6)	(2.8, 9.3)	(5.1, 11.6)	(4.6, 10.8)	(5.7, 15.4)	(4.2, 10.8)	(6.9, 13.9)	
40-49	6.9	†4.6	6.9	8.2	7.2	†4.7	9.4	9.2	†7.0	†6.1	†8.2	†7.8	†6.6	†10.3	6.9	– –
	(4.8, 9.0)	(3.1, 6.9)	(5.0, 9.4)	(6.0, 11.1)	(5.3, 9.7)	(3.2, 7.0)	(6.7, 12.9)	(6.7, 12.6)	(4.7, 12.5)	(3.9, 9.4)	(5.8, 11.4)	(5.3, 11.3)	(4.3, 10.1)	(7.2, 14.7)	(5.1, 9.2)	
50-64	†4.1	†3.5	†4.5	†4.8	9.2	7.1	8.7	8.5	9.5	11.7	8.1	10.1	7.7	9.3	10.3	T –
	(2.4, 5.8)	(2.0, 5.8)	(3.0, 6.8)	(3.3, 6.9)	(6.8, 12.5)	(5.1, 9.7)	(6.5, 11.6)	(6.3, 11.3)	(7.1, 12.5)	(9.2, 14.9)	(6.1, 10.5)	(7.9, 12.8)	(5.8, 10.1)	(7.1, 12.0)	(8.6, 12.2)	
65+	†4.1	†3.1	†4.7	†5.7	†2.9	†4.2	†4.6	†4.6	†7.1	†7.9	†4.7	†6.0	†6.3	8.0	7.7	T –
	(2.2, 6.0)	(1.8, 5.1)	(2.8, 7.8)	(3.7, 8.8)	(1.6, 5.2)	(2.6, 6.9)	(2.8, 7.5)	(2.1, 5.6)	(4.9, 10.2)	(5.6, 11.1)	(3.0, 7.2)	(4.1, 8.9)	(4.4, 8.8)	(5.8, 10.8)	(6.1, 9.6)	
Region																NSI
Toronto	†4.3	†	†3.6	†6.6	†6.3	†5.8	†4.5	†4.6	†4.1	†7.0	†5.6	†6.9	†9.7	†8.5	9.7	T –
	(2.6, 7.0)	–	(2.1, 6.0)	(4.5, 9.6)	(4.2, 9.1)	(3.7, 9.0)	(2.8, 7.2)	(3.0, 7.1)	(2.6, 6.6)	(4.4, 10.9)	(3.6, 8.6)	(4.5, 10.4)	(6.1, 14.9)	(5.6, 12.7)	(7.4, 12.6)	
Central East	†4.4	†4.6	†3.6	†7.4	†7.7	†4.9	†5.8	†6.4	†7.0	†4.6	†4.0	†3.2	†6.0	†7.0	7.8	T –
	(2.9, 6.8)	(3.0, 7.1)	(2.1, 6.1)	(4.7, 11.3)	(5.3, 11.1)	(3.2, 7.5)	(3.7, 8.9)	(4.0, 10.0)	(4.5, 10.7)	(3.0, 7.0)	(2.0, 7.6)	(1.8, 5.4)	(3.5, 10.0)	(4.2, 11.3)	(5.6, 10.7)	
Central West	†3.5	†2.8	†2.8	†6.6	†5.0	†3.6	†6.8	†6.1	†6.1	†8.0	†9.0	†7.5	†7.7	†10.0	10.4	T –
	(2.1, 5.7)	(1.6, 4.7)	(1.6, 4.9)	(4.1, 10.5)	(3.1, 7.9)	(2.1, 6.4)	(4.5, 10.4)	(3.9, 9.2)	(4.0, 9.2)	(5.3, 11.9)	(6.2, 12.8)	(5.2, 10.7)	(5.1, 11.5)	(7.1, 14.1)	(7.8, 13.6)	
West	†3.9	†3.7	†4.1	†4.2	†5.0	†4.8	†8.4	†6.2	†7.5	†9.2	†6.9	†8.4	†5.9	†8.8	†5.2	T –
	(2.4, 6.2)	(2.2, 6.1)	(2.6, 6.5)	(2.6, 6.7)	(3.1, 7.9)	(3.1, 7.4)	(5.8, 12.0)	(3.8, 9.9)	(5.1, 11.0)	(6.4, 13.2)	(4.6, 10.3)	(5.9, 11.8)	(3.5, 9.6)	(6.1, 12.5)	(3.7, 7.2)	
East	†3.1	†4.6	8.0	†6.6	8.3	†8.7	†7.9	†8.3	†6.7	†8.8	†11.0	†8.6	†8.6	†11.1	10.0	T –
	(1.7, 5.6)	(2.9, 7.2)	(5.7, 11.2)	(4.5, 9.4)	(5.7, 11.8)	(6.1, 12.2)	(5.4, 11.5)	(5.7, 11.9)	(4.6, 9.7)	(6.0, 12.7)	(7.7, 15.7)	(5.9, 12.4)	(6.0, 12.1)	(7.2, 16.7)	(7.6, 13.1)	
North	†4.1	†6.3	†6.0	†5.7	7.0	†5.2	†8.5	†4.2	†6.9	†5.5	†10.0	†10.4	†8.0	†11.1	9.0	T –
	(2.5, 6.6)	(4.2, 9.2)	(4.2, 8.5)	(3.7, 8.8)	(4.8, 10.1)	(3.7, 7.4)	(5.7, 12.3)	(2.4, 7.4)	(4.4, 10.6)	(3.4, 8.8)	(6.4, 15.4)	(7.3, 14.6)	(5.3, 11.9)	(7.6, 15.9)	(6.8, 11.7)	

Cont'd

	1997	1999	2001	2002	2003	2004	2006	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N\=)	(2568)	(2436)	(2627)	(2421)	(2411)	(2611)	(2016)	(2024)	(2037)	(2024)	(1999)	(2015)	(2060)	(2004)	(4007)	
Marital Status																NSI
Married/Partner	3.2	3.2	4.3	4.4	5.3	4.5	6.4	4.9	5.3	6.2	6.0	6.5	6.6	7.6	7.1	T –
Previously Married	8.7	†6.1	8.9	10.7	11.2	7.7	11.1	12.9	16.5	14.6	12.7	13.7	11.3	14.1	14.5	T –
Never Married	†3.3	†3.0	†3.0	†4.2	†5.3	6.2	†4.8	†5.6	†4.0	†6.2	†8.2	†3.5	†8.5	†10.2	10.7	T –
Education																NSI
High school not completed	†4.2	†5.5	†3.7	†4.2	†5.4	†5.8	†7.7	†6.9	†13.8	†12.1	†7.6	†7.6	†9.5	†17.8	†8.6	T 2Y
Completed high school	†4.9	†3.0	†4.9	†5.7	6.9	7.9	†6.3	†5.3	†5.6	†6.6	†7.0	†7.1	†7.7	†8.4	9.8	T –
Some college or university	†3.1	†3.6	†5.8	†5.4	6.2	†5.4	7.2	7.0	6.5	7.7	9.2	†6.1	7.1	10.8	10.3	T –
University degree	†3.8	†2.7	†3.5	†5.5	†5.3	†3.2	†5.8	†5.2	†3.8	†5.1	†4.6	†6.6	†7.0	†5.3	6.6	T –

Notes: (1) † Estimate suppressed or unstable; ^a95% confidence interval; all analyses are sample design adjusted.

(2) Trend Analysis: – change not statistically significant at p<.05 between 1997-2015; **T** significant change (p<.05) between 1997-2015; **2Y** significant change (p<.05) between last two estimates.

(3) YEAR × FACTOR interaction: **NSI**, non-significant; *p<.05; **p<.01; ***p<.001.

Q: *In the past 12 months, have you taken any prescription medication to treat depression?*

Source: *CAMH Monitor*, Centre for Addiction and Mental Health

Figure 7.2.1

Past Year Use of Prescription Medication to Treat Anxiety/ Panic Attacks by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=4007)

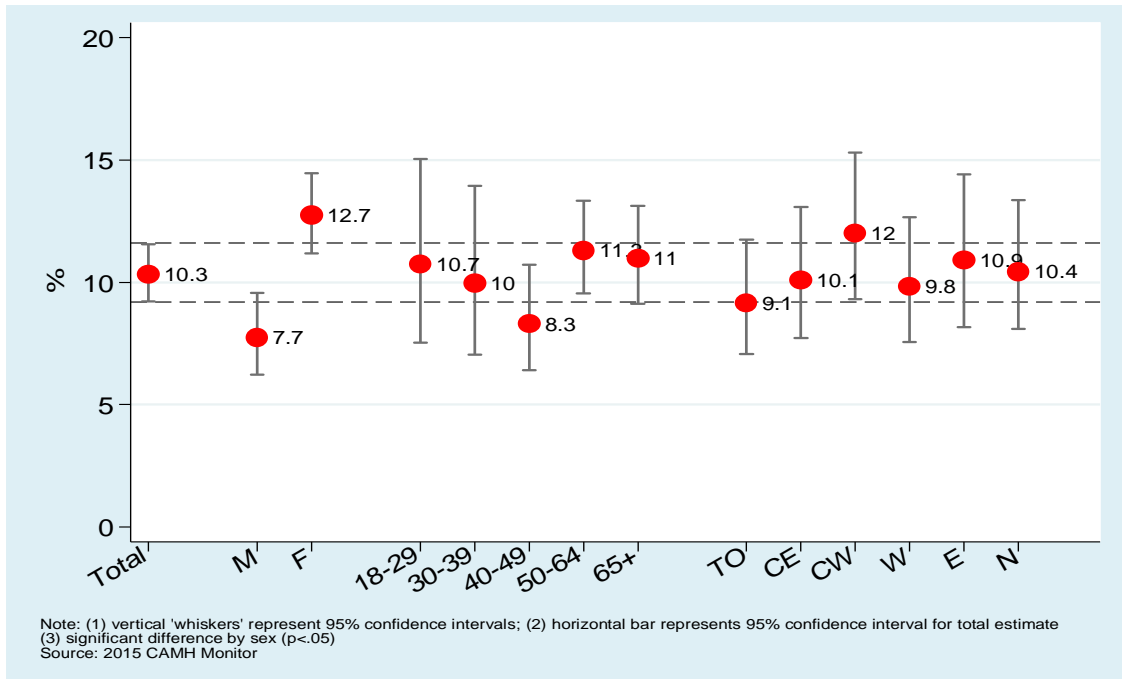


Figure 7.2.2

Past Year Use of Prescription Medication to Treat Depression by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=4007)

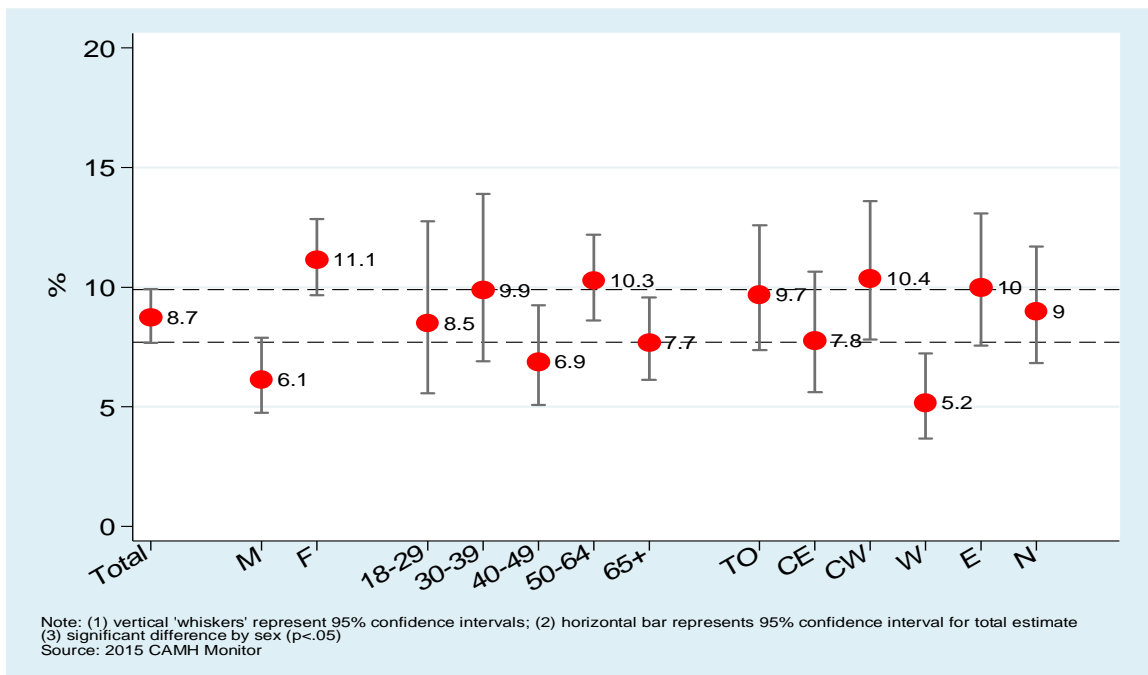


Figure 7.2.3

Past Year Use of Prescription Medication to Treat Anxiety or Panic Attacks, Ontarians Aged 18+, 1997–2015

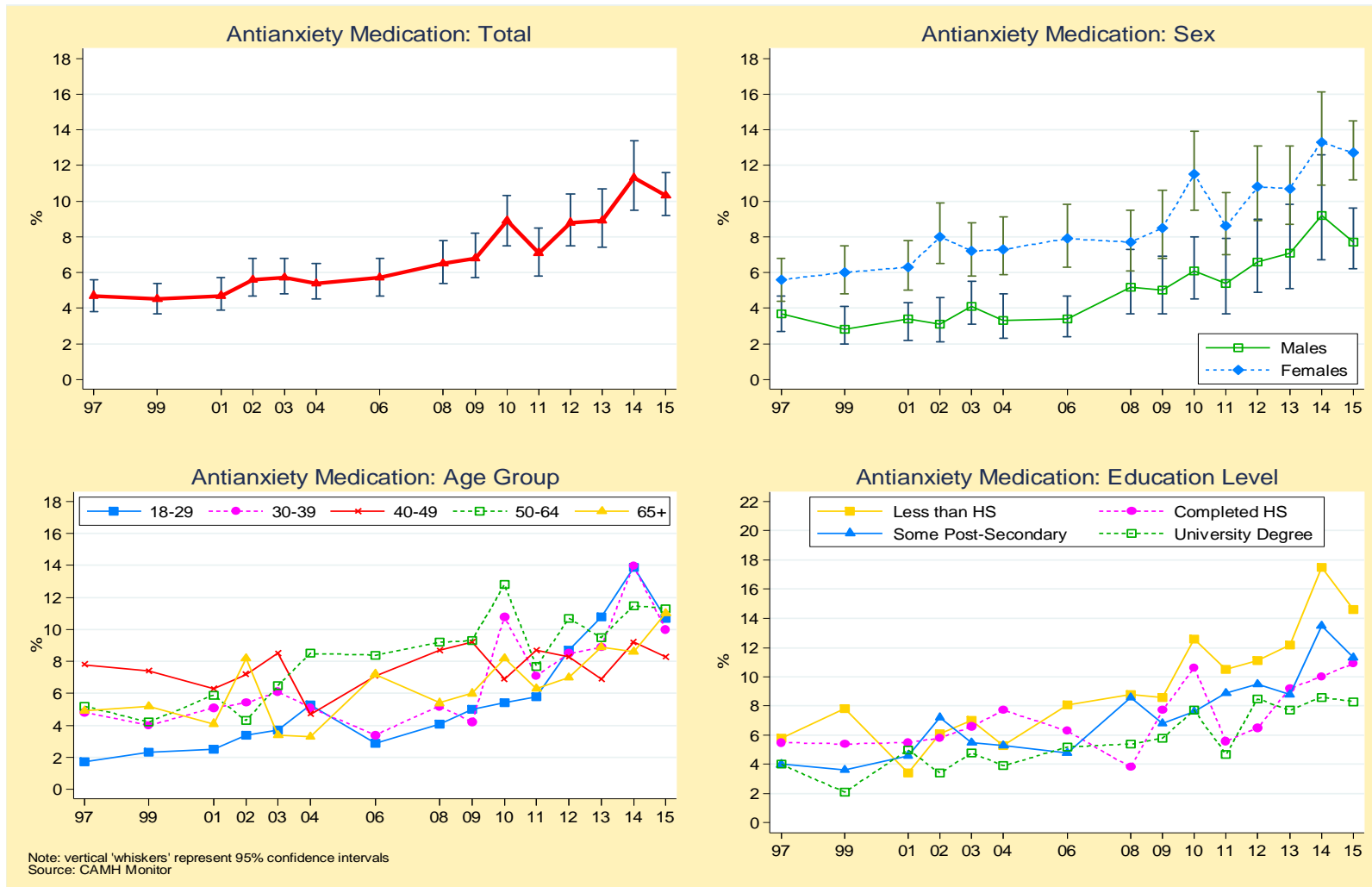
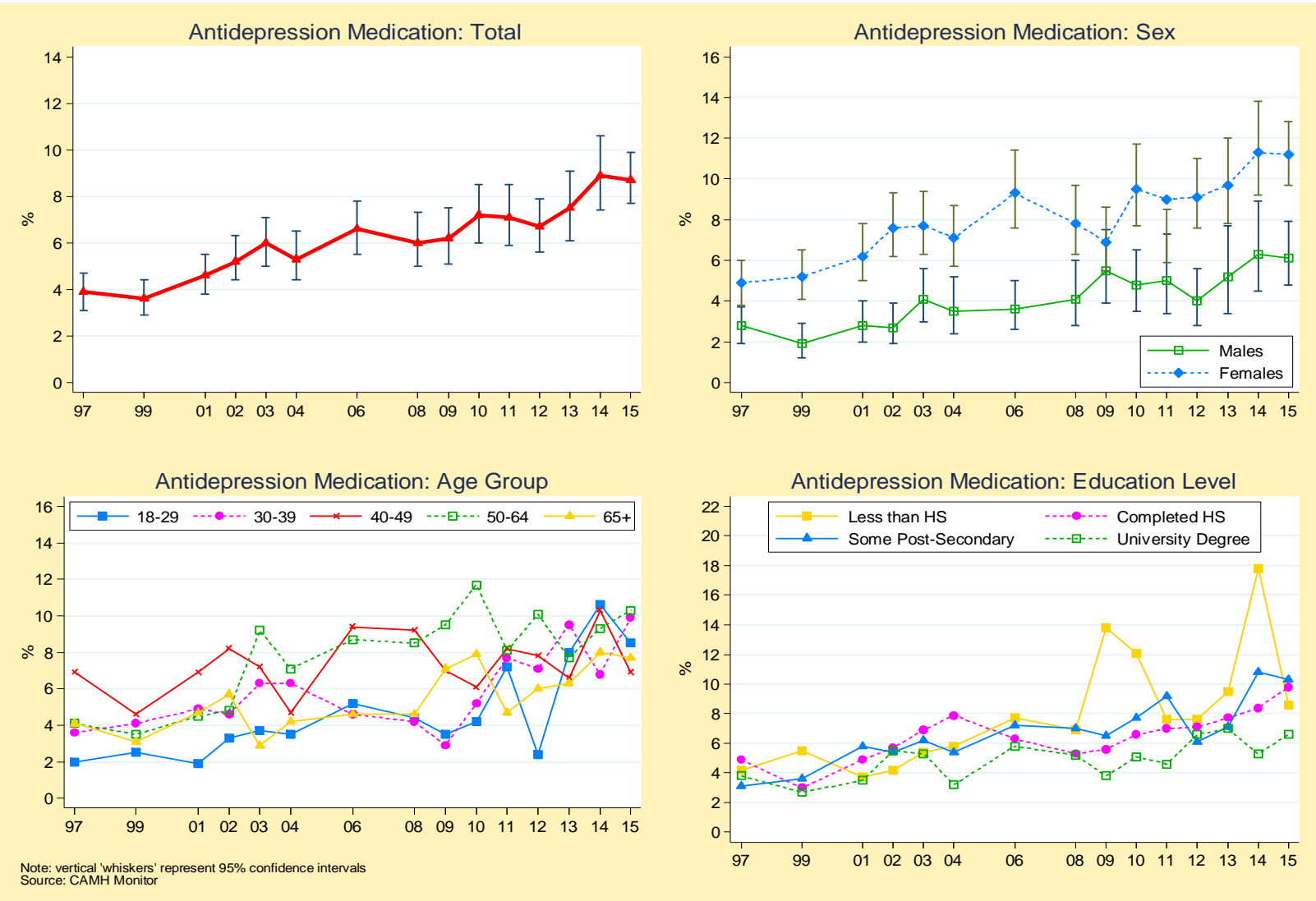


Figure 7.2.4
Past Year Use of Prescription Medication to Treat Depression, Ontarians Aged 18+, 1997–2015



7.3 Mental Health-Related Quality Of Life

Health-Related Quality of Life (HRQoL) items, introduced in 2003, are based on the core module (HRQoL-4) developed by the Centers for Disease Control and Prevention (CDC). Investigators at CDC developed a brief instrument to identify key health-related quality of life measures for adult populations (Moriarty, Zack, & Kobau, 2003; Öunpuu, Krueger, Vermeulen, & Chambers, 2000). The four-item HRQoL measures self-rated health and mental health, recent physical and mental health, and recent activity limitation. HRQoL captures the key concepts of health identified by the World Health Organization as “a state of complete physical, mental, and social well-being – not merely the absence of disease or infirmity.”

The following items were asked in the CM:

- 1) *In general, would you say your overall mental health is excellent, very good, good, fair or poor?*
- 2) *Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days in the last 30 days, was your mental health not good?*

In this report, we present two measures of **mental health-related quality of life**: 1) the percent reporting *fair or poor mental health*, defined as the percentage rating their mental health as fair or poor in general, and 2) the percent reporting *frequent mental distress days*, defined as the percentage reporting 14 or more mentally unhealthy days during the past 30 days.

7.3.1 Self-Rated Fair/Poor Mental Health

2015 Table 7.3.1; Fig 7.3.1

An estimated **6.7%** (95% CI: 5.8% to 7.6%) of Ontario adults rated their mental health as fair or poor. The corresponding population estimate is 676,000 Ontario adults (95% CI: 584,500 to 767,500).

Age, marital status, education and income were significantly related to reporting fair or poor mental health, when holding fixed our set of risk factors.

- Self-rated fair/poor mental health decreased significantly with age. Compared to those aged 18 to 29, the adjusted odds of fair/poor mental health were significantly lower among those aged 65 and older (OR=0.49; 5.7% vs.8.5%).
- The adjusted odds of fair/poor mental health of those previously married were significantly higher than those of married respondents (OR=1.76; 11.2% vs. 5.3%, respectively).
- Relative to those who did not graduate high school, the adjusted odds of fair/poor mental health were significantly lower among respondents with a university degree (OR=0.51; 4.2% vs. 9.6%, respectively).
- Household income was significantly associated with reporting fair or poor mental health. The distinguishing feature was a higher rate among those with the lowest income and a lower rate among those with higher incomes. Past year ratings of fair/poor mental health decreased significantly from 17.8% among those with incomes of less than \$30,000 to 4.6% among those with incomes of \$80,000 and higher.

There were no other significant risk factor effects, after adjusting for other factors.

Trends

2003–2015Table 7.3.3; Fig. 7.3.3

2014–2015

Prevalence of fair or poor self-rated mental health in 2015 (6.7%) did not change significantly from 2014 (6.5%). In addition, ratings of fair/poor mental health were stable for most demographic subgroups. We found only one significant difference during this period: an increase among respondents aged 50 to 64, from 4.3% in 2014 to 7.3% in 2015.

2003–2015

Between 2003 and 2015, there was a significant **increase** in ratings of fair/poor mental health, from 4.7% in 2003 to 6.7% in 2015.

Year **did not interact** significantly with any of the demographic risk factors analysed, suggesting that subgroup trends were similar. Separate subgroup trends showed significant increases for those aged 18 to 29, those aged 50 to 64 and those 65 and older, for respondents living in the Central West, for those never married and for those with some post-secondary education.

7.3.2 Frequent Mental Distress Days

2015Table 7.3.2; Fig. 7.3.2

Overall, an estimated **9.7%** (95% CI: 7.5% to 12.5%) of Ontario adults experienced **frequent mental distress days** (14+ days) in the past 30 days. The corresponding population estimate is 958,900 Ontario adults (95% CI: 707,600 to 1,210,200).

Only **age** was significantly related to reporting frequent mental distress days, after adjusting for our set of risk factors.

- The rates of experiencing frequent mental distress days declined with age, dropping from 12.8% of 18 to 29 year olds to 6.4% of those 65 and older.

There were no other significant effects, when adjusting for our set of risk factors.

Trends

2003–2015.....Table 7.3.4; Fig. 7.3.4

2014–2015

Overall, there was a significant **increase** in the percent reporting frequent mental distress days in the past 30 days in 2015 (9.7%) compared to 2014 (6.0%). Significant increases during this period were found for men (from 4.0% to 7.9%), for respondents living in the North (from 4.6% to 15.0%) and for previously married respondents (from 5.5% to 13.2%). Rates of frequent mental distress days were stable for other demographic subgroups.

2003–2015

Between 2003 and 2015, there was a significant linear **increase** in reporting frequent mental distress days from 5.4% in 2003 to 9.7% in 2015 and the increase was evident for both **men** and **women**.

Year **interacted** significantly only with **education**, indicating that trends differed only among education subgroups. Although reporting frequent mental distress days in the past 30 days increased significantly for those not completing high school from 5.7% in 2003 to 13.6% in 2015, among those with university education the trend was stable.

Table 7.3.1

Percentage Reporting *Fair or Poor Mental Health* and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=4884)
Total	5013	6.7	(5.8, 7.6)	—
Sex				NS
Men	1912	5.9	(4.7, 7.4)	0.85
Women (<i>Comparison Group</i>)	3101	7.3	(6.2, 8.6)	—
Age				**
18-29 (<i>Comparison Group</i>)	410	† 8.5	(6.0, 11.9)	—
30-39	482	† 6.7	(4.6, 9.9)	0.99
40-49	782	† 4.8	(3.3, 6.9)	0.67
50-64	1700	7.3	(6.0, 8.9)	0.89
65+	1597	5.7	(4.6, 7.1)	0.49*
Region				NS
Toronto (<i>vs. Provincial Average</i>)	833	6.4	(4.8, 8.6)	1.02
Central East	833	† 6.2	(4.5, 8.6)	0.95
Central West	820	8.0	(6.0, 10.6)	1.19
West	839	† 5.8	(4.1, 7.9)	0.78
East	838	7.0	(5.1, 9.4)	1.09
North	850	6.6	(5.1, 8.6)	0.91
Marital Status				*
Married/Partner (<i>Comparison Group</i>)	3172	5.3	(4.4, 6.3)	—
Previously Married	1091	11.2	(9.0, 13.9)	1.76**
Never Married	703	8.7	(6.4, 11.6)	1.24
Education				*
High school not completed (<i>Comparison Group</i>)	405	† 9.6	(6.7, 13.7)	—
Completed high school	1075	7.6	(5.7, 10.1)	0.75
Some college or university	1749	8.2	(6.6, 10.1)	0.89
University degree	1747	4.2	(3.2, 5.4)	0.51*
Household Income				***
< \$30,000 (<i>Comparison Group</i>)	444	17.8	(13.2, 24.0)	—
\$30,000-\$49,999	565	† 7.9	(5.3, 11.5)	0.43**
\$50,000-\$79,999	819	8.9	(6.5, 12.1)	0.49*
\$80,000+	1993	4.6	(3.7, 5.9)	0.27**
Not stated	1192	6.6	(4.9, 8.7)	0.35**

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate suppressed or unstable.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case N = 4884).
Q: *In general, would you say your overall mental health is excellent, very good, good, fair, or poor?*
Def'n: *Poor Mental Health – reporting fair or poor mental health in general.*
Source: *The CAMH Monitor, Centre for Addiction and Mental Health.*

Table 7.3.2 Percentage Reporting *Frequent Mental Distress Days* (14+) in the Past 30 Days and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=955)
Total ¹	1005	9.7	(7.5, 12.5)	—
Sex				NS
Men	366	† 7.9	(4.9, 12.6)	0.64
Women (<i>Comparison Group</i>)	639	11.4	(8.5, 15.2)	—
Age				*
18-29 (<i>Comparison Group</i>)	88	† 12.8	(6.7, 23.1)	—
30-39	84	† 12.7	(6.7, 22.7)	2.02
40-49	150	† 11.1	(6.7, 17.8)	1.66
50-64	350	† 7.3	(4.8, 11.1)	0.89
65+	323	† 6.4	(3.9, 10.3)	0.46
Region				NS
Toronto (<i>vs. Provincial Average</i>)	163	† 6.8	(3.7, 12.3)	0.69
Central East	181	† 9.2	(4.8, 16.7)	1.01
Central West	154	† 12.7	(7.4, 20.8)	1.53
West	163	† 4.8	(2.0, 10.8)	0.50
East	162	† 13.3	(7.5, 22.3)	1.56
North	182	† 15.0	(9.1, 23.7)	1.51
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	625	7.7	(5.6, 10.4)	—
Previously Married	235	† 13.2	(8.3, 20.5)	1.79
Never Married	130	† 14.0	(7.9, 23.5)	2.02
Education				NS
High school not completed (<i>Comparison Group</i>)	78	† 13.6	(6.0, 28.0)	—
Completed high school	237	† 12.9	(8.2, 19.7)	0.86
Some college or university	359	† 10.7	(6.8, 16.5)	0.57
University degree	323	† 5.9	(3.7, 9.3)	0.40
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	85	† 13.6	(6.3, 26.9)	—
\$30,000-\$49,999	108	† 20.1	(12.0, 31.9)	1.67
\$50,000-\$79,999	169	† 13.6	(6.7, 25.6)	1.09
\$80,000+	392	† 6.2	(3.9, 9.7)	0.48
Not stated	251	† 10.5	(6.3, 17.0)	0.77

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable; ¹ Asked only of a random subsample.

(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.

(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.

(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case N = 955).

Q: *Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?*

Def'n: *Frequent Mental Distress Days – reporting 14 or more mental distress days during the past 30 days*

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 7.3.3: Percentage Reporting *Fair or Poor Mental Health*, by Demographic Characteristics, Ontarians Aged 18+, 2003–2015

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(2024)	(1999)	(3030)	(3021)	(3043)	(5013)	
Total	4.7	6.1	5.2	5.8	6.2	6.1	5.7	6.1	6.0	5.9	7.1	6.5	6.7	T –
(95% CI) ^a	(3.9, 5.8)	(5.1, 7.4)	(4.3, 6.3)	(4.7, 7.1)	(5.2, 7.5)	(4.8, 7.6)	(4.7, 7.0)	(5.0, 7.5)	(4.9, 7.3)	(5.0, 7.0)	(5.8, 8.6)	(5.4, 7.8)	(5.8, 7.6)	
Sex														NSI
Men	5.0	6.4	4.3	5.6	5.1	6.1	6.1	5.4	5.3	6.0	8.3	5.8	5.9	– –
	(3.7, 6.7)	(4.8, 8.5)	(3.1, 6.0)	(4.4, 7.8)	(3.7, 6.9)	(4.4, 8.3)	(4.6, 8.2)	(4.0, 7.4)	(3.8, 7.4)	(4.6, 7.9)	(6.2, 11.0)	(4.2, 7.9)	(4.7, 7.4)	
Women	4.5	5.8	6.1	5.9	7.3	6.1	5.4	6.9	6.6	5.8	5.9	7.1	7.3	T –
	(3.4, 5.9)	(4.6, 7.4)	(4.8, 7.7)	(4.1, 7.6)	(5.7, 9.3)	(4.4, 8.3)	(4.1, 7.0)	(5.2, 9.0)	(5.2, 8.4)	(4.8, 7.2)	(4.7, 7.5)	(5.6, 8.9)	(6.2, 8.6)	
Age														NSI
18-29	6.2	5.1	5.4	4.7	† 7.1	† 6.4	† 2.9	† 5.3	† 6.1	† 6.5	† 12.1	† 11.1	† 8.5	T –
	(3.9, 9.6)	(3.0, 8.4)	(3.4, 8.5)	(2.5, 8.8)	(4.5, 11.2)	(3.0, 13.1)	(1.5, 5.7)	(2.7, 10.2)	(3.2, 11.3)	(3.7, 11.2)	(7.3, 19.3)	(7.1, 17.1)	(6.0, 11.9)	
30-39	† 4.8	8.0	6.1	5.9	† 3.9	† 5.9	† 7.8	† 4.2	† 5.6	† 5.2	† 7.8	† 5.6	† 6.7	– –
	(3.0, 7.5)	(5.6, 11.3)	(3.9, 9.4)	(3.6, 9.5)	(2.3, 6.4)	(3.4, 10.1)	(4.9, 12.1)	(2.3, 7.5)	(3.5, 8.9)	(3.3, 8.0)	(4.9, 12.0)	(3.5, 8.9)	(4.6, 9.9)	
40-49	† 4.3	5.3	5.6	7.3	8.0	† 6.1	† 6.5	† 8.0	† 6.7	† 4.3	† 5.0	† 7.8	† 4.8	– –
	(2.8, 6.5)	(3.5, 11.3)	(3.8, 8.0)	(4.9, 10.6)	(5.5, 11.5)	(4.0, 9.2)	(4.2, 9.8)	(5.4, 11.7)	(4.5, 9.9)	(2.9, 6.3)	(3.3, 7.3)	(5.3, 11.5)	(3.3, 6.9)	
50-64	† 4.3	6.4	5.2	5.4	† 6.5	7.9	† 7.2	7.4	6.6	8.0	5.9	4.3	7.3	T 2Y
	(2.9, 6.3)	(4.6, 9.0)	(3.5, 7.6)	(3.6, 8.2)	(4.5, 9.3)	(5.7, 10.9)	(5.2, 9.9)	(5.4, 10.2)	(4.7, 9.0)	(6.3, 10.1)	(4.5, 7.7)	(3.2, 5.9)	(6.0, 8.9)	
65+	† 3.5	† 4.2	† 3.3	† 5.7	† 5.7	† 4.0	† 4.3	† 5.2	† 5.8	† 5.1	6.2	4.5	5.7	T –
	(2.1, 5.8)	(2.6, 6.8)	(2.0, 5.5)	(3.7, 8.8)	(3.5, 9.2)	(2.4, 6.5)	(2.7, 6.6)	(3.4, 7.9)	(4.0, 8.5)	(3.7, 7.0)	(4.4, 8.5)	(3.3, 6.2)	(4.6, 7.1)	
Region														NSI
Toronto	† 4.6	† 7.1	† 4.9	† 5.4	† 6.5	† 9.2	† 6.7	† 6.9	† 5.9	† 7.2	† 8.6	† 6.0	6.4	– –
	(2.8, 7.3)	(4.7, 10.6)	(3.0, 7.8)	(3.2, 8.9)	(4.2, 10.0)	(6.1, 13.7)	(4.4, 10.2)	(4.2, 11.3)	(3.6, 9.4)	(5.2, 10.1)	(5.5, 13.3)	(3.6, 9.8)	(4.8, 8.6)	
Central East	† 5.1	† 5.2	† 5.5	† 6.7	† 8.0	† 6.6	† 5.7	† 5.4	† 3.7	† 5.5	† 7.4	† 5.5	† 6.2	– –
	(3.2, 7.9)	(3.3, 8.1)	(3.5, 8.5)	(4.2, 10.6)	(5.4, 11.8)	(3.9, 11.2)	(3.5, 9.0)	(3.5, 8.4)	(2.2, 6.2)	(3.5, 8.5)	(4.8, 11.3)	(3.5, 8.6)	(4.5, 8.6)	
Central West	† 3.7	† 6.3	† 3.1	† 5.1	† 4.1	† 2.6	† 5.7	† 5.8	† 8.4	† 4.2	† 6.8	† 7.0	8.0	T –
	(2.0, 6.7)	(4.1, 9.6)	(1.8, 5.4)	(3.0, 8.3)	(2.4, 7.1)	(1.4, 4.7)	(3.7, 8.7)	(3.5, 9.2)	(5.5, 12.6)	(2.7, 6.3)	(4.6, 9.9)	(4.8, 10.3)	(6.0, 10.6)	
West	† 4.2	† 5.2	† 6.4	† 5.2	† 5.9	† 5.3	† 5.4	† 6.0	† 6.8	† 6.6	† 4.2	† 6.5	† 5.8	– –
	(2.6, 6.8)	(3.4, 7.9)	(4.4, 9.4)	(3.3, 8.1)	(3.7, 9.2)	(3.5, 8.2)	(3.5, 8.3)	(3.6, 9.8)	(4.5, 10.1)	(4.6, 9.5)	(2.7, 6.4)	(4.3, 9.6)	(4.1, 7.9)	
East	† 5.4	† 6.7	† 6.9	† 4.2	† 5.2	† 5.5	† 5.8	† 7.5	† 5.0	† 6.3	† 7.9	† 8.2	7.0	– –
	(3.4, 8.5)	(4.2, 10.7)	(4.5, 10.4)	(2.5, 7.1)	(3.2, 8.3)	(3.2, 9.1)	(3.7, 9.0)	(4.9, 11.3)	(3.1, 7.8)	(4.4, 8.9)	(5.5, 11.3)	(5.5, 12.1)	(5.1, 9.4)	
North	† 6.9	† 6.3	† 6.7	† 9.3	† 7.5	† 5.1	† 3.8	† 4.1	† 8.3	† 6.4	† 6.5	† 6.8	6.6	– –
	(4.8, 9.7)	(4.2, 9.3)	(4.5, 9.9)	(6.4, 13.5)	(4.9, 11.3)	(3.0, 8.4)	(2.1, 6.7)	(2.5, 6.5)	(5.4, 12.6)	(4.3, 9.4)	(4.5, 9.2)	(4.5, 10.0)	(5.1, 8.6)	

Cont'd

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(2024)	(1999)	(3030)	(3021)	(3043)	(5013)	
Marital Status														NSI
Married/Partner	†3.6	4.6	4.0	5.4	5.2	4.3	5.2	5.1	5.0	4.1	5.2	4.5	5.3	– –
Previously Married	7.8	11.9	8.6	10.3	9.2	11.8	†8.5	†10.9	†8.9	9.4	9.4	†9.5	11.2	– –
Never Married	†6.4	†7.2	†6.7	†4.4	†7.1	†8.3	†6.3	†6.7	†8.0	†9.5	†12.0	†11.0	8.7	T –
Education														NSI
High school not completed	7.9	8.9	8.5	11.8	12.8	†9.7	11.2	†10.9	†7.2	†12.1	†15.1	†11.2	†9.6	– –
Completed high school	6.4	9.2	6.1	†4.1	†7.6	†6.2	†6.6	†7.3	†5.9	†7.2	†7.5	†8.6	7.6	– –
Some college or university	†4.0	5.5	†3.8	5.6	†4.7	6.1	†4.7	5.6	8.6	5.6	6.9	6.3	8.2	T –
University degree	†2.9	†3.4	5.0	†4.8	†4.0	†5.0	†4.6	†4.6	†3.0	†3.6	†4.7	†4.5	4.2	– –

Notes: (1) † Estimate suppressed or unstable; ^a95% confidence interval; all analyses are sample design adjusted.
(2) Trend Analysis: – change not statistically significant at p<.05; T significant change (p<.05) between 2003-2015; 2Y significant change (p<.05) between last two estimates.
(3) YEAR × FACTOR interaction: NSI, non-significant;
(4) Poor Mental Health – reporting fair or poor mental health in general.

Q: *In general, would you say your overall mental health is excellent, very good, good, fair, or poor?*
Def'n: *Frequent Mental Distress Days – reporting 14 or more mental distress days during the past 30 days*
Source: *The CAMH Monitor, Centre for Addiction and Mental Health.*

Table 7.3.4: Percentage Reporting *Frequent Mental Distress Days* (14+) in the Past 30 Days, by Demographic Characteristics, Ontarians Aged 18+, 2003–2015

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(2024)	(1999)	(2015)	(2060)	(2004)	(1005)	
Total	5.4	6.6	5.4	5.8	6.6	6.0	6.4	7.9	7.1	6.4	7.3	6.0	9.7	T 2Y
(95% CI) ^a	(4.5, 6.5)	(5.5, 7.9)	(4.5, 6.6)	(4.7, 7.1)	(5.5, 7.9)	(4.7, 7.6)	(4.8, 8.3)	(6.6, 9.5)	(5.7, 8.7)	(5.2, 7.9)	(5.8, 9.0)	(4.8, 7.5)	(7.5, 12.5)	
Sex														NSI
Men	4.2	5.7	4.4	†4.9	†4.7	†5.6	†4.7	5.8	†5.8	†5.8	†7.1	†4.0	†7.9	T 2Y
	(3.0, 5.8)	(4.3, 7.6)	(3.2, 6.2)	(3.4, 6.9)	(3.3, 6.5)	(3.9, 7.9)	(3.1, 7.2)	(4.2, 8.0)	(3.9, 8.7)	(4.0, 8.3)	(5.0, 10.1)	(2.5, 6.4)	(4.9, 12.6)	
Women	6.5	7.4	6.3	6.7	8.4	6.4	8.1	10.1	8.2	7.0	7.4	7.9	11.4	T –
	(5.2, 8.2)	(6.0, 9.2)	(5.0, 8.0)	(5.2, 8.6)	(6.7, 10.5)	(4.5, 8.9)	(5.7, 11.4)	(8.1, 12.5)	(6.5, 10.3)	(5.4, 8.9)	(5.7, 9.6)	(6.2, 10.0)	(8.5, 15.2)	
Age														NSI
18-29	7.0	8.2	†5.7	†5.4	†7.9	10.2	†5.0	†9.0	†11.6	†6.8	†9.9	†5.4	†12.8	– –
	(4.6, 10.4)	(5.5, 12.1)	(3.6, 9.0)	(3.1, 9.0)	(5.1, 12.1)	(5.8, 17.4)	(2.1, 11.5)	(5.6, 14.2)	(7.1, 18.5)	(3.3, 13.2)	(5.4, 17.6)	(2.5, 11.0)	(6.7, 23.1)	
30-39	†3.4	6.3	7.6	†7.6	†8.5	†5.9	†7.2	†7.5	†6.9	†8.5	†9.9	†8.3	†12.7	T –
	(2.1, 5.4)	(4.2, 9.3)	(5.1, 11.1)	(4.9, 11.6)	(5.6, 12.5)	(3.7, 9.5)	(4.1, 12.3)	(4.7, 11.8)	(4.3, 10.9)	(5.5, 12.9)	(5.8, 16.2)	(4.8, 14.0)	(6.7, 22.7)	
40-49	6.8	7.8	†4.8	†7.1	†7.2	8.1	†6.5	†7.5	†6.7	†7.5	†6.7	†8.1	†11.1	– –
	(4.8, 9.4)	(5.5, 11.0)	(3.2, 7.1)	(4.8, 10.4)	(4.8, 10.5)	(5.5, 11.9)	(3.7, 11.4)	(5.0, 11.1)	(4.6, 9.9)	(5.0, 11.1)	(4.4, 10.3)	(5.3, 12.3)	(6.7, 17.8)	
50-64	6.9	6.6	†5.1	†5.4	†6.2	†4.3	†8.3	†9.7	†5.6	†6.8	7.0	†5.0	†7.3	– –
	(4.9, 9.8)	(4.8, 9.1)	(3.4, 7.7)	(3.6, 8.2)	(4.3, 9.0)	(2.8, 6.4)	(5.2, 13.0)	(7.2, 13.0)	(3.9, 8.0)	(5.0, 9.2)	(5.1, 9.4)	(3.5, 7.1)	(4.8, 11.1)	
65+	†1.9	†3.8	†3.6	†3.2	†3.1	†1.9	†3.5	†5.5	†4.6	†2.5	†3.8	†4.2	†6.4	T –
	(1.0, 3.8)	(2.2, 6.4)	(2.2, 5.8)	(1.7, 6.2)	(1.9, 5.2)	(1.0, 3.8)	(1.7, 7.1)	(3.6, 8.4)	(2.9, 7.2)	(1.5, 4.2)	(2.4, 5.8)	(2.8, 6.3)	(3.9, 10.3)	
Region														NSI
Toronto	†4.7	†7.3	†4.8	†3.8	†5.1	†6.6	†6.9	†8.4	†7.7	†6.4	†9.2	†5.7	†6.8	– –
	(3.0, 7.5)	(5.0, 10.7)	(3.0, 7.5)	(2.0, 7.3)	(3.0, 8.5)	(3.8, 11.3)	(3.8, 12.0)	(5.4, 12.8)	(5.0, 11.7)	(3.9, 10.5)	(5.7, 14.6)	(3.3, 9.6)	(3.7, 12.3)	
Central East	†5.5	†5.4	†6.5	†7.0	†8.7	†8.4	†5.5	†7.1	†6.0	†8.0	†7.7	†4.9	†9.2	– –
	(3.6, 8.1)	(3.5, 8.2)	(4.2, 10.0)	(4.5, 10.7)	(6.0, 12.6)	(5.3, 13.1)	(3.0, 9.9)	(4.7, 10.5)	(3.3, 10.6)	(5.3, 12.1)	(4.7, 12.4)	(2.9, 8.1)	(4.8, 16.7)	
Central West	†6.2	†6.4	†5.6	†6.3	†5.4	†4.0	†8.5	†10.3	†8.7	†4.8	†6.5	†8.0	†12.7	T –
	(4.0, 9.5)	(4.1, 9.9)	(3.7, 8.3)	(4.0, 9.9)	(3.3, 8.6)	(2.1, 7.8)	(4.8, 14.7)	(7.0, 15.0)	(5.7, 13.0)	(2.7, 8.3)	(4.1, 10.3)	(5.0, 12.4)	(7.4, 20.8)	
West	†6.0	†8.6	†5.1	†6.0	†4.3	†5.4	†4.5	†5.8	†6.8	†6.3	†6.2	†7.0	†4.8	– –
	(4.0, 9.1)	(6.2, 12.0)	(3.2, 8.0)	(3.8, 9.5)	(2.7, 7.0)	(3.3, 8.5)	(2.2, 8.7)	(3.6, 9.3)	(4.3, 10.7)	(3.9, 10.0)	(4.0, 9.5)	(4.4, 11.0)	(2.0, 10.8)	
East	†4.5	†6.0	†5.1	†5.4	†8.3	†3.3	†7.4	†8.5	†6.4	†6.0	†7.3	†6.0	†13.3	T –
	(2.8, 7.2)	(4.0, 9.0)	(3.1, 8.2)	(3.2, 9.0)	(5.5, 12.4)	(1.7, 6.1)	(3.8, 14.1)	(5.7, 12.6)	(4.0, 10.3)	(4.0, 9.0)	(4.5, 11.5)	(3.3, 10.8)	(7.5, 22.3)	
North	†5.4	†5.1	†4.6	†6.3	†8.4	†6.4	†4.4	†4.9	†6.7	†5.3	†4.7	†4.6	†15.0	T 2Y
	(3.5, 8.3)	(3.6, 7.2)	(2.9, 7.2)	(3.9, 9.9)	(5.6, 12.4)	(3.7, 10.6)	(1.8, 9.9)	(2.7, 8.8)	(3.9, 11.2)	(3.3, 8.4)	(2.8, 7.8)	(2.6, 8.1)	(9.1, 23.7)	

Cont'd

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(2024)	(1999)	(2015)	(2060)	(2004)	(1005)	
Marital Status														NSI
Married/Partner	4.4	5.0	4.0	5.5	5.8	4.4	6.1	6.9	5.0	5.3	5.4	5.4	7.7	T –
Previously Married	†7.4	10.6	9.2	†8.5	†8.8	†6.8	†7.7	†14.1	†12.1	10.0	†12.7	†5.5	†13.2	T 2Y
Never Married	†7.1	8.9	†7.3	†5.4	†7.8	10.6	†6.5	†8.1	†11.3	†7.5	†10.8	†8.3	†14.0	T –
Education														*
High school not completed	†5.7	7.3	†5.5	†7.9	†9.5	†7.2	†4.4	†11.3	†9.5	†13.1	†14.5	†10.8	†13.6	T –
Completed high school	7.6	9.2	7.2	†6.3	8.9	†4.8	†7.4	†8.5	†5.2	†5.1	†9.7	†9.2	†12.9	T –
Some college or university	5.7	7.4	5.0	†4.9	6.6	†7.3	6.1	8.6	10.8	7.6	†5.4	†6.4	†10.7	T –
University degree	†3.2	†3.5	†4.2	†5.5	†3.4	†5.2	6.6	†4.8	†3.7	†3.7	†5.7	†3.0	†5.9	– –

Notes: (1) † Estimate suppressed or unstable; *95% confidence interval; all analyses are sample design adjusted.
(2) Trend Analysis: – change not statistically significant at p<.05; T significant change (p<.05) between 2003-2015; 2Y significant change (p<.05) between last two estimates.
(3) YEAR × FACTOR interaction: NSI, non-significant; * p<.05.
(4) Frequent Mental Distress Days –reporting 14 or more mental distress days during the past 30 days.

Q: *Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?*

Def'n: *Frequent Mental Distress Days – reporting 14 or more mental distress days during the past 30 days*

Source: *The CAMH Monitor, Centre for Addiction and Mental Health.*

Figure 7.3.1
Percentage Reporting Fair or Poor Mental Health by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

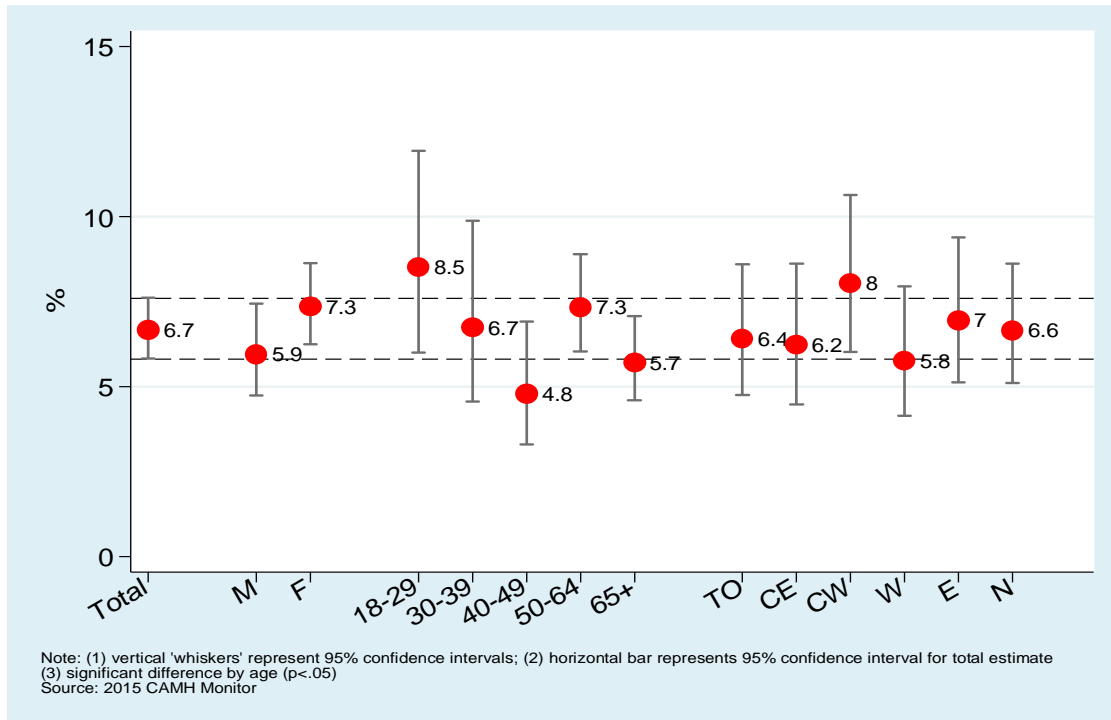


Figure 7.3.2
Percentage Reporting Frequent Mental Distress Days (14+) in the Past 30 Days by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=1005)

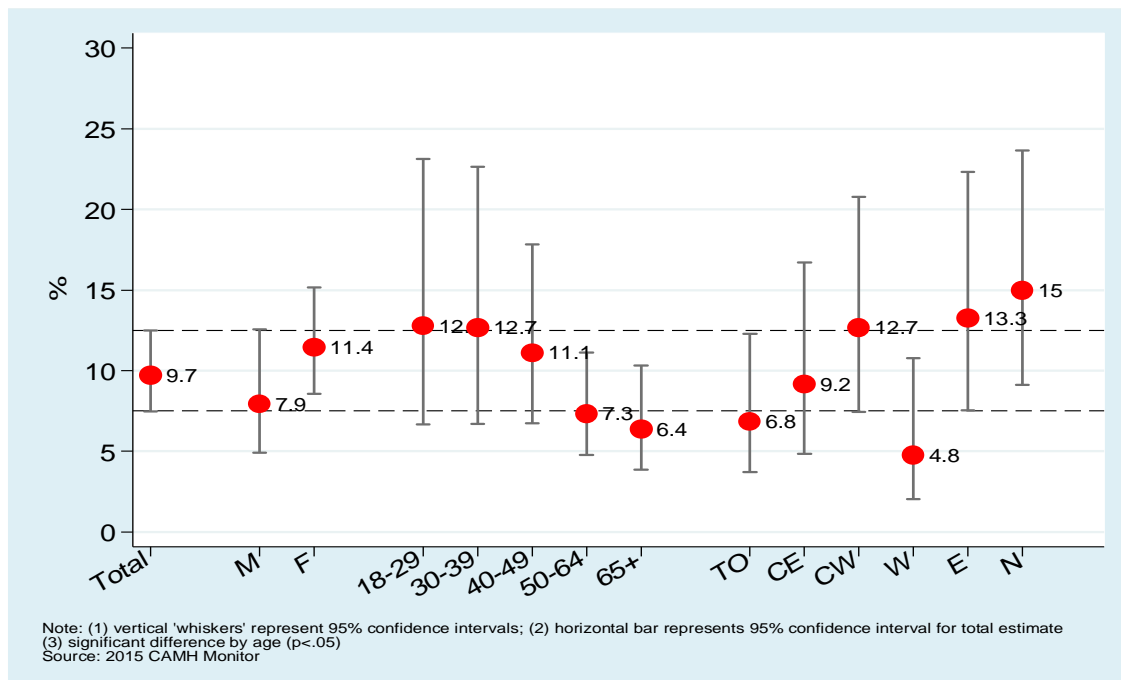


Figure 7.3.3
Percentage Reporting Fair or Poor Mental Health, Ontarians Aged 18+, 2003–2015

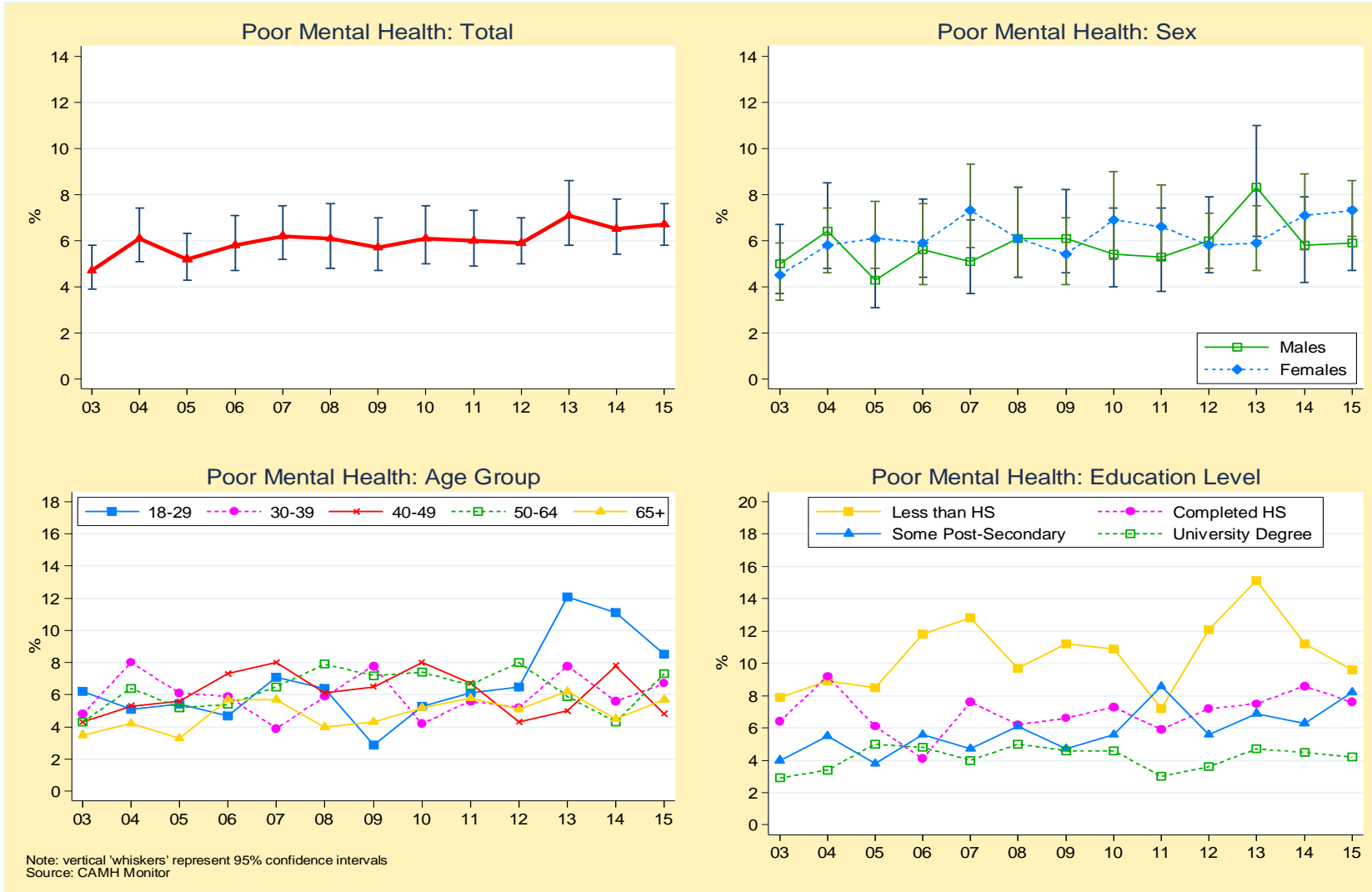
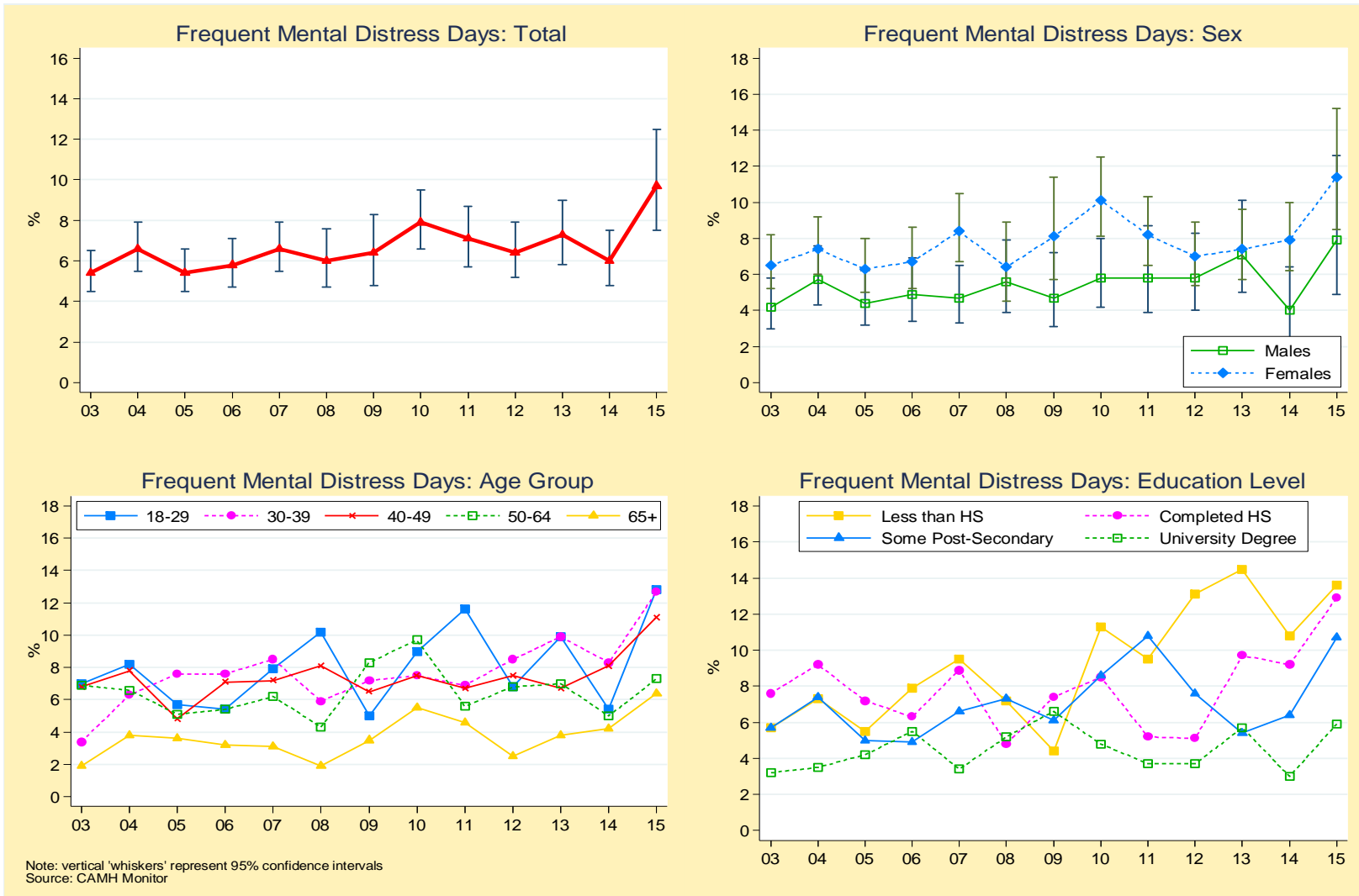


Figure 7.3.4
Percentage Reporting Frequent Mental Distress Days (14+) in the Past 30 Days, Ontarians Aged 18+, 2003–2015



7.4 Suicidal Ideation and Suicide Attempt

The CM included a question about suicidal ideation and attempts starting in 2013. In 2015, a random subsample of respondents (N = 4,007) were asked: “*In the past 12 months, did you ever seriously consider attempting suicide?*” and also asked about attempts: “*In the past 12 months, did you actually attempt suicide?*” Response options to both questions were *yes* or *no*.

2015Table 7.4.1 Fig. 7.4.1

Overall, an estimated **2.4%** (95% CI: 1.7% to 3.2%) of Ontario adults reported that they seriously **contemplated suicide** during the 12 months before the survey. The corresponding population estimate is 238,600 adults (95% CI: 164,800 to 312,400). Less than **0.5%** of Ontario adults reported **attempting suicide** in the past year. Estimates for suicide attempts were suppressed due to unreliability.

- Suicidal ideation did not significantly differ by sex, after controlling for age.
- Compared to those aged 55 and older, the adjusted odds of reporting suicidal ideation were 3.4 times higher among those aged 18 to 34 (4.9% vs. 1.5%).
- Estimates by region, marital status education and income were suppressed due to unreliability.

Trends

2013–2015Table 7.4.2

Suicidal ideation in 2015 (2.4%) did not change significantly from 2014 (2.5%) or 2013 (2.2%). In addition, rates were stable for sex and age subgroups.

Table 7.4.1 Percentage Reporting *Suicidal Ideation* in the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3968)
Total ¹	4007	2.4	(1.7, 3.2)	—
Sex				NS
Men	1535	† 2.5	(1.6, 4.1)	1.08
Women (Comparison Group)	2472	† 2.2	(1.5, 3.1)	—
Age (Comparison Group)				***
18-34	485	† 4.9	(3.0, 8.0)	3.38***
35-54	1238	† 1.3	(0.8, 2.3)	0.90
55 +	2251	† 1.5	(1.1, 2.1)	—

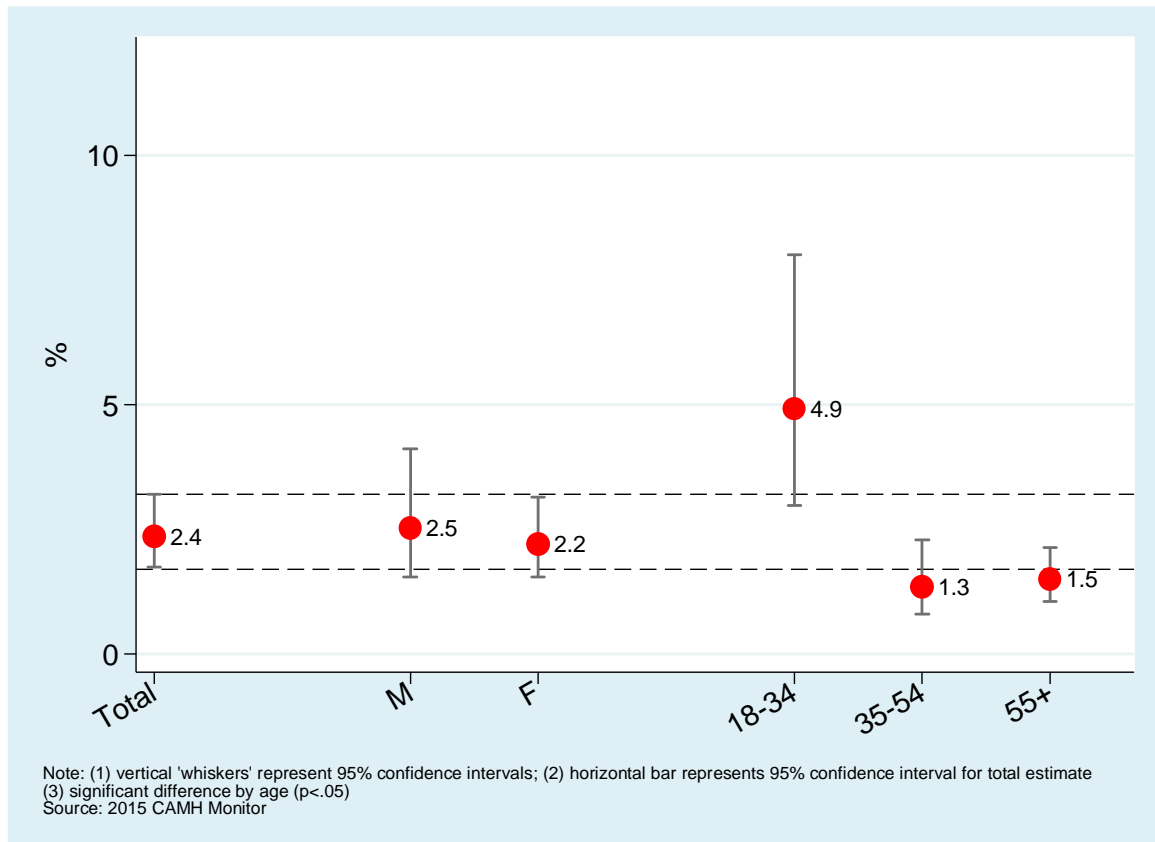
Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate unstable; ¹ Asked only of a random subsample.
 (2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
 (3) ORs greater than 1.0 indicate that the odds of anxiolytics use are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of anxiolytics use are lower relative to the comparison group.
 (4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case N= 3968).
 Q: *In the past 12 months, did you ever seriously consider attempting suicide?*
 Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 7.4.2 Percentage Reporting *Suicidal Ideation* in the Past 12 Months, by Demographic Characteristics, Ontarians Aged 18+, 2013–2015

(N=)	2013 (2060)	2014 (2004)	2015 (4007)	Trend	
Total	† 2.2	† 2.5	2.4	–	–
(95% CI) ^a	(1.4, 3.3)	(1.6, 3.8)	(1.7, 3.2)		
Sex				NSI	
Men	† 2.8	† 2.6	† 2.5	–	–
	(1.6, 5.0)	(1.3, 5.1)	(1.6, 4.1)		
Women	† 1.6	† 2.3	† 2.2	–	–
	(1.0, 2.7)	(1.4, 3.9)	(1.5, 3.1)		
Age (Comparison Group)				NSI	
18-34	† 4.8	† 3.9	† 4.9	–	–
	(2.3, 9.8)	(1.6, 9.1)	(3.0, 8.0)		
35-54	† 1.0	† 2.5	† 1.3	–	–
	(0.6, 2.0)	(1.3, 4.5)	(0.8, 2.3)		
55+	† 1.9	† 1.6	† 1.5	–	–
	(1.1, 3.1)	(0.8, 3.0)	(1.1, 2.1)		

Notes: (1)^a 95% confidence interval; † Estimate unstable; all analyses are sample design adjusted.
 (2) Trend Analysis: – change not statistically significant (p<.05) between 2013-2015;
 (3) NSI, non-significant YEAR × FACTOR interaction; *p<.05;
 Q: *In the past 12 months, did you ever seriously consider attempting suicide?*
 Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Figure 7.4.1
Percentage Reporting Suicidal Ideation in the Past Year by Sex and Age, Ontarians Aged 18+, 2015 (N=4007)



8. PHYSICAL AND OVERALL HEALTH

8.1 Self-Rated Health

One of the more frequently used indicators of a person's current health status is perceived or self-rated health. Despite its simplicity, this global assessment of health status has been shown to be a reliable measure and a valid predictor of physical health and emotional well-being (McDowell, 2006), as well as future morbidity and mortality (Idler & Benyamini, 1997).

Since 2003, the following items have been asked in the CM:

- 3) *In general, would you say your overall health is excellent, very good, good, fair or poor?*
- 4) *Now thinking about your physical health, which includes physical illness and injury, for how many days in the last 30 days, was your physical health not good?*

In this report, we present two measures of **self-rated health**: 1) the percent reporting *fair or poor health*, defined as the percentage rating their overall health as fair or poor in general, and 2) the percent reporting *frequent physically unhealthy days*, defined as the percentage reporting **14 or more** physically unhealthy days during the past 30 days.

8.1.1 Self-Rated Fair/Poor Health

2015.....Table 8.1.1; Fig. 8.1.1

An estimated **9.9%** (95% CI: 8.9% to 10.9%) of Ontario adults rated their overall health as fair or poor. The corresponding population

estimate is 1,000,000 Ontario adults (95% CI: 897,800 to 1,102,400).

Age, education and income were significantly related to reporting fair or poor overall health, when holding fixed risk factors.

- The rates of experiencing fair or poor overall health increased with age, from 5.9% of 18 to 29 year olds to 16.6% of those 65 and older. Two of the four age group comparisons were statistically significant: the adjusted odds of experiencing fair or poor overall health were significantly higher among those aged 50 to 64 and those aged 65 and older compared to those aged 18 to 29 (OR=3.49).
- Relative to those who did not graduate high school, the adjusted odds of fair/poor health ratings were significantly lower among respondents with higher education.
- Household income was significantly associated with fair or poor overall health. The distinguishing feature was a higher rate among those with the lowest income and a significantly lower rate among those with higher incomes. Relative to those with incomes of less than \$30,000, the adjusted odds of fair/poor health ratings were significantly lower among respondents with incomes of \$50,000 to \$79,999 and among those with incomes of \$80,000 and higher (OR=0.65 and OR=0.40, respectively).

There were no other significant effects, after adjusting for other factors.

Trends

2003–2015 Table 8.1.3; Fig. 8.1.3

2014–2015

Prevalence of fair or poor self-rated overall health in 2015 (9.9%) was unchanged from 2014 (9.9%). In addition, rates were stable for all sex, age, region, marital status, and education subgroups.

2003–2015

Overall, between 2003 and 2015, there were no significant changes in ratings of fair/poor health and there was no evidence of dominant differential trends between subgroups. **Year did not interact** significantly with any of the demographic risk factors analysed, suggesting that subgroup trends were similar.

There was however a significant decline in ratings of fair/poor health among respondents aged 65 and older from 22.3% in 2011 to 16.5% in 2015, and an increase among those with less than high school education (from 19.6% in 2008 to 27.4% in 2015).

8.1.2 Frequent Physically Unhealthy Days

2015 Table 8.1.2; Fig. 8.1.2

Overall, an estimated **8.9%** (95% CI: 6.9% to 11.4%) of Ontario adults experienced frequent physically unhealthy days (14+ days) in the past 30 days. The corresponding population estimate is 881,000 Ontario adults (95% CI: 662,600 to 1,099,300).

Region and **income** were significantly related to experiencing frequent unhealthy days, after adjusting for our set of risk factors.

- Compared to the provincial average, experiencing frequent unhealthy days was significantly higher among those living in Toronto (11.5%; OR=1.74) and significantly lower among those living in Central East (4.9%; OR=0.53).
- Experiencing frequent unhealthy days was significantly related to household income. The distinguishing feature was a higher rate among those with the lowest income

and a lower rate among those with higher incomes. Rates of frequent unhealthy days declined from 14.3% among those with incomes of less than \$30,000 to 5.2% among those with incomes of \$80,000 and higher. Relative to those with incomes of less than \$30,000, the adjusted odds of experiencing frequent unhealthy days were significantly lower among respondents with incomes of \$80,000 and higher (OR=0.30).

There were no other significant effects, when adjusting for other factors.

Trends

2003–2015..... Table 8.1.4; Fig. 8.1.4

2014–2015

Overall, the percent reporting frequent unhealthy days in the past 30 days in 2015 (8.9%) was not significantly different from 2014 (7.2%) and rates of frequent unhealthy days were stable for most demographic subgroups. The only significant increase in the percent reporting frequent unhealthy days in the past 30 days was found for respondents living in Toronto (from 4.4% in 2014 to 11.5% in 2015).

2003–2015

Overall, between 2003 and 2015, there was a significant increase in ratings of frequent unhealthy days in the past 30 days, from 5.9% in 2004 to 8.9% in 2015.

Year interacted significantly only with **age**, indicating that trends in experiencing frequent unhealthy days differed among age groups. Between 2003 and 2015, rates of frequent unhealthy days **increased** significantly among 30 to 39 year olds from 3.4% to 8.6%, whereas among respondents aged 40 to 49, rates declined from 9.7% in 2003 to 5.7% in 2013 and increased again to 9.4% in 2015.

Although the year-by-region interaction was not statistically significant, separate subgroup trends showed significant increases between 2003 and 2015 for respondents living in Toronto (from 3.6% to 11.5%).

Table 8.1.1 Percentage Reporting *Fair or Poor Health* and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=4889)
Total	5013	9.9	(8.9, 10.9)	—
Sex				NS
Men	1912	9.9	(8.4, 11.6)	1.10
Women (<i>Comparison Group</i>)	3101	9.8	(8.7, 11.2)	—
Age				***
18-29 (<i>Comparison Group</i>)	410	† 5.9	(3.7, 9.2)	—
30-39	482	† 5.3	(3.4, 8.2)	1.41
40-49	782	† 6.3	(4.5, 8.7)	1.82
50-64	1700	13.1	(11.2, 15.1)	3.49**
65+	1597	16.5	(14.5, 18.8)	3.49**
Public Health Region				NS
Toronto (<i>vs. Provincial Average</i>)	833	8.1	(6.2, 10.6)	0.89
Central East	833	10.6	(8.4, 13.3)	1.17
Central West	820	10.0	(7.9, 12.5)	0.95
West	839	9.8	(7.8, 12.1)	0.84
East	838	10.3	(8.3, 12.7)	1.10
North	850	11.9	(9.8, 14.4)	1.08
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	3172	9.4	(8.3, 10.6)	—
Previously Married	1091	17.1	(14.5, 20.0)	1.20
Never Married	703	8.1	(5.9, 11.1)	1.55*
Education				***
High school not completed (<i>Comparison Group</i>)	405	27.4	(22.2, 33.1)	—
Completed high school	1075	11.8	(9.7, 14.4)	0.49**
Some college or university	1749	10.3	(8.6, 12.2)	0.49**
University degree	1747	5.8	(4.6, 7.3)	0.29**
Household Income				***
< \$30,000 (<i>Comparison Group</i>)	444	23.4	(19.0, 28.5)	—
\$30,000-\$49,999	565	15.4	(11.9, 19.8)	0.77
\$50,000-\$79,999	819	11.9	(9.3, 15.0)	0.65*
\$80,000+	1993	6.1	(5.0, 7.5)	0.40**
Not stated	1192	11.3	(9.3, 13.8)	0.63*

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate suppressed or unstable.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of poor physical health are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of poor physical health are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N = 4899).

Q: *In general, would you say your overall health is excellent, very good, good, fair, or poor?*

Def'n: Fair or Poor Health – reporting fair or poor health in general.

Source: The *CAMH Monitor*, Centre for Addiction and Mental Health.

Table 8.1.2 Percentage Reporting *Frequent Physically Unhealthy Days* (14+) in the Past 30 Days and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=952)
Total ¹	1005	8.9	(6.9, 11.4)	—
Sex				NS
Men	366	6.6	(4.3, 10.0)	0.59
Women (<i>Comparison Group</i>)	639	11.1	(8.2, 14.8)	—
Age				NS
18-29 (<i>Comparison Group</i>)	88	†	—	—
30-39	84	† 8.6	(3.8, 18.5)	2.45
40-49	150	† 9.4	(5.0, 17.0)	3.11
50-64	350	† 9.4	(6.5, 13.6)	2.66
65+	323	† 10.7	(7.6, 15.0)	2.18
Public Health Region				*
Toronto (<i>vs. Provincial Average</i>)	163	† 11.5	(6.8, 18.9)	1.74*
Central East	181	† 4.9	(2.5, 9.3)	0.53*
Central West	154	† 10.8	(6.0, 18.6)	1.21
West	163	† 6.3	(3.5, 11.2)	0.69
East	162	† 12.5	(7.5, 20.0)	1.71
North	182	† 8.0	(5.1, 12.3)	0.71
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	625	8.9	(6.6, 11.9)	—
Previously Married	235	† 11.2	(7.6, 16.0)	0.74
Never Married	130	† 8.0	(3.9, 15.6)	1.16
Education				NS
High school not completed (<i>Comparison Group</i>)	78	† 15.9	(7.4, 30.9)	—
Completed high school	237	† 7.7	(4.9, 11.9)	0.59
Some college or university	359	† 12.3	(8.4, 17.6)	1.13
University degree	323	† 5.0	(2.9, 8.5)	0.41
Household Income				*
< \$30,000 (<i>Comparison Group</i>)	85	† 14.3	(8.2, 23.9)	—
\$30,000-\$49,999	108	† 20.6	(11.4, 34.4)	1.38
\$50,000-\$79,999	169	† 9.6	(5.7, 15.6)	0.51
\$80,000+	392	† 5.2	(3.1, 8.6)	0.30**
Not stated	251	† 11.1	(6.8, 17.4)	0.71

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N = 952).

Q: *Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?*

Def'n: Frequent Unhealthy Days – reporting 14 or more physically unhealthy days during the past 30 days

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 8.1.3: Percentage Reporting *Fair or Poor Health*, by Demographic Characteristic, Ontarians Aged 18+, 2003–2015

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Trend
(N=)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(2024)	(1999)	(3030)	(3021)	(3043)	(5013)	
Total	10.2	11.1	11.4	9.7	11.9	10.4	10.5	11.2	11.9	10.8	9.4	9.9	9.9	– –
(95% CI) ^a	(9.0, 11.7)	(9.7, 12.6)	(10.1, 13.0)	(8.4, 11.3)	(10.4, 13.7)	(8.9, 12.1)	(9.1, 12.1)	(9.8, 12.8)	(10.4, 13.6)	(9.6, 12.2)	(8.3, 10.7)	(8.7, 11.3)	(8.9, 10.9)	
Sex														NSI
Men	9.2	11.4	10.2	9.6	11.3	10.0	11.5	10.4	13.1	11.3	9.4	9.9	9.9	– –
	(7.5, 11.3)	(9.4, 13.7)	(8.2, 12.6)	(7.6, 12.0)	(9.1, 13.9)	(7.9, 12.6)	(9.3, 14.1)	(8.4, 12.8)	(10.7, 16.0)	(9.4, 13.5)	(7.6, 11.4)	(8.0, 12.3)	(8.4, 11.6)	
Women	11.2	10.8	12.6	9.9	12.6	10.8	9.6	12.0	10.9	10.4	9.5	9.9	9.8	– –
	(9.4, 13.3)	(9.1, 12.8)	(10.8, 14.7)	(8.2, 11.9)	(10.5, 14.9)	(8.9, 13.0)	(7.9, 11.7)	(10.0, 14.3)	(9.1, 12.9)	(8.9, 12.2)	(8.0, 11.2)	(8.5, 11.7)	(8.7, 11.2)	
Age														NSI
18-29	†7.1	†8.3	†8.8	†3.4	†11.5	†6.2	†7.8	†5.2	†8.3	†5.9	†4.5	†6.6	†5.9	– –
	(4.7, 10.6)	(5.7, 12.1)	(5.9, 12.9)	(1.8, 7.9)	(7.8, 16.7)	(3.1, 11.9)	(4.4, 13.4)	(2.9, 9.3)	(4.8, 14.0)	(3.3, 10.4)	(2.1, 9.2)	(3.4, 12.1)	(3.7, 9.2)	
30-39	†4.7	†4.8	†6.8	†7.5	†8.3	†5.5	†8.5	†5.9	†6.8	†8.8	†7.4	†7.8	†5.3	– –
	(3.0, 7.4)	(3.2, 7.2)	(4.6, 9.9)	(4.8, 11.4)	(5.5, 12.3)	(3.3, 9.2)	(5.6, 12.7)	(3.4, 10.1)	(4.1, 11.0)	(6.0, 12.9)	(4.8, 11.2)	(5.0, 12.0)	(3.4, 8.2)	
40-49	8.7	9.6	8.3	†9.9	†9.5	†10.9	†7.0	†8.7	†8.0	7.7	8.4	†8.9	†6.3	– –
	(6.5, 11.6)	(7.2, 12.8)	(6.1, 11.2)	(7.1, 13.6)	(6.8, 13.2)	(7.8, 15.0)	(4.8, 10.2)	(6.1, 12.1)	(5.4, 11.8)	(5.6, 10.6)	(6.2, 11.3)	(6.2, 12.6)	(4.5, 8.7)	
50-64	14.0	11.6	14.3	11.8	14.1	14.0	12.5	14.5	14.6	12.4	10.5	10.4	13.1	– –
	(11.0, 17.5)	(9.1, 14.7)	(11.3, 17.9)	(9.1, 15.1)	(11.1, 17.7)	(11.0, 17.8)	(9.8, 15.9)	(11.5, 18.1)	(11.8, 18.1)	(10.3, 14.9)	(8.4, 13.0)	(8.5, 12.6)	(11.2, 15.1)	
65+	17.8	22.4	21.9	16.7	16.3	17.4	18.4	21.4	22.3	18.2	15.4	15.1	16.5	T –
	(14.0, 22.5)	(18.3, 27.0)	(17.6, 26.9)	(13.0, 21.2)	(12.7, 20.7)	(14.0, 21.5)	(14.8, 22.7)	(17.5, 25.8)	(18.6, 26.4)	(15.4, 21.4)	(13.0, 18.2)	(12.8, 18.0)	(14.5, 18.8)	
Region														NSI
Toronto	10.0	†10.3	11.0	†10.5	†11.0	12.5	12.9	†9.0	11.2	11.5	†9.1	†8.0	8.1	– –
	(7.2, 13.7)	(7.3, 14.3)	(8.1, 14.8)	(7.5, 14.6)	(7.6, 15.7)	(9.2, 16.8)	(9.5, 17.3)	(6.2, 13.0)	(8.1, 15.2)	(8.8, 14.9)	(6.6, 12.6)	(5.7, 11.2)	(6.2, 10.6)	
Central East	†9.3	10.5	13.6	†9.2	14.6	†10.2	†10.8	11.3	†10.6	10.9	9.0	10.2	10.6	– –
	(6.6, 12.9)	(7.9, 13.9)	(10.3, 17.7)	(6.4, 13.1)	(11.1, 19.0)	(7.0, 14.7)	(7.7, 15.1)	(8.3, 15.2)	(7.4, 14.9)	(8.2, 14.4)	(6.6, 12.2)	(7.4, 13.9)	(8.4, 13.3)	
Central West	10.4	11.0	10.2	†9.1	†7.8	†8.0	†8.9	12.0	13.1	7.6	8.7	8.5	10.0	– –
	(7.5, 14.1)	(8.2, 14.7)	(7.3, 14.0)	(6.3, 13.0)	(5.2, 11.6)	(5.5, 11.6)	(6.4, 12.3)	(8.6, 16.4)	(9.8, 17.2)	(5.6, 10.2)	(6.4, 11.8)	(6.1, 11.7)	(7.9, 12.5)	
West	9.1	10.3	11.7	10.1	†10.7	†10.6	†6.6	13.6	†11.1	11.8	9.2	10.3	9.8	– –
	(6.6, 12.4)	(7.6, 13.7)	(8.9, 15.2)	(7.3, 13.9)	(7.6, 15.0)	(7.5, 14.9)	(4.3, 10.0)	(10.1, 18.0)	(7.9, 15.3)	(9.1, 15.2)	(6.9, 12.0)	(7.8, 13.5)	(7.8, 12.1)	
East	10.5	11.9	9.3	†6.6	15.1	†8.7	†8.6	10.3	12.8	11.0	10.0	12.4	10.3	– –
	(7.7, 14.0)	(9.0, 15.6)	(6.7, 12.8)	(4.4, 9.7)	(11.5, 19.6)	(6.1, 12.2)	(6.2, 11.9)	(7.4, 14.0)	(9.4, 17.2)	(8.4, 14.2)	(7.5, 13.3)	(9.8, 15.6)	(8.3, 12.7)	
North	14.4	14.8	13.2	15.8	13.9	13.2	17.2	13.5	15.4	15.9	13.3	13.9	11.9	– –
	(11.1, 18.5)	(12.0, 18.1)	(10.2, 16.9)	(12.1, 20.4)	(10.4, 18.4)	(9.8, 17.6)	(13.8, 23.2)	(10.3, 18.2)	(11.9, 20.8)	(12.3, 20.0)	(10.8, 17.4)	(10.9, 17.7)	(9.8, 14.4)	

Cont'd

(N=)	2003 (2411)	2004 (2611)	2005 (2445)	2006 (2016)	2007 (2005)	2008 (2024)	2009 (2037)	2010 (2024)	2011 (1999)	2012 (3030)	2013 (3021)	2014 (3043)	2015 (5013)	Trend
Marital Status														NSI
Married/Partner	9.1	9.5	10.0	9.2	10.4	8.9	8.9	10.8	11.6	10.1	8.7	8.9	9.4	- -
Previously Married	21.7	20.5	19.6	17.4	18.3	22.8	21.5	22.3	20.9	17.3	17.7	18.6	17.1	- -
Never Married	†7.2	10.6	10.4	†6.7	†12.1	†7.9	†9.7	†6.6	†8.2	9.7	†7.4	†8.8	8.1	- -
Education														NSI
High school not completed	24.3	24.4	24.6	23.6	26.0	19.6	22.8	27.8	25.5	24.3	19.9	22.4	27.4	T -
Completed high school	12.9	13.4	13.4	10.5	12.3	13.9	14.7	13.2	12.6	12.9	11.9	11.7	11.8	- -
Some college or university	7.0	8.9	9.4	6.0	11.8	10.1	8.1	9.6	12.1	9.8	8.3	11.6	10.3	- -
University degree	†4.9	5.4	†6.9	†7.5	†5.9	†5.5	6.4	†7.2	7.7	6.5	6.0	4.5	5.8	- -

Notes: (1) † Estimate suppressed or unstable; ^a 95% confidence interval; all analyses are sample design adjusted.
(2) Trend Analysis: - change not statistically significant at p<.05; T significant change (p<.05) between 2003-2015; 2Y significant change (p<.05) between last two estimates.
(3) NSI, non-significant YEAR × FACTOR interaction.
(4) Fair or Poor Health – reporting fair or poor health in general.

Q: In general, would you say your overall health is excellent, very good, good, fair, or poor?

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Table 8.1.4: Percentage Reporting *Frequent Physically Unhealthy Days* (14+) in the Past 30 Days, by Demographic Characteristics, Ontarians Aged 18+, 2003–2015

(N=)	2003 (2411)	2004 (2611)	2005 (2445)	2006 (2016)	2007 (2005)	2008 (2024)	2009 (2037)	2010 (2024)	2011 (1999)	2012 (2015)	2013 (2060)	2014 (2004)	2015 (1005)	Trend
Total¹	6.7	5.9	6.5	6.9	7.4	6.6	8.3	7.1	7.2	7.4	6.7	7.2	8.9	T –
(95% CI) ^a	(5.7, 7.9)	(5.0, 7.0)	(5.5, 7.8)	(5.7, 8.3)	(6.2, 8.7)	(5.6, 7.9)	(6.6, 10.4)	(5.9, 8.5)	(6.0, 8.6)	(6.3, 8.7)	(5.6, 8.0)	(6.0, 8.7)	(6.9, 11.4)	
Sex														NSI
Men	4.9	5.0	5.5	†6.0	6.5	5.9	†6.9	5.7	6.9	5.9	6.5	†6.1	6.6	– –
	(3.7, 6.5)	(3.9, 6.5)	(4.1, 7.4)	(4.3, 8.3)	(4.9, 8.5)	(4.5, 7.9)	(4.8, 9.9)	(4.2, 7.6)	(5.1, 9.3)	(4.4, 7.8)	(4.9, 8.6)	(4.4, 8.5)	(4.3, 10.0)	
Women	8.4	6.8	7.5	7.7	8.3	7.3	9.8	8.6	7.5	8.7	7.0	8.2	11.1	– –
	(6.9, 10.2)	(5.5, 8.4)	(6.1, 9.2)	(6.1, 9.7)	(6.7, 10.2)	(5.8, 9.0)	(7.3, 13.1)	(6.8, 10.8)	(6.0, 9.3)	(7.2, 10.6)	(5.6, 8.7)	(6.6, 10.3)	(8.2, 14.8)	
Age														*
18-29	†2.8	2.9	†5.3	†4.7	†4.6	†3.8	†	†6.3	†	†	†	†	†	– –
	(1.4, 5.4)	(1.5, 5.3)	(3.1, 8.8)	(2.2, 9.6)	(2.4, 8.4)	(1.8, 7.9)	-	(3.5, 11.3)	-	-	-	-	-	
30-39	†3.4	†4.1	†3.7	†7.2	†3.9	†2.9	†6.1	†3.4	†4.3	†5.5	†8.2	†6.5	†8.6	T –
	(2.1, 5.6)	(2.5, 6.7)	(2.2, 6.2)	(4.6, 11.0)	(2.3, 6.5)	(1.4, 5.9)	(3.1, 11.8)	(1.8, 6.8)	(2.3, 7.9)	(3.3, 9.2)	(5.1, 12.9)	(3.6, 11.3)	(3.8, 18.5)	
40-49	9.5	†5.5	†4.9	†5.8	†7.4	†5.8	†5.1	†3.9	†4.9	†6.3	†5.7	†7.7	†9.4	T –
	(7.1, 12.5)	(3.8, 8.0)	(3.4, 7.0)	(3.9, 8.6)	(5.1, 10.6)	(3.9, 8.8)	(3.0, 8.6)	(2.2, 6.9)	(3.1, 7.7)	(4.2, 9.4)	(3.6, 9.0)	(4.9, 12.0)	(5.0, 17.0)	
50-64	9.7	7.4	7.8	7.9	9.9	9.3	10.2	9.9	10.2	9.4	7.2	7.9	†9.4	– –
	(7.3, 12.8)	(5.5, 9.7)	(5.7, 10.6)	(5.7, 10.7)	(7.4, 13.0)	(7.1, 12.2)	(7.0, 14.7)	(7.5, 12.9)	(7.8, 13.3)	(7.2, 12.2)	(5.3, 9.8)	(6.0, 10.5)	(6.5, 13.6)	
65+	†7.7	10.9	13.5	†9.8	11.2	12.6	18.3	11.6	12.1	13.1	11.3	9.0	†10.7	– –
	(5.3, 11.1)	(8.0, 14.7)	(10.0, 17.9)	(6.9, 13.7)	(8.1, 15.3)	(9.6, 16.3)	(13.0, 25.1)	(8.8, 15.2)	(9.3, 15.6)	(10.2, 16.6)	(8.7, 14.4)	(6.9, 11.8)	(7.6, 15.0)	
Region														NSI
Toronto	†3.6	†4.0	†6.4	†5.8	†5.0	†4.8	†6.3	†6.8	†6.7	†8.1	†7.4	†4.4	†11.5	T 2Y
	(2.2, 5.7)	(2.4, 6.5)	(4.1, 9.9)	(3.5, 9.3)	(2.9, 8.3)	(3.1, 7.4)	(3.6, 11.0)	(4.3, 10.6)	(4.5, 9.9)	(5.5, 11.7)	(4.7, 11.6)	(2.7, 7.2)	(6.8, 18.9)	
Central East	†7.9	†6.5	†7.7	†7.6	†7.7	†8.9	†8.1	†5.7	†5.8	†6.7	†5.1	†6.9	†4.9	– –
	(5.4, 11.3)	(4.5, 9.3)	(5.3, 11.2)	(5.0, 11.6)	(5.4, 11.1)	(6.2, 12.5)	(4.6, 13.8)	(3.6, 8.9)	(3.5, 9.6)	(4.6, 9.7)	(3.2, 7.9)	(4.4, 10.8)	(2.5, 9.3)	
Central West	†8.4	†5.2	†4.5	†6.3	†7.4	†3.8	†7.8	†9.2	†7.9	†5.5	†6.5	†8.1	†10.8	– –
	(6.0, 11.7)	(3.3, 8.0)	(2.9, 6.9)	(3.7, 10.4)	(4.9, 11.1)	(2.3, 6.5)	(4.5, 13.1)	(6.2, 13.3)	(5.4, 11.6)	(3.6, 8.4)	(4.5, 9.4)	(5.4, 11.8)	(6.0, 18.6)	
West	†5.6	†5.8	†6.0	†7.5	†8.3	†8.2	†8.2	†5.9	†8.8	†7.5	†9.7	†7.7	†6.3	– –
	(3.8, 8.2)	(4.0, 8.5)	(4.1, 8.6)	(5.1, 10.9)	(5.6, 12.2)	(5.6, 11.8)	(5.0, 13.4)	(3.9, 9.0)	(5.9, 12.9)	(5.2, 10.7)	(6.7, 13.8)	(5.0, 11.7)	(3.5, 11.2)	
East	†8.6	†8.6	†6.6	†4.4	†8.5	†6.2	†10.2	†8.0	†8.0	†9.2	†6.3	†8.4	†12.5	– –
	(6.1, 11.9)	(6.1, 12.1)	(4.4, 9.7)	(2.6, 7.5)	(5.8, 12.4)	(4.1, 9.2)	(5.7, 17.6)	(5.2, 12.1)	(5.4, 11.7)	(6.3, 13.2)	(4.1, 9.5)	(5.3, 13.0)	(7.5, 20.0)	
North	†7.4	8.7	10.2	†12.5	†9.5	†8.6	†13.7	†8.6	†7.4	†9.2	†7.4	†11.6	†8.0	– –
	(5.0, 10.6)	(6.5, 11.5)	(7.5, 13.6)	(9.0, 17.1)	(6.8, 13.3)	(5.9, 12.5)	(9.2, 20.6)	(5.7, 13.0)	(5.1, 10.7)	(6.5, 13.0)	(5.2, 10.5)	(7.8, 17.0)	(5.1, 12.3)	

Cont'd

(N=)	2003 (2411)	2004 (2611)	2005 (2445)	2006 (2016)	2007 (2005)	2008 (2024)	2009 (2037)	2010 (2024)	2011 (1999)	2012 (2015)	2013 (2060)	2014 (2004)	2015 (1005)	Trend
Marital Status														NSI
Married/Partner	6.5	5.5	5.5	6.9	6.4	5.9	7.1	5.8	6.6	7.2	6.4	7.0	8.9	T –
Previously Married	13.8	12.1	13.2	10.9	14.5	12.6	†17.8	16.1	†15.4	14.5	11.4	10.3	†11.2	– –
Never Married	†3.5	†4.0	†5.8	†4.9	†5.8	†5.6	†7.7	†6.5	†4.6	†4.7	†5.1	†5.5	†8.0	– –
Education														NSI
High school not completed	14.9	11.1	†13.6	†12.3	†11.6	†10.2	†9.5	†12.6	†16.4	†12.7	†13.3	†11.6	†15.9	– –
Completed high school	8.4	6.4	†6.1	†9.7	†8.3	†6.6	†10.2	†7.5	†8.3	†8.3	†6.9	†8.3	†7.7	– –
Some college or university	5.6	6.2	5.6	†5.4	7.5	8.1	†8.7	7.6	6.7	7.1	6.3	8.6	†12.3	T –
University degree	†3.0	†3.1	†5.1	†4.1	†5.2	†4.1	†6.1	†4.8	†4.3	†5.6	†5.0	†3.6	†5.0	– –

Notes: ¹Estimates based on a random subsample from 2010 to 2015.

(1) † Estimate suppressed or unstable; ^a95% confidence interval; all analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001;

(2) Trend Analysis: – change not statistically significant at p<.05; T significant change (p<.05) between 2003-2015; 2Y significant change (p<.05) between last two estimates.

(3) NSI, non-significant YEAR × FACTOR interaction.

(4) Frequent Unhealthy Days – reporting 14 or more physically unhealthy days during the past 30 days

Q: *Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Figure 8.1.1
Percentage Reporting Fair or Poor Health by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=5013)

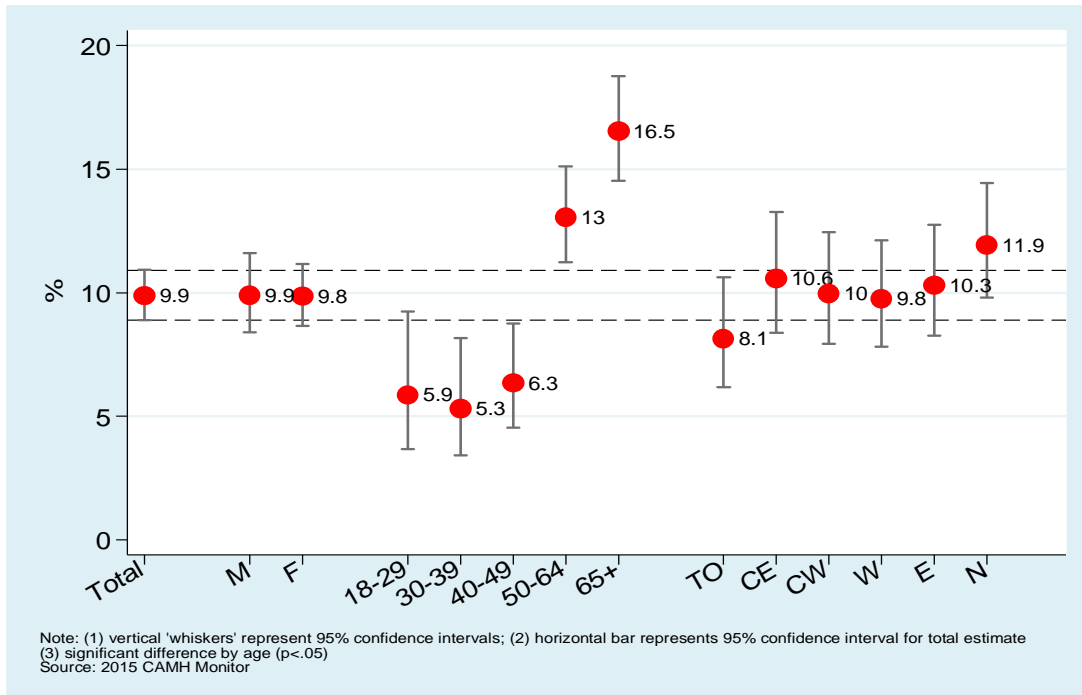


Figure 8.1.2
Percentage Reporting Frequent Physically Unhealthy Days (14+) in the Past 30 Days by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=1005)

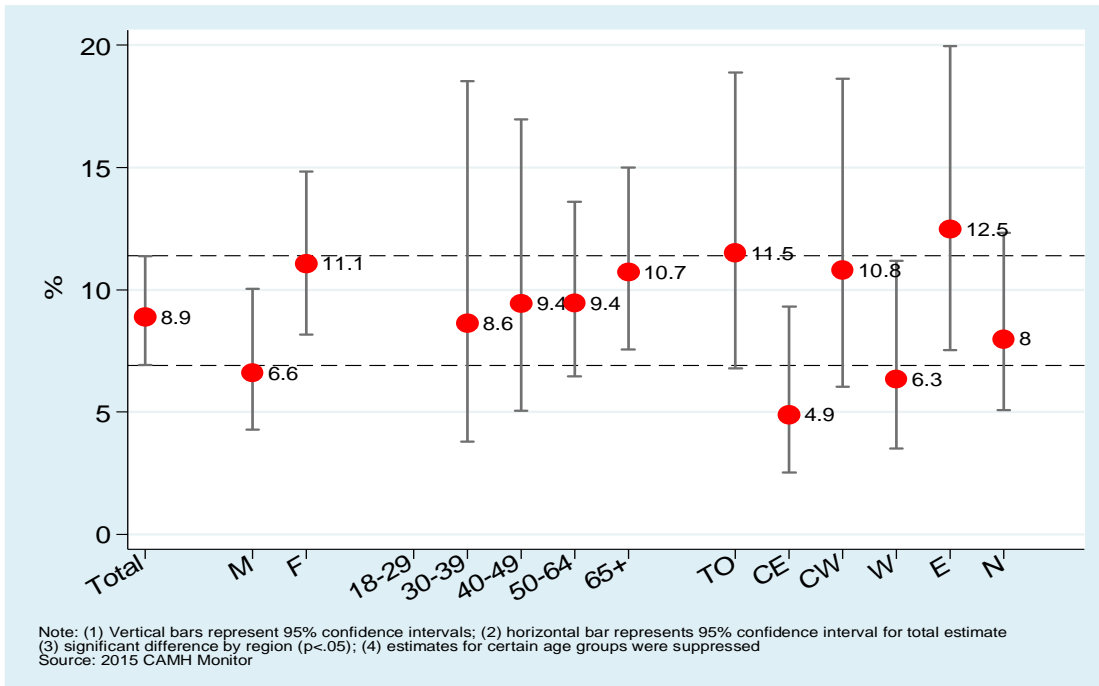
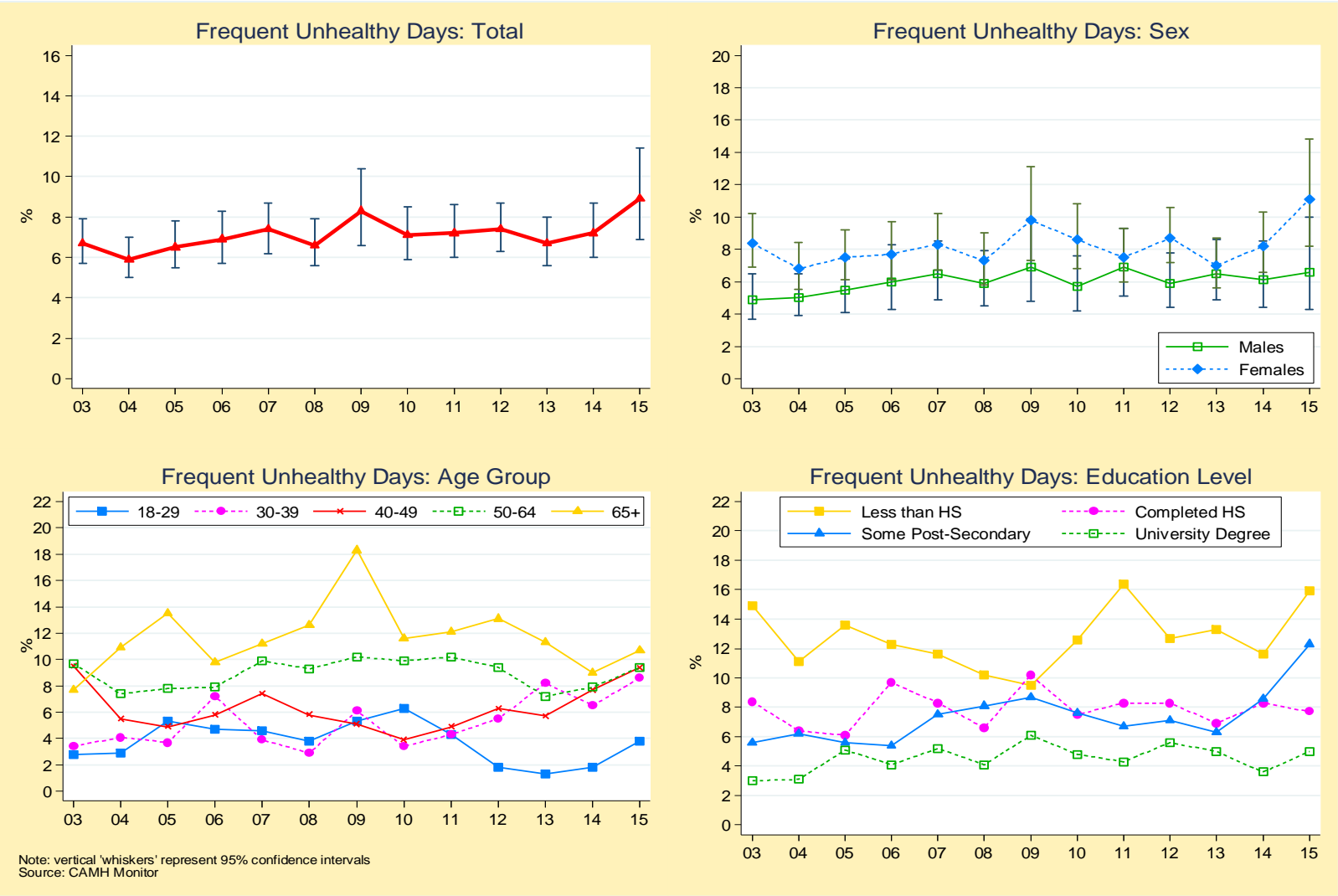


Figure 8.1.3
Percentage Reporting Fair or Poor Health, Ontarians Aged 18+, 2003–2015



Figure 8.1.4

Percentage Reporting Frequent Physically Unhealthy Days (14+) in the Past 30 Days, Ontarians Aged 18+, 2003–2015



8.2 Traumatic Brain Injury (TBI) - Lifetime

Starting in 2011, the CAMH Monitor included two items asking respondents about their history of head injuries sustained during their lifetime.

Traumatic brain injury (TBI) is defined as a change in brain function that is caused by a hit or blow to the head by an external force. Traumatic brain injuries can affect the individual's health-related quality of life (Ilie et al., 2015; Dijkers, 2004), finances, ability to work and relationships, and represent a major cause of serious long term health problems world-wide.

Traumatic brain injuries (TBI) sustained in one's lifetime were assessed by a single question worded as follows: *We are interested in any head injuries that resulted in you being unconscious (knocked out) for at least 5 minutes, or you had to stay in the hospital for at least one night because of it.* Respondents were then asked: *How many times, if ever in your life, have you had this type of head injury?* Responses were recoded to create a binary lifetime TBI measure (yes=1; no=0).

2015Table 8.2.1; Fig. 8.2.1

Overall, an estimated **15.3%** (95% CI: 1.7% to 3.2%) of Ontario adults reported that they had sustained a TBI in their lifetime. The corresponding population estimate is 1,542,500 adults (95% CI: 1,389,300 to 1,695,600). Only **0.7%** of Ontario adults reported that they had sustained a TBI in the past year.

- The prevalence of lifetime TBI was significantly higher among men (19.6%; OR=1.91) than among women (11.2%).
- There were significant overall age differences. The distinguishing feature was a higher rate among those aged 50 to 64 (19.3%) and a lower rate among those aged 30 to 39 (11.9%).

Trends

2011–2015Table 8.2.2

2011–2015

Prevalence of traumatic brain injuries sustained in one's lifetime in 2015 (15.3%) did not change significantly from 2014 (16.4%) or from 2011 (16.8%). In addition, ratings of lifetime TBI were stable for sex and all age subgroups analysed.

Table 8.2.1 Percentage Reporting *Lifetime Traumatic Brain Injury (TBI)* and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=3960)
Total ¹	4007	15.3	(13.9, 16.8)	— ***
Sex				
Men	1535	19.6	(17.3, 22.2)	1.91**
Women (<i>Comparison Group</i>)	2472	11.2	(9.7, 13.0)	—
Age				
18-29 (<i>Comparison Group</i>)	330	15.2	(11.2, 20.2)	—
30-39	383	† 11.9	(8.4, 16.6)	0.77
40-49	610	13.2	(10.4, 16.7)	0.88
50-64	1379	19.3	(16.9, 22.0)	1.36
65+	1272	14.3	(12.3, 16.7)	0.98

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate suppressed or unstable; ¹ Asked only of a random subsample.
 (2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
 (3) ORs greater than 1.0 indicate that the odds of anxiolytics use are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of anxiolytics use are lower relative to the comparison group.
 (4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case N= 3960).
 Q: *How many times, if ever in your life, have you had this type of head injury?*
 Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Figure 8.2.1
Lifetime Traumatic Brain Injury (TBI) by Sex and Age, Ontarians Aged 18+, 2015 (N=4007)

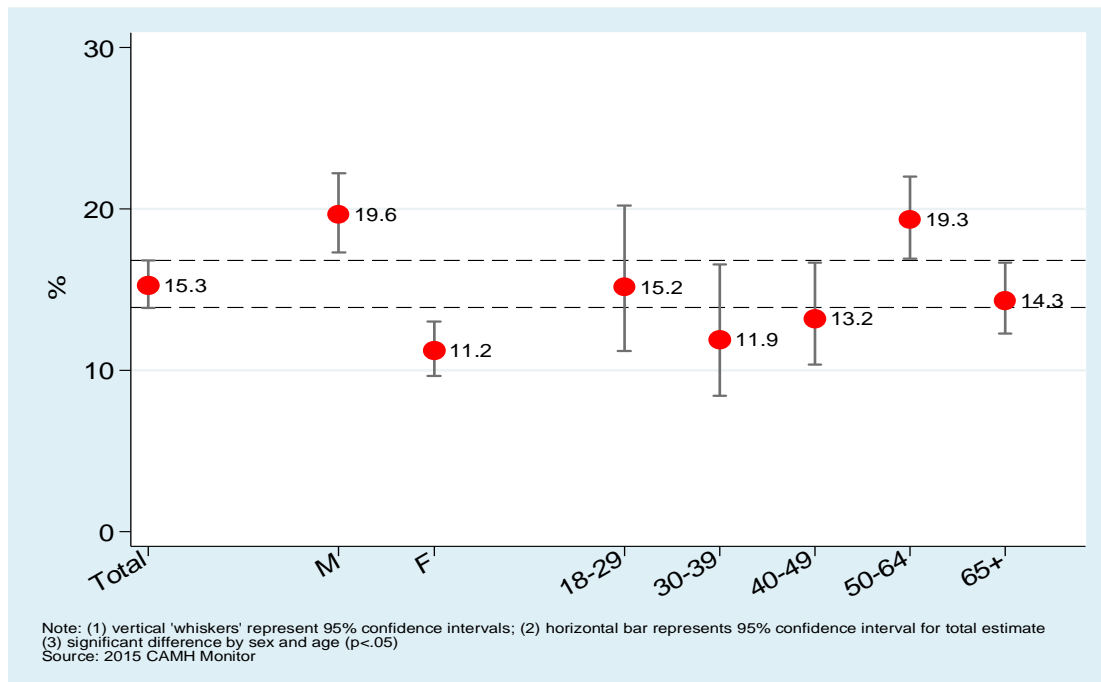


Table 8.2.2 Percentage Reporting Lifetime *Traumatic Brain Injury*, by Demographic Characteristics, Ontarians Aged 18+, 2011–2015

	2011	2012	2013	2014	2015	Trend	
(N=)	(1999)	(2015)	(2060)	(2004)	(4007)		
Total	16.8	17.3	15.1	16.4	15.3	–	–
(95% CI) ^a	(14.8, 19.0)	(15.2, 19.6)	(13.3, 17.1)	(14.3, 18.7)	(13.9, 16.8)		
Sex						NSI	
Men	22.5	21.8	20.3	21.7	19.6	–	–
	(19.0, 26.4)	(18.5, 25.6)	(17.4, 23.7)	(18.1, 25.7)	(17.3, 22.2)		
Women	11.7	13.1	10.0	11.4	11.2	–	–
	(9.6, 14.1)	(10.6, 16.2)	(8.1, 12.2)	(9.4, 13.8)	(9.7, 13.0)		
Age (Comparison Group)						NSI	
18-29	† 20.8	† 22.2	† 8.7	† 18.1	15.2	–	–
	(14.6, 28.6)	(15.2, 31.2)	(4.8, 15.4)	(11.4, 27.6)	(11.2, 20.2)		
30-39	† 15.5	17.1	† 12.3	† 9.8	† 11.9	–	–
	(11.0, 21.5)	(12.6, 22.9)	(8.3, 17.7)	(6.4, 14.9)	(8.4, 16.5)		
40-49	17.1	16.7	19.1	19.9	13.2	–	–
	(13.1, 22.0)	(12.7, 21.6)	(14.8, 24.2)	(15.2, 25.6)	(10.4, 16.7)		
50-64	16.8	18.2	18.7	17.5	19.3	–	–
	(13.6, 20.7)	(14.9, 22.0)	(15.5, 22.4)	(14.2, 21.2)	(16.9, 22.0)		
65+	15.2	12.1	14.2	15.8	14.3	–	–
	(12.0, 18.9)	(9.3, 15.6)	(11.4, 17.6)	(12.8, 19.5)	(12.3, 16.7)		

Notes: (1)^a 95% confidence interval; † Estimate suppressed or unstable; all analyses are sample design adjusted.

(2) Trend Analysis: – change not statistically significant (p<.05) between 2011-2015;

(3) **NSI**, non-significant YEAR × FACTOR interaction; *p<.05;

Q: *How many times, if ever in your life, have you had this type of head injury?*

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

9. GAMBLING AND USE OF ELECTRONIC DEVICES

9.1 Gambling Participation

Gambling participation was introduced in the CAMH Monitor for the first time in 2000 and included in the survey until 2005. In 2015, an updated module including gambling participation, problem gambling and use of electronic devices was added to the survey. These items were asked of a random subsample of respondents (N=3,007).

Gambling participation was measured using several gambling activity frequency items. Respondents were asked questions about their involvement in nine types of gambling activities: lottery, Sport Select or Pro-Line, horse racing, bingo, casino gambling (slot machines and/or table games), sports pool, cards playing, and internet gambling.

Each of the nine items begins with the wording: "*In the past 12 months how often did you bet or spend money...*"

- *buying lottery tickets (6-49, Super 7, instant lottery, etc.)*
- *buying Sport Select or Pro- Line tickets*
- *playing bingo*
- *on horse racing*
- *on slot machines in any type of casino*
- *on table games in any type of casino*
- *on card games*
- *in a sports pool*
- *over the internet*

Response categories ranged from (1) "*Once a day*" to (7) "*Never*".

9.1.1 Gambling Activities

2015 Fig. 9.1.1

The most common form of gambling was purchasing lottery tickets, reported by 61.5% of the sample. Buying Sport Select or Pro-Line tickets was reported by 10.8% of the sample, and 10.6% reported playing bingo in the past year. Betting on horse racing was reported by 6.2% of the sample, 22.9% reported betting on slots in casinos/racinos, and 11.2% reported betting on table games in casinos in the past year. Betting on card games was reported by 11.2% of the sample, and 11.5% reported betting in sports pools. Betting money over the internet was reported by 3.8% of the sample.

Trends

2000–2015Fig 9.1.2

The past year prevalence estimates for lottery, Sport Select, bingo, horse racing, and online gambling were **significantly lower** in 2015 compared to the last estimate (2005 or 2003), and all gambling activities show a significant downward trend between 2000 and 2015.

9.1.2 Any Gambling

2015Table 9.1.1; Fig. 9.1.1; Fig 91.3

An estimated **68.1%** (95% CI: 65.8% to 70.2%) of Ontario adults reported participating in at least one gambling activity in the past 12 months. The corresponding population estimate is 6,845,900 Ontario adults (95% CI: 6,568,200 to 7,123,500). When participation in lotteries was excluded, the proportion participating was **37.9%** (95% CI: 35.7% to 40.2%). The corresponding population estimate is 3,819,000 Ontario adults.

Sex, age, region, marital status and income were all significantly related to reporting at least one gambling activity in the past 12 months, when holding risk factors constant.

- The adjusted odds of any gambling were significantly higher among men than among women (72.1% vs. 64.4%; OR=1.44).
- The prevalence of gambling tended to increase with age, from 63.2% of 18 to 29 year olds to 74.3% of those aged 50 to 64. The adjusted odds of gambling were significantly higher among those aged 50 to 64 compared to those aged 18 to 29 (OR=1.76).
- Compared to the provincial average (68.1%), the prevalence of gambling was significantly higher among those living in the North (76.1%; OR=1.48) and significantly lower among those living in Toronto (62.2%; OR=0.79).
- Relative to married respondents, the adjusted odds of gambling were 1.5 times higher among those previously married (73.9% vs. 68.0%; OR=1.53).
- Household income was significantly associated with reporting any gambling activity in the past 12 months. The distinguishing feature was a higher rate among those with lower incomes and a lower rate among those with the highest incomes.

Trends 2000–2015Table 9.1.4; Fig. 9.1.6

Overall, the prevalence of gambling **declined** significantly from 80.3% in 2000 to 68.1% in 2015. Significant subgroup declines were also evident for sex, age, region, marital status and education.

Year did not interact significantly with any of the demographic risk factors analysed, suggesting that the declining trends among subgroups were not dissimilar.

9.1.3 Casino Gambling

2015Table 9.1.2; Fig. 9.1.4

Overall, an estimated **25.4%** (95% CI: 23.4% to 27.5%) of Ontario adults reported betting on slots or on table games in a casino in the past 12 months. The corresponding population estimate is 2,575,400 Ontario adults (95% CI: 2,355,000 to 2,796,000).

Sex and region were significantly related to gambling in a casino, after adjusting for our set of risk factors.

- The adjusted odds of casino gambling were significantly higher among men than among women (28.1% vs. 22.9%; OR=1.31).
- Compared to the provincial average, casino gambling was significantly higher among those living in the West (32.9%; OR=1.44).

There were no other significant effects, when adjusting for other factors.

Trends 2000–2015.....Table 9.1.5; Fig. 9.1.2

Overall, the prevalence of casino gambling **declined** significantly from 33.7% in 2000 to 25.4% in 2015.

Significant subgroup declines were also evident for most subgroups analysed.

Year did not interact significantly with any of the demographic risk factors analysed, suggesting that the declining trends among subgroups were similar.

9.1.4 Online Gambling

2015Table 9.1.3; Fig. 9.1.5

Overall, an estimated **3.8%** (95% CI: 2.9% to 4.9%) of Ontario adults reported betting over the internet (online) in the past 12 months. The corresponding population estimate is 382,300 Ontario adults (95% CI: 276,600 to 488,000).

Sex and **age** were significantly related to online gambling, after adjusting for our set of risk factors.

- The adjusted odds of online gambling were significantly higher among men than among women (5.4% vs. 2.8%; OR=2.49).
- The prevalence of online gambling tended to decrease significantly with age, from 5.7% of 18 to 29 year olds and 9.1% of those aged 30 to 39 to 1.4% of those aged 50 to 64 (OR=0.30) and 1.1% among those aged 65 and older (OR=0.28).

There were no other significant effects, when adjusting for other factors.

Trends

2000–2015..... Table 9.1.6; Fig. 9.1.2

Overall, between 2000 and 2015, there was a significant **decline** in online gambling, from 6.6% in 2003 to 3.8% in 2015.

Year interacted significantly with **sex**, **age**, and **marital status**, indicating that trends in online gambling differed among these subgroups.

Between 2000 and 2003, among men, rates of online gambling increased significantly from 4.3% to 8.9% and then declined in 2015 to 5.4%. Among women, rates of online gambling showed a significant linear decline from 6.3% in 2000 to 2.8% in 2015.

Rates of online gambling increased significantly among 18 to 29 year olds from 4.4% in 2000 to 13.8% in 2003 and declined to 5.7% in 2015. In contrast, among respondents aged 65 and older,

rates declined from 8.1% in 2000 to 1.1% in 2015.

Differential marital status group trends suggest that decreases were stronger among those previously married (from 10.9% in 2000 to 1.7% in 2015), whereas among those never married the rates increased from 2000 (3.5%) to 2003 (12.2%) and then declined to 6.4% in 2015.

Figure 9.1.1
Percentage Reporting Gambling Participation and Gambling Activities in the Past Year, Ontarians Aged 18+, 2015 (N=3002)

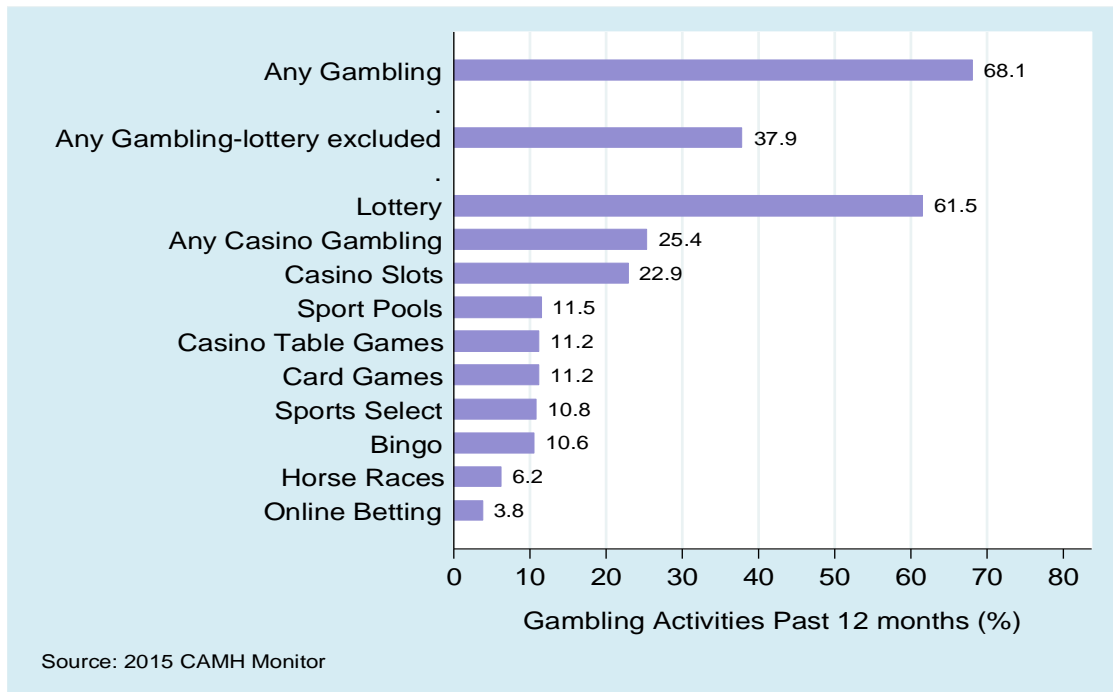


Figure 9.1.2
Percentage Reporting Gambling Activities in the Past Year, Ontarians Aged 18+, 2000-2015

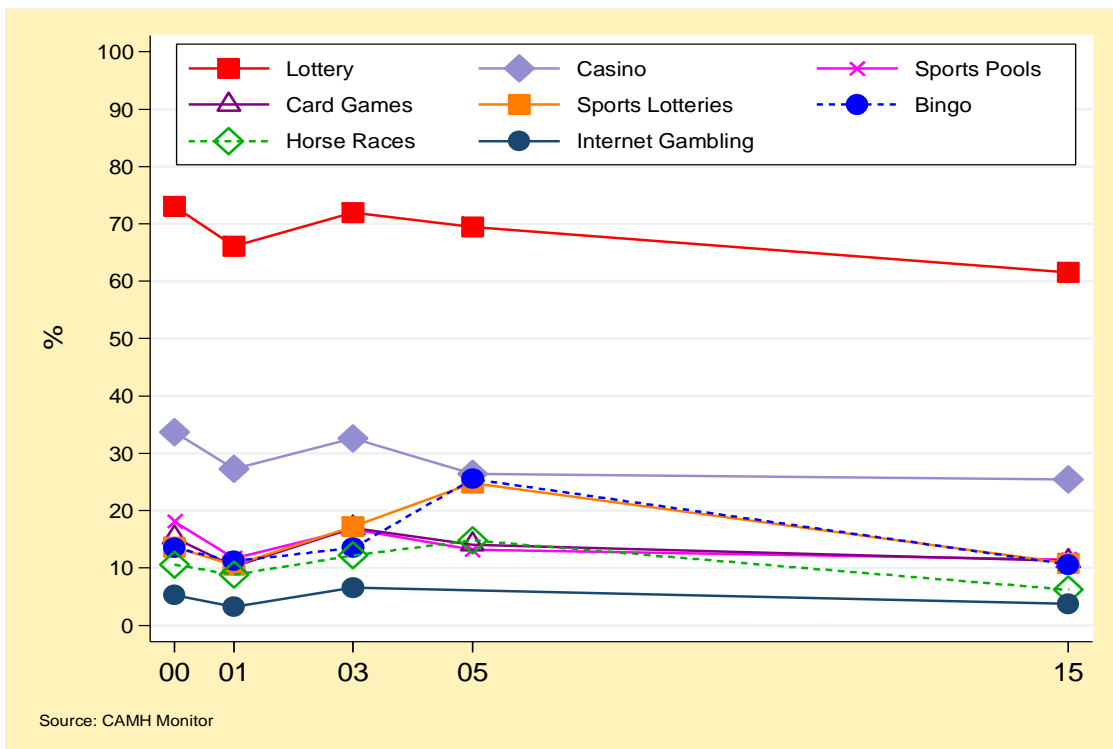


Table 9.1.1: Percentage Reporting *Any Gambling Participation* in the Past 12 Months, and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=2922)
Total ¹	3002	68.1	(65.8, 70.2)	—
Sex				**
Men	1169	72.1	(68.6, 75.3)	1.44**
Women (<i>Comparison Group</i>)	1833	64.4	(61.4, 67.2)	—
Age				***
18-29 (<i>Comparison Group</i>)	242	63.2	(55.9, 69.9)	—
30-39	299	66.6	(60.0, 72.7)	1.25
40-49	460	69.4	(64.1, 74.3)	1.42
50-64	1029	74.3	(71.0, 77.4)	1.76*
65+	949	63.0	(59.4, 66.5)	1.04
Region				**
Toronto (<i>vs. Provincial Average</i>)	492	62.2	(56.7, 67.3)	0.79*
Central East	496	71.7	(66.7, 76.3)	1.19
Central West	490	67.5	(62.1, 72.4)	0.96
West	518	68.8	(63.7, 73.5)	1.03
East	502	66.2	(60.9, 71.2)	0.88
North	504	76.1	(71.3, 80.3)	1.48**
Marital Status				*
Married/Partner (<i>Comparison Group</i>)	1907	68.0	(65.4, 70.4)	—
Previously Married	641	73.9	(69.6, 77.9)	1.53**
Never Married	437	65.2	(59.1, 70.9)	1.12
Education				NS
High school not completed (<i>Comp. Group</i>)	239	66.5	(58.8, 73.4)	—
Completed high school	617	72.3	(67.2, 77.0)	1.26
Some college or university	1055	69.2	(65.2, 72.9)	1.03
University degree	1067	64.9	(61.3, 68.4)	0.88
Household Income				*
< \$30,000 (<i>Comparison Group</i>)	268	65.6	(57.2, 73.1)	—
\$30,000-\$49,999	338	72.9	(65.9, 78.9)	1.53
\$50,000-\$79,999	476	70.6	(64.7, 75.8)	1.37
\$80,000+	1210	69.8	(66.5, 72.8)	1.34
Not stated	710	62.0	(57.0, 66.8)	0.93

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate unstable or suppressed; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=2922).

Def'n: Any Gambling is defined as having participated in at least one gambling activity in the past 12 months.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 9.1.2: Percentage Reporting *Casino Gambling* in the Past 12 Months, and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=2942)
Total ¹	3002	25.4	(23.4, 27.5)	—
Sex				*
Men	1169	28.1	(24.9, 31.6)	1.31*
Women (<i>Comparison Group</i>)	1833	22.9	(20.6, 25.4)	—
Age				NS
18-29 (<i>Comparison Group</i>)	242	28.3	(22.3, 35.3)	—
30-39	299	28.7	(23.1, 35.0)	1.0
40-49	460	25.2	(20.8, 30.2)	0.82
50-64	1029	24.3	(21.4, 27.6)	0.75
65+	949	22.2	(19.4, 25.4)	0.67
Region				*
Toronto (<i>vs. Provincial Average</i>)	492	19.5	(15.3, 24.5)	0.73
Central East	496	25.4	(21.1, 30.2)	0.99
Central West	490	25.8	(21.6, 30.6)	1.05
West	518	32.9	(28.0, 38.1)	1.44**
East	502	25.7	(21.0, 31.2)	1.03
North	504	28.6	(23.8, 33.9)	1.17
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	1907	24.6	(22.3, 27.0)	—
Previously Married	641	26.7	(22.6, 31.3)	1.28
Never Married	437	27.0	(22.1, 32.6)	0.97
Education				NS
High school not completed (<i>Comp. Group</i>)	239	28.2	(21.3, 36.4)	—
Completed high school	617	27.4	(22.9, 32.3)	0.91
Some college or university	1055	26.1	(22.7, 29.7)	0.81
University degree	1067	23.5	(20.5, 26.9)	0.75
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	268	25.9	(18.9, 34.3)	—
\$30,000-\$49,999	338	22.4	(17.4, 28.3)	0.86
\$50,000-\$79,999	476	30.4	(24.8, 36.6)	1.36
\$80,000+	1210	25.9	(23.0, 29.0)	1.08
Not stated	710	22.2	(18.4, 26.5)	0.87

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate unstable or suppressed; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete case sample N=2942).

Def'n: *Casino Gambling is defined as having participated in at least one gambling activity in a casino in the past 12 months.*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 9.1.3: Percentage Reporting *Online Gambling* in the Past 12 Months, and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=2945)
Total ¹	3002	3.8	(2.9, 4.9)	—
Sex				**
Men	1169	† 5.4	(3.8, 7.5)	2.49**
Women (<i>Comparison Group</i>)	1833	† 2.8	(1.5, 3.6)	—
Age				***
18-29 (<i>Comparison Group</i>)	242	† 5.7	(3.2, 9.9)	—
30-39	299	† 9.1	(5.7, 14.3)	2.14
40-49	460	† 3.6	(2.0, 6.1)	0.79
50-64	1029	† 1.4	(0.8, 2.5)	0.30*
65+	949	† 1.1	(0.5, 2.4)	0.28*
Region				NS
Toronto (<i>vs. Provincial Average</i>)	492	† 3.4	(1.7, 6.5)	0.90
Central East	496	† 4.6	(2.7, 7.8)	1.31
Central West	490	† 3.1	(1.6, 5.9)	0.84
West	518	† 3.1	(1.5, 6.3)	0.80
East	502	† 4.8	(2.7, 8.6)	1.31
North	504	† 2.5	(1.2, 5.2)	0.69
Marital Status				NS
Married/Partner (<i>Comparison Group</i>)	1907	† 3.2	(2.3, 4.5)	—
Previously Married	641	† 1.7	(0.8, 3.5)	1.25
Never Married	437	† 6.4	(3.9, 10.3)	1.48
Education				NS
High school not completed (<i>Comp. Group</i>)	239	†	—	—
Completed high school	617	† 5.0	(2.7, 9.1)	2.92
Some college or university	1055	† 3.7	(2.3, 5.7)	1.88
University degree	1067	† 3.6	(2.4, 5.5)	1.95
Household Income				NS
< \$30,000 (<i>Comparison Group</i>)	268	†	—	—
\$30,000-\$49,999	338	†	—	0.35
\$50,000-\$79,999	476	† 2.7	(1.5, 5.0)	0.50
\$80,000+	1210	† 4.8	(3.4, 6.7)	0.80
Not stated	710	† 2.9	(1.4, 6.1)	0.52

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate unstable or suppressed; ¹ Asked only of a random subsample.
(2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
(3) ORs greater than 1.0 indicate that the odds of distress are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of distress are lower relative to the comparison group.
(4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete sample N=2945).

Def'n: *Online Gambling is defined as betting money on at least one gambling activity over the internet in the past 12 months.*

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 9.1.4: Percentage Reporting *Any Gambling Participation* in the Past 12 Months by Demographic Characteristics, Ontarians Aged 18+, 2000–2015

	2000	2001	2003	2005	2015	Trend
(N=)	(1294)	(1395)	(1446)	(1227)	(3002)	
Total Sample¹	80.3	75.1	78.4	78.2	68.1	T –
(95% CI) ^a	(77.6, 82.7)	(72.3, 77.7)	(75.8, 80.8)	(75.3, 80.2)	(65.8, 70.2)	
Sex						NSI
Men	82.0	80.4	78.9	80.7	72.1	T –
	(78.1, 85.4)	(76.3, 83.9)	(74.5, 81.1)	(76.4, 84.4)	(68.6, 75.3)	
Women	78.7	70.5	77.9	76.0	64.4	T –
	(74.9, 82.1)	(66.5, 74.2)	(74.9, 82.3)	(72.0, 79.5)	(61.4, 67.2)	
Age						NSI
18-29	79.2	79.5	78.2	75.2	63.2	T –
	(72.7, 84.6)	(72.6, 84.9)	(72.1, 83.3)	(66.7, 82.2)	(55.9, 69.9)	
30-39	81.6	78.8	79.8	80.6	66.6	T –
	(75.5, 86.4)	(72.4, 84.0)	(73.1, 85.2)	(74.0, 85.8)	(60.0, 72.7)	
40-49	82.7	75.9	80.0	83.7	69.4	T –
	(76.7, 87.3)	(70.0, 80.9)	(74.7, 84.4)	(78.7, 87.7)	(64.1, 74.3)	
50-64	79.1	76.7	78.1	81.1	74.3	– –
	(72.8, 84.3)	(70.2, 82.1)	(72.3, 82.9)	(75.2, 85.9)	(71.0, 77.4)	
65+	79.2	69.5	74.8	71.1	63.0	T –
	(72.1, 84.9)	(62.1, 76.0)	(67.9, 80.6)	(63.8, 77.4)	(59.4, 66.5)	
Region						NSI
Toronto	81.4	72.5	76.0	76.8	62.2	T –
	(74.2, 86.4)	(64.9, 78.9)	(70.0, 81.1)	(69.7, 82.7)	(56.7, 67.3)	
Central East	77.1	75.3	77.6	83.3	71.7	T –
	(70.5, 82.6)	(68.5, 81.0)	(71.2, 82.9)	(76.9, 88.2)	(66.7, 76.3)	
Central West	82.0	80.8	80.0	77.0	67.5	T –
	(75.4, 87.1)	(74.2, 86.0)	(73.5, 85.2)	(69.5, 83.2)	(62.1, 72.4)	
West	78.6	70.7	76.3	80.4	68.8	T –
	(72.1, 84.0)	(63.8, 77.3)	(69.7, 81.9)	(74.2, 85.4)	(63.7, 73.5)	
East	79.3	70.6	79.9	68.0	66.2	T –
	(72.8, 84.7)	(63.3, 77.0)	(73.7, 85.0)	(60.3, 74.9)	(60.9, 71.2)	
North	84.8	80.8	83.7	83.8	76.1	T –
	(78.8, 89.4)	(76.3, 84.7)	(78.0, 88.1)	(77.7, 88.5)	(71.3, 80.3)	
Marital Status						NSI
Married/Partner	78.9	72.9	78.7	78.7	68.0	T –
Previously Married	87.1	74.9	78.3	81.2	73.9	T –
Never Married	81.5	81.9	77.6	75.6	65.2	T –
Education						NSI
Less Than High School	81.4	75.2	77.3	80.3	66.5	T –
Completed High School	82.0	80.1	83.7	79.4	72.3	T –
Some College or University	84.9	75.2	82.2	77.6	69.2	T –
University Degree	72.3	70.7	69.8	78.2	64.9	– –

Notes: ¹Estimates based on random subsamples (2000 to 2015); † Estimate suppressed or unstable;
(1) ^a 95% confidence interval; all analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001;
(2) Trend Analysis: – change not statistically significant at p<.05; T significant change (p<.05) between 2000-2015;
(3) NSI, non-significant YEAR × FACTOR interaction.

Def'n: Any Gambling is defined as having participated in at least one gambling activity in the past 12 months.

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 9.1.5: Percentage Reporting *Casino Gambling* in the Past 12 Months by Demographic Characteristics, Ontarians Aged 18+, 2000–2015

	2000	2001	2003	2005	2015	Trend
(N=)	(1294)	(1395)	(1446)	(1227)	(3002)	
Total Sample¹	33.7	27.3	32.6	26.4	25.4	T –
(95% CI) ^a	(30.8, 36.7)	(24.6, 30.2)	(29.9, 35.4)	(23.6, 29.5)	(23.4, 27.5)	
Sex						NSI
Men	35.0	28.5	31.6	26.0	28.1	T –
	(31.7, 39.6)	(22.9, 30.1)	(27.7, 35.8)	(21.8, 30.7)	(24.9, 31.6)	
Women	32.5	26.3	33.6	26.8	22.9	T –
	(30.8, 36.7)	(24.4, 32.9)	(29.9, 37.4)	(23.1, 30.8)	(20.6, 25.4)	
Age						NSI
18-29	35.7	36.4	41.3	32.4	28.3	T –
	(29.2, 42.7)	(29.4, 44.1)	(34.8, 48.1)	(25.2, 40.5)	(22.3, 35.3)	
30-39	35.4	28.8	33.8	22.6	28.7	– –
	(29.5, 41.8)	(22.8, 35.7)	(27.5, 40.7)	(16.7, 29.7)	(23.1, 35.0)	
40-49	29.7	23.8	32.1	25.5	25.2	– –
	(24.0, 36.1)	(19.0, 29.3)	(26.9, 37.7)	(20.1, 31.8)	(20.8, 30.2)	
50-64	32.4	27.2	27.2	26.8	24.3	T –
	(26.1, 39.5)	(21.6, 33.6)	(22.1, 32.9)	(21.5, 32.9)	(21.4, 27.6)	
65+	34.4	22.4	27.5	26.1	22.2	T –
	(27.1, 42.4)	(16.9, 29.2)	(21.4, 34.4)	(19.5, 34.1)	(19.4, 25.4)	
Region						NSI
Toronto	29.4	27.6	25.5	25.9	19.5	– –
	(22.7, 37.0)	(21.2, 35.1)	(20.1, 31.7)	(19.6, 33.3)	(15.3, 24.5)	
Central East	30.0	27.8	32.7	25.8	25.4	– –
	(23.7, 37.0)	(21.8, 34.8)	(26.5, 39.6)	(19.8, 32.9)	(21.1, 30.2)	
Central West	34.7	27.4	36.5	29.6	25.8	T –
	(28.2, 41.87)	(21.3, 34.5)	(30.1, 43.5)	(23.0, 37.2)	(21.6, 30.6)	
West	42.0	28.5	34.0	27.7	32.9	T –
	(35.1, 49.2)	(22.4, 35.6)	(27.7, 40.9)	(21.6, 34.7)	(28.0, 38.1)	
East	32.1	21.3	36.0	26.1	25.7	T –
	(25.7, 39.4)	(16.1, 27.6)	(29.6, 42.9)	(20.0, 33.3)	(21.0, 31.2)	
North	40.5	32.0	38.2	18.8	28.6	T –
	(33.6, 47.8)	(26.2, 36.5)	(32.0, 44.8)	(13.6, 25.3)	(23.8, 33.9)	
Marital Status						NSI
Married/Partner	31.2	26.6	29.9	27.5	24.6	T –
Previously Married	38.0	21.7	33.9	20.2	26.7	T –
Never Married	38.1	32.9	39.8	27.4	27.0	T –
Education						NSI
Less Than High School	31.4	19.7	32.2	32.5	28.2	– –
Completed High School	34.6	32.5	41.0	26.6	27.4	T –
Some College or University	40.2	27.4	32.2	27.8	26.1	T –
University Degree	26.5	27.0	26.9	23.0	23.5	– –

Notes: ¹Estimates based on random subsamples (2000 to 2015); † Estimate suppressed or unstable;
(1) ^a 95% confidence interval; all analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001;
(2) Trend Analysis: – change not statistically significant at p<.05; T significant change (p<.05) between 2000-2015;
(3) NSI, non-significant YEAR × FACTOR interaction.
Def'n: *Casino Gambling* is defined as having participated in at least one gambling activity in a casino in the past 12 months.
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table 9.1.6: Percentage Reporting *Online Gambling* in the Past 12 Months by Demographic Characteristics, Ontarians Aged 18+, 2000–2015

(N=)	2000	2001	2003	2015	Trend
Total Sample¹	5.3	3.2	6.6	3.8	T –
(95% CI) ^a	(4.1, 6.1)	(2.3, 4.5)	(5.2, 8.3)	(2.9, 4.9)	
Sex					**
Men	4.3	4.7	8.9	† 5.4	T –
	(2.7, 6.8)	(3.1, 7.0)	(6.5, 12.1)	(3.8, 7.5)	
Women	6.3	2.0	4.4	† 2.8	T –
	(4.5, 8.6)	(1.1, 3.5)	(3.1, 6.1)	(1.5, 3.6)	
Age					*
18-29	4.4	6.9	13.8	† 5.7	T –
	(2.4, 8.0)	(3.8, 12.1)	(9.6, 19.5)	(3.2, 9.9)	
30-39	6.9	3.1	9.5	† 9.1	– –
	(4.3, 10.9)	(1.6, 6.0)	(4.2, 12.2)	(5.7, 14.3)	
40-49	5.6	2.5	6.3	† 3.6	– –
	(3.2, 9.6)	(1.2, 5.1)	(4.0, 9.6)	(2.0, 6.1)	
50-64	1.5	2.7	3.0	† 1.4	– –
	(0.5, 4.2)	(1.3, 5.7)	(1.6, 5.3)	(0.8, 2.5)	
65+	8.1	1.2	3.8	† 1.1	T –
	(4.4, 14.5)	(0.5, 3.7)	(1.7, 8.0)	(0.5, 2.4)	
Region					NS
Toronto	7.7	2.5	7.1	† 3.4	T –
	(4.4, 13.3)	(1.1, 5.6)	(4.2, 11.8)	(1.7, 6.5)	
Central East	3.9	2.3	5.7	† 4.6	– –
	(2.0, 7.5)	(0.8, 6.2)	(3.1, 10.1)	(2.7, 7.8)	
Central West	3.5	4.1	6.5	† 3.1	– –
	(1.6, 7.4)	(1.8, 8.8)	(3.8, 11.1)	(1.6, 5.9)	
West	5.2	3.9	5.9	† 3.1	– –
	(2.9, 8.9)	(1.8, 8.3)	(3.4, 10.1)	(1.5, 6.3)	
East	7.1	3.9	6.5	† 4.8	– –
	(4.3, 11.6)	(1.9, 7.9)	(3.6, 11.4)	(2.7, 8.6)	
North	4.3	3.3	8.3	† 2.5	T –
	(2.1, 8.6)	(1.8, 6.0)	(15.3, 12.7)	(1.2, 5.2)	
Marital Status					*
Married/Partner	4.9	2.6	5.3	† 3.2	T –
Previously Married	10.9	1.6	3.3	† 1.7	T –
Never Married	3.5	6.2	12.2	† 6.4	T –
Education					NS
Less Than High School	6.8	2.2	9.2	†	T –
Completed High School	6.0	3.6	6.7	† 5.0	– –
Some College or University	5.4	2.9	5.2	† 3.7	– –
University Degree	3.6	3.9	7.1	† 3.6	– –

Notes: ¹Estimates based on random subsamples (2000 to 2015); † Estimate suppressed or unstable; Data not available for 2005; (1) ^a 95% confidence interval; all analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; (2) Trend Analysis: – change not statistically significant at p<.05; **T** significant change (p<.05) between 2000-2015; (3) **NSI**, non-significant YEAR × FACTOR interaction.

Def'n: *Online Gambling is defined as betting money on at least one gambling activity over the internet in the past 12 months.*

Source: The *CAMH Monitor*, Centre for Addiction and Mental Health

Figure 9.1.3

Percentage Reporting Any Gambling Participation in the Past Year, by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=3002)

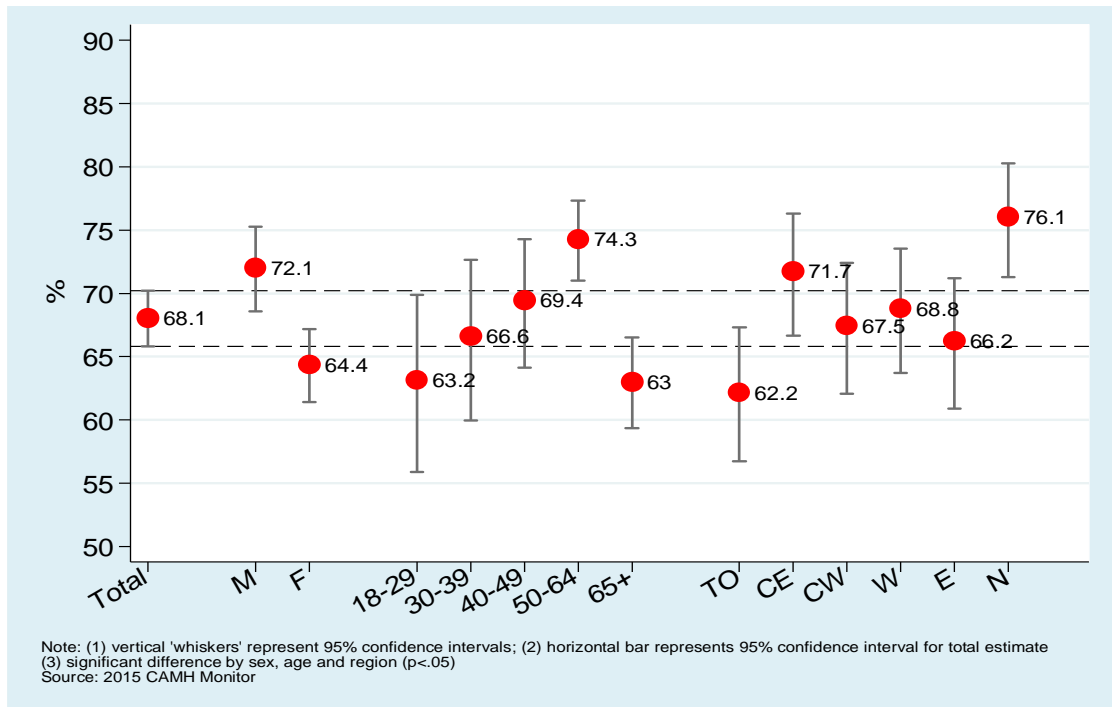


Figure 9.1.4

Percentage Reporting Any Casino Gambling in the Past Year, by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=3002)

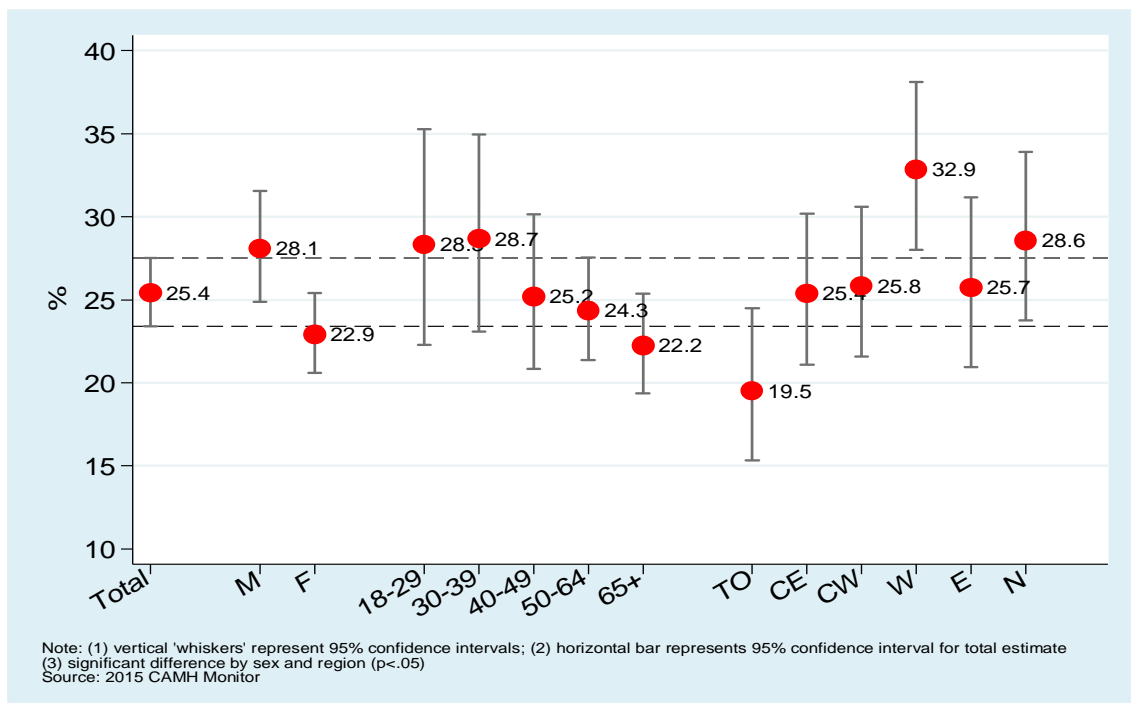


Figure 9.1.5
Percentage Reporting Any Online Gambling in the Past Year, by Sex, Age and Region, Ontarians Aged 18+, 2015 (N=3002)

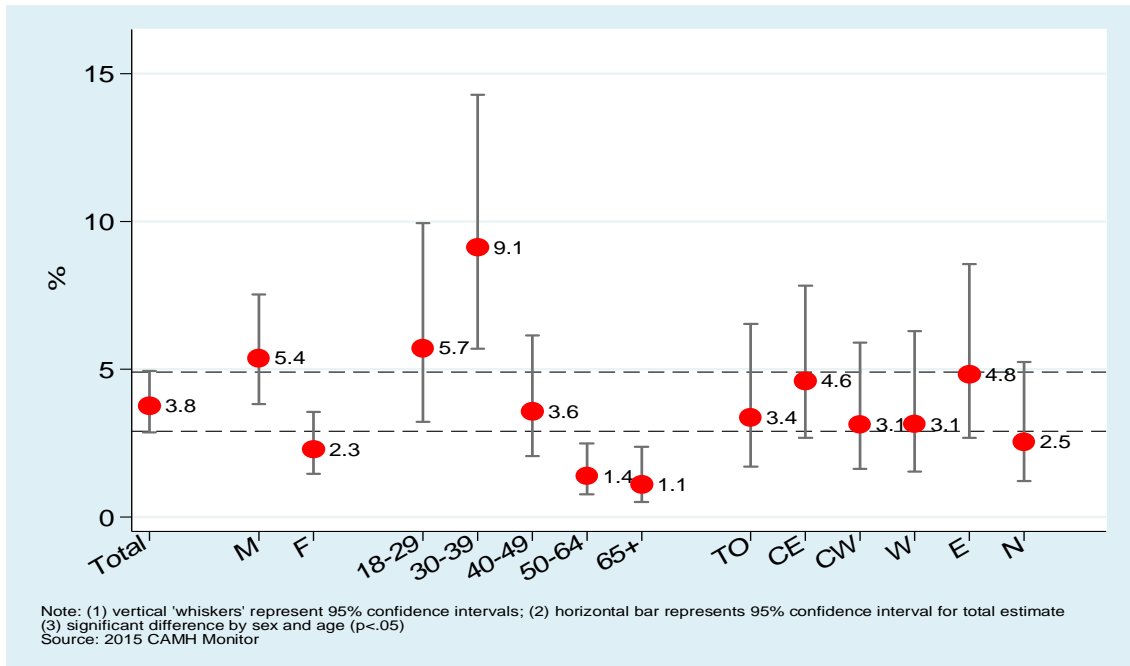
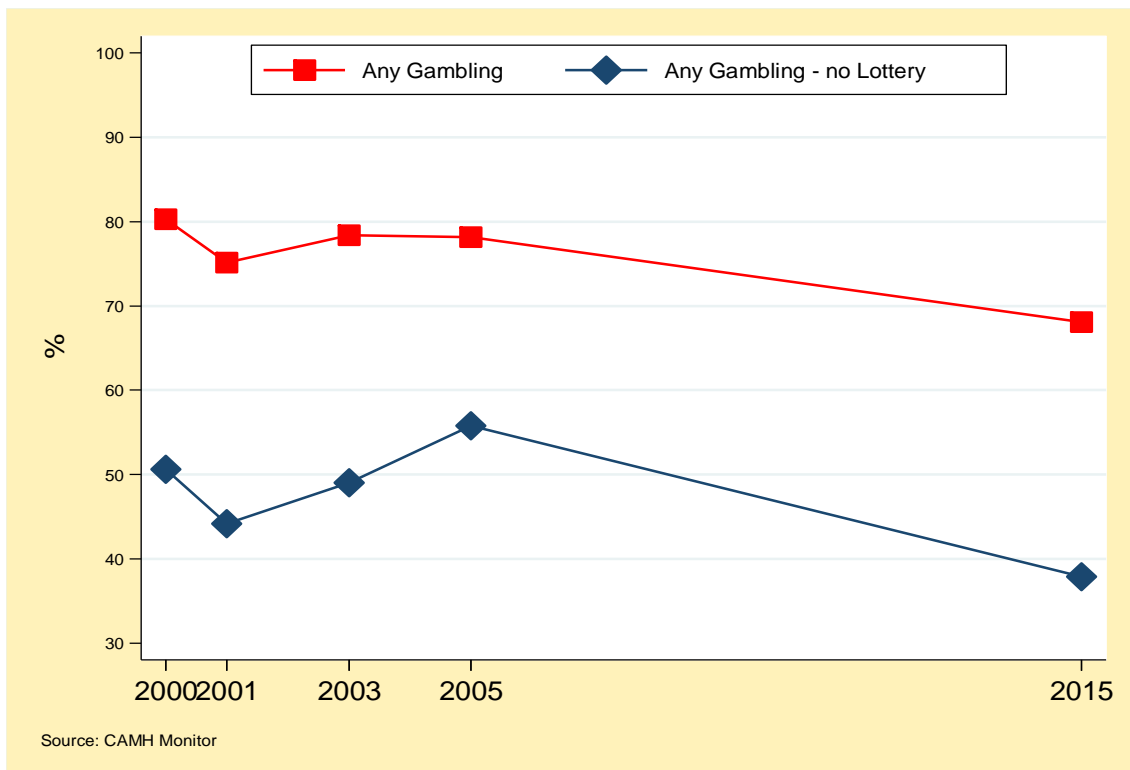


Figure 9.1.6
Percentage Reporting Any Gambling in the Past Year, Ontarians Aged 18+, 2000-2015



9.2 Problem Gambling

To assess gambling problems, we used the 9-item *Problem Gambling Severity Index* (PGSI), a validated measure of problem gambling that is part of the *Canadian Problem Gambling Index* (Ferris & Wynne, 2001; Wiebe et al., 2001). Although the PGSI does not provide a clinical determination of psychiatric disorder, it does provide an indication of an individual's risk of future problems. The PGSI items were asked in the survey in 2005 and 2015.

The following nine questions were asked, each question referring to the past 12 months:

- ...how often have you bet more than you could really afford to lose?
- ... how often have you needed to gamble with larger amounts of money to get the same feeling of excitement?
- ... when you gambled, how often did you go back another day to try to win back the money you lost?
- ... how often have you borrowed money or sold anything to get money to gamble?
- ... how often have you felt that you might have a problem with gambling?
- ... how often has gambling caused you any health problems, including stress or anxiety?
- ... how often have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
- ... how often has your gambling caused any financial problems for you or your household?
- ... how often have you felt guilty about the way you gamble or what happens when you gamble?

Response options for the first seven items ranged from (1) *Never* to (4) *Almost always*, and were rescaled ranging from 0 to 3. A summated score ranging from 0 to 27 was computed for the total sample of respondents who answered all nine items. Four risk categories (of developing a gambling problem) were derived from this summated score: (1) No Risk (score=0), (2) Low Risk (score=1-2), (3) Moderate Risk (score=3-7), and (4) High Risk (scores of 8 or higher).

For the purpose of our analyses, the Moderate Risk and High Risk categories have been combined into the "Problem Gambling" category (score = 3 or higher).

9.2.1 Problem Gambling Symptoms

2015 Table 9.2.1

The most common symptoms experienced by respondents at least *sometimes* during the past 12 months were: feeling guilty about the way they gambled (2.3%), followed by went back another day to win back money (1.8%) and needed to gamble with larger amounts of money (1.3%). The least reported symptom was gambling caused health problems (0.7%).

9.2.2 Gambling Problems (Moderate/High Risk)

2015Table 9.2.1, 9.2.2; Fig. 9.2.1

An estimated **1.7%** (95% CI: 1.1% to 2.5%) of Ontario adults met the criteria for moderate to high risk of gambling problems in the past 12 months. The corresponding population estimate is 169,500 Ontario adults (95% CI: 102,100 to 236,800).

There were no significant differences by sex or age related to reporting gambling problems in the past 12 months.

The prevalence of problem gambling in 2015 (1.7%) was not significantly different from 2005 (1.9%).

Table 9.2.1. Percentage Reporting *Problem Gambling Symptoms (PGSI)* in the Past 12 Months, Ontarians Aged 18+, 2005-2015

PGSI Item ¹	2005 (N=1,227)	2015 (N=3,002)
1. Bet more than could really afford to lose	† 2.0 (1.2, 3.1)	† 1.1 (0.8, 1.7)
2. Needed to gamble with larger amounts of money to get the same feeling of excitement	† 1.2 (0.6, 2.2)	† 1.3 (0.8, 2.1)
3. Went back another day to try to win back the money you lost	† 1.7 (1.1, 2.7)	1.8 (1.3, 2.5)
4. Borrowed money or sold anything to get money to gamble	† —	† —
5. Felt that you might have a problem with gambling	† 1.5 (1.0, 2.5)	† 1.1 (0.7, 1.8)
6. Gambling caused you any health problems, including stress or anxiety	† —	† 0.7 (0.4, 1.2)
7. People criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true	† 1.0 (0.5, 1.7)	† 1.2 (0.7, 2.0)
8. Gambling caused any financial problems for you or your household	† 1.0 (0.5, 1.3)	† 0.8 (0.4, 1.3)
9. Felt guilty about the way you gamble or what happens when you gamble	† 3.2 (2.1, 4.7)	2.3 (1.7, 3.2)
Problem Gambling (3+ symptoms)	† 1.9 (1.2, 3.0)	† 1.7 (1.1, 2.5)

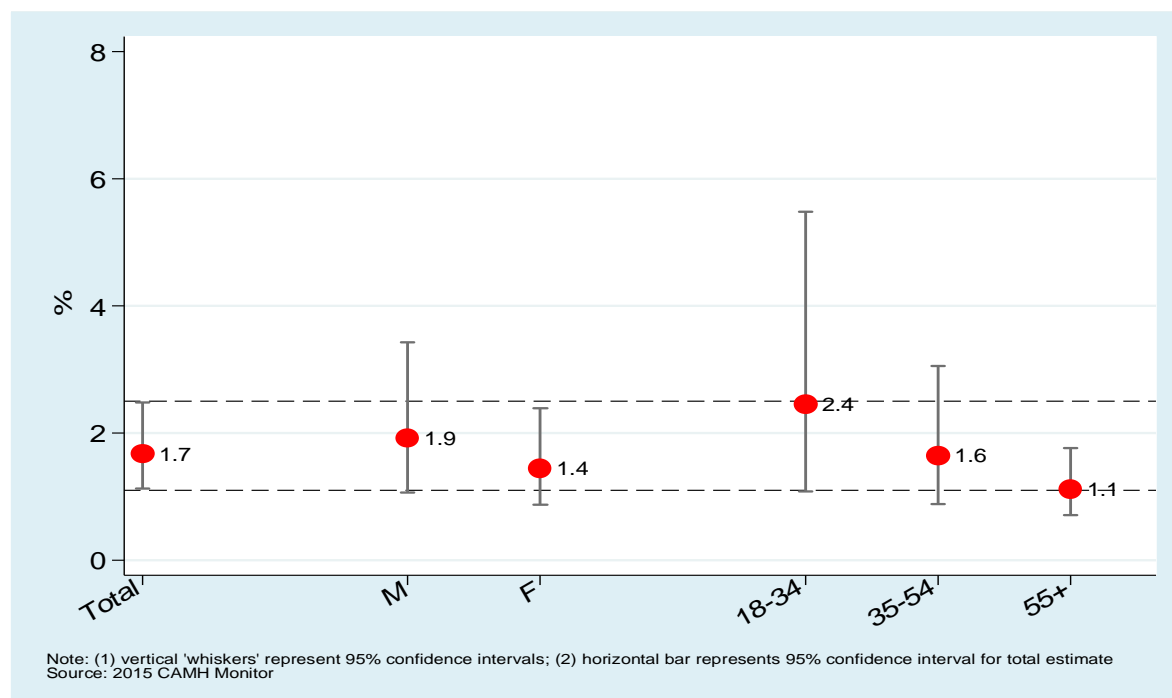
Note: ¹percentage who responded at least “sometimes” in the past 12 months; † Estimate suppressed or unstable.

Table 9.2.2 Percentage Reporting *Gambling Problems (PGSI 3+)* During the Past 12 Months and Adjusted Group Differences, Ontarians Aged 18+, 2015

	N	%	95% CI	Adjusted Odds Ratio (N=2977)
Total ¹	3002	† 1.7	(1.1, 2.5)	—
Sex				NS
Men	1169	† 1.9	(1.1, 3.4)	1.40
Women (<i>Comparison Group</i>)	1833	† 1.4	(0.9, 2.4)	—
Age				NS
18-34	361	† 2.4	(1.1, 5.5)	2.23
35-54	936	† 1.6	(0.9, 3.1)	1.49
55 and older (<i>Comparison Group</i>)	1680	† 1.1	(0.7, 1.8)	—

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – not statistically significant; † Estimate unstable; ¹ Asked only of a random subsample.
 (2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
 (3) ORs greater than 1.0 indicate that the odds of anxiety use are higher relative to the comparison group; ORs less than 1.0 indicate that the odds of anxiety use are lower relative to the comparison group.
 (4) Adjusted odds ratio holding fixed values for sex, age, region, marital status, education and income (complete sample N= 2977).
 Def'n: Based on "Problem Gambling Severity Index" score of 3 or higher
 Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Figure 9.2.1
Percentage Reporting Gambling Problems (PGSI 3+) in the Past Year by Sex and Age, Ontarians Aged 18+, 2015 (N=3002)



9.3 Use of Electronic Devices

For the first time in 2015, the survey asked participants about their use of electronic devices (computers, laptops, electronic tablets, smartphones, or gaming consoles) in the past 12 months, not counting use for work or school. Participants were asked about their use of electronic devices for:

- (1) *playing computer or video games*
- (2) *emailing, chatting, text messaging, watching videos, accessing social media, or for surfing the web*

Participation in each of these activities was measured using a question about the frequency of use in the past 12 months and a question about hours spent using electronic devices on those days when these devices were used.

Response categories for the frequency item ranged from (1) *Once a day* to (7) *Never in past 12 months* and response categories for hours spent using electronic devices ranged from (0) *never*, (1) *less than one hour* to (5) *7 or more hours (per day)*.

These items were asked of a random subsample of respondents (N=3,007).

The estimated **average number of hours** spent weekly using electronic devices is based on the respondent's recall of both the frequency of using these devices and the number of hours spent on a typical day when using these devices. It is an indicator of the typical amount of time spent weekly using these devices.

9.3.1 Average Number of Hours per Week Spent Playing Computer or Video Games

2015 Table 9.3.1; Fig. 9.3.1

On average, Ontarians reported spending **3.7** (95% CI: 3.4 to 4.1) hours playing video or computer games weekly.

Of the six demographic factors examined, there were significant univariate effects for **sex, age, marital status, and education**.

- Men spent an average of 4.3 hours weekly playing games, compared to only 3.2 hours for women.
- The average number of hours decreased significantly with age. It was highest among the youngest age groups (7.1 hours) and lowest among those aged 50 and older (2.6 hours).
- The average number of hours spent playing games weekly was significantly higher among those never married (6.6 hours) and lowest among married respondents (2.9 hours).
- The average number of hours tended to decrease significantly with education. It was lowest among respondents with a university education (2.7 hours).

There were no significant differences for region, and income.

9.3.2 Average Number of Hours per Week Spent on Social Media, Email, Surfing the Web, Chatting, etc.

2015Table 9.3.1; Fig. 9.3.2

Overall, Ontarians reported spending **11.5** (95% CI: 10.9 to 12.0) hours on average per week using electronic devices for email, social media, surfing the web, chatting, etc.

Of the six demographic factors examined, there were significant univariate effects for **sex, age, marital status, and education.**

- Women spent an average of 12.1 hours weekly, compared to 10.7 hours for men.
- The average number of hours decreased significantly with age. It was highest among the youngest age groups (19.1 hours) and lowest among those aged 50 and older (8.2 hours).
- The average number of hours spent weekly using electronic devices for email, social media, etc. was significantly higher among those never married (17.4 hours) and lowest among previously married respondents (8.5 hours).
- The average number of hours tended to increase significantly with education. It was lowest among respondents with less than high school education and higher among respondents with some college or university education (12.6 hours).

There were no significant differences for region, and income.

Table 9.3.1: Estimated *Average Number of Hours per Week Spent Using Electronic Devices* in the Past 12 Months, Ontarians, Aged 18+, 2015

	Using email, social media, etc.			Playing Video Games	
	N	Mean	95% CI	Mean	95% CI
Total	3002	11.5	(10.9, 12.0)	3.7	(3.4, 4.1)
Sex		*		*	
Men	1169	10.7	(10.0, 11.5)	4.3	(3.6, 4.9)
Women (<i>Comparison Group</i>)	1833	12.1	(11.3, 12.9)	3.2	(2.9, 3.6)
Age		***		***	
18-29 (<i>Comparison Group</i>)	242	19.1	(17.1, 21.1)	7.1	(5.6, 8.6)
30-39	299	12.3	(11.2, 13.5)	4.0	(2.9, 5.1)
40-49	460	11.3	(10.5, 12.2)	3.1	(2.6, 3.6)
50+	1978	8.2	(7.8, 8.7)	2.6	(2.4, 2.9)
Region		NS		NS	
Toronto (<i>vs. Provincial Average</i>)	492	11.7	(10.6, 12.9)	3.1	(2.4, 3.8)
Central East	496	12.6	(11.2, 14.0)	4.3	(3.3, 5.3)
Central West	490	10.3	(9.1, 11.5)	3.5	(2.6, 4.4)
West	518	10.7	(9.6, 11.8)	3.6	(2.8, 4.4)
East	502	10.9	(9.9, 11.8)	4.1	(3.3, 4.8)
North	504	11.6	(10.3, 12.8)	3.9	(3.0, 4.8)
Marital Status		***		***	
Married/Partner (<i>Comparison Group</i>)	1907	9.8	(9.4, 10.3)	2.9	(2.6, 3.2)
Previously Married	641	8.5	(7.4, 9.6)	3.0	(2.4, 3.6)
Never Married	437	17.4	(15.8, 19.1)	6.6	(5.3, 7.8)
Education		***		*	
High school not completed (<i>Comparison</i>)	239	6.5	(5.1, 7.8)	4.1	(2.6, 5.4)
Completed high school	617	9.6	(8.4, 10.7)	4.9	(3.8, 6.0)
Some college or university	1055	12.6	(11.6, 13.6)	4.1	(3.4, 4.8)
University degree	1067	12.1	(11.3, 12.9)	2.7	(2.3, 3.1)
Household Income		NS		NS	
< \$30,000 (<i>Comparison Group</i>)	268	10.4	(8.1, 12.8)	5.8	(2.9, 8.6)
\$30,000-\$49,999	338	10.9	(9.1, 12.7)	4.5	(3.1, 5.9)
\$50,000-\$79,999	476	10.4	(9.3, 11.5)	3.3	(2.6, 4.0)
\$80,000+	1210	12.3	(11.6, 13.1)	3.4	(2.9, 3.9)
Not stated	710	10.8	(9.5, 12.1)	4.0	(3.2, 4.9)

Notes: (1) All analyses are sample design adjusted; *p<.05; **p<.01; ***p<.001; based on F-tests; CI = 95% confidence interval; NS – no statistically significant difference;

Def'n: Product of the frequency of using electronic devices and the number of hours spent on a typical day when using these devices.

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Figure 9.3.1
Average Number of Hours per Week Playing Video Games in the Past Year, Ontarians Aged 18+, 2015 (N=3002)

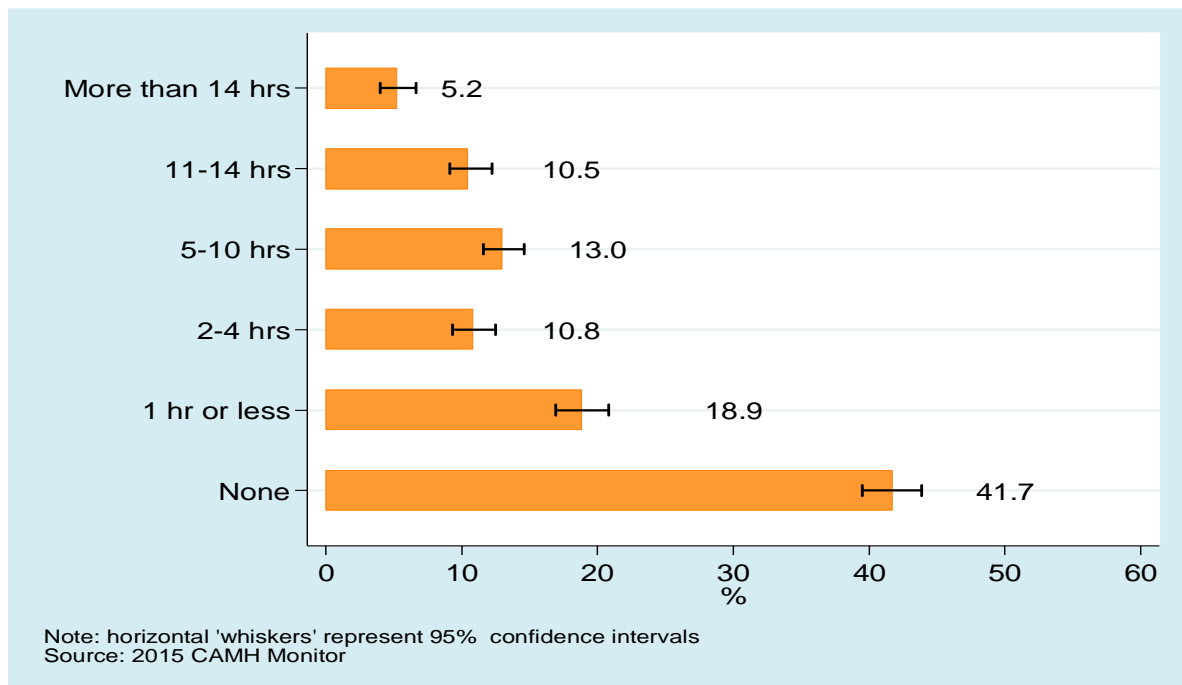
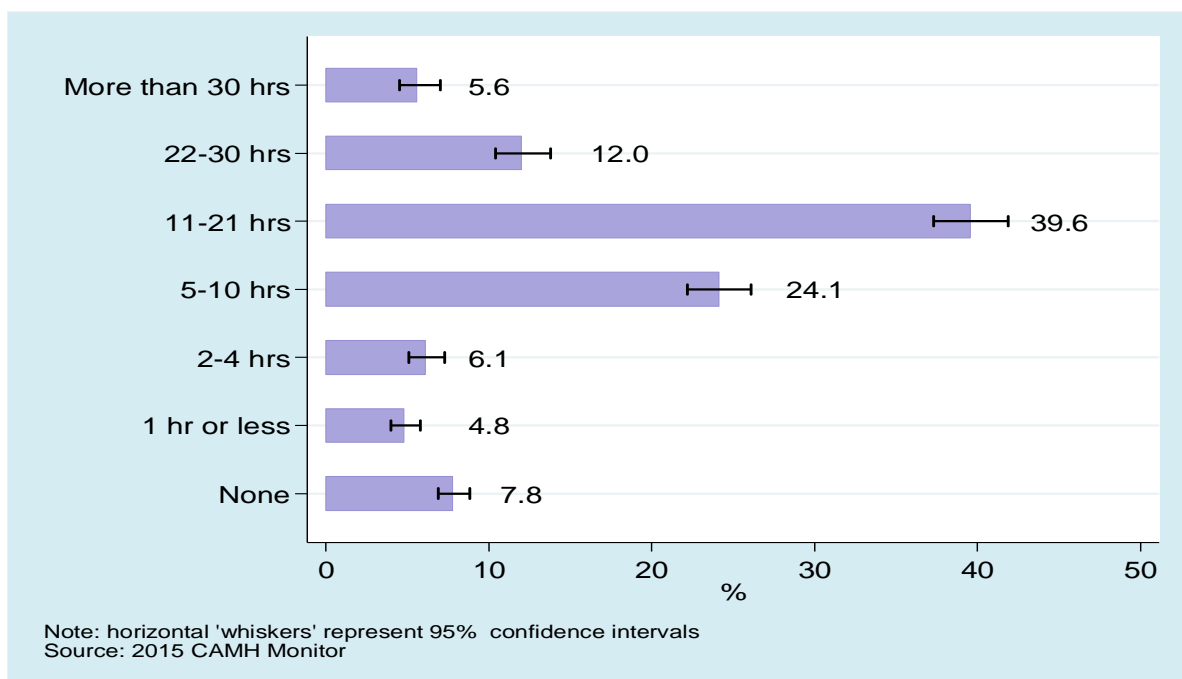


Figure 9.3.2
Average Number of Hours per Week Using Email, Social Media, Surfing the Web, Chatting, etc. in the Past Year, Ontarians Aged 18+, 2015 (N=3002)



9.4 Problematic Use of Electronic Devices

Using questions based on items from the *Minnesota Impulsive Disorder Interview*, a valid and reliable instrument used to screen for impulse control disorders (Grant, 2008; Grant, Levine, Kim & Potenza, 2005), six questions were used to assess at risk/problematic use of electronic devices. These items have been previously used to measure problematic internet use (Liu et al., 2011; Yau, Potenza, & White, 2013).

The individual item wording took the form listed below and response categories for the six items were *yes* or *no*.

The module begins with the wording:

“Thinking about your use of these electronic devices in the past 12 months, for games, social media, chatting or other uses, but not counting use of these electronic devices for work or school...”

- *have you ever tried to cut back on your use of electronic devices?*
- *has a family member ever expressed concern about the amount of time you use electronic devices?*
- *have you ever missed school, work, or important social activities because you were using electronic devices?*
- *did you think you have a problem with excessive use of electronic devices?*
- *have you ever experienced an irresistible urge or uncontrollable need to use electronic devices?*
- *have you ever experienced a growing tension or anxiety that can only be relieved by using electronic devices?*

Given the absence of formal criteria for problematic use of electronic devices, we used two thresholds to classify individuals as having problems with their use of electronic devices.

A liberal cut-off score of one or higher (out of six) was used to describe the percentage experiencing at least one symptom of problematic use during the past year as “any problematic use”. A cut-off score of 3 or higher (out of six) was employed to describe the percentage experiencing “moderate to severe problematic use”.

9.4.1 Symptoms of Problematic Use

2015Table 9.4.1

The most common symptoms experienced by respondents during the past 12 months were: tried to cut back on your use of electronic devices (23.6%), followed by family member expressed concern about the amount of time you use (13.9%), and experienced an irresistible urge or uncontrollable need to use (9.9%). The least reported symptom was missed school, work, or important social activities because you were using electronic devices (2.3%). There were no significant differences by sex in experiencing these symptoms (data not shown).

9.4.2 Problematic Use of Electronic Devices

Any Problematic Use

2015Table 9.4.2, Fig. 9.4.1

An estimated **35.1%** (95% CI: 32.8% to 37.5%) of Ontario adults met the criteria for **any problematic use** of electronic devices in the past 12 months. The corresponding population estimate is 3,553,600 Ontario adults (95% CI: 3,272,800 to 3,834,500).

There were no significant differences by sex or by region related to reporting any problematic use in the past 12 months, when holding demographic factors constant.

Only **age** was significantly related to reporting any problematic use in the past 12 months.

- The prevalence of any problematic use dramatically decreased with age, from 68.5% of 18 to 29 year olds to 18.2% of those aged 50 and older. Compared to those aged 50 and older, the adjusted odds of any problematic use were almost 10 times higher among those aged 18 to 29 (OR=9.8) and 3 times higher among those aged 30 to 39 and those aged 40 to 49 (OR=3.8 and OR=2.5, respectively).

Moderate/Severe Problematic Use

2015Table 9.4.2, Fig. 9.4.2

An estimated **7.1%** (95% CI: 5.8% to 8.7%) of Ontario adults met the criteria for **moderate to severe problematic use** of electronic devices in the past 12 months. The corresponding population estimate is 716,100 Ontario adults (95% CI: 565,400 to 866,800).

There were no significant differences by sex or by region (data not shown) related to reporting moderate/severe problematic use in the past 12 months, when adjusting for other select demographic factors.

Only **age** was significantly related to reporting moderate/severe problematic use in the past 12 months.

- The prevalence of moderate/severe problematic use significantly decreased with age, from 18.9% of 18 to 29 year olds to 2.2% of those aged 50 and older. Compared to those aged 50 and older, the adjusted odds of moderate/severe problematic use were 10 times higher among those aged 18 to 29 (OR=10.3) and almost 4 times higher among those aged 30 to 39 and those aged 40 to 49 (OR=3.8 and OR=3.4, respectively).

Table 9.4.1. Percentage Reporting Symptoms of *Problematic Use of Electronic Devices* in the Past 12 Months, Ontarians Aged 18+, 2015

Item ¹	2015 (N=3,002)
1. Tried to cut back on your use of electronic devices	23.6 (21.5, 25.8)
2. Family member expressed concern about the amount of time you use electronic devices	13.9 (12.1, 15.8)
3. Missed school, work, or important social activities because you were using electronic devices	†2.3 (1.5, 3.3)
4. You think you have a problem with excessive use of electronic devices	6.3 (5.1, 7.7)
5. Experienced an irresistible urge or uncontrollable need to use electronic devices	9.9 (8.5, 11.7)
6. Experienced a growing tension or anxiety that can only be relieved by using electronic devices	6.7 (5.4, 8.2)
Any Problematic Use (1+ symptoms)	35.1 (32.8, 37.5)
Moderate/Severe Problematic Use (3+ symptoms)	7.1 (5.8, 8.7)

Note: ¹percentage who responded “yes” in the past 12 months; † Estimate unstable.

Table 9.4.2: Percentage **Reporting Problematic Use of Electronic Devices** in the Past 12 Months, Ontarians, Aged 18+, 2015

	Any Problematic Use				Moderate/Severe Problematic Use		
	N	%	95% CI	Adjusted Odds Ratio (N=2974)	%	95% CI	Adjusted Odds Ratio (N=2974)
Total¹	3002	35.1	(32.8, 37.5)	—	7.1	(5.8, 8.7)	—
Sex				NS			NS
Men	1169	33.7	(30.2, 37.4)	1.20	7.6	(5.6, 10.1)	0.87
Women (<i>Comparison Group</i>)	1833	36.4	(33.4, 39.5)	—	6.6	(5.8, 8.7)	—
Age				***			***
18-29	242	68.5	(61.5, 74.8)	10.27***	18.9	(13.7, 25.5)	9.79***
30-39	299	45.9	(39.4, 52.5)	3.82***	† 7.9	(4.9, 12.5)	3.84***
40-49	460	35.9	(30.9, 41.2)	3.34***	† 7.1	(4.7, 10.5)	2.51***
50+ (<i>Comparison Group</i>)	1978	18.2	(16.2, 20.3)	—	2.2	(1.6, 3.1)	—

Notes: ¹Items were asked of a random sub-sample; all estimates and analyses are sample design adjusted.
 (1) *p<.05; **p<.01; ***p<.001; CI = 95% confidence interval; NS – no statistically significant difference; † Estimate suppressed or unstable.
 (2) Asterisks in group row indicate a statistically significant group effect, based on Wald test.
 (3) ORs greater than 1.0 indicate that the odds of opioid use are higher in the group being compared to the comparison group; ORs less than 1.0 indicate that the odds of opioid use are lower in the group being compared to the comparison group.
 (4) Adjusted odds ratio holding fixed values for sex, age, and region (complete case sample size N= 2974).

Defⁿ: “Any Problematic Use” defined as reporting 1 or more symptoms in the past 12 months; “Moderate/Severe Problematic Use” defined as reporting 3 or more symptoms in the past 12 months.

Source: The CAMH Monitor, Centre for Addiction and Mental Health.

Figure 9.4.1
Percentage Reporting Any Problematic Use of Electronic Devices (1+) in the Past Year by Sex, Age, and Region, Ontarians Aged 18+, 2015 (N=3002)

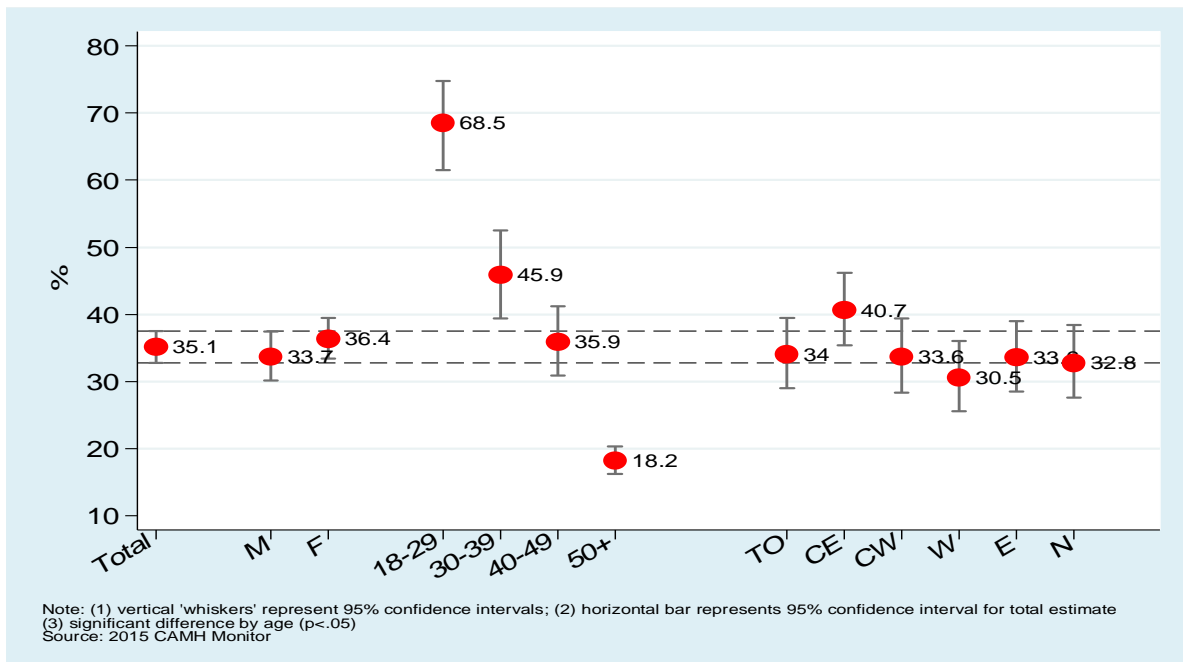
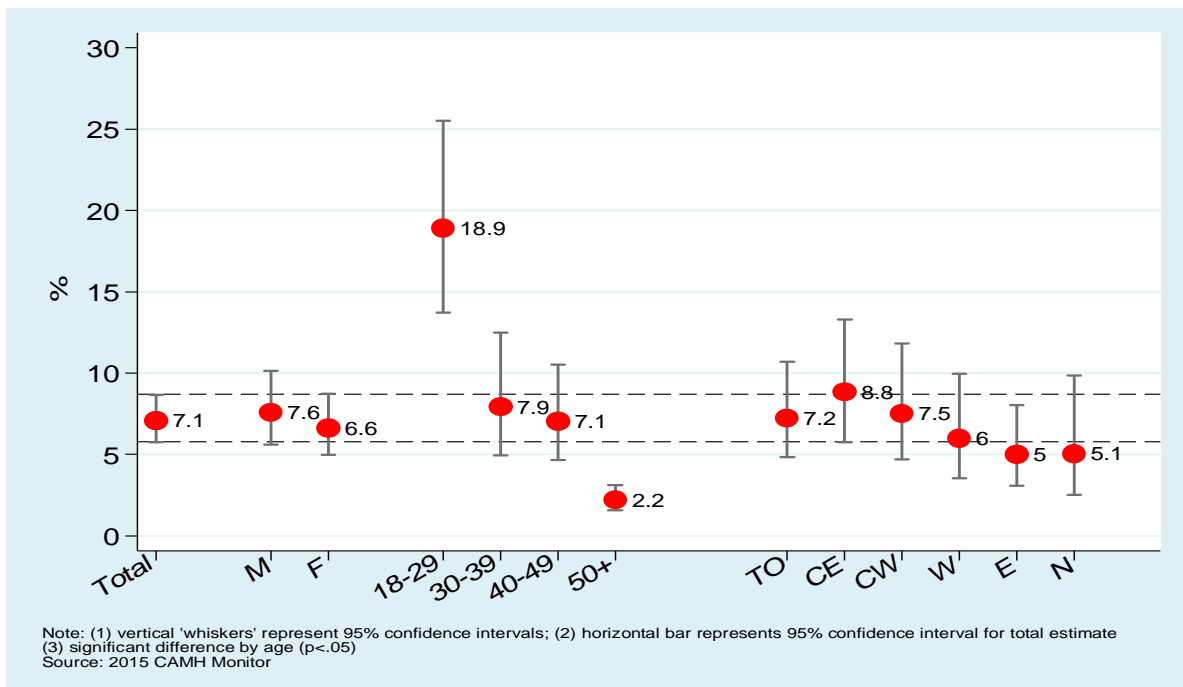


Figure 9.4.2
Percentage Reporting Moderate to Severe Problematic Use of Electronic Devices (3+) in the Past Year by Sex, Age, and Region, Ontarians Aged 18+, 2015 (N=3002)



10. REGIONAL LHIN OVERVIEW

Substance Use and Health Indicators among Ontario LHINs

This chapter provides estimates of substance use and health indicators according to Ontario’s Local Health Integration Networks (LHINs).

In 2006, the province of Ontario designated 14 geographic areas as LHINs, each to function as health systems that plan, integrate and fund local health services (see <http://www.lhins.on.ca>).

The 14 LHIN regions are as follows:

- Erie St. Clair
 - South West
 - Waterloo Wellington
 - Hamilton Niagara Haldimand Brant
 - Central West
 - Mississauga Halton
 - Toronto Central
 - Central
 - Central East
 - South East
 - Champlain
 - North Simcoe Muskoka
 - North East and,
 - North West.
- (see map at the end of the chapter).

The respondents were assigned to LHINs according to the first three digits of their postal code (forward sortation area). Data from the **2012, 2013, 2014** and **2015** surveys were merged in order to obtain sufficient sample sizes per LHIN. The present analyses are based on a total sample size of **13,096** (2,822 in 2012, 2,837 in 2013, 2,822 in 2014, and 4,615 in 2015). About 9% of

respondents did not provide a postal code and therefore were excluded from the analyses. All survey estimates were weighted, and variance and statistical tests were corrected for the sampling design.⁵⁴

Combined 2012–2015 Data

..... Tables 10.1- 10.3

Almost all LHINs (13 of 14) differ from the province on at least one measure. Still, LHIN estimates relative to provincial estimates are not dramatically different.

Five LHINs display **below average** estimates for multiple measures. Respondents from the **South West** reported the lowest estimates for past year cannabis use and lower than average estimates for lifetime cocaine use and fair or poor overall health. Respondents from **Waterloo Wellington** reported lower than average estimates for current and daily smoking. **Central West** respondents reported the lowest estimates for five measures: past year drinking, hazardous or harmful drinking, current smoking, lifetime cannabis and lifetime cocaine use. Respondents from **Toronto Central** reported the lowest estimates for daily smoking and lower than average estimates for current smoking, fair or poor overall health and lifetime traumatic brain injury (TBI). Respondents from the **Central LHIN** reported the lowest estimates

⁵⁴ For each outcome in Table 10.1, a design-based logit regression was estimated in which the LHIN predictor variable (effect coded – i.e., deviation contrasts – to the provincial average) was regressed on the binary response variable. This strategy compares the estimates for respondents in a given LHIN to the provincial average (specifically, the grand mean, the mean of all the LHIN regions).

for daily drinking and lifetime traumatic brain injury, and below average estimates for past year drinking, hazardous or harmful drinking, daily smoking and lifetime cannabis use.

Six LHINs displayed **above average** estimates for multiple measures. Respondents from **Hamilton Niagara Haldimand Brant** had higher than average estimates for current and daily smoking and any use of prescription opioids. **Toronto Central** respondents had the highest estimates of lifetime cannabis use and lifetime cocaine use and higher than average estimates for past year use of antidepressant medication. **South East** respondents had the highest estimates of daily drinking and fair or poor overall health, and higher than average estimates for past year use of antidepressant medication. Respondents from **North Simcoe Muskoka** had higher than average estimates for current and daily smoking and for lifetime cannabis use. **North East** respondents had the highest estimates for current and daily smoking, self-rated fair or poor overall health and past year use of antidepressant medication, and higher than average estimates for daily drinking and lifetime TBI. **North West** respondents had the highest estimates for driving after drinking and lifetime TBI, and higher than average estimates for self-rated fair or poor overall health.

Table 10.1 presents estimates for substance use and health indicators for each LHIN.

Compared to the **provincial estimate**:

- **Past year drinking** was significantly higher in Champlain, and significantly lower in the Central West and Central LHINs.
- **Past year daily drinking** was significantly higher in the South East and North East LHIN, and significantly lower in the Central LHIN.

- The percentage reporting **hazardous or harmful drinking** in the past year was significantly lower in the Central West and Central LHINs.
- Current **cigarette smoking** was significantly higher in the Hamilton Niagara Haldimand Brant, North Simcoe Muskoka, and the North East LHINs and significantly lower in Waterloo Wellington, Central West and Toronto Central.
- Past year **daily cigarette smoking** was significantly higher in Hamilton Niagara Haldimand Brant, North Simcoe Muskoka, and the North East and significantly lower in Waterloo Wellington, Toronto Central and Central LHINs.
- **Lifetime cannabis** use was significantly higher in Toronto Central and North Simcoe Muskoka and significantly lower in the Central West and the Central LHINs.
- **Past year cannabis** use was significantly higher in Mississauga Halton, and significantly lower in the South West.
- **Lifetime cocaine** use was significantly higher in the Toronto Central LHIN, and significantly lower in the South West and Central West.
- Past year use of **any prescription opioids** was significantly higher in Erie St. Clair and Hamilton Niagara Haldimand Brant.
- Past year **driving after drinking** was significantly higher in the North West LHIN.
- The percentage reporting **self-rated fair or poor health in general** was significantly higher in the South East, North East and North West LHINs, and

- significantly lower in Toronto.
- The percentage reporting **lifetime TBI** was significantly higher in the North East and North West, and significantly lower in Erie St. Clair, Toronto Central and Central LHINs.
 - The percentage reporting **self-rated fair or poor mental health in general** was significantly lower in the South West LHIN.
 - The percentage reporting **past year use of antidepressant medication** was significantly higher in Toronto Central, the South East and North East LHINs, and significantly lower in Mississauga Halton.

Tables 10.2 and 10.3 summarize which LHINs are significantly different from the provincial average on various substance use and health related indicators.

Table 10.1: Percentage of Ontario Adults (18+) Reporting *Major Substance Use and Health* Indicators by Ontario LHINs, CAMH Monitor, Combined 4-Year Data, 2012–2015

	Erie St.Clair	South West	Waterloo Wellington	Hamilton Niagara Haldimand Brant	Central West	Mississauga Halton	Toronto Central	Central	Central East	South East	Champlain	North Simcoe Muskoka	North East	North West	ONT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Total N =	798	1390	706	1207	366	615	1066	950	1195	708	1543	539	1351	662	13096
Alcohol															
Alcohol Use (past 12m)	83.8 (80.6, 86.6)	80.1 (77.5, 82.5)	81.7 (78.1, 84.7)	82.7 (80.2, 85.0)	70.2↓ (64.3, 75.6)	83.0 (79.2, 86.3)	79.4 (76.0, 82.4)	76.5↓ (73.0, 79.7)	78.3 (75.4, 80.9)	80.0 (76.4, 83.2)	84.3↑ (82.0, 86.3)	83.1 (78.4, 86.9)	81.8 (79.3, 84.0)	83.0 (79.6, 86.0)	80.0 (79.4, 81.2)
Daily Drinking (past 12m)	6.6 (5.0, 8.7)	7.9 (6.5, 9.6)	5.8 (4.3, 7.8)	6.8 (5.5, 8.5)	†5.3 (3.2, 8.6)	6.1 (4.4, 8.6)	8.3 (6.7, 10.2)	4.7↓ (3.6, 6.2)	6.2 (4.9, 7.9)	9.2↑ (7.2, 11.8)	7.0 (5.8, 8.4)	†6.6 (4.7, 9.1)	8.5↑ (7.0, 10.3)	6.7 (4.9, 9.0)	6.7 (6.3, 7.2)
Binge Drinking Weekly (past 12m)	8.4 (6.2, 11.3)	6.7 (5.1, 8.8)	†5.6 (3.7, 8.4)	7.5 (5.7, 9.8)	†4.0 (2.1, 7.5)	8.2 (5.4, 12.3)	6.6 (4.8, 9.0)	†6.1 (4.4, 8.5)	7.7 (5.9, 10.0)	†6.9 (4.8, 9.7)	7.0 (5.5, 9.1)	†8.2 (5.5, 12.0)	6.4 (5.0, 8.2)	9.3 (6.8, 12.7)	7.0 (6.4, 7.6)
Hazardous/Harmful Drinking (AUDIT 8+) (past 12m)	14.8 (11.9, 18.3)	11.9 (9.9, 14.3)	13.4 (10.3, 17.3)	12.2 (9.9, 15.1)	†9.0↓ (5.7, 13.8)	14.2 (10.7, 18.7)	16.3 (13.5, 19.5)	10.4↓ (8.0, 13.5)	15.4 (12.8, 18.4)	13.9 (10.8, 17.7)	15.3 (13.0, 17.9)	16.5 (12.4, 21.5)	15.3 (12.9, 18.0)	16.1 (12.7, 20.3)	13.7 (13.2, 15.0)
Tobacco															
Current Smoking (past 30 days)	14.9 (12.2, 18.2)	15.1 (12.9, 17.6)	11.4↓ (8.9, 14.6)	18.1↑ (15.6, 21.0)	†11.1↓ (7.8, 15.7)	14.2 (10.8, 18.6)	12.7↓ (10.5, 15.4)	13.0 (10.5, 16.1)	15.4 (12.9, 18.2)	16.7 (13.7, 20.3)	14.0 (12.0, 16.3)	20.4↑ (16.1, 25.6)	21.9↑ (19.4, 24.6)	18.6 (15.1, 22.6)	15.0 (14.2, 15.9)
Daily Smoking	12.2 (9.8, 15.0)	12.1 (10.1, 14.5)	†9.1↓ (6.9, 12.0)	14.5↑ (12.2, 17.1)	†9.3 (6.2, 13.6)	11.1 (8.0, 15.1)	8.7↓ (6.9, 10.8)	9.0↓ (7.0, 11.5)	11.4 (9.3, 13.8)	13.5 (10.7, 16.9)	10.6 (8.9, 12.6)	17.2↑ (13.1, 22.3)	17.9↑ (15.6, 20.4)	14.3 (11.2, 18.0)	11.6 (10.9, 12.3)
Other Drugs															
Cannabis Use (lifetime)	43.5 (39.4, 47.7)	42.2 (39.0, 45.3)	43.5 (39.1, 48.0)	45.3 (41.9, 48.8)	31.8↓ (26.1, 38.2)	44.6 (39.8, 49.6)	57.8↑ (54.1, 61.5)	39.8↓ (36.0, 43.8)	43.2 (39.8, 46.7)	42.6 (38.3, 47.0)	46.8 (43.9, 49.8)	51.9↑ (46.4, 57.3)	47.0 (43.9, 50.1)	48.1 (43.5, 52.7)	45.0 (43.8, 46.1)
Cannabis Use (past 12m)	11.9 (9.2, 15.3)	10.3↓ (8.4, 12.6)	15.2 (11.8, 19.2)	15.6 (12.9, 18.7)	†13.8 (9.5, 19.5)	19.4↑ (15.3, 24.3)	16.4 (13.6, 19.6)	13.6 (10.8, 17.1)	13.9 (11.4, 16.8)	12.6 (9.6, 16.4)	12.1 (10.0, 14.6)	17.0 (12.8, 22.1)	13.2 (10.9, 15.7)	12.7 (9.6, 16.6)	14.2 (13.3, 15.2)

	Erie St.Clair	South West	Waterloo Wellington	Hamilton Niagara Haldimand Brant	Central West	Mississauga Halton	Toronto Central	Central	Central East	South East	Champlain	North Simcoe Muskoka	North East	North West	ONT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Total N =	798	1390	706	1207	366	615	1066	950	1195	708	1543	539	1351	662	13096
Cocaine (lifetime)	8.0 (5.8, 10.8)	5.5↓ (4.1, 7.3)	9.4 (6.7, 13.0)	8.6 (6.6, 11.2)	†3.9↓ (1.9, 7.7)	†9.2 (6.3, 13.1)	13.8↑ (11.4, 16.7)	†7.5 (5.4, 10.5)	9.2 (7.1, 11.7)	†6.8 (4.7, 9.8)	9.0 (7.2, 11.1)	†7.9 (5.0, 12.1)	8.9 (7.0, 11.2)	10.2 (7.3, 13.9)	8.6 (7.9, 9.4)
Prescription Opioids (any use; past 12m)	27.3↑ (23.2, 31.8)	21.4 (18.6, 24.5)	20.5 (16.6, 25.0)	26.5↑ (23.2, 30.0)	19.3 (14.0, 25.9)	23.1 (18.7, 28.3)	20.7 (17.3, 24.6)	19.4 (16.2, 23.1)	21.8 (18.8, 25.2)	21.7 (17.9, 26.2)	20.8 (18.2, 23.7)	21.1 (16.2, 26.9)	24.0 (21.1, 27.3)	26.5 (21.5, 32.1)	22.1 (21.1, 23.2)
Prescription Opioids (nonmedical use; past 12m)	†3.1 (1.8, 5.3)	†2.1 (1.3, 3.5)	†4.2 (2.3, 7.5)	†4.4 (3.0, 6.4)	†3.8 (1.6, 8.5)	†2.6 (1.2, 5.6)	†2.6 (1.4, 4.7)	†2.2 (1.3, 3.8)	†2.7 (1.5, 4.8)	†2.9 (1.4, 5.9)	†2.4 (1.5, 4.0)	†5.2 (2.6, 10.2)	†4.0 (2.6, 5.9)	†3.3 (1.7, 6.4)	3.1 (2.6, 3.6)
Driving															
Drinking & Driving (past 12m)	†5.3 (3.2, 8.6)	†5.1 (3.4, 7.5)	†8.1 (5.0, 12.8)	†5.2 (3.3, 7.9)	† †	†2.9 (1.5, 5.5)	†3.4 (2.1, 5.5)	†4.7 (2.8, 7.9)	†4.5 (2.8, 7.0)	†4.2 (2.2, 8.0)	†7.0 (5.0, 9.9)	†7.4 (3.9, 13.6)	†5.1 (3.4, 7.6)	†9.2↑ (5.9, 14.1)	5.2 (4.5, 5.9)
Cannabis & Driving (past 12m)	† †	† †	† †	†2.6 (1.3, 5.1)	† †	† †	† †	† †	† †	† †	†2.2 (1.1, 4.6)	† †	†1.6 (1.0, 3.4)	† †	2.0 (1.5, 2.5)
Overall Health															
Fair/Poor Overall Health (in general)	11.0 (8.7, 13.7)	10.3 (8.7, 12.1)	9.0 (6.9, 11.6)	9.1 (7.5, 11.0)	†7.5 (4.9, 11.5)	9.0 (6.8, 11.9)	8.0↓ (6.2, 10.2)	9.3 (7.4, 11.7)	11.1 (9.2, 13.4)	14.0↑ (11.4, 17.2)	9.4 (8.0, 11.0)	9.8 (7.3, 12.9)	14.0↑ (12.2, 16.2)	13.8↑ (11.0, 17.2)	9.9 (9.3, 10.6)
TBI (lifetime)	12.3↓ (9.6, 15.6)	16.0 (13.5, 18.9)	18.4 (14.6, 23.0)	16.5 (13.7, 19.6)	†12.6 (8.3, 18.7)	16.6 (12.3, 22.0)	12.7↓ (10.2, 15.8)	12.0↓ (9.4, 15.3)	17.3 (14.4, 20.6)	18.8 (15.1, 23.1)	18.5 (15.9, 21.5)	16.3 (11.8, 22.1)	19.2↑ (16.4, 22.4)	22.8↑ (18.1, 28.2)	15.9 (15.0, 16.9)
Mental Health															
Fair/Poor Overall Mental Health (in general)	†6.5 (4.6, 9.0)	5.1↓ (3.9, 6.5)	†5.2 (3.6, 7.1)	7.7 (6.0, 9.8)	†8.2 (5.2, 12.8)	†5.0 (3.2, 7.6)	6.9 (5.1, 9.2)	†6.5 (4.7, 9.0)	6.6 (5.0, 8.5)	8.6 (6.3, 11.7)	6.8 (5.5, 8.5)	†6.5 (4.3, 9.8)	7.4 (6.0, 9.0)	†5.6 (3.9, 8.0)	6.6 (6.0, 7.2)
Antianxiety Medication (past 12 months)	10.2 (7.7, 13.6)	10.1 (8.2, 12.4)	†7.9 (5.6, 11.0)	11.0 (8.9, 13.6)	†9.7 (5.6, 16.1)	†7.7 (5.5, 10.9)	9.7 (7.6, 12.4)	8.9 (6.6, 11.9)	11.6 (9.2, 14.6)	10.7 (7.9, 14.5)	10.5 (8.5, 12.9)	†9.3 (6.4, 14.1)	10.9 (8.9, 13.4)	10.2 (7.4, 13.9)	10.0 (9.2, 10.8)

	Erie St.Clair	South West	Waterloo Wellington	Hamilton Niagara Haldimand Brant	Central West	Mississauga Halton	Toronto Central	Central	Central East	South East	Champlain	North Simcoe Muskoka	North East	North West	ONT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Total N =	798	1390	706	1207	366	615	1066	950	1195	708	1543	539	1351	662	13096
Antidepressant Medication (past 12 months)	6.3 (4.6, 8.7)	7.2 (5.6, 9.2)	9.4 (6.8, 12.9)	9.7 (7.7, 12.1)	† 5.5 (2.7, 11.0)	<u>†5.2↓</u> (3.5, 7.7)	<u>10.5↑</u> (8.2, 13.4)	† 7.2 (5.1, 10.0)	7.9 (6.0, 10.4)	<u>10.7↑</u> (8.0, 14.2)	9.5 (7.6, 11.9)	† 7.9 (5.1, 12.0)	<u>11.1↑</u> (9.0, 13.5)	† 6.9 (4.9, 9.8)	8.3 (7.6, 9.0)
Suicidal Ideation (past 12 months)	† †	† 1.6 (1.0, 2.8)	† †	† 2.5 (1.4, 4.5)	† †	† †	† 2.9 (1.4, 5.7)	† †	† 2.8 (1.5, 5.1)	† 3.3 (1.7, 6.4)	† 3.1 (1.9, 4.8)	† †	† 1.5 (1.0, 2.5)	† †	2.3 (1.9, 4.7)

Notes: (1) entries in brackets are 95% confidence intervals; (2) underlined entries are significantly different from Ontario estimate - higher (↑) or lower (↓); (3) Driving questions were asked only of random subsample of respondents with a valid driver's licence (N=6,443); (4) † Estimate suppressed or unstable.

Legend: **Alcohol Use** (percentage consuming alcohol in the past 12 months); **Daily Drinking** (percentage consuming alcohol daily in the past 12 months); **Binge Drinking Weekly** (percentage consuming five or more drinks on a single occasion weekly in the past 12 months); **Hazardous/Harmful Drinking** (percentage reporting hazardous or harmful drinking based on the AUDIT 8+); **Current Smoking** (percentage reporting smoking cigarettes in the past 30 days); **Daily Smoking** (percentage smoking cigarettes daily); **Cannabis Use** (percentage reporting using in lifetime and past year); **Cocaine** (percentage using in lifetime); **Any Use of Prescription Opioids** (percentage using in the past 12 months with or without a doctor's prescription); **Nonmedical Use of Prescription Opioids** (percentage using in the past 12 months without a doctor's prescription); **Drinking & Driving** (percentage driving after drinking - among licensed drivers); **Cannabis & Driving** (percentage driving after using cannabis- among licensed drivers); **Poor Health** (percentage reporting fair or poor health in general); **Lifetime TBI** (percentage reporting one or more traumatic brain injuries in lifetime); **Poor Mental Health** (percentage reporting fair or poor mental health in general); **Antianxiety Medication** (percentage using in the past 12 months with a doctor's prescription); **Antidepressant Medication** (percentage using in the past 12 months with a doctor's prescription); **Suicidal Ideation** (percent reporting seriously contemplating suicide in the past 12 months).

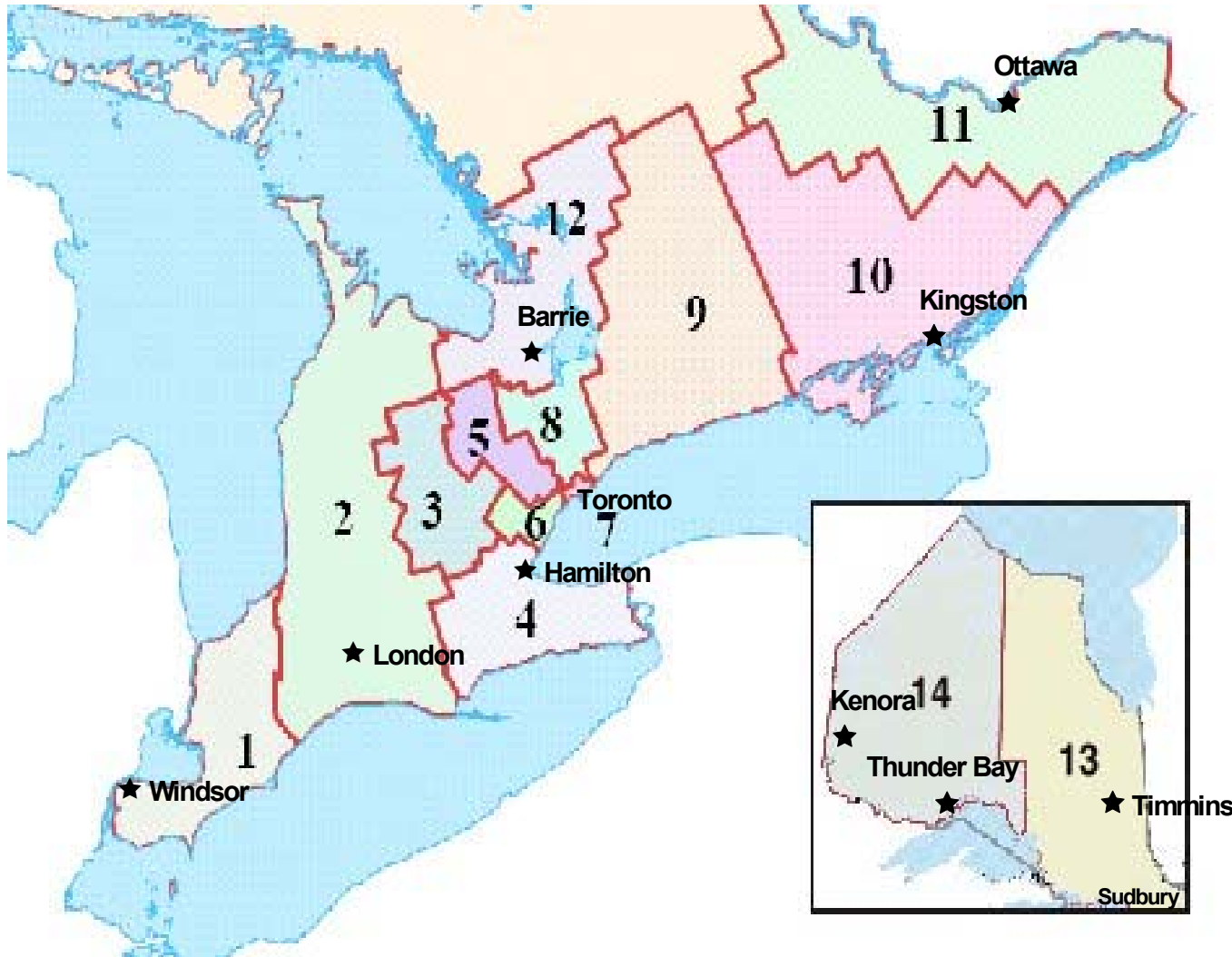
Table 10.2: Summary of LHIN Substance Use and Health Indicators Significantly **Lower** than the Province, Ontario Adults (18+), 2012–2015 CAMH Monitor

LHIN	Significantly Lower than Province
Erie St.Clair	<ul style="list-style-type: none"> • Traumatic Brain Injury (lifetime) (12.3% vs. 15.9%)
South West	<ul style="list-style-type: none"> • Past Year Cannabis Use (10.3% vs. 14.2%) • Cocaine Use Lifetime (5.5% vs. 8.6%) • Fair/Poor Mental Health (5.1 % vs. 6.6%)
Waterloo Wellington	<ul style="list-style-type: none"> • Current Smoking (11.4% vs. 15.0%) • Daily Smoking (9.1% vs. 11.6%)
Central West	<ul style="list-style-type: none"> • Past Year Alcohol Use (70.2% vs. 80.0%) • Hazardous/Harmful Drinking (9.0% vs. 13.7%) • Current Smoking (11.1% vs. 15.0%) • Cannabis Use Lifetime (31.8% vs. 45.0%) • Cocaine Use Lifetime (3.9% vs. 8.6%)
Mississauga Halton	<ul style="list-style-type: none"> • Use of Antidepressant Medication (5.2% vs. 8.3%)
Toronto Central	<ul style="list-style-type: none"> • Current Smoking (12.7% vs. 15.0%) • Daily Smoking (8.7% vs. 11.6%) • Fair/Poor Health (8.0% vs. 9.9%) • Traumatic Brain Injury (lifetime) (12.0% vs. 15.9%)
Central	<ul style="list-style-type: none"> • Past Year Alcohol Use (76.5% vs. 80.0%) • Daily Drinking (4.7% vs. 6.7%) • Hazardous/Harmful Drinking (10.4% vs. 13.7%) • Daily Smoking (9.0% vs. 11.6%) • Cannabis Use Lifetime (39.8% vs. 45.0%) • Traumatic Brain Injury (lifetime) (12.7% vs. 15.9%)

Table 10.3: Summary of LHIN Substance Use and Health Indicators Significantly **Higher** than the Province, Ontario Adults (18+), 2012–2015 CAMH Monitor

LHIN	Significantly Higher than Province
Erie St.Clair	<ul style="list-style-type: none"> • Any Use of Prescription Opioids (27.3% vs. 22.1%)
Hamilton Niagara Haldimand Brant	<ul style="list-style-type: none"> • Current Smoking (18.1% vs. 15.0%) • Daily Smoking (14.5% vs. 11.6%) • Any Use of Prescription Opioids (26.5% vs. 22.1%)
Mississauga Halton	<ul style="list-style-type: none"> • Cannabis Use Past Year (19.4% vs. 14.2%)
Toronto Central	<ul style="list-style-type: none"> • Cannabis Use Lifetime (57.8% vs. 45.0%) • Cocaine Use Lifetime (13.8% vs. 8.6%) • Use of Antidepressant Medication (10.5% vs. 8.3%)
South East	<ul style="list-style-type: none"> • Daily Drinking (9.2% vs. 6.7%) • Fair/Poor Overall Health (14.0 % vs. 9.9%) • Use of Antidepressant Medication (10.7% vs. 8.3%)
Champlain	<ul style="list-style-type: none"> • Past Year Drinking (84.3% vs. 80.0%)
North Simcoe Muskoka	<ul style="list-style-type: none"> • Current Smoking (20.4% vs. 15.0%) • Daily Smoking (17.2% vs. 11.6%) • Cannabis Use Lifetime (51.9% vs. 45.0%)
North East	<ul style="list-style-type: none"> • Daily Drinking (8.5% vs. 6.7%) • Current Smoking (21.9% vs. 15.0%) • Daily Smoking (17.9 % vs. 11.6%) • Fair/Poor Overall Health (14.0 % vs. 9.9%) • Traumatic Brain Injury (lifetime) (19.2% vs. 15.9%) • Use of Antidepressant Medication (11.1% vs. 8.3%)
North West	<ul style="list-style-type: none"> • Drinking and Driving (9.2% vs. 5.2%) • Fair/Poor Overall Health (13.8 % vs. 9.9%) • Traumatic Brain Injury (lifetime) (22.8% vs. 15.9%)

14 LHINs of Ontario



- 1 Erie St.Clair
- 2 South West
- 3 Waterloo Wellington
- 4 Hamilton Niagara Haldimand Brant
- 5 Central West
- 6 Mississauga Halton
- 7 Toronto Central
- 8 Central
- 9 Central East
- 10 South East
- 11 Champlain
- 12 North Simcoe Muskoka
- 13 North East
- 14 North West

11. SUMMARY AND DISCUSSION

The Public Health Approach towards Substance Use and Mental Health

Timely and relevant data on mental health issues and alcohol and other drug use are necessary prerequisites for effective health and social policy and programming, and for the monitoring and evaluation of established health objective targets.

Designating substance use and mental health harms, impairments and disabilities as matters of public health enables health professionals from various disciplines to collaborate on prevention efforts. Preventing harms from occurring, or minimizing the risks, is preferable to treating them.

The public health approach involves the following:

- identifying the extent of mental health concerns, alcohol and other drug use, and related impairments and disabilities among the general population;
- identifying timing and pattern during the life course;
- tracking trends in the prevalence, incidence and harms with time;
- identifying risk and protective factors;
- designing preventive programs and active health promotion programs; and
- disseminating findings to stakeholders and the general public.

Data Limitations

Before discussing our findings, we should acknowledge the limitations of this study. Although sample surveys are the most feasible means to establish and monitor substance use and mental health problems in the population, those interpreting *CAMH Monitor* (CM) data should consider the following.

Telephone Households. The *CAMH Monitor* is based on a target population of telephone numbers whose subscribers reside in Ontario households. However, based on the most recent *Residential Telephone Service Survey* (RTSS), Statistics Canada estimated that 21% of households had a cell-phone only and 3% used cable telephone only (Statistics Canada, 2014).⁵⁵ As well, by design, the target sample of the *CAMH Monitor* excludes several high risk groups (e.g. the homeless, adults residing in prisons, hospitals, etc.) Finally, telephone surveys often over-represent those with higher education and thus under-represent those with lower education (Trewin & Lee, 1988).

Interview Barriers. Some interviews could not be completed because respondents could not adequately converse in English, or were too ill or aged.

⁵⁵ This concern regarding coverage and potential bias was reduced in 2000 when the selection was revised to a list-assisted RDD sampling frame, which included the sampling of wireless cell phones and unlisted numbers.

Self-Reports. Our data are based on self-reports, which cannot be readily verified. However, reviews of self-report methods for alcohol and drug use suggest that although surveys tend to underestimate true usage, they are still regarded as the best available means to estimate such individual behaviours in the population (Harrison et al., 1993; Turner et al., 1992). Moreover, although these biases influence alcohol and drug use estimates at a single point in time, they should have less impact on estimating trends as long as under-reporting remains constant. If the latter holds true, estimates of change should remain unbiased and valid (Cochran, 1977).

Repeated Cross-Sectional Survey. The *CAMH Monitor*, a repeated cross-sectional survey, can assess only specific types of change. Because we do not survey the same individuals at different times, we cannot identify *causes* of individual change or the *temporal ordering* of effects (e.g., whether unemployment causes drug use or whether drug use causes unemployment).

The findings in such a large study are numerous and complex and some findings are more reliable than others. For example, random variation causes us to be cautious in interpreting change between two points in time. Therefore, we place greater emphasis on change occurring over multiple survey time points.

Despite these limitations, monitoring studies excel at identifying the extent of and change in various health behaviours and measures in the general population. Surveillance studies identify which groups of the population are at the greatest risk for impaired health measures; identify areas requiring more research; and identify trends that may

have implications for future service and programming needs.

2015 Demographic Correlates

In Tables 11.1-11.3, we summarize statistically significant associations among various respondent characteristics and substance use and other health indicators. Given substantial age, sex and other social and socio-economic differences that occur in illness and health generally (D'Arcy, 1998), it should not be surprising that many of these same factors are associated with alcohol use, other drug use and mental health. As indicated in these tables, **sex, age, marital status, education** and **income** showed important associations with rates of substance use and mental health indicators.

Sex was significantly associated with 23 of the 35 measures presented. Men were more likely than women to report alcohol, tobacco, other drug use, driving and substance use, gambling and playing videogames. Women were more likely to report psychological distress, use of antianxiety and antidepressant medication, and using email and social media.

Age of respondent was significantly associated with 27 of the 35 measures. In most cases, substance use or mental health concerns declined with age or were highest among 18 to 29 year olds. With the exception of daily drinking and poor health (which increased with age), substance use and mental health concerns tended to decline with age. The most common pattern occurred for 11 indicators (weekly binge drinking, drinking hazardously or harmfully, symptoms of alcohol dependence, past year e-cigarette use, past year cannabis use, cannabis use problems, past year cocaine use, cannabis use and driving,

psychological distress, suicidal ideation, and problematic use of electronic devices) and showed the highest levels among young adults aged 18 to 29.

Marital status was associated with *14 of the 35* measures. In all cases, substance use or mental health concerns were higher among never married or previously married (divorced or widowed) respondents. Those previously married reported higher estimates of daily smoking, self-rated poor health, poor mental health and gambling. Those never married reported higher estimates of weekly binge drinking, hazardous drinking, past year cannabis use, past year non-medical prescription opioid use, and of using email and social media or playing video games.

Education level was significantly associated with *17 of the 35* measures. With the exception of past year drinking and daily drinking (which increased with education), the most common education-related pattern noted was that substance use or mental health concerns declined with increasing education. Cigarette smoking (current and daily) and any use of prescription opioids were highest among those who did not graduate from high school. Other indicators (lifetime cocaine use and self-rated poor health) decreased with education, and two indicators (binge drinking and self-rated poor mental health) were lowest among those who graduated university.

Region was significantly associated with *9 of the 35* measures. With the exception of frequent physically unhealthy days (which was highest in Toronto), the most common regional pattern noted was that estimates for substance use and other health indicators were lower among Toronto residents. There are also some other regional contrasts worthy of mention. Compared

to the provincial estimate, past year drinking, daily smoking and gambling were higher in the North. Binge drinking, current cigarette smoking and texting and driving were above the provincial estimate in the Central East.

Household income was associated with *17 of 35* measures. The general pattern showed that the rates of past year drinking, daily drinking, hazardous drinking, and texting and driving tended to increase with increasing income or were highest among those with higher incomes. However, rates of prescription opioid pain reliever use, psychological distress, poor mental health, use of antianxiety and antidepressant medication, poor self-rated health, and frequent physically unhealthy days decreased with increasing incomes or were lowest among those with the higher incomes.

Trends, 1996–2015

As seen in Table 11.4, changes between 2014 and 2015 were not dramatic.

2014–2015

Only three indicators show evidence of total sample increases. Hazardous or harmful drinking (as defined by the AUDIT) increased significantly between 2014 and 2015, from 12.0% to 14.6%, especially among those aged 65 and older. Nonmedical use of prescription opioid pain relievers increased significantly, from 2.1% in 2014 to 4.1% in 2015, especially among women and older adults. And third, there was a significant increase overall in reporting frequent mental distress days in the past 30 days. Between 2014 and 2015, it increased from 6.0% to 9.7%, especially among men.

In the longer term, there are several findings that are worthy of attention.

1996–2015

Alcohol

First, some important changes were seen in **alcohol use**. These changes involve primarily binge drinking, daily drinking, the average number of drinks consumed per week, and exceeding the low risk drinking guidelines.

Between 2006 and 2015, **binge drinking** declined from 12.3% in 2006 to 7.5% in 2015 for the total sample and from 15.9% to 9.3% among drinkers. This decline was evident for all demographic factors examined. Such a decline in binge drinking has public health significance because this pattern of drinking has been strongly linked to both intentional and unintentional injury (Rehm et al., 2010).

Another overall decline was found for exceeding the **low risk drinking** guidelines (LRDG). The percent of Ontarians exceeding the LRDG declined significantly from 21.5% in 2005 to 14.2% in 2014, and this decline was evident especially among men and 18 to 29 year olds.

A significant increase occurred for **daily drinking** and the **average number of drinks** consumed per week. In the past decade, there was a significant increase in daily drinking among drinkers, from 5.3% in 2002 to 8.8% in 2015. Significant increases were found among both male drinkers (from 7.1% in 2005 to 11.8% in 2015), and female drinkers (from a low of 2.6% in 2001 to 5.8% in 2015).

We found a significant increase in the average **number of drinks** consumed weekly between 1996 and 2015 (from 3.3 in 1996 to 4.3 in 2015). This increase was evident among both men and women.

The number of drinks consumed among male drinkers increased from 4.8 drinks in 1996 to 5.9 drinks in 2015, and among female drinkers, from 1.9 drinks in 1996 to 2.8 drinks in 2015.

Tobacco

Another important change was the decline in **current smoking**. Although prevalence of current cigarette smoking in 2015 (13.2%) was not significantly different from 2014 (15.0%), there was a significant decline in current smoking between 1996 and 2015.

Current **cigarette smoking** declined significantly from 26.7% in 1996 to 13.2% in 2015. There were also significant declines since 1996 for all sex, age, region, marital status and education subgroups. Further, **daily smoking** declined by more than half, from 23.0% in 1996 to 10.0% in 2015, and the 2015 estimates are the lowest on record.

However, a significant increase was found for **electronic cigarette** use, from 6.9% in 2013 to 10.9% in 2015.

Cannabis

A significant change was evident for past year **cannabis use** over the longer term. Past year cannabis use **increased** steadily from 8.7% in 1996 to 14.5% in 2015, but the overall trend has been generally stable since 2005. This long term increase was evident among both men and women, and for all region, marital status and education subgroups.

Significant increases in cannabis use were found for all age groups, but especially among 18 to 29 year olds (from 18.3% in 1996 to 37.9% in 2015).

Another important change related to cannabis use has been the **aging** of cannabis users. Between 1996 and 2015, the percentage of cannabis users aged 50 years and older increased from 2% to 23%.

Other Drugs

Although past year use of **cocaine** remained low (under 2.2%) we found a significant increase from 0.8% in 1996 to 1.6% in 2015 and this increase was evident especially among men and 18 to 29 year olds (from 1.1% in 1996 to 5.9% in 2015).

Another measure worthy of attention is past year use of **prescription opioid** pain relievers. Overall, there was a significant decline in any past year use of any prescription opioids between 2010 and 2015 (from 26.6% to 22.6%).

Past year **nonmedical use** of prescription opioids displayed a significant decline, from 7.7% in 2010 to 2.1% in 2014, but increased significantly to 4.1% in 2015. However, these trends differed among age groups. The estimates for the younger age group (18 to 29 year olds) were stable (varying between 7.0% and 5.1%) but declined among the older age groups.

Driving

Between 1996 and 2015, the prevalence of **driving after drinking** among drivers has displayed a steady linear decline from 13.1% to 4.9%. The most striking decline was seen among male drivers (from 21.2% in 1996 to 9.2% in 2015) and among young adult drivers aged 18 to 29 (from 20.1% in 1996 to 6.7% in 2015).

Driving after cannabis use increased significantly from 1.5% in 2010 to 2.9% in 2015. Significant linear increases were found among men (from 1.9% in 2012 to 5.6% in 2015), and among those

aged 18 to 29 (from 2.8% in 2009 to 7.5% in 2015).

Mental Health

Some significant short-term changes were seen in **mental health indicators**. Between 2003 and 2015, there was a significant overall increase in **self-rated poor/fair mental health** (from 4.7% to 6.7%). These increases were especially evident among women (from 4.5% in 2003 to 7.3% in 2015) and among 18 to 29 year olds (from 2.9% in 2009 to 8.5% in 2015).

There was also a significant increase overall in reporting **frequent mental distress days** in the past 30 days, from 5.4% in 2003 to 9.7% in 2015. This increase was evident among both men and women.

Since 1997, use of **antianxiety medication** among the total sample has displayed a significant linear increase from 4.5% in 1999 to 10.3% in 2015, especially among women (from 5.6% to 12.7%) and among 18 to 29 year olds (from 1.7% to 10.7%).

Use of **antidepressants** also increased significantly, from 3.6% in 1999 to 8.7% in 2015. Significant subgroup increases were also evident for all sex, region, marital status, and education groups. Increases were strongest among the youngest respondents. Between 1997 and 2015, use of antidepressants increased four-fold among 18 to 29 year olds from 2.0% to 8.5%.

Gambling

The past year prevalence of estimates for lottery, Sport Select, bingo, horse racing, and online gambling were **significantly lower** in 2015 compared to the last estimate (2005 or 2003) and all gambling activities have shown a significant downward trend between 2000 and 2015.

Overall, the prevalence of **any gambling** declined significantly from 80.3% in 2000 to 68.1% in 2015. Significant subgroup declines were also evident for sex, age, region, marital status and education.

The prevalence of **casino** gambling declined significantly overall from 33.7% in 2000 to 25.4% in 2015, and **online gambling** declined from 6.6% in 2003 to 3.8% in 2015. Significant subgroup declines were also evident for most subgroups analysed.

However, although the prevalence of gambling declined, the overall prevalence of **problem gambling** in 2015 (1.7%) was not significantly different from 2005 (1.9%), the first year of monitoring.

Long-Term Trends, 1977–2015

Long-term changes in substance use are particularly noteworthy in two areas.

The first area is notable long-term trends reflecting **increases** in past year **cannabis** use and the **aging** of cannabis users. Past year cannabis use increased significantly, from 8.1% in 1977 to 14.5% in 2015.

In 1977, cannabis use was the domain of young adults, with only one-in-seven users aged 30 to 49 years. Current estimates, however, show that, on average, **cannabis** users in 2015 were older than their counterparts in 1977 (average age of 34.9 years vs. 25.6 years, respectively). In 1977, 82% of cannabis users were aged 18-29 compared to 51% in 2015. In contrast, the proportion of past year cannabis users aged 30 to 49 years increased significantly from 15% in 1977 to 26% in 2015, and the proportion of past year cannabis users aged 50 and older

increased almost eight-fold, from 3% to 23% during the same period.

The second area with notable long-term trends is **daily drinking** since 1977. Although the percentage drinking alcohol has varied between 77% and 87%, fewer drinkers are drinking daily compared to decades ago (8.8% vs. 13.4%).

The percentage of past year drinkers who reported drinking daily decreased steadily from 13.4% in 1977 to 5.9% in 1995, and remained around 6% until 2006. During the past seven years, however, this trend has reversed, and daily drinking increased significantly from 5.9% in 2006 to 8.8% in 2015. This non-linear trend was especially prominent among male drinkers, whose daily drinking dropped from 19.5% in 1977 to 7.1% in 2005 and then increased to 11.8% in 2015.

Some Encouraging Findings

The following findings should be considered as encouraging.

Cigarettes: The majority of Ontario adults (86.8%) do not smoke cigarettes. Current cigarette smoking has significantly declined since 1996, as has daily smoking (from 23.0% in 1977 to 10.0% in 2015).

Alcohol: Although the majority of Ontario adults (80.0%) are past year drinkers, most do not drink excessively. Indeed, the survey noted that 91% of drinkers do not binge drink weekly, 82.5% do not exceed recommended drinking guidelines and 82% do not exceed the AUDIT threshold for hazardous or harmful drinking.

There were also significant declines overall in binge drinking (defined as consuming five or more drinks on a

single occasion weekly) between 2006 (12.3%) and 2015 (7.5%). This decline was generally robust, occurring among several subgroups, but was especially evident among men (from 20.7% in 2001 to 11.3% in 2015).

Cannabis: Although the percentage that used cannabis in the past year has increased significantly over the long-term, use is generally infrequent. For example, among lifetime users, only 15.4% reported using cannabis once a month or more frequently.

Driving After Drinking: Between 1996 and 2015, driving after drinking among drivers declined by more than half, from 13.1% to 4.9%. Moreover, this decline occurred among several subgroups, including men (whose estimate fell from 21.2% to 9.2%). These declines occurred over a period when the province introduced several measures designed to reduce impaired driving rates, including increased sanctions for ‘warn-range’ drivers and measures to increase the use of ignition interlock devices by convicted offenders.

Prescription Opioid Pain Relievers: The proportion of the Ontario adult population who report nonmedical use of prescription opioid pain relievers declined from 7.7% in 2010 to 4.1% in 2015. This decline occurred during a period when provincial programs and policies to reduce nonmedical use of these substances were introduced (Fischer, Ialomiteanu, Kurdyak, Mann & Rehm, 2015).

Gambling: Gambling remains common in the Ontario population, but the proportion reporting any gambling in the past year, as well as lottery, Sport Select, bingo, horse racing, online and casino gambling have declined since the early 2000’s. However, the proportion of the population who are problem gamblers remains unchanged.

Some Public Health Concerns

There are several public health concerns – findings that point to potential public health problems that require scrutiny and monitoring – raised by these *CAMH Monitor* findings.

Cigarettes: As one of the health targets set by Cancer Care Ontario (CCO) (Cancer 2020 Steering Committee, 2003), *adult smoking should be reduced to 5% by 2020*. Despite the fact that the rate of cigarette smoking among Ontario adults has declined substantially, the current rate of 13.2% is more than 2 times higher than the CCO target of 5% and it seems unlikely that this target will be met.

Cannabis: Past year use of cannabis **increased** significantly from 8.7% in 1996 to 14.5% in 2015, for both **men** and **women** and among **all age groups**. Among **18 to 29 year olds**, cannabis use increased more than two-fold, from 18.3% in 1996 to 37.9% in 2015.

Although cannabis use is generally infrequent (52% of past year users report using less than once a month), the percentage of users reporting **daily use** is **19%**. Such daily use may increase the likelihood of respiratory illnesses (Calabria et al., 2010). In addition, the potential medical complications related to the **aging of cannabis users** and especially the increase in past year cannabis use among middle-aged and older adults is worthy of further study. Indeed, some research in the U.S. suggests that the aging cohort of cannabis users will place increasing demands on substance use treatment (Gfroerer, Wright, & Kopstein, 1997).

Alcohol: A sizeable percentage of drinkers consume alcohol at levels exceeding recommended **low-risk drinking guidelines**. Nearly one-in-five drinkers (17.5%) reported

exceeding these guidelines in 2014. There was also a significant increase in the **average number of drinks** consumed weekly, from 3.3 in 1996 to 4.3 in 2015, and increases were also found in **daily drinking** among past year drinkers, from 5.3% in 2002 to 8.8% in 2015. This increase was especially prominent among **women** (from 2.6 % in 2001 to 5.8% in 2015). Such an increase in alcohol use among women is of concern given the harmful effects of heavy alcohol use.

Prescription Opioid Pain Relievers: In spite of a decline in use, 4.1% of the Ontario adult population (about 415,000 adults) report **nonmedical use** of prescription opioid pain relievers in 2015. These are powerful and addictive drugs that have been linked to increased use of illicit opiates and death from overdose.

Mental Health: About 25.7% (2.6 million Ontario adults) experienced moderate **psychological distress** in 2015 and we found a significant **increase** in self-reports of **poor/fair mental health** from 4.7% in 2003 to 6.7% in 2015. Nearly one in ten adults (10.3%) used prescribed medication to treat **anxiety** (1 million Ontario adults) and one in eleven (8.7%) used prescribed medication to treat **depression** (880,000 adults). The percentage of Ontario adults reporting past year use of **prescribed depression and anxiety medication** increased significantly between 1999 and 2015 (from 3.6% to 8.7%, and from 4.5% to 10.3%, respectively). In addition, in 2015, an estimated 2.4% of Ontario adults (about 238,600 adults) reported that they seriously **contemplated suicide** during the 12 months before the survey.

Driving: Motor vehicle collisions are leading causes of preventable death and injury, and driving under the influence

of alcohol, cannabis and other drugs, and driving while distracted, have been identified as major causes of these collisions (Asbridge, Mann, Cusimano, et al., 2014; Redelmeier & Tibshirani, 1997).

Driving after cannabis use displayed a significant linear increase from 1.5% in 2010 to 2.9% in 2015 (about 266,600 licensed drivers). In addition, in 2015, an estimated 36.5% of Ontario adults with a valid driver's licence reported **texting while driving** at least once during the past 12 months (about 3,350,000 drivers) and 10.7% reported texting while driving 30 times or more in the past 12 months.

Another important public health issue relates to the measurement of alcohol harms and problems versus disorders for prevention. It is evident that indicators of alcohol harms should not be restricted to alcohol disorders such as alcohol dependence. Indeed, an array of alcohol harms is experienced by those who *do not* meet the more stringent psychiatric criteria for alcohol disorder. For example, the 2012 *Canadian Community Health Survey* found that only 3.2% of Canadians (3.1% of Ontarians) aged 15 or older met the criteria for past year alcohol abuse or dependence (Statistics Canada, 2013). However, the 2015 *CAMH Monitor* data reveal that 18% of adult drinkers were drinking at hazardous or harmful levels, and 9% reported weekly binge drinking. From a prevention standpoint, these latter behaviours are of great concern if our goal is to *prevent and reduce* alcohol-related harms in the population.

It is also clear that **alcohol and tobacco** cause greater harms to individuals, communities and society than do **illicit drugs**. We can never ignore the tragedy of human suffering caused by illegal drug use; but we must put these numbers into a broader context. If public concern

and health policy are to be based on the harm caused to the greatest number of individuals, then clearly, alcohol and tobacco each outweigh the harms caused by illegal drugs.

Concluding Comments

The *CAMH Monitor* shows that, among some ten million adult Ontarians, 14.6% (1.4 million) are consuming alcohol at hazardous or harmful levels and 13.2% (1.3 million) are current smokers. In contrast, only 7.5% (about 750,000) report moderate or high risk of harms due to cannabis use.

The dominance of alcohol and tobacco use is also evident in economic cost studies (Rehm et al., 2006; Rehm et al., 2007; Single et al., 2000). The most recent study by the *Canadian Centre on Substance Abuse* and *CAMH* found that alcohol, tobacco and illicit drug use represent a major source of death and illness in Canada (Rehm et al., 2006). In 2002, these substances together accounted for 21% of total deaths, 25% of total potential years of life lost and 19.4% of total admissions to hospital for any cause. Although the deaths related to illicit drug use increased significantly between 1992 and 2002, illicit drugs represented only 0.8% of all deaths and only 2.0% of total years of life lost through any cause in 2002. Thus, we must recognize that although illegal drugs cause significant harms, in both relative and absolute terms, tobacco and alcohol cause much more.

Our findings also speak to the issue of **mental well-being** among Ontario adults. A sizeable percentage experience symptoms that, although they may not qualify for a clinical psychiatric disorder, would nonetheless reduce their ability to function productively in their emotional, social, and occupational worlds. Indeed, we found that about 26% report moderate psychological

distress and 3% report serious psychological distress. As well, one-in-fourteen (7%) rated their mental health as poor, 2.4% reported contemplating suicide in the past year, and the percentage of Ontario adults reporting past year use of prescribed antidepressants and anti-anxiety medication doubled between 1999 and 2015. These findings are particularly important given that depression is one of the leading contributors to total burden of disease, (Murray & Lopez, 1996; Üstün, 1999) and to economic burden in Canada (Stephens & Joubert, 2001). The *World Health Organization* (WHO, 2008, 2012) reports that depression is the leading cause of disability in the world and the leading cause of disease burden in high- and middle-income countries. In Canada, recognition of the burden of mental disorders has led to the development of the country's first mental health strategy to improve mental health (Mental Health Commission of Canada, 2012).

Mental illness and addiction together exert an enormous toll on society. Recently, Ratnasingham, Cairney, Rehm, Manson, and Kurdyak (2012) estimated that the overall burden of mental illness and addiction in Ontario is 1.5 times higher than all cancers and seven times higher than all infectious diseases. Timely and relevant data on alcohol and other drug use and mental health are prerequisites for effective health and social policy and prevention programming. Monitoring such health-risk behaviours and measures provides valuable information about determinants, trends, the co-occurrences of these risk behaviours, and as well provincial and cross-national differences. Such data also enable us to evaluate the impact of changes in policies, educational programs and legislation, and whether health targets are achieved.

The *CAMH Monitor* is an exceptional vehicle to monitor matters of addiction and mental health in Ontario. Its flexible design allows for a wealth of analytic investigation, such as the study of rare groups (e.g., single-parents; unemployed; drinking drivers; daily cannabis users); the statistical analysis of trends (including secular or period and cohort trends); and data in naturally existing nested structures (i.e., respondents nested in households; households nested in communities; and communities nested in counties). Such investigations are well within the scope of the *CAMH Monitor* given its ability to cumulate periodic surveys across time or space (Kish, 1999; Korn & Graubard, 1999). The multi-purpose scope of the *CAMH Monitor* has demonstrated its utility, not only for addressing public health aspects of addiction and mental health, but also for informing local, provincial, national, and international programs and policies (e.g., Mann et al., 2003; Fischer et al., 2013).

Table 11.1

Summary Findings: Statistically Significant Associations for **Past Year Substance Use Indicators** by Demographic Characteristics, Ontarians Aged 18+, CAMH Monitor, 2015

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Alcohol							Tobacco (cigarettes)			Other drugs			
	Past Year Drinking	Daily Drinking	Avg. No. Drinks Weekly [†]	Exceeding Drinking Guidelines ¹	Weekly Binge Drinking	Hazardous Drinking (AUDIT 8+)	Alcohol Dependence (AUDIT)	Current Smoking	Daily Smoking	Electronic Cigarettes	Cannabis 12m	Cannabis Problems (ASSIST-CIS)	Cocaine Life	Cocaine 12m
Sex	Men higher	Men higher	Men higher	—	Men higher	Men higher	Men higher	Men higher	Men higher	—	Men higher	Men higher	Men higher	Men higher
Age	—	Increase 65+ higher	Increase	Decrease 65+ lower	Decrease 18-29 highest	Decrease 18-29 highest	Decrease 18-29 highest	65+ lowest	65+ lowest	Decrease 18-29 highest	Decrease 18-29 highest	18-29 highest	—	18-29 highest
Marital Status	—	—	—	—	Prev. & never married higher	Never married highest	—	Prev. & never married higher	Prev. & never married higher	—	Never married highest	—	Prev. & never married higher	—
Region	Toronto lower North higher	—	—	—	Toronto lower C-E higher	—	—	C-E higher	Toronto lower North higher	—	—	—	—	—
Education	Univ degree highest	HS, Univ degree higher	—	Completed HS higher	Univ degree lowest	< HS lowest	—	< HS highest Univ degree lowest	< HS highest Univ degree lowest	Completed HS higher	Completed HS and Some Univ higher	—	Univ degree lower	—
Household Income	\$80,000 highest	Increase <\$30,000 lowest	—	—	—	\$80,000 higher	\$50,000-\$79,000 lowest	—	—	—	\$30,000-\$49,000 higher	—	Income not stated lowest	—

Notes: ¹ data available for 2014 only; — No significant difference; † Unadjusted associations; all other associations are adjusted for sex, age, region, marital status, education, and income.

Legend:

Past Year Drinking (percentage drinking in past year); **Daily Drinking** (percentage drinking daily); **Avg. No. Drinks Weekly** (average number of drinks consumed weekly among drinkers); **Exceeding Drinking Guidelines** (percentage exceeding a weekly consumption of 16 drinks or more for men or 11 or more drinks for women, or exceeding a daily consumption of two drinks for women or three drinks for men); **Weekly Binge Drinking** (percentage consuming five or more drinks on a single occasion weekly); **Hazardous Drinking** (percentage reporting hazardous or harmful drinking based on the AUDIT 8+); **Alcohol Dependence** (percentage reporting one or more (of 3) AUDIT dependence indicators); **Current Smoking** (percentage currently smoking cigarettes); **Daily Smoking** (percentage smoking cigarettes daily); **Cannabis 12m** (percentage reporting using cannabis past year); **Cannabis problems** (percentage scoring 4+ on the WHO-ASSIST-CIS); **Cocaine Life** (percentage reporting using cocaine in lifetime); **Cocaine 12m** (percentage reporting using cocaine past year).

Table 11.2

Summary Findings: Statistically Significant Associations for **Past Year Substance Use and Mental Health Indicators** by Demographic Characteristics, Ontarians Aged 18+, CAMH Monitor, 2015

	15	16	17	18	19	20	21	22	23	24	25
	Other Drugs		Impaired and Distracted Driving			Mental Health					
	Any Opioid Pain Relievers	Non-med Opioid Pain Relievers	Drinking & Driving	Cannabis & Driving	Texting and Driving	Psychological Distress K6/5+	Poor Mental Health	Frequent mental distress days	Anx12M	Dep12M	Suicidal Ideation
Sex	—	—	Men higher	Men higher	—	Women higher	—	—	Women higher	Women higher	—
Age	Increase	—	—	18-29 highest	65+ lowest	Decrease 18-29 highest	65+ lowest	65+ lowest	—	65+ lowest	18-34 highest
Marital Status	—	Never married highest	—	—	—	Prev. & never married higher	Prev. married higher	—	Prev. & never married higher	Prev. & never married higher	—
Region	—	—	—	—	Toronto lower C-E higher	—	—	—	—	West lowest	—
Education	Decrease < HS highest	—	—	—	Increase < HS lowest	Decrease < HS highest	Univ degree lowest	—	—	—	—
Household Income	Decrease \$80,000 lowest	Decrease \$80,000 lowest	—	—	Increase \$80,000 highest	Decrease \$80,000 lowest	Decrease \$80,000 lowest	—	\$80,000 lowest	\$80,000 lowest	—

Notes: — No significant difference; † Unadjusted associations; all other associations are adjusted for sex, age, region, marital status, education, and income.

Legend:

Any Opioid Pain Relievers (percentage reporting using prescription opioid pain relievers for medical or nonmedical purposes); **Nonmedical Opioid Pain Relievers** (percentage reporting using prescription opioid pain relievers for nonmedical purposes); **Drinking & Driving** (percentage drinking and driving among drivers); **Cannabis & Driving** (percentage driving after using cannabis among drivers); **Texting & Driving** (percentage texting while driving among drivers); **Psychological Distress** (percent scoring 5+ on the K6 screener); **Poor Mental Health** (percentage reporting fair or poor mental health in general); **Frequent Mental Distress Days** (percent reporting 14 or more mental distress days during the past 30 days); **Anx12M** (percentage using antianxiety medication past year); **Dep12M** (percentage using antidepressant medication past year); **Suicidal Ideation** (percentage reporting seriously contemplating suicide in the past year).

Table 11.3

Summary Findings: Statistically Significant Associations for **Past Year Substance Use and Health Indicators** by Demographic Characteristics, Ontarians Aged 18+, CAMH Monitor, 2015

	26	27	28	29	30	31	32	33	34	35
	Overall Health			Gambling and Use of Electronic Devices						
	Poor Health	Frequent Physically Unhealthy Days	Traumatic Brain Injury Lifetime	Any Gambling	Casino Gambling	Online Gambling	Problem Gambling PGSI/3+	Avg. No. Hours Using Email/Social Media Weekly †	Avg. No. Hours Playing Video Games Weekly †	Problematic Use of Electronic Devices
Sex	—	—	Men higher	Men higher	Men higher	Men higher	—	Women higher	Men higher	—
Age	Increase 50+ highest	—	50-64 higher	50-64 higher	—	65+ lowest	—	18-29 higher	18-29 higher	Decrease 18-29 highest
Marital Status	—	—	—	Prev. married higher	—	—	—	Never married higher	Never married higher	—
Region	—	Toronto higher C-E lower	—	Toronto lower North higher	West higher	—	—	—	—	—
Education	Decrease Univ degree lower	—	—	—	—	—	—	Increase	Univ degree lower	—
Household Income	Decrease \$80,000 lower	Decrease \$80,000 lower	—	Increase	Increase	—	—	—	—	—

Notes: — No significant difference; † Unadjusted associations; all other associations are adjusted for sex, age, region, marital status, education, and income.

Legend:

Poor Health (percentage reporting fair or poor health in general); **Frequent Physically Unhealthy Days** (percent reporting 14 or more physically unhealthy days during the past 30 days); **Traumatic Brain Injury- lifetime** (percentage reporting at least one lifetime head injury that resulted in being unconscious for at least 5 minutes or resulted in an overnight hospital stay); **Any gambling** (percentage participating in at least one gambling activity in the past 12 months); **Casino gambling** (percentage having participated in at least one gambling activity in a casino in the past 12 months); **Online gambling** (percentage having participated in at least one gambling activity over the internet in the past 12 months); **Problem gambling** (percent scoring 3 or more on the Problem Gambling Severity Index); **Average no. of hours spent weekly using electronic devices** (based on the product of the frequency of using these devices and the number of hours spent on a typical day when using these devices for email/social media or for video games); **Problematic use of electronic devices** (percentage reporting 3 or more symptoms of problematic use).

Table 11.4 Summary of **Changes in Substance Use and Health Indicators**, CAMH Monitor, 1977–2015

Indicator	2014 vs. 2015	Trends: 1996–2015	Trends: 1977–2015
ALCOHOL			
Past year drinking	<ul style="list-style-type: none"> • Stable among total sample (81.2% vs. 80.0%). • Stable for most subgroups. • Significant subgroup decline among respondents living in the Central West region, from 85.8% in 2014 to 80.9% in 2015 	<ul style="list-style-type: none"> • Overall stable, with a low in 1998 at 77.1% and a high of 81.5% in 2007. • Significant non-linear decline among 18 to 29 year olds (from 89.5% in 2007 to 79.4% in 2015), and significant increase among those aged 50 to 64 (from 76.0% in 1996 to 81.6% in 2015) and among those aged 65 years and older (from 58.8% in 1997 to 73.8% in 2015). • Significant increases among respondents living in the North (from 74.6% in 2006 to 85.5% in 2015) and among those living in the Central- East (from 75.9% in 2010 to 80.4% in 2015). • Significant non-linear variations among married and never married respondents, and those who completed high school. 	<ul style="list-style-type: none"> • Significant linear and non-linear trends; with peaks in the mid-1980s, the early 1990s and again in 2014.
Daily drinking (among past year drinkers)	<ul style="list-style-type: none"> • Stable among total sample (8.1% vs. 8.8%). • Stable for all subgroups. 	<ul style="list-style-type: none"> • Overall significant increase in daily drinking among drinkers, from 5.3% in 2002 to 8.8% in 2015. • Significant increase in drinking men (from 7.1% in 2005 to 11.8% in 2015), drinking women (from a low of 2.6% in 2001 to 5.8% in 2015), and a non-linear uptrend among those aged 65 and older (from 13.2% in 2003 to 20.1% in 2015). • Significant increases for most regions, for married and previously married respondents, and for all education subgroups. 	<ul style="list-style-type: none"> • Significant linear and non-linear trends • Overall decline from 13.4% in 1977 to 7.3% in 2005; • Trend has reversed in the past seven years increasing significantly from 5.9% in 2006 to 8.8% in 2015. • Trend especially prominent among drinking men - daily drinking dropped from 19.5% in 1977 to 7.1% in 2005 and then increased to 11.8% in 2015.
Average number of drinks per week (among past year drinkers)	<ul style="list-style-type: none"> • Stable among total sample (4.3 vs. 4.4) • No significant subgroup changes. 	<ul style="list-style-type: none"> • Overall significant increase (from 3.3 in 1996 to 4.3 in 2015). • Significant increases among drinking men (from 4.8 in 1997 to 5.9 in 2015), among drinking women (from 1.9 in 1996 to 2.8 in 2015), and for all demographic factors examined. 	<ul style="list-style-type: none"> • Not available.
Percent exceeding the low-risk drinking guidelines (LRDG)	<ul style="list-style-type: none"> • Available 2013 -2014 • Significant decline among total sample (18.8% vs. 14.2%). 	<ul style="list-style-type: none"> • Available 1996 - 2014 • Overall significant linear decline from 21.5% in 2005 to 14.2% in 2014 	<ul style="list-style-type: none"> • Not available.

Indicator	2014 vs. 2015	Trends: 1996–2015	Trends: 1977–2015
	<ul style="list-style-type: none"> • Significant declines among men (26.0% vs. 15.1%), among those aged 18 to 29 and those aged 30 to 39, among Toronto residents and among those never married 	<ul style="list-style-type: none"> • Significant non-linear declining trends were found among men, among those aged 30 to 39, among respondents living in the West and in the East, among those never married, and among those with university education. 	
Weekly binge drinking (5+ drinks/ occasion weekly)	<ul style="list-style-type: none"> • Stable among total sample (6.1% vs. 7.5%). • Significant subgroup increases among women (2.3% vs. 3.9%), among those aged 65 and older (2.4% vs. 4.4%) and among those previously married (4.3% vs. 8.1%). 	<ul style="list-style-type: none"> • Overall stable between 1996 and 2005, varying between 10.5% and 12.7% among the total sample, and between 13.1% and 16.5% among past year drinkers • Significant decline between 2006 and 2015, from 12.3% in 2006 to 7.5% in 2015 for the total sample and from 15.9% to 9.3% among drinkers. • Significant subgroup declines for all demographic factors examined (sex, age, region, marital status and education). 	<ul style="list-style-type: none"> • Significant linear and non-linear trends. • Three distinct periods are evident. Binge drinking remained stable between 1977 and 1995, and then increased significantly in 1996 (from 7.0% to 11.7%) and remained at this elevated level until 2007. The increases were especially notable among men (from 10.7% in 1995 to 20.7% in 2001), and 18 to 29 year olds (from 10.6% in 1995 to 26.1% in 2007). • Binge drinking started declining again in 2008 and significant declines were evident for sex, age, region, marital status and education.
Hazardous/Harmful drinking (AUDIT 8+)	<ul style="list-style-type: none"> • Significant increase among total sample (12.0% vs. 14.6%). • Significant subgroup increases among those aged 65 and older, those living in Toronto and those previously married. 	<ul style="list-style-type: none"> • Available 1998–2015. • Overall stable: lowest in 2005 (10.4%) and highest in 2007 (15.6%), but has subsequently stabilized. • Significant increase among women, from 4.8% in 1998 to 8.4% in 2015 	<ul style="list-style-type: none"> • Not available.
Symptoms of alcohol dependence (AUDIT)	<ul style="list-style-type: none"> • Stable among total sample (7.3% vs. 7.2%). • Stable for all subgroups. 	<ul style="list-style-type: none"> • Available 1998–2015. • Overall significant non-linear change: declined from 9.4% in 1998 to 5.9% in 2003, then increased to 8.1% in 2011, but has subsequently stabilized to 7.2% in 2015. • Significant non-linear subgroup trends respondents who were married and those with completed high school education. 	<ul style="list-style-type: none"> • Not available.
TOBACCO – CIGARETTES			
Current smoking	<ul style="list-style-type: none"> • Stable among total sample (15.0% vs. 13.2%). • Significant decline among respondents not completing high school (from 29.6% in 2014 to 20.7% in 2015). 	<ul style="list-style-type: none"> • Overall significant steady linear decline from 26.7% in 1996 to 13.2% in 2015. • Significant declines for men and women, and all age, regions, marital status and education subgroups. 	<ul style="list-style-type: none"> • Not available.

Indicator	2014 vs. 2015	Trends: 1996–2015	Trends: 1977–2015
CANNABIS AND OTHER DRUGS			
CANNABIS Past year use	<ul style="list-style-type: none"> • Stable among total sample (12.9% vs. 14.5%). • No subgroup changes. 	<ul style="list-style-type: none"> • Overall significant increase in cannabis use, from 8.7% in 1996 to 14.5% in 2015. • Significant increases also occurred among: men and women, and virtually all age groups, regions, marital status and education subgroups. 	<ul style="list-style-type: none"> • Overall significant increase from 8.1% in 1977 to 14.5% in 2015. • Significant increases over the long-term among men (from 9.1% in 1992 to 19.2% in 2015), women (from 4.5% in 1977 to 10.2% in 2015) and all age groups, especially 18 to 29 year olds (from 19.0% in 1987 to 37.9% in 2015) and those 50 years and older (from 1.2% in 1977 to 7.2% in 2015). • Significant aging of cannabis users - in 1977, 82% of past year cannabis users were aged 18 to 29 versus 51% in 2015; the proportion of cannabis users aged 30 to 49 increased from 15% to 26%, and the proportion aged 50 and older from 3% to 23% during the period.
COCAINE Past year use	<ul style="list-style-type: none"> • Stable among total sample (2.0% vs. 1.6%). • No subgroup changes. 	<ul style="list-style-type: none"> • Overall significant increase from 0.8% in 1996 to 1.6% in 2015. • Significant increase among men from 1.1% in 1996 to 2.5% in 2015 and among 18 to 29 year olds, from 1.1% in 1996 to 5.9% in 2015. 	<ul style="list-style-type: none"> • Not available.
PRESCRIPTION OPIOIDS Any past year use	<ul style="list-style-type: none"> • Stable among total sample (22.2% vs. 22.6%). • No subgroup changes. 	<ul style="list-style-type: none"> • Available 2010–2015. • Overall significant decline from 26.6% in 2010 to 22.6% in 2015. • Significant declines for those aged 40 to 49, those aged 50 years or older, for the Central East region, and for those with completed high school. 	<ul style="list-style-type: none"> • Not available.
Any nonmedical past year use	<ul style="list-style-type: none"> • Overall significant increase (2.1% vs. 4.1%). • Significant increases among women (1.1% vs. 4.4%) and among the older age groups. 	<ul style="list-style-type: none"> • Available 2010–2015. • Overall declined significantly from 7.7% in 2010 to 2.1% in 2014 but increased to 4.1% in 2015 • Stable for 18-29 year olds (7.0% vs. 5.1%) • Significant declines for other age groups and most region, marital status and education subgroups. 	<ul style="list-style-type: none"> • Not available.

Indicator	2014 vs. 2015	Trends: 1996–2015	Trends: 1977–2015
DRUGS AND DRIVING			
Past year driving after drinking (among drivers)	<ul style="list-style-type: none"> • Stable among total sample (at 4.9%) • Stable for all subgroups. 	<ul style="list-style-type: none"> • Overall significant linear decline from 13.1% in 1996 to 4.9% in 2015. • Significant declines among male drivers, from 21.2% in 1996 to 9.2% in 2015 and among young adult drivers aged 18 to 29, from 20.1% in 1996 to 6.7% in 2015. • Significant declines between 1996 and 2015 for all regions, but especially for drivers living in Toronto (from 14.1% to 2.5%). • Significant declines occurred among all three marital status and among all four education subgroups. 	<ul style="list-style-type: none"> • Not available.
Past year driving after using cannabis (among drivers)	<ul style="list-style-type: none"> • Stable among total sample (1.6% vs. 2.9%). • Stable for all subgroups. 	<ul style="list-style-type: none"> • Available 2002 to 2015. • Overall significant linear increase from 1.5% in 2010 to 2.9% in 2015. • Significant linear increases among men from 1.9% in 2012 to 5.6% in 2015, and among young drivers aged 18 to 29 from 2.8% in 2009 to 7.5% in 2015. 	<ul style="list-style-type: none"> • Not available.
MENTAL HEALTH			
Poor self-rated mental health	<ul style="list-style-type: none"> • Stable among total sample (6.5% vs 6.7%). • Stable for most subgroups. Significant increase among respondents aged 50 to 64, from 4.3% in 2014 to 7.3% in 2015. 	<ul style="list-style-type: none"> • Available 2003 to 2015. • Significant increase overall, from 4.7% in 2003 to 6.7% in 2015. • Significant increases among women, those aged 18 to 29, those aged 50 to 64 and those 65 and older, respondents living in the Central West, those never married and those with some post-secondary education. 	<ul style="list-style-type: none"> • Not available.
Frequent mental distress days	<ul style="list-style-type: none"> • Significant increase among total sample (6.0% vs. 9.7%). • Significant increases among men (from 4.0% to 7.9%), among respondents living in the North (from 4.6% to 15.0%) and previously married respondents. 	<ul style="list-style-type: none"> • Available 2003 to 2015. • Significant increase overall, from 5.4% in 2003 to 9.7% in 2015. • Significant increases among both men and women, among those aged 30 to 39, among residents living in the North, in the East and Central West, and all marital status and education subgroups. 	<ul style="list-style-type: none"> • Not available.
Antianxiety medication	<ul style="list-style-type: none"> • Stable among total sample (11.3% vs. 10.3%). • Stable for all subgroups. 	<ul style="list-style-type: none"> • Available 1997-2015. • Significant linear increase from 4.5% in 1999 to 10.3% in 2015. 	<ul style="list-style-type: none"> • Not available.

Indicator	2014 vs. 2015	Trends: 1996–2015	Trends: 1977–2015
		<ul style="list-style-type: none"> • Significant increases for most subgroups. Especially evident were increases among women (from 5.6% in 1997 to 12.7% in 2015) and among 18 to 29 year olds (from 1.7% in 1997 to 10.7% in 2015). 	
Antidepressant medication	<ul style="list-style-type: none"> • Stable among total sample (8.9% vs. 8.7%). • Stable for most subgroups. Significant decline among respondents with less than high school education from 17.8% in 2014 to 8.6% in 2015. 	<ul style="list-style-type: none"> • Available 1997-2015. • Significant linear upward trend, increasing from 3.6% in 1999 to 8.7% in 2015. • Significant subgroup increases were also evident for all sex, age, region, marital status, and education subgroups. Especially evident were increases among 18 to 29 year olds, from 2.0% in 1997 to 8.5% in 2015. 	<ul style="list-style-type: none"> • Not available.
PHYSICAL AND OVERALL HEALTH			
Fair or poor self-rated health	<ul style="list-style-type: none"> • Stable among total sample (at 9.9%). • Stable for all subgroups. 	<ul style="list-style-type: none"> • Available 2003 to 2015. • Overall stable (varying from 10.2% in 2003 to 9.9% in 2015). • Stable for most demographic subgroups. Significant decline in ratings of fair/poor health among respondents aged 65 and older from 22.3% in 2011 to 16.6% in 2015. 	<ul style="list-style-type: none"> • Not available.
Frequent physically unhealthy days	<ul style="list-style-type: none"> • Stable among total sample (7.2% vs. 8.9%). • Stable for most subgroups. Significant increase among respondents living in Toronto (from 4.4% in 2014 to 11.5% in 2015). 	<ul style="list-style-type: none"> • Available 2003 to 2015. • Significant increase overall from 5.9% in 2004 to 8.9% in 2015. • Stable for most demographic subgroups. Significant subgroup increases among 30 to 39 year olds from 3.4% to 8.6%, and for respondents living in Toronto (from 3.6% to 11.5%). 	<ul style="list-style-type: none"> • Not available.
GAMBLING			
Any gambling	<ul style="list-style-type: none"> • Not available. 	<ul style="list-style-type: none"> • Available 2000-2005 and 2015. • Overall significant linear decline from 80.3% in 2000 to 68.1% in 2015. Significant subgroup declines were also evident for sex, age, region, marital status and education. 	<ul style="list-style-type: none"> • Not available.
Any casino gambling	<ul style="list-style-type: none"> • Not available. 	<ul style="list-style-type: none"> • Available 2000-2005 and 2015. • Overall significant linear decline from 33.7% in 2000 to 25.4% in 2015. Significant subgroup declines were also evident for most subgroups analysed (sex, age, region, marital status and education). 	<ul style="list-style-type: none"> • Not available.

Indicator	2014 vs. 2015	Trends: 1996–2015	Trends: 1977–2015
Any online gambling	<ul style="list-style-type: none"> • Not available. 	<ul style="list-style-type: none"> • Available 2000-2005 and 2015. • Overall significant linear decline from 6.6% in 2003 to 3.8% in 2015. Significant non-linear declines for both men and women, among 18 to 29 year olds and those aged 65 and older and all marital status subgroups. 	<ul style="list-style-type: none"> • Not available.
Problem gambling	<ul style="list-style-type: none"> • Not available. 	<ul style="list-style-type: none"> • Available 2005 and 2015. • Overall stable (varying from 1.9% in 2005 to 1.7% in 2015). 	<ul style="list-style-type: none"> • Not available.

Appendix A
Sample Design

Table A-1: Regional Stratification of the CM 2015 Sample

Region	County	Area Code
Toronto	City of Toronto	416, 647
Central West	Halton; Hamilton-Wentworth; Peel; Waterloo; Wellington; Dufferin; Niagara; Brant; Haldimand-Norfolk	519, 905, 289
Central East	Simcoe; York; Haliburton; Peterborough; Kawartha Lakes; Northumberland; Durham	705, 905, 289
West	Kent-Chatham; Huron; Perth; Elgin; Oxford; Middlesex; Grey; Bruce; Lambton; Essex	519, 226
East	Stormont, Dundas and Glengarry; Prescott-Russell; Ottawa-Carleton; Renfrew; Lanark; Leeds-Grenville; Hastings; Prince Edward; Frontenac; Lennox and Addington	613, 343
North	Kenora; Rainy River; Thunder Bay; Muskoka; Parry Sound; Nipissing; Timiskaming; Algoma; Manitoulin; Sudbury RM; Sudbury TD; Cochrane	705, 807

Note: The following area codes were overlaid: In 2001, 647 with 416 and 289 with 905; in 2006, 226 with 519; and in 2010, 343 with 613.

Table A-2: Number of Interviews by Demographic Characteristic, 1991- 2015

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Total Sample	1047	1058	1034	2022	994	2721	2776	2509	2436	2406	2627	2421	2411	2611	2445	2016	2005	2024	2037	3030	3039	3030	3021	3043	5013	
Sex																										
Male	495	490	481	930	477	1206	1260	1088	1061	1052	1216	1100	1062	1122	1037	884	840	842	877	1303	1212	1232	1232	1232	1912	
Female	552	568	553	1092	517	1515	1516	1421	1375	1354	1411	1321	1349	1489	1408	1132	1165	1182	1160	1727	1827	1798	1789	1811	3101	
Age																										
18-29	267	272	241	472	240	533	560	457	427	458	473	426	427	391	354	264	258	200	198	311	267	234	182	190	410	
30-39	264	283	280	541	240	685	654	580	567	538	547	523	438	463	453	338	315	279	289	372	396	394	303	293	482	
40-49	215	207	208	434	212	562	571	567	505	507	597	513	575	552	569	421	402	415	426	600	551	533	556	482	782	
50-64	150	153	162	320	168	483	508	448	470	466	531	518	521	651	570	561	551	595	608	976	923	956	1015	996	1700	
65+	134	129	132	236	123	406	407	376	420	378	412	384	396	494	436	397	417	462	461	709	814	853	909	1014	1597	
Marital Status																										
Married	597	579	554	1028	471	1450	1449	1336	1234	1252	1360	1217	1257	1354	1274	1095	1034	1097	1144	1660	1692	1688	1733	1739	2844	
Living with Partner	–	65	54	118	61	146	176	151	193	161	190	146	190	190	183	146	143	141	166	224	204	199	193	189	328	
Previously Married	173	171	187	347	192	508	510	467	490	456	500	503	449	531	503	396	463	443	390	641	656	682	653	681	1091	
Never Married	269	239	238	523	262	601	601	517	491	508	556	539	498	504	457	360	337	317	307	477	451	438	409	404	703	
Region																										
Toronto	–	–	–	–	–	430	431	421	410	404	406	407	411	390	396	347	317	352	327	510	503	501	503	503	833	
Central East	–	–	–	–	–	459	477	412	406	410	418	412	402	396	417	331	340	340	346	508	503	499	501	509	833	
Central West	–	–	–	–	–	448	470	419	407	398	400	399	384	404	403	318	320	314	338	503	507	503	512	506	820	
West	–	–	–	–	–	430	465	414	403	404	408	403	397	412	427	361	339	340	354	506	500	510	497	509	839	
East	–	–	–	–	–	481	470	424	409	394	420	402	416	407	404	323	351	328	343	503	517	512	502	509	838	
North	–	–	–	–	–	442	463	419	401	396	575	398	401	602	398	336	338	350	329	501	509	505	506	507	850	

Cont'd

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Total Sample	1047	1058	1034	2022	994	2721	2776	2509	2436	2406	2627	2421	2411	2611	2445	2016	2005	2024	2037	3030	3039	3030	3021	3043	5013	
Education																										
Less Than High School	244	223	225	403	180	600	554	480	438	362	418	417	375	421	322	280	284	259	266	363	369	359	355	365	405	
Completed High School	302	295	276	552	281	713	710	649	655	701	672	609	572	639	612	487	480	467	437	692	670	660	638	656	1075	
Some College or University	255	329	315	614	304	775	839	779	758	715	874	740	814	840	842	660	679	677	698	1041	1018	1074	1053	1037	1749	
University Degree	241	207	216	446	225	610	641	564	555	609	632	620	624	675	639	556	525	604	611	913	945	885	939	955	1747	
Income																										
<\$30,000	325	239	273	520	261	579	547	453	500	427	496	468	404	458	368	298	282	253	237	356	351	333	303	329	444	
\$30,000 - \$49,999	212	224	227	435	226	534	510	455	450	403	501	422	446	454	390	312	311	260	265	395	411	379	370	346	565	
\$50,000 - \$79,999	234	248	229	458	217	625	551	523	521	525	538	544	543	541	504	415	373	387	370	546	558	516	526	483	819	
\$80,000+	106	178	179	294	158	439	471	442	475	496	557	568	618	643	737	613	549	614	596	994	980	1046	1089	1109	1993	
Missing Responses	170	169	126	275	132	544	697	636	490	555	535	418	400	515	446	378	490	510	569	739	739	756	733	776	1192	
Employment Status																										
Full-Time	552	558	543	1010	500	1279	1363	1198	1255	1220	1343	1183	1150	1263	1186	990	937	894	879	1339	1304	1271	1277	1270	2033	
Part-Time	111	111	100	203	114	303	311	296	240	249	260	215	219	213	225	179	164	182	172	248	272	308	267	259	400	
Unemployed	64	63	52	132	39	142	102	82	63	60	91	87	83	71	67	55	65	44	94	126	77	82	77	85	122	
Retired	139	137	148	269	139	465	484	491	483	456	500	465	460	589	514	452	472	552	561	829	900	913	992	1079	1726	
Homemaker	68	77	72	141	61	203	154	133	118	111	139	116	122	122	118	90	69	78	73	98	120	109	97	94	184	
Student	81	71	94	175	94	143	172	146	113	131	138	143	135	128	114	80	95	64	61	100	100	87	65	74	166	
Self Employed	-	-	-	-	-	-	-	-	-	-	-	110	134	113	117	100	88	112	108	131	138	122	135	127	208	
Other	30	37	44	92	43	171	167	146	147	162	140	90	81	83	72	53	98	81	65	142	105	124	97	93	148	

Notes: - Data not available

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table A-3a: Number of Interviews by Sex, Age, and Region of Respondent, 1977–2000

	1977	1982	1984	1987	1989	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
(N=)	(1059)	(1040)	(1051)	(1084)	(1101)	(1047)	(1058)	(1034)	(2022)	(994)	(2721)	(2776)	(2509)	(2436)	(2406)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)
Sex															
Male	52.2	50	48.5	48.5	48.4	49.0	46.7	48.2	46.8	49.7	47.0	47.4	47.5	48.0	47.5
	(529)	(517)	(524)	(539)	(551)	(495)	(490)	(481)	(1092)	(477)	(1206)	(1260)	(1088)	(1061)	(1052)
Female	47.8	50	51.5	51.5	51.6	51.0	53.3	51.8	53.2	50.3	53.0	52.6	52.5	52.0	52.5
	(529)	(523)	(527)	(545)	(550)	(552)	(568)	(553)	(930)	(517)	(1515)	(1516)	(1421)	(1375)	(1354)
Age															
18-29	30.0	31.9	29.6	29.6	28.0	29.5	29.6	26.8	26.7	26.9	24.3	26.1	23.1	21.7	23.3
	(296)	(270)	(274)	(238)	(245)	(267)	(272)	(241)	(472)	(240)	(533)	(560)	(457)	(427)	(458)
30-39	21.7	23.2	20.4	22.5	23.2	24.4	25.1	25.8	26.1	23.3	24.0	23.2	21.7	22.1	21.4
	(222)	(253)	(248)	(283)	(290)	(264)	(283)	(280)	(541)	(240)	(685)	(654)	(580)	(567)	(538)
40-49	17.1	13.2	15.7	13.6	14.5	20.7	20.0	20.3	21.2	22.5	20.7	20.5	21.9	19.4	20.5
	(181)	(143)	(190)	(171)	(181)	(215)	(207)	(208)	(434)	(212)	(562)	(571)	(567)	(505)	(507)
50-64	18.3	20.1	21.5	19.2	19.3	14.5	14.7	16.4	15.6	17.1	17.1	18.4	16.8	18.7	18.3
	(197)	(213)	(205)	(213)	(211)	(150)	(153)	(162)	(320)	(168)	(483)	(508)	(448)	(470)	(466)
65+	12.9	11.7	12.8	15.1	14.9	11.0	10.5	10.7	10.4	10.3	11.9	11.8	16.4	16.1	16.5
	(155)	(125)	(122)	(168)	(163)	(134)	(129)	(132)	(237)	(123)	(406)	(407)	(376)	(420)	(378)
Region															
Toronto	30.6	32.3	31.9	32.8	35.1	24.9	22.5	22.0	21.3	22.5	23.2	20.7	22.9	23.5	23.8
	(314)	(329)	(331)	(351)	(383)	(237)	(239)	(214)	(435)	(230)	(427)	(390)	(421)	(410)	(424)
Non-Toronto	69.4	67.7	68.1	67.2	64.9	75.1	77.5	78.0	78.7	77.5	76.8	79.3	77.1	76.5	76.2
	(745)	(711)	(720)	(733)	(718)	(705)	(772)	(785)	(1519)	(740)	(2294)	(2386)	(2088)	(2026)	(1982)

Notes: % based on weighted data; (N) based on number of interviews (unweighted)

Source: The CAMH Monitor, Centre for Addiction and Mental Health

Table A-3b: Number of Interviews by Sex, Age, and Region of Respondent, 2001–2015

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
(N=)	(2627)	(2421)	(2411)	(2611)	(2445)	(2016)	(2005)	(2024)	(2037)	(3030)	(3039)	(3030)	(3021)	(3043)	(5013)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)
Sex															
Male	48.5 (1216)	48.6 (1100)	48.5 (1062)	48.3 (1122)	48.2 (1037)	48.6 (884)	48.5 (840)	48.2 (842)	48.5 (877)	48.5 (1303)	48.2 (1212)	47.8 (1232)	48.1 (1232)	48.1 (1232)	48.1 (1912)
Female	51.5 (1411)	51.4 (1321)	51.5 (1349)	51.7 (1489)	51.8 (1408)	51.4 (1132)	51.5 (1165)	51.8 (1182)	51.5 (1160)	51.5 (1727)	51.8 (1827)	52.2 (1798)	51.9 (1789)	51.9 (1811)	51.9 (3101)
Age															
18-29	20.9 (473)	21.2 (426)	22.4 (427)	20.0 (391)	20.8 (354)	20.9 (264)	19.5 (258)	19.7 (200)	18.9 (198)	19.6 (311)	19.7 (267)	17.6 (234)	17.1 (182)	17.4 (190)	19.3 (410)
30-39	19.8 (547)	22.4 (523)	19.0 (438)	21.3 (463)	20.3 (453)	20.8 (338)	19.2 (315)	19.2 (279)	18.8 (289)	18.3 (372)	19.0 (396)	17.3 (394)	16.2 (303)	16.6 (293)	15.9 (482)
40-49	21.7 (597)	20.6 (513)	23.3 (575)	21.8 (552)	22.3 (569)	20.7 (421)	21.0 (402)	21.4 (415)	21.9 (426)	21.3 (600)	20.0 (551)	19.3 (533)	20.4 (556)	19.3 (482)	18.1 (782)
50-64	19.1 (531)	19.4 (518)	18.9 (521)	20.5 (651)	20.2 (570)	21.3 (561)	23.7 (551)	23.0 (595)	23.9 (608)	24.2 (976)	24.7 (923)	27.4 (956)	27.9 (1015)	28.2 (996)	28.3 (1700)
65+	15.9 (412)	16.4 (384)	16.3 (396)	16.3 (494)	16.4 (436)	16.4 (397)	16.6 (417)	16.6 (462)	16.6 (461)	16.6 (709)	16.6 (814)	18.5 (853)	18.5 (909)	18.5 (1014)	18.5 (1597)
Region															
Toronto	24.5 (417)	22.4 (407)	23.9 (411)	25.2 (390)	21.6 (396)	21.4 (347)	22.2 (317)	22.0 (352)	21.5 (327)	22.1 (510)	21.2 (503)	21.0 (501)	20.1 (503)	21.2 (503)	22.7 (833)
Non-Toronto	75.5 (2210)	77.6 (2014)	76.1 (2000)	74.8 (2221)	78.4 (2049)	78.6 (1669)	77.8 (1688)	78.0 (1672)	78.5 (1710)	77.9 (2520)	78.8 (2536)	79.0 (2529)	79.9 (2518)	78.8 (2540)	77.3 (4180)

Notes: % based on weighted data; (N) based on number of interviews (unweighted)
Source: The CAMH Monitor, Centre for Addiction and Mental Health

Appendix B

Weighting

Data Weighting

Because most sample surveys do not select respondents at a probability indicative of their representation in the population, data typically require weighting to ensure a proper representation of interviews.

1977-1989 Samples

Weights for the 1977 through 1989 surveys employed post stratification adjustments according to the sex by age distribution (based on the most relevant census data).

1991-1995 Samples

Weights for the 1991-1995 surveys were weighted to adjust for the number of individuals per household (i.e., 1 / number of adults), and then normed so that the weighted sample size represented the actual number of respondents.

1996-1997 Samples

Because the 1996 to 1997 samples were allocated equally within each of the six regions weights are required to restore population representation. Calculation of the overall weight variable consisted of three elements: household, region, and survey wave (month of sampling). Within each wave and region, relative household weight is directly proportional to the number of household residents aged 18 and older. Within each cycle, relative region weight is directly proportional to the percentage of all Ontario households located in the region. Finally, cycles are weighted so that each monthly wave makes an equal contribution to the weighted N. At each stage, average weight is equal to 1.

The overall 12-month aggregated sampling weight variable is a function of the following quantity:

$$\frac{N \text{ adults in HH}}{\text{Mean } N \text{ adults}} \times \frac{P \text{ of HH in region}}{\text{Sample } P \text{ of HH in region}} \times \frac{\text{Total } N}{12 \text{ (monthly } N)}$$

1998 -2015 Samples

For the 1998 - 2015 cycles of the CM survey, the final weight factor is a function of the aggregated sampling weight (above) and a post-stratification adjustment.

Telephone and other probability surveys typically apply post-strata population adjustments based on census information. Although this procedure does not remove all biases, it does provide a simultaneous adjustment for non-response and non-coverage of households without telephones (Casady & Lepkowski, 1999). Using the 2011 Census (Ontarians aged 18 and over), the post-stratification adjustment was based on eight post strata representing four age groups (18-24; 25-44; 45-64; 65+) by sex (male; female) configuration. Previous surveys did not employ post-stratification adjustments.

REFERENCES

- Adlaf, E. M., & Ialomiteanu, A. (2001). *The 1999 CAMH Monitor Substance Use and Mental Health Indicators Among Ontario Adults 1977-1999 (CAMH Research Document Series No. 6)*. Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., & Ialomiteanu, A. (2001). *CAMH Monitor eReport: Addiction and Mental Health Indicators Among Ontario Adults 1977-2000 (CAMH Research Document Series No. 10)*. Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., & Ialomiteanu, A. (2002a). *CAMH Monitor 2001: Technical Guide (electronic document)* Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., & Ialomiteanu, A. (2002b). *CAMH Monitor eReport: Addiction and Mental Health Indicators Among Ontario Adults in 2001, and Changes Since 1977 (CAMH Research Document Series No. 12)* Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., Ialomiteanu, A., & Paglia, A. (2000). *1999 CAMH Monitor: Technical Guide*. Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., Ialomiteanu, A., & Paglia, A. (2001). *The CAMH Monitor 2000: Technical Guide (electronic document)*. Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., Ialomiteanu, A., & Rehm, J. (2008). *CAMH Monitor eReport: Addiction & Mental Health Indicators Among Ontario Adults, 1977-2005 (CAMH Research Document Series No. 24)*. Toronto, ON: Centre for Addiction & Mental Health.
- Adlaf, E. M., Ivis, F., Bondy, S., Rehm, J., Room, R., & Walsh, G. (1997). *The Ontario Drug Monitor 1996: Technical Guide*. Toronto: Addiction Research Foundation.
- Adlaf, E. M., Ivis, F., & Ialomiteanu, A. (1998). *Alcohol, tobacco and Cannabis Use Among Ontario Adults in 1997 and Changes Since 1977: Epidemiological Findings from the Ontario Drug Monitor*. Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., Ivis, F., Ialomiteanu, A., Walsh, G., & Bondy, S. (1997). *Alcohol, Tobacco and Illicit Drug Use Among Ontario Adults: 1977-1996: The Ontario Drug Monitor, 1996*. Toronto: Addiction Research Foundation.]
- Adlaf, E. M., Ivis, F. J., Ialomiteanu, A., Bondy, S., Rehm, J., Room, R., et al. (1998). *The Ontario Drug Monitor 1997: Technical Guide*. Toronto: Addiction Research Foundation.
- Adlaf, E. M., Ivis, F. J., & Smart, R. G. (1994). *Alcohol and Other Drug Use Among Ontario Adults in 1994 and Changes Since 1977*. Toronto: Addiction Research Foundation.
- Adlaf, E. M., Paglia, A., & Ialomiteanu, A. (1999). *Ontario Drug Monitor 1998: Alcohol, Tobacco and Illicit Drug Use, 1977-1998*. Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., Paglia, A., Ivis, F., & Ialomiteanu, A. (1999). *Ontario Drug Monitor 1998: Technical Guide*. Toronto: Centre for Addiction and Mental Health.
- Adlaf, E. M., Paglia, A., Ivis, F. J., & Ialomiteanu, A. (2000). Increases in non-medical drug use among adolescent students: Highlights from the 1999 Ontario Student Drug Use Survey. *Canadian Medical Association Journal*, 162(12), 1677-1680.

- Adlaf, E. M., & Smart, R. G. (1989). *The Ontario Adult Alcohol and Other Drug Use Survey 1977-1989*. Toronto: Addiction Research Foundation.
- Adlaf, E. M., Smart, R. G., & Canale, M. D. (1991). *Drug Use Among Ontario Adults, 1977-1991*. Toronto: Addiction Research Foundation.
- Alexander, C. H. (2002). Still Rolling: Leslie Kish's Rolling Samples and the American Community Survey. *Survey Methodology* 28(1), 35-41.
- Anglin, L. (1995). *The Ontario Experience of Alcohol and Tobacco: New Focus on Accessibility, Violence and Mandatory Treatment*. Toronto: Addiction Research Foundation.
- Asbridge, M., Mann, R., Cusimano, M. D., Trayling, C., Roerecke, M., Tallon, J. M., . . . Rehm, J. (2014). Cannabis and traffic collision risk: findings from a case-crossover study of injured drivers presenting to emergency departments. *Int J Public Health*, 59, 395. doi: 10.1007/s00038-013-0512-z
- Ashley, M., Ferrence, R., Room, R., Rankin, J., & Single, E. (1994). Moderate drinking and health: Report of an international symposium. *CMAJ*(151), 809-828.
- Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *AUDIT: The Alcohol Use Disorders Identification Test. Guidelines for Use in Primary Care*. Geneva: World Health Organization.
- Butt, P., Beirness, D., Gliksman, L., Paradis, C., & Stockwell, T. (2011). *Alcohol and health in Canada: A summary of evidence and guidelines for low risk drinking*. Ottawa, ON: Canadian Centre on Substance Abuse. Retrieved from <http://www.ccsa.ca/Resource%20Library/2011-Summary-of-Evidence-and-Guidelines-for-Low-Risk%20Drinking-en.pdf>
- Biemer, P. P., & Lyberg, L. E. (2003). *Introduction to Survey Quality*. New York: Wiley.
- Binson, D., Canchola, J. A., & Catania, J. A. (2000). Random Selection in a National Telephone Survey: A Comparison of the Kish, Next-Birthday, and Last-Birthday Methods. *Journal of Official Statistics*, 16(1), 53-59.
- Blumberg, S. J., Luke, J. V., & Cynamon, M. L. (2006). Telephone Coverage and Health Survey Estimates: Evaluating the Need for Concern About Wireless Substitution. *American Journal of Public Health* 96(5), 926-931.
- Boak, A., Hamilton, H. A., Adlaf, E. M., & Mann, R. E. (2015). *Drug Use Among Ontario Students, 1977-2015: Detailed OSDUHS findings (CAMH Research Document Series No. 41)*. Toronto, ON: Centre for Addiction and Mental Health.
- Bondy, S. (1994). *Attitudes and Experiences with Treatment of Alcohol and Tobacco Problems. A Report of the Ontario Alcohol and Other Drug Opinion Survey, 1993*. Toronto: Addiction Research Foundation.
- Bondy, S., Rehm, J., Ashley, M., Walsh, G., Single, E., & Room, R. (1999). Low-risk Drinking Guidelines: The Scientific Evidence. *Canadian Journal of Public Health*, 90(4), 264-270.
- Brands, B., Sproule, B., & Marshman, J. (Eds.). (1998). *Drugs and Drug Abuse* (Third ed.). Toronto, ON: Addiction Research Foundation.
- Caitlin, G., & Ingram, S. (1988). The Effects of CATI on Costs and Data Quality: A Comparison of CATI and Paper Methods in Centralized Interviewing. In R. M. Groves, P. P. Biemer, L. E. Lyberg, J. Massey, W. Nicholls II & J. Waksberg (Eds.), *Telephone Survey Methodology* (pp. 437-450). New York: Wiley.

- Calabria, B., Degenhardt, L., Hall, W., & Lynskey, M. (2010). Does cannabis use increase the risk of death? Systematic review of epidemiological evidence on adverse effects of cannabis use. *Drug and Alcohol Review, 29*, 318-310.
- Cancer 2020 Steering Committee. (2003). *Targeting Cancer: An Action Plan for Cancer Prevention and Detection. Cancer 2020 Summary Report*. Toronto: Canadian Cancer Society (Ontario Division) and Cancer Care Ontario.
- Casady, R. J., & Lepkowski, M. (1999). Telephone sampling. In P. S. Levy & S. Lemeshow (Eds.), *Sampling of Population* (pp. 455-479). New York: Wiley.
- Centers for Disease Control and Prevention. (2011). National Health and Nutrition Examination Survey (NHANES). Retrieved March, 2011, from http://www.cdc.gov/brfss/technical_infodata/quality.htm
- Chang, L., & Krosnick, J. A. (2009). National surveys via RDD telephone interviewing versus internet : Comparing sample representativeness and response quality. *Public Opinion Quarterly, 73*(4), 641-678.
- Cochran, W. G. (1977). *Sampling Techniques (3rd edition)*. New York: John Wiley.
- Couper, M. P., & Nicholls II, W. (1998). The History and Development of Computer Assisted Survey Information Collection Methods. In M. P. Couper, R. Baker, J. Bethlehem, C. Clark, J. Martin, W. Nicholls II & J. O'Reilly (Eds.), *Computer Assisted Survey Information Collection* (pp. 1-22). New York: Wiley.
- Curtin, R., Presser, S., & Singer, E. (2005). Changes in telephone survey nonresponse over the past quarter century. *Public Opinion Quarterly, 69*(1), 87-98.
- D'Arcy, C. (1998). Social distribution of health among Canadians. In D. Coborn, C. D'Arcy & G. Torrance (Eds.), *Health and Canadian Society: Sociological Perspectives* (Vol. 3, pp. 73-101). Toronto: University of Toronto Press.
- Dijkers, M. (2004). Quality of life after traumatic brain injury: a review of research approaches and findings. *Archives of Physical Medicine and Rehabilitation, 85*(Supplement 2), S21-35. doi: 10.1016/j.apmr.2003.08.119
- Erickson PG, Adlaf, EM, Smart, RG & Murray, GF. (1994). *The Steel Drug: Cocaine and Crack in Perspective* (Second Edition). Lexington, NY.
- Fagerström, K.O. (1978). Measuring degree of physical dependence to tobacco smoking with reference to individualization of treatment. *Addictive Behaviors, 3*(3-4), 235-241.
- Ferris, J., Templeton, L., & Wong, S. (1994). *Alcohol, Tobacco and Marijuana: Use, Norms, Problems and Policy Attitudes among Ontario Adults. A Report of the Ontario Alcohol and Other Drug Opinion Survey, 1992*. Toronto: Addiction Research Foundation.
- Ferris, J., & Wynne, H. (2001). *The Canadian Problem Gambling Index : final report*. Ottawa: Canadian Centre on Substance Abuse.
- Fischer, B., Ialomiteanu, A., Kurdyak, P., Mann, R. E., & Rehm, J. (2013). Reductions in non-medical prescription opioid use among adults in Ontario, Canada: are recent policy interventions working? *Substance Abuse, Treatment, Prevention, and Policy, 8*, 7. doi:10.1186/1747-597X-8-7.
- Fischer, B., Gittins, J., & Rehm, J. (2008). Characterizing the 'awakening elephant': prescription opioid misuse in North America: Epidemiology, harms, interventions *Contemporary Drug Problems, 35*(2/3), 397-426.

- Fischer, B., Nakamura, N., Ialomiteanu, A., Boak, A., & Rehm, J. (2010). Assessing the prevalence of non-medical prescription opioid use in the general Canadian population: Methodological issues and questions. *Canadian Journal of Psychiatry*, 55(9), 606-609.
- Gfroerer, J., Wright, D., & Kopstein, A. (1997). Prevalence of youth substance use: the impact of methodological differences between two national surveys. *Drug and Alcohol Dependence*, 47, 19-30.
- Grant, J. E. (2008). *Impulse Control Disorders*: New York, NY: Norton and Co.
- Grant, J. E., Levine, L., Kim, D., & Potenza, M. N. (2005). Prevalence of impulse control disorders in adult psychiatric inpatients. *American Journal of Psychiatry*, 162, 2184–2188.
- Groves, R. M., & Couper, M. P. (1998). *Nonresponse in Household Interview Surveys*. New York: Wiley.
- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2004). *Survey Methodology*. Hoboken, New Jersey: Wiley.
- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey Methodology, Second Edition*. Hoboken, New Jersey: Wiley.
- Groves, R. M., & Kahn, R. (1979). *Surveys by Telephone: A National Comparison with Personal Interviews*. New York: Academic Press.
- Groves, R. M., & Peytcheva, E. (2008). The impact of nonresponse rates on nonresponse bias: A meta-analysis. *Public Opinion Quarterly*, 72(2), 167-189.
- Harrison, E., Haaga, J., & Richards, T. (1993). Self-reported drug use data: What do they reveal? *American Journal of Drug and Alcohol Abuse*, 19, 423-441.
- Health Canada. (2012). The Canadian Alcohol and Drug Use Monitoring Survey (CADUMS): Summary of Results for 2012. [Electronic Version], from <http://www.hc-sc.gc.ca/hc-ps/drugs-drogues/stat/2012/summary-sommaire-eng.php>
- Heatherton, T. F., Kozlowski, L. T., Frecker, R. C., Rickert, W. S., & Robinson, J. (1989). Measuring the heaviness of smoking using self-reported time to the first cigarette of the day and number of cigarettes smoked per day. *British Journal of Addiction*, 84, 791-800.
- Heeringa, S. G., West, B. T., & Berglund, P. A. (2010). *Applied Survey Data Analysis*. Boca Raton, FL: Chapman & Hall/ CRC.
- Hilbe, J. M. (2009). *Logistic regression models*. London: Chapman & Hall /CRC Press.
- Ialomiteanu, A., & Adlaf, E. M. (2003). *CAMH Monitor 2002: Technical Guide*. Toronto: Centre for Addiction and Mental Health.
- Ialomiteanu, A., & Adlaf, E. M. (2004). *CAMH Monitor 2003: Technical Guide*. Toronto: Centre for Addiction and Mental Health.
- Ialomiteanu, A., & Adlaf, E. M. (2005). *CAMH Monitor 2004: Technical Guide*. Toronto: Centre for Addiction and Mental Health [Available at http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].
- Ialomiteanu, A., & Adlaf, E. M. (2006). *CAMH Monitor 2005: Technical Guide*. Toronto: Centre for Addiction and Mental Health [Available at http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].

- Ialomiteanu, A., & Adlaf, E. M. (2007). *CAMH Monitor 2006: Technical Guide*. Toronto: Centre for Addiction and Mental Health [Available at http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].
- Ialomiteanu, A., & Adlaf, E. M. (2008). *CAMH Monitor 2007: Technical Guide*. Toronto: Centre for Addiction and Mental Health [Available at http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].
- Ialomiteanu, A., & Adlaf, E. M. (2009). *CAMH Monitor 2008: Technical Guide*. Toronto: Centre for Addiction and Mental Health [Available at http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].
- Ialomiteanu, A., & Adlaf, E. M. (2010). *CAMH Monitor 2009: Technical Guide*. Toronto, ON: Centre for Addiction and Mental Health [Available at: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].
- Ialomiteanu, A., & Adlaf, E. M. (2011). *CAMH Monitor 2010: Technical Guide*. Toronto, ON: Centre for Addiction and Mental Health [Available at: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].
- Ialomiteanu, A.R., & Adlaf, E. M. (2012). *CAMH Monitor 2011: Metadata User's Guide*. Toronto, ON: Centre for Addiction and Mental Health [Available at: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx].
- Ialomiteanu, A.R., & Adlaf, E. M. (2013). *CAMH Monitor 2012: Metadata User's Guide (electronic document)*. Toronto, ON: Centre for Addiction and Mental Health. Available: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx.
- Ialomiteanu, A.R., & Adlaf, E. M. (2014). *CAMH Monitor 2013: Metadata User's Guide (electronic document)*. Toronto, ON: Centre for Addiction and Mental Health. Available: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx.
- Ialomiteanu, A.R., & Adlaf, E. M. (2015). *CAMH Monitor 2014: Metadata User's Guide (electronic document)*. Toronto, ON: Centre for Addiction and Mental Health. Available: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx.
- Ialomiteanu, A.R., Adlaf, E. M., & Mann, R. E. (2016). *CAMH Monitor 2015: Metadata User's Guide (electronic document)*. Toronto, ON: Centre for Addiction and Mental Health. Available: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx.
- Ialomiteanu, A.R., Adlaf, E. M., Mann, R. E., & Rehm, J. (2009). *CAMH Monitor eReport: Addiction & Mental Health Indicators Among Ontario Adults, 1977-2007 (CAMH Research Document Series No. 25)*. Toronto, ON: Centre for Addiction & Mental Health.
- Ialomiteanu, A.R., Adlaf, E. M., Mann, R. E., & Rehm, J. (2011). *CAMH Monitor eReport: Addiction & Mental Health Indicators Among Ontario Adults, 1977-2009 (CAMH Research Document Series No. 31)*. Toronto, ON: Centre for Addiction & Mental Health.
- Ialomiteanu, A.R., Adlaf, E. M., Hamilton, H.A., & Mann, R. E. (2012). *CAMH Monitor eReport: Addiction & Mental Health Indicators Among Ontario Adults, 1977-2011 (CAMH Research Document Series No. 35)*. Toronto, ON: Centre for Addiction & Mental Health.
- Ialomiteanu, A.R., Hamilton, H.A., Adlaf, E. M., & Mann, R. E. (2014). *CAMH Monitor eReport: Substance Use, Mental Health and Well-Being Among Ontario Adults, 1977-2013 (CAMH Research Document Series No. 40)*. Toronto, ON: Centre for Addiction & Mental Health.

- Ialomiteanu, A.R., Hamilton, H.A., Adlaf, E. M., & Mann, R. E. (2016). *CAMH Monitor eReport: CAMH Monitor eReport: Substance Use, Mental Health and Well-Being Among Ontario Adults, 1977-2015 (CAMH Research Document Series No. 45)*. Toronto, ON: Centre for Addiction & Mental Health. Available: http://www.camh.ca/en/research/news_and_publications/Pages/camh_monitor.aspx.
- Ialomiteanu, A.R., & Bondy, S. (1997). *The Ontario Alcohol and Other Drug Opinion Surveys (OADOS): 1992-1995. User's Guide*. Toronto: Addiction Research Foundation.
- Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior*, 38(1), 21-37.
- Ilie, G., Adlaf, E. M., Mann, R. E., Ialomiteanu, A. R., Hamilton, H., Rehm, J., . . . Cusimano, M. D. (2015). Associations between a History of Traumatic Brain Injuries and Current Cigarette Smoking, Substance Use, and Elevated Psychological Distress in a Population Sample of Canadian Adults. *Journal of Neurotrauma*, 32(4), 1130-1134. doi: 10.1089/neu.2014.3619
- Kalton, G. (2009). Methods for oversampling rare subpopulations in social surveys. *Survey Methodology* 35(2), 125-141.
- Kandel, D. (1991). The social demography of drug use. *The Millbank Quarterly*, 69, 356-414.
- Keeter, S., Miller, C., Kohut, A., Groves, R. M., & Presser, S. (2000). Consequences of reducing nonresponse in a national telephone survey. *Public Opinion Quarterly*, 64, 125-148.
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S.-L. T., . . . , & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32 (6), 959-976. doi: 10.1017/S0033291702006074
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., . . . , & Zaslavsky, A. M. (2003). Screening for serious mental illness in the general population. *Archives of General Psychiatry*, 60(2), 184-189. doi: 10.1001/archpsyc.60.2.184
- Kish, L. (1965). *Survey Sampling*. New York: Wiley & Sons.
- Kish, L. (1999). Combining/cumulating population surveys. *Survey Methodology*, Vol. 25(2), 129-138.
- Korn, E. L., & Graubard, B. I. (1999). *Analysis of Health Surveys*. New York: John Wiley & Sons.
- Liu, T. C., Desai, R. A., Krishnan-Sarin, S., Cavallo, D. A., & Potenza, M. N. (2011). Problematic Internet use and health in adolescents: Data from a high school survey in Connecticut. *The Journal of Clinical Psychiatry*, 72(6), 836-845.
- Lohr, S. L. (1999). *Sampling: Design and Analysis*. Pacific Groves, CA: Duxbury Press.
- Mann, R. E., Smart, R. G., Stoduto, G., Adlaf, E. M., Vingilis, E., Beirness, D., Lambie, R., & Asbridge, M. (2003). The effects of drinking-driving laws: a test of the differential deterrence hypothesis. *Addiction*, 98, 1531-1536.
- Medway, R., & Fulton, J. (2012). When more gets you less: A meta-analysis of the effect of concurrent web options on mail survey response rates. *Public Opinion Quarterly*, 76, 733-746.
- McDowell, I. (2006). *Measuring health: A guide to rating scales and questionnaires* (3rd ed.). New York: Oxford University Press.
- Mental Health Commission of Canada. (2012). *Changing directions, changing lives: The mental health strategy for Canada*. Calgary, AB.

- Moriarty, D. G., Zack, M. M., & Kobau, R. (2003). The Centers for Disease Control and Prevention's Health Days Measures - Population tracking of perceived physical and mental health over time. *Health and Quality of Life Outcomes*, 1(37).
- Murray, C. J. L., & Lopez, A. D. (1996). *The Global Burden of Disease: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020*. Boston: Harvard School of Public Health, World Health Organization, world Bank, 1996.
- Ôunpuu, S., Krueger, P., Vermeulen, M., & Chambers, L. (2000). Using the U.S. Behavior Risk Factor Surveillance System's Health Related Quality of Life Survey Tool in a Canadian City. *Canadian Journal of Public Health*, 91(1), 67-72.
- Paglia-Boak, A., Adlaf, E. M., & Mann, R. (2011). *Drug Use Among Ontario Students, 1977-2011: Detailed OSDUHS findings (CAMH Research Document Series No. 32)*. Toronto, ON: Centre for Addiction and Mental Health.
- Paglia, A. (1995). *Alcohol, Tobacco and Drugs: Dependence, Problems and Consequences of Use. A Report of the 1994 Ontario Alcohol and Other Drug Opinion Survey*. Toronto: Addiction Research Foundation.
- Prochaska, J. J., Sung, H.-Y., Max, W., Shi, Y., & Ong, M. (2012). Validity study of the K6 scale as a measure of moderate mental distress based on mental health treatment need and utilization. *International Journal of Methods in Psychiatric Research*, 21(2), 88-97. doi: 10.1002/mpr.1349
- Ratnasingham, S., Cairney, J., Rehm, J., Manson, H., & Kurdyak, P. A. (2012). *Opening Eyes, Opening Minds: The Ontario Burden of Mental Illness and Addictions Report. An ICES/PHO Report*. Retrieved November 7, 2012, from <http://www.oahpp.ca/opening-eyes-opening-minds/index.html>
- Redelmeier, D. A., & Tibshirani, R. J. (1997). Association between Cellular-Telephone Calls and Motor Vehicle Collisions. *New England Journal of Medicine*(336), 453-458. doi: 10.1056/NEJM199702133360701
- Rehm, J., Baliunas, D., Borges, G. L. G., Graham, K., Irving, H., Kehoe, T., et al. (2010). The relation between different dimensions of alcohol consumption and burden of disease: an overview. *Addiction*, 105, 817-843.
- Rehm, J., Baliunas, D., Brochu, S., Fischer, B., Gnam, W., Patra, J., et al. (2006). *The costs of substance abuse in Canada 2002*. Ottawa: Canadian Centre on Substance Abuse.
- Rehm, J., Gnam, W., Popova, S., Baliunas, D., Brochu, S., Fischer, B., et al. (2007). The costs of alcohol, illegal drugs, and tobacco in Canada, 2002. *J Stud Alcohol Drugs*, 68(6), 886-895.
- Rizzo, L., Brick, M. J., & Park, I. (2004). A minimally intrusive method for sampling persons in random digit dial surveys. *Public Opinion Quarterly*, 68(2), 267-274.
- Rossi, P. H. (1989). *Down and Out in America: The Origins of Homelessness*. Chicago: University of Chicago Press.
- Saunders, J. B., Aasland, O. G., Babor, T. F., De la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption BII. *Addiction*, 88, 791-804.
- Schmidt, LA, Mäkelä, P, Rehm, J, & Room, R (2010). Alcohol: Equity and social determinants. In: Blas, E & Kurup, AS (eds). Equity, social determinants and public health programmes. World Health Organization, Geneva.

- Single, E., Rehm, J., Robson, L., & Van Truong, M. (2000). The relative risks and aetiologic fractions of different causes of death and disease attributable to alcohol, tobacco and illicit drug use in Canada. *Canadian Medical Association Journal*, 162(23), 1669-1675.
- Sloboda, Z. (2005). *Epidemiology of Drug Abuse*. New York: Springer.
- Sloboda, Z., McKetin, R., & Kozel, N. (2005). Use of archival data. In Z. Sloboda (Ed.), *Epidemiology of Drug Abuse* (pp. 63-78). New York: Springer.
- Smart, R. G., & Adlaf, E. M. (1982). *Trends in Alcohol and Drug Use Among Ontario Adults: Report of a Household Survey, 1982*. Toronto: Addiction Research Foundation.
- Smart, R. G., & Adlaf, E. M. (1984). *Alcohol and Drug Use Among Ontario Adults in 1984 and Changes since 1982*. Toronto: Addiction Research Foundation.
- Smart, R. G., & Adlaf, E. M. (1987). *Alcohol and Other Drug Use Among Ontario Adults 1977-1987*. Toronto: Addiction Research Foundation.
- Smart, R. G., & Goodstadt, M. S. (1977). *Alcohol and Drug Use Among Ontario Adults: Report of a Household Survey, 1977*. Toronto: Addiction Research Foundation.
- StataCorp. (2013). *Stata Statistical Software: Release 13.0*. College Station, TX: Stata Corporation.
- Statistics Canada. (2013) Table 105-1101 - Mental Health Profile, Canadian Community Health Survey –Mental Health (CCHS), by age group and sex, Canada and provinces, occasional (number unless otherwise noted) (accessed: October 22, 2014).
- Statistics Canada. (2012). *2011 Census*. Retrieved from: <http://www12.statcan.ca/census-recensement/index-eng.cfm>.
- Statistics Canada. (2014). Residential Telephone Service Survey 2013 (RTSS). [Electronic Version], from <http://www.statcan.gc.ca/daily-quotidien/140623/dq140623a-eng.htm>
- Stephens, T., & Joubert, N. (2001). The Economic Burden of Mental Health Problems in Canada. *Chronic Diseases in Canada*, 22(1), 18-23.
- Stockwell, T., Gruenewald, P. J., Toumbourou, J. W., & Loxley, W. (Eds.). (2005). *Preventing harmful substance use: The evidence base for policy and practice*. West Sussex, England: John Wiley & Sons, Ltd.
- Thomas, N., Raghunathan, T. E., Schenker, N., Katzoff, M. J., & Johnson, C. L. (2006). An Evaluation of Matrix Sampling Methods Using Data from the National Health and Nutrition Examination Survey. *Survey Methodology*, 32(2), 217-231.
- Trewin, D., & Lee, G. (1988). International Comparisons of Telephone Coverage. In R. M. Groves, P. P. Biemer, L. E. Lyberg, J. T. Massy, W. I. Nicholls & J. Waksberg (Eds.), *Telephone Survey Methodology* (pp. 9-24). New York: John Wiley & Sons.
- Tsuang, M. T., & Tohen, M. (Eds.). (2002). *Textbook in psychiatric epidemiology*. New York: Wiley-Liss.
- Turner, C., Lessler, J., & Gfroerer, J. (1992). *Survey Measurement of Drug Use: Methodological Studies*. Washington: U.S. Government Printing Office.
- U.S. Department of Health and Human Services. (2010). *Healthy People 2020*. Retrieved October, 2014, from: <http://www.healthypeople.gov/2020/topicsobjectives2020/default>
- Üstün, T. B. (1999). The Global Burden of Mental Disorders. *American Journal of Public Health*, 89, 1315-1318.

- Voigt, L. F., Schwartz, S. M., Doody, D. R., Lee, S. C., & Li, C. I. (2011). Feasibility of Including Cellular Telephone Numbers in Random Digit Dialing for Epidemiologic Case-Control Studies. *American Journal Epidemiology*, 173(1), 118-126.
- WHO (World Health Organization). (2008). *The Global Burden of Disease: 2004 Update*. Geneva, Switzerland: WHO Press. Retrieved October 25, 2012, from http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf
- WHO (World Health Organization). (2012). Depression: A global public health concern. [Electronic Version]. Retrieved October 25, 2012, from http://www.who.int/mental_health/management/depression/who_paper_depression_wfmh_2012.pdf
- WHO ASSIST Working Group. (2002). Alcohol, smoking and substance involvement screening test (ASSIST): Development, reliability and feasibility. *Addiction*, 97(9), 1183-1194.
- Wiebe, J., Single, E., & Falkowski-Ham, A. (2001). *Measuring gambling and problem gambling in Ontario*. Toronto: Canadian Centre on Substance Abuse and Responsible Gambling Council.
- Wonnacott, T. H., & Wonnacott, R. J. (1972). *Introductory Statistics*. New York: Wiley.
- Yau, Y. H. C., Potenza, M. N., & White, M. A. (2013). Problematic Internet use, mental health and impulse control in an online survey of adults. *Journal of Behavioral Addictions*, 2(2), 72-81 doi: 10.1556/JBA.1.2012.015

SELECTED CAMH MONITOR PEER-REVIEWED PUBLICATIONS

- Fischer, B., Rudzinski, K., Ialomiteanu, A., Aeby, S., Kurdyak, P., & Rehm, J. (in press). Substance use, health and functioning characteristics of marijuana program participants compared to the general adult population in Ontario (Canada). *Journal of Psychoactive Drugs*.
- Ilie, G., Wickens, C. M., Mann, R. E., Ialomiteanu, A., Hamilton, H. A., Adlaf, E. A., Asbridge, M., Rehm, J., & Cusimano, M. (in press). Roadway aggression among drivers and passengers with or without a history of traumatic brain injury. *Violence and Victims*.
- Mann, R. E., Ialomiteanu, A. R., Gliksman, L., Menzies, P., Adlaf, E. M., Agic, B., & J., R. (in press). Prevalence and characteristics of substance use among Aboriginal peoples in Ontario: A comparative study. *Native Social Work Journal*.
- van der Maas, M., Mann, R. E., McCready, J., Matheson, F. I., Turner, N., Hamilton, H. A., & Ialomiteanu, A. R. (in press). Problem gambling in a sample of older adult casino gamblers: Associations with gambling participation and motivations. *Journal of Geriatric Psychiatry and Neurology*.
- Agic, B., Mann, R. E., Tuck, A., Ialomiteanu, A., Bondy, S., Simich, L., & Ilie, G. (2016). Alcohol use among immigrants in Ontario, Canada. *Drug and Alcohol Review*, 35, 196-205.
- Fischer, B., Ialomiteanu, A. R., Russell, C., Rehm, J., & Mann, R. E. (2016). Public Opinion Towards Cannabis Control in Ontario: Strong but Diversified Support for Reform of both Use and Supply Control. *Canadian Journal of Criminology and Criminal Justice*, 58(3), 443-459. doi: 10.3138/cjccj.2015E.43
- Ilie, G., Mann, R.E., Ialomiteanu, A. R., Adlaf, E. M., Hamilton, H., Wickens, C., Asbridge, M., Rehm, J., & Cusimano, M. (2016). Road rage and traffic accidents among adults with a history of traumatic brain injuries. *Brain Injury*, 30(5-6), 753.
- Wickens, C. M., Mann, R. E., Ialomiteanu, A. R., & Stoduto, G. (2016). Do Driver Anger and Aggression Contribute to the Odds of a Crash? A Population-Level Analysis *Transportation Research Part F: Traffic Psychology and Behaviour*. doi: 10.1016/j.trf.2016.03.003
- Wickens, C. M., Smart, R. G., Vingilis, E., Ialomiteanu, A. R., Stoduto, G., & Mann, R. E. (2016). Street racing among the Ontario adult population: prevalence and impact on collision risk. *Proceedings of the 26th Canadian Association of Road Safety Professionals Conference, Halifax, Nova Scotia, Canada*.
- Agic, B., Mann, R. E., Tuck, A., Ialomiteanu, A. R., Bondy, S., & Simich, L. (2015). Gender Differences in Alcohol Use and Risk Drinking in Ontario Ethnic Groups. *Journal of Ethnicity in Substance Abuse*, 14(4), 379-391. doi: 10.1080/15332640.2014.993784
- Fischer, B., Jones, W., Murphy, Y., Ialomiteanu, A., & Rehm, J. (2015). Recent Developments in Prescription Opioid-related Dispensing and Harm Indicators in Ontario, Canada. *Pain physician*, 18(4), E659-E662
- Ilie, G., Vingilis, E. R., Mann, R. E., Hamilton, H., Toplak, M., Adlaf, E. M., Ialomiteanu, A.R... . Cusimano, M. D. (2015). Traumatic brain injury and indicators of ADHD among Canadian adults. *Journal of Psychiatric Research*, 69, 174-179. doi: <http://dx.doi.org/10.1016/j.jpsychires.2015.08.004>
- Ilie, G., Mann, R. E., Ialomiteanu, A., Adlaf, E. M., Hamilton, H., Wickens, C. M., . . . Cusimano, M. D. (2015). Traumatic brain injury, driver aggression and motor vehicle collisions in Canadian adults. *Accident Analysis & Prevention*, 81, 1-7. doi: <http://dx.doi.org/10.1016/j.aap.2015.04.021>
- Ilie, G., Adlaf, E. M., Mann, R. E., Ialomiteanu, A., Hamilton, H., Rehm, J., Asbridge, M. & Cusimano, M. D. (2015). Associations between a history of traumatic brain injuries and current cigarette smoking, cannabis use, nonmedical opioid use, and elevated psychological distress in a population sample of Canadian adults. *Journal of Neurotrauma*, 32, 1130-1134.

- Wickens, C. M., Vingilis, E., Mann, R. E., Erickson, P., Toplak, M. E., Jain, U. R., Ialomiteanu, A.R., . . . Ilie, G. (2015). The impact of childhood symptoms of conduct disorder on driver aggression in adulthood. *Accident analysis and prevention*, 78, 87-93.
- Wickens, C. M., Mann, R. E., Vingilis, E., Ialomiteanu, A. R., Erickson, P., Kolla, N., . . . van der Maas, M. (2015). The impact of childhood symptoms of conduct disorder on driving after drinking in adulthood. *Proceedings of the 25th Canadian Association of Road Safety Professionals Conference, Ottawa, Ontario, Canada*.
- Ialomiteanu, A. R., Giesbrecht, N., & Wettlaufer, A. (2014). Trends in public opinion on alcohol issues, Ontario, Canada, 1996-2011, during gradual changes in access to alcohol. *Drug and Alcohol Review*, 33(3).
- Sayer, G., Ialomiteanu, A., Stoduto, G., Wickens, C., Mann, R., Le Foll, B., & Brands, B. (2014). Increased collision risk among drivers who report driving after using alcohol and after using cannabis. *Canadian Journal of Public Health*, 105(1), e92-e93.
- Fischer, B., Ialomiteanu, A., Boak, A., Keates, A., Adlaf, E., Rehm, J., & Mann, R.E. (2013). Prevalence and Key Co-Variates of Non-Medical Use of Prescription Opioid Use Among the General Secondary Student and Adult Population in Ontario. *Drug and Alcohol Review*, 32(3), 276-287.
- Fischer, B., Ialomiteanu, A., Kurdyak, P., Mann, R. E., & Rehm, J. (2013). Reductions in Non-Medical Prescription Opioid Use Among Adults in Ontario: Are Recent Policy Interventions Working? *Substance Abuse Treatment, Prevention, and Policy*, 8(7).
- Samokhvalov, A. V., Selby, P., Bondy, S. J., Chaiton, M., Ialomiteanu, A., Mann, R., & Rehm, J. (2013). Smokers who seek help in specialized cessation clinics: How special are they compared to smokers in general population? *Journal of Smoking Cessation*, 23,1- 9.
- Shield, K. D., Ialomiteanu, A., Fischer, B., & Rehm, J. (2013). Assessing the prevalence of non-medical prescription opioid use in the Canadian general adult population: evidence of large variation depending on survey questions used. *BMC Psychiatry*, 13(6).
- Smart, R. G., Stoduto, G., Mann, R. E., Ialomiteanu, A., Wickens, C. M., & Paglia-Boak, A. (2013). Bullying and Hazardous Driving Among Youthful Drivers. *Canadian Journal of Public Health*, 104(3), 270.
- Wickens, C.M., Mann, R.E., Stoduto, G., Ialomiteanu, A., Smart, R.G.,& Rehm, J. (2013). The impact of probable anxiety and mood disorder on self-reported collisions: A population study. *Journal of Affective Disorders*, 145, 253-255.
- Giesbrecht, N., Wettlaufer, A., Walker, E., Ialomiteanu, A., & Stockwell, T. (2012). Beer, Wine & Distilled Spirits in Ontario: A comparison of recent policies, regulations & practices. *Nordic Studies on Alcohol and Drugs*, 29(1), 79 -102.
- Mann, R. E., Ialomiteanu, A. R., Chan, V., Cheung, J., Stoduto, G., Ala-leppilampi, K., et al. (2012). Relationships of alcohol use and alcohol problems with mood and anxiety disorders. *Contemporary Drug Problems*, 39, 247-263.
- Smart, R. G., Mann, R. E., Stoduto, G., Ialomiteanu, A., Wickens, C. M., & Vingilis, E. (2012). Is there a link between street racing and mental health? *Australasian Psychiatry*, 20, 166-167.
- Stoduto, G., Mann, R. E., Ialomiteanu, A., Wickens, C. M., & Brands, B. (2012). Examining the link between collision involvement and cocaine use. *Drug and Alcohol Dependence*, 123, 260-263.
- Wickens, C. M., Mann, R. E., Stoduto, G., Ialomiteanu, A., & Smart, R. G. (2012). Does gender moderate the relationship between driver aggression and risk factors? *Accident Analysis and Prevention*, 45, 10-18.

- Nakamura, N., Ialomiteanu, A. R., Rehm, J., & Fischer, B. (2011). Prevalence and characteristics of substance use among Chinese and South Asians in Canada. *Journal of Ethnicity in Substance Abuse, 10*, 39-47.
- Shield, K. D., Ialomiteanu, A., Fischer, B., Mann, R., & Rehm, J. (2011). Non-medical Use of Prescription Opioids Among Ontario Adults: Data From the 2008/2009 CAMH Monitor. *Canadian Journal of Public Health, 102*(5).
- Smart, R. G., Stoduto, G., Vingilis, E., Wickens, C. M., Mann, R., & Ialomiteanu, A. (2011). Preliminary Results for Street Racing Among Adults in Ontario: Relations to Alcohol and Cannabis Use. *Canadian Journal of Public Health, 102*(5).
- Wells, S., Giesbrecht, N., Ialomiteanu, A., & Graham, K. (2011). The Association of Drinking Pattern with Aggression Involving Alcohol and with Verbal Versus Physical Aggression. *Contemporary Drug Problems, 38*(2).
- Wickens, C. M., Mann, R. E., Stoduto, G., Ialomiteanu, A. R., & Smart, R. (2011). Age Group Differences in Self-Reported Road Rage Perpetration and Victimization. *Transportation Research Part F: Traffic Psychology and Behaviour, 14*, 400-412.
- Mann, R. E., Stoduto, G., Vingilis, E., Asbridge, M., Ialomiteanu, A., Wickens, C. M., et al. (2010). Alcohol and driving factors in collision risk. *Accident Analysis and Prevention, 42*, 1538-1544.
- Mann, R. E., Stoduto, G., Ialomiteanu, A., Asbridge, M., Smart, R. G., & Wickens, C. M. (2010). Collision Risk Associated With Cannabis Use and Driving After Cannabis Use Among Ontario Adults. *Traffic Injury Prevention 11*, 115-122.
- Mann, R. E., Stoduto, G., Butters, J., Ialomiteanu, A. R., Boase, P., Asbridge, M., et al. (2010). Age group differences in collision risk. *Journal of Safety Research, 41*, 445-449.
- Ialomiteanu, A. R., Giesbrecht, N., Adlaf, E. M., Irving, H., Paglia-Boak, A., & Rehm, J. (2010). An Exploratory Approach to Analyzing Alcohol Control Policy Opinions Held by Ontario Adults. *Int. J. Environ. Res. Public Health, 7*(3), 827-841.
- Cheung, J., Mann, R. E., Ialomiteanu, A. R., Stoduto, G., Chan, V., Ala-leppilampi, K., et al. (2010). Anxiety and mood disorders and cannabis use. *The American Journal of Drug and Alcohol Abuse, 36*, 118-122.
- Stoduto, G., Dill, P., Mann, R. E., Wells-Parker, E., Toneatto, T., & Shuggi, R. (2008). Examining the link between drinking-driving and depressed mood. *Journal of Studies on Alcohol and Drugs, 69*, 777-780.
- Brewster, J. M., Victor, J. C., & Ashley, M. J. (2007). Views of Ontarians about health professionals' smoking cessation advice. *Canadian Journal of Public Health, 98*(5), 395-399.
- Giesbrecht, N., Ialomiteanu, A., Anglin, L., & Adlaf, E. (2007). Alcohol marketing and retailing: Public opinion & recent policy developments in Canada. *Journal of Substance Use, 12*(6), 389-404.
- Mann, R. E., Adlaf, E. M., Zhao, J., Stoduto, G., Ialomiteanu, A., & Smart, R. G. (2007). Cannabis use and self-reported collisions in a representative sample of adult drivers. *Journal of Safety Research, 38*, 669-674.
- Mann, R. E., Zhao, J., Stoduto, G., Adlaf, E. M., Smart, R. G., & Donovan, J. E. (2007). Road rage and collision involvement. *American Journal of Health Behavior, 31*(4), 384-391.
- Zhao, J., Mann, R., Chipman, M., Adlaf, E. M., Stoduto, G., & Smart, R. G. (2006). The impact of driver education on collisions among young drivers with a graduated license. *Accident Analysis and Prevention, 38*, 35-42.

Giesbrecht, N., Ialomiteanu, A., & Anglin, L. (2005). Drinking patterns and perspectives on alcohol policy: results from two Ontario surveys. *Alcohol and Alcoholism, 40*, 132-139.

Anglin, L., Giesbrecht, N., Ialomiteanu, A., Grand, L., Mann, R. E., & McAllister, J. (2004). Serving alcohol at home: What do most people do? Findings from a 2001 Ontario adult survey. *Drugs: Education, Prevention and Policy, 11*(1), 21-33.

Mann, R., Smart, R. G., Stoduto, G., Adlaf, E. M., & Ialomiteanu, A. (2004). Alcohol consumption and problems among road rage victims and perpetrators. *Journal of Studies on Alcohol, 65*(2), 161-168.

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