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Smoke-Free Ontario Strategy Monitoring Report

Ontario Tobacco Research Unit

February 2016

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List of Acronyms and Abbreviations

ATP	Aboriginal Tobacco Program
CAMH	Centre for Addiction and Mental Health
CCHS	Canadian Community Health Survey
CTADS	Canadian Tobacco, Alcohol and Drugs Survey
CTUMS	Canadian Tobacco Use Monitoring Survey
<i>ECA</i>	<i>Electronic Cigarettes Act</i>
LTPB	Leave The Pack Behind
MPOWER	Six indicators that include monitoring (prevalence data; M), smoke-free policies (P), cessation programs (O), health warnings on cigarette packages and anti-tobacco mass media campaigns (W), advertising bans (E), and taxation (R).
MOHLTC	Ministry of Health and Long-Term Care
MUD	Multi-unit dwelling
NRT	Nicotine Replacement Therapy
ODB	Ontario Drug Benefit
OMSC	Ottawa Model for Smoking Cessation
OSDUHS	Ontario Student Drug Use and Health Survey
OTRU	Ontario Tobacco Research Unit
PHU	Public Health Unit
PTCC	Program Training and Consultation Centre
RNAO	Registered Nurses' Association of Ontario
SAC	Scientific Advisory Committee
SFO	Smoke-Free Ontario
<i>SFOA</i>	<i>Smoke-Free Ontario Act</i>
SHAF	Smoking and Health Action Foundation
SHL	Smokers' Helpline
SHL TXT	Smokers' Helpline Text Messaging
SHO	Smokers' Helpline Online
SHS	Secondhand Smoke
STOP	Smoking Treatment for Ontario Patients
TCAN	Tobacco Control Area Network
TEACH	Training Enhancement in Applied Cessation Counselling and Health
TIMS	Tobacco Informatics Monitoring System
YATI	Youth Advocacy Training Institute
YSS	Youth Smoking Survey



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Smoke-Free Ontario Strategy Monitoring Report: Introduction



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Introduction

The Smoke-Free Ontario Strategy (the Strategy) is a comprehensive tobacco-control program involving a broad coalition of partners including provincial and local governments, boards of health, voluntary-health organizations, hospitals and universities. Primary funding for the Strategy comes from the Ontario Ministry of Health and Long-Term Care, with direct and in-kind funding from other Strategy partners.

The Scientific Advisory Committee and Tobacco Strategy Advisory Group reports from 2010 have informed Smoke-Free Ontario Strategy development in recent years.ⁱ The Ontario Government has established structures to guide Strategy implementation and continues to take significant steps to strengthen tobacco control. The Tobacco Control System Committee, three Task Forces (Protection and Enforcement, Cessation and Youth Prevention) and the Communications and Marketing Advisory Committee help to guide and coordinate implementation.

Noteworthy recent initiatives include the recently enacted restaurant and bar patio, playground and sports field smoking bans (see Protection Chapter); school-based pilots (see Prevention Chapter); a youth social identities and tobacco use prevention project (see Prevention Chapter); and the Nursing Best Practice Smoking Cessation Initiative (see Cessation Chapter). These recent activities tie in with past-year initiatives, which are ongoing, including free access to smoking cessation medications and pharmacist counselling for Ontario Drug Benefit beneficiaries; limited access to free Nicotine Replacement Therapy (NRT) and cessation counselling through family health teams, community health centres, addictions agencies and Aboriginal health access centres.

ⁱ In the assessment of Strategy progress, reference is made to the Smoke-Free Ontario Scientific Advisory Committee (SAC). During 2009 and 2010, the then Ministry of Health Promotion and Sport initiated processes to renew Ontario's Tobacco Control Strategy. The Ministry commissioned SAC to provide evidence-informed scientific and technical advice to support the renewal of the Smoke-Free Ontario Strategy for 2010-15. SAC was comprised of leading tobacco control scientists, researchers and practitioners from across Ontario and sought input from international tobacco control experts and key informants. SAC was tasked with reviewing the latest scientific and practice-based evidence in comprehensive tobacco control. In 2010, SAC delivered its report, *Evidence to Guide Action: Comprehensive Tobacco Control in Ontario*. Drawing on the SAC report, the Tobacco Strategy Advisory Group (TSAG) produced *Building on Our Gains, Taking Action Now: Ontario's Tobacco Control Strategy for 2011-2016*.

Report Structure

This report is organized around the three major goals of the Smoke-Free Ontario Strategy. These goals are based on the strategic direction set by the Steering Committee of the Ontario Tobacco Strategy in 2003 and are consistent with earlier formulations of the Strategy.¹ The ultimate objective of the Strategy is to eliminate tobacco-related illness and death in Ontario.

The three Strategy goals are:

- **Prevention:** To prevent smoking initiation and regular use among children, youth and young adults
- **Cessation:** To motivate and support quit attempts by smokers
- **Protection:** To eliminate Ontarians' exposure to secondhand tobacco smoke

Chapters for each goal area (prevention, cessation and protection) are organized around intervention path logic models. These models provide a simplified visual illustration of how infrastructure and interventions work through paths—identified from the literature—to affect short-, medium- and long-term outcomes. These outcomes have been monitored by OTRU since 1994 and are consistent with the indicators documented in the Ontario Tobacco Strategy Steering Committee's 2005 report,² the then Ministry of Health Promotion's 2010 Comprehensive Tobacco Control Guidance Document for boards of health,³ with the core outcomes identified by the National Advisory Group on Monitoring Tobacco Control⁴ and with the Centers for Disease Control and Prevention's Key Outcome Indicators for Evaluating Comprehensive Tobacco Control Programs.⁵ Measurement challenges and space constraints in this report do not allow for full analysis of the relationships among all of these components. For a more detailed analysis of these relationships for the cessation goal area, see *Evidence to Inform Smoking Cessation Policymaking in Ontario*.⁶

This report is organized as follows:

- Chapter 1: Introduction
- Chapter 2: Tobacco Use
- Chapter 3: Youth Prevention
- Chapter 4: Smoking Cessation
- Chapter 5: Protection
- Chapter 6: Concluding Note
- Appendices

Methodological Approach

This report presents information about Strategy activities and tobacco-control advances using the latest population survey data available (primarily CAMH Monitor 2014, CCHS 2014 and OSDUHS 2015), 2014/15 Strategy partner reports (ending March 2015) and select policy and program updates to December 2015. For each goal area, we describe Strategy infrastructure and interventions (policies, programs and social marketing campaigns), explore the reach and evaluative information about interventions and analyze population-level changes. To further understanding of tobacco-control progress, we include assessments of changes in the social climate and public support for tobacco control measures. The report endeavours to bring evidence to bear on the continued development of comprehensive tobacco control in Ontario.

This report addresses Strategy interventions funded directly, but not exclusively by the Ministry of Health and Long-Term Care. It draws on information from program evaluations, performance reports and administrative data. Evaluative information about policy and program interventions is drawn from evaluation work conducted directly by the Ontario Tobacco Research Unit and by others on behalf of organizations that receive Smoke-Free Ontario Strategy funding. Further information has been gleaned from administrative documents and discussions with service providers and managers. OTRU's [Tobacco Informatics Monitoring System \(TIMS\)](#) provides much of the population-level data analysis.

This report does not draw direct relationships between tobacco control activities and outcomes. The relationship between Strategy interventions and changes in protection, cessation and prevention outcomes is complex. There is substantial evidence that tobacco control interventions affect these outcomes and there is an expectation of synergistic effects from a comprehensive approach. However, several forces confound these relationships:

- Variations in implementation, including reach and dose of interventions
- Unknown time lags between implementation and population-level changes
- Economic and social perturbations and immigration
- Environmental variation—including pro-tobacco influences and contraband activity

Existing indicators for measuring long-term population-level outcomes, such as current smoking or successful quitting, do not always offer sufficient precision to identify small year-over-year changes, which is why we include multi-year data, as well as short- and intermediate-level outcomes. Statements of “significance” between two estimates (such as between years or between groups), including any directional statement (e.g., increase, decrease, higher, lower,

etc.), are based on non-overlapping 95% confidence intervals or, in some cases, a formal significance test of two proportions when confidence intervals are overlapping. A comparison of two estimates that appear to differ in absolute magnitude from each other but are not reported as significant should be interpreted with caution. In general, to protect against misclassification of significance due to examining too many comparisons, we only compare the current year with: the previous year, a benchmark year of 2010 (if using 2014 data) and 2011 (if using 2015 data) and a pre-SFO benchmark year of 2005.

To place the current Ontario results in a larger context, we draw on the World Health Organization MPOWER Report and on the report of Ontario's Scientific Advisory Committee. The MPOWER report⁷ has defined a set of policies that are consistent with the Framework Convention for Tobacco Control and include:

- Monitor tobacco use and prevention policies
- Protect people from tobacco smoke
- Offer help to quit tobacco use
- Warn about the dangers of tobacco
- Enforce bans on tobacco advertising, promotion and sponsorship
- Raise taxes on tobacco

Specific indicators for MPOWER include monitoring (prevalence data), age-standardized adult daily smoking prevalence, smoke-free policies, compliance with smoke-free policies, cessation programs, health warning on cigarette packages, anti-tobacco mass media campaigns, advertising bans, compliance with advertising bans and taxation. MPOWER indicators reflect the agreement that parties to the Framework Convention for Tobacco Control (FCTC) were able to reach (the FCTC includes recommendations on many more measures). In this report, MPOWER indicator categories are used as reference points for monitoring progress in Ontario. However, they should be considered with some reservation in that they are meant for a global audience and may be less suited for countries with well-developed tobacco-control strategies.

We also use the 2010 Scientific Advisory Committee (SAC) report as a contextually specific reference point.⁸ The SAC report assessed gaps in the Smoke-Free Ontario Strategy and recommended evidence-informed interventions to address these gaps. The report and recommendations underwent scientific review by an international panel of experts. In the Prevention, Cessation and Protection chapters of this report, we compare current Ontario efforts to SAC recommendations directly relevant to these areas. The SAC report also had a chapter on “Confronting the disease vector in tobacco control” that includes recommendations on tobacco

industry denormalization, plain packaging, product regulation, retail distribution, marketing and distribution and tobacco industry accountability. Another chapter in the SAC report addressed key system enablers—including leadership, whole of government approach, strong sustained partnerships, comprehensive approach (integrating policy, programs and social marketing), intensity/dose-response, learning system and international action. These essential components for Strategy success are not addressed directly in this report.

In general, the purpose of this report is to support learning among partners that will enhance progress toward the achievement of the protection, cessation and prevention goals of the Smoke-Free Ontario Strategy.

References

¹ O'Connor SC, Cohen JE. *The Ontario Tobacco Strategy: Past, Present, and Future*. OTRU Special Report: Toronto, ON: Ontario Tobacco Research Unit, January 2002.

² Ontario Tobacco Strategy. Steering Committee. *Designing Ontario's Tobacco Strategy: Goals, Objectives, Logic Models, and Indicators*. Toronto, ON: OTS Steering Committee, February 2005.

³ Ontario. Ministry of Health Promotion. *Comprehensive Tobacco Control Guidance Document*. Toronto, ON: Queen's Printer for Ontario, 2010. Accessed on November 28, 2012.

⁴ Copley TT, Lovato C, O'Connor S. *Indicators for Monitoring Tobacco Control: A Resource for Decision-Makers, Evaluators and Researchers*. On behalf of the National Advisory Group on Monitoring and Evaluation. Toronto, ON: Canadian Tobacco Control Research Initiative, 2006.

⁵ Starr G, Rogers T, Schooley M, Porter S, Wiesen E, Jamison N. *Key Outcome Indicators for Evaluating Comprehensive Tobacco Control Programs*. Atlanta, GA: Centers for Disease Control and Prevention, 2005.

⁶ Schwartz R, O'Connor S, Minian N, Borland T, Babayan A, Ferrence R, Cohen J, Dubray J. *Evidence to Inform Smoking Cessation Policymaking in Ontario: A Special Report by the Ontario Tobacco Research Unit*. Toronto, ON: Ontario Tobacco Research Unit, July 2010.

⁷ World Health Organization. *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*. Geneva, SZ: WHO, 2008.

⁸ Smoke-Free Ontario – Scientific Advisory Committee. *Evidence to Guide Action: Comprehensive Tobacco Control in Ontario*. Toronto, ON: Ontario Agency for Health Protection and Promotion, 2010.



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Smoke-Free Ontario Strategy Monitoring Report:

Tobacco and Alternative Products



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Morbidity and Mortality

The long-term goal of the Smoke-Free Ontario (SFO) Strategy is to reduce the morbidity and mortality caused by tobacco use. The burden of tobacco is large. Each year, tobacco claims 13,000 lives in Ontario.¹ Based on 2009 dollars, direct costs to health care due to tobacco was \$1.93 billion, with a further \$5.8 billion attributed to indirect costs (productivity lost due to illness and premature death).² These costs represent 42.7% of total substance abuse costs.¹

Tobacco Use

Reducing the overall use of tobacco is one of the main objectives of the Smoke-Free Ontario Strategy. In addition to smoking cigarettes, Ontarians use a variety of other tobacco products—including cigars, pipe, snuff and chewing tobacco—as well as e-cigarettes and waterpipe shisha, both of which may contain nicotine.

Overall Tobacco Use

- According to the 2014 Canadian Community Health Survey (CCHS), 19.6% of Ontario respondents aged 12 years or over reported current use of tobacco in the previous 30 days (the measure of tobacco includes cigarettes, cigars, pipes, snuff or chewing tobacco; it excludes e-cigarettes and waterpipes because these are not measured in CCHS). This represents 2,268,300 tobacco users (CCHS 2014). This rate is significantly lower than that reported in 2010, when the rate was 22.1% (or 2,465,400 users).
- Among Ontarians 19 years of age or older, 20.9% (or 2,186,400) used some form of tobacco in the previous 30 days (CCHS, data not shown), significantly lower than that reported in 2010 (23.6%, or 2,354,300 users).
- In 2014, 17% of Ontarians aged 12 years or over smoked cigarettes,ⁱ 3.8% smoked cigars, 0.8% smoked a pipe, 0.6% used chewing tobacco and 0.1% (marginal estimate, interpret with caution) used snuff (CCHS 2014; Note: these estimates include co-use and so do not sum to total tobacco use, or 19.6%; to facilitate comparison, use is restricted to only past 30 days, which is different from the way that current smoking is reported in other sections of this report).

ⁱ In the Overall Tobacco Use section, “cigarette use” includes having smoked in the past 30 days but does not include having smoked 100 cigarettes in one’s lifetime because lifetime quantity is not measured for the other forms of tobacco listed. In other sections of this report, we report current smoking as 16% (from CCHS 2014), which reflects past 30-day use and having smoked 100 cigarettes in one’s lifetime.

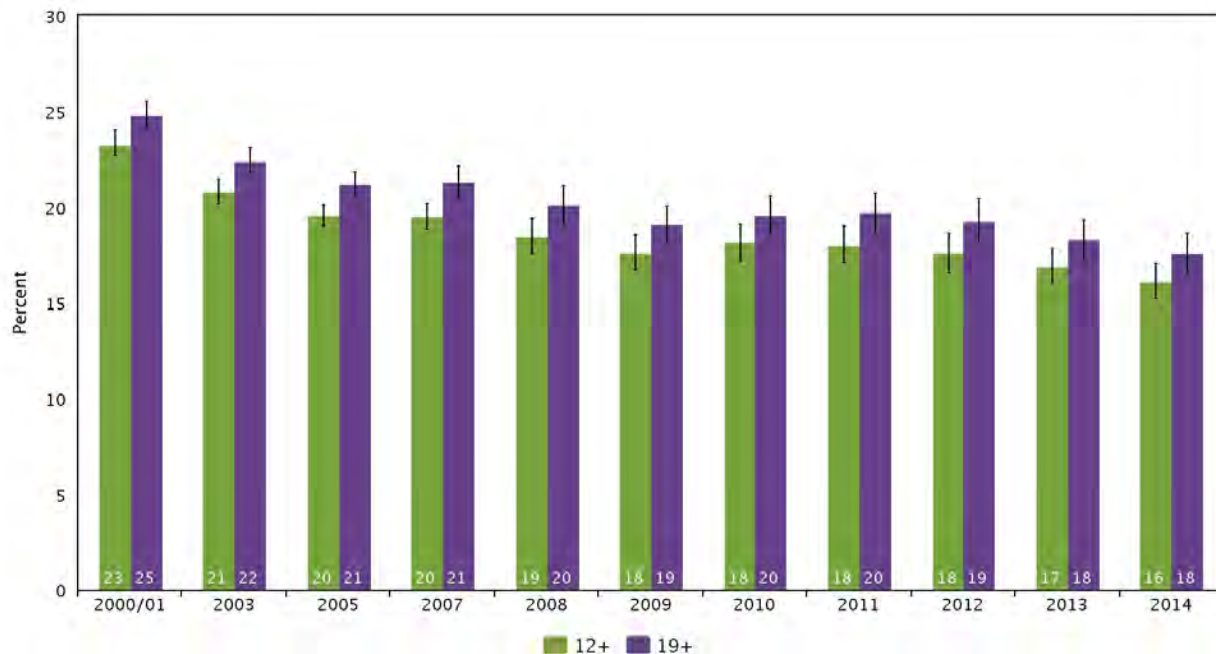
Cigarette Use

Reducing the prevalence of cigarette smoking is central to the Smoke-Free Ontario Strategy. One indicator that underscores progress toward this goal is past 30-day current smoking.

- In 2014, 17.6% of Ontarians (1,859,000 users) 19 years of age (the legal age for purchasing cigarettes) or older were current smokers (had smoked cigarettes in the past 30 days and at least 100 cigarettes in their lifetime), a significant reduction over that reported in 2010 (19.6% or 1,979,700 users).
- In 2014, 16.1% of Ontarians aged 12 years or over were current smokersⁱⁱ representing 1,889,000 users (CCHS 2014; Figure 2-1). This is a 2.1 percentage point decrease (statistically significant) over the five-year period starting in 2010 (18.2% or 2,043,700 users).
- In 2014, among Ontarians 12 years and older, 20% of males (or 1,167,800) and 12% of females (or 721,200) were current smokers. Among those 19 years of age or older, 22% of males (or 1,147,100) and 13% of females (or 711,900) smoked regularly.
- In 2014, 10,361,513,030 cigarettes were sold in Ontario (wholesale sales data) compared to 11,214,816,305 cigarettes sold in our 2010 benchmark year,³ a decline of 7.6%. (Note: Annual sales data may be influenced by wholesale shipment dates).
- In 2014, menthol cigarettes comprised 4.3% of all cigarette wholesale sales.

ⁱⁱ In addition to having smoked in the past 30 days, the definition of “current smokers” or “current smoking” includes having smoked 100 cigarettes in one’s lifetime.

Figure 2-1: Current Smoking (Past 30 Days), Ages 12+ and 19+, Ontario, 2000/01 to 2014



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) is not uniform—interpret with caution.

Source: Canadian Community Health Survey 2000/01, 2003, 2005, 2007-2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Cigar Use

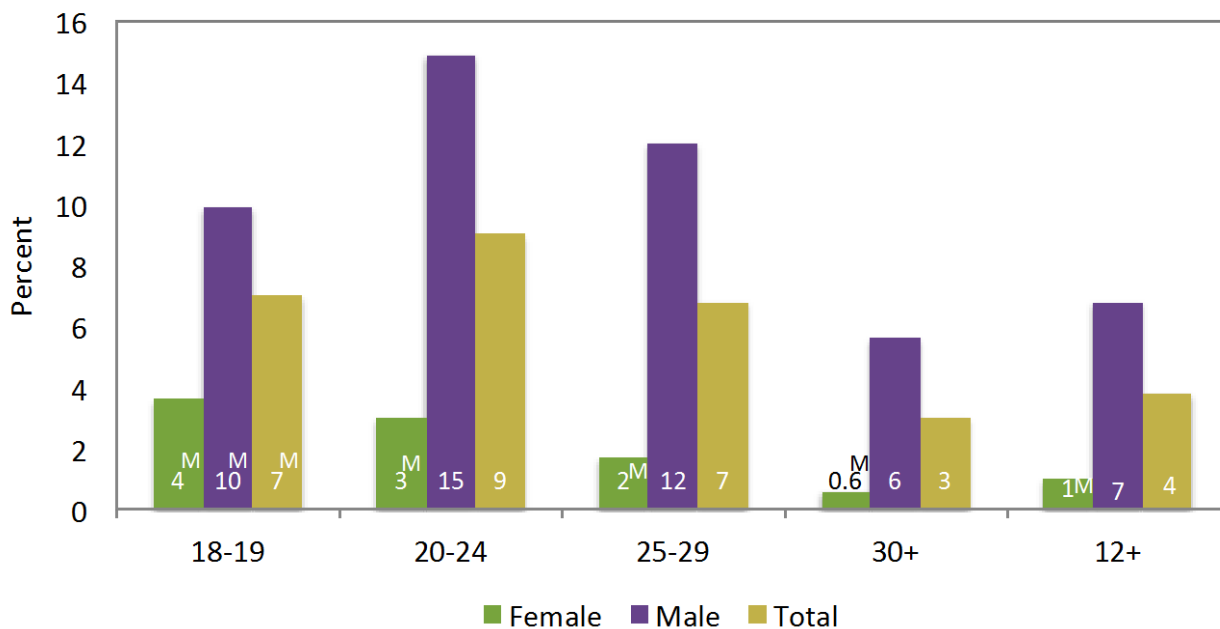
- In 2014, 3.8% of Ontarians aged 12 years and over (or 444,200 people) had smoked cigarsⁱⁱⁱ in the past 30 days, making cigars the second-most prevalent form of tobacco use after cigarettes, not including e-cigarettes and waterpipes (CCHS 2014). The 2014 rate of 3.8% was significantly lower than that observed in 2010 at 5.2% (data not shown).
- In 2014, past 30-day cigar use was significantly higher among males compared to females: 6.8% (or 385,500) of all males aged 12 years and over had smoked cigars in the past 30 days compared to 1% (or 58,800) of females (CCHS 2014; Figure 2-2).
- Young adult males had a significantly higher rate of past 30-day cigar use compared to females (CCHS 2014; Figure 2-2).
- In 2014, Ontario wholesale sales of the total cigar category (little cigars/cigarillos and cigars) fell 9.8% from 2013 sales and 23.9% compared to 2010 (178,160,014 unit sticks in

ⁱⁱⁱ These data are from the 2014 Canadian Community Health Survey and are from a question that asks about past 30-day cigar smoking (cigarillo use was not explicitly asked). It is not known whether respondents who smoked cigarillos responded to this question by answering “Yes” or “No”. The reported prevalence estimates of cigar use might be an underestimate of all cigar/cigarillo use.

2010, 150,258,186 units in 2013 and 135,578,758 units in 2014).^{iv} (Note: Annual sales data may be influenced by wholesale shipment dates). The reduction in sales may reflect users' reduced consumption, as the market of little cigars/cigarillo brands was converted into non-filtered cigar brands weighing more than 1.4g in 2010. In 2014, little cigars/cigarillos comprised 6.3% of all cigar sales.^{iv}

- In 2014, 79% of the Ontario cigar market was flavoured cigars, with menthol comprising 3.2% of all cigar sales.^{iv}
- On May 28, 2015, Bill 45 (the Making Healthier Choices Act) received Royal Assent. This Bill prohibits the sale of flavoured tobacco at retail stores in the province, with exceptions. Specifically, regulations consolidated on November 13, 2015 (and in effect as of January 2016) mandated that the Act does not apply to flavouring agents in cigars that impart a flavour or aroma of wine, port, whiskey or rum; nor does it apply to the flavour or aroma of menthol, a regulation that will be revoked in January 1, 2017 thus prohibiting menthol as a flavouring agent.⁴

Figure 2-2: Cigar Use (Past 30 Days), by Age and Sex, Ontario, 2014



M = Marginal. Interpret with caution: subject to moderate sampling variability.
 Source: Canadian Community Health Survey 2014.

^{iv} Health Canada, Personal Communication, October 26, 2015.

Smokeless Tobacco Use

- According to CCHS 2014, less than one per cent (0.6%) of Ontarians aged 12 years and over (or 73,800) used chewing tobacco in the past month. This included 0.5% of adults 19 years and older (or 54,000) and 1.8% of youth aged 12 to 18 years old (or 19,800) (Note: both these age estimates are marginal data quality, interpret with caution). Use of snuff results were suppressed due to high sampling variability.
- The overall volume of wholesale sales in smokeless tobacco is low (Table 2-1), with 53,244 KGs of sales in 2014.^{iv} In 2014, there was a 13.8% decrease in sales compared to 2013 (53,244 vs. 61,826, respectively). The 2014 sales are the lowest since 2009 (Note: Annual sales data may be influenced by wholesale shipment dates).
- In Ontario, recent legislation received Royal Assent on May 28, 2015 (Bill 45 the Making Healthier Choices Act, 2015) that banned the sale of flavoured smokeless products as of January 2016, with a delayed implementation date for menthol-flavoured tobacco products.

Table 2-1: Smokeless Tobacco Sales (KGs), Ontario 2007 to 2014

Year	Smokeless Tobacco Sales (KGs)
2007	52,253
2008	46,198
2009	52,328
2010	57,439
2011	58,777
2012	64,255
2013	61,826
2014	53,244

Source: Health Canada.

Use of Other Alternative Products

Electronic Cigarettes

Electronic cigarettes or e-cigarettes—also known as vape pipes, hookah pens and e-hookahs—create an inhaled mist, simulating the act of smoking.

- Among adults 18 years and older, past 30-day use of e-cigarettes was 3% in 2014, unchanged from 2013 (2%,^v CAMH Monitor 2013, 2014; data not shown).^{vi}
- In 2014, lifetime use of e-cigarettes by adults aged 18 and over was 13%, significantly higher than that reported in 2013 (9%; CAMH Monitor 2014, data not shown).
- The change in lifetime use from 2013 (15%) to 2014 (31%) among 18 to 24 year olds is also statistically significant ($p < 0.05$; see Figure 2-3).
- In 2014, lifetime use of e-cigarettes differed by age: 18 to 24 year olds (31%), 25 to 44 (15%), 45 to 64 (9%) and 65 and over (4%, see Figure 2-3).
- In 2014, past-year use of e-cigarettes among adults 18 years and over was 10%, a significant increase over that reported in 2013 (7%). At 23%, young adults aged 18 to 24 had a significantly higher rate of past-year use of e-cigarettes than all other age groups (Figure 2-4).
- Among students in grades 7 to 12, 23% had ever used e-cigarettes. In the past year, 19% of students had used e-cigarettes. Among all past-year users, 19% had used e-cigarettes in the past month; 6% of past-year users had used e-cigarettes daily (OSDUHS, 2015; data not shown).
- In Canada, e-cigarettes are not permitted to contain nicotine, yet available evidence suggests that a number of users obtain nicotine juice for their e-cigarettes. In Ontario, 14% of past-year users in grades 7 to 12 vaped e-cigarettes with nicotine, 50% vaped without nicotine, 9% vaped e-cigarettes both ways (i.e., with and without nicotine) and 26% of student were not sure what kind they vaped.

Waterpipe Use

A waterpipe—also known as hookah, narghile, or waterpipe shisha—is a device used to smoke flavoured tobacco as well as nontobacco herbal shisha. The tobacco (or nicotine juice or herbal ingredients) is heated by charcoal and a water-filled chamber cools the resulting smoke before it is inhaled through a hose and mouthpiece.

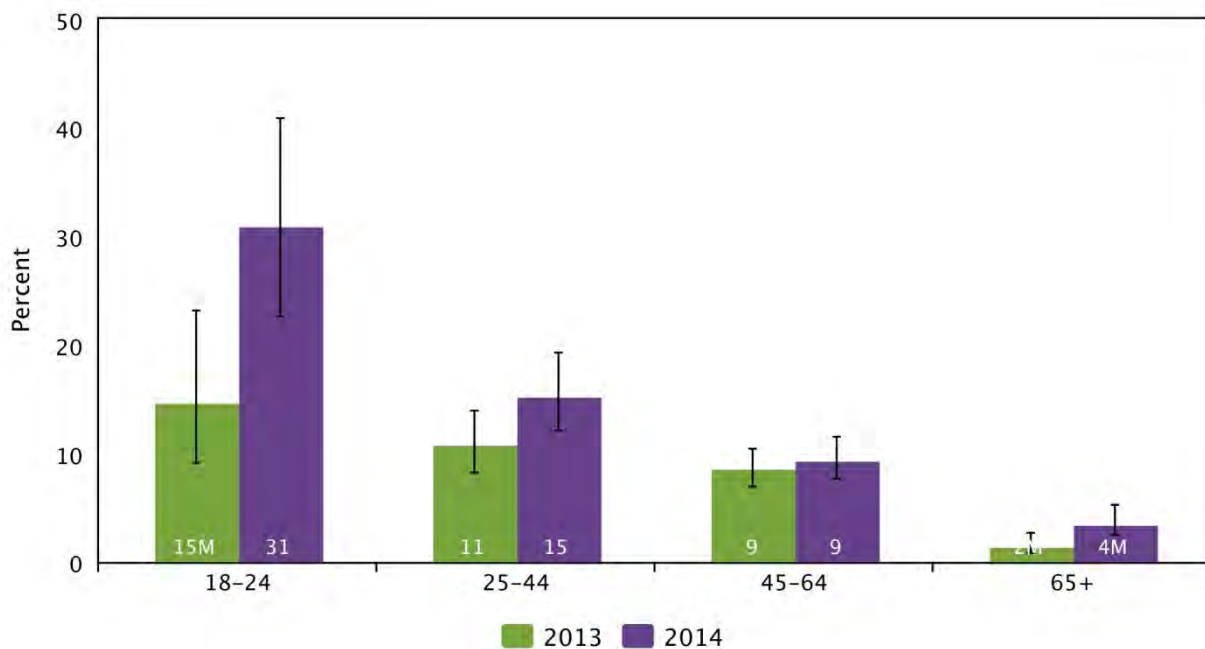
- In Ontario, 8% of respondents 15 years and older have ever tried a tobacco waterpipe (Canadian Tobacco, Alcohol and Drugs Survey [CTADS], 2013; data not shown).

^v M = Marginal estimate in 2013. Interpret with caution: subject to moderate sampling variability.

^{vi} E-cigarette use was not asked in our benchmark year of 2010.

- Among students in Grades 7 to 12 in 2015, 14% (132,400 students) had ever used a waterpipe. Prevalence of ever use varied by grade (Figure 2-5), with rates in Grades 8 and 9 significantly lower than that reported in Grades 10, 11 and 12.
- Among students in Grades 7 to 12, 12% (113,100 students) had used a waterpipe in the past year (including only a few puffs; Figure 2-5), with rates in Grades 8 and 9 significantly lower than that reported in Grades 11 and 12; and Grade 10 lower than that reported for Grade 12.
- Past- year use of waterpipe did not differ between 2013 and 2015 (12% vs. 12%).

Figure 2-3: Ever Use of an E-cigarette, Age, Ontario, 2013 and 2014



Note: M = Marginal. Interpret with caution: subject to moderate sampling variability.


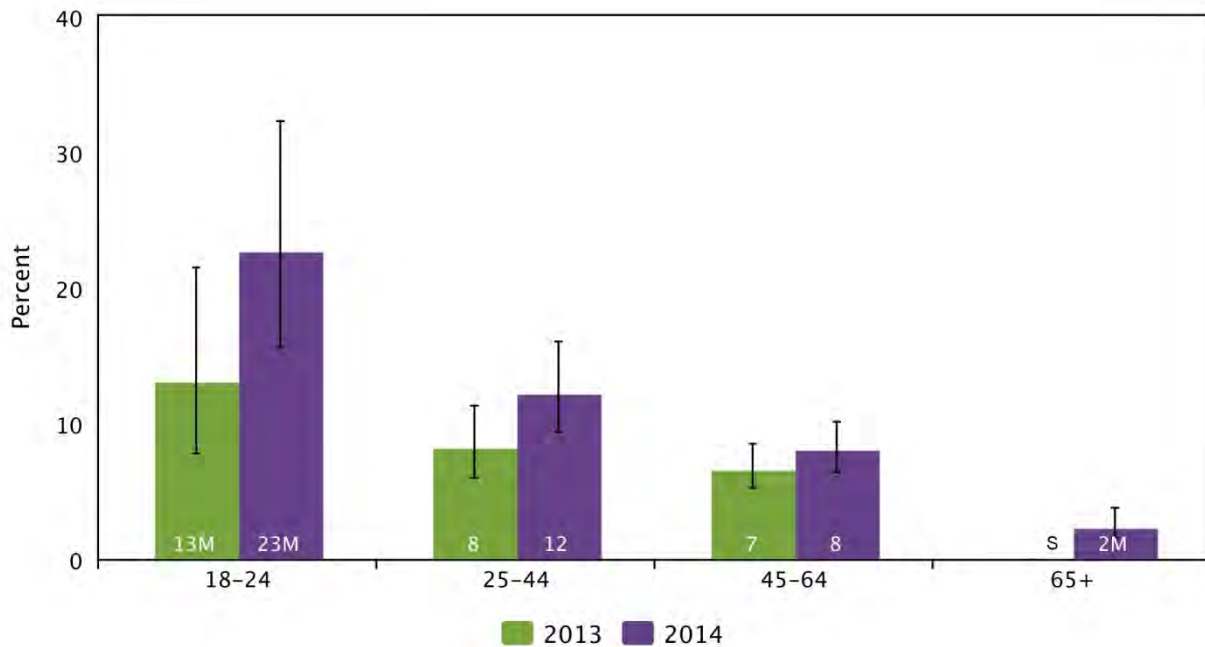
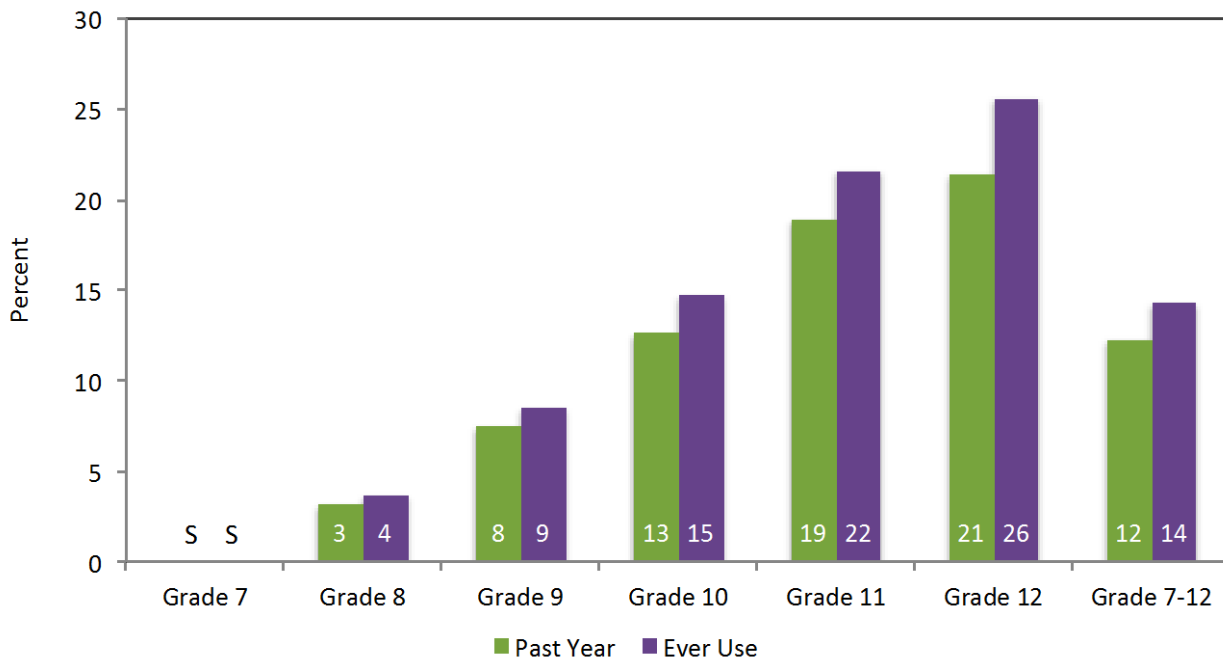
Source: Centre for Addiction and Mental Health Monitor 2013, 2014. Follow the TIMS link  for live results on this indicator and more.

Figure 2-4: Past-year Use of an E-cigarette, Age, Ontario, 2013 and 2014



Note: M = Marginal. Interpret with caution: subject to moderate sampling variability. S=Suppressed. Results too unreliable to be published due to (unweighted) sample size less than 30 or coefficient of variation greater than 33.3% (extreme sampling variability).
 Source: Centre for Addiction and Mental Health Monitor 2013, 2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Figure 2-5: Waterpipe Use, Past Year and Ever Use, by Grade, Ontario, 2015



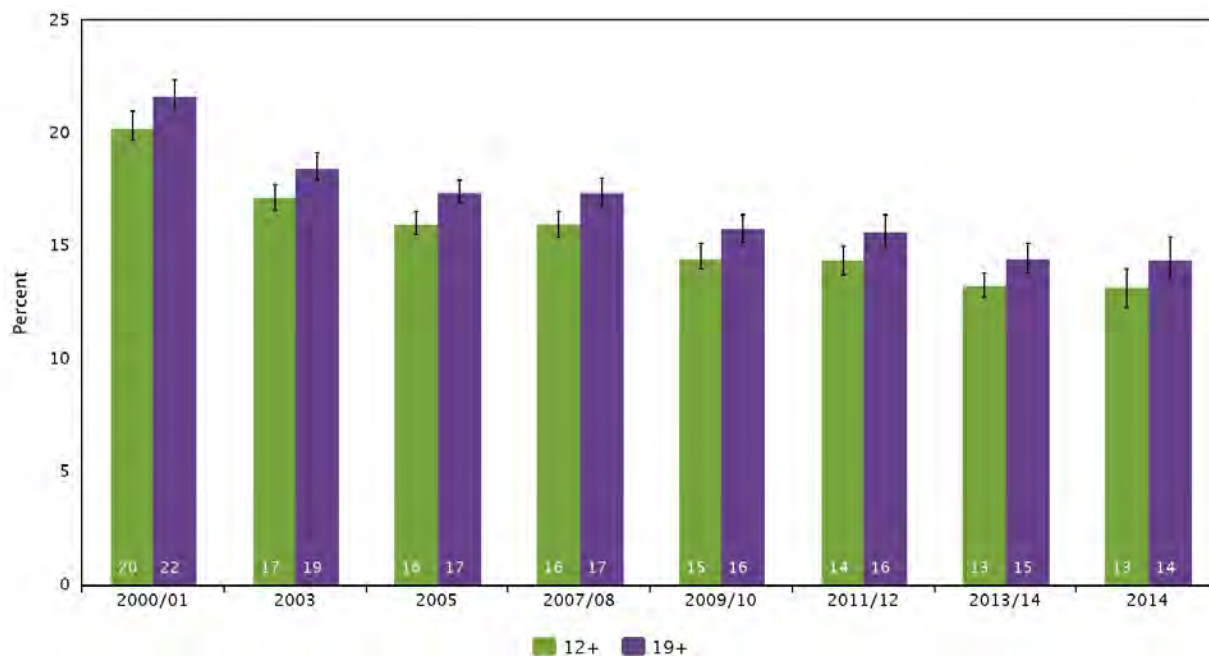
S = data suppressed due to small sample sizes.
 Source: Ontario Student Drug Use and Health Survey 2015.

Patterns of Cigarette Use

Daily and Occasional Smoking (Past 30 Days)

- In 2014, the prevalence of current smoking was 16% among Ontarians 12 years of age and 18% for those 19 years of age or older (CCHS 2014, Figure 2-1, above). Daily smoking was 13% and 14% respectively for these age groups (Figure 2-6), and past-month occasional smoking was 3% for both age groups (Figure 2-7).
- From our 2005 SFO baseline year, the rate of daily smoking has significantly declined, but only by three percentage points over the 10-year period (among 12+, 16% in 2005 vs. 13% in 2014, respectively; among 19+, 17% in 2005 vs. 14% in 2014, respectively; Figure 2-6). The rate of occasional smoking has remained unchanged in recent years (Figure 2-7).
- In 2014, 82% of all current smokers aged 12 years or older (and 19 years and older) were daily smokers (CCHS data; Figure 2-8), unchanged in recent years.

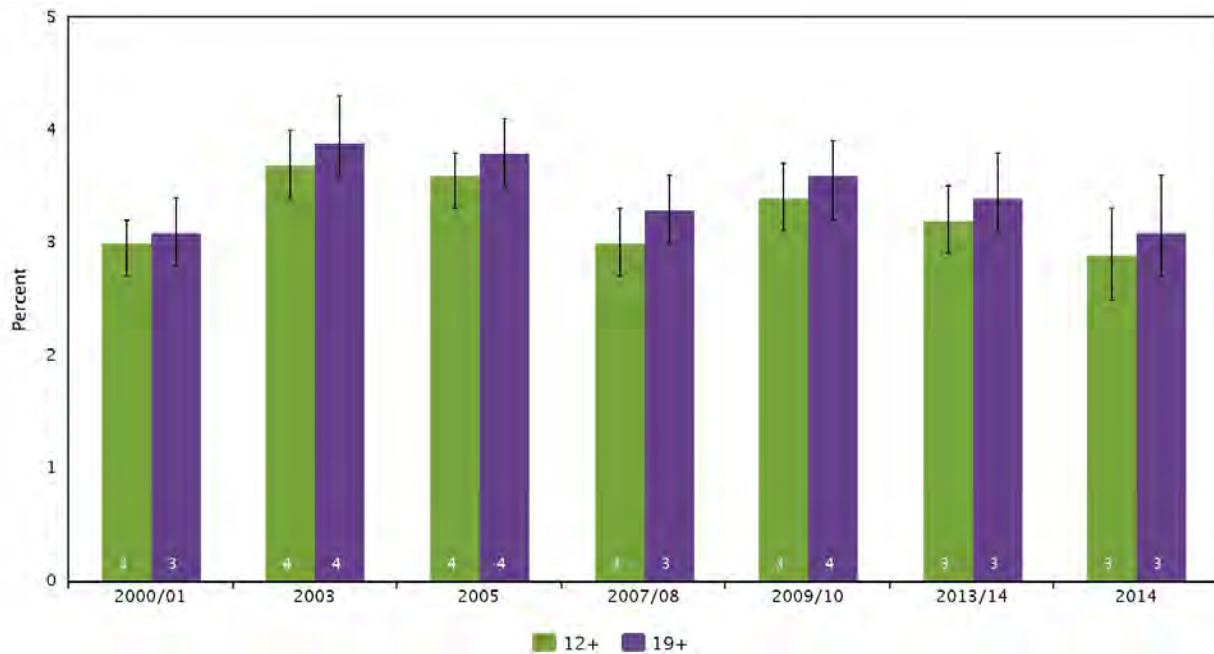
Figure 2-6: Daily Smoking, Ages 12+ and 19+, Ontario, 2000/01 to 2014



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) is not uniform—interpret with caution.

Source: Canadian Community Health Survey 2000/01, 2003, 2005, 2007-2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Figure 2-7: Occasional Smoking (Past 30 Days), Ages 12+ and 19+, Ontario, 2000/01 to 2014



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) is not uniform—interpret with caution.

Source: Canadian Community Health Survey 2000/01, 2003, 2005, 2007-2014. Follow the TIMS link [with TIMS](#) for live results on this indicator and more.

Figure 2-8: Daily Smoking as a Proportion of Current Smoking, Ages 12+ and 19+, Ontario, 2000/01 to 2014



Note: X-axis scale (Year) is not uniform—interpret with caution.

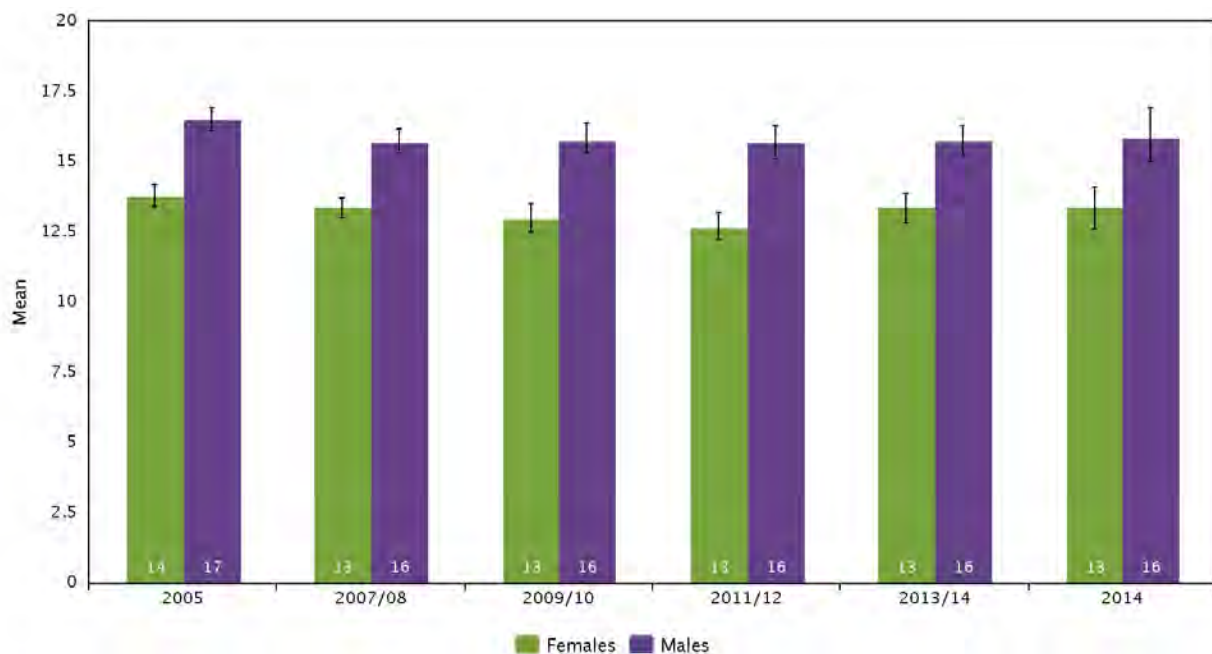
Source: Canadian Community Health Survey 2000/01, 2003, 2005, 2007-2014.


Level of Use: Cigarettes per Day

Change in the average number of cigarettes smoked (consumption) among current smokers is a commonly used indicator in tobacco control.

- In 2014, the mean number of cigarettes smoked per day by adult male daily smokers was 16 for those aged 12 years and over (and 19 years and over), a level that has remained unchanged in recent years (Figure 2-9, Note: Aged 12 and over). In contrast, adult female daily smokers of the same age used 13 cigarettes per day (for both age groups), also unchanged in recent years.
- Over the period 2005 to 2014, males consistently smoked significantly more cigarettes per day than females (Figure 2-9).

Figure 2-9: Mean Number of Cigarettes Smoked Daily (Daily Smokers), by Sex, Ages 12+, Ontario, Select Years, 2005 to 2014



Source: Canadian Community Health Survey 2005, 2007/08-2013/14, 2014. Follow the TIMS link  for live results on this indicator and more.

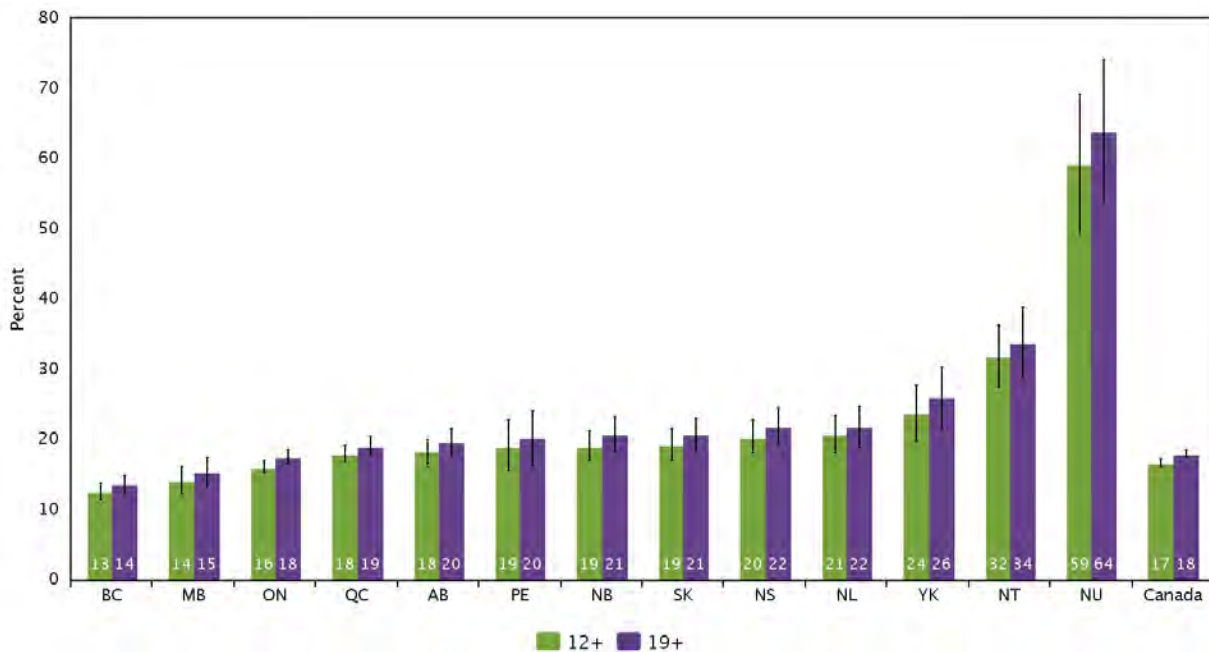
Current Smoking (Past 30 Days), by Location

Federal, Provincial, Territorial

- Across Canada in 2014, past 30-day current smoking among respondents aged 12 and over ranged from 13% in British Columbia to 59% in Nunavut (Territory; Figure 2-10). Current smoking was slightly higher among respondents 19 years of age or older (Figure 2-10).

- The prevalence of current smoking in Ontario was not significantly different from the national average (for 12+, 16% vs. 17% and for 19+, 18% vs. 18%, respectively; Figure 2-10).
- In recent years, Ontario’s goal has been to have the lowest rate of smoking in Canada. As shown in Figure 2-10, the rate of current smoking in British Columbia is significantly lower than many areas of Canada including Ontario (for residents aged 12 years and older, as well as 19 years or older).

Figure 2-10: Current Smoking (Past 30 Days), by Jurisdiction, Ages 12+ and 19+, 2014



Note: Vertical lines represent 95% confidence intervals. Ordered lowest to highest, by region.

Source: Canadian Community Health Survey 2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Ontario Health Regions

- In 2013/14 combined years, the rate of current smoking among those 12 years and older in Ontario was 16.5% (representing 1,924,900 smokers), significantly lower than that reported in 2009/10 (17.9%). Among health regions, past 30-day current smoking ranged from 10.9% in Peel to 29.1% in Timiskaming (Table 2-2).
- The prevalence of current smoking was 25% or more in three of Ontario’s 36 health regions (Brant, Peterborough, Timiskaming; Table 2-2).
- In 2013/14, past-30 day current smoking was significantly lower in Durham, Haldimand-Norfolk and Peel public health regions compared to our SFO baseline year of 2005 (Table 2-2). (Note: Small sample sizes within health regions make it unlikely that modest differences will be found to be statistically significant between any given time period.)

Table 2-2: Current Smoking (Past 30 days), by Public Health Unit, Ages 12+, Ontario, 2005 to 2013/14

Public Health Unit	Current Smoking ^a (%)				
	2005	2007/08	2009/10	2011/12	2013/14
Peel	17.4*	15.3	14.8	14.2	10.9*
Halton Regional	17.2	17.7	16.1	17.4	13.6
Ottawa	16.9	16.3	14.3	14.1	14.1
Toronto	17.0	16.2	15.0	15.3	14.6
Middlesex-London	16.7	18.9	19.5	18.4	15.0
York Regional	14.5	13.6	15.2	14.7	15.1
Waterloo	18.0	20.4	17.1	19.9	16.0
Durham Region	24.1*	19.7	17.9	20.8	16.3*
Windsor-Essex County	22.6	18.3	21.1	16.1	17.0
North Bay Parry Sound	25.4	25.9	22.0	25.6	18.2
Elgin St. Thomas	25.8	24.7	19.3	25.4	18.2
Grey Bruce	20.0	19.9	17.0	21.5	18.2
Wellington-Dufferin-Guelph	20.4	22.1	17.3	19.4	18.3
Haliburton, Kawartha, Pine Ridge	21.1	23.3	24.0	23.2	18.8
Hamilton	21.7	21.6	18.2	18.9	18.8
Huron County	23.0	22.0	17.1	21.4	19.1
Northwestern (ON)	21.2	23.2	21.6	16.0	19.2
Haldimand-Norfolk	28.7*	24.1	21.8	22.6	19.2*
Simcoe Muskoka	22.4	22.0	23.2	18.6	19.3
Kingston, Frontenac, Lennox & Addington	21.5	23.2	17.0	17.1	19.5
Perth	18.2	16.0	21.5	19.1	19.7
Eastern Ontario	25.9	26.0	24.7	23.7	19.8
Oxford County	22.1	27.7	22.5	26.3	20.2
Niagara Region	21.8	23.8	20.2	17.3	21.4
Lambton	24.4	23.8	22.3	23.5	21.6
Renfrew County	26.8	23.8	24.1	20.7	21.8
Chatham-Kent	23.4	25.8	20.5	24.0	21.8
Sudbury	23.2	24.5	23.7	25.3	22.4
Leeds, Grenville & Lanark	24.0	22.6	24.5	23.2	22.5
Hastings Prince Edward	25.6	26.2	26.2	26.7	22.6
Algoma	22.5	21.7	27.4	22.7	22.6
Thunder Bay	26.1	25.2	23.6	21.7	23.1
Porcupine	28.2	27.7	24.6	27.1	23.8
Brant	24.7	22.0	26.4	22.9	25.0
Peterborough	20.0	21.7	18.5	23.8	25.4
Timiskaming	25.9	22.7	19.2	22.8	29.1
Ontario	19.6*	19.0	17.9 ^y	17.8	16.5 ^y

^a Current smoking defined as past 30-day use and 100 cigarettes in lifetime.

^b Ordered by 2014 current smoking (lowest to highest).

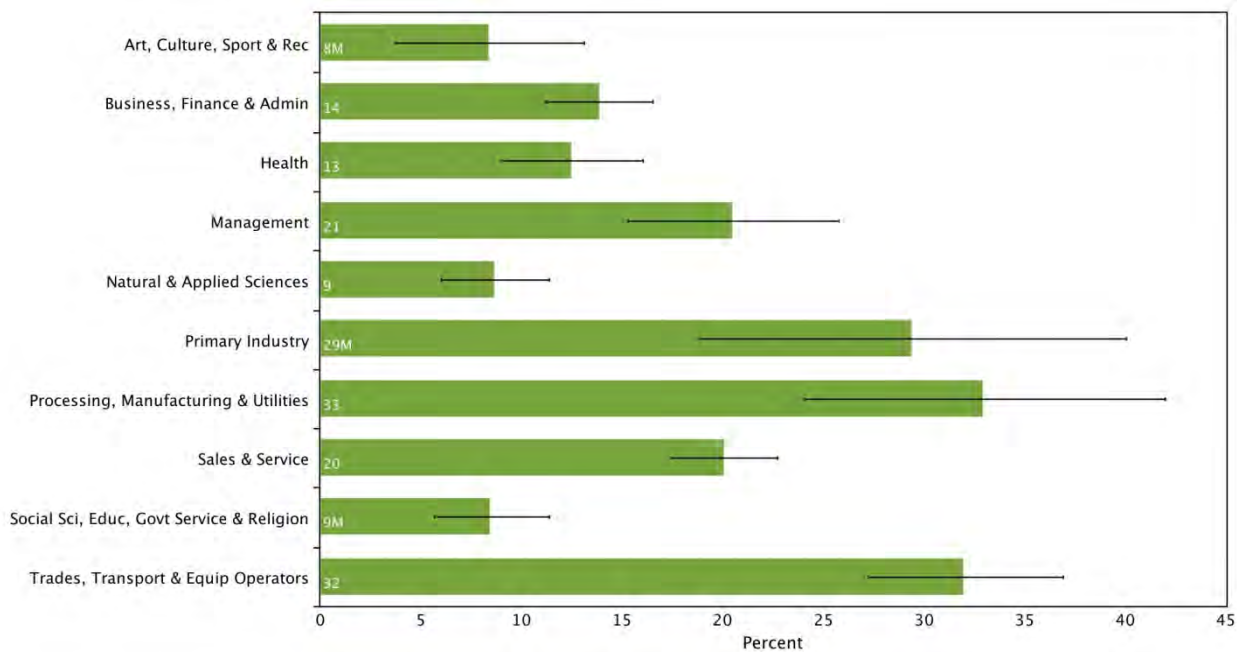
* Significantly different (lower) from 2013/14 to 2005. ^y Significantly different from 2013/14 to 2009/10.

Source: Canadian Community Health Survey 2005-2013/14 (<http://tims.otru.org/#sharedQuery/51>)

Current Smoking (Past 30 Days), by Occupation

- In 2014, current smoking was highest among workers in processing, manufacturing and utilities (33%); trades, transport and equipment operators (32%); and primary industry (29%^M), representing a combined total of 461,400 (or 37%) of the 1,253,900 employed smokers in Ontario aged 15 to 75 years (CCHS 2014; Figure 2-11). In recent years, there have been no observed changes in these estimates.
- Sales and service had the greatest number of current smokers, representing 326,200 of the 1,253,900 employed smokers in Ontario aged 15 to 75 years (Figure 2-11). A group comprising trades, transport and equipment operators was the second largest, at 300,700.
- Among unemployed Ontarians aged 15 to 75 years, the prevalence of current smoking was 21%, representing 6% (108,600) of the 1.9 million smokers in Ontario aged 15 to 75 years (CCHS 2014; data not shown).

Figure 2-11: Current Smoking (Past 30 Days), by Occupation, Ages 15 to 75, Ontario, 2014



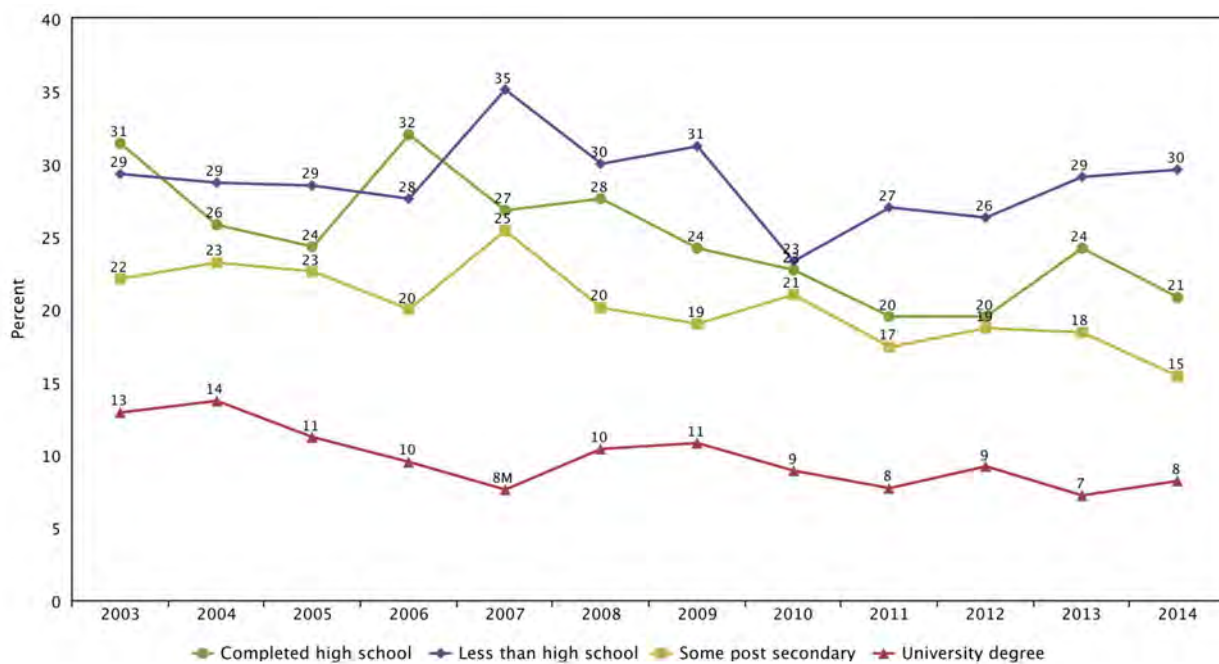
Note: M = Marginal. Interpret with caution: subject to moderate sampling variability.

Source: Canadian Community Health Survey 2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Current Smoking (Past 30 Days), by Educational Attainment

- According to the CAMH Monitor, in 2014, 15%^{vii} of Ontarians aged 18 years and over were past-30 day current smokers.^{viii} In recent years, Ontarians with a university degree were less than two to four times as likely to be current smokers than those with less education (Figure 2-12).
- Over the past few years, levels of smoking have remained relatively steady among all educational attainment levels (Figure 2-12).

Figure 2-12: Current Smoking (Past 30 Days), by Educational Attainment, Ages 18+, Ontario, 2003 and 2014



Note: M = Marginal. Interpret with caution: subject to moderate sampling variability.

Source: Centre for Addiction and Mental Health Monitor 2003-2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

^{vii} The CAMH Monitor and the Canadian Community Health Survey each present different rates of smoking, albeit these rates are consistent with each other over time. For further information on differences between these two surveys, see Appendix A.

^{viii} Past-30 day current smoking on the CAMH Monitor includes only those respondents who have smoked 100 or more cigarettes in their lifetime.

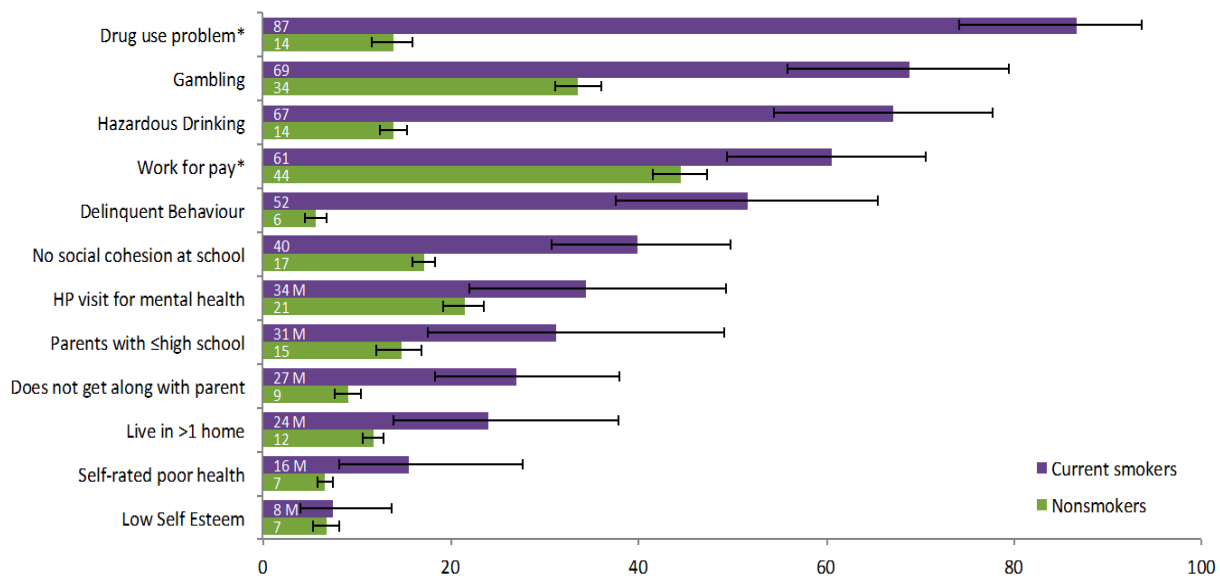
Risk Factors and Social Determinants of Health Associated with Smoking Status

The purpose of this section is to characterize who current smokers are and to describe the degrees to which smoking behaviour correlates with other recognized behavioural and social risk factors for poor health and other social determinants of health. To explore the association of risk factors and social determinants of health with smoking status (current smoker vs. nonsmoker), we conducted separate analyses for youth (students in grades 7 to 12 using OSDUHS data), young adults (aged 18 to 29 years using CCHS data) and adults (18 years and older using CCHS data). The analysis for youth explored smoking status among sub-populations defined by risky behaviours (e.g., drinking, drug use) and social determinants of health (e.g., income, housing). The analysis for young adults and adults explored smoking status among sub-populations defined by chronic disease risk factors (e.g., obesity, inactive lifestyle) and social determinants of health (e.g., income, food security). Not all the indicators used in the youth analyses were available for young adults/adults and vice versa (variable definitions can be found in Appendix A, Tables A-1 and A-2).

Youth

- Students who were current smokers were significantly more likely than nonsmokers to have a drug-use problem (87% vs. 14%), gamble (69% vs. 34%), be a hazardous drinker (67% vs. 14%), work for pay (61% vs. 44%), engage in delinquent behaviour (52% vs. 6%), feel no social cohesion at school (40% vs. 17%), have parents with high school education or less (31%^M vs. 15%), not get along with parents (27%^M vs. 9%), currently live in more than one home (24%^M vs. 12%) and have poor self-rated health (16%^M vs. 7% ; M = Marginal. Interpret with caution: subject to moderate sampling variability) (Figure 2-13; OSDUHS 2013).

Figure 2-13: Factors^{ix} Associated with Smoking Status among Students in Grades 7 to 12,* Ontario, 2013



Note: *Drug-use problem and Work for pay categories sampled youth in grades 9 to 12 only. Horizontal lines represent 95% confidence intervals. M = Marginal. Interpret with caution: subject to moderate sampling variability.
 Source: Ontario Student Drug Use and Health Survey 2013.

Young Adults

- Among those aged 18 to 29 years, more current smokers than nonsmokers were born in Canada (87% vs. 76%) and identified as White (80% vs. 62%; CCHS 2014, data not shown).
- Current smokers aged 18 to 29 more frequently were male compared to nonsmokers (67% vs. 47%; CCHS 2014, data not shown).
- More current smokers than nonsmokers aged 18 to 29 engaged in additional behaviours that are risk factors for the development of chronic diseases: unhealthy eating habits (eating less than five fruits or vegetables per day: 77% vs. 62%), drinking in excess of the low-risk drinking guidelines (53% vs. 32%).
- Similarly, a higher proportion of current smokers relative to nonsmokers had been clinically diagnosed with a mood disorder (13% vs. 7%; CCHS 2014, data not shown).
- Similar proportions of current smokers and nonsmokers aged 18 to 29 were inactive in leisure time (42% vs. 40%) or overweight (39% vs. 35%; CCHS 2014, data not shown).

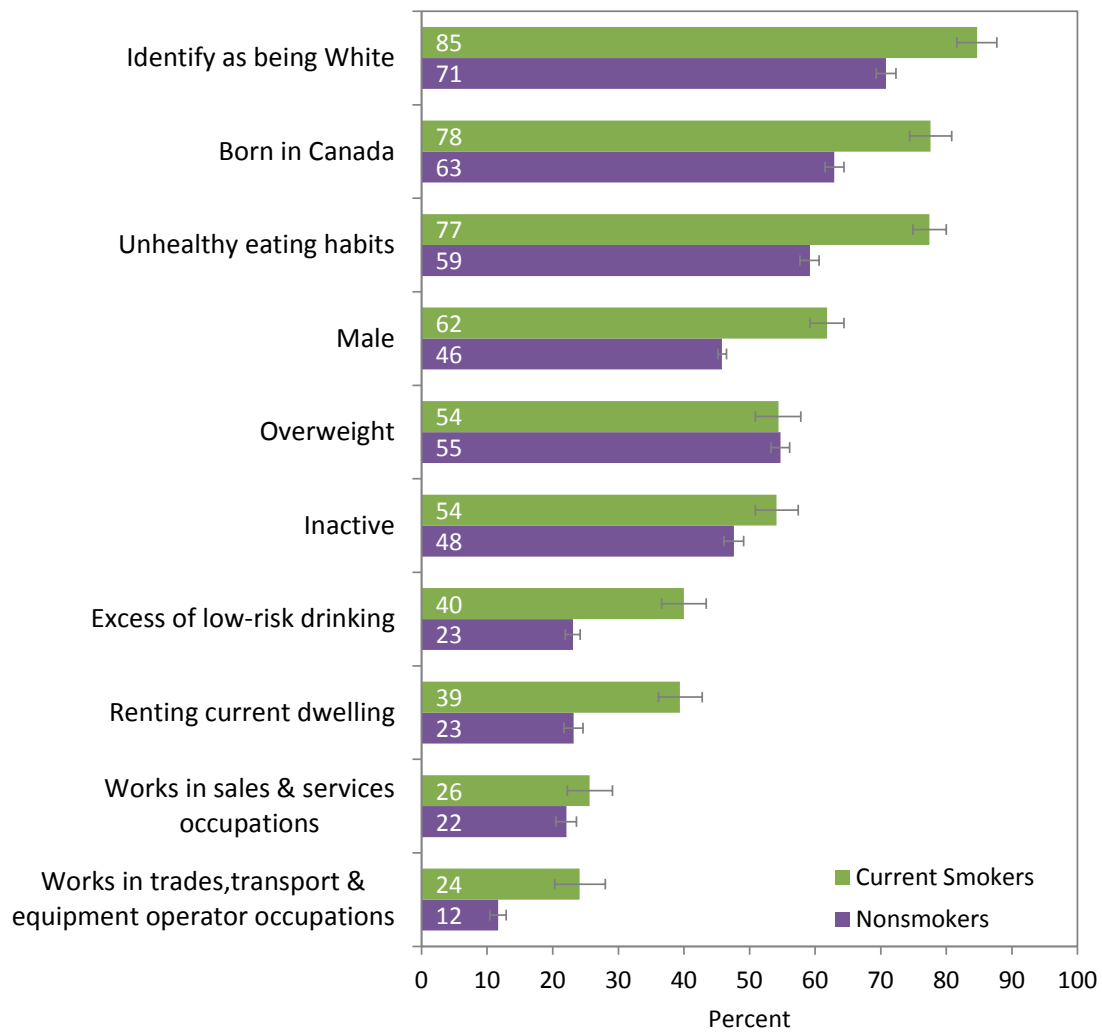
^{ix} Indicator definitions and information on data analysis provided in Appendix A.

- A greater proportion of current smokers than nonsmokers aged 18 to 29 worked in trades, transport and equipment operator occupations (18% vs. 10%; CCHS 2014, data not shown).
- A higher proportion of current smokers than nonsmokers aged 18 to 29 reported not having a family doctor (20% vs. 12%) or having less than a high school education (13% vs. 6%; CCHS 2014, data not shown).

Adults

- Current smokers aged 18 years and older more frequently identified as White (85%) compared to nonsmokers (71%); they were also more likely to be Canadian born compared to nonsmokers (78% vs. 63%; CCHS 2014; Figure 2-14).
- A greater proportion of current smokers than nonsmokers aged 18 and older engaged in other behaviours that are risk factors for the development of chronic disease: having unhealthy eating habits (eating less than five fruits or vegetables per day: 77% vs. 59%), being inactive in leisure time (54% vs. 48%) and drinking in excess of the low-risk drinking guidelines (40% vs. 23%).
- More young adults aged 18 to 29 who currently smoke reported drinking in excess of low-risk drinking guidelines compared to all adult current smokers (53% vs. 40%; CCHS 2014; data not shown).
- A greater proportion of current smokers than nonsmokers were male (62% vs. 46%).
- Similar proportions of current smokers and nonsmokers reported being overweight (54% vs. 55%).
- More current smokers reported living in a rented dwelling compared to nonsmokers (39% vs. 23%).
- Current smokers more frequently reported working in trades, transportation and equipment operation occupations (24% vs. 12%), whereas a similar proportion of current smokers and nonsmokers reported working in sales and service occupations (26% vs. 22%).
- Compared to nonsmokers, a greater proportion of current smokers reported poorer social determinants of health, such as lower education (less than high school: 17% vs. 11%), not having a regular family doctor (14% vs. 7%), were categorized as severely food insecure (7.1% vs. 1.4%) or were unemployed (6% vs. 4%; CCHS 2014, data not shown).

Figure 2-14: Factors^x Associated with Smoking Status, 18+, Ontario, 2014



Note: Horizontal lines represent 95% confidence intervals.
 Source: Canadian Community Health Survey 2014.

^x Indicator definitions and information on data analysis provided in Appendix A.

MPOWER Comparison with Ontario: Tobacco Use

Below is a comparison of two MPOWER indicators related to tobacco use (monitoring and smoking prevalence) to the current situation in Ontario (Table 2-3).

Table 2-3: Assessing Tobacco Use: MPOWER Indicators Applied to Ontario

MPOWER Indicator	Highest MPOWER Requirement	Situation in Ontario
Monitoring	Recent, representative and periodic data for both adults and youth.	Meets the requirement for the highest score.
Smoking prevalence	Daily smoking, age-standardized rate, <15%, among 15 years and older.	Daily smoking, age-standardized rate, 13.3% among 12+, 2014. Note: Compared to MPOWER definition, the age used here for Ontario is slightly lower: 15 years vs. 12 years in Ontario, which contributes to a slightly lower rate of smoking.

Scientific Advisory Committee Overview of Tobacco Use (Tobacco-related Disparities and Equity) Goals and Recommendations

The Scientific Advisory Committee (SAC) goal for tobacco use including tobacco-related disparities and equity is: To eliminate tobacco-related illness and death in Ontario—rapidly, equitably and cost-effectively; and to reduce tobacco-related disparities—both the unequal distribution of disease and the inequitable application and impact of interventions—while reducing the overall burden of tobacco, as a key strategy for achieving health equity in Ontario.⁵ The SAC report includes several recommendations addressing disparities and equity, targeted interventions, community involvement and evaluation and monitoring (Table 2-4). Reducing differences in tobacco use between population groups is expected to contribute to improved health equity.

Table 2-4: Scientific Advisory Committee Recommendation for Tobacco-related Disparities and Equity

Goal: To reduce tobacco-related disparities – both the unequal distribution of disease and the inequitable application and impact of interventions – while reducing the overall burden of tobacco, as a key strategy for achieving health equity in Ontario.

Recommendations	Current Status
Disparities and Equity	
[8.1] Incorporate equity considerations into the renewal of Ontario’s strategy to reduce tobacco use and exposure, and into all future phases of comprehensive tobacco control in Ontario.	The Strategy funds the Aboriginal Tobacco Program, an initiative of Cancer Care Ontario, with the aim of preventing and reducing commercial tobacco use among First Nations, Inuit and Métis (FNIM) communities.

Targeted Interventions

[8.2] Use a portion of the additional revenue generated by increasing taxation on tobacco to allocate resources to interventions directed at sub-populations that do not optimally benefit from universal interventions.

Ontario has not earmarked funds generated by increased taxes on tobacco to targeted interventions. Although not directly linked to increased taxation, the Ontario government directs funds to some sub-populations which may not benefit from universal interventions.

Counselling and prescriptions for smoking cessation medications through the Ontario Drug Benefit (ODB) program, an initiative that covers seniors, MOHLTC programs (Long-term Care, Home Care and Homes for Special Care), Ministry of Community and Social Services (Ontario Disability Support Program and Ontario Works) and the Trillium Drug Plan. In 2013/14, a total of 28,309 ODB patients received cessation medication.

The Ministry's 2013/14 Health System Research Fund addressed several targeted populations including Lesbian, Gay, Bisexual, Transgendered and Queer (LGBTQ) youth and young adults and aboriginal communities.

Community Involvement

[8.3] Involve members of identified priority communities in the conceptualization, design and implementation of interventions that will form Ontario's renewed strategy to reduce tobacco use and exposure in support of reducing tobacco-related inequities.

Various public health units involve youth and young adults in conceptualization, design and implementation of interventions.

The Strategy funds an Aboriginal Tobacco Program, which works with stakeholders across Ontario to prevent and reduce commercial tobacco use.

Evaluation and Monitoring

[8.4] Ensure monitoring and surveillance of tobacco-related disparities and that evaluation of policies and services capture the differential impact on sub-populations.

The Strategy funds the Ontario Tobacco Research Unit to conduct monitoring and surveillance initiatives including working with SFO partners on evaluation.

References

- ¹ Rehm J, Baliunas D, Brochu S, Fischer B, Gnam W, Patra J, et al. *The Costs of Substance Abuse in Canada 2002*. Ottawa: Canadian Centre on Substance Abuse, March 2006.
- ² Smoke-Free Ontario – Scientific Advisory Committee. *Evidence to Guide Action: Comprehensive Tobacco Control in Ontario*. Toronto, ON: Ontario Agency for Health Protection and Promotion, 2010. (Estimates derived from Rehm J, Baliunas D, Brochu S, Fischer B, Gnam W, Patra J, et al. *The Costs of Substance Abuse in Canada 2002*. Ottawa: Canadian Centre on Substance Abuse, March 2006)
- ³ Health Canada. *Wholesale Sales Data: Cigarette and Fine-Cut Sales in Ontario 1980-2014*. Accessed on December 18, 2015.
- ⁴ Government of Ontario. *Ontario Regulation 336/15 made under the Smoke-Free Ontario Act*. Printed in the Ontario Gazette: November 28, 2015. Accessed on December 18, 2015.
- ⁵ Smoke-Free Ontario – Scientific Advisory Committee. *Evidence to Guide Action: Comprehensive Tobacco Control in Ontario*. Toronto, ON: Ontario Agency for Health Protection and Promotion, 2010.



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Smoke-Free Ontario Strategy Monitoring Report: Youth Prevention



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Prevention: Smoke-Free Ontario Strategy Components

A comprehensive approach is required to prevent and reduce prevalence of tobacco use among youth due to the complexity of factors that determine smoking initiation in this population.¹ This approach includes building capacity for the implementation of various interventions such as federal and provincial policies as well as provincial and regional public health programming. These interventions seek to prevent use through a number of pathways such as:

- Limiting social exposure to tobacco use among youth
- Decreasing access and availability of tobacco products
- Increasing knowledge of the harmful effects of tobacco use
- Increasing youth resiliency to make healthy choices and resist tobacco use initiation

In Ontario, the prevention component of the Smoke-Free Ontario Strategy is the main avenue by which progress toward these pathways/desired goals is expected to be achieved (Figure 3-1).

In this chapter, we provide an overview of current infrastructure, policy measures and prevention-related interventions in Ontario that seek to prevent tobacco use among youth. We follow with an examination of progress toward prevention objectives at the population level.

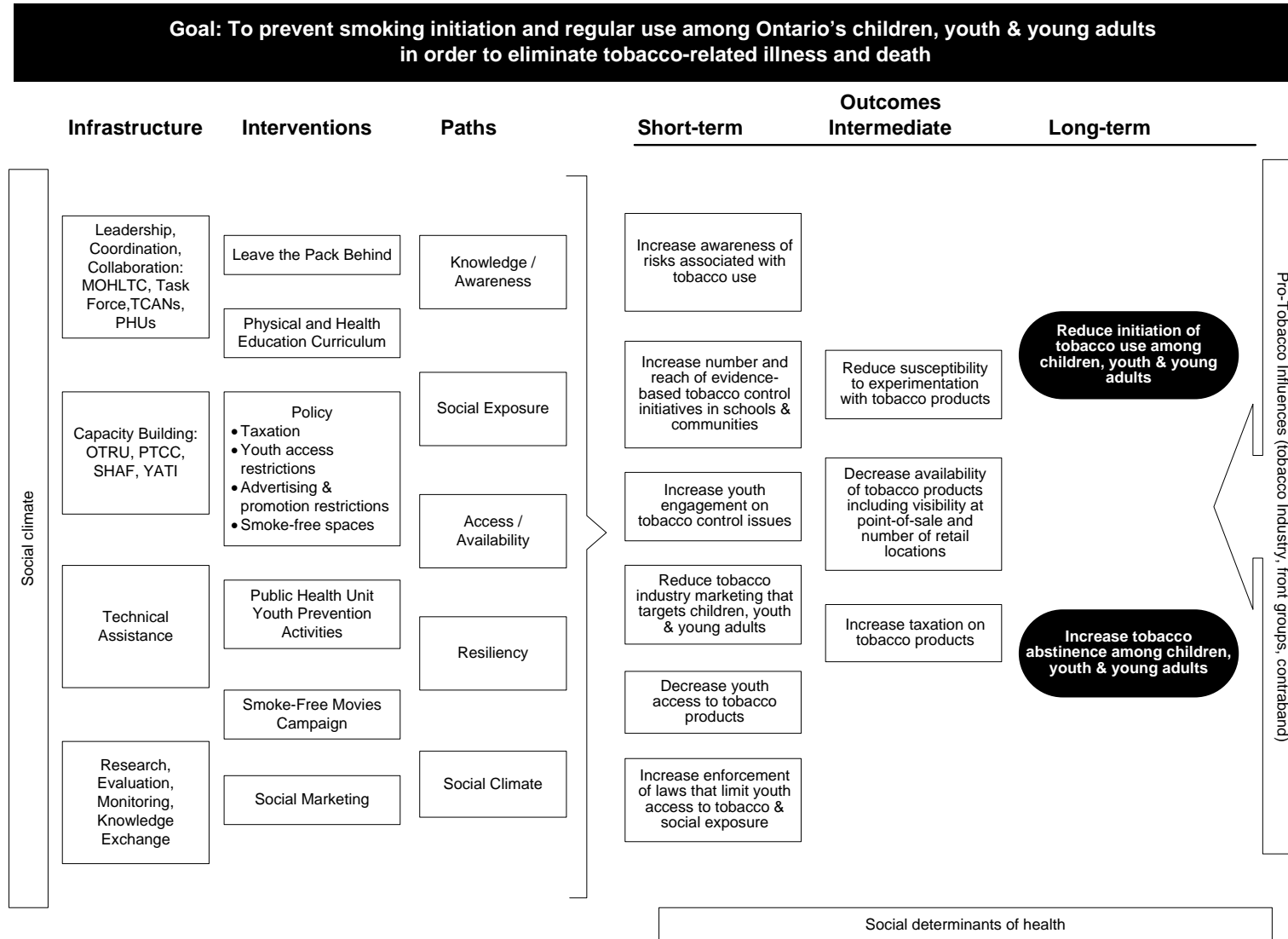
Prevention Infrastructure

To ensure success, the prevention system has been designed to build capacity, provide technical assistance and offer research and evaluation support to key stakeholders—including public health unit staff, educators and service providers—and to deliver evidence-based programs, services and policies to the public. This infrastructure function is delivered by several key organizations with funding from the Ministry of Health and Long-Term Care, including public health units (PHUs), Tobacco Control Area Networks (TCANs), the Ontario Tobacco Research Unit (OTRU), the Program Training and Consultation Centre (PTCC), Smoking and Health Action Foundation (SHAF) and the Youth Advocacy Training Institute (YATI).

Prevention Task Force

The Smoke-Free Ontario Strategy's Prevention Task Force is comprised of representatives of the tobacco control community who have an expertise in youth tobacco use prevention and organizations with expertise in youth development and youth engagement strategies. It was struck in 2011 to provide input on implementation of the renewed Strategy prevention programming and to identify areas for collaboration across programs.

Figure 3-1: Prevention Path Logic Model



Public Health Units (PHUs)

PHUs are critical stakeholders in the implementation of tobacco use prevention programming and policies in the Province and have a sizable infrastructure including program staff and enforcement personnel. Although the focus of this chapter is on large-scale province-wide prevention interventions, we do report on select PHU- (and TCAN-) specific interventions in subsequent sections.

Tobacco Control Area Networks (TCANs)

TCAN Coordinators and Youth Development Specialists from each of the seven TCANs (representing the 36 PHUs) provide leadership, coordination and collaborative opportunities centred on the prevention goal of the SFO Strategy. These efforts seek to engage youth and promote a tobacco-free lifestyle. One of the more important roles TCANs play is to plan and execute large regional projects and coordinate regional media and public relations activities (e.g., Bad Ways to be Nice, Smoke-Free Movies). Regional action planning around prevention has involved the development of a number of initiatives. TCANs also assist in assessing local PHU training and technical assistance needs around youth prevention, and they help communicate Ministry policies and activities including local media and public relations initiatives.²

Ontario Tobacco Research Unit (OTRU)

OTRU provides research, monitoring, evaluation and teaching / training resources to the prevention component of the Strategy. Prevention projects conducted by OTRU investigate the influence of student and school-level characteristics on tobacco use behaviour, predictors of tobacco use comorbidities among youth and young adults, e-cigarette use among youth and young adults and youth exposure to tobacco in movies. In addition, OTRU provided rapid scientific consulting to the Ministry and SFO partners, and responded to 70 knowledge and evaluation support requests from partners in 2014/15. OTRU's online course ([Tobacco and Public Health: From Theory to Practice](#)) is another prevention resource available to public health personnel across the Province. In 2014/15, a total of 1169 people enrolled in the online course prevention module.

Program Training and Consultation Centre (PTCC)

Within the prevention pillar, PTCC provides a multi-day training course on the foundations of enforcing the *Smoke-Free Ontario Act* that includes regulations prohibiting tobacco sales to minors. This course is offered in collaboration with the Ministry of Health and Long-Term Care

and is required training for any PHU employee enforcing the *Smoke-Free Ontario Act*. PTCC also supported two province-wide communities of practice addressing practice areas relevant to tobacco use prevention (i.e., Tobacco Use Reduction for Young Adults and Outdoor Smoke-Free Spaces and Tobacco-Free Sport and Recreation). PTCC Health Promotion Specialists and Media and Communications Specialists also provided consultation to local PHUs, TCANs and tobacco control coalitions working on community education and policy development initiatives (e.g., smoke-free multi-unit dwellings (MUDs), smoke-free movies, e-cigarettes).

Program Reach: In 2014/15, the PTCC delivered 53 training events on all aspects of tobacco control with only some pertinent to prevention, which reached over 1600 clients. Training events included 41 workshops and 12 webinars. PTCC's training programs were highly attended by staff of Ontario's 36 PHUs. Participants from Community Health Centres, the health care sector (e.g., hospitals), non-governmental organizations and government were also well represented. Tobacco control consultations were also delivered to 34 PHUs and all seven TCANs. 213 public health practitioners and researchers were actively engaged across three provincial communities of practice.ⁱ

Smoking and Health Action Foundation (SHAF)

SHAF engaged in a number of prevention-related activities in 2014/15 to support, educate and build capacity in the Ontario public health community including PHUs and TCANs. SHAF has provided training, technical assistance and knowledge exchange to Strategy partners (including PHUs and TCANs) on a number of current and emerging prevention topics such as e-cigarettes, waterpipes, tobacco taxation, Canadian tobacco industry activity, contraband, tobacco industry denormalization, smoke-free movies (SHAF co-chairs the Ontario Coalition for Smoke-Free Movies) and more generally, policy options to address young adult use and prevention.

Youth Advocacy Training Institute (YATI)

The Ontario Lung Association's YATI is a program that engages Ontario youth (and adults) by creating partnerships with provincial, regional and local organizations. YATI provides youth and adults with training in skill building, resources, and tools to empower these groups to positively affect change in their communities by promoting tobacco-free and healthy lifestyles.

In 2014/15, YATI delivered 38 regular trainings across Ontario including 27 trainings for youth

ⁱ Steven Savvaidis, Personal communication, December 10, 2015.

(n = 508) and 11 trainings for adults (n = 305). Youth received training on a variety of topics including: tobacco industry denormalization, creating effective health promotion campaigns and creative ways to advocate. Adult training focused on principles and practices of meaningful youth engagement. To meet the specific needs of stakeholders, seven custom trainings were delivered (four to youth, n = 85; three to adults, n = 35). YATI also supported the delivery of three summits at the regional and provincial level, reaching an estimated 245 participants.

YATI held 35 partnership and special event trainings in 2014/15 involving 789 youth and 150 adults including Smoke-Free Movies Coalition Partnership Events, Lil NHL (Cancer Care Ontario's Aboriginal Tobacco Program), Partnership with Ontario Federation of Indigenous Friendship Centres (OFIFC) and the Ophea-led School-Based Tobacco Prevention Program.

The YATI website was an active knowledge exchange portal, with the English site having 10,264 unique visitors and 42,484 page views and the French site having 140 unique visitors and 198 page views. The YATI Facebook account had 490 friends; their Twitter feed had 1445 followers and 3,329 tweets; and the YATI YouTube channel had 16 subscribers, 14,796 views and 76 subscriptions.

Prevention Interventions

The Smoke-Free Ontario Strategy includes a number of programs, services and policies focused on prevention and reduction of tobacco use among youth and young adults. These initiatives are centred on increasing knowledge of the harmful effects of tobacco use; increasing youth resiliency to make healthy choices and resist tobacco use initiation; limiting social exposure to tobacco use; and decreasing access and availability of tobacco products.

Given the nature of some of the interventions and challenges in attributing changes in prevention-related outcomes at the population level to particular interventions, evaluative data are not currently available for many of the prevention interventions discussed in this chapter. Recent data on the effects of price, availability of contraband cigarettes and smoke-free policies on prevention-related outcomes are also not currently available.

Interventions to Build Knowledge and Resiliency

The Province's current mix of prevention initiatives aim to increase knowledge and resiliency to prevent tobacco use among youth and young adults. In Ontario, these initiatives include: school-

based programs, Leave The Pack Behind and programs that directly involve youth in program planning and implementation.

Educational Programs

Ontario's Health and Physical Education Curriculum

In September 2010, Ontario public schools began implementing the Ministry of Education's revised interim health and physical education curriculum for grades 1 to 8. This was the first revision since 1998. In 2014, the Ministry of Education published its Foundations for a Healthy School resource.³ Using an integrated approach, this resource focuses on curriculum, teaching and learning; school and classroom leadership; student engagement; social and physical environments; home, school and community partnerships. Under the health-related topic of Substances Use, Addictions and Related Behaviours, students begin to learn about tobacco during the junior grades (specifically grades 4 to 7). Learning focuses on understanding what tobacco is, what influences its uptake (i.e., peer pressure, industry advertising) and the effects and consequences of its use (i.e., health effects, social implications). This knowledge is integrated with the development of a variety of living skills (e.g., decision making and refusal skills) that help students make and maintain healthy choices.

The Ontario Physical and Health Education Association (Ophea) has developed online elementary and secondary school resources to support the implementation of the Health and Physical Education curriculum including substance use.⁴ Each resource includes ready-to-use lesson plans and other supports such as student templates, assessment tools and daily physical activity ideas.

Tobacco Use Prevention in Schools

Under the renewed Smoke-Free Ontario Strategy, the Ontario government is committed to working with educators and young people to keep schools smoke-free. As part of this process, the Ministry of Health and Long-Term Care funded Ophea to implement a school-based tobacco prevention pilot program in grades 6 to 11 during the 2013/14 and 2014/15 school years. This project was delivered in close collaboration with the Youth Advocacy Training Institute (YATI), the Centre of Excellence for Youth Engagement and local PHUs.

Running in 24 schools (8 elementary and 16 secondary), the pilot program was implemented using a Healthy Schools approach (aligned with Ontario's Foundations for a Healthy School resource),⁵ with a focus on providing youth leadership opportunities to address tobacco and other risk factor areas in participating schools across four main areas including: high-quality instruction and programs, a healthy physical environment, a supportive social environment and

community partnerships. Following training on the Healthy Schools approach, a core team of students, working with adult allies, formed action teams, which planned and implemented a range of tobacco prevention and health-related activities. These school action teams received in-school, ongoing support from Ophea consultants including an annual orientation, along with kick-off, check-in and celebration meetings. (Note: This pilot project differs from Ontario's health and physical education curriculum, which is teacher-led and run for students in grades 1 to 8).

An in-depth evaluation of Ophea's pilot program was conducted by the Social Program Evaluation Group (Queen's University), in close collaboration with the University of Waterloo (COMPASS Study). Findings will be integrated into future monitoring reports when they are made publically available.

Leave The Pack Behind

To address prevention goals, Leave The Pack Behind (LTPB) uses several tobacco control interventions including a) social marketing campaigns that use social media, mass media and interpersonal communication in print, electronic and face-to-face formats; and b) peer-to-peer programs and services that actively discourage uptake/escalation of tobacco use, address social norms and campus policies and provide general tobacco control education.

LTPB's annual *wouldrather... contest* challenged post-secondary students and community-dwelling young adults aged 18 to 29 to quit, reduce or stay smoke-free for a six-week period. In 2014, the prevention component of the contest, in particular *Don't Start and Win*, attracted 8,926 registrants who were nonsmokers or former smokers and pledged to be smoke-free for the duration of the contest (the majority of these registrants were students—8,705).⁶

With links to the *wouldrather... contest* and the provincial *Quit the Denial* campaign,⁷ LTPB's *Social Smoking is Smoking* campaign continued to run in 2014/15. This campaign targeted on- and off-campus young adults at risk of smoking escalation. Students were educated about the dangers of any level of tobacco use; encouraged to "unpair" drinking and smoking and were provided with support to quit smoking. Student teams hosted 962 outreach events at 33 post-secondary institutions (out of 44 institutions).⁶

Youth Prevention (Public Health Units)

The Tobacco Strategy Advisory Group recommended that a youth engagement approach be advanced as a recognized strategy to promote positive health behaviour change.^{8,9,10,11} Research studies have shown that youth engagement is a promising approach to raise awareness of the

harmful effects of tobacco use, empower youth and build skills to resist tobacco-use initiation.^{8,12}

The Ministry of Health and Long-Term Care (MOHLTC) has provided funding for youth tobacco use prevention at each of the Province's 36 PHUs. Although not mandated by the MOHLTC, many PHUs have chosen to hire a Youth Engagement Coordinator. These coordinators work collaboratively across risk factor-related programs within the PHU and externally through community partnerships with youth organizations. They also work with Youth Development Specialists and other regional stakeholders within the TCANs to establish regional plans and priorities for tobacco use prevention programming.¹³ Youth Engagement Coordinators focus their work on a number of activities including: training on the principles of youth engagement across PHU programs, the funding of youth-led health promotional activities, the ongoing recruitment of youth to engage in healthy tobacco control in the community and creation of opportunities for peer networking and learning.¹³

Youth prevention activities are running at the local and regional level across the Province. This work varies widely in funding, scope and available evaluative evidence, with some ongoing projects and other work supporting a one-time event. Numerous PHU/TCAN prevention projects that build knowledge and resiliency have reached out to OTRU's Knowledge and Evaluation Support initiative. These include Smoke-Free Movies (multi-TCAN, NGO), measuring youth engagement and development (North East), Train the Trainer/Youth Justice Centre (Northwest), Social Identities Project (South West, Central West; see below) and dental professional messages (South West; see below).

Smoke-Free Movies

In response to the high number of tobacco impressions found in youth-rated films shown in theatres across Ontario, the Ontario Coalition for Smoke-Free Movies formed in May 2010 to challenge the presence of tobacco imagery in movies. This initiative involves partnerships among Canadian Cancer Society (Ontario Division), Heart and Stroke Foundation of Ontario, Non-Smokers' Rights Association/Smoking and Health Foundation (SHAF), OTRU, Ontario Lung Association, YATI, Physicians for a Smoke-Free Canada, PHUs and TCANs. The Ontario Coalition for Smoke-Free Movies argues that an effective way to reduce youth exposure to onscreen tobacco in Ontario is to require adult ratings (18A in Ontario) for movies with any tobacco imagery.

Between 2004 and 2014, 56% (877/1,564) of the top-grossing movies featured onscreen tobacco. Of the movies with tobacco content, 86% were youth-rated movies (i.e., excluding 18A and R).¹⁴

Over this same period, these top-grossing movies contained a total of 29,620 tobacco incidents, with 85% of these incidents occurring in youth-rated movies. In 2014, 2,770 tobacco incidents occurred, up from 2,498 in 2013.

Exposure to onscreen smoking at current levels is expected to recruit more than 185,000 children and teens aged 0 to 17 living in Ontario today to become smokers.¹⁴ Eventually, more than 59,000 of those recruited to smoking as a result of this exposure will die prematurely from tobacco-induced diseases.¹⁴ It is projected that if a policy that mandates adult rating (18A) for smoking in movies was released in Ontario it would avert at least 95,000 Ontario children and teens from becoming smokers and prevent more than 30,000 future tobacco deaths.¹⁴

Youth Social Identities and Tobacco Use Prevention Project

In 2013, a qualitative study was conducted by PHUs with teenagers in Central West and South West Ontario to better understand the relationship between youth subcultures and tobacco use. Findings from this study showed that teens that are influenced by the Hip Hop and Alternative peer crowd are at the highest risk for tobacco use. A social brand, entitled 'Uprise' was subsequently developed as a platform to deliver anti-tobacco messaging to the Alternative Peer Crowd and reach Alternative teens in an authentic way. This initiative is currently being executed, with the goal to ultimately reduce tobacco use within this subculture that experiences the highest prevalence of tobacco use when compared with other youth subcultures in Ontario. The first phase of evaluation aims to assess the knowledge and attitudes of the target demographic toward the Uprise Brand and results will be available in 2016.

Youth Tobacco Prevention with Dental Professionals Project

The Youth Tobacco Prevention with Dental Professionals Project ran as a pilot project in the South West TCAN in 2015. Local PHUs partnered with dental professionals to test the usefulness of using prevention and cessation resources with high school-age youth (age 14-18) in dental settings.

Dental professionals were asked to: a) show a laminated infographic to each youth patient aged 14 to 18 who visited an office that described reasons to be tobacco free as well as the negative effects of using tobacco; b) provide all youth with a magnet associated with an Instagram account named "91 Reasons," that reflected the 91% of Ontario youth who don't smoke; and c) offer a youth cessation booklet to youth patients aged 14 to 18 who identified as tobacco users or who were identified as a tobacco user by the dental professional.

Of 153 dental professionals approached, 87 (or 57%) responded to the online survey (run by OTRU in partnership with the South West TCAN). Among respondents, one in five *always* shared the two main project resources: an infographic and magnet. Approximately 60% of dental professionals *often* or *sometimes* shared, whereas 20% *rarely* showed these resources to youth patients. About 8 in 10 dental professionals (79%) provided cessation booklets to their patients who smoked. No data are available about the effects of this intervention on youth initiation and cessation. However, the intervention is based on published research that demonstrated that face-to-face interaction with a health care provider and providing print materials to youth can reduce the risk of smoking initiation among youth.¹⁵

Interventions to Limit Physical and Social Exposure

A number of tobacco control policies have been implemented that limit physical and social exposure (i.e., the visual exposure to tobacco in social environments). Lower physical and social exposure to tobacco use provides less modeling/social acceptability of smoking. For instance, policies include restrictions on smoking in schools, bars and restaurants, vehicles and workplaces.¹⁶ Protecting Ontarians from exposure to secondhand smoke is a goal unto itself but also has secondary prevention effects. (See the Protection chapter for additional details.)

Select projects that seek to limit physical and social exposure include:

Love My Life (LML)

An initiative of the East TCAN, LML's goal is to meaningfully engage youth aged 10 to 24 around increasing tobacco-free environments, with the expectation that these will enhance supportive social and physical environments and influence policies that support healthy living. For instance, tobacco-free environments are expected to support the process of normalizing tobacco-free living by removing tobacco use role-modeling.¹⁷ Initial work has begun on this project and is expected to continue over the next couple of years. Evaluation of the LML initiative is expected to begin in late 2016.

Interventions to Limit Availability and Access

Tobacco retail availability refers to the accessibility of tobacco products at the retail level. In essence, "availability" describes the level of convenience associated with obtaining tobacco in Ontario.

Ontario allows tobacco to be readily accessible 24 hours a day, seven days a week, in corner stores, gas stations and grocery stores, as well as a myriad of other outlets. In Ontario, there is one tobacco retail outlet per 1,000 people aged 15 years or more.¹⁸ The omnipresence of retail stores that sell tobacco products serves to increase consumption, normalize tobacco products and tobacco use, and undermine the health-risk messaging of government authorities and health groups.¹⁸

The SFO Scientific Advisory Committee (SAC) identified the pervasive availability of tobacco products in the retail environment as a major issue for tobacco control in Ontario (Chapter 4: Confronting the Disease Vector in Tobacco Control). Two recommendations arising out of the SAC process were: a) Ontario should move toward a system of designated sales outlets, by using licensing strategies and zoning laws to reduce the number of tobacco retailers and locations permitted to sell tobacco products; and b) Ontario should increase the number of specific places that are prohibited from selling tobacco products to match or exceed similar bans in leading Canadian provinces.

Ontario has instituted several measures to curtail the effects of the widespread availability of tobacco products including: a) product prohibitions, b) tobacco taxation and c) tobacco retail availability including minimum age restrictions, point-of-sale display bans, vendor licensing, vendor locations and vendor compliance with youth access restrictions.

Product Prohibitions: Single and Flavoured Cigarillos

In 2010, the SFOA and the Federal Bill C-32 (passed in 2009) banned the manufacture, importation and sale of flavoured cigarettes, cigarillos and blunt wrapsⁱⁱ (except menthol).¹⁶ Cigarillos are classified as smaller versions of cigars that resemble a cigarette in size and shape, are wrapped in tobacco leaf and contain a cigarette filter or weigh 1.4 grams or less. Previously, cigarillos were sold in a variety of flavours (grape, vanilla, maple, cherry, strawberry, etc.) and were available in tubes or small boxes resembling candy or lip-gloss.

In 2015, small cigars weighing more than 1.4 grams—still commonly referred to as cigarillos even though they don't meet the legal definition—continued to be sold in a variety of flavours. However, on May 28, 2015, the *Making Healthier Choices Act* (Bill 45) received Royal Assent. This *Act* prohibits the sale of flavoured tobacco at retail stores in the Province, with exceptions. Specifically, regulations consolidated on November 13, 2015 (and in effect as of January 2016)

ⁱⁱ Similar to rolling paper, a blunt wrap is a sheet or tube made of tobacco that can be used to roll cigarette tobacco.

mandate that the *Act* does not apply to flavouring agents in cigars that impart a flavour or aroma of wine, port, whiskey or rum; nor does it apply to the flavour or aroma of menthol, a regulation that will be revoked in January 1, 2017 thus prohibiting menthol as a flavouring agent.¹⁹ Likewise, an order amending the Schedule to the federal *Tobacco Act* came into force December 15, 2015 that prohibited the manufacture and sale of certain types of cigars that contain targeted additives (flavours). Further, cigarillos/cigars weighing less than or more than 1.4 g, but not more than 6 g, were captured in the amended Schedule.

Contribution: In 2014, Ontario wholesale sales of the total cigar category (little cigars/cigarillos and cigars) fell 9.8% from 2013 sales and 23.9% compared to 2010 (178,160,014 unit sticks in 2010, 150,258,186 units in 2013 and 135,578,758 units in 2014).ⁱⁱⁱ (Note: Annual sales data may be influenced by wholesale shipment dates). The reduction in sales may reflect users' reduced consumption, as a result of the market conversion of little cigars/cigarillo brands into non-filtered cigar brands weighing more than 1.4g in 2010. In 2014, little cigars/cigarillos comprised 6.3% of all cigar sales.ⁱⁱⁱ In 2014, 79% of the Ontario cigar market was flavoured cigars, with menthol comprising 3.2% of all cigar sales.ⁱⁱⁱ

Tobacco Taxation

Youth are very sensitive to the cost of tobacco products.^{20,21,22} Specifically, higher cigarette prices have been shown to prevent youth initiation,²⁰ prevent adolescents from becoming daily, addicted smokers and can impact the smoking behaviour of youth who are further along the smoking uptake continuum.²³ Increases in the price of tobacco through taxation are central to any preventive approach. Currently, Ontario has the second lowest total tobacco taxes in Canada (\$59.75), with an average retail price of \$93.66 per carton (Table 3-1). The Ontario tax rate translates into 63.8% of the retail price, below the 75% tax rate recommended by MPOWER. Tobacco tax rates in Ontario were last changed on May 2, 2014, when the provincial excise tax for 200 cigarettes was increased by \$3.25, resulting in an increase from \$24.70 to \$27.95 in total tobacco tax. This increase was not an increase in the proportion of provincial tax in the overall price of 200 cigarettes; instead, it accounted for inflation and restored the proportion of provincial tax to just below the level set in the previous provincial tax increase (30% of retail price in 2015 vs. 35% in 2006).

ⁱⁱⁱ Health Canada, Personal Communication, October 26, 2015.

Table 3-1: Federal/Provincial/Territorial Tobacco Tax Rates (per 200 Cigarettes, October 2015)

Jurisdiction	Average Pre-Tax Price ¹ (2015 Figure)	Federal Excise Duty	Provincial/Territorial Excise Tax	Provincial/Territorial Sales Tax or Harmonized Sales Tax ²	Federal GST ³ 5%	Total Tobacco Taxes	Total Retail Price
Quebec	\$29.18	\$21.03	\$29.80	No PST	\$4.00	\$54.83	\$84.01
Ontario	\$33.90	\$21.03	\$27.95	13% HST = \$10.77	See HST	\$59.75	\$93.66
British Columbia	\$25.90	\$21.03	\$47.80	No PST	\$4.74	\$73.57	\$99.46
Yukon	\$35.37	\$21.03	\$42.00	No PST	\$4.92	\$67.95	\$103.32
Alberta	\$28.70	\$21.03	\$50.00 ⁴	No PST	\$4.99	\$76.22	\$104.92
Nunavut	\$39.32	\$21.03	\$50.00	No PST	\$5.52	\$76.55	\$115.87
New Brunswick	\$44.37	\$21.03	\$38.00	13% HST = \$13.44	See HST	\$72.47	\$116.84
Saskatchewan	\$36.06	\$21.03	\$50.00	5% PST = \$5.35	\$5.35	\$81.73	\$117.79
Newfoundland	\$35.25	\$21.03	\$47.00	15% HST = \$15.49	See HST	\$83.52	\$118.77
Prince Edward Island	\$33.16	\$21.03	\$50.01 ⁵	14% HST = \$14.59	See HST	\$85.62	\$118.78
Nova Scotia	\$35.41	\$21.03	\$51.05 ⁶	15% HST = \$16.12	See HST	\$88.19	\$123.60
Northwest Territories	\$43.16	\$21.03	\$57.20	No PST	\$6.08	\$84.31	\$127.46
Manitoba	\$37.89	\$21.03	\$59.01 ⁷	7% PST = \$9.43	\$5.90	\$95.36	\$133.25

Note: Ordered by total retail price, from lowest to highest.

¹This average estimate of “pre-tax price” for each province is calculated by using the Consumer Price Index and the CPI Intercity Index from Statistics Canada for a carton of 200 cigarettes available in 2015. The full methodology for the calculations is available upon request

²PST/HST is calculated on the total of pre-tax price + federal excise duty + provincial excise tax.

³GST is calculated on the total of pre-tax price + federal excise duty + provincial excise tax.

⁴Alberta tobacco tax increase effective 28 October 2015. See <http://finance.alberta.ca/publications/budget/budget2015-october/fiscal-plan-complete.pdf>.

⁵Prince Edward Island tobacco tax increase effective 20 June 2015. See <http://www.gov.pe.ca/photos/original/budgetadd2015.pdf>.

⁶Nova Scotia tobacco tax increase effective 9 April 2015. See http://www.novascotia.ca/finance/site-finance/media/finance/budget2015/Budget_Assumptions_And_Schedules.pdf.

⁷Manitoba tobacco tax increase effective 30 April, 2015. See <https://www.gov.mb.ca/finance/budget15/papers/summary.pdf>.

Source: Non-Smokers Rights Association (NSRA). Cigarette prices in Canada. A map comparing the average price of a carton of 200 cigarettes in Canada’s provinces and territories, as of October 2015 (http://www.nsr-ndf.ca/cms/file/files/151028_map_and_table.pdf).

Tobacco Retail Availability

Restricting the retail distribution and availability of tobacco products is considered an important mechanism to limit consumption and subsequent negative health effects.^{24,25} In Ontario, legislation prohibits tobacco from being sold by vending machines, at pharmacies, hospitals and other health care and residential care facilities and, as of January 1, 2015, college and university campuses.²⁶ Despite these advances, tobacco products continue to be available across the Province through a large number of retail outlets (10,620 in 2014),²⁷ primarily convenience, gas and grocery stores.

Minimum Age of Cigarette Purchase

The minimum age of cigarette purchase in Ontario is 19 years old. It is an offence to sell or supply tobacco to anyone under the age of 19. As of May 31, 2006, the *Smoke-Free Ontario Act* requires retailers to request identification if a person trying to buy cigarettes appears to be under the age of 25.²⁸ To make it easier for retailers to identify potential underage customers, the Ontario government has added a new age identifier to drivers' licenses that clearly show the exact date that a cardholder turns 19.^{28,29}

Point-of-Sale Display Ban

Social exposure to tobacco products may promote the normalization of tobacco use, trigger initiation in youth and young adults through processes of social influence and modeling and may encourage the continued use of tobacco among smokers and relapse among quitters.^{30,31} On May 31, 2008, a complete ban on the retail and wholesale display of tobacco products was implemented in Ontario in order to discourage youth from starting to smoke.³² Those exempted from this ban include tobacconists, duty free retailers and manufacturers.

Vendor Compliance with Youth Access Laws

It is illegal, in Ontario, to sell tobacco products to anybody under the age of 19. MOHLTC funds PHUs to conduct two youth access checks of each tobacco vendor in their jurisdiction. In 2014, there were 21,593 youth access checks (compliance or enforcement) conducted in Ontario, in which a test shopper entered a store and attempted to purchase tobacco products. The test shopper was sold a tobacco product 1,153 times.²⁷ Individual stores could be checked more than once per year. Using the store as the unit of analysis, 97% of Ontario tobacco vendors were found to be in compliance with youth access legislation at the time of last inspection.²⁷

OTRU, in partnership with the MOHLTC and local PHUs, recently evaluated a pilot project that focuses resources on addressing retail non-compliance based on a risk-based enforcement model. Results suggest that fewer inspections for low-risk vendors combined with more inspections for higher-risk vendors improved compliance for the latter while not decreasing compliance for the former.³³

Youth Experience with Vendor Sales

In 2012/13, 36% of youth in grades 10 to 12 reported having been asked for identification when buying cigarettes in a store. Significantly more boys than girls reported having been asked for ID (40% and 25%, respectively) (Youth Smoking Survey [YSS] 2012/13, data not shown). In the same survey, 26% of youth in grades 10 to 12 reported that the last time they tried to buy cigarettes in

a store, someone refused to sell to them. Slightly more boys than girls were refused (27% and 23%, respectively) (YSS 2012/13, data not shown).

Ease of Obtaining Cigarettes

In 2015, 53% of students in grades 7 to 12 under the age of 19 believed it was fairly easy or very easy to obtain cigarettes, a significant decrease from 61% reported in 2013 (OSDUHS, data not shown). Students in grades 9 to 12 were much more likely to report it was fairly easy or very easy to obtain cigarettes compared to students in grades 7 to 8 (64% vs. 21%).

Vendor Licensing

One opportunity to reduce tobacco retail outlet density is to require vendor licenses, annual fees or both. Licensing fees, especially if they are expensive, may deter would-be retailers or prompt current retailers to stop selling tobacco.^{34,35} Most provinces in Canada have not established tobacco retailer license fees, but there are a few exceptions. For example, New Brunswick has a one-time fee of \$100, with an annual renewal fee of \$50.³⁶ Nova Scotia has a tobacco retailer licence fee of \$120.95, renewable every three years.³⁷ In Ontario, the provincial government requires all retailers wishing to sell tobacco to have a valid Retail Sales Tax (RST) vendor's permit or, as of July 1, 2010, a tobacco retail dealer's permit issued under the *Tobacco Tax Act*. However, this system is free and requires only a one-time application, with no renewal required. A growing number of municipalities in Ontario have an annual tobacco retailer licence fee (Table 3-2).

Vendor Locations

In 2014, the total number of tobacco vendors operating in Ontario was 10,620. This is down from 11,581 in 2013, 12,455 in 2012²⁷ and a further decrease from the approximate 14,000 tobacco vendors that were operating in 2006. (Note: The reason for these decreases is unclear. It could be due to more accurate recording of vendors by Ministry, fewer vendors selling tobacco or both.) Sixty-five per cent of Ontario tobacco retail outlets are located within 500 metres of a school.¹⁸ Tobacco retailers are also more likely to be located in lower socioeconomic status neighbourhoods.¹⁸

Higher tobacco retail outlet density has been associated with higher rates of youth smoking and increased likelihood of young smokers purchasing their own tobacco.²⁵ According to the 2015 Ontario Student Drug Use and Health Survey, approximately 18% of underage students in grades 7 to 12 who had smoked a whole cigarette in the last 12 months reported purchasing their last cigarette from a corner store, grocery store, supermarket, gas station or bar. Just over half of all underage students (62%) reported getting their last cigarette from social sources such as a

friend or family member.³⁸ In a 2005 study prepared for Health Canada, young smokers report that they would smoke less if they had to travel farther to buy cigarettes.³⁹

There is growing interest in policies to regulate the number and location of tobacco vendors. Provinces, such as Nova Scotia and Quebec have prohibited tobacco sales in a wide number of types of locations such as colleges and universities, theatres and bars and restaurants. As previously mentioned, Ontario legislation prohibits tobacco from being sold by vending machines and at pharmacies, hospitals, other health care and residential care facilities and college and university campuses.

Table 3-2: Annual Tobacco Retailer Licence Fees, Ontario

Municipality	Licence Fee
Ottawa	\$806
Hamilton	\$649
Sudbury	\$440
Markham	\$330
Vaughan	\$298
Richmond Hill	\$285
Mississauga	\$277
Oakville	\$267
Kingston	\$251
Brampton	\$215
Windsor	\$188
Waterloo	\$172
Burlington	\$170
Wasaga Beach	\$150
Halton Hills (Georgetown)	\$131
Hawkesbury	\$100
Chatham-Kent	\$85
North Bay	\$50
Cornwall	\$40
Brockville	\$36

Source: Canadian Cancer Society, December 10, 2015

Regional Interventions to Limit Availability and Access

Bad Ways 2 Be Nice

BW2BN (BW2BN) is an initiative that began with the Central East TCAN and is designed to raise awareness among young adults about the issue of supplying cigarettes to teenagers and

encourage young adults to think twice before giving cigarettes to youth. Following the spring 2014 social marketing campaign, 22% of survey respondents indicated awareness of the campaign. Of these respondents, 33% made positive changes in attitudes toward the issues of supplying cigarettes to teens. Specifically, young adults (aged 19-21: 37%), smokers (45%) and young adults who supplied cigarettes to teens in the past (56%) were more likely to make positive changes in attitudes toward the issue of supplying cigarettes to teens.

In 2015, Central East TCAN, Southwest TCAN and the Aboriginal Tobacco Program ran a number of events—such as a polaroid frame booth, post-it note activity, wheel spin-to-win "nice" or "not so nice" prizes—at various settings including colleges/universities, fairs/exhibitions and in the general community. In 2015, Southwest TCAN piloted BW2BN campaign videos. More evaluative information will be presented in 2016.

Know What's in Your Mouth

In the fall of 2013, the Central East TCAN and their partners implemented the Know What's in Your Mouth (KWIYM) prevention campaign to increase awareness among high school-aged youth in the region about the negative health effects associated with using smokeless tobacco. The KWIYM campaign gained momentum in several Central East communities via grass root health promotion activities adapted from a campaign toolkit. In recent years, the Central East TCAN has promoted a regional media campaign as well as encouraging local grass root activities adapted from the KWIYM toolkit. Of 19 health promotion activities run in 2015, a total of 3,421 high school-aged youth (13-18 years) attended and 6,897 promotional items were distributed (e.g., pencils, postcards, stickers, screen cleaners).

Public Support for Measures Related to Availability of Cigarettes

Social Sources

- In 2011, there was strong agreement (85%) that friends and family who supply tobacco to young people less than 19 years of age should be fined, a finding consistent over the last decade (ranging from 80% to 85%; CAMH Monitor, data not shown).

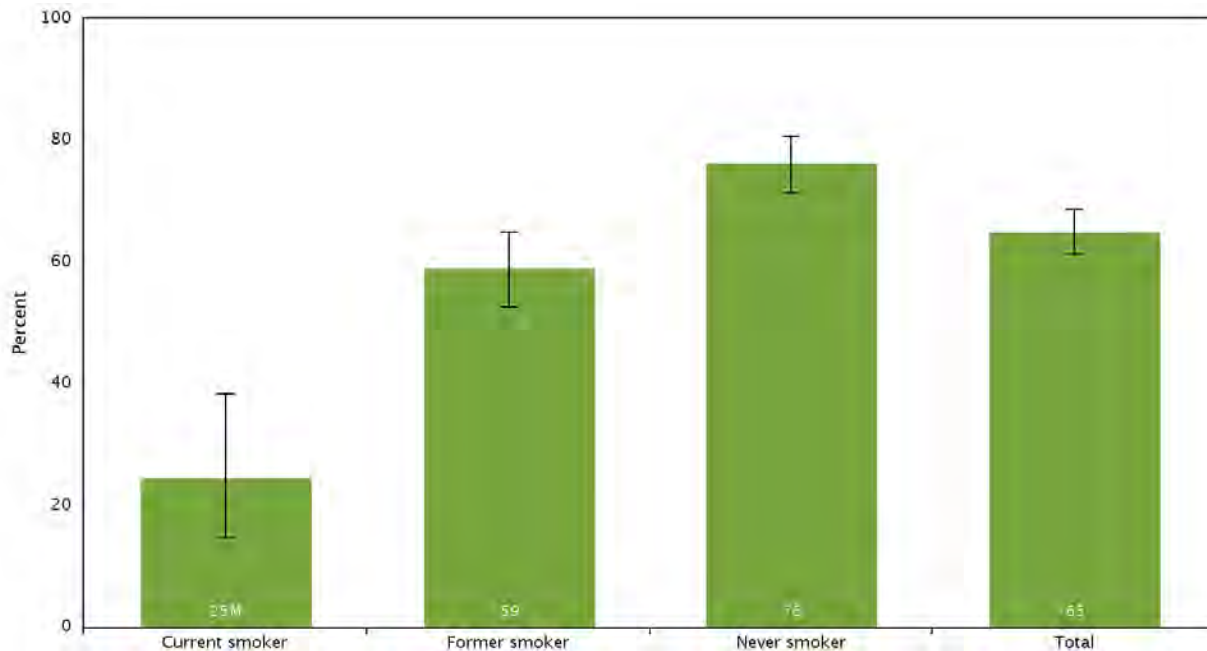
Retail Sales

- In 2015, 63% of Ontario students in grades 7 to 12 under 19 years of age indicated their support for further restrictions on tobacco sales. That is, 35% agreed that tobacco products should not be sold at all and 28% responded that tobacco products should be

sold in government-owned stores, similar to the way alcohol is sold in liquor stores. Only 17% responded that tobacco products should be sold in a number of places as they are now (OSDUHS 2015, data not shown).

- In 2014, 65% of all Ontario adults agreed that the number of retail outlets that sell cigarettes should be greatly reduced, a rate unchanged in recent years (Figure 3-2, CAMH Monitor 2014).
- Significantly more never smokers agreed with this policy option (76%) compared to 59% of former smokers and 25% of current smokers (Figure 3-2).
- In 2013 (the latest data available), 50% of adults in Ontario indicated their support for further restrictions on tobacco retail location. Two in ten (22%) responded that tobacco products should not be sold at all (Figure 3-3); 28% responded tobacco should be sold in government-owned stores similar to the way alcohol is sold in Liquor Control Board of Ontario stores; 48% of adults agreed that tobacco should be sold in a number of different places as they are now.

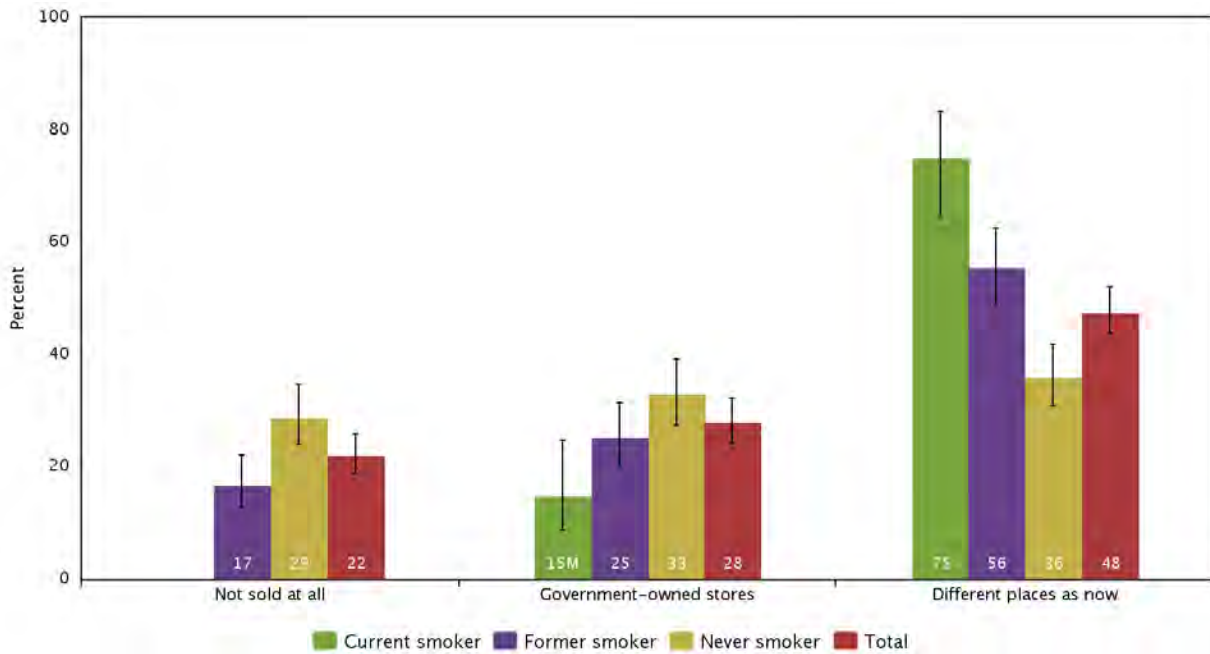
Figure 3-2: Agreement that the Number of Retail Outlets Selling Cigarettes Should Be Reduced, by Smoking Status, Ages 18+, Ontario, 2014



Note: Vertical lines represent 95% confidence intervals.

Source: Centre for Addiction and Mental Health Monitor 2014. Follow the TIMS link  for live results on this indicator and more.

Figure 3-3: Views on How Tobacco Should Be Sold, Ages 18+, Ontario, 2013



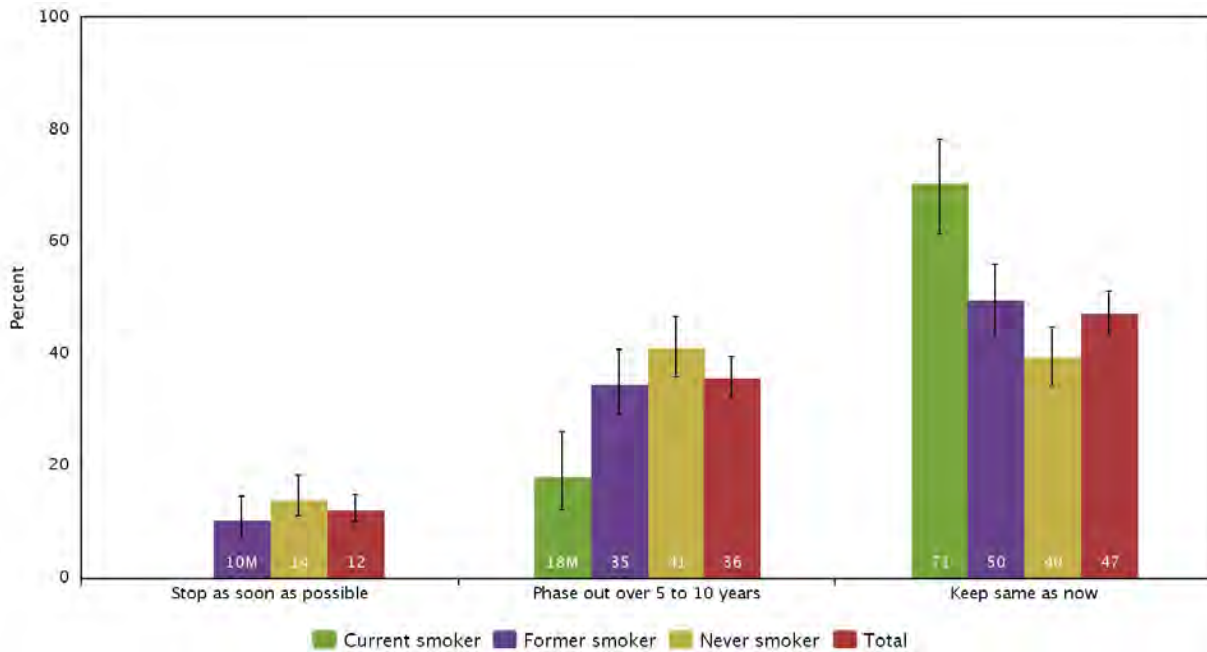
Note: Survey wording as follows: Which of the following comes closest to your view of how we should treat tobacco products in Ontario? Tobacco products should be sold in a number of different places, AS THEY ARE NOW; Tobacco products should be sold in government-owned stores similar to the way alcohol is sold in LCBO stores; Tobacco products should not be sold at all. Vertical lines represent 95% confidence intervals.

Source: Centre for Addiction and Mental Health Monitor 2013. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Support for the Prohibition of Tobacco Products

- In 2012 (the latest data available), 12% of Ontario adults responded that the sale of cigarettes should be stopped as soon as possible, 36% felt cigarettes should be phased out over the next five to 10 years and 47% felt that the sale of cigarettes should be kept as it is now (Figure 3-4).
- Two out of every ten smokers (18%) felt that cigarettes should be phased out in five to 10 years, whereas, 71% responded that the sale of cigarettes should be kept the same (Figure 3-4).

Figure 3-4: Views on the Sale of Cigarettes, by Smoking Status, Ages 18+, Ontario, 2012



Note: Vertical lines represent 95% confidence intervals.

Source: Centre for Addiction and Mental Health Monitor 2012. Follow the TIMS link  for live results on this indicator and more.

Prevention Outcomes: Population Level

The Prevention Goal of the Strategy is to prevent smoking initiation and regular use among Ontario’s children, youth and young adults in order to eliminate tobacco-related illness and death. The long-term goals of prevention are to reduce initiation of tobacco use and to increase tobacco abstinence among children, youth and young adults (Figure 3-1). In working toward these desired outcomes, the more immediate objectives of the Strategy are to increase awareness and adoption of school and community tobacco prevention initiatives.

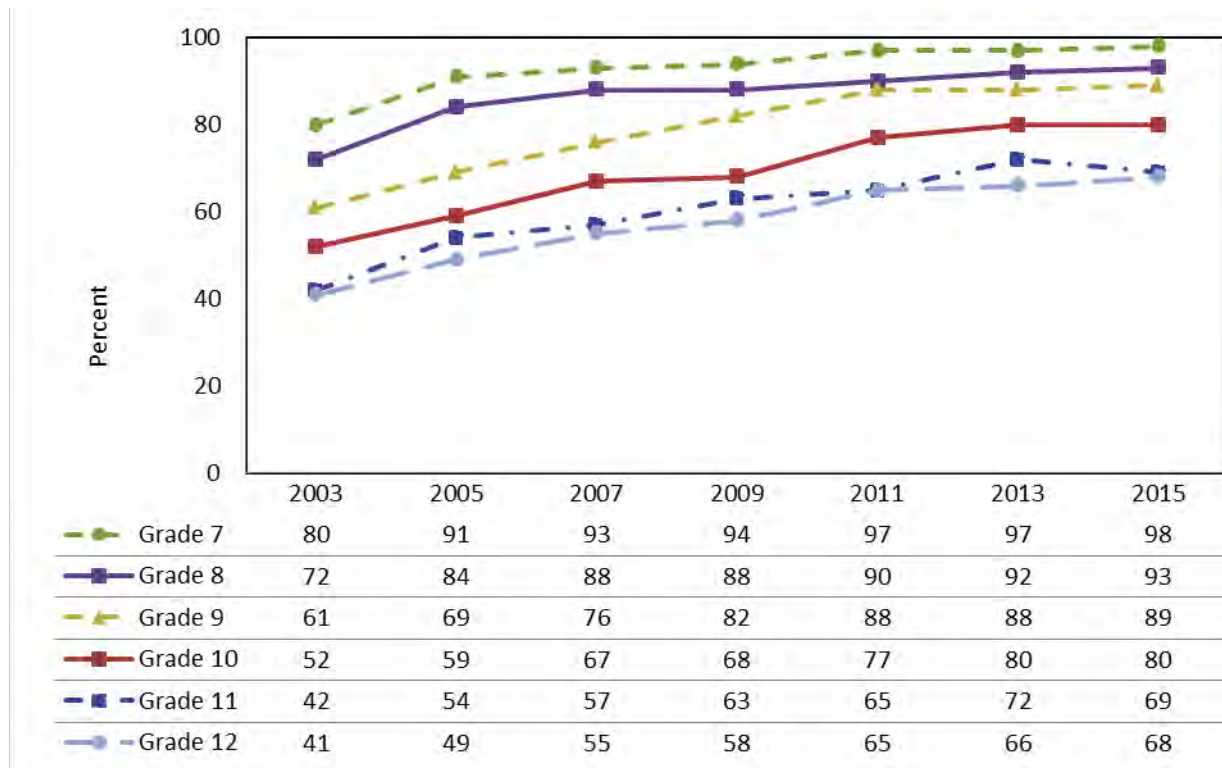
Long-Term Outcomes: Cigarettes

Comprehensive tobacco control programs, such as the Smoke-Free Ontario Strategy, focus on reducing the initiation and prevalence of tobacco use among children, youth and young adults. Indicators related to the progression to smoking include lifetime abstinence, past-year initiation, past-year smoking and past 30-day current smoking.

Lifetime Abstinence: Students in Grades 7 to 12

- Among students, lifetime abstinence from cigarettes ranged from 98% of students in grade 7 to 68% of students in grade 12 (OSDUHS 2015 data; Figure 3-5), with overall lifetime abstinence among all grades combined at 81%.
- From the 2005 pre-SFO baseline year, there was a significant increase in lifetime abstinence among all grades except grade 8 (Figure 3-5).

Figure 3-5: Lifetime Abstinence, by Grades 7 to 12, Ontario, 2003 to 2015

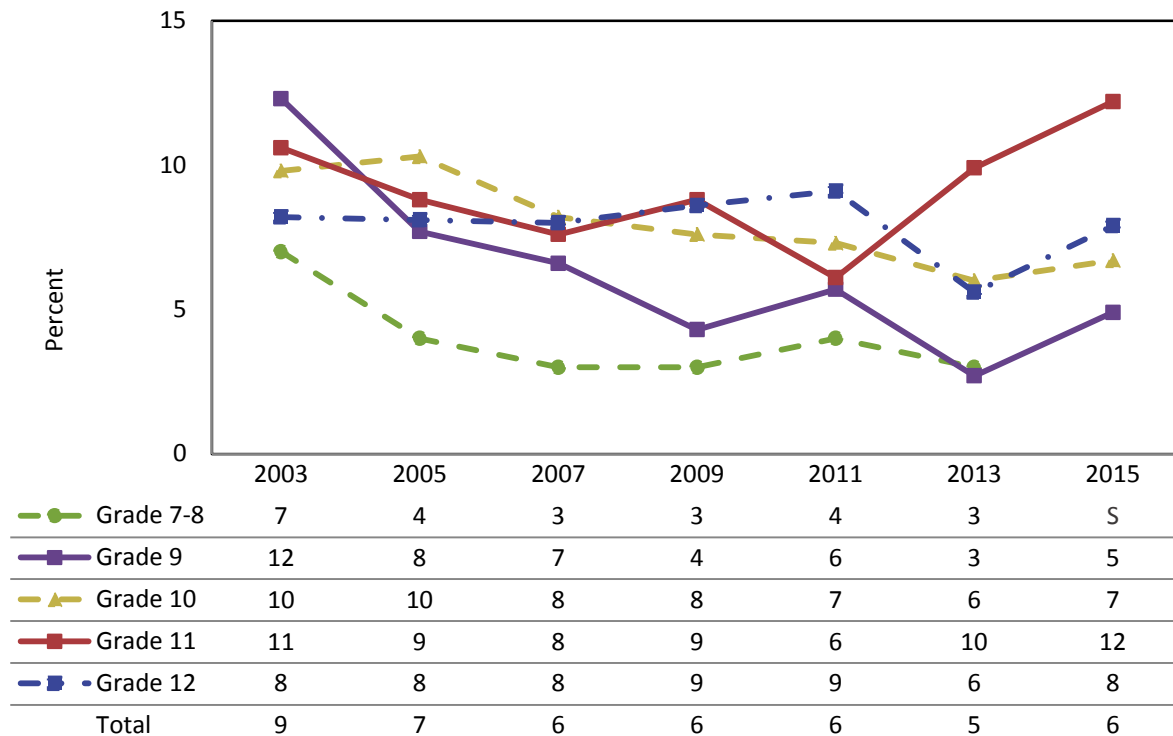


Source: Ontario Student Drug Use and Health Survey 2003–2015 (Biennial).

Past-Year Initiation: Students in Grades 7 to 12

- In 2015, first use of cigarettes at any time in the previous 12 months ranged from 5% for grade 9 students to 12% for grade 11 students (Figure 3-6). (Grade 7/8 student data suppressed due to small sample size.)
- There were no significant changes in 2015 from our pre-SFO baseline year of 2005.

Figure 3-6: Use of Cigarettes for the First Time in the Past Year, by Grades 7 to 12, Ontario, 2003 to 2015



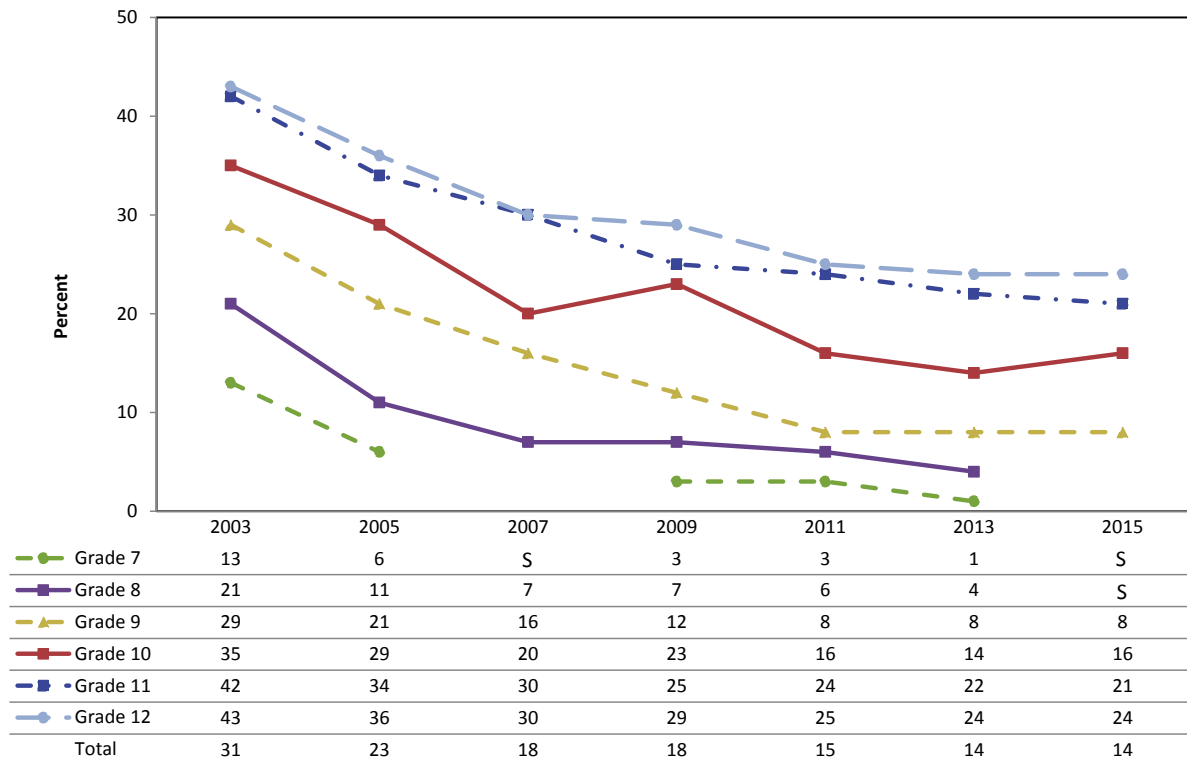
S = data suppressed due to small sample sizes.

Source: Ontario Student Drug Use and Health Survey 2003–2015 (Biennial).

Past-Year Smoking: Students in Grades 7 to 12

- Among students in grades 7 to 12, the 2015 overall prevalence of smoking in the past year, even a few puffs, was 14% (or 134,700 students; data not shown). (Note: respondents in any given grade reported about their smoking behaviour over the previous year.)
- In 2015, past-year smoking significantly declined among all students in grades 7 to 12 (combined) compared to the pre-SFO baseline year of 2005 (14% vs. 23%).
- Over the period 2005 to 2015, there were significant declines in grades 9, 10, 11 and 12 (Figure 3-7); over the period 2005 to 2013, there were significant declines in past-year smoking among students in both grade 7 and grade 8 (Figure 3-7; Note: In 2015, data for grades 7 and 8 were suppressed due to small sample sizes).
- Significant declines in past year smoking continued until 2011, but have been stagnant since then.
- In 2015 the prevalence of past-year smoking was 8% in grade 9, significantly lower than all higher grades (Figure 3-7). Grade 10 past-year smoking was significantly lower than grade 12 past-year smoking (16% vs. 24%, respectively).

Figure 3-7: Past-Year Smoking, by Grades 7 to 12, Ontario, 2003 to 2015

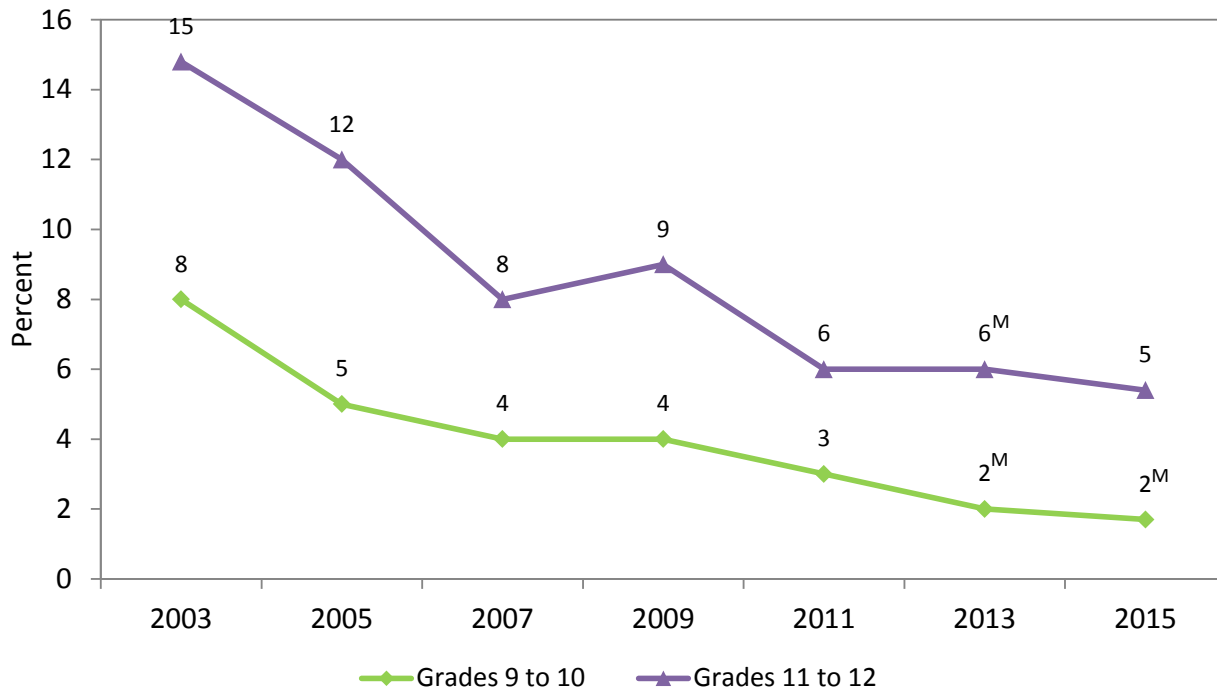


Note: Data collection for grades 8, 10 and 12 started in 1999. S = data suppressed due to small sample sizes.
 Source: Ontario Student Drug Use and Health Survey 2003–2015 (Biennial).

Current Smoking (Past-30 Days): Students in Grades 9 to 12

- According to the Ontario Student Drug Use and Health Survey, over the period 2005 to 2015, the prevalence of past 30-day smoking was cut by about 60% for students in grades 9 to 10 and in grades 11 to 12 (Figure 3-8).
- From 2011 to 2015, there has not been significant change in the prevalence of current smoking among students in grades 9 to 10 and grades 11 to 12.
- In 2015, past-30 day current smoking was significantly higher among students in grades 11 to 12 (combined) compared to students in grades 9 to 10 (5% vs. 2%; Figure 3-8).

Figure 3-8: Current Smoking (Past-30 Days), by Grade, Ontario, 2003 to 2015



M= Marginal. Interpret with caution.

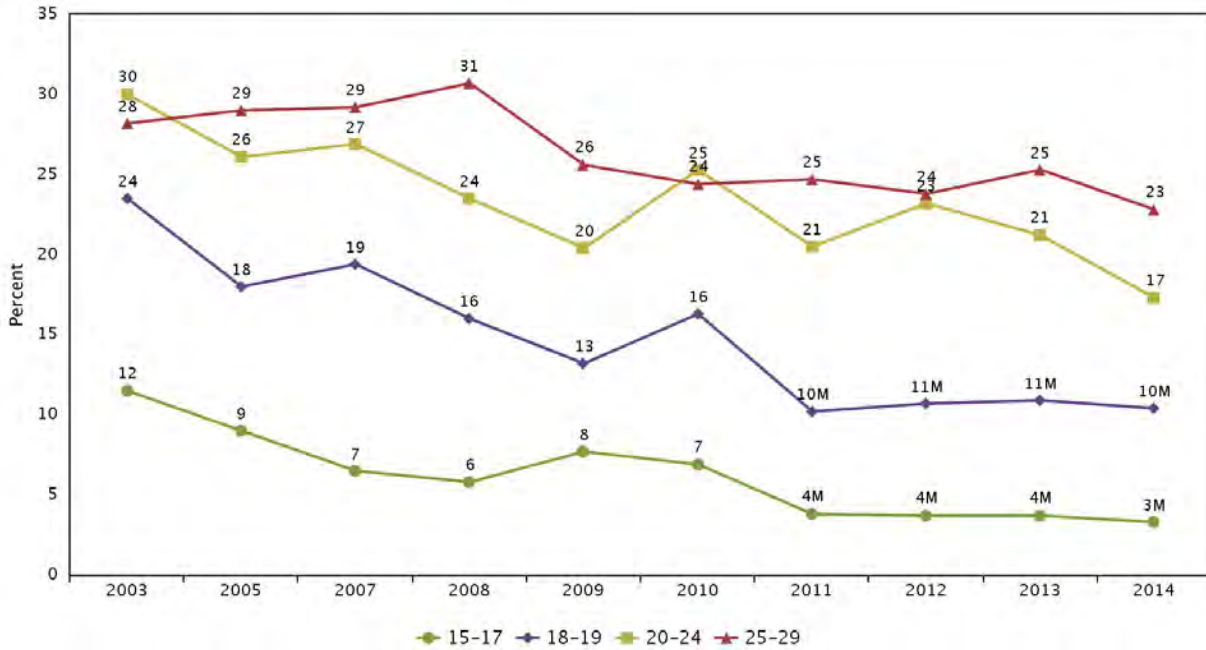
Source: Ontario Student Drug Use and Health Survey 2003–2015 (Biennial).

Current Smoking (Past-30 Days): Youth and Young Adults Aged 15 to 29^{iv}

- Youth aged 15 to 17 have a significantly lower rate of current smoking than young adults, with their level stable in recent years (3% in 2014; Figure 3-9).
- Among 18 to 19 year olds, the rate of current smoking was 10%, significantly lower than that of young adults aged 25 to 29 years (Figure 3-9).
- Over the period 2005 to 2014, there has been a significant decline in past-30 day current smoking by age including 15 to 17, 18 to 19, 20 to 24 and 25 to 29.
- In 2014, males aged 18 to 19, 20 to 24 and 25 to 29 were significantly more likely to smoke in the past-30 days compared to females of the same age (Figure 3-10). (Data for males 15 to 17 was suppressed due to small sample sizes).

^{iv} Note: The Canadian Community Health Survey, on which this section is based, considers both in-school and out-of-school respondents.

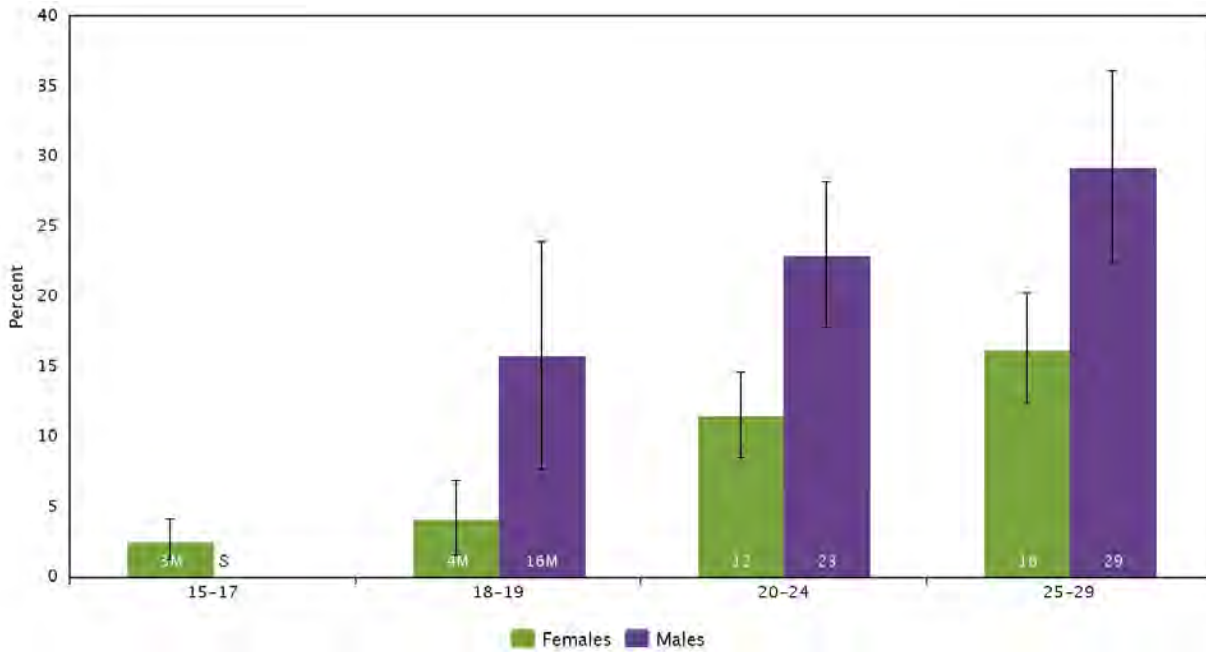
Figure 3-9: Current Smokers (Past-30 Days), Youth and Young Adults, Ontario, 2003 to 2014



Note: M= Marginal. Interpret with caution. X-axis scale (year) not uniform—interpret with caution.

Source: Canadian Community Health Survey 2003, 2005, 2007-2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Figure 3-10: Current Smokers (Past-30 Days), Youth and Young Adults, by Sex, Ontario, 2014



Note: Vertical lines represent 95% confidence intervals. M=Marginal. Interpret with caution: subject to moderate sampling variability. S = data suppressed due to small sample sizes.

Source: Canadian Community Health Survey 2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Long-Term Outcomes: Use of Alternative Products

Cigars

According to the 2014 CCHS, past-month use of cigars was 3.3% among 12 to 18 year olds, significantly unchanged from 2009/10 at 5%.

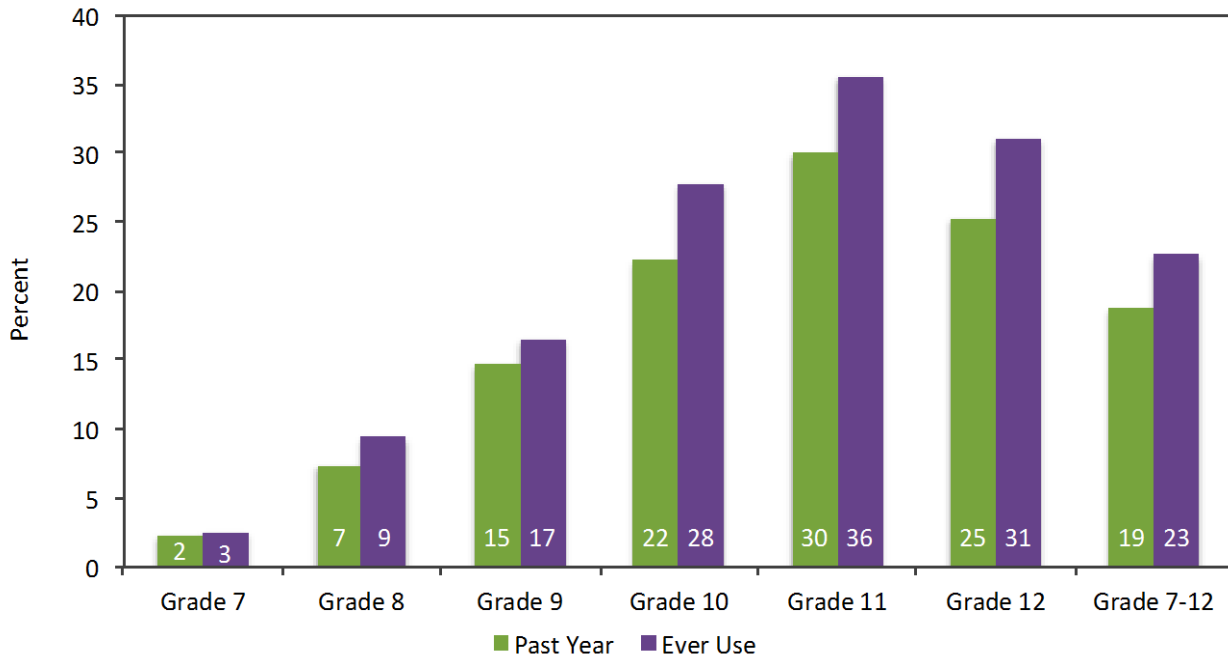
Smokeless Tobacco Products

- In 2015, among Ontario students in grades 7 to 12, 6.3% used smokeless tobacco products (chewing tobacco or snuff) in the past year, unchanged since 2011 (4.6%). Among these past-year users in 2015, 78% tried these products only a few times (OSDUHS, 2015).

Electronic Cigarettes

- Among students in grades 7 to 12 in 2015, 23% (208,400) had ever used an e-cigarette. Prevalence of ever use varied by grade (Figure 3-11), with rates in grades 7 (3%), 8 (9%) and 9 (17%) significantly lower than that reported in grades 10 (28%), 11 (36%) and 12 (31%).
- Among students in grades 7 to 12, 19% (172,500 students) had used an e-cigarette in the past year (including only a few puffs; Figure 3-11), with rates in grades 7 (2%), 8 (7%) and 9 (15%) significantly lower than that reported in grades 10 (22%), 11 (30%) and 12 (25%).
- Significantly more male than female students in grades 7 to 12 had ever used an e-cigarette a) in their lifetime (27% vs. 18%) or b) in the past year (22% vs. 16%; OSDUHS 2015, data not shown).
- In Canada, e-cigarettes are not permitted to contain nicotine, yet available evidence suggests that a number of users obtain nicotine juice for their e-cigarettes. Of students in grades 7 to 12 using an e-cigarette in the past year, 14% reported using nicotine-based e-cigarettes, 50% reported using non-nicotine e-cigarettes and 9% used both kinds (a further 26% were not sure what kind of e-cigarette they used; OSDUHS 2015, data not shown).
- Among grade 9 to 12 students who used an e-cigarette in the past year, 19% said they tried smoking it with marijuana, hash oil or wax (OSDUHS, data not shown).

Figure 3-11: E-cigarette Use, Past Year and Ever Use, by Grade, Ontario, 2015

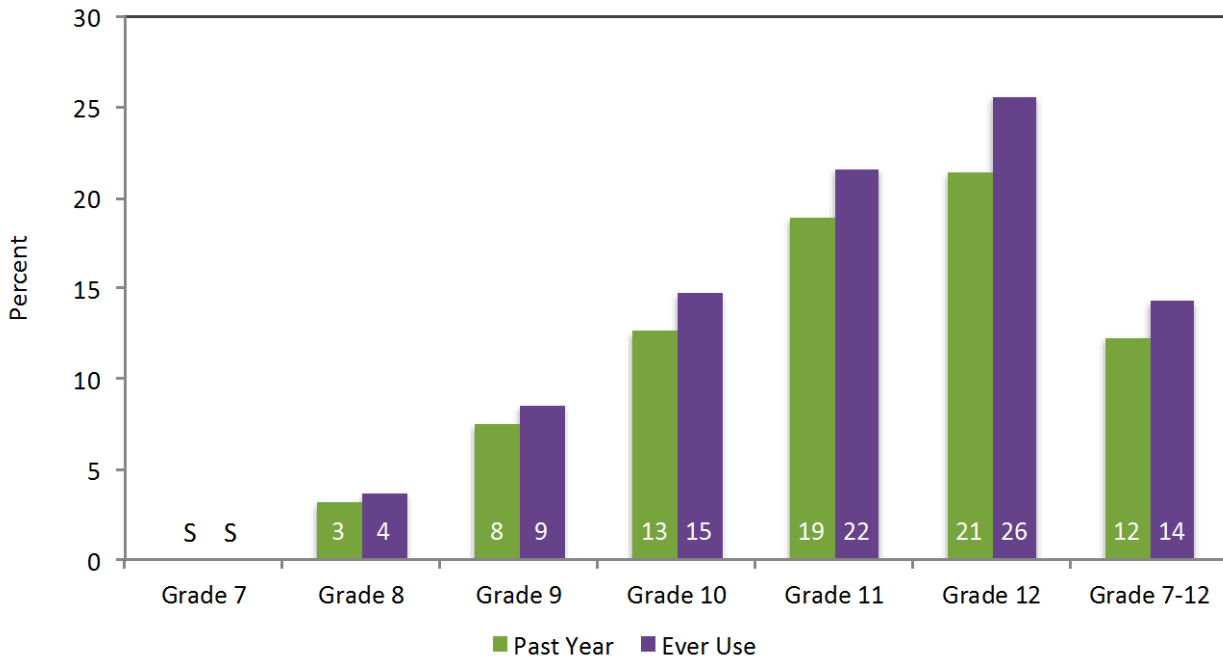


Source: Ontario Student Drug Use and Health Survey 2015.

Waterpipes

- Among students in grades 7 to 12 in 2015, 14% (132,400 students) had ever used a waterpipe. Prevalence of ever use varied by grade (Figure 3-12), with rates in grades 8 and 9 significantly lower than those reported in grades 10, 11 and 12.
- Among students in grades 7 to 12, 12% (113,100 students) had used a waterpipe in the past year (including only a few puffs; Figure 3-12), with rates in grades 8 and 9 significantly lower than those reported in grades 11 and 12; and grade 10 lower than that reported for grade 12.
- Past-year use of waterpipe did not differ between 2013 and 2015 (12% vs. 12%).

Figure 3-12: Waterpipe Use, Past Year and Ever Use, by Grade, Ontario, 2015



S = data suppressed due to small sample sizes.
 Source: Ontario Student Drug Use and Health Survey 2015.

Short and Intermediate-Term Outcomes

Awareness of School and Community Prevention Initiatives

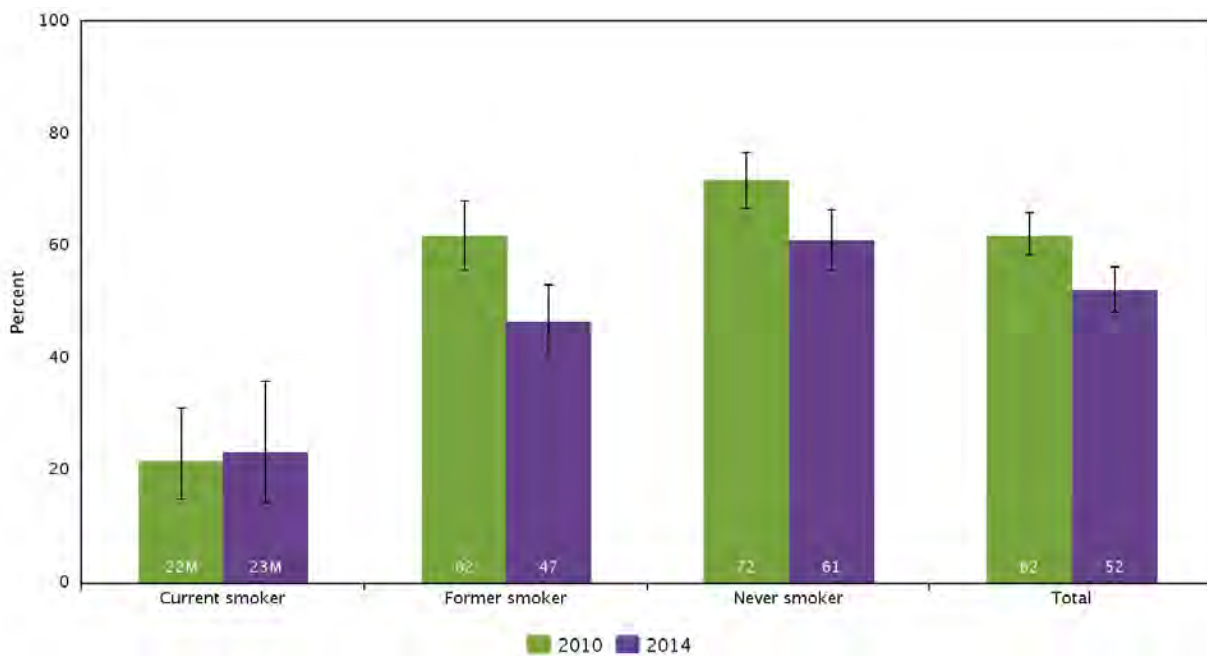
- In 2015, very few students (3%) had participated in an event sponsored by youth groups who were raising awareness of smoking and tobacco issues, although 27% had heard of such groups, unchanged from 2013 (data not shown; OSDUHS 2013, 2015).

Social Climate

Social climate refers to societal norms, practices and beliefs and to patterns of human actions and interactions. Evidence suggests that creating a healthy social climate is a key path for achieving and sustaining the desired outcomes of a comprehensive tobacco control program. One important indicator of the social climate around tobacco use is the social acceptability of smoking.

- In 2014, 61% of never smokers, 47% of former smokers and 23% of current smokers aged 18 years and over reported that it was unacceptable for adults to smoke (CAMH Monitor 2014; Figure 3-13).
- The percent of participants surveyed who reported it was unacceptable for adults to smoke cigarettes had been higher in 2010 compared to 2014. This was found among former smokers (62% vs. 47%, for 2010 to 2014, respectively) and never smokers (72% vs. 61%, respectively; Figure 3-13).
- In 2014, smoking by teenagers was viewed as highly unacceptable among all adults regardless of the respondent’s smoking status (Figure 3-14). Never smokers and former smokers reported a significantly higher level of disapproval of smoking by teenagers, than did current smokers (91% and 86% vs. 70%; Figure 3-14).
- Adult views on the unacceptability of teenagers smoking remained stable from 2010 to 2014 (Figure 3-14).

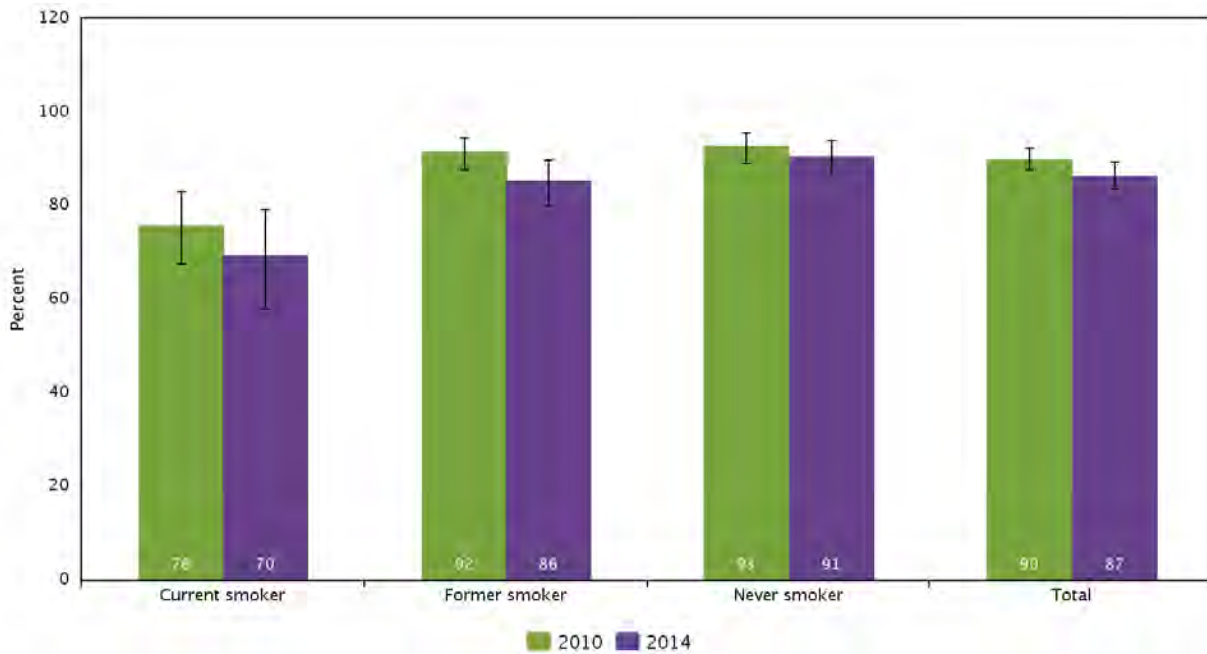
Figure 3-13: Adult Views on the Social Unacceptability of Adults Smoking Cigarettes, by Smoking Status, Ontario, 18+, 2010 and 2014



Note: Vertical lines represent 95% confidence intervals. M=Marginal. Interpret with caution: subject to moderate sampling variability.

Source: Centre for Addiction and Mental Health Monitor (Full Year) 2010 and 2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Figure 3-14: Adult Views on the Social Unacceptability of Teenagers Smoking Cigarettes, by Smoking Status, Ontario, 18+, 2010 and 2014



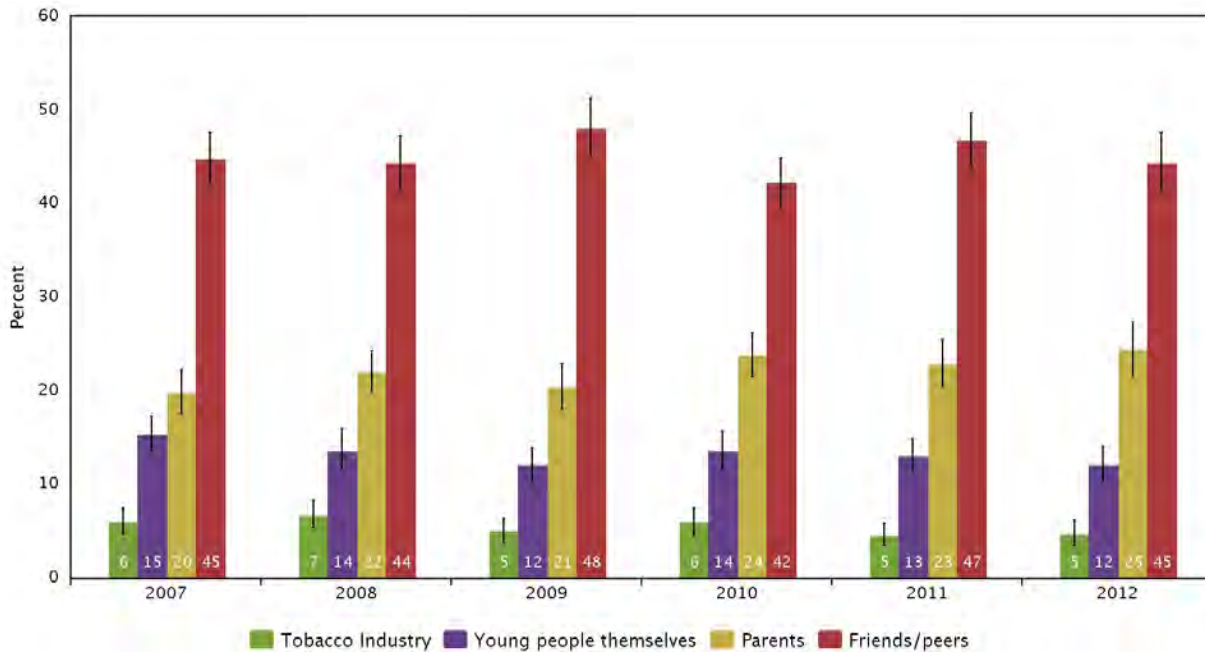
Note: Vertical lines represent 95% confidence intervals.

Source: Centre for Addiction and Mental Health Monitor (Full Year) 2010 and 2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Attitudes about Responsible Party for Smoking among Youth

- Evidence indicates that tobacco industry denormalization is an effective tobacco control strategy that leads to positive tobacco control outcomes.^{40,41} In 2012 (the latest available data), Ontarians aged 15 years and over responded about who was the most responsible for smoking initiation among youth: 5% believed it was the tobacco industry, 12% believed it was young people themselves, 24.5% believed it was parents and 44.5% believed it was friends and peers (44.5%). Over the reporting period (2007 to 2012), rates were unchanged (CTUMS; Figure 3-15). (CTUMS has been discontinued by Health Canada.)
- Quebecers were twice as likely as Ontarians to view the tobacco industry as most responsible for young people starting to smoke (10% vs. 5%, data not shown).

Figure 3-15: Responsible Party for Smoking Initiation by Youth, Ages 15+, Ontario, 2007 to 2012



Note: Vertical lines represent 95% confidence intervals.

Source: Canadian Tobacco Use Monitoring Survey 2007-2012. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

MPOWER Comparison with Ontario: Prevention

Six MPOWER indicators relate to prevention: Monitoring, Health Warning Labels, Mass Media Campaigns, Tobacco Advertising Bans, Advertising Ban Compliance and Taxation (Table 3-3).

Table 3-3: Assessing Prevention: MPOWER Indicators Applied to Ontario

MPOWER Indicator	Highest MPOWER Requirement	Situation in Ontario
Monitoring	Recent, representative and periodic data for both adults and youth).	Meets the requirement for the highest score.
Health warning labels on cigarette packages	Large health warning labels (i.e., over 50% of package panel, graphic, rotate, specific health warnings).	Meets the requirement for the highest score.
Mass media campaigns	Research to gain a thorough understanding of the target audience, air time (radio and television) and placement (billboards, print ad); effectively and efficiently reach a target audience; gain publicity or news coverage for the campaign; evaluation of the campaign reach and impact.	Since January 2011, no sustained and intensive prevention campaigns have been conducted in Ontario with duration longer than three weeks. There have been varied online and local campaigns and the Ontario Ministry of Health and Long-Term Care created a new campaign in March 2013 called Quit the Denial (a campaign targeting young adults aged 18 to 29 years old

		who are social smokers but don't view themselves as smokers).
Tobacco advertising bans	Ban on all forms of direct and indirect advertising.	Direct mail to adult readership, non-tobacco goods and services with tobacco brand names and appearance of tobacco products in TV and/or films are allowed in Ontario (and Canada).
Advertising ban compliance	Complete compliance.	Meets the requirement for the highest score.
Taxation	Tobacco tax > 75% of the retail price.	Tobacco tax at 63.8% of the retail price in Ontario in 2015.

Scientific Advisory Committee: Overview of Prevention Goals and Recommendations

The SAC goal for prevention is: “To prevent the uptake of tobacco use among youth and young adults in Ontario, where uptake encompasses all stages of smoking, initiation and progression.” The SAC report includes several recommendations on media and social marketing, movies and video games, policy enforcement, program alignment, high-risk youth and young adults, evaluation and monitoring, retail access and compliance and cessation assessment and early intervention. As related in earlier parts of this chapter, progress has been made in many of these areas, but more work remains to address several shortcomings (e.g., movies and video game ads to denormalize tobacco industry and change social norms) and to increase intensity (e.g., media and social marketing, assessment of smoking status and provision of cessation services to youth and young adults) (Table 3-4).

Table 3-4: Scientific Advisory Committee Recommendation for Prevention of Tobacco Use among Youth and Young Adults

Goal: To prevent the uptake of tobacco use among youth and young adults in Ontario, where uptake encompasses all stages of smoking, initiation and progression.	
Recommendations	Current Status
Media and Social Marketing	
[5.1] Implement media and social marketing strategies using traditional and non-traditional media (e.g., viral and interactive media channels) that denormalize the tobacco industry, highlight the social unacceptability of tobacco use, identify resources available to youth and young adults who want to quit and encourage youth and young adults to refrain from tobacco use.	Since January 2011, no sustained and intensive campaigns have been conducted in Ontario with duration longer than three weeks. There have been varied online and local campaigns and the MOHLTC created a campaign in March 2013 called Quit the Denial (a campaign targeting young adults aged 18 to 29 years old who are social smokers but don't view themselves as smokers).

Movies and Video Games	
[5.2] Require adult ratings for movies (18A) and video games (Mature) with any tobacco imagery.	<p>The Ontario Film Review Board (OFRB) provides a ‘tobacco use’ content advisory for movies released in Ontario. Of the 879 top-grossing movies released over the period 2008 to 2014, 438 featured tobacco imagery, yet the OFRB posted tobacco use observations for only two thirds of these (288/438).</p> <p>Tobacco use continues to be shown in movies that are rated for youth viewing.</p>
[5.3] Require ads that aim to denormalize tobacco companies and change social norms related to tobacco products and their use preceding movies and video games that contain tobacco imagery, as well as warnings on movie and video game packaging.	No requirements for ads preceding movies and video games that contain tobacco imagery.
Policy Enforcement	
[5.4] Develop, implement and enforce comprehensive tobacco control policies within and across settings (e.g., schools, colleges, universities and communities).	<p>Comprehensive legislation on sales to minors enforced; legislation enacted to: a) prohibit the sale of tobacco on college and university campuses, as of January 1, 2015, and b) prohibit flavoured tobacco, with a delayed implementation date for “adult” and menthol-flavoured tobacco products (e.g., wine, port, whiskey or rum).</p> <p>The Ministry of Finance strengthened oversight of raw leaf tobacco, effective January 1, 2015, to enable comprehensive coverage of the tobacco supply chain and provides greater opportunity to disrupt the diversion of raw leaf tobacco to contraband manufacturers.⁴²</p> <p>The Ontario government also introduced legislation that amended the <i>Tobacco Tax Act</i> to: increase fines for offences related to marked tobacco products and allow for the impoundment of vehicles used to transport contraband tobacco.⁴²</p>
Program Alignment	
[5.5] Align cessation and prevention programs in schools, colleges, universities and communities with other activities (e.g., media and social marketing, policy interventions), within the provincial Tobacco Control Strategy.	TCANs, health units, YATI and LTPB have variously worked in these settings, leveraging prevention programs and other activities.
High-Risk Youth and Young Adults	
[5.6] Target program interventions to the schools, colleges, universities and workplaces where youth and young adults are at greatest risk for tobacco use.	TCANs, health units, YATI and LTPB have variously targeted prevention programs in these settings. The extent to which high-risk youth and young adults are targeted is unknown at this time.

Evaluation and Monitoring	
[5.7] Further develop and implement an integrated system of intervention development, evaluation and surveillance that is applicable province-wide and at the local level, to: A) Identify high-risk environments and at-risk sub-populations. B) Guide the implementation of evidence-based prevention initiatives (programs and policies). C) Evaluate the impact that changes in programs and policies have on youth and young adult smoking behaviour over time.	OTRU, in partnership with SFO partners, have a strong provincial-level surveillance system in place. Additional surveillance work remains at the local level and in the identification of high-risk environments and sub-populations. OTRU provides SFO partners knowledge and evaluation support.
Retail Access and Compliance	
[5.8] Implement revised and more rigorous (realistic) compliance protocols with tobacco retailers regarding sales to underage consumers.	No change to existing protocol.
Cessation Assessment and Early Intervention	
[5.9] Ensure smoking status is assessed and cessation services are provided in all settings (e.g., social, school and health care) providing services to youth and young adults.	Not consistently implemented.

Chapter Summary

Policies and programs to prevent initiation—including taxation, restrictions on youth access, smoking bans, advertising bans, youth engagement initiatives and school-based programming—have had some success in the general youth population. Reporting of past 30-day current smoking is too small in the lower grades to adequately measure in 2015, but it is 2% in grades 9 and 10 combined and 5% for grade 11 and 12, which is significantly lower from that reported for the pre-SFO baseline year of 2005 (5% and 12%, respectively; Figure 3-8).

Despite improvements in recent years, past 30-day current smoking is firmly established among 18- to 19-year olds (10%), young adults aged 20 to 24 (17%) and young adults aged 25 to 29 (23%; Figure 3-9). However, rates of past-30 day current smoking are much higher for young adult males (12% for females and 23% for males aged 20 to 24; Figure 3-10). Efforts to prevent initiation in this young adult age group include expansion of LTPB to community colleges and targeted social marketing campaigns. Overall, more research may be needed to support interventions that will more quickly and effectively prevent initiation among young adults.

Among youth, emerging products, including e-cigarettes and waterpipes, are a growing concern. According to the Ontario Student Drug Use and Health Survey, e-cigarettes have a particularly high rate of ever and past-year use (Table 3-5), albeit cigarettes may be used more frequently.

Table 3-5: Ever Use and Past-Year Use of Cigarettes, E-Cigarettes and Waterpipe, Grades 7 to 12, 2015

Product	Ever use, %	Past year, %
Cigarettes	19	14
E-Cigarettes	23	19
Waterpipe	14	12

Source: Ontario Student Drug Use and Health Survey 2015.

Although Ontario does well on most of the MPOWER indicators related to prevention, there are still noticeable gaps in meeting these minimum requirements. Despite a small increase again this past year, tobacco tax is still lower than the 75% of retail price minimum; mass media campaigns, though improved, are still inadequate in target, duration and intensity; and gaps remain in banning advertising of tobacco products.

Ontario continues to fall short on several of the Scientific Advisory Committee recommendations for preventing tobacco use among youth and young adults. Notably, tobacco use continues to be shown in movies that are rated for youth viewing; there are no requirements to run ads denormalizing tobacco preceding movies and video games that contain tobacco imagery; and the protocols for compliance of tobacco retailers with restrictions on sales to minors have not improved. Moreover, SAC noted that beyond basic information about tobacco being provided in all schools, prevention efforts need to focus on high-risk schools, colleges and workplaces where youth and young adults are at greatest risk for tobacco use. Our analyses of 2013 data indicate that a significant number of youth who are current smokers in grades 7 to 12 also have a drug use (87% in grades 9 to 12) and a hazardous drinking problem (67% in grades 7 to 12). It is unclear whether sufficient effort is being directed to targeting youth and young adults who are most at risk of becoming established tobacco users.

The progress in decreasing cigarette initiation among school-aged youth has held course. At the same time, there is stagnation in decreasing cigarette use among young adults indicating a need for more focus on policies and programs for those at high risk. Moreover, alternative tobacco products, including e-cigarettes and waterpipes, are being used by a significant number of youth and young adults. Prevention infrastructure, programming, policies and surveillance need to keep pace not only with existing patterns of tobacco use but new and emerging patterns as well.

References

- ¹ Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs—2007*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, October 2007.
- ² Ontario Ministry of Health Promotion. *Comprehensive Tobacco Control: Guidance Document*. Queen's Printer for Ontario, 2010. Accessed on February 11, 2016.
- ³ Ontario Ministry of Education. *Foundations for a Healthy School: Promoting Well-Being is Part of Ontario's Achieving Excellence Vision*. Queen's Printer for Ontario, 2014. Accessed on December 22, 2015.
- ⁴ Ontario Physical and Health Education Association (Ophea). *Teaching Tools: The Tools You Need for Teaching Healthy Active Living*. Accessed December 22, 2015.
- ⁵ Ontario Ministry of Education. *Foundations for a Healthy School*. Queen's Printer for Ontario, 2016. Accessed on December 22, 2015.
- ⁶ Leave the Pack Behind. *2014-15 Leave The Pack Behind Annual Work Plan Update - Final*. St. Catharines, ON: Brock University, May 2015.
- ⁷ [Quit the Denial](#). In Facebook [community page]. Accessed January 6, 2016.
- ⁸ Borland T, Schwartz R. *The Next Stage: Delivering Tobacco Prevention and Cessation Knowledge through Public Health Networks: A Literature Review Prepared by the Ontario Tobacco Research Unit for the Canadian Public Health Association*. Toronto, ON: Ontario Tobacco Research Unit, March 31, 2010.
- ⁹ Fiissel D, Schwartz R, Schnoll J, Garcia J. *Formative Evaluation of the Youth Action Alliance Program*. Toronto, ON: Ontario Tobacco Research Unit, September 2008.
- ¹⁰ Paterson BL, Panessa C. Engagement as an ethical imperative in harm reduction involving at-risk youth. *International Journal of Drug Policy* 2008 Feb;19(1):24-32.
- ¹¹ Lantz PM, Jacobson PD, Warner KE, Wasserman J, Pollack HA, Berson J, et al. Investing in youth tobacco control: A review of smoking prevention and control strategies. *Tobacco Control* 2000 Mar;9(1):47-63.
- ¹² Evans WD, Ulasevich A, Blahut S. Adult and group influences on participation in youth empowerment programs. *Health Education and Behavior*, 2004 Oct;31(5),564-576.
- ¹³ Ministry of Health Promotion and Sport. *Youth Engagement Principles*. Toronto, ON: Ontario Ministry of Health Promotion and Sport, December 2010. Accessed on February 11, 2016.
- ¹⁴ Luk R, Schwartz R. *Youth Exposure to Tobacco in Movies in Ontario, Canada: 2004-2014*. OTRU Special Report. Toronto, ON: Ontario Tobacco Research Unit, September 2015.
- ¹⁵ Moyer V; U.S. Preventive Services Task Force. Primary Care Interventions to Prevent Tobacco Use in Children and Adolescents: U.S. Preventive Services Task Force Recommendation Statement. *Annals of Internal Medicine* 2013 Oct 15;159(8):552-557.
- ¹⁶ Ontario Tobacco Research Unit. The Tobacco Control Environment: Ontario and Beyond. Monitoring and Evaluation Series (Vol. 16, No. 1). *Protection from Secondhand Smoke: Monitoring Update*. Toronto, ON: Ontario Tobacco Research Unit, August 12, 2010. Accessed February 11, 2016.
- ¹⁷ Chisholm J. *Evaluation of East TCAN Regional Project: Love My Life...Tobacco Free! (2016-2018)* [Draft LML Evaluation Framework]. Eastern Ontario Health Unit, 2015.

- ¹⁸ Chaiton MO, Mercredy GC, Cohen JE, Tilson ML. [Tobacco retail outlets and vulnerable populations in Ontario, Canada](#). *International Journal of Environmental Research and Public Health* 2013 Dec 17;10(12), 7299-7309. Accessed on February 11, 2016.
- ¹⁹ The Ontario Gazette. [Ontario Regulation 336/15 made under the Smoke-Free Ontario Act](#). Printed in The Ontario Gazette: November 28, 2015. Accessed on February 11, 2016.
- ²⁰ Carpenter C, Cook PJ. Cigarette taxes and youth smoking: New evidence from national, state and local Youth Risk Behaviour Surveys. *Journal of Health Economics* 2008 Mar;27(2):287-299.
- ²¹ Gruber J. [Youth Smoking in the U.S.: Prices and Policies](#). NBER Working Paper No. 7506. Cambridge, MA: National Bureau of Economic Research, January 2000. Accessed on February 11, 2016.
- ²² Chaloupka FJ, Wechsler H. Price, tobacco control policies and smoking among young adults. *Journal of Health Economics* 1997 Jun;16(3):359-373.
- ²³ Ross H, Chaloupka FJ, Wakefield MA. Youth smoking uptake progress: Price and public policy effects. *Eastern Economic Journal* 2006 Spring;32(2):355-367.
- ²⁴ Chuang YC, Cubbin C, Ahn D, Winkleby MA: Effects of neighbourhood socioeconomic status and convenience store concentration on individual level smoking. *Journal of Epidemiology and Community Health* 2005 Jul;59(7): 568–573.
- ²⁵ Cohen JE, Anglin L. Outlet density: a new frontier for tobacco control. *Addiction* 2009 Jan;104(1):2-3.
- ²⁶ Ontario Government (Service Ontario e-Laws). [Smoke-Free Ontario Act \(July 1, 2010\)](#). Accessed December 23, 2015.
- ²⁷ Ontario Ministry of Health and Long Term Care. [Tobacco Inspection System](#). Toronto, ON: Ontario Ministry of Health and Long Term Care, 2015.
- ²⁸ Ontario Tobacco Research Unit. The Tobacco Control Environment: Ontario and Beyond. Monitoring and Evaluation Series (Vol.16, No. 1). [Youth Access to Tobacco Products: Monitoring Update](#). Toronto, ON: Ontario Tobacco Research Unit, July 7, 2010. Accessed February 11, 2016
- ²⁹ Pope M, Chaiton M, Schwartz R. [Raising the Minimum Age for Access for to Tobacco to 21](#). OTRU Update. Toronto, ON: Ontario Tobacco Research Unit, August 2015. Accessed August 2015.
- ³⁰ O'Loughlin J, Karp I, Koulis T, Paradis G, DiFranza JR. Determinants of first puff and daily cigarette smoking in adolescents. *American Journal of Epidemiology* 2009 Sep 1;170(5):585-597.
- ³¹ Alesci N, Forster J, Blaine T. Smoking visibility, perceived acceptability, and frequency in various locations among youth and adults. *Preventive Medicine* 2003 Mar;36(3):272-281.
- ³² Ontario Tobacco Research Unit. The Tobacco Control Environment: Ontario and Beyond. Monitoring and Evaluation Series (Vol. 16). [Retail Display of Tobacco Products: Monitoring Update](#). Toronto, Canada: OTRU, April 27, 2010. Accessed February 11, 2016.
- ³³ Zhang B, Dubray J, Schwartz R. [Evaluation of the Risk-Based Enforcement Pilot: A Risk-Categorization Model for Youth Access to Tobacco Final Report](#). Toronto, ON: Ontario Tobacco Research Unit, December 2013.
- ³⁴ Satterland TD, Treiber J, Haun S, Cassady D. Evaluating local policy adoption campaigns in California: Tobacco retail license (TRL) adoption. *Journal of Community Health* 2014 Jun;39(3):584-591.
- ³⁵ Tilson M. [Reducing the Availability of Tobacco Products at Retail: Policy Analysis](#). Toronto, ON: Non-Smokers' Rights Association, April 2011. Accessed November 25, 2014.

³⁶ New Brunswick. Department of Finance. *Tobacco Retailer's Guide*. Revised: February, 2016. Accessed on February 11, 2016.

³⁷ Service Nova Scotia - Provincial Tax Commission. *Retail Vendor's Permit (Designated Tobacco Retailer)*. Accessed on December 20, 2015.

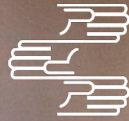
³⁸ Boak A, Hamilton HA, Adlaf EM, Mann RE. *Drug Use among Ontario Students, 1977-2015: Detailed OSDUHS Findings*. CAMH Research Document Series No. 41. Toronto, ON: Centre for Addiction and Mental Health, December, 2015.

³⁹ Health Canada. *2005 National Baseline Survey on the Tobacco Retail Environment*. Final Report POR-04-48. Prepared for Health Canada by Corporate Research Associates Inc., March 2005. Accessed on February 11, 2016.

⁴⁰ Hammond D, Fong GT, Zanna MP, Thrasher JF, Borland R. Tobacco denormalization and industry beliefs among smokers from four countries. *American Journal of Preventive Medicine* 2006 Sep;31(3); 225-232.

⁴¹ Lavack A. *Tobacco Industry Denormalization Campaigns: A Review and Evaluation*. Ottawa, ON: Health Canada, June 2001.

⁴² Ontario Ministry of Finance. *Contraband Tobacco: Recent Action Taken*. Queen's Printer of Ontario, 2010. Accessed on January 8, 2016.



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Generating knowledge for public health

Smoke-Free Ontario Strategy Monitoring Report:
Smoking Cessation



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Cessation: Smoke-Free Ontario Strategy Components

A main objective of tobacco control efforts is to increase the proportion of smokers who successfully quit smoking. Desired outcomes include increasing the proportion of smokers intending to quit, decreasing cigarette consumption (for example, transitioning smokers to non-daily smoking or greatly reducing the number of cigarettes smoked per day) and increasing the actual number of quit attempts. These cessation outcomes can be achieved through a number of evidence-based pathways such as: decreasing access and availability of tobacco products,^{1,2} increasing knowledge of tobacco harm and awareness of available cessation supports, promoting and supporting quit attempts and limiting physical and social exposure to tobacco products.^{3,4} These pathways are expected to influence the social climate (or social norms) surrounding tobacco-use behaviour by reducing its social acceptability; this in itself is considered key to achieving and sustaining the desired cessation outcomes.^{5,6} The cessation component of the Smoke-Free Ontario (SFO) Strategy is the main avenue by which progress toward these pathways and desired cessation outcomes are expected to be achieved (Figure 4-1).

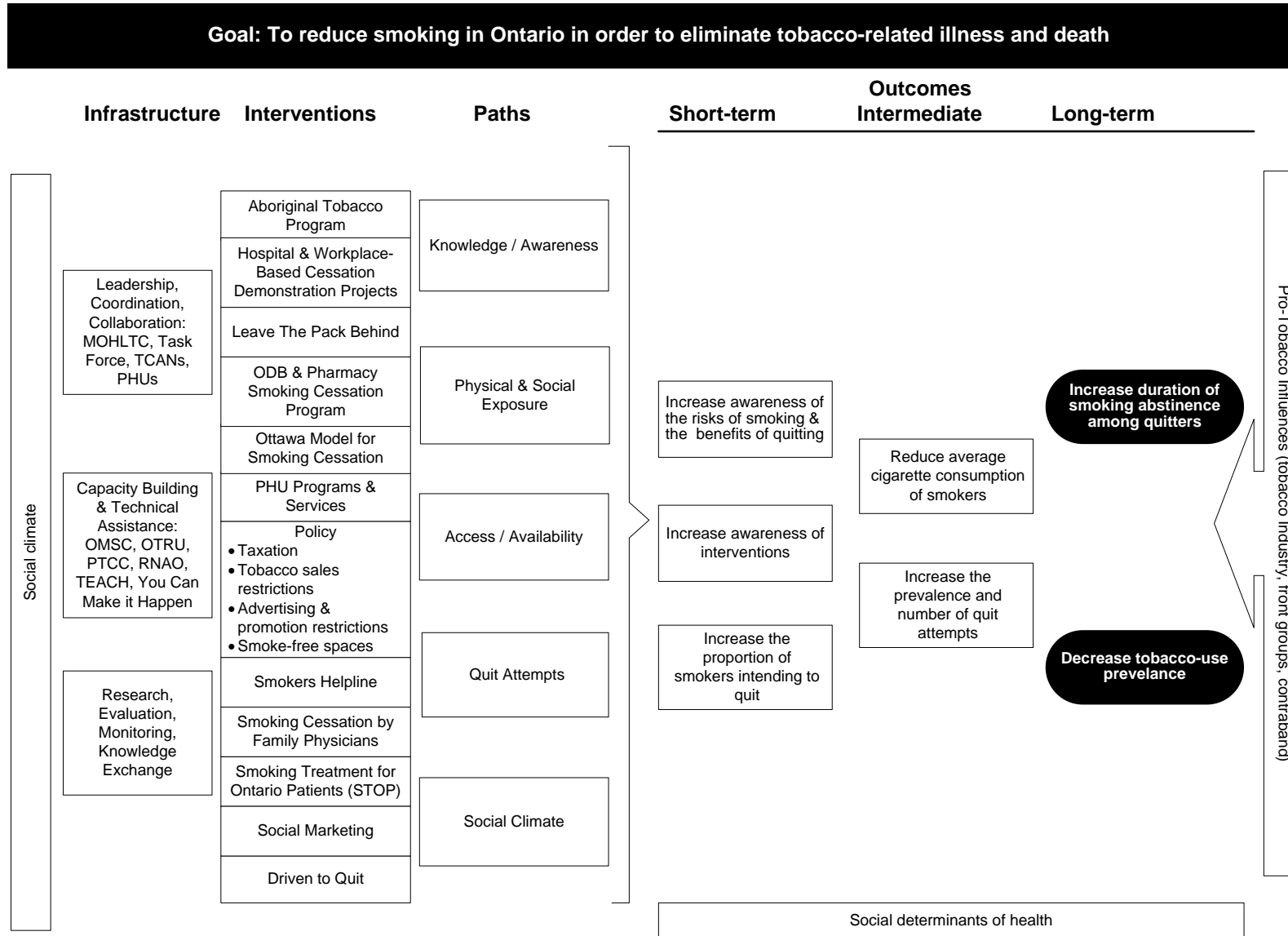
In this chapter, we provide a brief overview of current cessation infrastructure, policy measures and cessation-related interventions and outcomes. We follow with an examination of progress toward cessation objectives at the population level.

Cessation Infrastructure

Several cessation infrastructure components support the development and implementation of a variety of programs, services and policies. The Ministry of Health and Long-Term Care (MOHLTC) – Health Promotion Division has dedicated staff working on the cessation portfolio. A Cessation Task Force, comprised of partners from the tobacco control community who have expertise and experience working in the area of cessation provides information and advice in developing and supporting the implementation of cessation programs, services and policies in the Province. In 2015, the Ministry also convened a Cessation Strategy Advisory Group to advise on the development of a new cessation strategy.

Seven tobacco control area networks (TCANs), representing the 36 public health units (PHUs), provide leadership, coordination and collaborative opportunities.

Figure 4-1: Cessation Path Logic Model



To ensure success, the cessation system has been designed to build capacity, provide technical assistance and offer research and evaluation support to key stakeholders—including PHU staff, nurses, physicians and other health professionals, and to deliver evidence-based programs, services and policies to the public. This infrastructure is delivered by several key organizations including the Ontario Tobacco Research Unit (OTRU), the Program Training and Consultation Centre (PTCC), the Registered Nurses' Association of Ontario (RNAO), the Training Enhancement in Applied Cessation Counselling and Health (TEACH) Project, the University of Ottawa Heart Institute's Ottawa Model for Smoking Cessation (OMSC) and You Can Make It Happen (TCAN-led initiative).

Ontario Tobacco Research Unit

In 2014/15, OTRU's cessation work included evaluations of smoking cessation initiatives in a variety of workplace and healthcare settings and the RNAO Nursing Best Practice Smoking Cessation Initiative.^{7,8,9} OTRU continued analyzing data from the Ontario Tobacco Survey;^{10,11,12} recruited smokers to participate in the Smoker's Panel and used the Panel to solicit information about long-term engagement preferences for cessation, e-cigarette use for cessation and use of menthol cigarettes; provided rapid scientific consulting to the Ministry and SFO partners and responded to 70 knowledge and evaluation support requests from partners in 2014/15. Cessation-focused knowledge and evaluation support requests included an evaluation of the Niagara Pharmacy Pilot Program and environmental scans of cessation services provided by health practitioners in the Central West and North West TCANs.^{13,14,15} OTRU's online course ([Tobacco and Public Health: From Theory to Practice](#)) is another cessation resource available to public health personnel across the Province. In 2014/15, a total of 1,550 people enrolled in the online course cessation module and 4,381 smokers were registered in Smokers' Panel as of December 31, 2015.

Program Training and Consultation Centre

In 2014/15, a portion of PTCC's work centred on supporting the cessation initiatives of the Strategy. PTCC offered workshops on a range of topics, including: Brief Counselling Techniques for Smoking Cessation, a Woman-Centred Approach to Tobacco Use and Pregnancy, Integrating a Motivational Interviewing Approach into Tobacco Treatment, Facilitating Group Cessation and Community Engagement to Support Smoking Cessation. Training workshops were conducted in collaboration with PHUs and TCANs. The PTCC also supported two province-wide communities of practice related to smoking cessation: one addressed tobacco-use reduction among young adults and the other supported hospitals participating in Ministry of Health and Long-Term Care's hospital demonstration projects. The PTCC hosted a 2-day provincial knowledge exchange forum that addressed population-based smoking cessation and was attended by public health practitioners

and researchers from across Ontario. PTCC Health Promotion Specialists and Media and Communications Specialists also provided consultations to local PHU tobacco control staff to assist them in the development of cessation networks, engagement of health care providers to deliver brief cessation interventions and to conduct smoking cessation public education activities. In partnership with the Propel Centre for Population Health Impact, the PTCC also documented, using a multiple case study approach, local community efforts to build cessation capacity.

Program Reach: In 2014/15, the PTCC delivered 53 training events on all aspects of tobacco control with only some pertinent to cessation reaching over 1,600 clients. Training events included 41 workshops and 12 webinars. PTCC's training programs were attended by staff of Ontario's 36 PHUs, Community Health Centres, the health care sector (e.g., hospitals), non-governmental organizations and government. Tobacco control consultations were also delivered to 34 PHUs and all seven TCANs. A total of 213 public health practitioners and researchers were actively engaged across three provincial Communities of Practice.ⁱ

Registered Nurses' Association of Ontario

Nursing Best Practice Smoking Cessation Initiative

The Nursing Best Practice Smoking Cessation Initiative is a program undertaken by the RNAO. The goal of the RNAO Initiative is to increase the capacity of nurses to implement smoking cessation strategies and techniques in their daily practice and, more specifically, to adopt the RNAO Smoking Cessation Best Practice Guideline recommendations at the individual and organizational levels. Since 2007, a multi-pronged strategy has been developed and implemented to ensure achievement of the goal. Key programmatic components of the strategy include: establishment of project sites in Ontario PHUs to coordinate the Initiative; delivery of training workshops in smoking cessation to nurses and other health practitioners (i.e., Smoking Cessation Champions); support from a Smoking Cessation Coordinator; use of RNAO resources (e.g., TobaccoFreeRNAO.ca website, e-learning course); ongoing engagement with schools of nursing in the Province to disseminate and implement the smoking cessation guide (Nursing Faculty Education Guide: Tobacco Use and Associated Health Risks) among nursing faculty and nursing students.

In the past few years, RNAO has focused on expanding and strengthening the strategy through integration of smoking cessation activities within a broader chronic disease framework. In 2014/15, RNAO continued to engage with 16 healthcare organizations (e.g., Family Health Teams, Community Health Centres, Nurse Practitioner-Led Clinics) that participated in the Initiative as

ⁱ Steven Savvaidis, Personal communication, December 10, 2015.

implementation sites. With a small grant from RNAO, these implementation sites aim to strengthen and sustain nurses' and other health practitioners' capacity in smoking cessation and support the integration of the RNAO guidelines at the organizational level.

Reach: In 2014/15, 140 health practitioners (e.g., nurses, dietitians, respiratory therapists, nursing students, etc.) were trained as Smoking Cessation Champions across four Ontario municipalities. Since 2007, the RNAO Initiative has trained 2,026 health practitioners.

Effects: Evaluation studies of the RNAO Initiative were conducted in 2010, 2011, 2012, 2014, 2015 using a mixed-methods approach (web survey of Champions, case studies of public health and healthcare organizations).^{16,17,18,19} These studies demonstrated that project-specific components, such as the Champion Workshops and Smoking Cessation Coordinators' support, as well as the uptake of RNAO evidence-based cessation resources, had been instrumental in increasing nurses' capacity in smoking cessation. In 2014/15, the RNAO Smoking Cessation Best Practice Guideline was still being widely adopted, as evidenced by an increase in the proportion of Champion respondents who reported using the guideline recommendations in their daily practice (27% at baseline to 74% at 6-month follow-up and 61% at 12-month follow-up). Evaluation studies also show that most Champions deliver the minimal intervention recommended by the guideline (e.g., Ask, Advise, Assist and Arrange).

Evaluation studies conducted in the past five years have consistently shown that management buy-in and support is crucial in ensuring successful implementation of the project, increasing nurses' and other health practitioners' engagement in the provision of smoking cessation services and adopting cessation policies and practices at the organizational level. Lack of staff, lack of time and lack of patient interest were consistently identified as barriers to implementation. The 2014/15 evaluation study also found that practitioners reported an increase in knowledge of tobacco cessation, confidence in offering smoking cessation support and consistency of service delivery and documentation of services. These findings need to be interpreted with caution due to survey response bias and limitations on generalizing from information gathered through case studies.

RNAO Capacity Building Initiative - Smoking Cessation Support to Pregnant and Postpartum Women

In 2014/15 the RNAO provided a series of Smoking Cessation Champions Workshops aimed at increasing the capacity of health practitioners to provide smoking cessation support to pregnant and post-partum women within their daily practice. The workshop applied a women-centred approach while focusing on knowledge and skill enhancement, including motivational interviewing techniques and the safety and risks associated with nicotine replacement therapy and cessation

medications among the pregnant and postpartum population. The workshops also highlighted the use of an interdisciplinary team approach for this specialized population. RNAO developed new cessation resources for both health practitioners and patients as part of the Initiative with evidence-based content provided by RNAO, Motherisk and Smokers' Helpline.

Reach: A total of 184 health practitioners (e.g., nurses, dieticians, nurse practitioners) and students were trained as Smoking Cessation Champions specifically for pregnant and postpartum populations across eight municipalities in Ontario in 2014/15.

Effect: Evaluation findings suggest that health practitioners' engagement in the provision of smoking cessation services for pregnant and postpartum women increased 3- and 6-months following the workshop.

Training Enhancement in Applied Cessation Counselling and Health Project

TEACH aims to enhance treatment capacity for tobacco cessation interventions by offering evidence-based, accredited, accessible and clinically relevant curricula to a broad range of health practitioners such as registered nurses, addiction counsellors, social workers, respiratory therapists and pharmacists. The core-training course focuses on essential skills and evidence-based strategies for intensive cessation counselling. The project also offers specialty courses targeting interventions for specific populations (e.g., patients with mental health, addictions or chronic disease; woman-centred approach; First Nations, Inuit and Métis populations) and a one-hour webinar: Lunch and Learn Seminar Series for health practitioners. Other key elements of the TEACH Project include collaboration and partnership with other cessation training groups, hospitals, community stakeholders and government; community of practice activities to provide health practitioners with clinical tools and applications, as well as opportunities for networking and continuing professional education; regional practice leaders who provide support for tobacco dependence treatment initiatives across Ontario; and an evaluation component to examine project impact and knowledge transfer. TEACH training is considered the training standard for primary-care settings and community-based services planning to offer cessation services including Family Health Teams, Community Health Centre, Addiction Agencies, and Aboriginal Health Access Centres.

Reach: Since the project's launch in 2006, TEACH has trained 4,536 unique health practitioners from diverse disciplines in intensive cessation counselling across Ontario. In 2014/15, TEACH trained 512 practitioners in five core courses (one classroom and four online). Participants included registered nurses, nurse practitioners, addiction counsellors, health promoters/educators, social

workers, pharmacists and respiratory therapists who came from a variety of settings including hospitals (116), Family Health Teams (68), Community Health Centres (58), PHUs (84), Addiction Agencies (48), Aboriginal Health Access Centres (7) and other settings. In 2014/15, 2,169 practitioners attended the 13 webinars offered by TEACH.²⁰

Effects: In 2014/15, practitioners rated measures of feasibility and confidence on TEACH core course topic areas (e.g., tobacco use and dependence, psycho-social interventions and pharmacotherapy, etc.) significantly higher following TEACH training (feasibility score 7.76/10 at baseline to 8.38/10 post-training; confidence score 7.19/10 at baseline to 8.29/10 post-training). More than half of the participants set practice goals after attending the course (57%).

TEACH participants identified barriers to engaging in smoking cessation including lack of practitioners' time, lack of client motivation to participate, lack of organizational support, lack of funding, insufficient staff for implementation and the need for more practice.

Ottawa Model for Smoking Cessation

The University of Ottawa Heart Institute provides support and training to sites that are implementing the OMSC (or, the Ottawa Model). Outreach facilitators support sites through trouble shooting, reporting and on-site training (e.g., Grand Medical Rounds, education days, on-unit clinical rounds). Workshops are offered three times a year for clinical settings and once a year for primary care settings. Both workshops provide health professionals with an overview of the Ottawa Model program and how it can be successfully implemented in their practice setting. Additional topics covered in the clinical inpatient/outpatient workshop include nicotine addiction, current cessation medications and recommendations on their usage, behaviour change theory and various support strategies based on a patient's readiness to quit smoking. The primary care workshop also covered topics such as smoking cessation pharmacotherapy, counselling strategies, special populations, managing withdrawal symptoms and providing follow up with smokers.

New in 2014/15 was a workshop offered in partnership with the Canadian Mental Health Association that focused on implementing systematic tobacco cessation approaches within mental health and addiction programs. Five e-learning courses are also available to health professionals at participating Ottawa Model sites. The courses focus on providing an overview of the Ottawa Model, nicotine addiction, quit smoking medications, strategic advice and how to complete a smoking cessation consultation.

Reach: In 2014/15, a total of 1,265 health professionals received training. Outreach facilitators trained 743 front-line staff on-site, 351 health professionals completed the e-learning modules and 171 health professionals attended workshops. In addition, 375 physicians, nurses, other health professionals, researchers and policy makers attended the seventh annual Ottawa Conference.²¹

No specific information is readily available about the Ottawa Model's influence on health professionals' practice behaviour. Evaluations of both workshops and e-learning courses are currently underway.

You Can Make It Happen

You Can Make It Happen (YCMIH) is an initiative of Ontario PHUs in partnership with the Canadian Cancer Society Smokers' Helpline and is focused on providing resources and support to health professionals to help clients quit tobacco use. Project activities include the development and dissemination of resources to assist health professionals with brief interventions as well as materials to share with patients and clients, PHU or partner support to providers as they develop cessation services for their client population, linkages to regional cessation communities of practice and work groups. The project is implemented across all TCANs and targets various health professionals including nurses, pharmacists, dental professionals and optometrists.

Reach: In 2014/15, the YCMIH website received a total of 4,031 visits, the majority of which (3,000) were from accounts hosted by Canadian internet service providers, indicating that the site is reaching its target audience.ⁱⁱ Per website visit, visitors looked at an average of 2.31 pages and spent 2 minutes 51 seconds per page view. A total of 2,128 PDF documents were downloaded from the website with the three most commonly downloaded products being the 5A's Overview Staff Pocket Card, the resource order form and the Integrating Tobacco Cessation policy toolkit.

A province-wide evaluation of YCMIH conducted by OTRU found that 27,873 materials were distributed through trainings, meeting, mail-outs and information booths to 14,391 health practitioners in 2015 (based on responses from 122 survey respondents across 22 PHUs). The most commonly distributed YCMIH resources were the Assist Tips and Quit Plan handout (6,318 copies distributed to 2,678 health practitioners) and the 5A's Overview Staff Pocket Card (5,862 copies distributed to 3,252 health practitioners).

ⁱⁱ Google Analytics. Distributed by Donna Kosmack, Southwest TCAN. Personal communication, December 21, 2015.

No specific information is readily available about YCMIH's influence on health professionals' practice behaviour or the program's impact on clients.

Cessation Interventions

The Strategy includes a mix of policies, programs and services that work toward cessation goals.

Interventions to Limit Physical and Social Exposure

Several tobacco control policies have been implemented in Ontario that promote and facilitate quitting behaviour by limiting physical exposure (e.g., exposure to secondhand smoke) and social exposure to tobacco (e.g., the visual exposure to tobacco products and/or use in social environments). These policies include smoking bans in bars, restaurants, vehicles, workplaces, outdoor spaces (e.g., playgrounds, sports and recreational fields, restaurant and bar patios) and restrictions on marketing and promotion of tobacco products. In May 2015, the Ontario Government passed legislation to ban the sale of flavoured tobacco, which has the potential to promote and facilitate quitting behaviour. (The Regulation took effect in January 2016, with a one-year delayed implementation date for menthol-flavoured tobacco products.)

Protection from Secondhand Smoke

Since 2006, a number of policies to protect against secondhand smoke have been introduced in Ontario, including bans on smoking in public places, workplaces, cars transporting minors and outdoor spaces. While these policy measures are not directly related to cessation, studies have shown that smoke-free policies reduce consumption and support recent quitters by reducing cues for smoking and increasing their likelihood of quitting permanently.^{22,23,24,25}

Point-of-Sale Display Ban and Marketing Restrictions

Restrictions on marketing and promotion of tobacco products is an essential policy tool aimed at reducing tobacco use.^{26,27,28} In Ontario, a complete ban on the retail and wholesale display of tobacco products took effect on May 31, 2008. Marketing, promotion and sponsorship of tobacco products is also regulated under the *Federal Tobacco Act*, which includes a total ban on tobacco advertising on television, radio and in newspapers and magazines.

Interventions to Limit Availability

Various tobacco control policies limit the availability of tobacco products and as a result contribute to overall cessation goals. These policies include tobacco price increases and restrictions on the location where tobacco products may be sold.

Tobacco Taxation

There is strong evidence that an increase in cigarette taxes is an effective policy measure to drive down cigarette consumption, encourage current smokers to quit and prevent youth from becoming regular smokers.^{29,30,31,32,33,34} On average, a 10% increase in price results in a 3 to 5% reduction in demand in higher income countries.^{35,36,37}

In Ontario, the provincial tobacco tax was last increased on May 2, 2014 when the provincial excise tax for 200 cigarettes was increased by \$3.25, resulting in an increase from \$24.70 to \$27.95 in total tobacco tax. This increase is not an increase in the proportion of provincial tax in the overall price of 200 cigarettes, instead it accounts for inflation and restores the proportion of provincial tax to just below the level set in the last provincial tax increase in 2006 (30% of retail price in 2015 vs. 35% in 2006). Overall, federal and provincial tobacco taxes account for 63.8% of the retail price of a carton of cigarettes in Ontario. The tobacco tax increase was not sufficient to place Ontario in the highest scoring category for taxation in the MPOWER model (75% of the retail price). Ontario continues to have the second lowest total tobacco tax (\$59.75) of any Canadian province or territory (Table 3-1, Prevention Section).

Tobacco Product Availability

Restricting the retail distribution and availability of tobacco products is considered an important mechanism to limit consumption, contribute to cessation and to prevention and ultimately reduce subsequent negative health effects.^{38,1,2} In Ontario, legislation prohibits tobacco from being sold by vending machines, at pharmacies, hospitals and other healthcare and residential-care facilities. As of January 1, 2015, tobacco sales were also banned from being sold on college and university campuses. Despite these advances, tobacco products continue to be available across the Province through a large number of retail outlets (approximately 10,620 in 2014), primarily convenience and grocery stores. This is down from 11,581 in 2013, 12,455 in 2012 and a further decrease from the approximate 14,000 tobacco vendors that were operating in 2006.³⁹ (Note: The reason for these decreases is unclear. It could be due to more accurate recording of vendors by the Ministry, fewer vendors selling tobacco or both.)

Interventions to Build Knowledge and Awareness

Health promotion campaigns can increase knowledge of tobacco harm and awareness of cessation supports among smokers. The main province-wide interventions that address this path are described below.

Social Marketing Campaigns

In general, principles of social marketing guide many of the cessation interventions mentioned in this chapter. These campaigns have centred on both provincial and local initiatives.

The Ontario Ministry of Health and Long-Term Care created a new campaign in 2013 called Quit the Denial. This campaign targeted young adults aged 18 to 29 years old who are ‘social smokers’ but don’t consider themselves to be smokers. One aim of the campaign was to equate social smoking with socially unacceptable behaviours in social situations such as snacking from other’s plates, passing gas and earwax picking. The campaign was repeated in 2014, but not in 2015. No evaluation data on the campaign are publically available.

Over the last several years, a number of social marketing interventions/campaigns have run regionally on an ad hoc or intermittent basis. These campaigns have included providing broad support for smoke-free policies, targeting smokers’ knowledge of the harmful effects of tobacco use and promoting services to aid in smoking cessation. No evaluative information is available.

Leave The Pack Behind

Across 44 colleges and universities, Leave The Pack Behind (LTPB) delivers three coordinated social marketing campaigns through multiple communication channels (e.g., peer-to-peer programming, traditional promotional channels, social media platforms, and linkages with other on-campus partners). Leave The Pack Behind collaborates with a wide range partners, including all 36 Public Health Units, Cancer Care Ontario’s Tobacco Wise program, and Smokers’ Helpline, to ensure selected campaigns and interventions are available to all young adults aged 18 to 29 in Ontario.

In 2014/15, LTPB ran three coordinated age-tailored social marketing campaigns and piloted a fourth campaign the “Make It Memorable: Holiday Quit Campaign”:

- Social Smoking is Smoking (summer/fall) was a prevention campaign aimed at discouraging the initiation of smoking among nonsmokers and the escalation of smoking among social smokers aged 18 to 29.
- wouldrather... contest (fall/winter) was a six week quit smoking contest designed for all post-secondary students and young adults aged 18 to 29. The cessation part of the contest aimed to have smokers pledge to quit smoking, to reduce smoking by 50%, or to refrain from smoking when drinking alcohol. Tailored promotional materials were developed to reach special population groups (e.g., LGBTQ and Aboriginal).

- **Stress Happens: Don't Cave to the Crave** (winter/spring) was a relapse prevention campaign in which smokers and recent quitters were encouraged to respond to cravings in positive ways by choosing to eat healthy, be active, or engage in relaxation techniques instead of smoking.
- **Make It Memorable: Holiday Quit Campaign** (spring/summer) was developed to encourage young adult smokers to make a quit attempt on specific holidays over the spring/summer months, including Victoria Day, Canada Day and Labour Day.⁴⁰

The Aboriginal Tobacco Program

Operating within the Aboriginal Cancer Control Unit at Cancer Care Ontario, the Aboriginal Tobacco Program (ATP) aims to reduce the high smoking rates among the Aboriginal population and strives to deliver concrete results by enhancing the Aboriginal community's knowledge, skills, capacity and behaviour by delivering programming that is aligned with the Strategy's tobacco control objectives of prevention, cessation and protection. Key activities include:

- Working with local resources to develop campaigns and workshops tailored for specific age and gender groups (e.g., tobacco prevention + Ultimate Frisbee workshops for youth in grades 5 – 9 and cessation workshops).
- Facilitating/co-facilitating cessation seminars aimed at building capacity of care providers to provide community based cessation support.
- Engaging First Nation Inuit and Métis (FNIM) communities throughout Ontario to foster the development of smoking cessation, prevention and education programs.
- Engaging with First Nation communities to begin the discussion on the development of smoke-free by-laws and/or policies.
- Establishing cross-jurisdictional and organizational partnerships through the Aboriginal Tobacco Partnership Table (ATPT).

Reach and Effect: Since 2012, over 200 FNIM communities and organizations across Ontario have been visited and engaged. The result of the ATP's sustained, respectful engagement is an increasing amount of requests by communities to present workshops and provide resources, as well as the requests by their organizational partners to collaborate and provide insight into engaging FNIM communities. The ATP reports the following key outcomes (an evaluation report was not available to OTRU):ⁱⁱⁱ

ⁱⁱⁱ Usman Aslam. Aboriginal Tobacco Program, Cancer Care Ontario. Personal communication, December 18, 2015.

- Identification and dissemination of existing—and development of new—culturally appropriate and relevant resources.
- FNIM community members received in-depth and personalized information about the hazards of using commercial tobacco utilizing both traditional and western methods toward cessation.
- FNIM youth were provided information and engaged in discussions around smoking cessation, protection and prevention.
- Increased awareness of the ATP as well as increased confidence of the Program to provide prevention and cessation support to communities.
- Established outreach streams are being developed, using resources and supports to address smoking cessation and prevention (e.g., reaching out to high schools).
- Through collaborations with FNIM organizations and agencies, the ATP is able to provide tobacco cessation and support to a greater number of FNIM.
- By sharing information and increasing collaboration, the ATP is able to better align the ATP member activities.

Clinical Cessation Interventions to Increase Quit Attempts

The Strategy funds several clinical smoking cessation programs and services dedicated to encourage people to quit smoking and help them in their quit attempts (Figure 4-1). Unlike previous years' reports, this year we have chosen to report only responder-quit rates^{iv} where available, as a measure of each intervention's effects. New methodological thinking suggests that the previously reported intention-to-treat quit rates may be inappropriate for service delivery programs (this rate has been used in randomized control trials).^{41,42} The responder quit rates listed in the following section should be interpreted with caution, as they might not be representative of the total cessation service program population due to the often low response rate to follow-up surveys.

Public Health Units

Local Boards of Health are mandated to ensure the provision of tobacco-use cessation programs and services for priority populations.⁴³ In approaching this requirement, PHUs may refer smokers to community and provincial partners (see below) and run public education or social marketing campaigns to motivate smokers to quit.

^{iv} The responder quit rate is a measure of quit rate in which the numerator is all participants who report having quit using tobacco and the denominator is all those who completed the follow-up survey/evaluation.

PHUs may also provide front-line cessation services. In November 2014, the Ministry of Health and Long-Term Care offered PHUs one-time funding of up to \$30,000 for the purchase and provision of nicotine replacement therapy (NRT) to complement smoking cessation interventions for priority populations (e.g., low SES, pre- and postnatal, mental illness, youth and young adults and Aboriginal populations). Twenty-four PHUs received funding for the period November 2014 to March 2015.

Currently, systematic evaluative data on PHU cessation activity is not available.

Smokers' Helpline (Phone Support)

The Canadian Cancer Society's province-wide Smokers' Helpline (SHL) is a free, confidential smoking cessation service that provides support to individuals who want to quit, those who are thinking about quitting, have quit but want support, continue to smoke and do not want to quit and those who want to help someone else quit smoking.

SHL phone support is provided by trained quit coaches. They assist callers to create a quit plan, support them throughout the quitting process, provide them with printed materials and referrals to local programs and services and make follow-up calls.

Reach: In the 2014/15 fiscal year, the SHL phone support reached 7,467 (equivalent to 0.4% of 1.9 million adult smokers aged 18 years and older in Ontario),^v which is a decrease from 7,934 reached in 2013/14 (Table 4-1). Overall, the number of reactive callers^{vi} was down compared to 2013/14 (7,233 vs. 8,067), while the number of referral contacts increased by 26% (4,006 vs. 3,171). (The number of reactive callers and referral contacts includes repeat contacts therefore the two numbers combined do not equal the total number of new callers.)⁴⁴

The current reach in 2014/15 is slightly lower than the median reach of quitlines in Canada in 2012 (0.48%; most recent data available) and is considerably lower than the median reach of quitlines in the US as reported by North American Quitline Consortium (NAQC) at 1.07% in 2013.⁴⁵ This rate also falls far short of the reach of leading quitlines in individual US jurisdictions, such as Vermont (18.7%) and Oklahoma (3.99%)⁴⁵ that have been successful in achieving higher smoker penetration as a result of increased paid media and/or distribution of free cessation medication.

^v Measure of reach is based on the definition used by North American Quitline Consortium and reflects the number of new callers (not including repeat or proactive calls) contacting the Helpline divided by the total number of smokers aged 18 and over in Ontario.

^{vi} Reactive callers represent new clients calling for themselves.

Table 4-1: Smokers' Helpline Reach, 2005/06 to 2014/15

Fiscal Year	No. of New Clients ^a	Proportion of Ontario Smokers Reached, % ^b
2005/06	6,127	0.30
2006/07	6,983	0.35
2007/08	7,290	0.35
2008/09	6,464	0.32
2009/10	5,820	0.30
2010/11	6,844	0.34
2011/12	7,964	0.39
2012/13	10,217	0.51
2013/14	7,934	0.41
2014/15	7,467	0.40

^a New clients calling for themselves regardless of smoking status + completed referrals. Administrative data provided by SHL.

^b Estimates of the total population of smokers aged 18+ from 2005/06 to 2014/15 were calculated based on CCHS 2005 to 2014 (TIMS data).

Priority populations were well represented among the 2014/15 SHL callers. Young adults (20-29 years) comprised 19% of all new callers, which is the same as the proportion of young adults in the Ontario smoking population (19%; CCHS 2014). Smokers who self-identified as First Nations, Inuit or Métis comprised 6% of all new callers.⁴⁴

Effects: No evaluative data are yet available about the effects of the SHL phone support on smokers' quitting behaviour in 2014/15.^{vii} Previous evaluation data from 2011/12 indicated that at the 7-month client follow-up, 89% of survey respondents had taken some action toward quitting after their first contact with the SHL (64.5% response rate). This proportion was the same as that reported in 2009/10 (89.0%) and 2010/11 (89.5%). The most frequently reported actions included reducing cigarette consumption (75.1%), quitting for 24 hours (70.8%) and setting a quit date (55.7%).⁴⁶ Responder quit rates^{viii} at the 7-month follow-up were as follows: 25% (7-day point prevalence absence or PPA), 23% (30-day point prevalence) and 14% (6-month prolonged abstinence; Table 4-2).

From 2006 to 2012, the SHL saw a 9 percentage-point increase in the proportion of users reporting 7-day and 30-day point prevalence abstinence (Table 4-2). The proportion of 6-month abstainers has doubled over the same period. Furthermore, the 7-day and 30-day quit rates achieved in

^{vii} SHL is currently participating in the national quitline evaluation. Results from the national quitline evaluation are not available at this time.

^{viii} The responder quit rate is a measure of quit rate in which the numerator is all participants who report having quit using tobacco and the denominator is all those who completed the follow-up survey/evaluation.

2011/12 compare favourably with the same cessation indicators reported in studies of US quitlines that did not provide cessation medication (e.g., NRT) as part of their quitline counselling services.

Table 4-2: Smoker's Helpline 7-Month Follow-up Responder Quit Rates, 2006/07 to 2011/12

Fiscal Year	7-day PPA %	30-day PPA %	6-month prolonged abstinence %
2006/07	15.9	13.2	7.0
2007/08	15.0	13.0	5.4
2008/09	17.0	14.6	7.6
2009/10	20.2	16.8	6.9
2010/11	22.7	18.8	11.4
2011/12 ^a	25.1	23.0	14.4
US Quitline Quit Rates ^b	6-27	16-23	-

PPA = Point prevalence abstinence

^a Based on follow-up data collected in the first half of 2011/12 fiscal year.

^b North American Quitline Consortium review of US quitlines quit rates (from published literature), 2009.

The Smoking Treatment for Ontario Patients (STOP) Program

The STOP program is a province-wide initiative coordinated by the Centre for Addiction and Mental Health (CAMH) that uses the existing healthcare infrastructure as well as new and innovative means to provide smoking cessation support to smokers in Ontario.

In 2014/15, the STOP Program continued to implement the following program models:

- STOP on the Road offers smokers a psycho-educational group session (two - three hours) and a 5-week kit of NRT. The initiative is implemented in various locations across Ontario in collaboration with local healthcare providers (e.g., PHUs), where smoking cessation clinics are not easily accessible.
- STOP with Family Health Teams (FHTs), STOP with Community Health Centres (CHCs), STOP with Addiction Agencies and STOP with Nurse Practitioner-Led Clinics (NPLCs; began in 2014) expands support to smokers willing to quit by providing access to free NRT and counselling. FHTs, CHCs, Addiction Agencies and NPLCs participating in the STOP program are able to choose from various program delivery models that suit their specific capacity or interest, including: one-on-one counselling and up to 26 weeks of NRT (individual model); a psycho-educational group session and a 5-week kit of NRT (group model); or a combination of both (combination model).
- STOP with Aboriginal Health Access Centres (AHACs) began engaging and building partnerships with AHACs in 2013/14. This STOP program works collaboratively with the individual AHAC to develop sustainable smoking cessation intervention programs and aim

to provide knowledge exchange regarding smoking cessation interventions specific to the Aboriginal population.

Reach: A total of 21,444 smokers were reached by various STOP models in 2014/15. A majority of participants were enrolled through the STOP with FHTs (n=12,658).^{ix} Demographic and smoking characteristics of the STOP program participants are summarized in Table 4-3.

Table 4-3: STOP Program Participants, by Select Characteristics, 2014/15

Program Model	No. of Participants	Male %	Female %	Age Mean	20+ Cigarettes per day, %
STOP on The Road VII	3,259	44	56	49.2	63.1
STOP with FHTs	12,658	45	54	50.6	53.6
STOP with CHCs	2,845	48	51	49.1	57.1
STOP with Addictions Agencies	2,348	56	44	43.1	56.2
STOP with NPLCs	285	43	57	47.7	53.8
STOP with AHACs	49	N/A	N/A	N/A	N/A

Note: demographic and smoking characteristics were not available for participants in the STOP with AHACs program.

Source: STOP program

Effects: In 2014/15, at six months post-treatment, the self-reported 7-day point prevalence responder quit rates^x ranged from 29% for STOP on with CHCs to 37% for STOP with FHTs (response rates ranged from 12% to 42%; Table 4-4).

Table 4-4: STOP Program 7-Day Point Prevalence Responder Quit Rates, 2014/15

Program Model	Responder Quit Rate %
STOP on The Road VI	32.6
STOP with FHTs	36.7
STOP with CHCs	28.8
STOP with Addictions Agencies	31.7
STOP with NPLCs	N/A
STOP with AHACs	N/A

Note: Quit rates were not calculated due to limited response to follow-up (NPLC program) or lack of follow-up survey (AHAC program).

Note: Response rates for each STOP program were as follows: STOP on the Road VI (12%), STOP with FHTs (42%), STOP with CHCs (37%) and STOP with Addiction Agencies (38%).

Source: STOP program

^{ix} STOP Program, Personal communication, January 12, 2016.

^x The responder quit rate is a measure of quit rate in which the numerator is all participants who report having quit using tobacco and the denominator is all those who completed the follow-up survey/evaluation.

Ottawa Model for Smoking Cessation

The University of Ottawa Heart Institute’s Ottawa Model for Smoking Cessation (the Ottawa Model) is a clinical smoking cessation program designed to help smokers quit smoking and stay smoke-free. The overall goal of the program is to reach tobacco users who access healthcare organizations implementing the Ottawa Model with effective, evidence-based tobacco dependence treatments delivered by health professionals. Systematically identifying and documenting the smoking status of all patients, providing evidence-based cessation interventions—including counselling and pharmacotherapy—and conducting follow-up with patients after discharge accomplishes this.

Hospital Sites

Reach: As of March 2015, the Ottawa Model was used at 75 hospital sites in Ontario (representing 56 hospital organizations).⁴⁷ In 2014/15, the Ottawa Model provided services to 14,675 smokers in participating hospitals (Table 4-5). This is an increase of 6% in service provision over 2013/14 and a five-fold increase from that reported in 2006/07. According to data from a large subsample of patients (n=11,786) who participated in the Ottawa Model program, smokers were 55.7 years of age on average, more likely to be male (55.3%), had long smoking histories (34.2 years) and smoked 17.3 cigarettes per day, on average.

Table 4-5: Number of Smokers Reached by the Ottawa Model for Smoking Cessation (Hospitals), Ontario, 2006/07 to 2014/15

Fiscal Year	No. of Smokers Reached
2006/07	2,733
2007/08	5,514
2008/09	6,410
2009/10	7,086
2010/11	8,609
2011/12	9,721
2012/13	11,873
2013/14	13,815
2014/15	14,675

Source: The Ottawa Model for Smoking Cessation

Effects: The most recent evaluative survey data from a subset of Ottawa Model hospital patients indicate that at six months post-discharge, the responder-quit rate was 53% (7-day point prevalence for abstinence; 41% response rate).^{xi,47}

^{xi} The responder rate is a quit rate measure in which the numerator includes all respondents who report having quit smoking and the denominator includes only respondents who completed the survey.

Primary Care Organizations

Reach: In 2014/15, the Ottawa Model partnered with 15 new primary care organizations, representing 25 primary care sites; bringing their total partnerships to 83 primary care organizations representing a total of more than 160 primary-care sites since 2010.⁴⁸ During 2014/15, a total of 6,007 patients expressing an interest in quitting smoking were referred to Quit Plan Visits with trained cessation counsellors (Table 4-6), with 1,868 of these patients being referred to a telephone/email follow-up program.

Table 4-6: Number of Smokers Reached by the Ottawa Model for Smoking Cessation (Primary Care), Ontario, 2010/11 to 2014/15

Fiscal Year	No. of Smokers referred to Quit Plan Visits
2010/11	538
2011/12	2,155
2012/13	3,418
2013/14	5,115
2014/15	6,007

Source: Ottawa Model for Smoking Cessation

Effects: Evaluation survey data of patients referred to the telephone/email follow-up program indicate that 60% of all patients who completed the survey remained smoke-free 30 days following their quit date (responder quit rate; 49% response rate).⁴⁸

Ontario Drug Benefit and Pharmacy Smoking Cessation Programs

As of August 2011, the Ontario Government funds counselling and prescriptions for smoking cessation medications through the Ontario Drug Benefit (ODB) program, an initiative that covers seniors, MOHLTC programs (Long-Term Care, Home Care and Homes for Special Care), Ministry of Community and Social Services (Ontario Disability Support Program and Ontario Works) and the Trillium Drug Plan. ODB recipients are now eligible for up to 12 weeks of treatment with bupropion (Zyban™) and varenicline (Champix™) per calendar year. Effective September 1, 2011, ODB recipients also have access to smoking cessation counselling provided by community pharmacists through the Pharmacy Smoking Cessation program.

As part of the program, community pharmacists provide one-on-one smoking cessation counselling sessions over the course of a year, including a readiness assessment, first consultation meeting and follow-ups. Each point of contact between the pharmacist and the patient is documented for the purposes of counselling, billing and evaluation. Pharmacists are

required to have training in smoking cessation, specifically in motivational interviewing and quit smoking planning in order to deliver the program.

Reach: In 2014/15, a total of 25,625 ODB patients received cessation medication—such as Zyban™ and Champix™—or counselling. Of these clients, the majority received smoking cessation medication (24,815) with counselling accounting for 3,074 clients. The number of ODB patients reached in 2014/2015 decreased from the previous year; however the number of patients reached in 2014/15 remained higher than the first year the program was offered (Table 4-7). As of March 2015, 84% of patients enrolled for counselling had participated in the consultation meeting, half (53%) had attended the first (of seven) follow-up counselling session and 33% had attended the second follow-up session.

Table 4-7: Number of Smokers Reached by the Ontario Drug Benefit and Pharmacy Smoking Cessation Programs, Ontario, 2011/12 to 2014/15

Fiscal Year	Program		
	Drugs	Counselling	Drugs or Counselling ^a
2011/12	23,503	2,510	24,053
2012/13	30,991	4,226	31,906
2013/14	27,358	4,074	28,309
2014/15	24,815	3,074	25,625

^a Numbers do not represent the combined totals for Drugs and Counselling, as clients receiving both programs are counted only once.
Source: Ministry of Health and Long-Term Care

Overall, approximately 61% of clients were from Ministry of Community and Social Services programs (Ontario Disability Support Program or Ontario Works) and 32% were seniors.⁴⁹

Ontarians from across the Province enrolled in ODB drug or counselling programs, with the Hamilton Niagara Haldimand Brant Local Health Integration Network (LHIN) garnering the most clients (3,952; Table 4-8).

Effects: Clients enrolled in the ODB program from 2011 to 2013 reported a quit rate of 23% at 6-month follow-up (7% response rate) and 29% at 12-month follow-up (12% response rate).⁵⁰ Quit rates from clients enrolled in 2014 and 2015 are currently not available.

Table 4-8: Unique Ontario Public Drug Program Clients, by LHIN, 2014/15

Local Health Integrated Network	Program		
	Drugs	Counselling	Drugs or Counselling ^a
Erie St. Clair	2,086	500	2,162
South West	2,316	188	2,369
Waterloo Wellington	1,351	170	1,409
Hamilton Niagara Haldimand Brant	3,839	460	3,952
Central West	716	74	740
Mississauga Halton	843	85	876
Toronto Central	1,774	225	1,867
Central	1,441	160	1,481
Central East	2,575	317	2,695
South East	1,752	109	1,774
Champlain	2,671	245	2,744
North Simcoe Muskoka	1,118	208	1,146
North East	1,893	262	1,958
North West	543	55	549
Total	24,815	3,074	25,625

^a Numbers do not represent the combined totals for Drugs and Counselling, as clients receiving both programs are counted only once.

Source: Ministry of Health and Long-Term Care

Smoking Cessation by Family Physicians

In 2006, the MOHLTC introduced a set of billing codes to promote smoking cessation intervention by family physicians. These codes were assigned for cessation counselling services, including initial and follow-up counselling. Physicians are encouraged to use the 5A's Model (Ask, Advise, Assess, Assist and Arrange) for brief smoking cessation intervention when delivering counselling services to patients. During the initial counselling, physicians are expected to inquire about patients' smoking status, determine their readiness to quit, help them set a quit date and discuss quitting strategies. Follow-up counselling sessions are designed to assess patients' progress in quitting, discuss reasons for relapse and strategies to prevent relapse in the future, revise the quit plan and quitting strategies. Physicians are allowed to bill for one initial counselling session per patient over the 12 month period in conjunction with a specific set of primary care services (e.g., general practice service, primary mental healthcare, psychotherapy, prenatal care, chronic care). Follow-up counselling must be billed as an independent service and physicians are entitled to reimbursement for a maximum of two follow-up counselling sessions in the 12 months following the initial counselling. In 2008, the billing codes were modified and extended to include all family physicians.

Reach: In 2014, a total of 190,169 patients in Ontario received initial cessation counselling from a physician. This is up from the 188,838 patients reached in 2013 (Table 4-9). Since 2006, the largest number of patients served was in 2008 (214,461) which may be attributable to the expansion of the eligibility criteria for billing to all primary care physicians in that year. Comparison with population-level estimates indicates that patients billed for initial counselling represented 14% of smokers who reported visiting a physician in 2014.

Table 4-9: Reach of Initial Cessation Counselling Compared to Number of Patients Who Visited a Physician, Ages 15+, 2006 to 2014

Year	Number of Recipients of Initial Cessation Counselling ^a	Recipients of Initial Counselling, as a Proportion of Ontario Smokers Who Visited a Physician, % ^b
2006	124,814	8
2007	140,746	9
2008	214,461	14
2009	201,024	14
2010	201,532	14
2011	203,168	14
2012	192,608	13
2013	188,838	13
2014	190,169	14

^a Source: Ontario Health Insurance Plan

^b Estimates based on number of smokers (at present time) aged 15+ who visited a physician, using CCHS 2005 to 2014 data.

A total of 35,011 patients received one or more follow-up counselling sessions in 2014 representing 18% of recipients of initial counselling and three percent of all smokers who visited a doctor (Table 4-10). Although the number of individuals receiving these sessions has steadily increased over time, it represents only a small proportion of the initial counselling recipients (3% to 18%) and only a small fraction of smokers who reported visiting a physician in the reference period (<1% to 3%).

Effects: No information is available on patients' cessation outcomes.

Table 4-10: Reach of Follow-up Cessation Counselling Compared to Population-level and Initial Counselling Estimates, Ages 15+, 2007 to 2014

Year	Number of Recipients of Follow-up Counselling ^a	Recipients of Initial Counselling Who Received Follow-Up Counselling, %	Recipients of Follow-up Counselling as a Proportion of Ontario Smokers Who Visited a Physician, % ^b
2007	4,144	3	0.3
2008	29,686	14	2
2009	31,497	16	2
2010	34,130	17	2
2011	36,249	18	3
2012	35,392	18	2
2013	33,607	18	2
2014	35,011	18	3

^a Source: Ontario Health Insurance Plan

^b Estimates based on number of smokers (at present time) aged 15+ who visited a physician, using CCHS 2007 to 2014 data.

Leave The Pack Behind

Leave The Pack Behind promotes and distributes free, full-course treatments of nicotine patch/gum to all young adult smokers aged 18 to 29 in Ontario. Promotion of the free NRT is integrated into social marketing campaigns and outreach on campus, in the community and in a variety of health care settings. In addition, medical staff at all 44 colleges and universities offer counselling to students seeking help in quitting smoking.

Reach: In 2014/15, 5,900 smokers (1,574 students and 4,326 community young adults) ordered an 8-week course of treatment of nicotine patches or gum through LTPB's online platform representing 1.5% of the 395,900 young adult smokers in Ontario (Table 4-11). This is nearly a two-fold increase from the 3,723 courses of treatment of NRT distributed in 2013/14. About 1,500 students accessed on-campus health professional cessation counselling, similar to the number of students who accessed counselling in 2013/14.⁴⁰ For additional information on other programs, see the Social Marketing Campaigns and Other Cessation Interventions to Increase Quit Attempts sections above and the LTPB section in the Prevention Chapter).

Effects: in 2014/15, it is estimated that of the 836 smokers who received the *Smoke/Quit* booklets and advice from a health professional, 95 (or 11.4%) were expected to quit smoking. (These outcomes are based on empirically derived 7-day point prevalence intention-to-treat quit rates for *Smoke/Quit* booklets/health professional counselling.)⁵¹ An evaluation of the online NRT distribution and the health professional counselling plus NRT is currently underway.

Table 4-11: Leave The Pack Behind Participants by Clinical Program or Service, 2014/15

Program or Service	No. of Participants/Recipients
Online NRT distribution to all Ontario young in the community and on-campus	5,900
Health Professional Cessation Counselling plus nicotine patch/gum	645
Health Professional Cessation Counselling plus SMOKE QUIT booklets	836
Health Professional Cessation Counselling plus referral to Smokers' Helpline Proactive Counselling Services	48
TOTAL	7,429

Hospital and Workplace-Based Cessation Demonstration Projects

As part of its commitment to a renewed Smoke-Free Ontario Strategy, the Ontario Government has identified hospitals and workplaces as key sites for enhancing cessation support to smokers willing to quit. Hospital-based initiatives were conducted in Ontario using various strategies including both brief and intensive counselling from January 2013 to March 2015.⁵² Of the 14 hospital demonstration project sites selected, seven are community hospitals, three are teaching hospitals, two are mental health hospitals, one is an academic ambulatory hospital and one is a chronic rehabilitation hospital. At this time, no evaluative information is available.

From 2012 to 2014, the Ministry of Health and Long-Term Care provided one-time funding to Ontario PHUs to run workplace-based tobacco-use cessation demonstration projects at worksites in the construction, mining, manufacturing, hospitality and service sectors. Individual cessation initiatives were tailored to suit the needs, opportunities and circumstances of each workplace and included a variety of supports and activities, including (but not limited to):

- Self-help materials
- Group and individual counselling
- Competitions and challenges
- Smoking cessation training for workplace staff
- Smoke-free policy development
- Improving accessibility to NRT

Reach: In total, 11 PHUs (representing 19 health unit partners) were engaged with 43 workplaces during the demonstration project period. It is estimated that the workplace demonstration projects reached about 14% of smokers employed at participating organizations.⁵³

Effects: Among participants who completed the 6-month follow-up survey (52% response rate),

30% reported not smoking in the seven days prior to the follow-up, 27% reported not smoking in the month before the follow-up and 14% reported not smoking during the six months between intake and follow-up.⁵³

Other Cessation Interventions to Increase Quit Attempts

Smokers' Helpline Online (SHO)

Smokers' Helpline Online is an online resource that offers 24/7 access to cessation resources (e.g., Quit Meter and Cravings Diary), a self-directed cessation program and an online community that is moderated by quit coaches. Registrants can also opt to receive evidence-based inspirational emails that include helpful tips, reminders and motivation.

Reach: In 2014/15, more than 6,400 smokers registered for the SHO, which is almost double the number of registrants since the launch of the program and a 39% increase from 2013/14, but still below the 2009/10 peak of 9,539 registered smokers (Table 4-12). The SHO reached an estimated 0.34% of the smoking population in 2014/15. The SHO reported the increase in registrations was largely due to an improved online registration process for the 2015 Driven to Quit Challenge that allowed registrants to opt-in to the SHO directly from the Challenge registration page (4,137 out of 8,585 Driven to Quit registrants also registered for the SHO).⁴⁴

There is no information about the demographic characteristics of tobacco users who accessed the SHO in 2014/15. Nor is there evaluative information on the effects of the SHO on participants' quitting behaviour over this period.

Table 4-12: Smokers' Helpline Online Registration, 2005/06 to 2014/15

Fiscal Year	No. of Registrants	Proportion of Ontario Smokers Reached, % ^a
2005/06	3,365	0.17
2006/07	7,084	0.35
2007/08	7,692	0.37
2008/09	5,724	0.29
2009/10	9,539	0.50
2010/11	6,909	0.34
2011/12	8,640	0.43
2012/13	7,257	0.36
2013/14	4,593	0.24
2014/15	6,400	0.34

^a Estimates of the total population of smokers aged 18+ from 2005/06 to 2014/15 were calculated based on CCHS 2005 to 2014 (TIMS data).

Smokers' Helpline Text Messaging (SHL TXT)

Smokers' Helpline Text Messaging offers registrants support, advice and information through text messages on their mobile device. Automated messages are sent to the registrants for up to 13 weeks based on their quit date and preferences. Registrants can also text key words to SHL to receive additional support on an as-needed basis

Reach: The SHL TXT ceased functioning at the end of March 2014 due to system technical issues. The system was rebuilt with revised content and re-launched in December 2014. In the four months that SHL TXT was operational in 2014/15, over 400 smokers registered to receive text messages. This represents a decrease from the 1,645 registrants in 2013/14 (Table 4-13). When compared proportionately by time, the number of smokers registered in 2014/15 is still lower than the number of smokers registered over four months in 2013/2014 (approximately 548).⁴⁴

Table 4-13: Smokers' Helpline Text Service Registration, 2009/10 to 2014/15

Fiscal Year	No. of New Registrants
2009/10	218
2010/11	583
2011/12	839
2012/13	1,666
2013/14	1,645
2014/15 ^a	400

^a The low number of new registrants observed in 2014/15 is due to the service only being available from December 2014 to March 2015.

There is no information about the demographic characteristics of tobacco users who accessed the SHL TXT in 2014/15. Nor is there evaluative information on the effects of the SHL TXT on participants' quitting behaviour over this period.

Leave The Pack Behind

LTPB has adopted a comprehensive approach and uses evidence-based, age-tailored tobacco control strategies to successfully reduce tobacco use among young adults across Ontario. In 2014/15, LTPB's key strategies to achieve this goal included:

1. Promoting and hosting the annual wouldrather... contest to encourage young adults to quit or reduce their smoking or to pledge to stay smoke-free for a chance to win cash.
2. Distributing age-tailored, evidence-based self-help quit smoking booklets to young adults on-campus (by clinicians in health services and peer-to-peer outreach) and in the community (online and in PHUs).
3. Promoting the services of Smokers' Helpline, the Crush The Crave smart-phone app, peer-to-peer support and an online running program (QuitRunChill).

Reach: In 2014/15, LTPB programs and services were available on-campus in all 44 public colleges and universities in Ontario and in the community through 36 PHUs.⁴⁰ In 2014/15, at least 41,399 smokers (10% of all 395,900 young adult smokers in Ontario) accessed any of LTPB non-clinical programs or services (Table 4-14). For additional information on other programs, see the Social Marketing Campaigns and Clinical Cessation Interventions to Increase Quit Attempts sections above and the LTPB section in the Prevention Chapter).

Table 4-14: Leave The Pack Behind Participants by Non-Clinical Program or Service, 2014/15

Program or Service	No. of Participants/Recipients
SMOKE QUIT self-help booklets distributed by student teams	29,320
One Step at a Time booklets (for mature students) distributed by student teams	1,218
Public Health distribution of self-help books (e.g., Hey, Something's Different)	6,124
Registration to quit or cut back in the <i>wouldrather...</i> contest	4,603
Registration for online personalized health program <i>QuitRunChill</i>	134
TOTAL	41,399

Effects: In 2014/15, it is estimated that of the 29,320 smokers who received the *Smoke/Quit* booklets, 3,342 (or 11.4%) were expected to quit smoking at 3-month follow-up. (These outcomes are based on empirically derived 7-day point prevalence intention-to-treat quit rates for *Smoke/Quit* booklets/health professional counselling.)⁵¹

It is also estimated that of the 4,603 smokers who registered to quit or cut back in the *wouldrather...* contest, 726 were expected to quit smoking. (This outcome is based on empirically derived 7-day point prevalence intention-to-treat quit rates of 8.9% to 19.8%—depending on contest category—at 3-month follow-up.)^{54,55} Due to the multi-faceted nature of LTPB interventions and the challenges presented by collecting data from a highly transient target population, overall data on participants' demographic and smoking characteristics are not presented.

The Driven to Quit Challenge (DTQC)

Following a one-year absence in 2013, DTQC returned in 2014 and 2015 without funding from the MOHLTC. DTQC is a provincial quit smoking contest run by the Canadian Cancer Society, usually on an annual basis. The main objectives of the contest are to encourage quit attempts, increase tobacco users' awareness of cessation resources and encourage tobacco users to seek help through Smokers' Helpline. The contest is open to all Ontario residents over the age of 19 who have used tobacco at least once weekly for a minimum of ten months in the previous year and have smoked 100 cigarettes in their lifetime. Participants register online or by telephone with a “buddy”

who supports his/her pledge to remain smoke-free during the quit month (March) in order to be eligible for one of several prizes. Since 2010, occasional tobacco users (along with daily tobacco users) have been eligible to participate in DTQC. In 2012, promotional efforts were also directed toward healthcare providers to further increase referrals to DTQC and the overall reach of the contest.

Reach: In 2015, a total of 8,585 tobacco users registered for the DTQC (Table 4-15). This decrease in the number of registrants can be explained in part by the decreased DTQC budget in 2015. As a result, the estimated reach decreased from 1.8% of Ontario smokers in 2012 to <1% in 2015.⁴⁴

Table 4-15: Total Number of DTQC Registrants and Reach, 2005/06 to 2014/15

Fiscal Year	No. of Enrollees	Proportion of Ontario Smokers Reached, % ^a
2005/06	25,642	1.3
2006/07	26,950	1.3
2007/08	26,623	1.3
2008/09	22,365	1.1
2009/10	28,835	1.5
2010/11	36,091	1.8
2011/12	37,404	1.8
2013/14	11,330	0.6
2014/15	8,585	0.5

^a Estimates of the total population of smokers aged 18+ from 2005 to 2014 were calculated based on CCCHS (TIMS data).

Effects: Follow-up surveys were sent to participants of the 2014 DTQC 30- to 60-day and 8-month post-quit period. Among the 1,758 respondents (16% response rate), 94% stopped using tobacco for at least 24 hours, 68% had maintained a quit attempt for more than 30 days and 32% had maintained a quit attempt for more than six months as a result of their participating in the DTQC.⁴⁴

Overall Program Reach

In the 2014/15 fiscal year, Strategy smoking cessation interventions in Ontario directly engaged over 139,431 smokers, or about 7% of Ontario smokers^{xii} (Table 4-16. Note: it is assumed that all clients are smokers and that they use only one of the services). Of these smokers, 4.4% engaged

^{xii} The population of current smokers in Ontario in 2014, aged 18 years and older is 1,870,600 (based on CCHS data, TIMS estimate).

in some sort of clinical intervention, whereas 3.0% engaged in a nonclinical intervention such as a contest. These figures do not include cessation-counselling services billed by family physicians (In 2014, family physicians conducted 190,169 initial smoking cessation counselling sessions, with 35,011 patients receiving one or more follow-up counselling sessions).

Table 4-16: Smokers Enrolled in Ontario Smoking Cessation Interventions^a in 2014/15

Program	Clinical Reach	Intervention Reach
Smokers' Helpline Phone Support	7,467	
The STOP Program	21,444	
Ottawa Model for Smoking Cessation (hospital sites)	14,675	
Ottawa Model for Smoking Cessation (primary care sites' quit plan visits)	6,007	
Pharmacy Smoking Cessation Program	25,625	
Leave The Pack Behind (Health professional cessation counselling and NRT distribution)	7,429	
Smokers' Helpline Online		6,400
Smokers' Helpline Text Messaging		400
Leave The Pack Behind Programs (excluding counselling and NRT distribution)		41,399
Driven to Quit Contest		8,585
Sub-Total	82,647	56,784
Total (Clinical and Intervention Reach)	139,431	

^a Table excludes cessation-counselling services billed by family physicians. In 2014, 35,011 patients received one or more follow-up counselling sessions from a family physician.

Note: Reach is calculated as total number of people in program. Only Smokers' Helpline is available to all Ontario smokers, with the other programs serving sub-populations. Comparisons among programs should not be made, as they provide varying services to different populations of smokers.

Cessation Outcomes: Population-Level

The long-term goals of the cessation system are to lower the rate of current smoking and to increase the duration of smoking abstinence among quitters. In working toward these desired outcomes, the more immediate objectives of the Strategy are to increase program uptake, decrease cigarette consumption (for example, transitioning smokers to non-daily smoking), increase the proportion of smokers intending to quit and increase the prevalence and actual number of quit attempts.

Strategy programs offering cessation assistance have reached approximately 7% of all smokers in the Province. With long-term quit rates reported to range from 6% to 12% for those undergoing cessation treatment,⁵⁶ it may be that only 8,400 to 16,700 of these smokers wishing to quit go on to have a long-term successful smoking abstinence. Population-level data show considerable more

progress than this. The difference between program participant and the general population numbers is explained in part by the relative number of smokers who go on to quit smoking using no formal mechanism, interventions taking place outside formal Strategy channels and indirect interventions including tobacco tax and smoke-free spaces. Next, we discuss a variety of cessation indicators from a population-level perspective, with an emphasis on overall cessation rates.

Long-Term Outcomes

Desired long-term cessation outcomes include increasing the duration of smoking abstinence among quitters and reducing the overall prevalence of tobacco use.

Former Smokers

Annualized (Recent) Quit Rate

According to the 2014 CCHS, 7.9% of past-year smokers reported that they had quit for 30 days or longer when interviewed. Applying a relapse rate of 79% (derived from OTRU's Ontario Tobacco Survey), it is estimated that 1.7% of previous-year smokers remained smoke-free for the subsequent 12 months (Table 4-17). During the period 2007-2014, there has been only slight change and no substantial increase in the recent quit rate among Ontarians aged 12 years and older.

Table 4-17: Annualized (Recent) Quit Rate among Past-Year Smokers, by Duration of Quit, Ontario, 2007 to 2014

Year	Recent Quit Rate (95% CI)	Adjusted Quit Rate
2007	8.6 (7.4, 9.8)	1.8
2008	10.3 (8.5, 12)	2.2
2009	7.2 (6, 8.4)	1.5
2010	6.4 (5.4, 7.4)	1.3
2011	7.4 (6.1, 8.7)	1.6
2012	7.6 (6.1, 9.2)	1.6
2013	7.9 (6, 9.2)	1.7
2014	7.9 (6.3, 9.5)	1.7

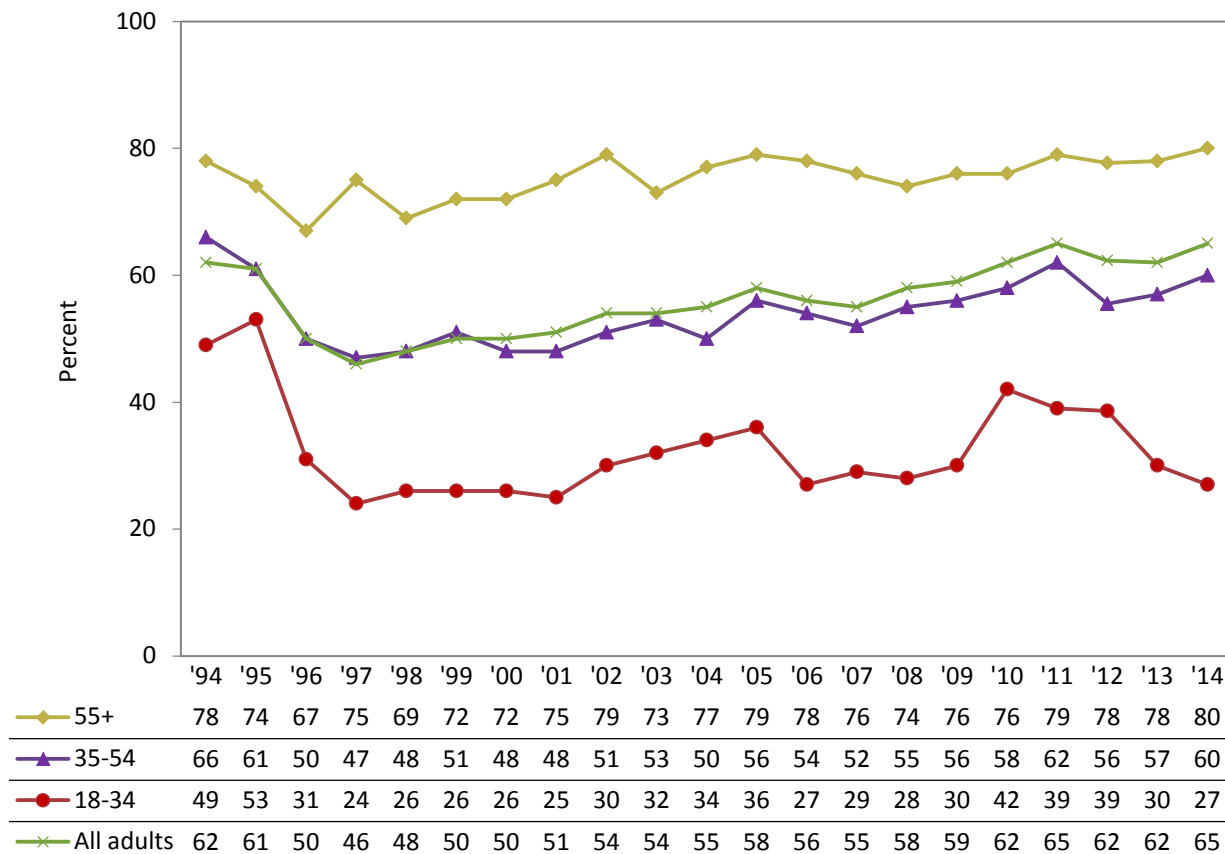
Source: Canadian Community Health Survey 2007-2014.

Lifetime Quit Ratio

The lifetime quit ratio is the percentage of ever smokers (that is, former and current smokers) who have successfully quit smoking (based on 30-day abstinence) and is derived by dividing the number of past 30-day former smokers by the number of ever smokers in a population.

- In 2014, 65% of adults who had ever smoked had quit for at least 30 days at time of interview (Figure 4-2).
- Adults aged 18 to 34 had the lowest ratio of quitting (27%) among all ever smokers.
- In recent years, there is no clear pattern of change in quit ratios.

Figure 4-2: Quit Ratio (Former Smokers as a Proportion of Ever Smokers), by Age, Ontario, 1994 to 2014



Source: Centre for Addiction and Mental Health Monitor 1994–2014.

Quit Duration

- In 2014, 9% of former smokers (or 262,200 people) reported quitting between one and 11 months ago, 13% of former smokers quit between one and five years ago and 78% quit smoking more than five years ago (CAMH Monitor 2014, data not shown). This is unchanged in recent years.

Short and Intermediate-Term Outcomes

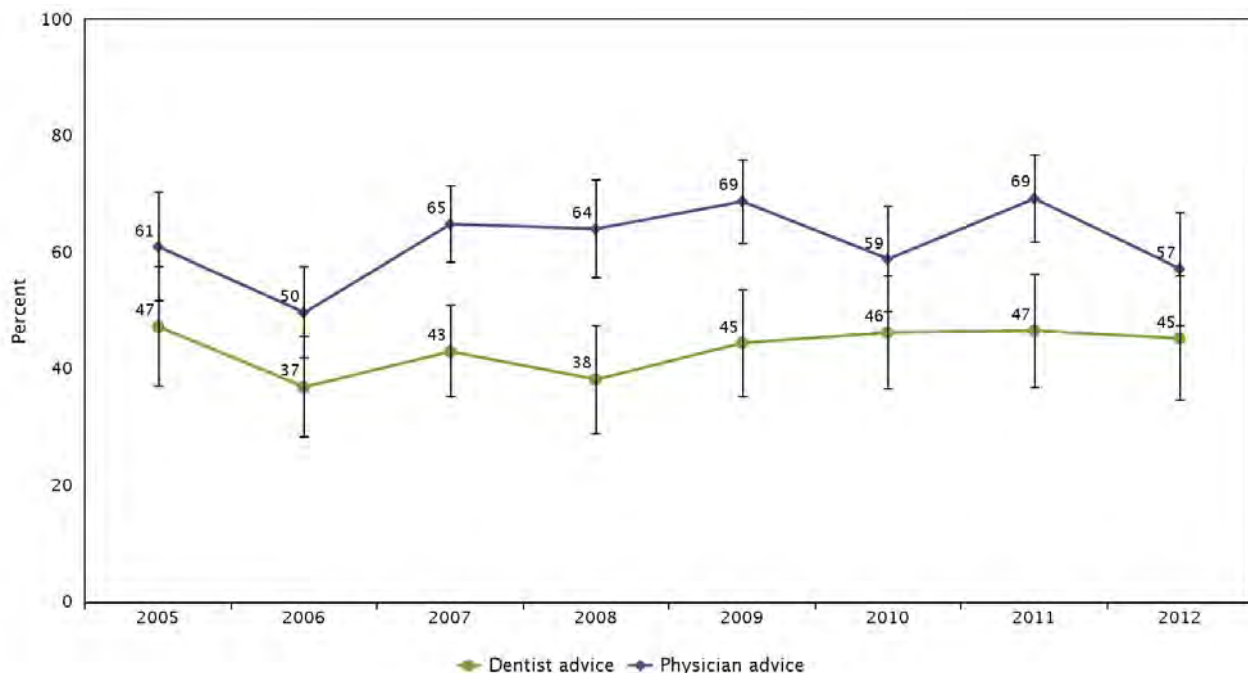
As suggested by the Path Logic Model (Figure 4-1), to reach desired cessation outcomes, the Strategy must increase the awareness and use of evidence-based cessation initiatives, decrease cigarette consumption, increase the proportion of smokers intending to quit and increase the prevalence and actual number of quit attempts.

Advice, Awareness and Use of Quit Aids

Health Professional Advice

- In 2012, six in ten survey respondents over the age of 18 who smoked (57%) and had visited a physician in the past year had been advised to quit smoking (Figure 4-3). This is unchanged in recent years (CTUMS). (Note: More recent data is not currently available.)
- Of current smokers in Ontario in 2012 who had visited a dentist in the past year, 45% reported that their dentist or dental hygienist had advised them to quit smoking (Figure 4-3). This is unchanged in recent years.
- Among those advised to quit by a physician, 57% received information on quit smoking aids such as the patch; a product like Zyban™, Wellbutrin™, or Champix™; or a counselling program in 2012 (data not shown).

Figure 4-3: Health Professional Advice to Smokers, by Occupation, Ages 18+, Ontario, 2005 to 2012



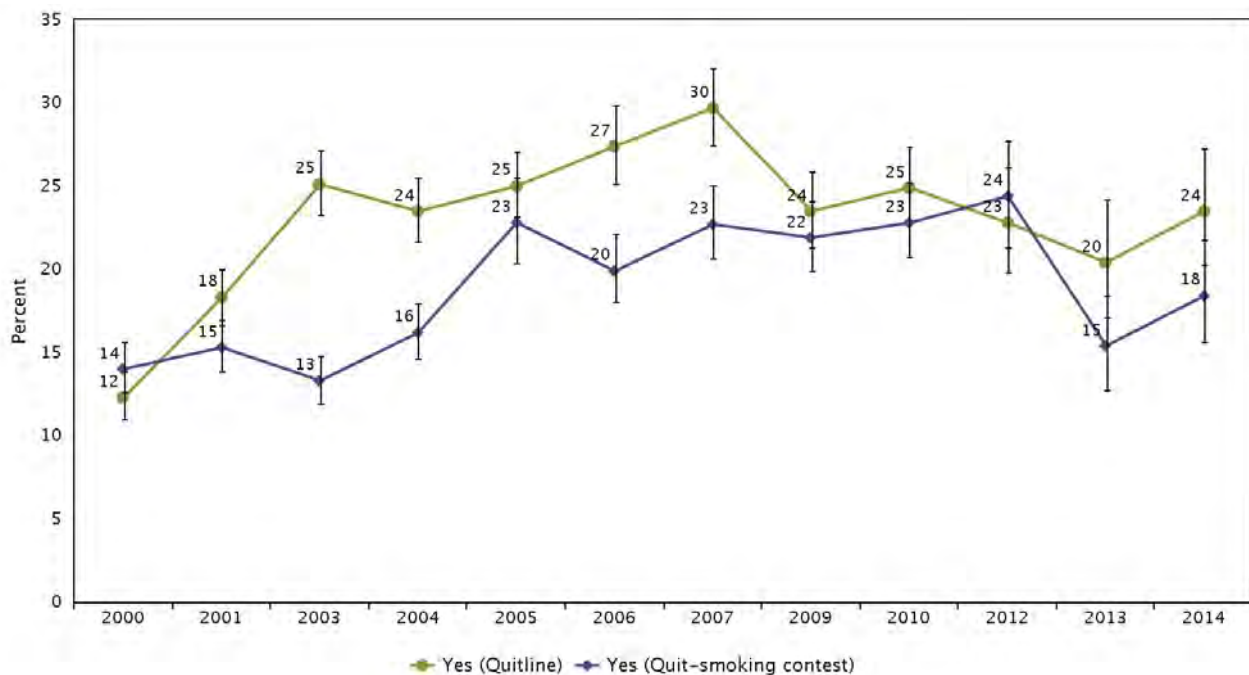
Note: Vertical lines represent 95% confidence intervals.

Source: Canadian Tobacco Use Monitoring Survey 2005–2012. Follow the TIMS link [TIMS](#) for live results on this indicator and more.


Awareness of Quit Programs

- In 2014, 24% of Ontarians 18 years and older were aware of a 1-800 quitline. The level of awareness has not significantly changed in recent years (20% in 2013; 24% in 2009; Figure 4-4).
- Awareness of a quitline differed by smoking status in 2014: 49% of current smokers were aware compared to 21% of never-smokers and 18% of former smokers (CAMH Monitor; data no shown).
- Among Ontarians aged 18 years or over in 2014, 18% reported being aware of a quit-smoking contest, that is similar to the level of awareness reported in 2013 (15%) and 2009 (22%; Figure 4-4).
- Awareness of a quit-smoking contest was the same among former smokers and current smokers (21.3% vs. 29.5%^{xiii}) and lower among never smokers (15%) in 2014 (CAMH Monitor; data not shown).

Figure 4-4: Awareness of a 1-800 Quitline (Past 30 Days) and Awareness of a Quit Smoking Contest (Past 30 Days), Ages 18+, Ontario, 2000 to 2014



Note: Vertical lines represent 95% confidence intervals. Survey question not asked uniformly over reporting period.

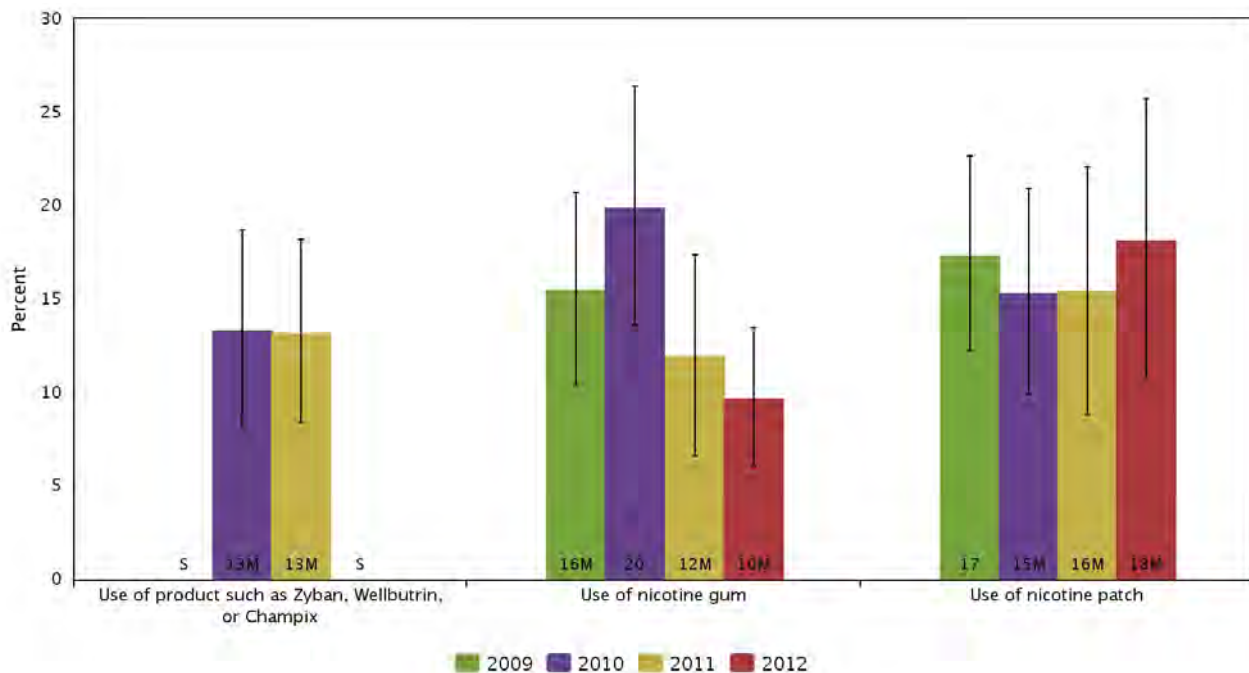
Source: Centre for Addiction and Mental Health Monitor 2000, 2001, 2003-2007, 2009, 2010, 2012, 2013, 2014. Follow the TIMS link  for live results on this indicator and more.

^{xiii} Interpret with caution: Subject to moderate sampling variability.

Use of Quit Aids

- In recent years, there has been a significant decline in the use of nicotine gum (20% in 2010 vs. 10% in 2012). Use of the nicotine patch has remained constant from 2009 (17%) to 2012 (18%; CTUMS data; Figure 4-5). (Note: more recent and complete trend data is not currently available.)
- In 2011, 13% of smokers in Ontario aged 15 years and older representing 218,000 smokers used a product such as Zyban™, Wellbutrin™, or Champix™ (Figure 4-5). (Note: 12% of eligible smokers (or 25,503) received Zyban™ or Champix™ through the ODB Pharmacy program in 2011/2012. The number of smokers receiving medication through the ODB Pharmacy program has increased in recent years to 25,625 in 2014/15.)

Figure 4-5: Use of Smoking Cessation Aids (Past 2 Years), Ages 15+, Ontario, 2009 to 2012



Note: M = Interpret with caution: subject to moderate sampling variability. Vertical lines represent 95% confidence intervals.

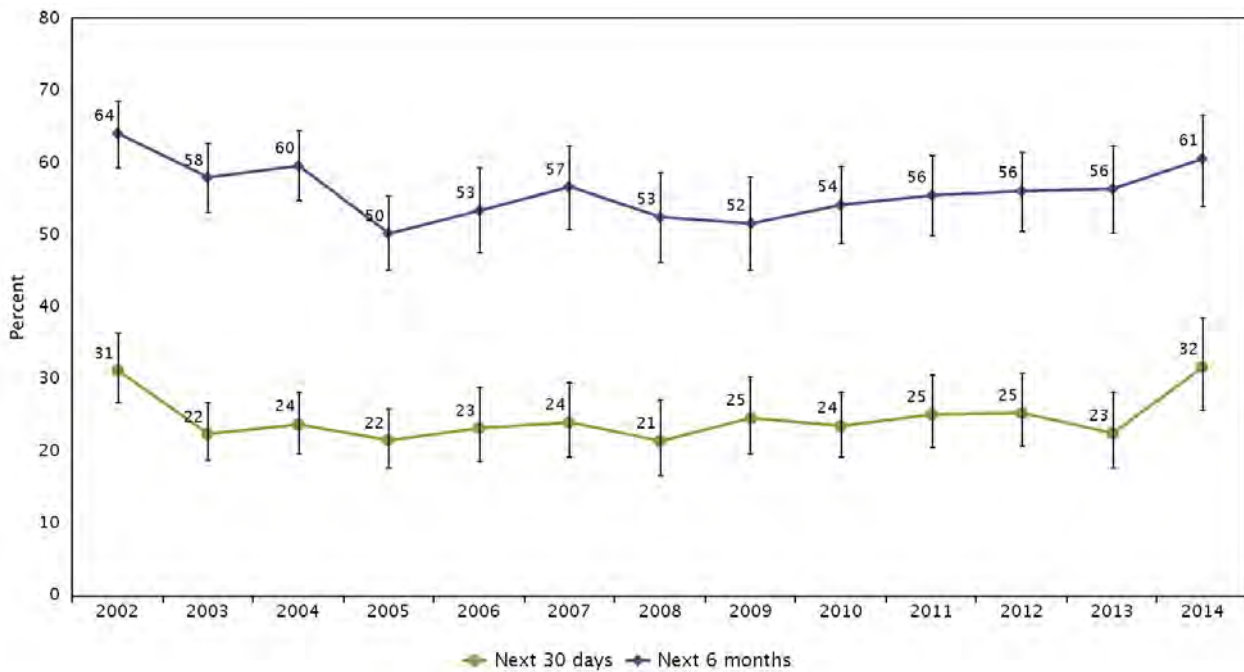
Source: Canadian Tobacco Use Monitoring Survey 2009–2012. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Quitting Behaviour

Intentions to Quit

- In 2014, more than half of all smokers intended to quit in the next six months (61%); which is unchanged compared to 2013 (56%) and 2010 (54%; CAMH Monitor data; Figure 4-6).
- The prevalence of 30-day quit intentions among Ontario smokers in 2014 was 32%, which is statistically similar to what was reported in 2013 (23%) and 2010 (24%) due to small sample sizes, though the trend appears to be positive.

Figure 4-6: Intentions to Quit Smoking in the Next Six Months and Next 30 Days, Ages 18+, Ontario, 2002 to 2014



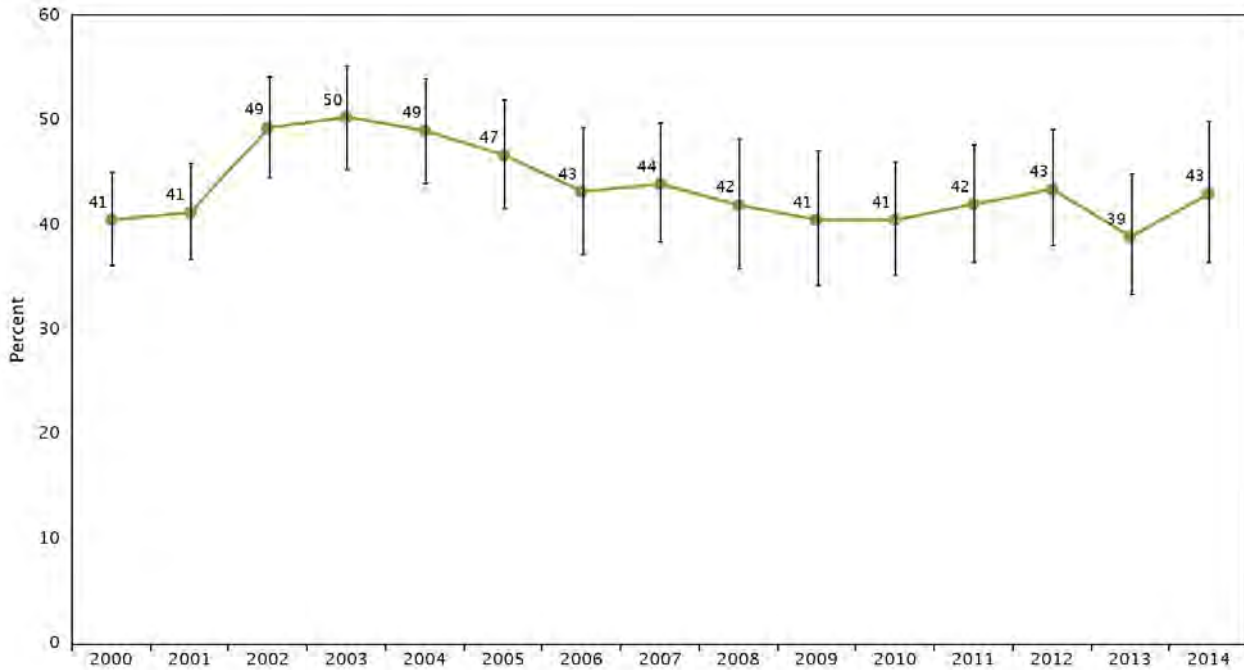
Note: Vertical lines represent 95% confidence intervals.

Source: Centre for Addiction and Mental Health Monitor 2002–2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Quit Attempts

- In 2014, four in ten smokers (43%) made one or more serious quit attempts in the past year (CAMH Monitor data; Figure 4-7).
- Over the last decade, there has been no statistically significant change in the proportion of adult smokers making quit attempts.

Figure 4-7: One or More Quit Attempts in the Past Year, Current Smokers, Ages 18+, Ontario, 2000 to 2014



Note: Vertical lines represent 95% confidence intervals.

Source: Centre for Addiction and Mental Health Monitor 2000-2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

MPOWER Comparison with Ontario: Cessation

Eight MPOWER indicators⁵⁷ relate to Cessation: Monitoring, Smoking Prevalence, Cessation Programs, Health Warning Labels, Mass Media Campaigns, Tobacco Advertising Bans, Compliance with Advertising Ban and Taxation (Table 4-18).

Table 4-18: Assessing Smoking Cessation: MPOWER Indicators Applied to Ontario

MPOWER Indicator	Highest MPOWER Requirement	Situation in Ontario
Monitoring	Recent, representative and periodic data for both adults and youth	Meets the requirement for the highest score
Smoking prevalence	Daily smoking, age-standardized rate, <15%, among 15 years and older	Daily smoking, age-standardized rate, 13.3% among 12+, 2014 (Note: Compared to MPOWER definition, the age used here for Ontario is slightly lower (12 vs. 15), which contributes to a slightly lower rate of smoking)
Cessation programs	National quitline, both NRT and some cessation services cost-covered	Cost of NRT and other medications not covered for all smokers
Health warning labels on cigarette packages	Large health warning labels (e.g., over 50% of package panel, graphic, rotate, specific health warnings)	Meets the requirement for the highest score
Mass media campaigns	Research to gain a thorough understanding of the target audience, air time (radio and television) and placement (billboards, print ad); effectively and efficiently reach a target audience; gain publicity or news coverage for the campaign; evaluation of the campaign reach and impact	Since January 2011, no sustained and intensive cessation campaigns have been conducted in Ontario with duration longer than three weeks. There has been varied online and local campaigns and the MOHLTC created a new campaign in March 2013 called <i>Quit the Denial</i> (a campaign targeting young adults aged 18 to 29 years old who are social smokers but don't view themselves as smokers)
Tobacco advertising bans	Ban on all forms of direct and indirect advertising	Direct mail to adult readership, non-tobacco goods and services with tobacco brand names and appearance of tobacco products in TV and/or films are allowed in Ontario (and Canada)
Advertising ban compliance	Complete compliance	Meets the requirement for the highest score
Taxation	Tobacco tax > 75% of the retail price	Tobacco tax at 64% of the retail price in Ontario in 2015

Scientific Advisory Committee (SAC): Overview of Cessation Goals and Recommendations

The SAC goal for Cessation is: “To reduce the health and economic burden from tobacco industry products, at an individual and societal level, through cessation interventions.” The SAC report includes several recommendations to achieve this cessation goal including a media campaign,

tobacco-user support system, direct support, cessation in other settings, cessation training, engagement of pharmaceutical companies and innovative approaches. Work has progressed in many of these areas, but effort is needed to address several shortcomings (e.g., an integrated tobacco-user support system) and to increase intensity (e.g., a sustained and intensive media campaign to encourage smokers to quit).

Table 4-19: Scientific Advisory Committee Recommendation for Cessation

Goal: To reduce the health and economic burden from tobacco industry products, at an individual and societal level, through cessation interventions.	
Recommendations	Current Status
Media Campaign	
[7.1] Implement a sustained and intensive mass media campaign to encourage smokers to quit, either on their own or with help.	Since January 2011, no sustained and intensive cessation campaigns have been conducted in Ontario with duration longer than three weeks. There have been varied online and local campaigns and the MOHLTC created a new campaign in March 2013 called <i>Quit the Denial</i> (a campaign targeting young adults aged 18 to 29 years old who are social smokers but don't view themselves as smokers).
Tobacco-User Support System	
[7.2] Create a Tobacco-User Support System to operationalize the concept that there is "no wrong door" for access to cessation support services. The system will reach out to tobacco users, understand, support and address their needs and improve interventions through its various components.	Currently in the Province, there is a collection of cessation services, with collaboration among these services in its infancy. Developmental meetings are underway by partners to enhance the collaborative possibilities for Ontario's cessation services.
Direct Support	
[7.3] Enhance systems of telephone, text messaging and Internet-based cessation support services that would entail: [a] Integration with the overall Tobacco-User Support System. [b] Integration with the cessation mass media campaign. [c] Capability for continual engagement with smokers.	There are systems of telephone, text messaging and internet-based cessation support services in the Province, but there is not yet full integration with a Tobacco-User Support System, integration with cessation mass media and only slight capability for continual engagement with smokers.
[7.4] Provide free direct-to-tobacco-user smoking cessation medication in combination with varying amounts of behavioural support where indicated and appropriate.	<p>There is no province-wide program for free smoking cessation medication. However, there are some notable instances of free smoking cessation medications within certain populations.</p> <p>The Ontario Government funds counselling and prescriptions for smoking cessation medications through the Ontario Drug Benefit (ODB) program, an initiative that covers seniors, MOHLTC programs (Long-term Care, Home Care and Homes for Special Care), Ministry of Community and Social Services (Ontario Disability Support Program and Ontario Works) and the Trillium Drug Plan. ODB recipients are now eligible for up to 12 weeks of treatment with Zyban™ and Champix™ per calendar year. Effective September 1, 2011, ODB recipients also have access to smoking cessation counselling provided by community pharmacists through the Pharmacy Smoking</p>

	<p>Cessation program.</p> <p>STOP with Family Health Teams (FHTs), STOP with Community Health Centres (CHCs), STOP with Addiction Agencies, STOP with Nurse Practitioner-Led Clinics (NPLCs; started in 2014) and STOP with Aboriginal Health Access Centres (AHACs) provides support to smokers willing to quit by providing access to free NRT and counselling.</p> <p>The Ottawa Model provides support to smokers admitted to participating hospitals by offering free NRT and brief counselling.</p> <p>Leave The Pack Behind provided select post-secondary students and community-living young adults with free NRT (as well as cessation counselling from a health professional for select users).</p>
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Cessation in Other Settings

[7.5] Systematize, expand, support and tailor cost-effective and evidence-based cessation policies, services and supports across health care and public health settings such as primary health care, hospitals and long-term care homes.	Initiatives include STOP, the Ottawa Model, Hospital Demonstration and Workplace-based Cessation Demonstration Projects; OHIP billing and the Ontario Drug Benefit and Pharmacy Smoking Cessation Programs.
[7.6] Create accountability mechanisms to ensure that smokers are asked, advised and assisted to quit at every point of contact with the health care system (local health integration networks, hospitals, primary care providers, specialty care, home care, etc.).	This recommendation has been under discussion.
[7.7] Provide free smoking cessation medications for individuals on Ontario Drug Benefit, with the dose and duration determined by the presence of co-morbidity and end organ damage as assessed by their health care provider.	The Ontario Government funds counselling and prescriptions for smoking cessation medications through the Ontario Drug Benefit (ODB) program, an initiative that covers seniors, MOHLTC programs (Long-term Care, Home Care and Homes for Special Care), Ministry of Community and Social Services (Ontario Disability Support Program and Ontario Works) and the Trillium Drug Plan. ODB recipients are now eligible for up to 12 weeks of treatment with Zyban™ and Champix™ per calendar year. There is no dose and duration policy in regards to clients with co-morbidity and end organ damage.
[7.8] Target sub-populations that are at high risk for tobacco related disease or have decreased access to tobacco cessation services in order to provide services that address their specific needs. Sub-populations may include people in addiction and mental health treatment settings including those struggling with problematic gambling.	<p>The Ministry's Health System Research Fund funded one project that addressed tobacco use in Aboriginal populations.</p> <p>The STOP program reaches clients of Addiction Agencies and Aboriginal Health Access Centres.</p>

Cessation Training

[7.9] Support and enhance training and professional development for all tobacco control practitioners through existing resources such as the Program Training and Consultation Centre (PTCC) and the Training Enhancement and Applied Cessation Counselling and Health (TEACH) program.	Continuing
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Pharmaceutical Companies

[7.10] Engage pharmaceutical companies to better understand their potential contribution to a tobacco-use cessation system for Ontario. Unknown

Innovative Approaches

[7.11] Support research and development of innovative social-ecological approaches to smoking cessation in various settings, including work place and community-based organizations. MOHLTC funds research into a Workplace-based Cessation Demonstration Project Initiative and a Hospital Demonstration Project; provides funding to STOP and the Ottawa Model, that work in various settings.

Chapter Summary

There are close to two million smokers in Ontario. The proportion of Ontario’s smokers who successfully quit each year (defined here as 12-month abstinence) is estimated to be 1.7%. While 9% of Ontario’s smokers report quitting for 30 days or more at some point in the past year, Ontario data suggest that 79% of these recent quitters relapse during the year. In order to achieve a five percentage-point decrease in the prevalence of smoking over five years (with past 30-day prevalence currently at 16%), the proportion of smokers who successfully quit needs to at least double.

Evidence indicates that population-level policy interventions can be highly effective in achieving cessation outcomes. As previously mentioned, price is one of the most effective policy tools to promote cessation. Despite a tobacco tax increase in 2014, tobacco taxes in Ontario remain among the lowest in Canada and are below even the highest level of tobacco taxation recommended by MPOWER. Restricting smoking in public and workplaces is also an effective policy tool for promoting quitting. It is likely that since restrictions were already in place for some 90% of Ontarians before the *Smoke-Free Ontario Act* in 2006,⁵⁸ we have already achieved most of the short-term benefits of this policy tool in regard to quitting behaviour. Nevertheless, increased compliance with indoor and recent outdoor bans will undoubtedly positively impact some smokers in these settings to become nonsmokers.

Progress is being made on some key SAC directions for cessation, including: developmental meetings to support an integrated support system; direct support (telephone, text and internet); provision of free NRT or prescription medications and counselling to some high risk populations (Aboriginal, those with co-morbidities and ODB recipients); and ongoing cessation training (provided by PTCC, TEACH, OTRU).

Nevertheless, Ontario continues to fall short on four cessation system policies recommended by SAC:

1. Universal provision of free NRT and stop-smoking medications.
2. Creation of accountability mechanisms to ensure that smokers are asked, advised and assisted to quit at every point of contact with the health care system.
3. Creation of a Tobacco-User Support System to operationalize the concept that there is “no wrong door” for access to cessation support services.
4. Enhancement of systems of telephone, text messaging and Internet-based cessation support services that would entail: a) integration with the overall Tobacco-User Support System, b) integration with the cessation mass media campaign and c) capability for continual engagement with smokers.

Ongoing, comprehensive social marketing campaigns are a vital ingredient for promoting quit intentions and quit attempts.⁵⁹ Over many recent years, Ontario has invested less in marketing campaigns than that recommended by MPOWER. The Ontario Government’s Quit the Denial campaign, that has targeted young adult social smokers, may indicate a change in this trend. It is evident that in recent years, there have not been intensive, sustained and well-funded province-wide campaigns directed toward promoting quit attempts in the general population of smokers.

It appears that only a small proportion of the 57% of smokers who were advised by physicians to stop smoking and the 45% who were advised to do so by dentists in 2012 took any action to obtain formal support.

Provincial cessation support services (Smokers’ Helpline, the STOP Program, LTPB, the Ottawa Model, the Ontario Drug Benefit program and the DTQC) reach approximately 7% of smokers annually, with only a small proportion of these participants likely to succeed in quitting in the long term. This is consistent with existing evidence that smokers make multiple quit attempts and only a few of them go on to successfully quit, with relapse being a typical outcome in a quitting attempt.

References

- ¹ Chuang YC, Cubbin C, Ahn D, Winkleby MA. Effects of neighbourhood socioeconomic status and convenience store concentration on individual level smoking. *Journal of Epidemiology and Community Health* 2005 Jul;59 (7): 568–573.
- ² Reitzel LR, Cromley EK, Li Y, Cao Y, Dela Mater R, Mazas CA, et al. The effect of tobacco outlet density and proximity on smoking cessation. *American Journal of Public Health* 2011 Feb;101(2):315-320.
- ³ Alesci NL, Forster JL, Blaine T. Smoking visibility, perceived acceptability, and frequency in various locations among youth and adults. *Preventive Medicine* 2003 Mar; 36(3):272-281.
- ⁴ Christakis NA, Fowler JH. The collective dynamics of smoking in a large social network. *New England Journal of Medicine* 2008 May 22;358(21):2249-2258.
- ⁵ Alamar B, Glantz S. Effect of increased social unacceptability of cigarette smoking on reduction in cigarette consumption. *American Journal of Public Health* 2006 Aug;96(8):1359–1362.
- ⁶ Stuber J, Galea S, Link BG. Smoking and the emergence of a stigmatized social status. *Social Science and Medicine* 2008 Aug;67(3):420-430.
- ⁷ Ontario Tobacco Research Unit. *STOP Program Implementation in Three Health Care Treatment Settings: A Comparative Evaluation of Addiction Agencies, Community Health Centres and Family Health Teams*. OTRU Evaluation News. Toronto, ON: OTRU, May 2015. Accessed on February 3, 2016.
- ⁸ Ontario Tobacco Research Unit. *Evaluation of Workplace Cessation Demonstration Projects – Construction Organizations*. OTRU Evaluation News. Toronto, ON: OTRU, May 2015. Accessed on December 17, 2015.
- ⁹ Ontario Tobacco Research Unit. *Evaluation of Workplace Cessation Demonstration Projects – Manufacturing Organizations*. OTRU Evaluation News. Toronto, ON: OTRU, May 2015. Accessed on December 17, 2015.
- ¹⁰ Ontario Tobacco Research Unit. *Is it a Quit Attempt if it Doesn't Last a Day? Predictors of Serious Quit Attempts of at Least 24 Hours Duration*. OTRU Update. Toronto, ON: OTRU, September 2015. Accessed on December 17, 2015.
- ¹¹ Ontario Tobacco Research Unit. *Use of Quit Aids Among Ontario Smokers*. OTRU Update. Toronto, ON: OTRU, March 2015. Accessed on December 17, 2015.
- ¹² Ontario Tobacco Research Unit. *Real World Effectiveness of Varenicline and Other Smoking Cessation Methods*. OTRU Update. Toronto, ON: OTRU, October 2014. Accessed on December 17, 2015.
- ¹³ Ontario Tobacco Research Unit. *OTRU Knowledge and Evaluation Support Team Newsletter*, Volume 9, Issue 1. Toronto, ON: OTRU, June 2015. Available at: http://otru.org/wp-content/uploads/2015/06/kes_update_june2015.pdf. Accessed on December 17, 2015.
- ¹⁴ Ontario Tobacco Research Unit. *OTRU Knowledge and Evaluation Support Team Newsletter*. Toronto, ON: OTRU, September 2015. Accessed on December 17, 2015.
- ¹⁵ Ontario Tobacco Research Unit. *OTRU Knowledge and Evaluation Support Team Newsletter*. Toronto: OTRU, December 2015. Accessed on January 8, 2016.
- ¹⁶ Babayan A, Srikandarajah A, Di Sante E, Schwartz R. *Evaluation of the 2009-2010 RNAO Nursing Best Practice Smoking Cessation Initiative*. Toronto, ON: OTRU, May 10, 2010.
- ¹⁷ Babayan A, Krynen-Hill M, Schwartz R. *Evaluation of the 2010-2011 RNAO Nursing Best Practice Smoking Cessation Initiative*. Toronto, ON: OTRU, November, 2011.

- ¹⁸ Babayan A, Malas M, Schwartz R. *Evaluation of the 2011-2012 Registered Nurses' Association of Ontario Nursing Best Practice Smoking Cessation Provincial Initiative*. Toronto, ON: OTRU, January 2013.
- ¹⁹ Babayan A, Lilloco H, Haji F, Schwartz R. *Evaluation of the 2013-2015 Registered Nurses' Association of Ontario Nursing Best Practice Smoking Cessation Provincial Initiative: Progress Report (2013-2014)*. Toronto, ON: OTRU, March 2014.
- ²⁰ Training Enhancement in Applied Cessation Counselling and Health (TEACH). *TEACH Project Year-End Evaluation Report, FY 2014-15*. Toronto, ON: Centre for Addiction and Mental Health, 2015.
- ²¹ University of Ottawa Heart Institute. *Ottawa Model for Smoking Cessation in Ontario Hospitals and Specialty Care Settings: 2014-2015 Annual Report*. Ottawa: University of Ottawa, 2015.
- ²² IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. *Tobacco Smoke and Involuntary Smoking*. IARC Monographs on the Evaluation of Carcinogenic Risk to Humans, Volume 83. Lyon, FR: IARC Press, 2004. Accessed on January 5, 2016.
- ²³ Brownson RC, Hopkins DP, Wakefield MA. Effects of smoking restrictions in the workplace. *Annual Review of Public Health* 2002;23:333-348.
- ²⁴ Farkas AJ, Gilpin EA, Distefan JM, Pierce JP. The effects of household and workplace smoking restrictions on quitting behaviours. *Tobacco Control* 1999 Autumn;8(3):261-265.
- ²⁵ Shields M. Smoking bans: Influence on smoking prevalence. *Health Reports* 2007;18(3):9-24.
- ²⁶ Hoek J, Gifford H, Pirikahu G, Thomson G, Edwards R. How do tobacco retail displays affect cessation attempts? Findings from a qualitative study. *Tobacco Control* 2010 Aug, 19(4):334-337.
- ²⁷ Institute of Medicine. *Ending the Tobacco Problem: A Blueprint for the Nation*. Washington, DC: National Academies Press, 2007.
- ²⁸ Li L, Borland R, Yong H, Hitchman SC, Wakefield MA, Kasza KA, et al. The association between exposure to the point-of-sale anti-smoking warnings and smokers' interest in quitting and quit attempts: Findings from the International Tobacco Control Four Country Survey. *Addiction* 2012 Feb;107(2):425-433.
- ²⁹ Bader P, Boisclair D, Ferrence R. Effects of tobacco taxation and pricing on smoking behavior in high risk populations: A knowledge synthesis. *International Journal of Environmental Research and Public Health* 2011 Nov;8(11):4118-4139.
- ³⁰ Chaloupka FJ, Cummings KM, Morley CP, Horan JK. Tax, price and cigarette smoking: Evidence from the tobacco documents and implications for tobacco company strategies. *Tobacco Control* 2002 Mar;11 (Suppl 1):i62-i72.
- ³¹ Chaloupka FJ, Grossman M. Price, tobacco control policies and smoking among young adults. *Journal of Health Economics* 1997 Jun;16(3):359-373.
- ³² Gruber J, Sen A, Stabile M. Estimating price elasticities when there is smuggling: The sensitivity of smoking to price in Canada. *Journal of Health Economics* 2003 Sep;22(5):821-842.
- ³³ International Agency for Research on Cancer. *Effectiveness of Tax and Price Policies for Tobacco Control*. IARC Handbooks of Cancer Prevention, Volume 14. Lyon, FR: IARC, 2011.
- ³⁴ Cavazos-Rehg PA, Krauss MJ, Spitznagel EL, Chaloupka FJ, Luke DA, Waterman B., et al. Differential effects of cigarette price changes on adult smoking behaviours. *Tobacco Control* 2014 Mar;23(2):113-118.
- ³⁵ Chaloupka FJ, Pacula RL. The impact of price on youth tobacco use. In: National Cancer Institute. *Changing Adolescent Smoking Prevalence*. Smoking and Tobacco Control Monograph No. 14. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute, 2001:pp.193-199.
- ³⁶ Tauras JA. Public policy and smoking cessation among young adults in the United States. *Health Policy* 2004;68(3):321-332.

- ³⁷ United States. Dept. of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2000.
- ³⁸ Cohen JE, Anglin L. Outlet density: A new frontier for tobacco control. *Addiction* 2009 Jan;104(1):2-3.
- ³⁹ Ontario Ministry of Health and Long Term Care. *Tobacco Inspection System*. Toronto, ON: Ontario Ministry of Health and Long Term Care, 2015.
- ⁴⁰ Leave the Pack Behind. *Leave the Pack Behind Final Report: April 1st, 2014 – March 31st, 2015, Program and Cessation Pillar Indicators*. St. Catharines, ON: Brock University.
- ⁴¹ North American Quitline Consortium (NAQC). *Measuring Quit Rates. Quality Improvement Initiative*. NAQC Issue Paper. Phoenix, AZ: NAQC, 2009. Accessed on January 13, 2016.
- ⁴² Zawertailo L, Dragonetti R, Bondy SJ, Victor JC, Selby P. Reach and effectiveness of mailed nicotine replacement therapy for smokers: six-month outcomes in a naturalistic exploratory study. *Tobacco Control* 2013 May;22(3):e4.
- ⁴³ Ontario. Ministry of Health Promotion. *Comprehensive Tobacco Control: Guidance Document*. Ottawa: Queen's Printer for Ontario, May 2010. Accessed on January 5, 2016.
- ⁴⁴ Canadian Cancer Society. *Smokers' Helpline Annual Report, April 1, 2014 – March 31, 2015*.
- ⁴⁵ Rudie M, Bailey L. *Results from the 2013 NAQC Annual Survey of Quitlines*. Phoenix, AZ: North American Quitline Consortium (NAQC), February 2015. Accessed on January 13, 2016.
- ⁴⁶ Canadian Cancer Society. *Smokers' Helpline Annual Report, April 1, 2012 – March 31, 2013*.
- ⁴⁷ University of Ottawa Heart Institute. *Ottawa Model for Smoking Cessation in Ontario Hospitals and Specialty Care Settings: 2014-2015 Annual Report*.
- ⁴⁸ University of Ottawa Heart Institute. *Ottawa Model for Smoking Cessation in Primary Care: 2014-15 Annual Report*.
- ⁴⁹ Ontario. Ministry of Health and Long-Term Care. *Ontario Public Drug Programs* [Unpublished data], December 21, 2015.
- ⁵⁰ Wong L, Burden AM, Liu YY, Tadrous M, Pojskic N, Dolovich L, et al. Initial uptake of the Ontario Pharmacy Smoking Cessation Program: Descriptive analysis over 2 years. *Canadian Pharmacy Journal* 2015 Jan;148(1):29-40.
- ⁵¹ Travis H, Lawrance K. A randomized controlled trial examining the effectiveness of a tailored self-help smoking cessation intervention for post-secondary smokers. *Journal of American College Health* 2009 Jan-Feb;57(4):437- 443.
- ⁵² Ontario. Ministry of Health and Long-Term Care. *News Release: Ontario Helping More Smokers Quit*. January 23, 2013. Accessed January 8, 2016.
- ⁵³ Kaufman P, Borland T, Luk R, Taylor E, Lambraki I, Bondy S, Schwartz R. *Workplace-Based Cessation Demonstration Projects Evaluation-Final Report*. Toronto, ON: OTRU, June 2015.
- ⁵⁴ Taylor L, Lawrance K. *Outcome Evaluation of a Campus-Based Quit and Win Contest*. (Master's Thesis). St. Catharines, ON: Brock University, 2013.
- ⁵⁵ Taylor L, Lawrance K, Kirkwood A. *Quit and Win Contests – Is Quitting the Only Option?* Poster presentation at the Society for Research on Nicotine and Tobacco Conference. Boston, MA: March 2013.
- ⁵⁶ Hughes JR, Keely J, Naud S. Shape of the relapse curve and long-term abstinence among untreated smokers. *Addiction* 2004 Jan;99(1):29-38.

⁵⁷ World Health Organization. *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*. Geneva, SZ: WHO, 2008.

⁵⁸ Non-smokers' Rights Association and Ontario Campaign for Action on Tobacco, as cited in: Ontario Tobacco Research Unit. *Indicators of OTS Progress*. [Special Reports: Monitoring and Evaluation Series, 2003-2004 (Vol. 10, No. 3)]. Toronto, ON: Ontario Tobacco Research Unit. 2004.

⁵⁹ Durkin S, Brennan E, Wakefield M. Mass media campaigns to promote smoking cessation among adults: An integrative review. *Tobacco Control* 2012 Mar;21(2):127-138.



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Smoke-Free Ontario Strategy Monitoring Report:

Protection



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Protection: Smoke-Free Ontario Strategy Components

An important goal of tobacco control is to protect the population from exposure to secondhand smoke. Desired outcomes include eliminating nonsmokers' exposure to secondhand smoke in public places, workplaces, vehicles in which children are present and in the home. In Ontario, the protection component of the Smoke-Free Ontario (SFO) Strategy is the main avenue by which progress toward these desired outcomes is expected to be achieved (Figure 5-1). A secondary desired outcome of the protection goal is to reduce nonsmokers' social exposure to tobacco use (visual and sensory cues associated with the use of tobacco products).¹

In this chapter, we provide a brief overview of the protection component of the Strategy including infrastructure and intervention components. We follow with an examination of key outcome indicators measuring progress toward protection objectives.

Protection Infrastructure

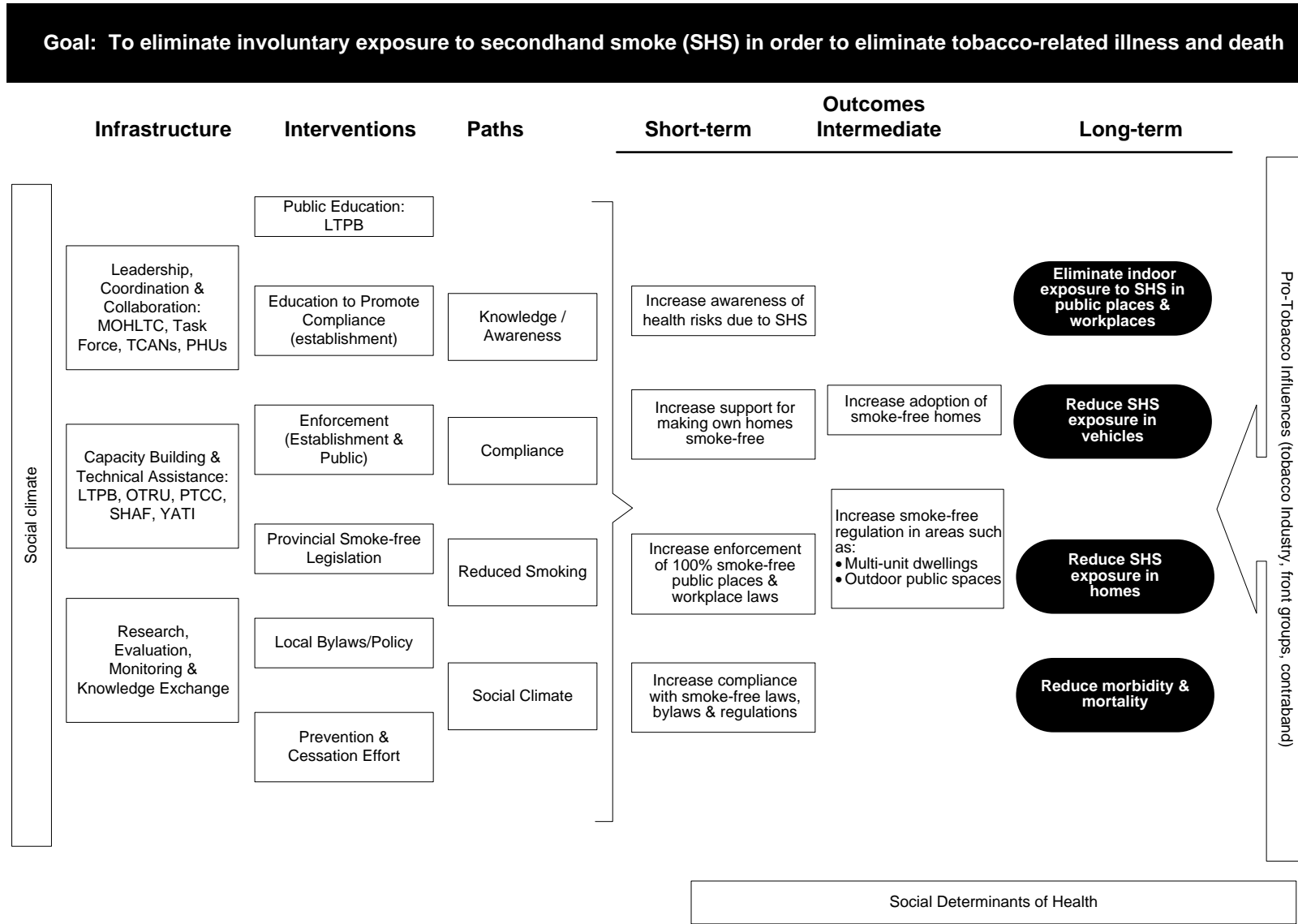
Public Health Units (PHUs) and Tobacco Control Area Networks (TCANs)

TCANs have a mandate to provide leadership, coordination and collaborative opportunities centered on protection (as well as other Strategy goals). PHU and TCAN staff are actively involved in the Protection Task Force, communities of practice and committees to represent the local level in the planning of protection policy and interventions. Please refer to the Interventions Section for information about local PHU initiatives.

Ontario Tobacco Research Unit (OTRU)

In 2014/15, OTRU continued to monitor key protection indicators such as outdoor smoking and secondhand smoke exposure in multi-unit dwellings (MUDs).² In addition, OTRU provided rapid scientific consulting to the Ministry of Health and Long-Term Care, Health Promotion Branch and SFO partners and responded to 70 knowledge and evaluation support requests from partners in 2014/15. Protection-focused knowledge and evaluation support requests included evaluations of Ontario's new outdoor smoke-free regulations, Toronto's amended smoke-free bylaws and Essex Region Conservation Area's smoke-free policy.^{3,4} OTRU's online course ([Tobacco and Public Health: From Theory to Practice](#)) is a further resource on protection that is available to public health personnel across the Province. In 2014/15, a total of 1,061 people enrolled in the protection module of the online course.

Figure 5-1: Protection Path Logic Model



Program Training and Consultation Centre (PTCC)

In 2014/15, a portion of PTCC's work centered on supporting protection initiatives of the Strategy. PTCC provided several training and capacity-building initiatives to support the development and implementation of protection initiatives in communities. This included a multi-day training course on the foundations of tobacco control enforcement, which is offered in collaboration with the Ministry of Health and Long-Term Care as it is a required training for any PHU employee enforcing the *Smoke-Free Ontario Act*. PTCC also offered conflict resolution training for tobacco enforcement officers and hospital security personnel and policy and by-law development training to support enhanced smoke-free spaces. PTCC continued to convene a provincial Community of Practice addressing outdoor smoke-free spaces and tobacco-free sports and recreation. PTCC Health Promotion Specialists and Media and Communications Specialists also provided consultations to local PHUs, TCANs and public health coalitions to support community education and policy development in the areas of smoke-free MUDs and e-cigarettes.

Program Reach: In 2014/15, the PTCC delivered 53 training events on all aspects of tobacco control with only some pertinent to protection, which reached over 1600 clients. Training events included 41 workshops and 12 webinars. PTCC's training programs were highly attended by staff of Ontario's 36 PHUs. Participants from Community Health Centres, the health care sector (e.g., hospitals), non-governmental organizations and government were also well represented. Tobacco control consultations were also delivered to 34 PHUs and all seven TCANs. A total of 213 public health practitioners and researchers were actively engaged across three provincial communities of practice.ⁱ

Smoking and Health Action Foundation (SHAF)

In 2014/15, SHAF supported developments in municipal legislation related to protection with an emphasis on policy analysis provisions to further develop tobacco control policies in the province (e.g., waterpipe use, e-cigarette use, MUDs). The online [Smoke-free Laws Database](#), which includes the identification of leading edge bylaws, received 24,775 visits in 2014/15. SHAF also maintained a comprehensive list of no-smoking policies implemented by all types of housing providers in Ontario. In collaboration with TCANs, SHAF developed a province-wide system to track the response to complaints and inquiries related to secondhand smoke exposure in MUDs.⁵

SHAF also contributed to building protection capacity in 2014/15. Three workshops and 73

ⁱ Steven Savvaidis, Personal Communication, December 10, 2015.

consultations were held on issues related to protection including smoke-free MUDs, smoke-free outdoor spaces and concerns about e-cigarettes and waterpipes. As the Chair of Smoke-Free Housing Ontario—a coalition of partners (PHUs, health agencies)—SHAF maintained and regularly updated the [Smoke-Free Housing Ontario](#) website, which had 55,350 visits in 2014/2015. In addition, SHAF responded to 176 Ontario-specific inquiries from the general public regarding secondhand smoke in MUDs, in workplaces and other public places.

Youth Advocacy Training Institute (YATI)

The Ontario Lung Association’s YATI provides training to youth and adults—including skill-building, resources and tools—to empower these groups to positively affect change in their communities by promoting tobacco-free and healthy lifestyles. In 2014/15, YATI training sessions included information on policy development, advocacy and creating effective health promotion campaigns, all of which could be applied to smoke-free initiatives. In total, 38 general trainings and 35 partnership trainings were conducted in 2014/15 reaching 1,297 youth and 455 adults.⁶

Protection Interventions

Protection Interventions Contributing to Knowledge/Awareness and Compliance Paths

Smoke-Free Ontario Act (SFOA)

Much of the activity in protection is centered on the *Smoke-Free Ontario Act*, 2006 (the *Act*), a key piece of legislation in the Province’s protection strategy.

On May 31, 2006, the smoke-free provisions of the *Act* came into force, prohibiting smokingⁱⁱ in workplaces and enclosed public places such as restaurants, bars, casinos and common areas of MUDs. The *Act* bans indoor designated smoking rooms and designated smoking areas with some exceptions.

Before the *Act* came into force, nine out of ten Ontarians were covered by local smoke-free restaurant and bar bylaws (91% and 87%, respectively).⁷ However, more than half of these bylaws (54%) allowed for designated smoking rooms.

The SFOA permits smoking exceptions for residents of residential-care, psychiatric and veterans’

ⁱⁱ Regulations extend to the smoking of tobacco in waterpipes.

facilities where controlled smoking rooms are established. Smoking is banned within nine metres of a hospital entrance or exit. The *Act* entitles home healthcare workers to request no smoking in clients' homes while providing healthcare.

In an amendment to the *Act*, Ontario banned smoking in vehicles with children under the age of 16 effective January 21, 2009, with a fine of \$125 for each offence.

Additional regulations banning smoking on all restaurant and bar patios, within 20 metres of playgrounds and within 20 metres of publically-owned sports fields and surfaces (e.g., areas for basketball, baseball, soccer or beach volleyball, ice rinks, tennis courts, etc.) went into effect January 1, 2015.⁸ The new smoking prohibitions replaced the patchwork of municipal-level patio, playground and recreation field policies across the Province. Before the new outdoor regulations came into force, two-thirds of Ontarians were covered by local smoke-free playground, sports and recreational field bylaws (67% each) and 10% of Ontarians were covered by a complete smoke-free restaurant and bar patio local bylaw.ⁱⁱⁱ

In May 2015, new regulations were passed in Ontario that ban smoking on the outdoor grounds of all hospitals and psychiatric facilities and within nine metres of independent health facility and long-term care home entranceways effective January 1, 2016.⁹

SFOA Enforcement

The Ministry's Protocol for Smoke-Free Inspection for Enclosed Workplaces and Public Places applies a continuum of progressive enforcement actions—starting with education and progressing from warnings to increasingly more serious charges to match the nature and frequency of contraventions under the *Act*.¹⁰

The Province's 36 PHUs actively enforce the smoke-free provisions of the *Act* through complaint-driven inspections of enclosed workplaces and public places and outdoor public places. In 2014, enforcement staff conducted 12,790 enclosed workplace and public place inspections across the Province. Eighty-six percent of premises were found to be in compliance with the *Act* at the time of inspection (Tobacco Inspection System, 2015).¹¹

ⁱⁱⁱ Municipalities with playground, sports and recreational field and restaurant/bar patio bylaws were identified through the Non-Smoker's Rights Association Smoke-Free Laws Database. Population estimates for the identified municipalities were obtained from Statistics Canada 2011 Census Profiles. The proportion of the Ontario population covered by a pre-existing local bylaw was calculated by dividing the total municipal population estimates by the 2011 Ontario population.

Electronic Cigarettes Act

In May 2015, Ontario passed the *Electronic Cigarettes Act* (ECA) that extends the current tobacco smoking prohibitions in the *Smoke-Free Ontario Act* to e-cigarette use. The use of an e-cigarette will be prohibited in enclosed public places, enclosed workplaces, in vehicles with children under the age of 16 present, and on restaurant and bar patios, children's playground, sporting surfaces and outdoor hospital grounds at an unspecified date in the near future.^{12,13}

Local Policy Initiatives

The Province's 36 PHUs play a pivotal role in efforts to reduce the population's exposure to secondhand smoke. These efforts include:

- Educating the public, workers, workplaces and retail establishments about the dangers of secondhand smoke
- Enforcing smoke-free provisions of existing legislation
- Promoting more comprehensive protection

Local jurisdictions have the ability to extend protection beyond provincial legislation to other settings and the use of other forms of tobacco, including:

- Beaches
- Transit shelters
- Outdoor events
- Buffer zones around doorways and windows
- Trails
- Multi-unit dwellings (MUDs)
- Waterpipes

As of November 2015, 57 jurisdictions had strengthened smoke-free municipal bylaws beyond settings and tobacco products covered by the SFOA or ECA (See Table B-1 in Appendix B for a list of jurisdictions).

Regarding waterpipes, establishments are in contravention of the SFOA if tobacco is used in the waterpipe, otherwise use is permitted (for instance, with flavoured herbal shisha). Determining what is being smoked in waterpipes can be difficult and may require testing. In a recent study conducted in Toronto, air quality levels hazardous to human health were observed in indoor waterpipe venues regardless of whether tobacco or other non-tobacco shisha was being smoked.¹⁴

Fourteen jurisdictions have stepped up implementation and enforcement of regulations related to indoor and outdoor waterpipe use. Settings where waterpipe use is prohibited varies by jurisdiction, including:

- Enclosed workplaces and public places (Peterborough, Orillia, Barrie, Bradford West Gwillimbury, Chatham-Kent)
- Nine metres from doorways to public buildings (Englehart, Orillia, Niagara Region, Chatham-Kent, Town of Lasalle, Tecumseh)
- Municipally-owned property (Ottawa, Peterborough, Mississauga, Chatham-Kent, Town of Essex)
- Outdoor recreation fields (Hamilton, Ottawa, Orillia, Niagara Region, Chatham-Kent, Town of Lasalle, Tecumseh)
- Parks (Hamilton, Ottawa, Peterborough, Niagara Region, Chatham-Kent, Town of Lasalle, Tecumseh)
- Playgrounds (Hamilton, Ottawa, Orillia, Niagara Region, Chatham-Kent);
- Licensed premises (Toronto)
- Licensed outdoor patios (Peterborough, Toronto)
- Transit stops (Niagara Region, Chatham-Kent, Tecumseh)

All of the listed jurisdictions ban the use of waterpipes containing tobacco. However, the majority of the municipalities have further extended the waterpipe ban to include waterpipes containing any non-tobacco/nicotine substance (Orillia, Ottawa, Peterborough, Barrie, Bradford West Gwillimbury, Toronto, Chatham-Kent, Town of Essex, Town of Lasalle and Tecumseh).^{15,16}

Other Local Interventions

Multi-Unit Dwellings (MUDs)

Some health units have focused attention on the issue of smoke-free MUDs. As of December 2015, 205 MUDs or non-profit housing corporations across 89 municipalities in Ontario had adopted or were in the process of adopting a 100% smoke-free policy.¹⁷

Post-Secondary Campus Policies

In 2014/15, Leave The Pack Behind (LTPB) worked with campuses to improve policy strength and enforcement centred on protection goals. The aim of this initiative, based on empirical evidence and past experience, is to achieve more obvious and consistent enforcement of smoking

restrictions and bans through actions such as:

- Educating all students on tobacco policies
- Encouraging self- and peer-to-peer regulation
- Disseminating enforcement cards to smokers who fail to observe smoking restrictions¹⁸
- Establishing concrete, actionable approaches for policy enforcement by appropriate campus personnel¹⁹

All campuses engaged in some aspect of these actions, with advocacy work on five campuses directed toward stronger smoking restrictions.

LTPB's 2014/15 annual environmental scan of Ontario's 44 public universities and colleges revealed that all institutions banned smoking indoors (including residences) and about half restrict smoking to specific outdoor designated areas positioned at least nine metres away from a building entrance.²⁰ However, it appears that very few institutions formally address policy enforcement practices. LTPB protection activities conducted in 2014/15 included trainings with eight lead students at six post-secondary institutions to support policy advocacy work on campus with the goal of encouraging the institutions to adopt a 100% tobacco-free policy. Currently there are no post-secondary schools in Ontario that completely ban smoking indoors and outdoors on campus.

Prevention and Cessation Interventions Contributing to Protection

Progress toward Strategy prevention and cessation goals is expected to result in fewer smokers in the Province.^{21,22,23,24} Reduced smoking can result in less exposure to secondhand smoke for nonsmokers and less social exposure to smoking. The Prevention and Cessation chapters of this report detail interventions and outcomes related to these Strategy goals.

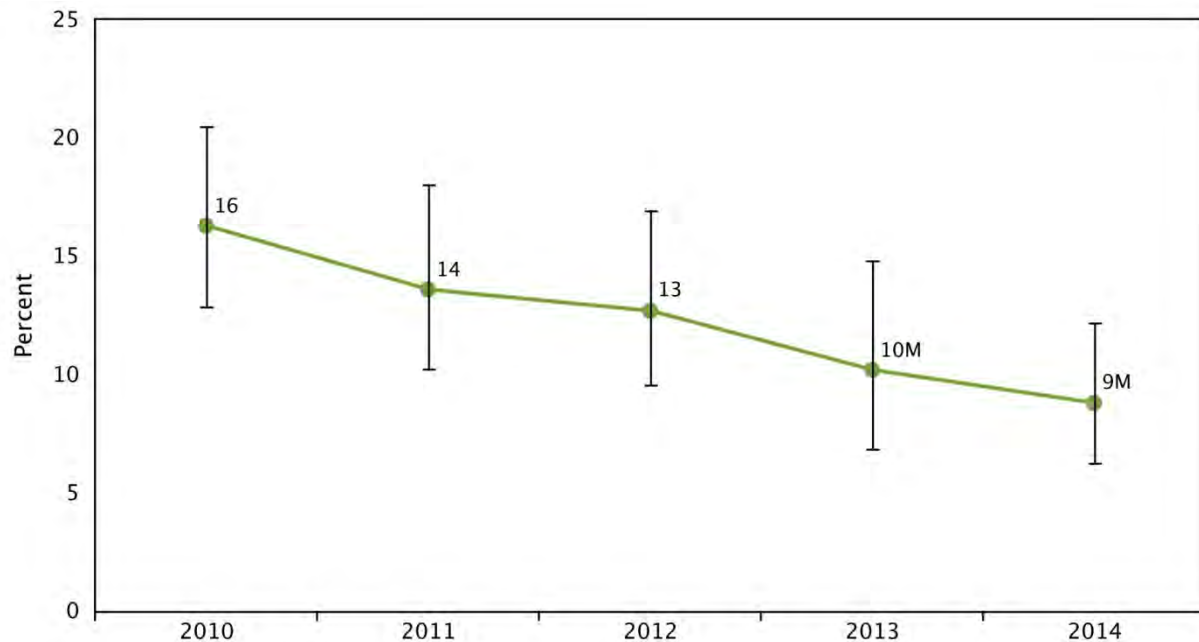
Protection Outcomes: Population Level

Workplace Exposure

The Strategy aims to eliminate indoor exposure to secondhand smoke. Smoking in enclosed workplaces has been banned since May 1, 2006.

- In 2014, 9% (or 544,000) of adult workers (aged 18 years or older) were exposed to secondhand smoke indoors at work or inside a work vehicle for five or more minutes in the past week (CAMH Monitor data), which is unchanged from 2013 (10%) but is a significant decrease in exposure compared to 2010 (16%; Figure 5-2).

Figure 5-2: Workplace Exposure (Past Week) Indoors or Inside a Work Vehicle, Ages 18+, Ontario, 2010 to 2014



Note: Vertical lines represent 95% confidence intervals.

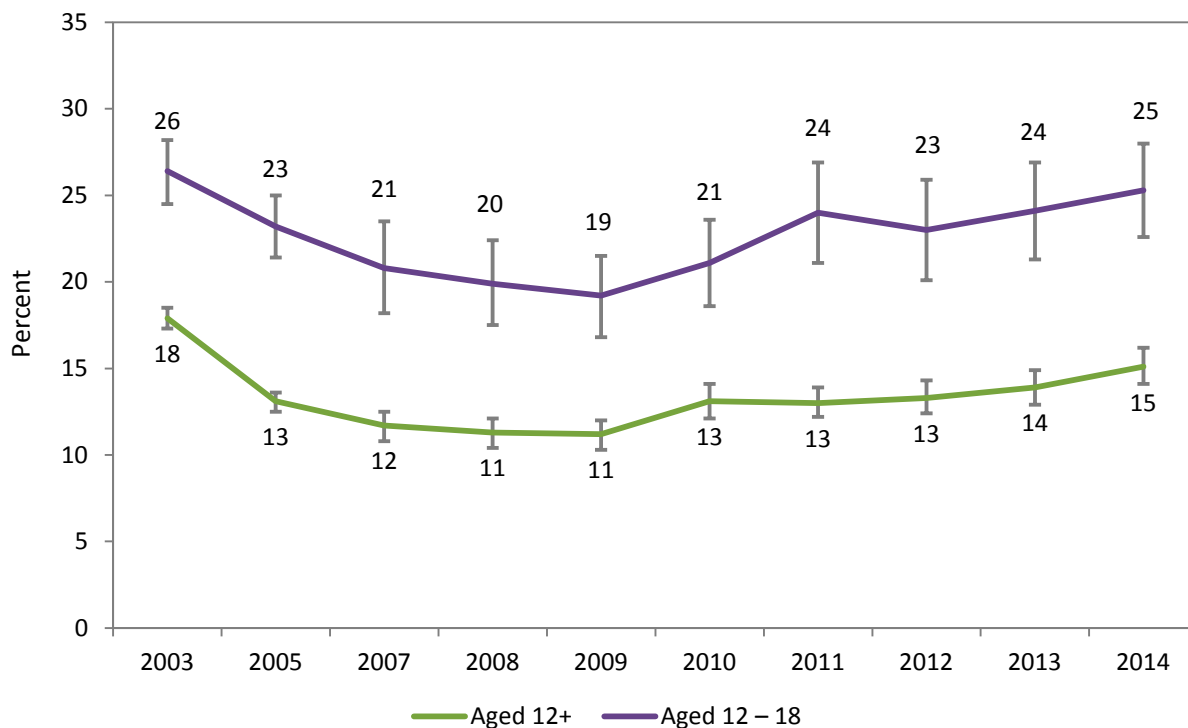
Source: Centre for Addiction and Mental Health Monitor (Full Year) 2010–2014. Follow the TIMS link [TIMS](#) for live results on this indicator and more.

Exposure in Public Places

The Strategy also aims to eliminate secondhand smoke exposure in enclosed public places and increase smoke-free regulation in outdoor public places. Smoking in enclosed public places has been banned since May 1, 2006. New SFOA outdoor regulations banning smoking on restaurant and bar patios, within 20 metres of publically-owned outdoor playgrounds, sports fields and surfaces came into effect January 1, 2015.

- In 2014, 15% (or 1,442,000) of Ontarians aged 12 years and over were exposed to secondhand smoke every day or almost every day in public places (e.g., restaurants, bars, shopping malls and arenas) over the past month, which is similar to the level of exposure reported in 2013 (14%). The 2014 estimate represents a slight increase compared to the level of exposure reported in 2010 (13%; Figure 5-3; CCHS data).
- Among young nonsmokers aged 12 to 18, 25% (or 237,800) were exposed to secondhand smoke in public places in 2014, similar to what was reported both in 2013 (24%) and in 2010 (23%; Figure 5-3).
- Exposure among 12 to 18 year olds was significantly higher in 2014 compared to all Ontarians aged 12 years and older (25% vs. 15%).
- In 2013/14, exposure to secondhand smoke in public places among nonsmoking Ontarians aged 12 years and over ranged across the Province from a low of 8% in Chatham-Kent Health Unit to a high of 19% in Peel Regional Health Unit (See Appendix C, Table C-1).

Figure 5-3: Nonsmokers’ Exposure to Secondhand Smoke in Public Places^a (Every Day or Almost Every Day), by Age, Ontario, 2003 to 2014

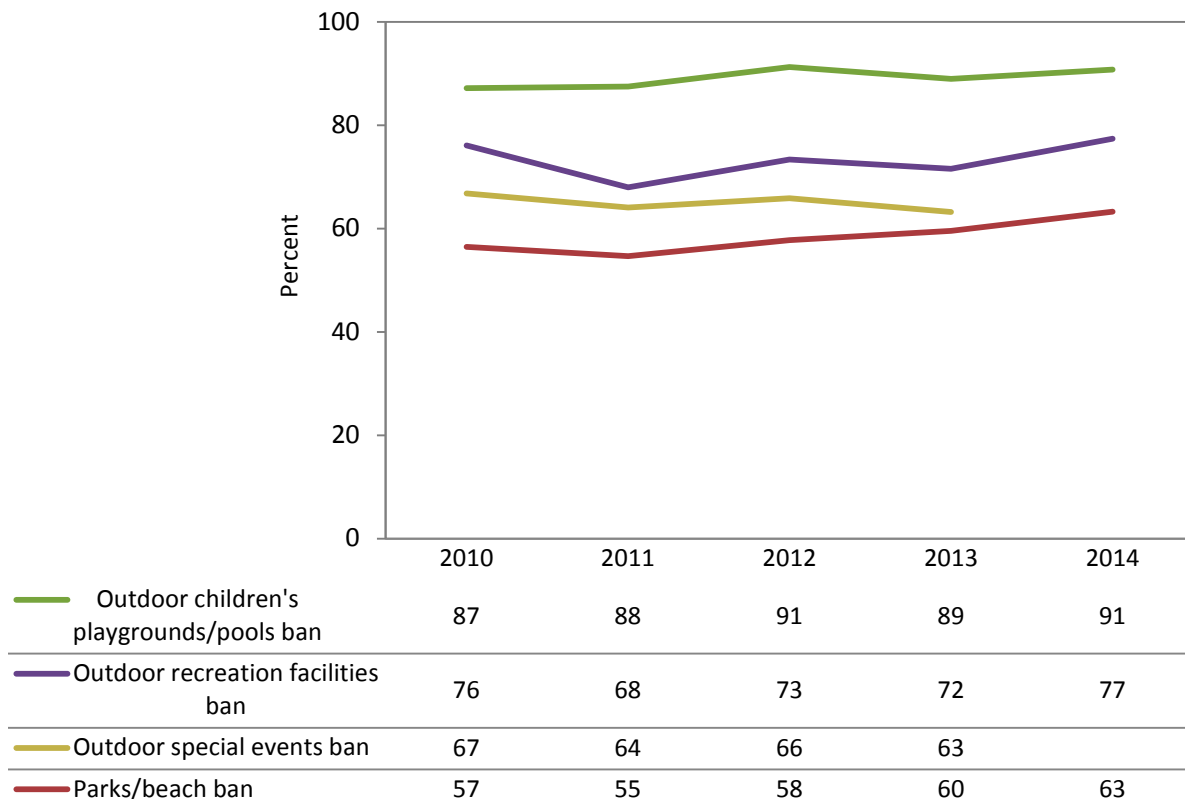


^a = Exposure to secondhand smoke in public places, such as restaurants, bars, shopping malls, arenas, bingo halls and bowling alleys.
 Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not uniform—interpret with caution.
 Source: Canadian Community Health Survey 2003, 2005, 2007-2014.

Public Opinion about Smoking in Outdoor Public Places

- Among the general population, support for smoking bans in public parks and on beaches, at outdoor special events, at outdoor recreational facilities and outdoor playgrounds has remained unchanged since 2010 (Figure 5-4; CAMH Monitor data).
- In 2014, current smokers were significantly less likely to agree that smoking should be banned in public parks and on beaches (28%) or near outdoor recreation facilities (such as sports fields, stadiums and entrances to arenas, 45%) compared to former smokers (57% and 78%, respectively) and never-smokers (74% and 84%, respectively; data not shown).
- Support for banning smoking at outdoor children's playgrounds and wading pools is high at 91% among all respondents (Figure 5-4). Support is similar among never smokers (93%), former smokers (90%) and current smokers in 2014 (86%; data not shown).

Figure 5-4: Agreement that Smoking Should be Banned in Playgrounds, Recreation Facilities, Outdoor Special Events and Parks, Ages 18+, Ontario, 2010 to 2014

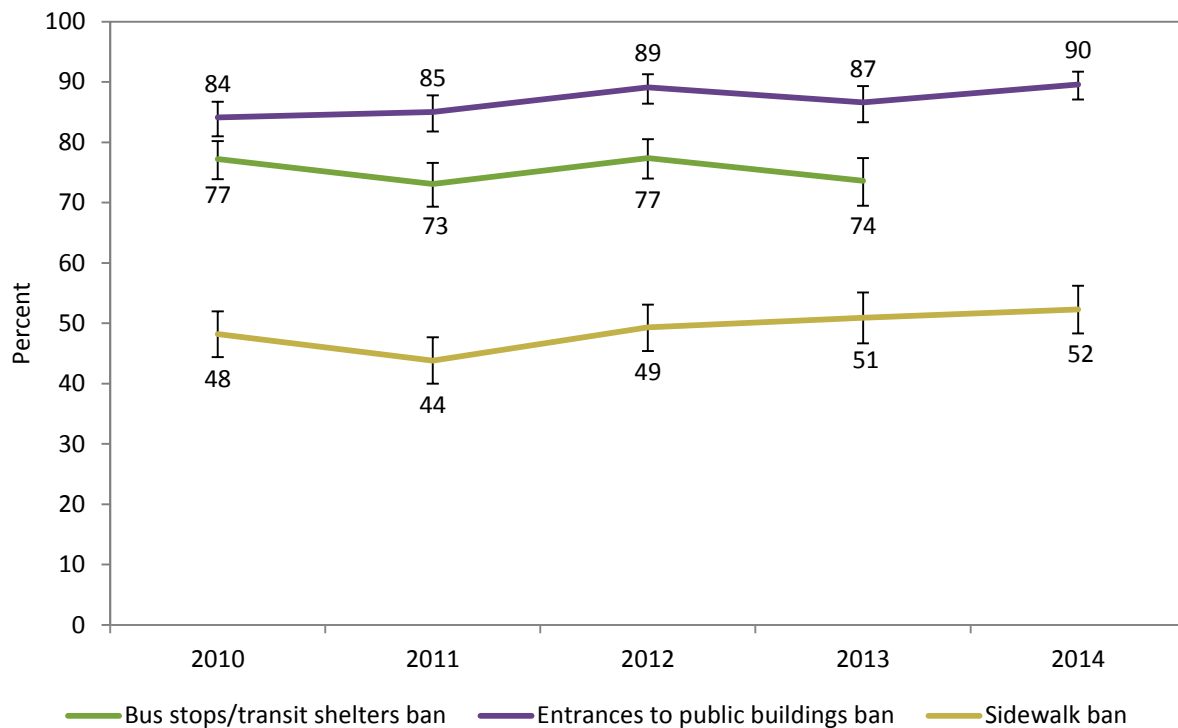


Note: Public opinions related to smoking bans at outdoor special events were not collected in 2014.

Source: Centre for Addiction and Mental Health Monitor (Full Year) 2010–2014.

- Public support for smoking bans on public sidewalks, bus stops/transit shelters and entrances to public buildings has also remained unchanged since 2010 (Figure 5-5; CAMH Monitor data).
- In 2014, current smokers were significantly less likely to agree that smoking should be banned on public sidewalks (15%) or in entrances to public buildings (76%) compared to former smokers (49% and 89%, respectively) or never-smokers (62% and 93%, respectively; data not shown).

Figure 5-5: Agreement that Smoking should be Banned on Sidewalks, Entrances and Bus Stops, Ages 18+, Ontario, 2010 to 2014



Note: Vertical lines represent 95% confidence intervals; Public opinions related to smoking bans at bus stops and transit shelters were not collected in 2014.

Source: Centre for Addiction and Mental Health Monitor (Full Year) 2010 – 2014.

Public Opinion about Smoking on Restaurant and Bar Patio

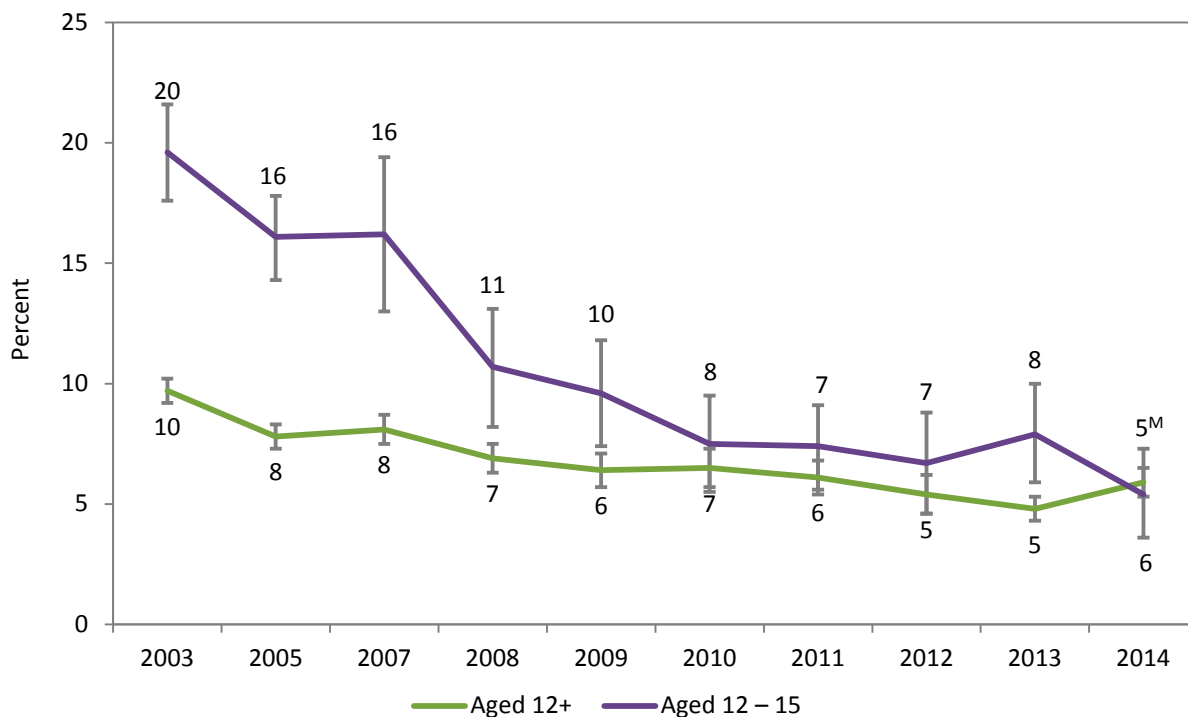
- In 2014, 67% of Ontario adults (including 78% of never-smokers) agreed that smoking should be banned on outdoor patios of restaurants and bars. This is unchanged from 2013 levels (62%) but significantly higher than in 2010 (57%; CAMH Monitor data, data not shown). Ontario’s regulation banning smoking on patios was not yet in effect when these data were collected.

Exposure in Vehicles

The Strategy aims to reduce secondhand smoke exposure in vehicles, with particular emphasis on protecting children and youth. Since January 2009, smoking in vehicles with children under the age of 16 has been banned.

- Among nonsmoking Ontarians aged 12 years and over, exposure to secondhand smoke every day or almost every day in vehicles over the past month was significantly higher in 2014 (6% or 561,700 Ontarians) than in 2013 (5%; Figure 5-6; CCHS data).
- In 2014, exposure to secondhand smoke in vehicles among young nonsmokers aged 12 to 15 was 5% (or 32,600 Ontarians), unchanged from 2013 (8%) and five years earlier in 2010 (8%; Figure 5-6).
- Exposure among youth 12 to 15 years old was similar to all Ontarians aged 12 years and older in 2014 (5% vs. 6%).
- In 2013/14, exposure to secondhand smoke in private vehicles among nonsmoking Ontarians aged 12 years and over ranged across the Province from a low of 4% in Elgin-St. Thomas Health Unit to a high of 14% in Huron County Health Unit (See Appendix C, Table C-2).

Figure 5-6: Nonsmokers' Exposure to Secondhand Smoke in Vehicles (Every Day or Almost Every Day), by Age, Ontario, 2003 to 2014



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not uniform—interpret with caution.

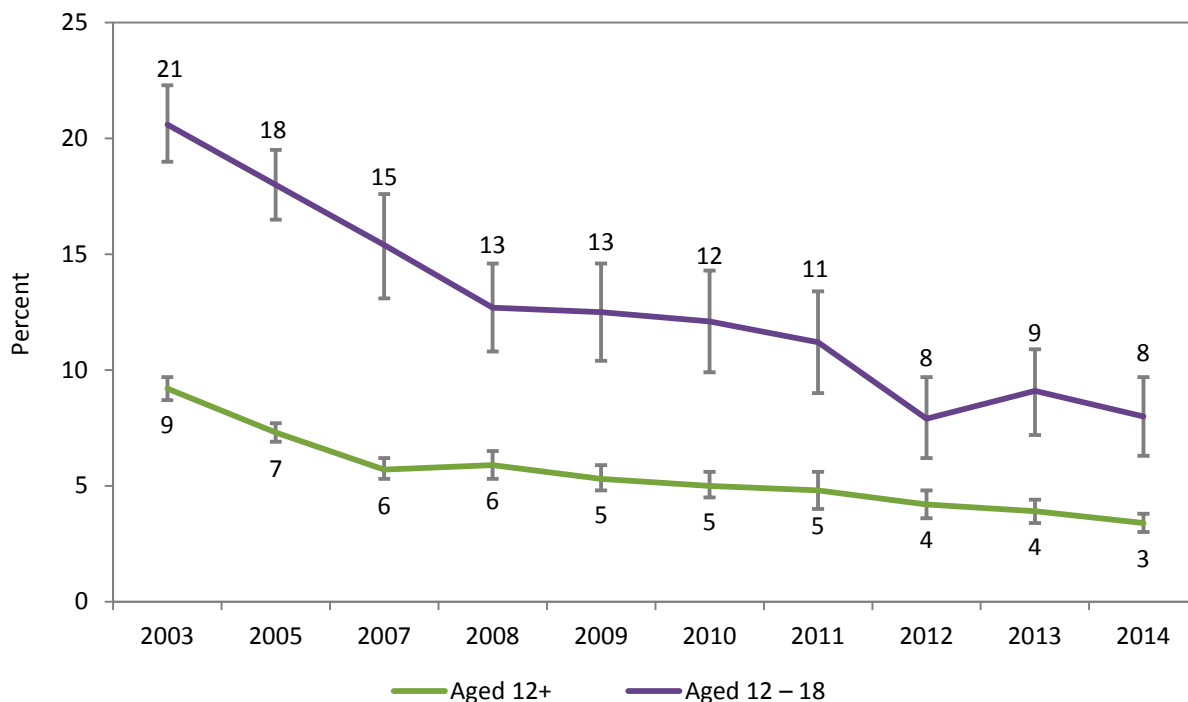
Source: Canadian Community Health Survey 2003, 2005, 2007-2014.

Household Exposure

One general objective of tobacco control is to increase the adoption of voluntary policies to make homes smoke-free.

- In 2014, 3% (or 322,500) of nonsmoking Ontarians aged 12 years and older were exposed to secondhand smoke in their home every day or almost every day, which is unchanged from 2013 (4%). However this represents a significant decrease in level of exposure compared to 2010 (5%; Figure 5-7; CCHS data).
- Among 12 to 18 year old nonsmokers, 8% (or 86,900 Ontarians) were exposed to secondhand smoke in their home in 2014, which is more than double the exposure reported by all respondents aged 12 and over (3%). Respondents aged 12 to 18 had a similar level of exposure in 2013 (9%), but the 2014 level of exposure was significantly lower compared to levels reported in 2010 (12%).
- In 2013/14, exposure to secondhand smoke in the home among nonsmoking Ontarians aged 12 years and over ranged from a low of 2% in Halton Regional Health Department to a high of 9% in Huron County Health Unit (Appendix C, Table C-3).

Figure 5-7: Nonsmokers' Exposure to Secondhand Smoke at Home (Every Day or Almost Every Day), by Age, Ontario, 2003 to 2014



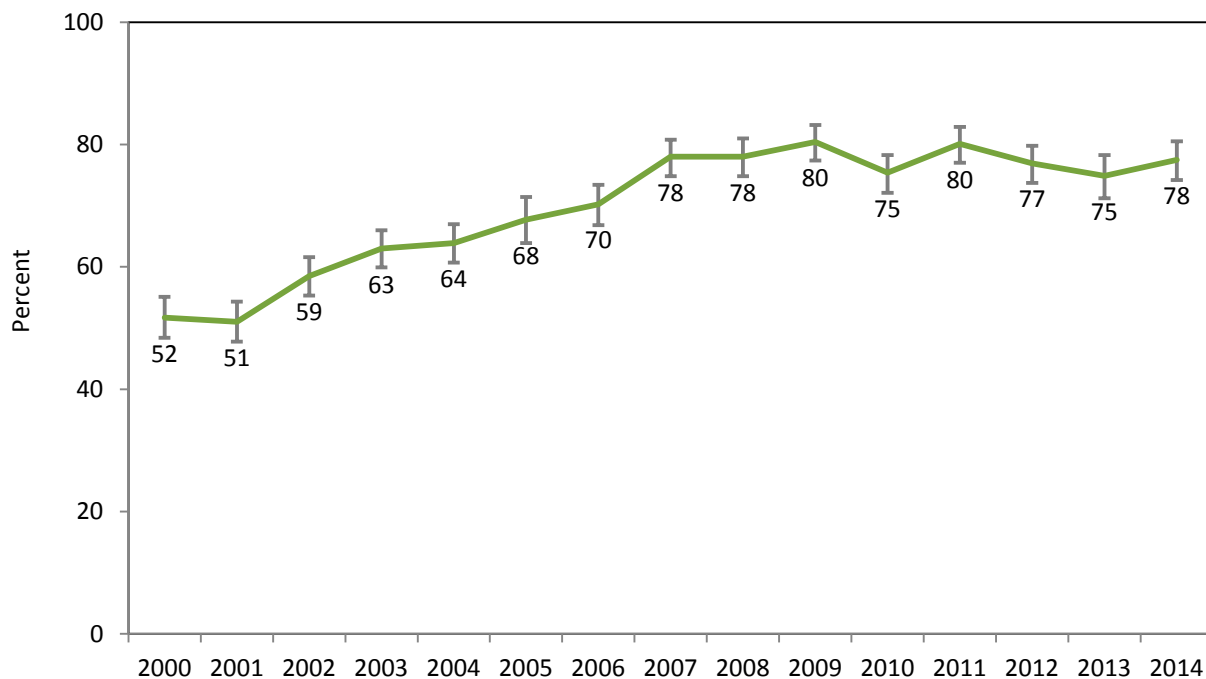
Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not uniform—interpret with caution.

Source: Canadian Community Health Survey 2003, 2005, 2007-2014.

Public Opinion about Smoking in Homes

- In 2014, three-quarters of respondents (78%) agreed that there should be a law that parents cannot smoke inside their home if children are living there. This rate has held steady since 2007 and is significantly higher than the level of agreement reported in 2006 (70%) and earlier (Figure 5-8; CAMH Monitor data).

Figure 5-8: Agreement That There Should Be a Law that Parents Cannot Smoke Inside their Home if Children are Living There, Ages 18+, Ontario, 2000 to 2014



Note: Vertical lines represent 95% confidence intervals.

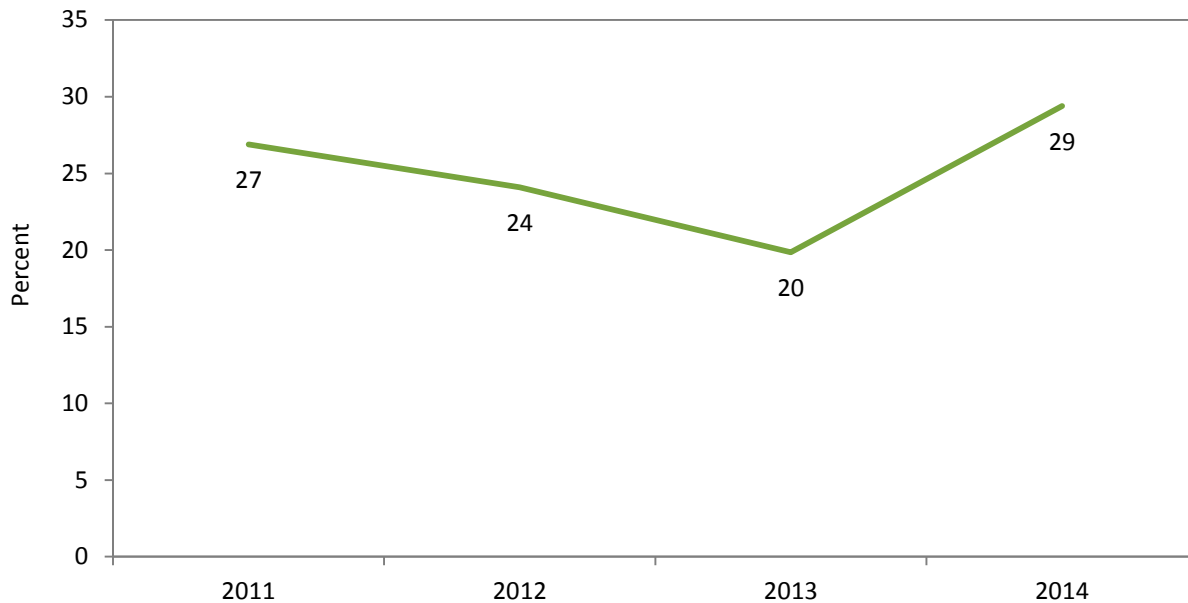
Source: Centre for Addiction and Mental Health Monitor 2000–2009 (half year sample); 2010 – 2013 (full year sample).

Exposure in Multi-Unit Dwellings

One general objective of tobacco control is to increase smoke-free regulation in MUDs.

- In 2014, 29% of Ontario adults living in MUDs (or 689,500) were exposed to secondhand smoke drifting between units at least once in the past month (Figure 5-9; CAMH Monitor data).

Figure 5-9: Exposure to Secondhand Smoke in Multi-Unit Dwellings (Past Month), 18+, Ontario, 2011 to 2014



Source: Centre for Addiction and Mental Health Monitor (Full Year) 2011 – 2014.

Public Opinion about Smoking in Multi-Unit Dwellings

- Nine out of ten adults in Ontario (89%) believed that smoking should not be allowed inside MUDs including apartment buildings, rooming houses and retirement homes with shared ventilation in 2014. The level of support has increased significantly since 2005 (89% vs. 73%, respectively; CAMH Monitor data, data not shown).

Risk Perception about Secondhand and Thirdhand Smoke

In 2014, 88% of adults in Ontario believed that exposure to secondhand smoke posed a moderate or great risk of physical or other harm. More than half of adults in Ontario (55%) believed thirdhand smoke posed a moderate or great risk to harming themselves physically or in other ways (CAMH Monitor data, data not shown).

MPOWER Comparison with Ontario: Protection

Three MPOWER indicators²⁵ relate to Protection: Monitoring, Smoke-Free Policies and Smoke-Free Policy Enforcement (Table 5-1).

Table 5-1: Assessing Protection: MPOWER Indicators Applied to Ontario

MPOWER Indicator	Highest MPOWER Requirement	Situation in Ontario
Monitoring	Recent, representative and periodic data for both adults and youth)	Meets the requirement for the highest score
Smoke-free policies	All public places completely smoke-free	Meets the requirement for the highest score
Smoke-free policy compliance	Complete compliance by experts' assessments	Meets the requirement for the highest score

Scientific Advisory Committee: Overview of Protection Goals and Recommendations

The SAC goal for Protection is: “To protect Ontarians from all physical and social exposure to tobacco products.” The SAC report includes several recommendations to achieve this protection goal including action on smoke-free policies, media and social marketing, social action, smoke-free compliance and enforcement, learning system and professional development (Table 5-2). Progress has been made in many of these areas, but work remains to address several shortcomings (e.g., MUDs) and to increase intensity of interventions (e.g., media and social marketing interventions and professional development activities that facilitate the protection of nonsmokers, especially children and pregnant women).

Table 5-2: Scientific Advisory Committee Recommendation for Protection from Tobacco Smoke and Social Exposure to Tobacco Use

Goal: To protect Ontarians from all physical and social exposure to tobacco products	
Recommendations	Current Status
Smoke-free Policies	
[6.1] Amend the <i>Smoke-Free Ontario Act</i> and Regulation to eliminate smoking of tobacco products and combustible water-pipe preparations in priority settings including: [a] Unenclosed restaurant and bar patios (including nine metres from the perimeter of the patio). [b] Not-for-profit MUDs. [c] Selected outdoor public places such as doorways to public and commercial buildings (within nine metres), transit shelters, provincially regulated parks and	Comprehensive legislation on protection exists; including new regulations that prohibit smoking on bar and restaurant patios, playgrounds, public sports fields and surfaces and outdoor grounds of hospitals. New legislation will also prohibit the use of e-cigarettes in certain places where the smoking of tobacco is prohibited.

playgrounds, outdoor sports facilities, beaches, sidewalks and public events such as parades and outdoor entertainment venues. [d] Hotels, motels, inns and bed and breakfasts. [e] Vehicles that carry nonsmokers at any time.	Other recommended priority settings not addressed. No action on protection from combustible waterpipe preparations was announced.
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Media and Social Marketing

[6.2] As part of a comprehensive tobacco control program, implement media and social marketing strategies that increase public awareness and knowledge of the health effects of exposure to secondhand smoke and social exposure to tobacco use and that influence social norms supportive of tobacco-free living.	No provincial action.
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Social Action

[6.3] Develop a province-wide program to enable implementation of grassroots local action initiatives (e.g., partnerships, community mobilization and innovative interventions) that address social norm change and protection from exposure to tobacco smoke.	No province-wide program specific to protection. Various programs at the local and regional level.
--	--

Smoke-free Compliance and Enforcement

[6.4] Continue to promote, enforce and monitor compliance with the <i>Smoke-Free Ontario Act</i> . Consider enforcement approaches to maximize compliance and enforcement activities by setting (e.g., schools, bars, etc.) and additional policy promotion.	Comprehensive legislation on protection promoted and enforced. In 2015, enforcement was improved to address indoor use of tobacco in waterpipe bars and restaurants, to expand the seizure authority of SFOA inspectors and to update rights of entry for inspectors.
--	--

Learning System

[6.5] Continue to support research, surveillance, evaluation and monitoring of provincial and local initiatives, program and policy experiments related to protection from exposure to tobacco products and social norm change. Enhance the capacity to use findings to foster learning and innovation at the provincial, regional and local levels.	Provincial monitoring conducted by OTRU. Regional projects run by TCANs and PHUs, with OTRU providing knowledge and evaluation support.
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Professional Development

[6.6] Develop, evaluate and implement guidelines, training programs and incentives to promote brief interventions by health professionals with their patients that aim to protect nonsmokers, especially children and pregnant women, from secondhand smoke.	TEACH includes a training module on interventions to help women, including pregnant and post-partum, to quit smoking. This content includes information on protecting pregnant women and children from secondhand smoke. Otherwise, there has been no action to promote brief interventions designed to protect nonsmokers from secondhand smoke.
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Chapter Summary

Ontario meets all of the requirements for the highest level of protection included in MPOWER, in that smoking tobacco is prohibited in all indoor public places and compliance is high. Yet, Ontarians continue to be exposed to secondhand smoke in a variety of settings. Fifteen percent of the population continues to be exposed in public places; 9% of workers are exposed to secondhand smoke indoors at work or inside a workplace vehicle; 8% of nonsmokers aged 12 to 18 are exposed in their home and 5% of nonsmokers aged 12 to 15 are exposed in vehicles.^{iv}

The US Surgeon General's review of scientific evidence concluded that there is no risk-free level of exposure to secondhand smoke. In addition to the adverse health effects of secondhand smoke, exposure to other people smoking results in social exposure to tobacco use with ensuing normalization of tobacco use, triggering of initiation in youth and young adults through processes of social influence and modeling and encouragement of the continued use of tobacco among smokers and relapse among quitters.^{26,27}

The Scientific Advisory Committee recommended possible next steps to offer further protection for Ontarians including eliminating smoking in priority settings specifically unenclosed bar and restaurant patios, not-for-profit MUDs and selected outdoor public settings (e.g., beaches, playgrounds, outdoor sports facilities, parks, transit shelters, doorways, etc.). Recent regulatory changes implemented by the Government of Ontario closed some of these gaps in protection. Select municipalities have closed other gaps.

^{iv} The SFOA prohibits smoking or having lighted tobacco in a motor vehicle if children under the age of 16 are inside the vehicle.

References

- ¹ Smoke-Free Ontario. Scientific Advisory Committee. *Evidence to Guide Action: Comprehensive Tobacco Control in Ontario*. Toronto: Ontario Agency for Health Protection and Promotion, 2010.
- ² Ontario Tobacco Research Unit. *Tobacco Smoke Entering Homes in Multi-unit Dwellings*. OTRU Update. Toronto: OTRU, October 2014. Accessed November 25, 2015.
- ³ Ontario Tobacco Research Unit. *OTRU Knowledge and Evaluation Support Team Update*. Evaluation News. Volume 8, Issue 3. Toronto: OTRU, December 2014. Accessed November 26, 2015.
- ⁴ Ontario Tobacco Research Unit. *OTRU Knowledge and Evaluation Support Team Newsletter*. Evaluation News. Volume 8, Issue 4. Toronto: OTRU, March 2015. Accessed November 26, 2015.
- ⁵ Smoking and Health Action Foundation (SHAF). *Q4 Final Progress Report: April 1, 2014 – March 31, 2015*.
- ⁶ Kaufman P, Borland T, Zhang B, Shwartz R. *Evaluation of the Youth Advocacy Training Institute 2014-2015*. Toronto: OTRU, June 2015. Accessed February 2, 2016.
- ⁷ Non-smokers' Rights Association and Ontario Campaign for Action on Tobacco, as cited in: *Ontario Tobacco Research Unit. Indicators of OTS Progress*. [Special Reports: Monitoring and Evaluation Series, 2003-2004 (Vol. 10, No. 3)]. Toronto: Ontario Tobacco Research Unit, 2004.
- ⁸ Government of Ontario. *Smoke-Free Ontario Act. Ontario Regulation 206/14*. Accessed November 26, 2015.
- ⁹ Government of Ontario. *Smoke-free Ontario Act. Ontario Regulation 336/15*. Accessed November 27, 2015.
- ¹⁰ Ministry of Health Promotion. *Protocol for Smoke-Free Inspections for Enclosed Workplaces and Public Places*. Toronto: Government of Ontario, 2006.
- ¹¹ Ontario Ministry of Health and Long Term Care. *Tobacco Inspection System*. Toronto: Ontario Ministry of Health and Long Term Care, 2015.
- ¹² Government of Ontario. *Electronic Cigarettes Act. 2015*. Accessed November 26, 2015.
- ¹³ Government of Ontario. *Electronic Cigarettes Act. Ontario Regulation 337/15*. Accessed November 26, 2015.
- ¹⁴ Zhang B, Haji F, Kaufman P, Muir S, Ferrence R. 'Enter at your own risk': A multimethod study of air quality and biological measures in Canadian waterpipe cafes. *Tobacco Control* 2015 Mar;24(2):175-181.
- ¹⁵ Non-Smokers' Rights Association. *NSRA's Smoke-Free Laws Database*. Accessed November 27, 2015.
- ¹⁶ City of Toronto. *Toronto Municipal Code, Chapter 545: Licensing*. Accessed November 27, 2015.
- ¹⁷ Smoke-Free Housing Ontario. *Directory of Smoke-free Housing* (Includes those in Transition). Accessed December 15, 2015.
- ¹⁸ Harris K J, Stearns JN, Kovach RG, Harrar SW. Enforcing an outdoor smoking ban on a college campus: Effects of a multicomponent approach. *Journal of American College Health* 2009 Sep-Oct;58(2):121-126.
- ¹⁹ Leave the Pack Behind. *Leave the Pack Behind's Policy Work On-Campus: A Look Back*. St. Catharines, ON: Brock University, 2014. Accessed November 27, 2015).
- ²⁰ Leave the Pack Behind. *Leave the Pack Behind Final Report: April 1st, 2014 – March 31st, 2015. Program and Cessation Pillar Indicators*. St. Catharines, ON: Brock University, 2015.
- ²¹ United States. Community Preventive Services Task Force. *Reducing Tobacco Use and Secondhand Smoke Exposure: Interventions to Increase the Unit Price for Tobacco Products*. Last updated: November 2012.
- ²² Hopkins DP, Razi S, Leeks KD, Priya Kalra G, Chattopadhyay SK, Soler RE. Smokefree policies to reduce tobacco use a systematic review. *American Journal of Preventive Medicine* 2010 Feb;38(2 Suppl):S275-S289.

²³ IARC Working Group on the Effectiveness of Smoke-Free Policies. *Evaluating the Effectiveness of Smoke-Free Policies*. IARC Handbooks of Cancer Prevention Volume 13. Lyon, FR: International Agency for Research on Cancer, 2009. Accessed November 27, 2015.

²⁴ US Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta, GA: U.S. Dept. of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006. Accessed November 27, 2015.

²⁵ World Health Organization. *WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package*. Geneva, SZ: WHO, 2008.

²⁶ O'Loughlin J, Karp I, Koulis T, Paradis G, DiFranza, JR. Determinants of first puff and daily cigarette smoking in adolescents. *American Journal of Epidemiology* 2009 Sep 1;170(5):585-597.

²⁷ Alesci N, Forster J, Blaine T. Smoking visibility, perceived acceptability and frequency in various locations among youth and adults. *Preventive Medicine* 2003 Mar;36(3):272–281.



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Smoke-Free Ontario Strategy Monitoring Report:

Concluding Note

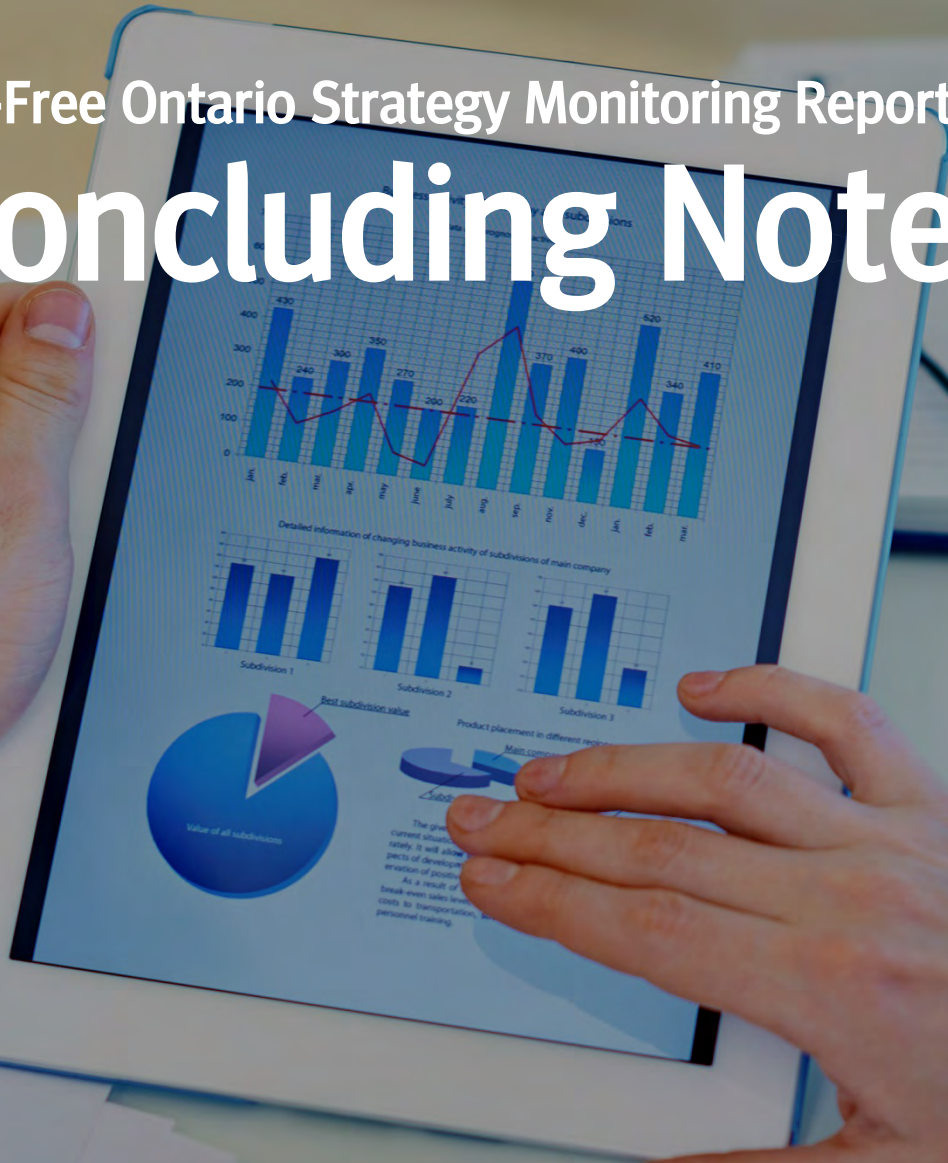


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Concluding Note

Ontario aspires to become the Canadian jurisdiction with the lowest smoking rate. The Province continues to work diligently toward achieving this objective and progress is being made across the comprehensive goals of protection, cessation and prevention. Smoke-Free Ontario partners are supporting positive changes in the physical and social climates both to prevent and reduce tobacco use which helps to create environments conducive to decreased initiation, increased cessation and ultimately, reduced smoking in Ontario.

Tobacco control efforts resulted in a 2.1 percentage point (statistically significant) decrease in the prevalence of smoking over the five-year period starting in 2010. This falls short of the five-percentage point decrease over five years called for in 2010 by the Tobacco Strategy Advisory Group. And the gap between Ontario and British Columbia – the Canadian jurisdiction with the lowest cigarette smoking rate – is still a significant four percentage points.

Looking back over the long-term, tobacco control in Ontario has contributed to reducing smoking rates from well over 30% in the 1980s to less than 20% in 2014. This success leaves some people with the impression that ‘tobacco is done’, especially when few if any people in their social circles are tobacco users. Looking back over the past 20 years, adult tobacco use decreased from 25% in 1996 to 21% in 2005 and 18% in 2014. Given what is known about tobacco-caused morbidity and mortality, this rate of decline is viewed by many as unsatisfactory. In some occupations, one in every three people still smokes cigarettes. And university educated people are 2.5 times less likely to smoke cigarettes than people with no post-secondary education. With one in every five adult Ontarians currently using tobacco, it is clear that tobacco is far from done.

While cigarette smoking continues to be the main focus of tobacco control, the uptake of alternative products has increased considerably over the past few years. Of increasing concern is the upswing in use of e-cigarettes and waterpipes. Close to one in every four young adults aged 18 to 24 and one in every five students (in grades 7-12) used an e-cigarette in the past year and 12% of students used a waterpipe in the past year.

Over the period 2005 to 2015, the prevalence of past 30-day smoking was cut by about 60% for students in grades 9 to 10 and in grades 11 to 12. However, from 2011 to 2015, there has not been a significant change in the prevalence of current smoking in this population.

While past 30-day current smoking among 15 to 17 year olds is down to three percent, rates rise dramatically to ten percent for 18-19 year olds, 17% for 20-24 year olds and 23% for 25-29 year olds.

Even if Ontario were to adopt the full slate of MPOWER measures, the prevalence of cigarette smoking would only decrease to 12% by the year 2043. A comparison with MPOWER recommendations demonstrates some gaps, especially in the areas of taxation (raising the tax to 75% of retail price), mass media campaigns (large ongoing campaigns on major media such as TV and radio), cessation programs (coverage of cessation medications) and advertising bans (ban all types of advertising).

To accelerate the rate of reduction in tobacco use, there is a need to adopt more far-reaching policies such as those recommended by the SAC and those being adopted in other leading jurisdictions. There are a number of unrealized SAC recommendations in the areas of prevention, cessation and protection.

Prevention

Tobacco use continues to be shown in movies that are rated for youth viewing; there are no requirements to run ads denormalizing tobacco preceding movies and video games that contain tobacco imagery; and the protocols for compliance of tobacco retailers with restrictions on sales to minors have not improved. Moreover, SAC noted that beyond basic information about tobacco being provided in all schools, prevention efforts need to focus on high-risk schools, colleges and workplaces where youth and young adults are at greatest risk for tobacco use. Our analyses indicate that a significant number of youth who are current smokers in grades 7 to 12 also have a drug use problem (87% in grades 9 to 12) and a hazardous drinking problem (67% in grades 7 to 12). It is unclear whether sufficient effort is being directed toward targeting youth and young adults who are most at risk of becoming established tobacco users.

Cessation

Ontario is providing support to increasing numbers of smokers. In the 2014/15 fiscal year, Strategy smoking cessation interventions in Ontario directly engaged over 139,431 smokers, or about seven percent of Ontario smokers. Nevertheless, rates of intentions to quit, quit attempts and successful long-term quitting have not increased.

Ontario continues to fall short on four cessation system policies recommended by SAC:

1. Provision of free NRT and stop-smoking medications.
2. Creation of accountability mechanisms to ensure that smokers are asked, advised and assisted to quit at every point of contact with the health care system.
3. Creation of a tobacco-user support system to operationalize the “no wrong door” concept for access to cessation support services.
4. Enhancement of systems of telephone, text messaging and Internet-based cessation support services that would entail: a) integration with the overall tobacco-user support system, b) integration with the cessation mass media campaign and c) capability for continual engagement with smokers.

Protection

Smoke-Free Ontario measures along with local bylaws and policies protect most Ontarians most of the time from exposure to secondhand smoke. Nevertheless, in 2014, 15% of Ontarians aged 12 years and over were exposed to secondhand smoke every day or almost every day in public places (e.g., restaurants, bars, shopping malls and arenas) over the past month and nine percent of adult workers were exposed to secondhand smoke indoors at work or inside a work vehicle for five or more minutes in the past week. In addition, three in ten (or 689,500) Ontario adults living in multi-unit dwellings (MUDs) were exposed to secondhand smoke drifting between units at least once in the past month.

The US Surgeon General’s review of scientific evidence concluded that there is no risk-free level of exposure to secondhand smoke.¹ In addition to the adverse health effects of secondhand smoke, exposure to other people smoking results in social exposure to tobacco use with ensuing normalization of tobacco use, triggering of initiation in youth and young adults through processes of social influence and modeling and encouragement of the continued use of tobacco among smokers and relapse among quitters.

The Scientific Advisory Committee recommended possible next steps to offer further protection for Ontarians including eliminating smoking in priority settings specifically unenclosed bar and restaurant patios, not-for-profit MUDs and selected outdoor public settings (e.g., beaches, parks, transit shelters, doorways, etc.). Recent regulatory changes implemented by the Government of Ontario closed some of these gaps in protection. Select municipalities have closed other gaps.

Although there are remaining gaps and slow progress in reducing tobacco use prevalence, steady progress in tobacco control is being made: smoking has been banned on restaurant and bar patios; flavoured tobacco has been banned with a ban on menthol slated to come into effect in 2017; the proportion of smokers who are advised to quit and are assisted in quitting has risen; demonstration projects are seeking innovations for further improvements in smoking cessation in workplace and hospital settings; and significant strides are being made at the provincial and local levels to further both physical and social protection from smoking in outdoor settings and to curtail the availability of flavoured tobacco.

References

¹ US Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta, GA: U.S. Dept. of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006. Accessed November 27, 2015.



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Smoke-Free Ontario Strategy Monitoring Report: Appendices

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Appendix A: Technical Information about Population Surveys

Data Sources

Canadian Tobacco Use Monitoring Survey (CTUMS)

Health Canada's Canadian Tobacco Use Monitoring Survey (CTUMS) was an annual cross-sectional nationwide, tobacco-specific, random telephone survey, conducted between 1999 and 2012. Annual data were based on two cycles, the first collected from February to June, and the second from July to December. The sample design was a two-stage, stratified, random sample of telephone numbers. To ensure that the sample was representative of Canada, each province was divided into strata or geographic areas (Prince Edward Island had only one stratum). As part of the two-stage design, households were selected first and then, based on household composition, one, two, or no respondents were selected. The purpose of this design was, in part, to over-sample individuals 15 to 24 years of age. In general, CTUMS sampled the Canadian population aged 15 and older (excluding residents of the Yukon, Northwest Territories, Nunavut, and full-time residents of institutions). The annual sample for CTUMS in 2012 was 19,286 in Canada (person response rate of 83%), including 1,792 in Ontario (person response rate of 83.9%). All survey estimates were weighted, and variance estimates were calculated using bootstrap weights.

Centre for Addiction and Mental Health Monitor (CAMH Monitor)

The Centre for Addiction and Mental Health's CAMH Monitor (CAMH Monitor) is an Ontario-wide, random telephone survey, focusing on addiction and mental health issues. Administered by the Institute for Social Research at York University, this ongoing monthly survey has a two-stage probability selection design. The survey represents Ontario residents aged 18 and older, excluding people in prisons, hospitals, military establishments, and transient populations such as the homeless. The CAMH Monitor replaced earlier surveys at the Centre including the Ontario Alcohol and Other Drug Opinion Survey (1992-1995) and the Ontario Drug Monitor (1996-1999). Reported trend data are based on all of these surveys, which used similar questions and sampling methods. In 2014, estimates were based on telephone interviews with 3,043 adults (45% of eligible respondents) representing 10,157,960 Ontarians aged 18 or older, conducted between January and December. All survey estimates were weighted, and variance estimates and statistical tests were corrected for the sampling design.

Ontario Student Drug Use and Health Survey (OSDUHS)

The Centre for Addiction and Mental Health's Ontario Student Drug Use and Health Survey (OSDUHS) is a province-wide survey, first implemented in 1977 and conducted every two years (in the spring) by the Institute for Social Research at York University. The survey uses a two-stage (school, class) cluster sample design and samples classes in elementary and secondary school grades (i.e., grades 7 to 12). Students enrolled in private schools, special education classes, those institutionalized for correctional or health reasons, those on Indian reserves and Canadian Forces bases, and those in the far northern regions of Ontario were not included in the target population. These exclusions comprise approximately 8% of Ontario students. In 2015, 10,523 students participated in the survey, with a student participation rate of 59% (the participation rate was influenced by 11% of students who were absent and 29% of nonparticipating students who either did not return consent forms or their parents refused participation). All survey estimates were weighted, and variance estimates and statistical tests were corrected for the complex sampling design.

Canadian Community Health Survey (CCHS)

The Canadian Community Health Survey (CCHS) is an ongoing cross-sectional population survey that collects information related to health status, healthcare utilization and health determinants. Initiated in 2000, it operated on a two-year collection cycle but changed to annual data collection in 2007. The CCHS is a large-sample general population health survey, designed to provide reliable estimates at the health region level. The CCHS samples respondents living in private dwellings in the ten provinces and the three territories, covering approximately 98% of the Canadian population aged 12 or older. People living on Indian reserves or Crown lands, residents of institutions, full-time members of the Canadian Forces and residents of certain remote regions are excluded from the survey. The CCHS uses the same sampling frame as the Canadian Labour Force Survey, which is a multistage stratified cluster design, where the dwelling is the final sampling unit. In total, 63,964 Canadians aged 12 or older participated in the 2014 survey (including 21,000 Ontarians). All survey estimates were weighted, and variance estimates were calculated using bootstrap weights.

Data Analysis

Characteristics Associated with Smoking Status

Youth

A segmentation analysis of students in grades 7 to 12 was conducted, with a focus on current smoker and nonsmoker sub-populations defined by risky behaviours (e.g., drinking, drug use) and social determinants of health (e.g., social cohesion, work for pay, housing), as defined in Table A-1). The analysis was conducted using the 2013 Ontario Student Use Drug Use and Health Survey (OSDUHS). Data were weighted to represent students in Ontario. All analyses took into account the complex sampling design of the survey.

Table A-1: Indicators of Chronic Disease Risk Factors and Social Determinants of Health among Current Smokers^a and Nonsmokers, OSDUHS

Indicator	Definition
Drug Use Problem	Reporting experiencing at least 2 of the 5 items (used drugs to relax or fit in, used drug alone, forgotten things while using drugs, gotten into trouble while on drugs, had family say cut down on drugs) on the CRAFFT screener, which measures a drug use problem that may require treatment (in the past 12 months)
Hazardous or harmful drinking	Scoring at least 8 out of 40 (Likert scoring) on the World Health Organization's Alcohol Use Disorders Identification Test (AUDIT) screen, which measures heavy drinking and alcohol-related problems during the past 12 months
Gambling Activity	Reporting gambling money on 1 or more of 9 gambling activities during the past 12 months: cards, bingo, sports pools, sports lottery, other lottery (i.e. scratch cards, Lotto 6-49), video gambling/slot machines, casino, internet game, dice, any other activities. This is not a measure of problem gambling
Delinquent Behaviour	Reporting at least 3 of the following 9 delinquent behaviours in the 12 months before the survey: vandalized property, theft of goods worth less than \$50, theft of goods worth \$50 or more, stole a car/joyriding, break and entering, sold cannabis, ran away from home, assaulted someone (not a sibling), carried a weapon
Low Self-Esteem	Report at least 3 out of 5 items from the Rosenberg Self-Esteem Scale. Score was given when respondents reported "always" or "often true" for negative statements ("sometimes I feel that I can't do anything right", "I feel I do not have much to be proud of", "sometimes I think I am no good at all") and "never" or "seldom true" for positive statements ("I feel good about myself", "I am able to do most things as well as other people can")

^a Current smoker is someone who has smoked at least 100 cigarettes in his or her life and smoked within the last 30 days

Adults

A segmentation analysis of young adult (aged 18 to 29 years) and adult (18+ years) current smoker and nonsmoker subpopulations was conducted using health indicators such as chronic disease risk factors (e.g., physical inactivity, overweight) and social determinants of health (e.g., food security, education), as defined in Table A-2. The analysis was conducted using the 2014

Canadian Community Health Survey (CCHS) Master file. All survey estimates were weighted, and variance estimates were calculated using bootstrap weights.

Table A- 2: Indicators of Chronic Disease Risk Factors and Social Determinants of Health among Current Smokers^a and Nonsmokers, CCHS

Indicator	Definition
Identifies as being White	Respondent reported that his/her cultural / racial background is White
Born in Canada	Respondent is not an immigrant
Unhealthy eating habits	Respondent eats less than 5 servings of fruits and vegetables per day
Male	Male
Inactive	Respondent is "inactive" in their leisure time based on the total daily Energy Expenditure values
Overweight	Respondents whose self-reported body mass index (BMI) exceeds a value of 25.
Excess of low risk drinking ^b	<p>Women who had more than 10 drinks in the previous week, had more than 2 drinks on a single day in the previous week, consumed alcohol on 6-7 days in the previous week, and/or had 5+ drinks in one occasion at least once per month for the past 12 months. Excludes women who were pregnant or breastfeeding.</p> <p>Men who had more than 15 drinks in the previous week, had more than 3 drinks on a single day in the previous week, consumed alcohol on 6-7 days in the previous week, and/or had 5+ drinks in one occasion at least once per month for the past 12 months</p>
Renting current dwelling	Respondent's dwelling is rented by a member of the household
Working in sales & services occupations	Respondents work in sales and service occupations (e.g., retail, hospitality, and child care)
Working in trades, transportation & equipment operation occupation	Respondents work in trades, transportation and equipment operation occupation (e.g., construction and taxi drivers)
Low education	Respondent's household's highest level of education is less than high school completion
Not having a family doctor	Respondent does not have a regular family doctor
Severely food insecure	Respondent has indication of reduced food intake and disturbed eating patterns

^a Current smoker is someone who has smoked at least 100 cigarettes in his or her life and smoked within the last 30 days

^b Calculated using the Canadian Centre on Substance Abuse's 'Canada's Low-Risk Alcohol Drinking Guidelines'.¹

Strengths and Weaknesses of Surveys

Each of the surveys described has its own particular strengths, and we draw on these throughout the report. For instance, because of the lengthy period over which the CAMH surveys have been conducted—since 1977 for OSDUHS and since 1991 for the CAMH Monitor—trend data on provincial smoking behaviour are unsurpassed. CTUMS strengths include breadth of tobacco-specific questions and the opportunity it affords to make inter-provincial comparisons. CTUMS includes information on use of cigarettes and alternative forms of tobacco, age of initiation,

access to cigarettes, cessation (including reasons and incentives), use of cessation aids, readiness to quit, secondhand smoke exposure, restrictions on smoking at home, and attitudes toward tobacco control policies. The CCHS includes information on type of smoker, amount smoked, cessation, age of initiation, use of other tobacco products, workplace restrictions and secondhand smoke exposure. The strength of CCHS is its large sample size and geographic coverage (down to health region).

Direct comparison of results from different surveys might not always be appropriate because the surveys use different methodologies (e.g., school-based vs. telephone surveys) and can have different question wording and response categories. Moreover, the target population (e.g., people aged 12 or over vs. people aged 15 or over), as well as purpose and response rates of surveys, can vary. To aid the reader, figures and tables depicting survey data are accompanied by a detailed title, which typically provides information on the survey question, population of interest, age, and survey year. Figures and tables also have data sources listed in figure and table notes.

Estimating Population Parameters

One should be cautious in interpreting trend data (e.g., differences in yearly estimates) and comparisons between two or more estimates (e.g., men and women). Statements of significance, including any directional statement (e.g., increase, decrease, higher, lower, etc.) are based on non-overlapping confidence intervals or z-test for two population proportions. Trend tests are based on linear regression, treating prevalence as the outcome and years as an independent variable.

Sample surveys are designed to provide an estimate of the true value of a particular characteristic in the population such as the population's average tobacco-related knowledge, attitudes, or behaviours (e.g., the percentage of Ontario adults who report smoking cigarettes in the past month). Because not everyone in a province is surveyed, the true population value is unknown and is therefore estimated from the sample. Sampling error will be associated with this estimate. A confidence interval provides an interval around survey estimates and contains the true population values with a specified probability. In this report, 95% confidence intervals are used, which means that if equivalent size samples are drawn repeatedly from a population and a confidence interval is calculated from each sample, 95% of these intervals will contain the true value of the quantity being estimated in the population. For instance, if the prevalence of current smoking among Ontario adults on Survey A is 25% and the 95% confidence interval is 22% to

28%, we are 95% confident that this interval (22% and 28%) will cover the true value in the population.

It is equally true that an estimate of 20% (± 3) from population A is not statistically different from a 25% (± 4) estimate from population B (e.g., female vs. male). This occurs because the upper limit on population A's estimate ($20 + 3 = 23\%$) overlaps with the lower limit on population B's estimate ($25 - 4 = 21\%$), albeit a formal test of significance might prove otherwise. This argument holds for comparisons of estimates from different survey years, and between other groupings within the same survey. To aid the reader in making comparisons, 95% confidence intervals are provided where possible.

Appendix B: NSRA's Smoke-Free Laws Database

Table B-1: NSRA's Smoke-Free Laws Database: Leading Edge Bylaws, Ontario (November 2015)

Name of Jurisdiction	Legislation and Bylaw Name	Date Passed (dd/mm/yyyy)	Date Last Amended
Arnprior	Bylaw No. 6076-12, Regulation of Smoking on Municipally-Owned Property & Public Places in the Town of Arnprior	09/04/2012	
Barrie	By-law 2013-143, A By-law of The Corporation of the City of Barrie to prohibit the use of waterpipes in enclosed public places and in enclosed workplaces.	26/08/2013	
Barrie	Bylaw No. 2009-086, A Bylaw to Prohibit Smoking Outdoors on City Owned Property Bylaw No. 2011-106, An amendment to Bylaw No. 2009-086, A Bylaw to Prohibit Smoking Outdoors on City Owned Property	11/05/2009	15/08/2011
Bradford West Gwillimbury	By-law 2013-87 - A By-law to Prohibit the Use of Waterpipes in Enclosed Public Places and in Enclosed Workplaces	03/09/2013	
Brighton	By-Law No. 007-2014, Being a By-Law to regulate and prohibit all tobacco use on municipally owned parkland property in the Municipality of Brighton	03/03/2014	
Brockville	By-law Number 093-2003, Being a By-law to Regulate Smoking in Public Places	22/07/2003	28/04/2015
Callander	By-law No. 2013-1369 being a By-law to regulate smoking in Public Places and Workplaces within the Municipality of Callander	23/04/2013	
Chatham-Kent	Bylaw 137-2014, being a by-law to regulate smoking of tobacco or tobacco-like products on lands within the Municipality of Chatham-Kent ("Smoke-Free Chatham-Kent By-law")	11/08/2014	
Cobalt	Bylaw No. 2012-003, Being a Bylaw to Regulate Smoking in the Town of Cobalt: Smoking on Municipal Property; and Smoking in Workplace Entrances and Exits; and the Sale of Tobacco Products through Licencing Requirements Also known as Bylaw No. 2012-003, Smoke-free and Tobacco Control Bylaw	10/01/2012	
Cobourg	By-law No.019-2015, a By-law to Prohibit Smoking and the Use of Tobacco Products in Public Places in the Town of Cobourg	23/02/2015	16/04/2015
Cochrane	Bylaw No. 989-2013, Being a bylaw to regulate smoking on Tim Horton's Event Centre property within the Town of Cochrane	10/12/2013	
Cramahe	By-law No. 2014-06, Being a By-law to prohibit smoking and the use of all tobacco products within Municipal Playgrounds or nine (9) meters of any entrance ways surrounding Municipal Buildings.	04/03/2014	
East Gwillimbury	By-Law 2012-029, Being a by-law to prohibit smoking and holding of lit tobacco products at all town playgrounds, sports fields, splash pads and other designated spaces	19/03/2012	
East Zorra-Tavistock, Township of	By-Law 2012-15, Being a By-Law to Prohibit Smoking at Certain Locations on Municipal Property	21/03/2012	
Elliot Lake	Bylaw No. 03-4, A Bylaw to Regulate Smoking in Public Places and Workplaces	11/05/2009	

Name of Jurisdiction	Legislation and Bylaw Name	Date Passed (dd/mm/yyyy)	Date Last Amended
Englehart	Bylaw No. 2012-06, Smoke-Free and Tobacco Control By-Law	23/04/2012	
Essa, Township of	Bylaw No. 2011-62, A Bylaw of the Corporation of the Town of Essa to prohibit smoking outdoors on Township owned property	19/10/2011	
Essex, Town of	By-Law Number 1228, being a by-law to prohibit smoking on any property owned or leased by the Town of Essex	06/10/2014	
Georgina	Bylaw No. 2012-0061 (Reg-1), Being a By-law to prohibit smoking and use of tobacco products at all designated Town of Georgina outdoor areas	25/06/2012	
Gravenhurst	Smoke Free Outdoor Spaces By-law 2012-149, Being a By-Law to prohibit smoking outdoors on property owned by the Town of Gravenhurst	18/12/2012	
Hamilton	By-law No. 11-080, To Prohibit Smoking within City Parks and Recreation Properties	09/03/2011	
Huron County	Bylaw No. 21, 2003, A Bylaw of the Corporation of the County of Huron to Regulate Smoking in Public Places and Workplaces in Huron County and to Repeal Bylaw No. 9, 2003.	04/09/2003	
Huron Shores	Bylaw No. 04-06, Being a Bylaw to Regulate Smoking in Public Places and Workplaces	11/02/2004	
Innisfil	By-Law 111-13, A By-Law of The Corporation of the Town of Innisfil to Prohibit Smoking and Use of Tobacco Products at all designated Town of Innisfil Outdoor Sports and Recreational Spaces.	16/10/2013	
Kingston	Bylaw No. 2002-231, A Bylaw to Regulate Smoking in Public Places and Workplaces in the City of Kingston - as amended by Bylaw No. 2004-336 (Consolidated) By-Law No. 2012-150, A By-Law to Amend By-Law No. 2002-231, "A By-Law to Regulate Smoking in Public Places and Workplaces in the City of Kingston as Amended"	22/10/2002	06/11/2012
Kingsville, Town of	Bylaw 23-2015, Being a By-law to prohibit the smoking of tobacco in public places	09/03/2015	
Kirkland Lake	Bylaw 13-072, Being a Bylaw to Prohibit Smoking in Children's Playgrounds and on Joe Mavrincac Community Complex Property Within Town of Kirkland Lake	13/08/2013	
Lasalle, Town of	By-Law Number 7775, Being a By-Law to Prohibit Smoking within Town of Lasalle Owned Parks, Facilities, Playgrounds and Sports Fields	14/07/2015	
Mattawa	Bylaw No. 08-25, Smoke-free Hospital Bylaw Bylaw No. 09-20, Being a Bylaw to amend Bylaw No. 08-25 By-Law No. 13-22, Being a By-Law to Regulate Smoking in Public Places and Workplaces Smoke Free Hospital By-Law	10/11/2008	09/12/2013
Mississauga	The Corporation of The City of Mississauga Smoking By-Law 94-14 A bylaw to prohibit smoking tobacco-based products (including waterpipe) anywhere on Mississauga Celebration Square. Amended by By-Law 180-15.	23/04/2014	24/06/2015
Newmarket	Bylaw 2011-73, A Bylaw to prohibit smoking of tobacco products at all town playgrounds, sports and playing fields and other outdoor youth related spaces.	28/11/2011	

Name of Jurisdiction	Legislation and Bylaw Name	Date Passed (dd/mm/yyyy)	Date Last Amended
Niagara Falls	A Consolidated Bylaw Being By-law No. 2011 - 51 as amended by: By-law No. 2011 ? 152 (The Anti-Smoking Bylaw)	18/04/2011	
Niagara Region	By-law No. 112-2013, A regional by-law to protect children and vulnerable persons from exposure to outdoor second-hand smoke	13/10/2013	
North Bay	Bylaw No. 2012-97, A By-Law to Regulate Smoking in Public Places and Workplaces in the Corporation of the City of North Bay (and to Repeal By-Law No. 2003-05) Bylaw 2012-232, A By-Law to Amend By-Law No. 2102-97 (Schedules "A" and "D").	19/03/2012	02/07/2014
Orangeville	Bylaw No. 36-2012, A by-law to regulate and prohibit smoking at all municipally owned/operated public places (Smoke-Free Municipal Public Spaces Bylaw)	07/05/2012	
Orillia	Chapter 953, Smoking Regulation, Public Places and Workplaces Latest amending bylaw was Bylaw 2013-85.	17/12/2001	10/06/2013
Ottawa	Bylaw No. 2004-276, A by-law of the City of Ottawa to regulate and to promote responsible enjoyment and use of parks and facilities (Parks and Facilities Bylaw) Bylaw No. 2006-6, A Bylaw of the City of Ottawa to amend Bylaw No. 2004-276 respecting smoking in the vicinity of a City facility Bylaw No. 2012-86, A bylaw of the City of Ottawa to amend Bylaw No. 2004-276 to prohibit smoking in city parks and facilities	23/06/2004	27/06/2012
Ottawa	Bylaw No. 2012-47, A bylaw of the City of Ottawa to amend Bylaw No. 2008-449 to create smoke-free market stands in the ByWard Market	01/03/2012	
Ottawa	Bylaw No. 2012-46, A bylaw of the City of Ottawa to amend Bylaw No. 2008-448 to create smoke-free market stands in the Parkdale Market	01/03/2012	
Parry Sound	Bylaw No. 2009-5389, Being a bylaw to regulate smoking at the West Parry Sound Health Centre	01/10/2009	
Parry Sound	Bylaw No. 2012-6087, A By-law to prohibit smoking within nine (9) metres from any entrance or exit of a building owned or leased by the Town of Parry Sound and in or within 9 metres of any municipal outdoor public place. To repeal Bylaw 2011-5578.	20/03/2012	
Petawawa	By-law 835/13 - Being a by-law to regulate and prohibit smoking on municipally owned property in the Town of Petawawa.	06/05/2013	
Peterborough	By-law Number 12-169, Being a by-law to prohibit the use of water pipes in enclosed public places and in certain other places in the City of Peterborough Also known as the "Water Pipe By-law".	10/12/2012	
Peterborough	By-law No. 11-074, Being a By-Law to Repeal By-Law 07-126, By-Law 07-168, By-Law 09-034 and By-Law 10-123 and Being a By-Law to Establish a By-Law Respecting Smoking in the City of Peterborough By-law Number 13-002, Being a By-law to Amend By-Law 11-074, Being a By-Law Respecting Smoking in the City of Peterborough	16/05/2011	04/02/2013
Peterborough, County of	Bylaw 2009-50, A By-law Respecting Smoking in Certain Public Places under the Jurisdiction of The County of Peterborough	03/06/2009	

Name of Jurisdiction	Legislation and Bylaw Name	Date Passed (dd/mm/yyyy)	Date Last Amended
Prince Edward County	Bylaw 2818-2011, Being a bylaw to prohibit smoking and tobacco use within 25 m surrounding playground structures, sport playing fields, park facilities, tennis courts, outdoor rinks, youth park, skate parks, and within 9 m of recreation facilities owned by the Corporation of the County of Prince Edward	08/03/2011	
Renfrew County	Bylaw No. 84-09, A Bylaw to Prohibit Smoking on the Property of Bonnechere Manor & Miramichi Lodge by Residents, Staff and the General Public.	24/06/2009	
Sault Ste. Marie	Bylaw 2003-7, A by-law to regulate smoking in public places and city buildings in the City of Sault Ste. Marie (Consolidated as of February 21, 2012)	13/01/2003	21/02/2012
Scugog, Township of	The Corporation of the Township of Scugog By-Law Number 31-14 being a By-Law to regulate smoking in outdoor public places	02/06/2014	
Severn, Township of	By-law No. 2013-68 Being a By-law to prohibit smoking of tobacco in areas within the Township of Severn	05/09/2013	
Sioux Lookout	Bylaw No. 11-03, Smoke-Free Workplaces Bylaw	19/03/2003	
Smiths Falls	By-law No. 8482-12, A by-law to regulate smoking in public places	16/04/2012	
St. Thomas	Bylaw No. 111-2008, a Bylaw for the use, protection and regulation of Public Parks and Recreation Areas in the City of St. Thomas (Parks and Recreation Area Bylaw) Amended by Bylaw No. 163-2009, being a bylaw to provide for the use, protection and regulation of Public Parks and Recreation Areas in the City of St. Thomas	21/07/2008	02/11/2009
Stratford	Bylaw No. 174-2003, Being a By-law to regulate smoking in public places and work places in the City of Stratford and to repeal By-law 62-93 as amended Bylaw No. 105-2013, Being a By-law to amend Smoking in Public Places By-law 174-2003 as amended, to prohibit smoking outdoors in playground and recreation amenities, in municipal parks, at entrances and exits to municipal buildings, bus shelters and on hospital property.	22/09/2003	23/09/2013
Sudbury	By-law 2013-54 to Regulate Parks under the Jurisdiction of the City of Greater Sudbury	12/02/2013	
Tecumseh	By-law Number 2014-60, Being a bylaw to prohibit Smoking and the Use of Smokeless Tobacco in all public parks, sports fields and outdoor recreation facilities, and within nine (9) metres of a transit stop or any entrance of any building or structure under the control, supervision, ownership and/or operation of The Corporation of the Town of Tecumseh (aka The Smoke-free Outdoor Spaces By-law)	08/07/2014	
Thunder Bay	Bylaw No. 052-2010, A By-law to repeal the City's prior Smoking Prohibition By-law (Number 34-2004) and to enact a replacement by-law that contains only those prohibitions that are more restrictive than the ones set out in the Smoke Free Ontario Act, 1994 (S.O. 1994, c. 10, as amended). By-Law Number 110-2013, A by-law to Appoint Municipal Law Enforcement Officers for the purposes of enforcing the Smoking Prohibition By-law No. 052-2010 at the Thunder Bay Regional Health Sciences Centre	10/05/2010	21/10/2013

Name of Jurisdiction	Legislation and Bylaw Name	Date Passed (dd/mm/yyyy)	Date Last Amended
Timmins	Bylaw No. 2011-7123, Being a bylaw to repeal Bylaw 2003-5815 and amendments thereto and regulate smoking in Public Places and Workplaces Bylaw No. 2012-7250, Being a bylaw to amend Bylaw No. 2011-7123 to Prohibit Smoking at Timmins and District Hospital	14/11/2011	27/08/2012
Toronto	Bylaw No. 87-2009, To Amend City of Toronto Municipal Code Chapter 608, Parks, to prohibit smoking in playgrounds and other areas of City parks.	28/01/2009	
Toronto	Bill 1725, To amend City of Toronto Municipal Code Chapter 709, Smoking, to regulate and prohibit smoking at entrances and exits to public buildings and to repeal certain Articles. Bill 1726, To amend City of Toronto Municipal Code Chapter 608, Parks, to prohibit smoking in and around certain facilities within City parks.	13/11/2013	
Trent Hills	By-law 2012-75, to prohibit smoking and holding lighted tobacco products within defined Municipal-owned outdoor public spaces	17/07/2012	
White River	Bylaw 2012-03, Being a by-law to amend By-Law No. 2004-07, A Bylaw to regulate smoking in public places and workplaces in the Corporation of the Township of White River	11/03/2012	
Woodstock	Bylaw No. 8461-08, Smoke Free Workplaces and Public Places (consolidated with all amendments) Also known as Chapter 835 (of the Municipal Code), Smoke-free Workplaces and Public Places Bylaw No. 8978-15, A by-law to amend the City of Woodstock Municipal Code Chapter 835 Smoke Free Workplaces and Public Places.	05/06/2008	18/06/2015

Appendix C: Nonsmokers' Exposure to Secondhand Smoke, by Public Health Unit

Table C-1: Nonsmokers' Exposure to Secondhand Smoke in Public Places^a (Every Day or Almost Every Day), by Public Health Unit, Ages 12+, Ontario, 2007/08, 2009/10, 2011/12, 2013/14

Public Health Unit	Exposure to Secondhand Smoke in Public Places			
	2007/08	2009/10	2011/12	2013/2014 ^b
Chatham-Kent	11.6	4.6 ^{M,Y}	5.7 ^M	8.0 ^M
Huron County	5.2 ^M	9.1 ^{M,+Y}	8.7 ^M	8.4 ^M
Peterborough County-City	9.7	15.4 ^{+Y}	7.0 ^{M,Y}	9.4 ^M
Perth District	12.2	10.8 ^M	10.3	9.5
Haliburton, Kawartha, Pine Ridge District	7.8	9.3 ^M	9.6	10.1
Elgin-St. Thomas	16.3	13.5 ^M	11.5 ^M	10.3 ^M
Kingston, Frontenac and Lennox and Addington	6.7	10.9 ^{+Y}	11.4 ^M	10.4
Timiskaming	F	8.4 ^M	9.2 ^M	10.4 ^M
Wellington-Dufferin-Guelph	13.2	11.1	12.6	11.0
Thunder Bay District	8.1	7.6	12.4 ^{+Y}	11.5
Middlesex-London	9.5	12.3	11.8	11.9
Grey Bruce	8.7	9.9 ^M	8.6	12.1
Windsor-Essex County	7.8	6.8	11.0 ^{+Y}	12.1
Northwestern	10.3 ^M	8.4 ^M	9.1 ^M	12.2 ^M
North Bay Parry Sound District	9.9 ^M	10.6 ^M	9.4 ^M	12.5
Leeds, Grenville and Lanark District	9.0	8.2 ^M	11.0	12.6
Niagara Regional Area	12.1	10.5	10.8	12.8
District of Algoma	17.3	13.8	11.5 ^M	12.9
City of Hamilton	12.5	12.1	12.1	13.0
Sudbury and District	11.7	11.9	15.0	13.0
Oxford County	3.7 ^M	6.7 ^M	10.4	13.3 ^M
Simcoe Muskoka District	13.2	12.2	14.9	13.5
Brant County	8.9 ^M	9.5 ^M	10.7	13.8
Lambton	5.2 ^M	9.0 ^{+Y}	12.7	13.9
York Regional	12.4	10.6	13.3	14.4
Eastern Ontario	8.6	9.4 ^M	14.3 ^{+Y}	14.5
Halton Regional	12.3	11.2	12.8	14.6
City of Toronto	14.9	15.3	13.7	14.7
Waterloo	6.4	8.9	11.5	15.0
Porcupine	11.9 ^M	10.5 ^M	11.3 ^M	15.2
Durham Regional	13.5	16.4	18.0	15.3
Haldimand-Norfolk	10.2	9.1 ^M	14.7 ^{+Y}	16.0
Renfrew County and District	9.2 ^M	10.5 ^M	12.2 ^M	16.1 ^M
Hastings and Prince Edward Counties	6.9 ^M	7.4	9.7	16.7 ^{+Y}
City of Ottawa	8.7	13.2 ^{+Y}	18.5 ^{+Y}	18.1 ^M
Peel Regional	11.0	12.7	13.2	18.6 ^{+Y}
Ontario	11.5	12.1	13.2^{+Y}	14.5^{+Y}

- ^a = Exposure to secondhand smoke in public places, such as restaurants, bars, shopping malls, arenas, bingo halls, and bowling alleys.
- ^b = Ordered by 2013/14 exposure (lowest to highest).
- ^M = Marginal. Interpret with caution: subject to moderate sampling variability.
- ^F = not reportable due to a small sample size.
- ^Y = Significantly lower than the previous year.
- ^{+Y} = Significantly higher than the previous year.

Source: Canadian Community Health Survey 2007/08, 2009/10, 2011/12 and 2013/14 (from the [Canadian Socio-economic Information Management System \[CANSIM\] Table 105-0502](#)). Health indicator profile, two year period estimates, by age group and sex, Canada, provinces, territories, health regions (2012 boundaries) and peer groups.

Table C-2: Nonsmokers' Exposure to Secondhand Smoke in Private Vehicles (Every Day or Almost Every Day), by Public Health Unit, Ages 12+, Ontario, 2007/08, 2009/10, 2011/12, 2013/14

Public Health Unit	Exposure to Secondhand Smoke in Private Vehicles			
	2007/08	2009/10	2011/12	2013/2014 ^a
Elgin-St. Thomas	15.9	10.1 ^{M,Y}	8.7 ^M	3.7 ^{M,Y}
Leeds, Grenville and Lanark District	8.1	6.4 ^M	4.6 ^M	3.8 ^M
Oxford County	7.6 ^M	6.8 ^M	7.1 ^M	3.8 ^{M,Y}
City of Toronto	6.7	5.1	4.4 ^M	3.9
Halton Regional	6.9 ^M	5.6 ^M	5.1 ^M	4.0 ^M
York Regional	5.6	5.9 ^M	5.2 ^M	4.0
Haliburton, Kawartha, Pine Ridge District	6.7 ^M	6.3 ^M	8.6 ^M	4.4 ^M
Niagara Regional Area	7.6	6.2 ^M	5.7 ^M	4.7 ^M
Peel Regional	7.2	7.3	4.0 ^Y	4.9
Middlesex-London	6.9	8.1	5.6 ^M	5.0 ^M
City of Ottawa	3.4 ^M	4.3 ^M	5.9 ^M	5.1 ^M
Kingston, Frontenac and Lennox and Addington	6.7	7.2 ^M	6.5 ^M	5.3 ^M
Windsor-Essex County	7.2	8.7 ^M	8.8 ^M	5.4 ^M
City of Hamilton	9.0	4.8 ^{M,Y}	6.2	5.5 ^M
Perth District	7.5 ^M	9.3 ^M	5.7 ^M	5.7
Wellington-Dufferin-Guelph	8.0	8.0 ^M	5.1 ^M	5.8 ^M
Simcoe Muskoka District	8.7	8.1	7.0	5.9
Thunder Bay District	8.0	7.2	9.8 ^M	5.9 ^{M,Y}
Chatham-Kent	9.9	6.6 ^M	4.4 ^M	6.0 ^M
Peterborough County-City	7.9 ^M	10.2 ^M	4.8 ^{M,Y}	6.0 ^M
Waterloo	6.4	6.0	5.1 ^M	6.2 ^M
Hastings and Prince Edward Counties	12.2 ^M	8.7	8.5	6.3 ^M
Lambton	7.3 ^M	7.7	5.4 ^M	6.6 ^M
Renfrew County and District	6.7 ^M	7.3 ^M	7.7 ^M	6.6 ^M
Timiskaming	7.1 ^M	F	F	6.7 ^M
North Bay Parry Sound District	10.7	6.2 ^{M,Y}	7.2	6.8 ^M
District of Algoma	13.8	5.8 ^{M,Y}	4.1 ^M	7.1 ^M
Brant County	10.4	12.0 ^M	7.2 ^M	7.9 ^M
Northwestern	8.8 ^M	10.8	5.7 ^{M,Y}	8.2 ^M
Durham Regional	11.2	8.3	7.7 ^M	8.5
Eastern Ontario	10.2	7.4 ^M	12.9 ^{M,+Y}	9.1 ^M
Sudbury and District	11.9	6.0 ^{M,Y}	9.8 ^M	9.3
Haldimand-Norfolk	9.2 ^M	7.8 ^M	7.2 ^M	9.8 ^M
Grey Bruce	7.4 ^M	6.2 ^M	5.2 ^M	9.9 ^{M,+Y}
Porcupine	12.2	8.8 ^M	11.0 ^M	11.1 ^M
Huron County	8.3 ^M	8.8 ^M	6.1 ^M	14.4 ^{M,+Y}
Ontario	7.5	6.5^Y	5.8	5.3

^a = Ordered by 2013/14 exposure (lowest to highest).

^M = Marginal. Interpret with caution: subject to moderate sampling variability.

^F = not reportable due to a small sample size.

^Y = Significantly lower than the previous year.

^{+Y} = Significantly higher than the previous year.

Source: Canadian Community Health Survey 2007/08, 2009/10, 2011/12 and 2013/14 (from the [Canadian Socio-economic Information Management System \[CANSIM\] Table 105-0502](#)). Health indicator profile, two year period estimates, by age group and sex, Canada, provinces, territories, health regions (2012 boundaries) and peer groups.

Table C-3: Nonsmokers' Exposure to Secondhand Smoke in Homes (Every Day or Almost Every Day), by Public Health Unit, Ages 12+, Ontario, 2007/08, 2009/10, 2011/12, 2013/14

Public Health Unit	Exposure to Secondhand Smoke in Homes			
	2007/08	2009/10	2011/12	2013/14 ^a
Halton Regional	5.4	3.4 ^M	2.8 ^M	2.2 ^M
Oxford County	8.8	6.6 ^M	6.4 ^M	2.2 ^{M,Y}
Middlesex-London	4.8	5.9 ^M	4.0 ^M	2.4 ^M
Waterloo	6.2	5.5	2.9 ^{M,Y}	2.5 ^M
Peel Regional	3.7 ^M	4.9	3.0 ^Y	2.6
York Regional	2.9 ^M	3.5 ^M	3.2 ^M	2.7 ^M
District of Algoma	8.6	8.0 ^M	4.7 ^M	2.8 ^M
Elgin-St. Thomas	7.6 ^M	5.9 ^M	3.5 ^M	2.9 ^M
Durham Regional	8.2	4.3 ^{M,Y}	6.3 ^M	3.1 ^M
City of Ottawa	4.1	3.6 ^M	3.2 ^M	3.3 ^M
Windsor-Essex County	6.9	5.2 ^M	4.8	3.5 ^M
City of Toronto	4.5	4.8	4.8 ^M	3.5
Niagara Regional Area	7.6	5.5 ^M	5.2 ^M	3.6 ^M
Renfrew County and District	6.3 ^M	7.4 ^M	5.3 ^M	3.8 ^M
Perth District	6.2 ^M	6.2 ^M	3.2 ^M	3.9 ^M
Leeds, Grenville and Lanark District	9.2	9.6	6.7 ^M	4.1 ^M
Peterborough County-City	5.9 ^M	6.9 ^M	2.1 ^{M,Y}	4.1 ^{M,+Y}
Thunder Bay District	7.6	7.6	4.7 ^M	4.5 ^M
Chatham-Kent	7.8 ^M	7.0 ^M	3.9 ^M	4.6 ^M
Sudbury and District	10.3	7.1 ^M	7.4 ^M	4.6 ^M
Wellington-Dufferin-Guelph	6.0 ^M	5.6 ^M	5.0 ^M	4.8 ^M
Eastern Ontario	12.7	7.4 ^{M,Y}	8.4	5.0 ^M
Grey Bruce	7.5	3.8 ^{M,Y}	5.2 ^M	5.2 ^M
Simcoe Muskoka District	7.5	4.5 ^{M,Y}	5.0	5.3
Haldimand-Norfolk	9.6	8.7 ^M	5.6 ^M	5.4 ^M
Porcupine	9.4 ^M	7.4 ^M	7.2 ^M	5.4 ^M
Brant County	8.3 ^M	7.8 ^M	4.2 ^M	5.5 ^M
Lambton	6.3 ^M	7.9 ^M	6.0 ^M	5.5 ^M
Kingston, Frontenac and Lennox and Addington	6.9 ^M	5.9 ^M	4.7 ^M	5.7 ^M
City of Hamilton	7.7	6.1 ^M	5.5 ^M	6.0 ^M
Northwestern	8.1 ^M	6.8 ^M	5.6 ^M	6.3 ^M
Hastings and Prince Edward Counties	12.0	9.2 ^M	8.1 ^M	7.3 ^M
Huron County	7.2 ^M	5.3 ^M	4.8 ^M	9.4 ^M
Haliburton, Kawartha, Pine Ridge District	8.6	6.8 ^M	6.6 ^M	F
North Bay Parry Sound District	8.3 ^M	5.4 ^M	5.4 ^M	F
Timiskaming	10.7 ^M	8.5 ^M	9.4 ^M	F
Ontario	5.8^Y	5.2^Y	4.5^Y	3.6^Y

^a = Ordered by 2013/14 exposure (lowest to highest).

^M = Marginal. Interpret with caution: subject to moderate sampling variability.

^F = not reportable due to a small sample size.

^Y = Significantly lower than the previous year.

^{+Y} = Significantly higher than the previous year.

Source: Canadian Community Health Survey 2007/08, 2009/10, 2011/12 and 2013/2014 (from the [Canadian Socio-economic Information Management System \[CANSIM\]](#) Table 105-0502). Health indicator profile, two year period estimates, by age group and sex, Canada, provinces, territories, health regions (2012 boundaries) and peer groups.

References

¹ Butt P, Beirness D, Gliksman L, Paradis C, Stockwell, T. *Alcohol and health in Canada: A summary of evidence and guidelines for low risk drinking*. Ottawa, ON: Canadian Centre on Substance Abuse, 2011.