THE ONTARIO TOBACCO RESEARCH UNIT
UNITÉ DE RECHERCHE SUR LE TABAC DE L'ONTARIO

Generating knowledge for public health

Smoke-Free Ontario Strategy Monitoring Report

Ontario Tobacco Research Unit

January 2014

Suggested Citation: Ontario Tobacco Research Unit. *Smoke-Free Ontario Strategy Monitoring Report*. Toronto: Ontario Tobacco Research Unit, Special Report, January 2014.

Acknowledgements

Many people were involved in the preparation of this report. Key authors are Robert Schwartz, Shawn O'Connor, Bo Zhang, Alexey Babayan, and Rita Luk.

Marilyn Pope provided editorial comments on an earlier draft and Sonja Johnston provided production assistance.

The interpretation and opinions expressed in this report are the responsibility of the Principal Investigators of the Ontario Tobacco Research Unit (OTRU):

- Susan Bondy, University of Toronto
- K. Stephen Brown, University of Waterloo
- Joanna Cohen, Johns Hopkins Bloomberg School of Public Health, University of Toronto
- Roberta Ferrence, University of Toronto, Centre for Addiction and Mental Health
- John M. Garcia, University of Waterloo
- Robert Schwartz, University of Toronto, Centre for Addiction and Mental Health
- Peter Selby, Centre for Addiction and Mental Health, University of Toronto

Table of Contents

List of Tables

List of Figures

Acronyms and Abbreviations

CAMH-M	Centre for Addiction and Mental Health Monitor
CCHS	Canadian Community Health Survey
CTUMS	Canadian Tobacco Use Monitoring Survey
LHINs	Local Health Integration Networks
LTPB	Leave The Pack Behind
MOHLTC	Ministry of Health and Long-Term Care
NRT	Nicotine Replacement Therapy
OSDUHS	Ontario Student Drug Use and Health Survey
OTRU	Ontario Tobacco Research Unit
OTS	Ontario Tobacco Survey
PHU	Public Health Unit
PTCC	Program Training and Consultation Centre
RNAO	Registered Nurses' Association of Ontario
SAC	Scientific Advisory Committee
SFOA	*Smoke-Free Ontario Act*
SHL	Smokers' Helpline
SHL TXT	Smokers' Helpline Text Messaging
SHO	Smokers' Helpline Online
SHS	Secondhand Smoke
STOP	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
TSAG	Tobacco Strategy Advisory Group
YATI	Youth Advocacy Training Institute

Chapter 1: 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.

In 2011, we reported on the Scientific Advisory Committee and Tobacco Strategy Advisory Group processes that informed the renewal of the Smoke-Free Ontario Strategy.[i] Since then, the Government has both established new structures for guiding Strategy implementation and taken 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 hospital and workplace based cessation demonstration projects (see Cessation Chapter) and school-based pilots (see Prevention 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; access to free Nicotine Replacement Therapy (NRT) and cessation counselling through Family Health Teams, Community Health Centres and Aboriginal Health Access Centres, and a province-wide social marketing campaign.

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.

[i] In the assessment of Strategy progress, frequent 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 comprised 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*.

The three goals are:

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

Chapters for each goal area (protection, cessation and prevention) 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 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 Control,[4] 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: Key Indicators related to Tobacco Use (See Chapter 5: Youth Prevention for more specific data on youth and young adults)
- Chapter 3: Protection from Secondhand Smoke
- Chapter 4: Smoking Cessation
- Chapter 5: Youth Prevention
- Chapter 6: Social Climate and Public Support
- Chapter 7: Concluding Note

Methodological Approach

This report presents information about Strategy activities and tobacco control using data available as of September 2013. 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 endeavors 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 fidelity, 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 successfully quitting and current smoking, do not always offer sufficient precision to identify small year-over-year changes,[ii] which is why we include short and intermediate-level outcomes and provide data on trends over five to ten year periods.

[ii] Statements of "significance" between two estimates (such as between years or between males and females), including any directional statement (e.g., increase, decrease, higher, lower, etc.), are based on non-overlapping confidence intervals. A comparison of two estimates that appear to differ in absolute magnitude from each other but are reported as not (statistically) significant (over-lapping confidence intervals) should be interpreted with caution.

To place the 2012/13 Ontario results in a larger context, we draw on the World Health Organization MPOWER Report and make comparisons with Ontario. This report has defined a set of policies that are consistent with the Framework Convention for Tobacco Control[7] 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), adult daily smoking prevalence, smoke-free policies, compliance with smoke-free policies, taxation, cessation programs, health warning on cigarette packages, anti-tobacco mass media campaigns, advertising bans, and marketing bans.[iii] MPOWER indicators reflect the agreement that parties to the Framework Convention for Tobacco Control were able to reach. They should not be considered a recipe for further substantial reductions in the prevalence of tobacco use in countries with already well-developed tobacco control strategies. In this report, MPOWER standards are used as reference points for monitoring progress in Ontario. We also draw on Scientific Advisory Committee recommendations to accomplish this task.

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 Strategy.

[iii] For the 10 MPOWER indicators, each is assigned a score to indicate the level of each policy. The highest score of 4 is assigned to 7 indicators and a score of 3 is assigned for the remaining 3 indicators; the higher the score, the better the policy. The total score for all 10 indicators is 37.

Chapter 2: 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, chewing tobacco and waterpipe shisha.

Overall Tobacco Use

- According to the 2012 Canadian Community Health Survey, 22% of Ontario respondents aged 12 years or over reported current use of tobacco in the previous 30 days (that is, smoked cigarettes, cigars, pipes; or used snuff or chewing tobacco). This represents 2.46 million tobacco users (CCHS 2012). There has been no statistically significant change in this rate since 2007/08 when the rate was 23%.
- In 2012, 19% of Ontarians smoked cigarettes,[iv] 4.6% smoked cigars, 0.5% smoked a pipe, 0.5% used chewing tobacco, and less than 0.5% used snuff (CCHS 2012) (Note: These estimates include co-use so do not sum to total tobacco use, or 22%; to facilitate comparison, use is restricted to only past-30 days, which is different to how current smoking is reported in other sections of this report).[iv]

Cigarette Use

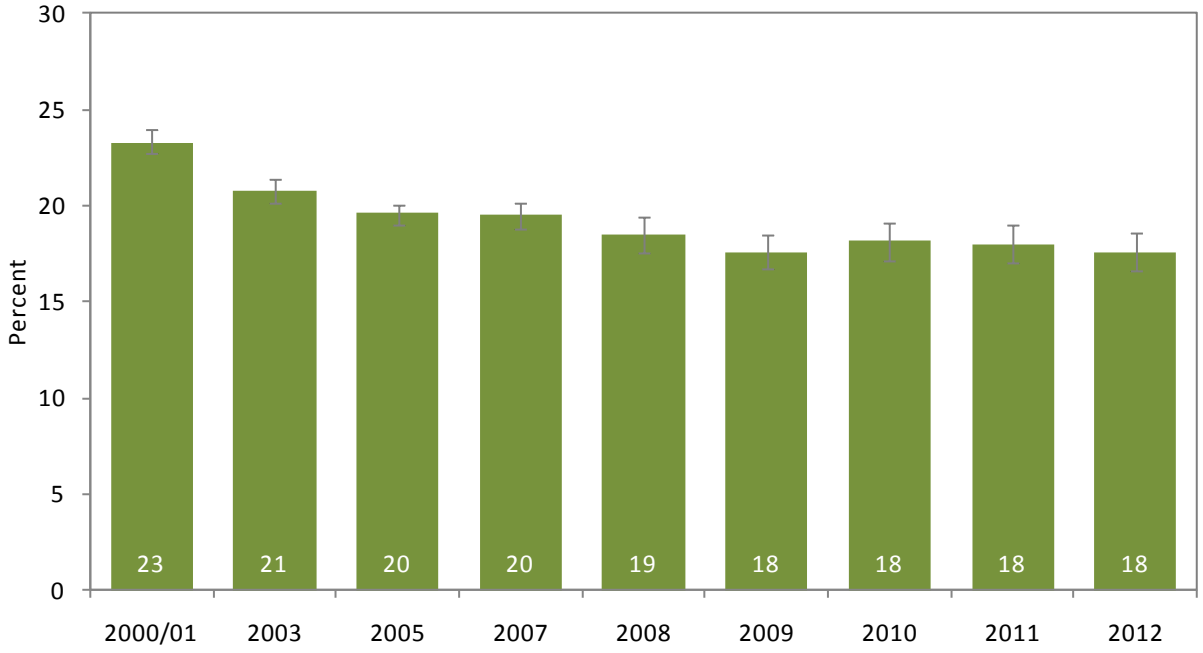
Reducing the prevalence of cigarette smoking is central to the Smoke-Free Ontario Strategy. One indicator that underscores progress toward this goal is past 30-day current smoking.

- In 2012, 18% of Ontarians aged 12 years or over had smoked cigarettes in the past 30 days and had smoked at least 100 cigarettes in their lifetime,[v] representing 2.03 million people (CCHS 2012; Figure 1).
- While there was a significant decrease in the prevalence of current smoking between 2000/01 and 2008 (from 23% to 20%), there has been no significant change over the past five years.

[iv] 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 18% (from CCHS 2012), which reflects past 30-day use and having smoked 100 cigarettes in one's lifetime.

[v] In addition to having smoked in the past 30 days, this definition of "current smoking" includes having smoked 100 cigarettes in one's lifetime.

Figure 1: Current Smoking (Past 30 Days), Ages 12+, Ontario, 2000/01 to 2012



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2000/01 to 2012.

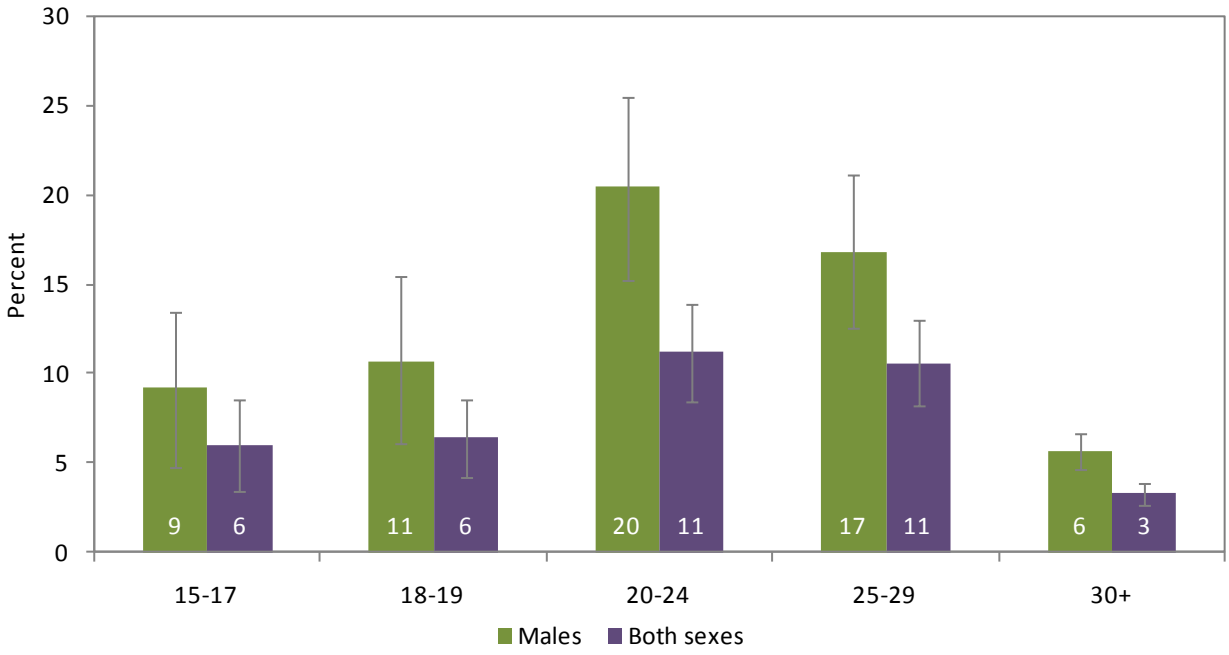
Cigar Use

- In 2012, 4.6% of Ontarians aged 12 years and over had smoked cigars[vi] in the past 30 days, making cigars the second most prevalent form of tobacco use after cigarettes (CCHS 2012).
- Past 30-day cigar use was significantly higher among males compared to females in 2012: 8% of all males age 12 years and over had smoked cigars in the past 30 days compared to 1.4% of females in 2012 (CCHS 2012, data not shown).
- Past 30-day cigar use was particularly high among young adults aged 20 to 24 and 25 to 29 (11%), with males having particularly high rates of use (CCHS 2012; Figure 2). Among those aged 15 to 29, the prevalence of past 30-day cigar use was 16% for males but only 3% for females (the prevalence among the population of 15 to 29 year olds was 9%).

[vi] These data are from the 2012 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 might be an underestimate of all cigar/cigarillo use.

- The rate among males aged 18-19 was significantly lower in 2012 compared to 2010 (11% vs. 19%), but there was no difference in the rates within other age groups over this period (data not shown).
- In Ontario, wholesale sales of the total cigar category (little cigars/cigarillos and cigars) have fallen 18% since 2009, the year in which sales were the highest level reported in recent years (185,743,828 unit sticks in 2009 to 153,137,662 units in 2012).[vii] The reduction in sales since 2009 may reflect users' reduced consumption, as the market of little cigar and cigarillo brands was converted into nonfiltered cigar brands weighing more than 1.4g in 2010.

Figure 2: Cigar Use (Past 30 Days), by Age, Ontario, 2012



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2012.

Smokeless Tobacco Use

- According to CCHS 2012, 0.5% of Ontarians aged 12 years and over used chewing tobacco in the past month, and less than 0.5% used snuff.
- Among Ontario students in grades 7 to 12, 5.7% have used smokeless tobacco products (chewing tobacco or snuff) in the past year. Among these past-year users, 43.5% tried

[vii] Health Canada, Personal Communication, September 27, 2013

these products only once or twice and another 15% used them no more than 3 to 5 times (OSDUHS 2013).

- While the overall rate of wholesale sales in smokeless tobacco is low (Table 1), sales saw a 9.3% increase since 2011, with a 23% increase since 2009.[viii]

Table 1: Smokeless Tobacco Sales (KGs), Ontario 2007 to 2012

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

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. At present, there is limited population surveillance data on waterpipe use in Ontario. However, recent data from the Ontario Student Drug Use and Health Survey indicate that past year use of a waterpipe among students in grades 7 to 12 was 10%, with use significantly increasing with grade, peaking at 19% in grade 12 (OSDUHS 2013, data not shown).[8]

Patterns of Cigarette Use

Current Smoking (Past 30 Days), by Location

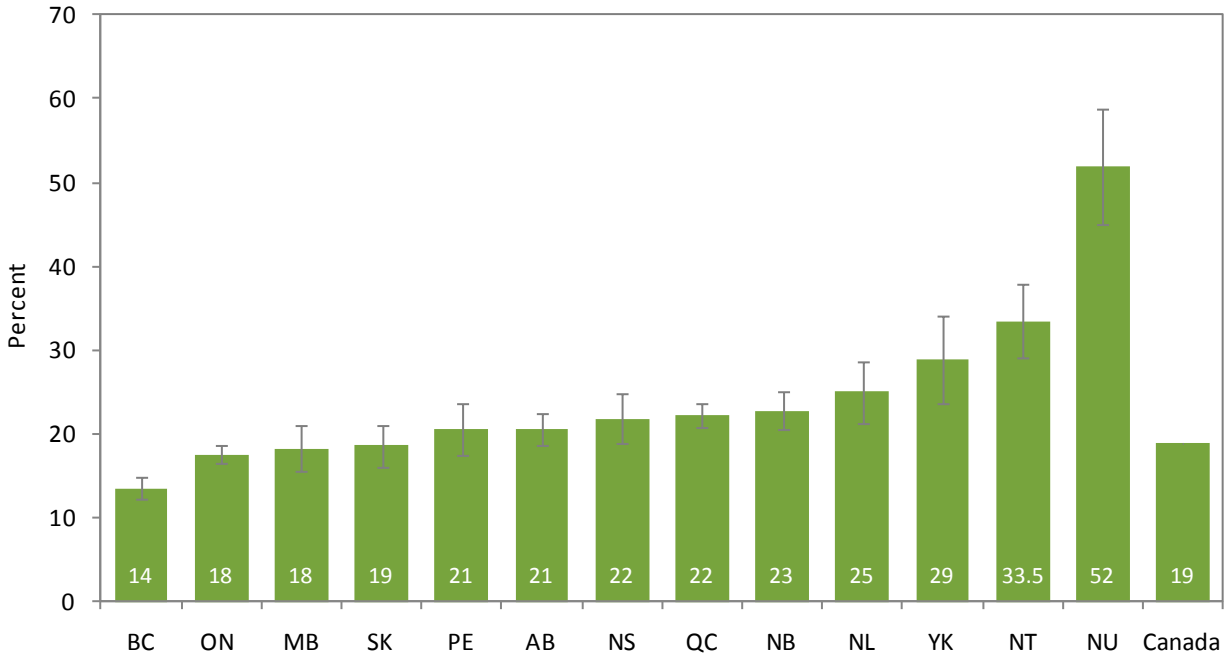
Federal, Provincial, Territorial

- Among the provinces, past 30-day current smoking ranged from 14% in British Columbia to 25% in Newfoundland and Labrador (Figure 3). The highest rate of current smoking reported in Canada was in Nunavut at 52% in 2012 (CCHS data).

[viii] Health Canada, Personal Communication, September 27, 2013

- The rate of past 30-day smoking in Ontario was significantly higher than in British Columbia (18% vs. 14%). The prevalence of current smoking in Ontario was not statistically different from the national average (18% vs. 19%; CCHS 2012; Figure 3).

Figure 3: Current Smoking (Past 30 Days), by Jurisdiction, Ages 12+, 2012



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2012.

Ontario Health Regions

- In 2011/12, current smoking (defined as past 30-day use and 100 cigarettes in lifetime) ranged from a low of 14.1% in Ottawa to a high of 27.1% in Porcupine (Table 2, CCHS). The rate of current smoking in all of Ontario in 2011/12 was 17.8%.
- The prevalence of current smoking was 25% or more in 6 of Ontario's 36 health regions (Table 2).

Table 2: Current Smoking, by Public Health Unit, Ages 12+, Ontario, 2007/08 to 2011/12

	Current Smoking[a] (%)			
Public Health Unit	**2005**	**2007/08**	**2009/10**	**2011/12**
Ottawa	16.9	16.3	14.3	14.1
Peel	17.4	15.3	14.8	14.2
York Regional	14.5	13.6	15.2	14.7
Toronto	17	16.2	15	15.3
Northwestern (ON)	21.2	23.2	21.6	16
Windsor-Essex County	22.6	18.3	21.1	16.1
Kingston, Frontenac, Lennox & Addington	21.5	23.2	17	17.1
Niagara Region	21.8	23.8	20.2	17.3
Halton Regional	17.2	17.7	16.1	17.4
Middlesex-London	16.7	18.9	19.5	18.4
Simcoe Muskoka	22.4	22	23.2	18.6
Hamilton	21.7	21.6	18.2	18.9
Perth	18.2	16	21.5	19.1
Wellington-Dufferin-Guelph	20.4	22.1	17.3	19.4
Waterloo	18	20.4	17.1	19.9
Renfrew County	26.8	23.8	24.1	20.7
Durham Region	24.1	19.7	17.9	20.8
Huron County	23	22	17.1	21.4
Grey Bruce	20	19.9	17	21.5
Thunder Bay	26.1	25.2	23.6	21.7
Haldimand-Norfolk	28.7	24.1	21.8	22.6
Algoma	22.5	21.7	27.4	22.7
Timiskaming	25.9	22.7	19.2	22.8
Brant	24.7	22	26.4	22.9
Haliburton, Kawartha, Pine Ridge	21.1	23.3	24	23.2
Leeds, Grenville, Lanark	24	22.6	24.5	23.2
Lambton	24.4	23.8	22.3	23.5
Eastern Ontario	25.9	26	24.7	23.7
Peterborough	20	21.7	18.5	23.8
Chatham-Kent	23.4	25.8	20.5	24
Sudbury	23.2	24.5	23.7	25.3
Elgin-St. Thomas	25.8	24.7	19.3	25.4
North Bay Parry Sound	25.4	25.9	22	25.6
Oxford County	22.1	27.7	22.5	26.3
Hasting, Prince Edward	25.6	26.2	26.2	26.7
Porcupine	28.2	27.7	24.6	27.1
Ontario	19.6	19	17.9	17.8

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

[b] Ordered by 2011/12 current smoking (lowest to highest).

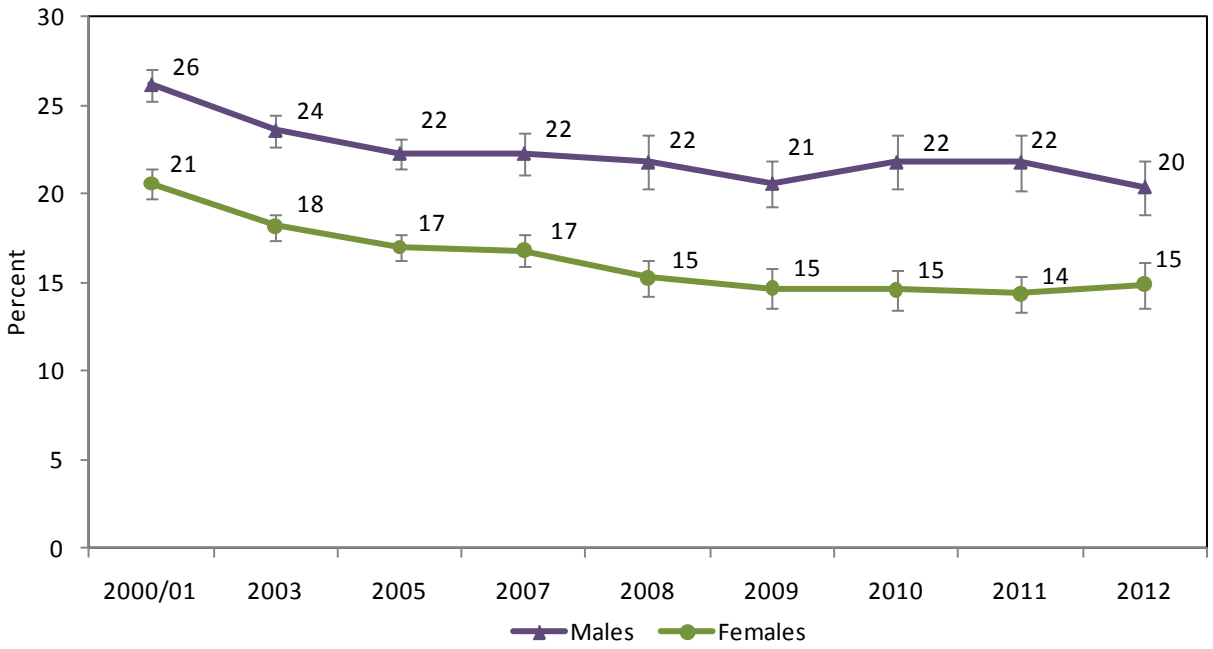
Source: CCHS 2005 to 20011/12.

Current Smoking (Past 30 Days), by Sex and Age

- In 2012, females aged 12 years and over had a significantly lower rate of past 30-day current smoking compared to their male counterparts (15% vs. 20%), a finding consistent with previous years (Figure 4).
- There has not been significant change in the smoking rate since 2005 for males and since 2007 for females (p for trend analysis >0.05[ix]).
- From 2000/2001 to 2012, past 30-day smoking among both males and females aged 12 years and over significantly decreased (26% to 20% among males and 21% to 15% among females; p for trend analysis <0.05).
- In 2012, the prevalence of current smoking among Ontarians varied substantially by age and sex (Figure 5).
- The prevalence of current smoking was highest among males aged 50-54 years (34%).
- In 2012, males aged 20-24, 25-29, 35-39, 40-44, 45-49, 50-54, and 65-69 had significantly higher smoking prevalence than their female counterparts ($p<0.05$ based on Z-test for two population proportions).
- The greatest number of current smokers among males was in the 50-54 and 20-24 year old age groups, representing 169,800 (15%) and 140,300 (12%) of the 1,141,300 male smokers in Ontario aged 18 and over.
- The greatest number of current smokers among females was in the 50-54 and 30-34 year old age groups, representing 101,900 (12%) and 89,200 (10%) of the 864,500 female smokers in Ontario aged 18 years and over.

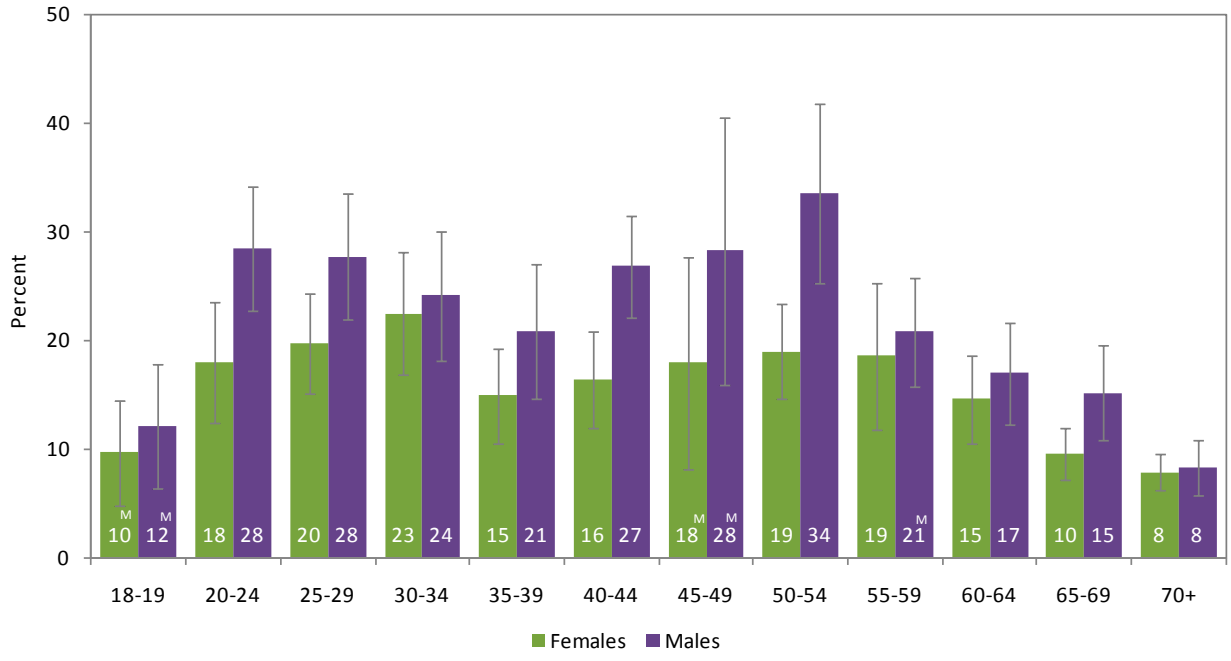
[ix] A trend analysis is a statistical technique that examines data collected over time (time-series data). A significant finding indicates that the overall trend, or pattern, of the data changed over time (e.g., decreased or increased).

Figure 4: Current Smoking (Past 30 Days), by Sex, Ages 12+, Ontario, 2000/01 to 2012



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: Canadian Community Health Survey 2000/01-2012.

Figure 5: Current Smoking (Past 30 Days), by Age and Sex, Ontario, 2012

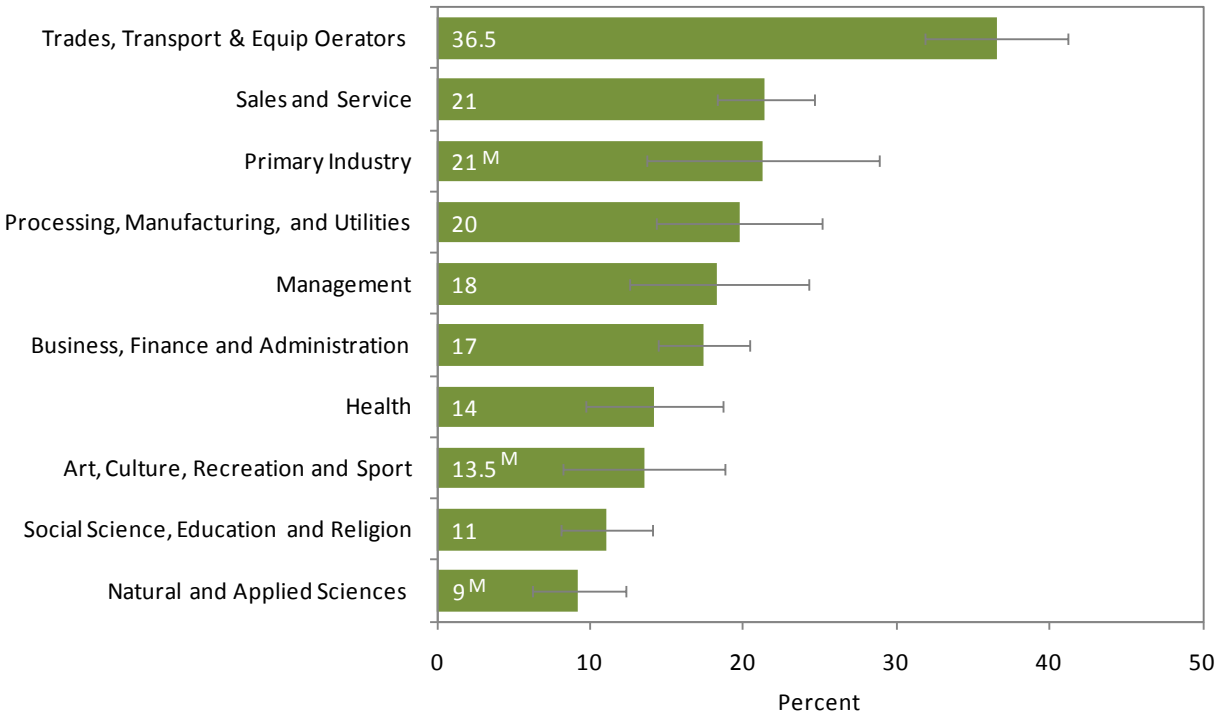


Note: Vertical lines represent 95% confidence intervals. M = Interpret with caution: subject to moderate sampling variability.
Source: Canadian Community Health Survey 2012.

Current Smoking (Past 30 Days), by Occupation

- In 2012, the prevalence of current smoking was highest among workers in trade occupations (36.5%), sales and service (21%), and primary industry (21%), representing a combined total of 712,200 (or 54%) of the 1,331,200 employed smokers in Ontario aged 15 to 75 years (CCHS 2012; Figure 6). In recent years, there have been no observed changes in these data.
- The occupational classification with the greatest number of current smokers was trade, representing 339,300 (or 25%) of the 1,331,200 employed smokers in Ontario aged 15 to 75 years (Figure 6).
- Among unemployed Ontarians aged 15 to 75 years, the prevalence of current smoking was 26%, representing 8% (154,700) of the 2 million smokers in Ontario aged 15 to 75 years (CCHS 2011/12; data not shown).

Figure 6: Current Smoking (Past 30 Days), by Occupation, Ages 15 to 75, Ontario, 2012

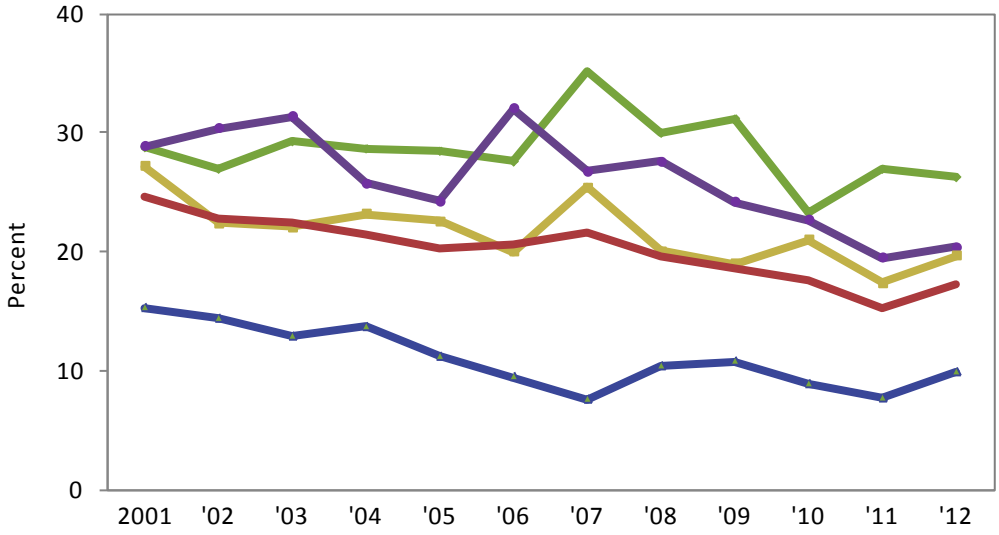


Note: Vertical lines represent 95% confidence intervals. M = Interpret with caution: subject to moderate sampling variability.
Source: Canadian Community Health Survey 2012.

Current Smoking (Past 30 Days), by Education

- According to the Centre for Addiction and Mental Health Monitor (CAMH Monitor), the prevalence of smoking among Ontarians aged 18 years or over was 17% (CI = -1.6, +1.8). The prevalence of smoking among those with less than a high school education has not decreased significantly from 2001 to 2012 (29% vs. 26%; in 2012, CI = -5.7, +6.7). For all other education levels, there has been a significant decrease over this period (Figure 7).
- Smoking prevalence among people with only a high school education has declined over the past five years and is now comparable to Ontarians with some post-secondary schooling (20%; CAMH Monitor). Over the past five years, levels have remained steady among Ontarians with post-secondary schooling or higher (Figure 7).
- Over the reporting period, Ontarians with a university degree were significantly less likely to be current smokers than those with less education (Figure 7).

Figure 7: Current Smoking (Past 30 Days), by Education, Ages 18+, Ontario, 2001 and 2012



	2001	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12
Less than high school	29	27	29	29	29	28	35	30	31	23	27	26
Completed high school	29	30	31	26	24	32	27	28	24	23	20	20
Some post secondary	27	22	22	23	23	20	25	20	19	21	17	20
University degree	15	14	13	14	11	10	8	10	11	9	8	10
All education groups	25	23	23	21	20	21	22[M]	20	19	18	15	17

Note: M = Interpret with caution: subject to moderate sampling variability.
Source: Centre for Addiction and Mental Health Monitor 2001-2012.

Risk Factors and Social Determinants of Health Associated with Smoking Status

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 Ontario Student Drug Use and Health Survey (OSDUHS) and adults (18 years and older; using CCHS data). The youth analysis 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 adult analysis 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 (from OSDUHS) were available for adults using CCHS data and vice versa (variable definitions can be found in Appendix A, Table A-1 and Table A-2).

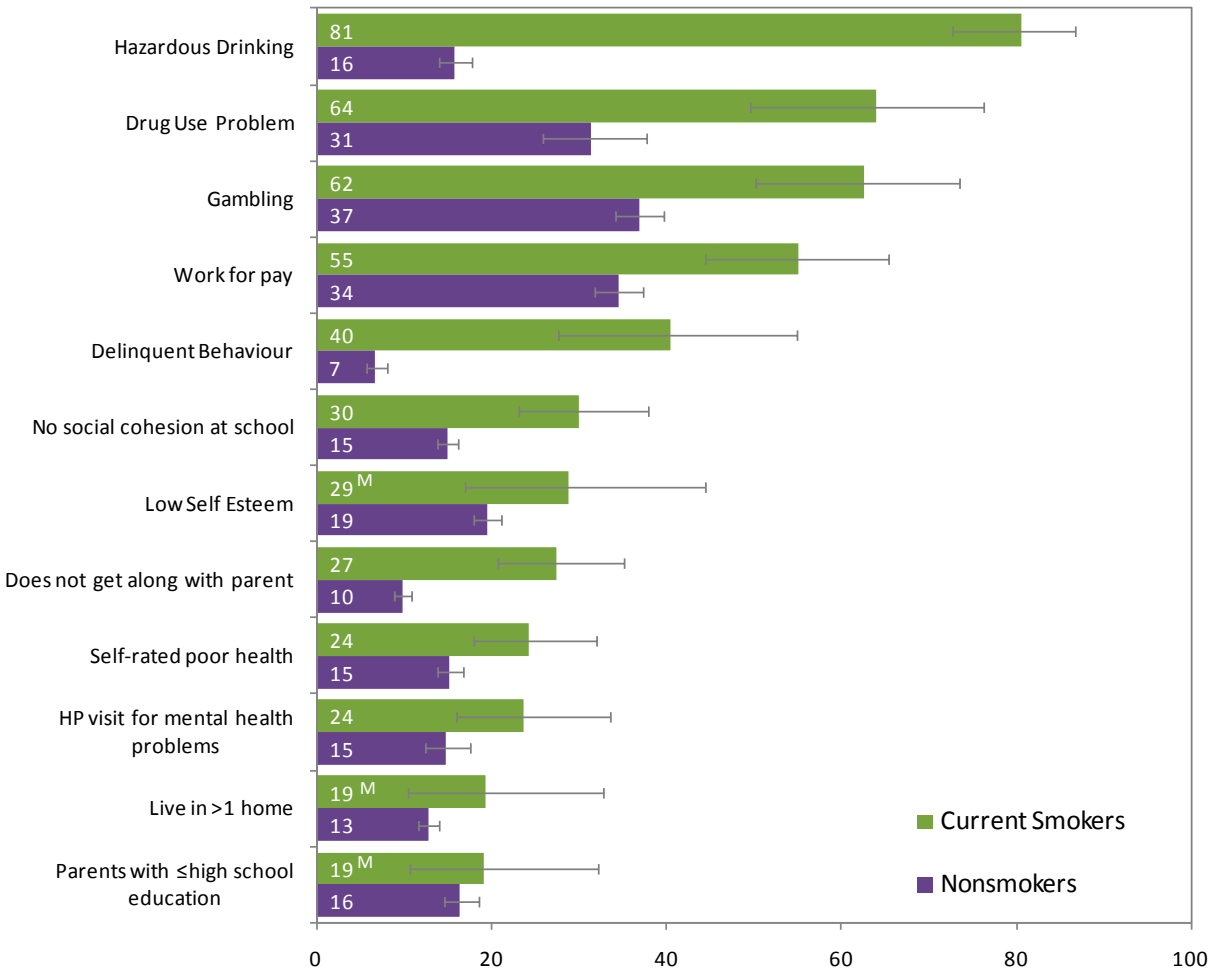
Youth

Students who were current smokers were significantly more likely than non-smokers to be hazardous drinkers (81% vs. 16%), have a drug use problem (64% vs. 31%), gamble (62% vs. 37%), work for pay (55% vs. 34%), engage in delinquent behaviour (40% vs. 7%), feel no social cohesion at school (30% vs. 15%), not get along with parents (27% vs. 10%), and have poor self-rated health (24% vs. 15%) (Figure 8; OSDUHS 2011).

Adults

- Current smokers aged 18 years and older were more likely to identify as being White than nonsmokers (85% vs. 73%) and as being born in Canada (78% vs. 65%; Figure 9).
- Compared to nonsmokers, more current smokers engaged in behaviours that are risk factors for the development of chronic diseases: having unhealthy eating habits (eating less than 5 fruits or vegetables per day: 73% vs. 59%), being inactive in leisure time (53% vs. 47%), drinking in excess of the low-risk drinking guidelines (53% vs. 33%), and having past year drug use (28% vs. 8%).
- More adults age 18-29 reported drinking/drug use in excess of low-risk drinking/drug use guidelines compared to all adults (67% vs. 46% drinking in excess and 52% vs. 22% for drug use in past year; data not shown), with a similar pattern emerging between smokers and nonsmokers.

Figure 8: Factors[x] Associated with Smoking Status among Students in Grades 7 to 12, Ontario, 2011



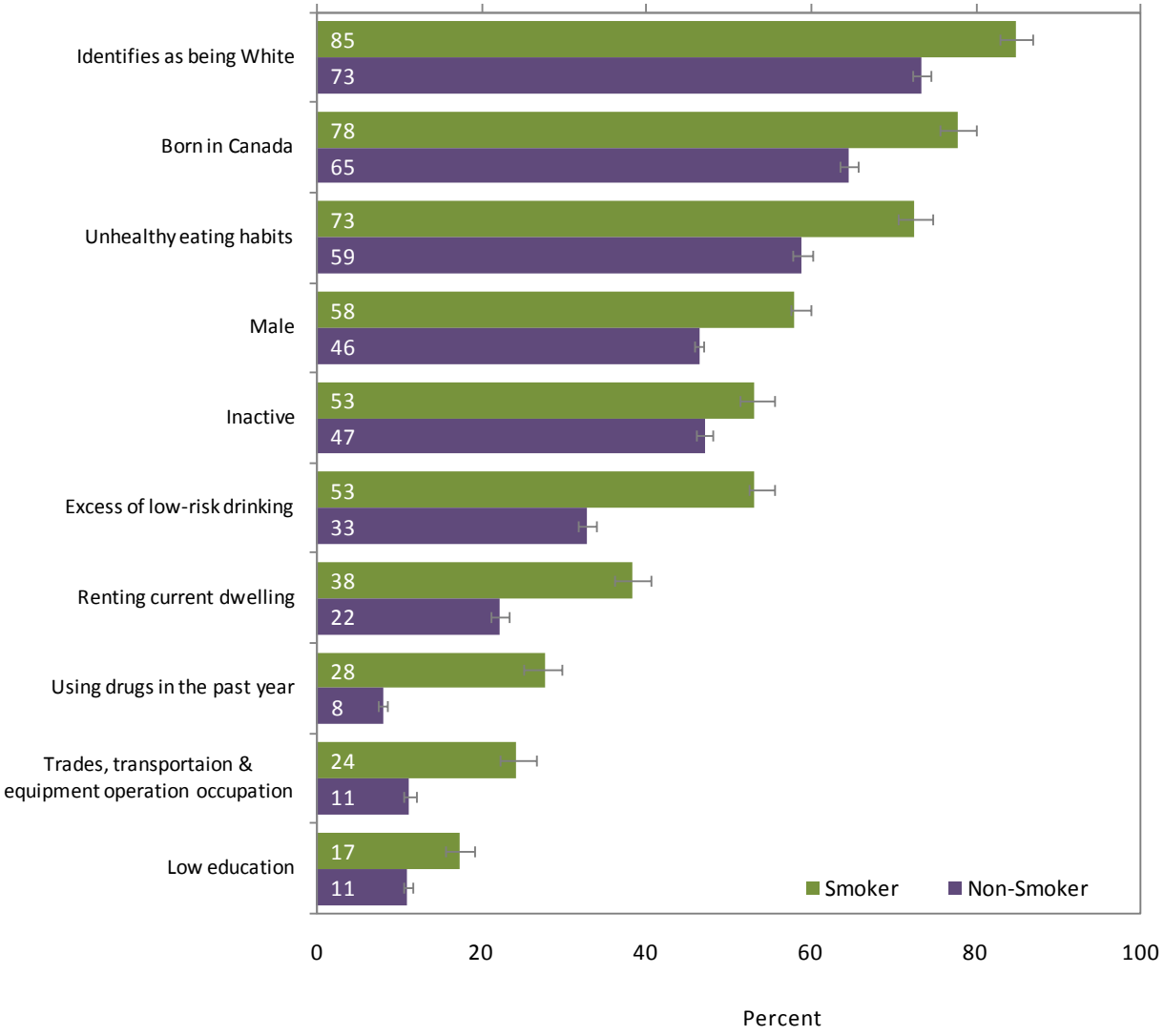
Note: Horizontal lines represent 95% confidence intervals. M = Interpret with caution: subject to moderate sampling variability.
Source: Ontario Student Drug Use and Health Survey 2011.

- Current smokers aged 18 years and older were more likely to be male compared to non-smokers (58% vs. 46%).
- More current smokers reported renting the dwelling in which they currently resided (38% vs. 22%) and working in trades, transportation and equipment operation occupations (24% vs. 11%) compared to nonsmokers.
- A larger proportion of current smokers had lower education (less than high school: 17% vs. 11%) compared to non-smokers.

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

- A larger proportion of current smokers reported not having a regular family doctor compared to nonsmokers (13% vs. 8%; data not shown).
- More current smokers were categorized as being severely food insecure compared to nonsmokers (5.8% vs. 1.3%; data not shown).

Figure 9: Top Ten Factors[xi] Associated with Smoking Status, 18+, Ontario, 2011/12



Note: Horizontal lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2011/12.

[xi] Indicator definitions and information on data analysis provided in Appendix A.

MPOWER Comparison with Ontario: Tobacco Use

Two MPOWER comparisons with Ontario relate to the Tobacco Use Chapter: Monitoring and Smoking Prevalence.

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

MPOWER Indicator	Highest MPOWER Score; MPOWER Requirement	Situation in Ontario
Monitoring	Score = 3; Recent, representative and periodic data for both adults and youth)	Meets the requirement for the highest score
Smoking prevalence	Score = 4; Daily smoking rate <15%	Daily smoking rate 15.4% among adults aged 18+ in 2012 (Note: This is the daily smoking rate, not current smoking)

Chapter 3: Protection

Protection: Smoke-Free Ontario Strategy Components

An important goal of tobacco control is to protect the population from exposure to secondhand smoke (SHS). Desired outcomes include eliminating nonsmokers' exposure to SHS in public places, workplaces, vehicles in which children are present, and in the home. In Ontario, the protection component of the Smoke-Free Ontario Strategy is the main avenue by which progress toward these desired outcomes is expected to be achieved (Figure 10). 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).[9]

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)

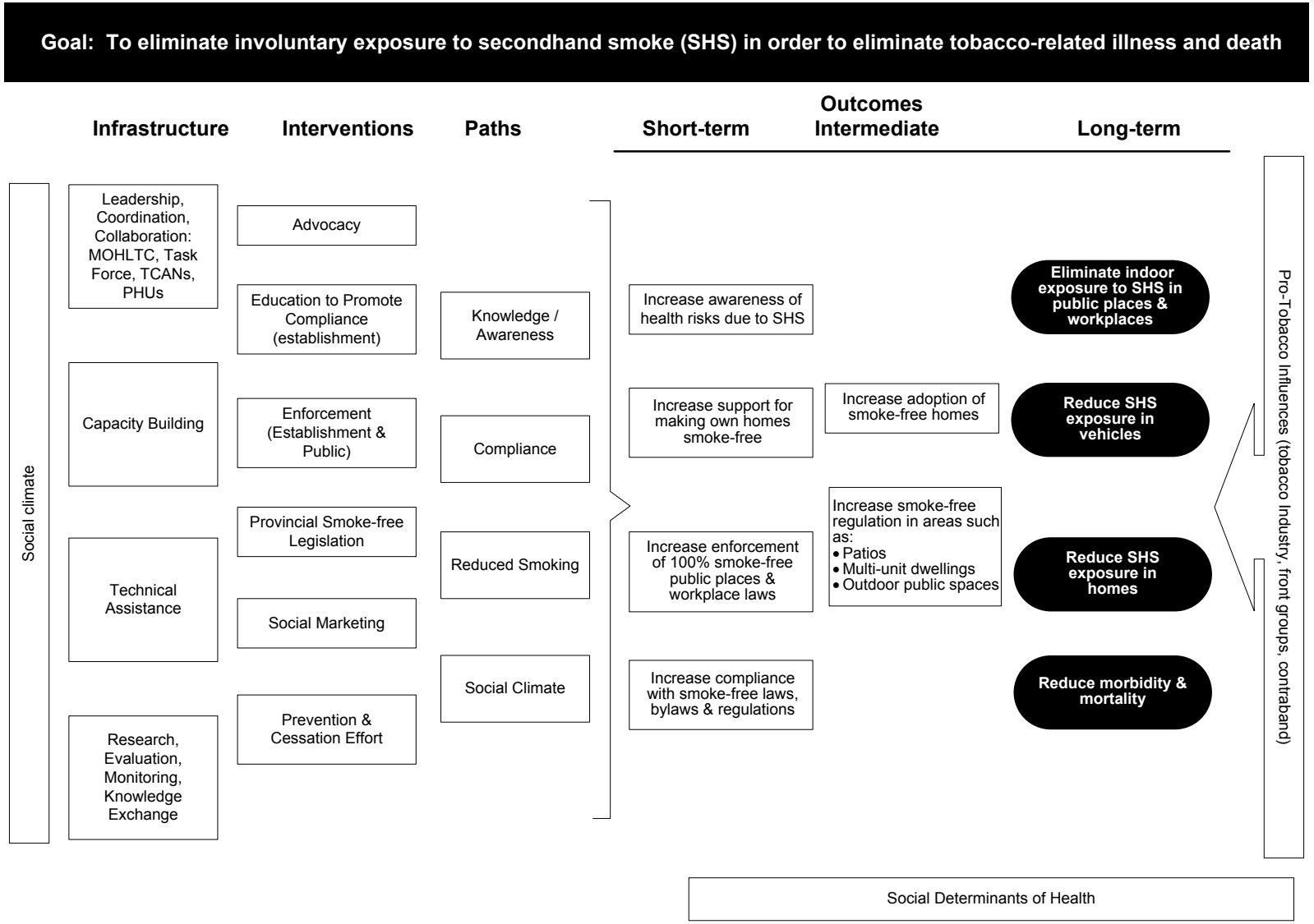
Tobacco Control Area Networks (TCANs) have a mandate to provide leadership, coordination, and collaborative opportunities centred on protection (as well as other Strategy goals).

The province's 36 public health units play a pivotal role in efforts to reduce the population's exposure to secondhand smoke. These efforts include:[3]

- 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 (e.g., on outdoor patios, multi-unit dwellings, parks).

Additional information about local PHU initiatives is presented in the Interventions section.

Figure 10: Protection Path Logic Model



Leave The Pack Behind (LTPB)

In 2012/13, Leave The Pack Behind worked with interested campuses to improve policy strength and enforcement centred on protections goals. The aim, 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 restrictions;[10] and establishing concrete, actionable approaches for policy enforcement by appropriate campus personnel.

Leave The Pack Behind's annual environmental scans of Ontario's 44 public colleges and universities reveal that all institutions have at least some restrictions on tobacco use, and the vast majority ban tobacco sales on campus. However, it appears that enforcement of smoke-free spaces is virtually non-existent on college and university campuses. Because students are acutely attuned to inconsistencies in the written policy and the actual day-to-day enforcement of the policy, campuses somewhat remain tobacco-friendly environments (Leave The Pack Behind, Personal Communication, July 2013).

Ontario Tobacco Research Unit (OTRU)

In 2012/13, OTRU continued to monitor key protection indicators including outdoor smoking and smoking on patios. [11,12] It also reviewed a number of findings in emerging areas related to protection including third-hand smoke exposure and tobacco-free sports and recreation policies[13,14] Additional projects included an observational study to learn more about exposure levels to toxic constituents of waterpipe in various public venues, as well as a study that explored the impact of residential tenancy legislation and policy approaches on the implementation of smoke-free policies in affordable housing, the experiences and behaviours of residents, and levels of SHS exposure (see http://otru.org/research-evaluation/protection/) for additional information on OTRU's protection activities). OTRU's online course (*Tobacco and Public Health: From Theory to Practice*) is a further resource on protection and is available to public health personnel across the province.

Program Training and Consultation Centre (PTCC)

In 2012/13, a portion of PTCC's work centred on supporting protection initiatives of the Strategy. PTCC provided training and resources to support the development and implementation of protection initiatives in communities, and they connected and supported relationship building

among Strategy partners through Communities of Practice such as Tobacco Free Sport and Recreation.

Smoking and Health Action Foundation (SHAF)

In 2012/13, SHAF supported developments in municipal legislation related to protection, with an emphasis on policy analysis and provisions that exceeded the *SFOA*. SHAF also tracked policies implemented by community/social housing providers in Ontario. SHAF also contributed to building protection capacity in 2012/13. For instance, numerous workshops, forums and consultations were held on issues related to protection including third-hand smoke exposure, drifting secondhand smoke in multi-unit dwellings, and concerns about e-cigarettes and waterpipes.

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 2012/13, YATI training sessions included information on risks of secondhand and third-hand smoke and tobacco-free initiatives including policy development and tobacco free sports and recreation.[15]

Protection Interventions

Protection Interventions Contributing to Knowledge/Awareness and Compliance Paths

Smoke-Free Ontario Act (SFOA)

Much of the activity in protection is centred 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 smoking[xii] in workplaces and enclosed public places such as restaurants, bars, casinos, and common areas of multi-unit dwellings. Smoking is also prohibited on restaurant or bar patios having a roof structure. The *Act* bans indoor designated smoking rooms and designated smoking areas.

Before the *Act* came into force, 9 of 10 Ontarians were covered by local smoke-free restaurant and bar bylaws (91% and 87%, respectively).[16] However, more than half of these bylaws (54%) allowed for designated smoking rooms.

[xii] Regulations extend to the smoking of tobacco in waterpipes.

The *SFOA* permits smoking exceptions for residents of residential-care, psychiatric, and veterans' facilities. Smoking is banned within 9 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*, effective January 21, 2009, Ontario banned smoking in vehicles with children under the age of 16, with a fine of $125 for each offence.

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*.[17]

The province's 36 public health units actively enforce the smoke-free provisions of the *Smoke-Free Ontario Act*. At the time of writing, no province-wide outcome data were available on enforcement or educational activities.

Local Policy Initiatives

At the local level, jurisdictions have the ability to extend protection beyond provincial legislation to other settings including:

- Outdoor parks, playgrounds, sports fields, and beaches
- Outdoor patios
- Transit shelters
- Hospital and long-term care grounds
- Buffer zones around doorways and windows
- Multi-unit dwellings

As of the fall of 2013, many jurisdictions had strengthened smoke-free municipal bylaws in these settings beyond that covered by the *Smoke-Free Ontario Act* (See Appendix B for details on 45 leading jurisdictions).

Waterpipe establishments are in contravention of the *Smoke Free Ontario Act* 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.[18] In some regions of the province, health units have charged hookah bar owners for permitting tobacco products to be smoked in their indoor establishments.[19]

Several jurisdictions have stepped up implementation and enforcement of regulations related to indoor waterpipe use. For instance, in October 2012, Peterborough prohibited the use of waterpipes (tobacco as well as other weeds or substances) in enclosed workplaces and public places, outdoors on licensed patios, and on property owned by the Municipality. In June 2012, Ottawa's Community and Protective Services Committee endorsed a ban on waterpipes including those used for tobacco-free products,[20] which subsequently passed into law. The regulation prohibits use on outdoor municipal property (e.g., parks, beaches and outdoor city facilities), settings which are currently covered by a tobacco product ban. Orillia and Englehart have also passed bylaws covering waterpipe use on municipal property, with Englehart including any substance inhaled by a person holding a waterpipe; this includes any non-tobacco/nicotine substance.

Voluntary Household Policies

Promoting smoke-free homes, especially if children and youth are present, is a component of many comprehensive tobacco control programs including the Strategy. According to CTUMS 2011, 82% of Ontarians aged 15 years and over indicated that smoking was not allowed inside their homes, unchanged in recent years (Data not shown). Among homes that allowed smoking, 41% of respondents indicated that smoking was restricted in some way.

Protection Interventions Contributing to the Reduced Smoking Path

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 Interventions Contributing to the Social Climate Path

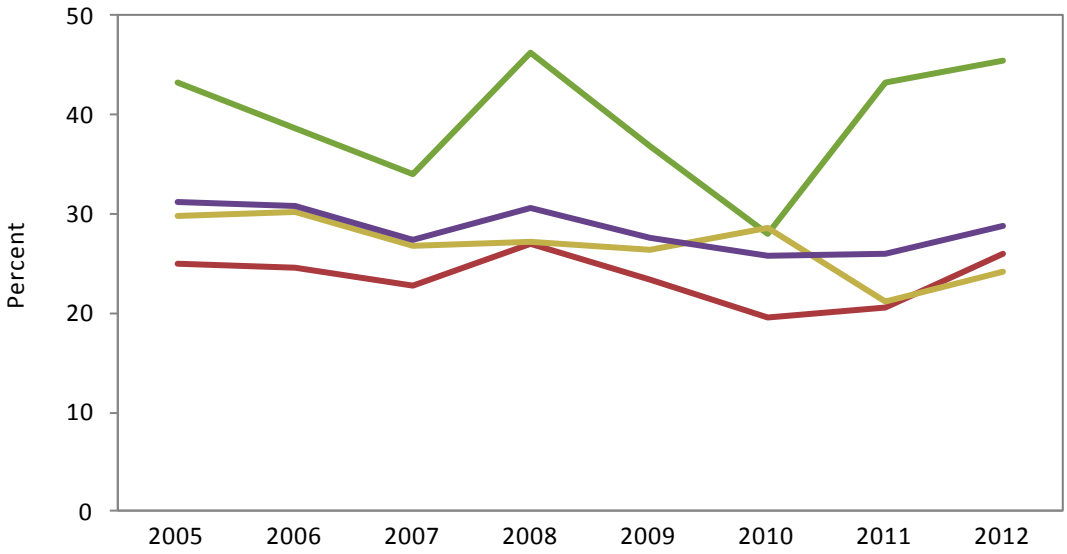
The majority of protection initiatives, including smoke-free policies and educational programs, have the potential to change the social climate around tobacco use and tobacco control. For instance, smoke-free initiatives by local public health departments, community activities led by YATI trained youth, and Leave The Pack Behind activities on campuses all have the potential to affect the social climate in support of tobacco control.

Protection Outcomes: Population Level

Workplace Exposure

- In 2012, 29% of workers (aged 15+) reported being exposed to secondhand smoke indoors or outdoors at the workplace in the past 30 days (CTUMS, 2012). There has been no significant change in overall workplace exposure from 2005 to 2012 (31% in 2005 and 29% in 2012; Figure 11).
- In recent years, blue-collar workers had a significantly higher level of exposure to secondhand smoke at work compared to workers in other occupations (Figure 11).
- According to the 2012 CAMH Monitor, 13% of adult workers (aged 18 years or older) were exposed to SHS indoors at work or inside a work vehicle for 5 or more minutes in the past week, unchanged from 2011 (14%; data not shown).

Figure 11: Workplace Exposure (Past 30 Days), by Occupation, Ages 15+, Ontario, 2005 to 2012



	2005	2006	2007	2008	2009	2010	2011	2012
Blue-collar	43	39	34	46	37	28	43	45.5
Sales and service	25	25	23	27	23	19.5	20.5	26
White-collar	30	30	27	27	26	28.5	21	24
Total	31	31	27	30.5	28	26	26	29

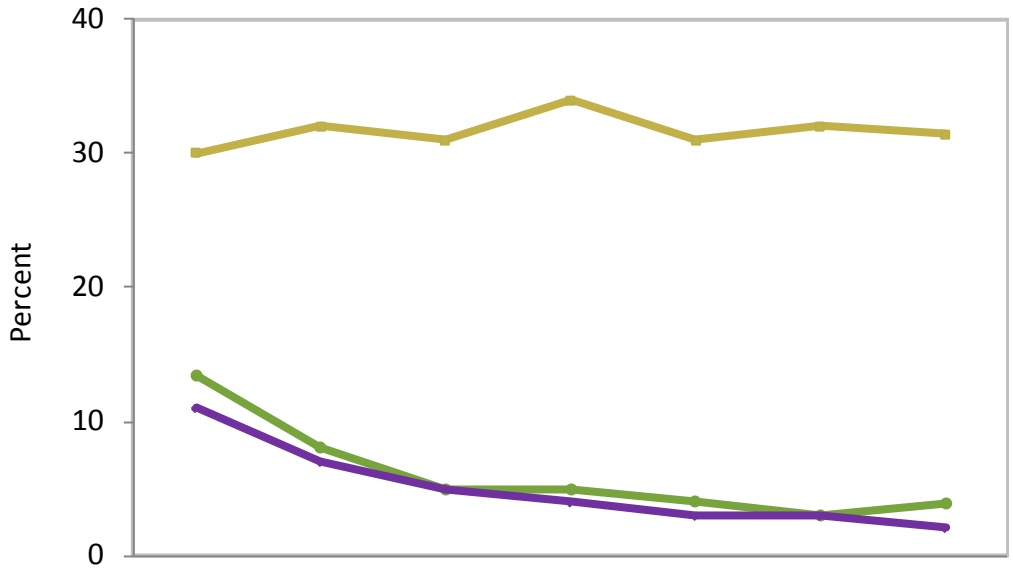
Source: CTUMS 2005–2012.

Exposure in Public Places

Restaurant and Bars

- In 2005, the year before the *Smoke-Free Ontario Act* was implemented, 11% of Ontarians aged 15 years and over reported exposure to secondhand smoke inside a restaurant. Since that time, exposure has decreased significantly, with reported exposure at 2% in 2011(Figure 12).
- Among the total population, secondhand smoke exposure in bars was 14% in 2005 (the year prior to the *Act*), falling to 4% in 2011 (five years following implementation) (Figure 12).
- The *Act* prohibits smoking on outdoor patios if a portion of a patio is covered or partially covered by a roof. Among the total population, exposure to secondhand smoke on any restaurant and bar patio was 30% in 2005 (the year prior to the *Act*). Since then, similar rates of exposure have been reported (Figure 12).
- In 2012, 61% of Ontario adults (including 76% of never-smokers) agreed that smoking should be banned on outdoor patios of restaurants and bars, unchanged from 2011 levels (57%) (CAMH Monitor, data not shown in the figure).

Figure 12: Exposure to SHS at Restaurants or Bars, Ages 15+, Ontario, 2005 to 2011



	2005	2006	2007	2008	2009	2010	2011
Bar exposure	13.5	8	5	5	4	3	4
Restaurant exposure	11	7	5	4	3	3	2[M]
Patio exposure	30	32	31	34	31	32	31

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

Note: The Smoke-Free Ontario Act was implemented May 31, 2006.

Source: CTUMS 2005–2011.

Other Public Places

- In 2011, half of all Ontarians reported being exposed to secondhand smoke at entrances to buildings in the previous month (50%), a level of exposure that has remained steady in recent years (CTUMS, data not shown).
- Reported past-month exposure to secondhand smoke in outdoor settings (e.g., on a sidewalk or at a park) has also remained relatively stable in recent years (52% in 2006 and 56% in 2011; CTUMS, data not shown).

Exposure in Vehicles

One objective of the Strategy is the reduction of secondhand smoke exposure in vehicles, with particular emphasis on protecting children and youth from secondhand smoke. 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 lower in 2012 (5%) than in 2008 (7%) and earlier (Figure 13; CCHS data).
- In 2012, exposure to secondhand smoke in vehicles among young nonsmokers aged 12 to 19 was 9%, which is significantly lower compared to 2008 (14%) and earlier (Figure 13).
- In 2012, exposure among 12 to 19 year olds was significantly higher compared to all Ontarians aged 12 years and older (9% vs. 5%).
- In 2011/12, 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 Peel Regional Health Unit to a high of 13% in Eastern Ontario Health Unit (See Appendix C, Table C-1).

Household Exposure

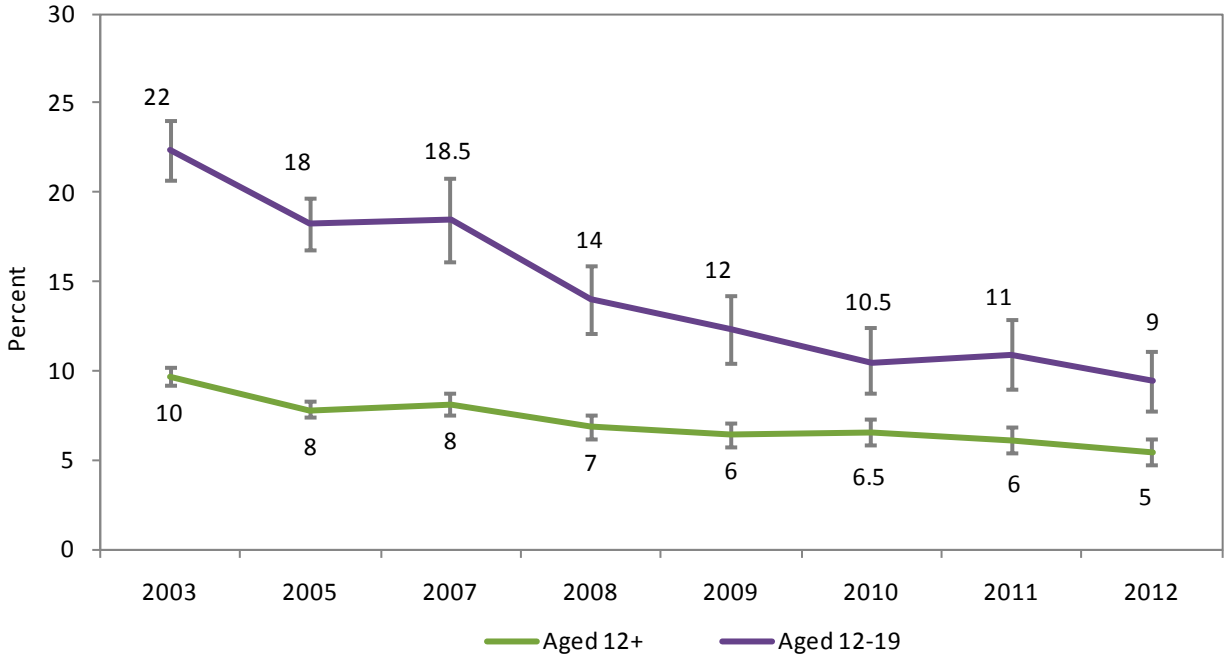
One general objective of tobacco control is to increase the adoption of voluntary policies to make homes smoke-free.

- In 2012, 4% (or 385,700) of nonsmoking Ontarians aged 12 years and older were exposed to secondhand smoke in their home every day or almost every day (Figure 14). There has been no significant change since 2008 (6%).
- Among 12 to 19 year old nonsmokers, 8% (or 94,400) were exposed to secondhand smoke in their home in 2012, which is double the exposure reported by all respondents

aged 12 and over (4%). Respondents aged 12 to 19 had a significantly lower rate of exposure in 2012 compared to levels reported in 2010 (12%) and before.

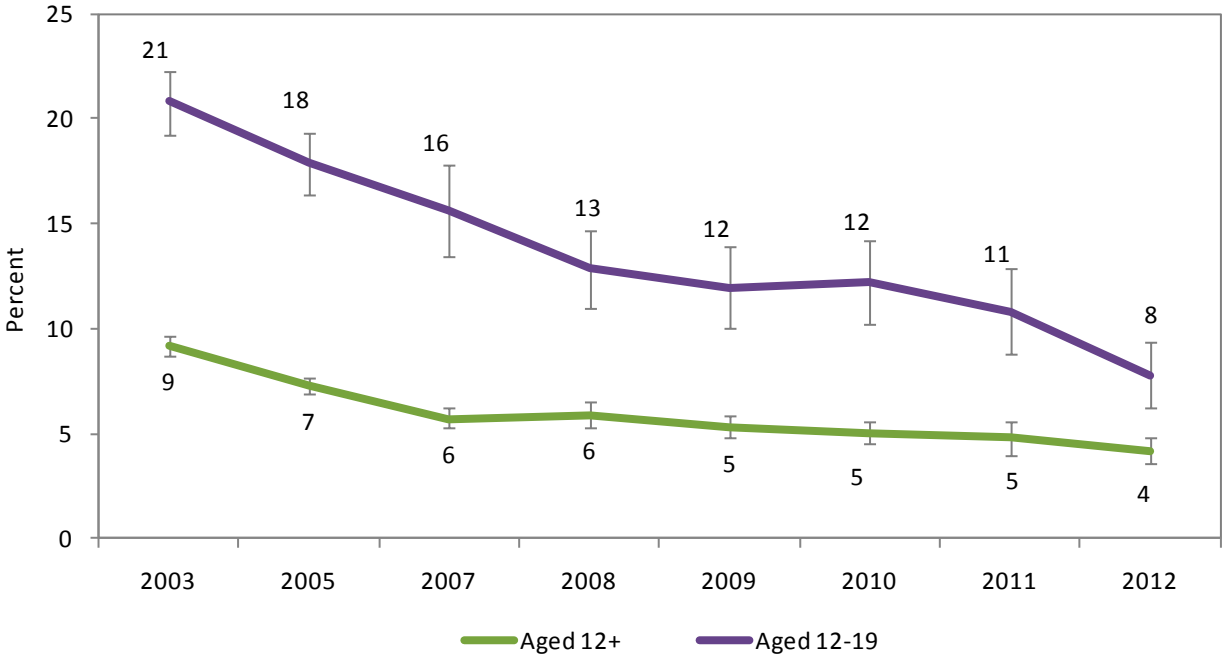
- In 2011/12, exposure to secondhand smoke in the home among nonsmoking Ontarians aged 12 years and over ranged from a low of 2% in Peterborough County-City Health Unit to a high of 9% in Timiskaming Health Unit (Appendix C, Table C-2).

Figure 13: Nonsmokers' Exposure to Secondhand Smoke in Vehicles (Every Day or Almost Every Day), by Age and Year, Ontario



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: CCHS 2003-2012.

Figure 14: Nonsmokers' Exposure to Secondhand Smoke at Home (Every Day or Almost Every Day), by Age and Year, Ontario



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: CCHS 2003-2012.

MPOWER Comparison with Ontario: Protection

Three MPOWER comparisons relate to Protection: Monitoring, Smoke-Free Policies, and Smoke-Free Policy Enforcement.

Table 4: Assessing Protection: MPOWER Indicators Applied to Ontario

MPOWER Indicator	Highest MPOWER Score; MPOWER Requirement	Situation in Ontario
Monitoring	Score = 3; Recent, representative and periodic data for both adults and youth)	Meets the requirement for the highest score
Smoke-free policies	Score = 4; All public places completely smoke-free	Meets the requirement for the highest score
Smoke-free policy compliance	Score = 3; Complete compliance by experts' assessments	Meets the requirement for the highest score

Chapter Summary

Ontarians' exposure to secondhand smoke in restaurants, bars, vehicles, and homes is significantly lower than it was three to five years ago, but nonsmokers continue to be exposed in a variety of settings.

Workers in both white-collar and sales and service positions have a similar rate of overall indoor/outdoor workplace exposure to secondhand smoke at any time in the past 30 days (24% and 26%, respectively) and a much lower rate than blue-collar workers (45.5%; CTUMS data). Exposure among blue-collar workers is in line with the exposure observed prior to the implementation of the *SFOA*.

According to the CAMH Monitor, 13% of workers were exposed to secondhand smoke indoors at work or inside a workplace vehicle for 5 or more minutes in the past week (CAMH Monitoring 2012).

Three in ten (31%) Ontarians who visited restaurants or bars reported being exposed on patios; more than half the population continues to be exposed outdoors: 50% at entrances to buildings and 56% on sidewalks or in parks (CTUMS 2011).

Eight percent of nonsmokers aged 12 to 19 are exposed in their home and 9% are exposed in vehicles.[xiii]

The Scientific Advisory Committee (SAC) recommended possible next steps to offer further protection for Ontarians including eliminating smoking in priority settings: unenclosed bar and restaurant patios, not-for-profit multi-unit dwellings, selected outdoor public settings (e.g., parks, transit shelters, doorways, etc.).[9]

With the level of exposure to secondhand smoke observed at work, on restaurant and bar patios, and at outdoor public places, Ontarians are also subject to social exposure to tobacco use. As recommended in the SAC report, additional work needs to be done to counter the influence of social exposure including implementing public education strategies that focus on this issue.[9]

[xiii] The *SFOA* prohibits smoking or having lighted tobacco in a motor vehicle if children under the age of 16 are inside the vehicle.

Chapter 4: Smoking Cessation

Cessation: Smoke-Free Ontario Strategy Components

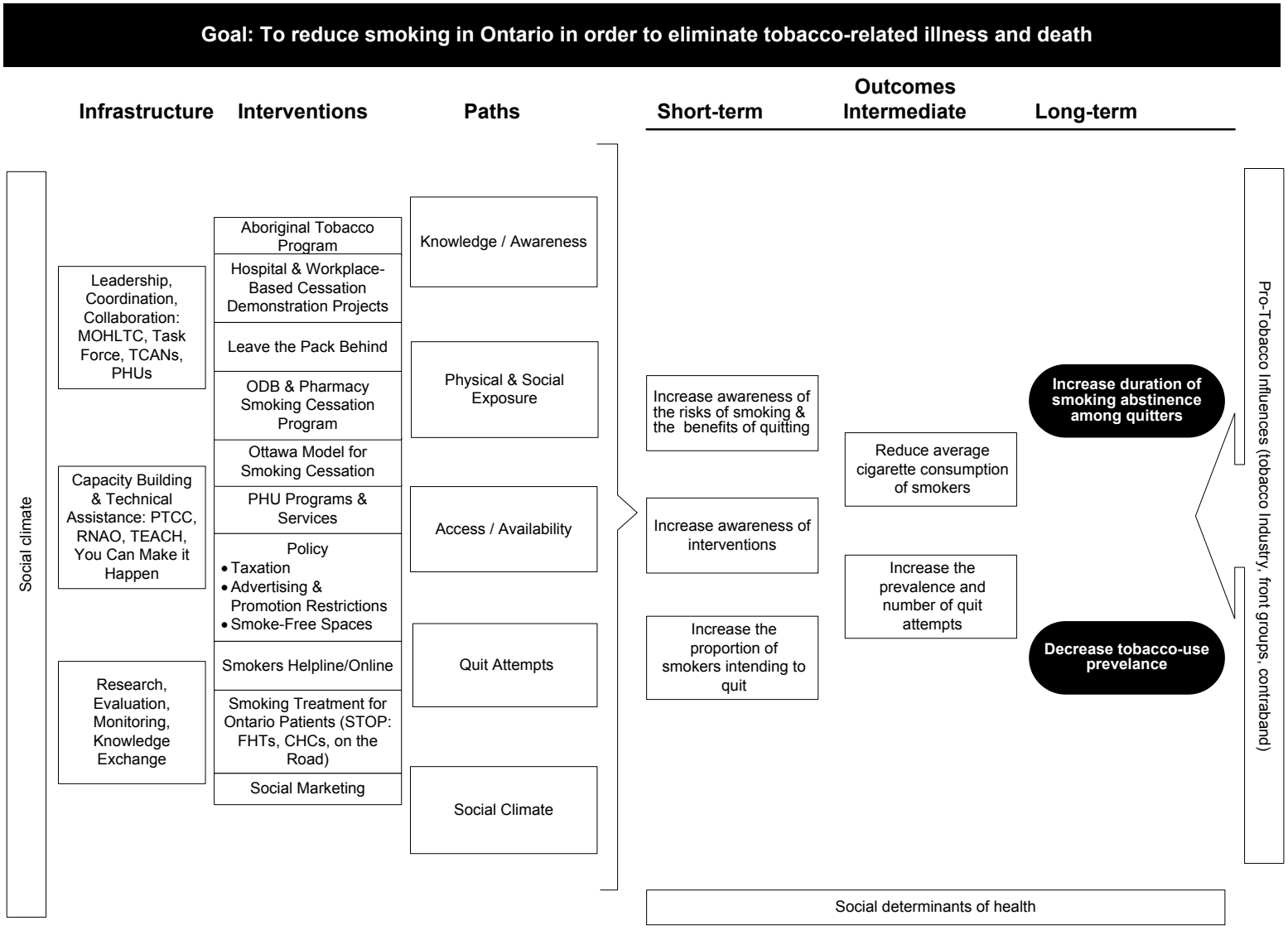
A main objective of tobacco control efforts is to increase the proportion of smokers who successfully quit smoking. Desired outcomes include increasing the proportion of smokers intending to quit, decreasing cigarette consumption (for example, transitioning smokers to non-daily smoking or greatly reducing 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,[25,26] 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[27,28] (Figure 15). 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.[28,29,30] The cessation component of the Strategy is the main avenue by which progress toward these pathways and desired cessation outcomes are expected to be achieved (Figure 15).

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 – Health Promotion Division has dedicated staff working on the cessation portfolio. A Cessation Task Force, comprising the Ministry, non-governmental organizations, service providers and researchers, has recently been established to provide information and advice in developing and supporting the implementation of cessation programs, services and policies in the province. Seven Tobacco Control Area Networks, representing the 36 public health units, have been set up across the province to provide leadership, coordination, and collaborative opportunities.

Figure 15: 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 public health unit 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), Program Training and Consultation Centre (PTCC), Registered Nurses' Association of Ontario's (RNAO) Nursing Best Practice Smoking Cessation Initiative (Initiative), Training Enhancement in Applied Cessation Counselling and Health (TEACH) Project, and You Can Make It Happen.

Ontario Tobacco Research Unit

The Ontario Tobacco Research Unit's current cessation work includes evaluations of various smoking cessation initiatives in a variety of locations including the workplace and healthcare settings, studies of effectiveness and cost-effectiveness of cessation services, assessment of current government incentives and regulatory policies related to health insurance coverage for cessation treatment, and studies on cessation pathways, factors related to relapse, and intervention outcomes (see http://otru.org/research-evaluation/cessation/ for additional information). OTRU's online course (*Tobacco and Public Health: From Theory to Practice*) is a further cessation resource available to public health personnel across the province.

Program Training and Consultation Centre

In the area of smoking cessation, PTCC offers workshops on a range of topics, including brief counseling techniques for smoking cessation, a woman-centred approach to smoking cessation, and community engagement to support smoking cessation. Training workshops are conducted in collaboration with public health units and Tobacco Control Area Networks.

Reach: In 2012-2013, 621 public health practitioners attended 22 PTCC training events: 21 cessation training workshops and one webinar (some individuals may have participated in more than one training event, Personal communication, PTCC Staff, 2013). The workshop participants were from Ontario's 36 local public health agencies, Community Health Centres, the health care sector (e.g., hospitals), community coalitions, and non-governmental organizations.

Effects: All PTCC training programs are routinely evaluated using post workshop and webinar questionnaires. Questionnaires are designed to assess participant reaction to the training (i.e., perceived usefulness and quality of the training) and learning (i.e., self-reported increase in knowledge, confidence and intention to apply the learning content following the workshop). On

average participants rated PTCC's cessation training courses 4.4 for quality, usefulness, and satisfaction respectively on a five-point scale. No other evaluative information is available about the effects of the training on participants' practice behaviour.

RNAO Nursing Best Practice Smoking Cessation Initiative

The Nursing Best Practice Smoking Cessation Initiative (Initiative) is a program undertaken by the Registered Nurses' Association of Ontario (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 public health units to coordinate the Initiative; delivery of training workshops in smoking cessation to nurses and other health professionals (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 integrating smoking cessation activities within a broader chronic disease framework.

Reach: In 2012/13, 167 health-care professionals (e.g., nurses, nursing students, etc.) were trained as Smoking Cessation Champions across 7 Ontario municipalities (RNAO, personal communication, October 2013). Since 2007, the RNAO Initiative has trained 1,605 health-care professionals.

Effects: Evaluation studies of the RNAO Initiative were conducted in 2010, 2011, and 2012 using a mixed-methods approach (web survey of Champions, case studies of public health and healthcare organizations).[31,32,33] 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 2012, the RNAO Smoking Cessation Best Practice Guideline was still being widely adopted, as evidenced by an increase from 19% (baseline) to 56% (6-month follow-up) in the proportion of Champion respondents who reported using the guideline recommendations in their daily practice. 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 three years have consistently shown that management buy-in and support is crucial in ensuring successful implementation of the project, increasing nurses' and other practitioners' engagement in the provision of smoking cessation services and adopting cessation policies and practices at the organizational level. The 2012 evaluation study also found that organizations' previous experience of participation in the RNAO Initiative and concurrent enrolment in other smoking cessation initiatives, such as in the Ottawa Model for Smoking Cessation program, were critical in supporting the adoption of organization-wide cessation policies and practices. These findings need to be interpreted with caution due to survey response bias and limitations on generalising from information gathered through case studies.

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. 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; and an evaluation component to examine project impact and knowledge transfer. TEACH training is now considered the training standard for primary-care settings and community-based services planning to offer cessation services including Family Health Teams, Community Health Centres and Aboriginal Health Access Centres.

Reach: Since the project's launch in 2006, TEACH has trained 2,891 unique practitioners from diverse disciplines in intensive cessation counseling across Ontario. In 2012/13, TEACH trained 389 practitioners in 3-core courses (2 classroom and 1 online). Participants included registered nurses, nurse practitioners, addiction counsellors, health promoters/educators, social workers, pharmacists, respiratory therapists who came from a variety of settings including hospitals (108), Family Health Teams (94), Community Health Centres (47), public health units (46),

addiction agencies (27), Aboriginal Health Access Centres (4), and other settings. Due to enrollment capacity in 2012/13, over 230 applicants (37%) had to be waitlisted.

Effects: In 2012/13, practitioners rated measures of feasibility, importance, 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. In follow-up surveys, two groups of practitioners responded that their abilities to provide cessation counseling at a high or very high level increased (74% and 79% of respondents agreed at 3 months, and 83% and 78% agreed at 6 months). When practitioners were asked whether they engaged in intensive cessation counselling or brief interventions with clients (either in group or to individuals), 66% and 61% of practitioners from each group were in agreement at 3 months and 75% and 73% were in agreement at 6 months. (Note. Interpret with caution due to relatively low response rates at follow-ups; approximately 47% at 3 months and 28% at 6 months.)

Barriers to engaging in smoking cessation identified by TEACH participants included: lack of practitioners' time, client motivation to participate, lack of organizational support, and lack of funding.

You Can Make It Happen

You Can Make It Happen is an initiative of Ontario Public Health Units (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 the first 3 quarters of 2013, the You Can Make It Happen website received a total of 1904 visits, 1608 of which were from accounts hosted by Canadian Internet Service Providers.[xiv] Per website visit, visitors looked at an average of 2.72 pages and spent 3.12 minutes per page view. The Smokers' Helpline reports that You Can Make It Happen has grown awareness of

[xiv] Google Analytics (Distributed by Donna Kosmack, Southwest TCAN (Personal Communication, October 11, 2013).

Helpline services among health-care professionals and has provided an ongoing source of Helpline Quit Connection referrals and a number of FAX Referral Partnerships.[34]

No specific information is readily available about You Can Make It Happen'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 (i.e., exposure to secondhand smoke) and social exposure to tobacco (i.e., the visual exposure to tobacco products and/or use in social environments). These policies include smoking bans in bars, restaurants, vehicles and workplaces and restrictions on marketing and promotion of tobacco products.[35]

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, and cars transporting minors. 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.[36,37,38,39]

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.[40,41,42] In Ontario, a complete ban on the retail and wholesale display of tobacco products took effect May 31, 2008. Marketing, promotion and sponsorship of tobacco products is also regulated under the *Federal Tobacco Act*. A recent amendment to this *Act* (Bill C-32) has further restricted the marketing opportunities of tobacco companies by imposing a total ban on tobacco advertising 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.[43,44,45,46,47,48] On average, a 10% increase in price results in a 3-5% reduction in demand in higher income countries.[49,50,51]

In Ontario, the last change in provincial tobacco tax was on February 1, 2006 when the provincial excise tax for 200 cigarettes was increased to $24.70.[52] The introduction of the harmonized federal/provincial sales tax (HST) on July 1, 2010 has resulted in a more than $5 increase in tax paid on a carton of 200 cigarettes (see Table 5). Note. The Federal (GST) component of the HST already existed before the HST was implemented, hence the additional tax due to HST implementation is only the provincial portion, or 8% multiplied by $29.46 for pre-tax price + $17 for federal excise duty + $24.70 for provincial excise duty, which equals $5.69. Ontario continues to have the second lowest total tobacco tax (less than $60) of any Canadian province or territory.

Table 5: Federal/Provincial/Territorial Tobacco Tax Rates (per 200 Cigarettes, April 2013)

Province	Average Pretax Price[a]	Federal Excise Duty	Provincial/ Territorial Excise Tax	Provincial/Territorial Sales Tax[b] or HST	Federal GST (5%)	Total Tobacco Taxes[c]	Total Retail Price
Alberta	$27.48	$17.00	$40.00	No PST	$4.22	$61.22	$88.70
British Columbia	$31.13	$17.00	$37.00	HST: 12% = $10.22	See HST	$64.22	$95.35
Manitoba	$32.30	$17.00	$58.00[d]	PST (before GST): 7% = $7.49	$5.37	$87.86	$120.16
New Brunswick	$19.42	$17.00	$38.00[e]	HST: 13% = $9.67	See HST	$64.67	$84.09
Newfoundland	$27.90	$17.00	$41.00[f]	HST: 13% = $11.17	See HST	$69.17	$97.07
NW Territories	$34.02	$17.00	$57.20	No PST	$5.17	$79.37	$113.39
Nova Scotia	$29.35	$17.00	$47.04[g]	HST: 15% = $14.01	See HST	$78.05	$107.40
Nunavut	$25.54	$17.00	$50.00	No PST	$4.63	$71.63	$97.17
Ontario	**$29.46**	**$17.00**	**$24.70**	**HST: 13% = $9.25**	**See HST**	**$50.95**	**$80.41**
Prince Edward Island	$28.11	$17.00	$45.00[h]	HST: 14% = $12.62	See HST	$74.62	$102.73
Quebec	$30.49	$17.00	$25.80	No PST	$3.66	$46.46	$76.95
Saskatchewan	$29.17	$17.00	$50.00[i]	PST: 5% = $4.81	$4.81	$76.62	$105.79
Yukon	$25.54	$17.00	$42.00	No PST	$4.23	$63.23	$88.77

[a] This average estimate of "pre-tax price" for each province is calculated using the Consumer Price Index (CPI) and the CPI Intercity Index from Statistics Canada for a carton of 200 cigarettes in 2011. The full methodology for the calculations is available from NSRA by request.

[b] PST is calculated on the total of pre-tax price plus federal excise duty plus provincial excise tax.

[c] GST/HST is calculated on the total of pre-tax price plus federal excise duty plus provincial excise tax.

[d] Manitoba tax increase effective 16 April 2013. See http://www.gov.mb.ca/finance/budget13/papers/taxation.pdf.

[e] New Brunswick tobacco tax increase effective 27 march 2013. See http://www2.gnb.ca/content/gnb/en/news/news_release.2013.03.0255.html.

[f] Newfoundland tobacco tax increase effective 27 march 2013. See http://www.releases.gov.nl.ca/releases/2013/fin/0326n04.htm.

[g] Nova Scotia tobacco tax increase effective 5 April 2013. See http://www.novascotia.ca/finance/site-finance/media/finance/budget2013/Budget_Address.pdf.

[h] Prince Edward Island tobacco tax adjustment because of HST starting 1 April 2013. See http://www.gov.pe.ca/photos/original/fema_budget13.pdf

[i] Saskatchewan tobacco tax increase effective 21 March 2013. See http://www.finance.gov.sk.ca/budget2013-14.

Source: 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 April 2013 (http://www.nsra-adnf.ca/cms/file/files/130417_map_and_table.pdf).

Tobacco Product Availability

Restricting the retail distribution and availability of tobacco products is considered an important mechanism to limit consumption and subsequent negative health effects.[25,26,53] In Ontario,

legislation prohibits tobacco from being sold by vending machines, at pharmacies, hospitals and other healthcare and residential-care facilities. In some places in Ontario, tobacco sales are restricted by voluntary administrative policies (e.g., bans on sales on university and college campuses).[54] Despite these advances, tobacco products continue to be available across the province through a large number of retail outlets (approximately 13,000 in 2013, primarily convenience and grocery stores (Personal Communication, Lidija Halovanic, Health Promotion and Implementation Branch, Ministry of Health and Long-Term Care, December 5, 2013).

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 have been guiding 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 targets young adults aged 18 to 29 years old who classify themselves as social smokers. One aim of the campaign is to equate social smoking with socially unacceptable behaviours such as snacking from other's plates, passing gas and earwax picking in social situations.

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 20 universities and 24 applied arts colleges, LTPB works toward enhancing its existing evidence-informed social marketing campaigns through social media platforms, peer-to-peer e-mail and phone support, and linkages with other effective social media campaigns. In 2012/13, it helped mobilize support for the MOHLTC's *Quit the Denial* social marketing campaign by disseminating an email link about the campaign to over 19,000 students, disseminating 16,600 coasters to campus bars and 245 clings to campus washrooms, posting the *Quit The Denial* video

to the 900 followers of their Facebook page, and promoting the campaign on their main website.[54]

In 2012/13, LTPB ran three social marketing campaigns that used multiple communication channels (interpersonal, mass media, social media, and direct-to-consumer): *Preventing Initiation and Escalation of Smoking* (September to March), *wouldurather...* (December to January), and *Preventing Stress-Related Relapse and Escalation* (February to March). A March 2013 intercept poll of 3,861 students found that awareness was moderate for each of these three campaigns (47% for *Preventing Initiation and Escalation*, 51% for *wouldurather*, and 35% for *Preventing Stress-Related Relapse*). Further, 2,957 smokers in the *wouldurather...* contest registered to quit or cut back. [54]

Aboriginal Tobacco Program

The Aboriginal Tobacco Program is an initiative of Cancer Care Ontario aimed at preventing and reducing commercial tobacco use among First Nations, Inuit and Métis (FNIM) communities. This is achieved by funding FNIM communities to implement short-term tobacco cessation projects targeted to youth and/or pregnant and post-partum women, providing educational materials to raise awareness about the harmful aspects of commercial tobacco, offering training opportunities in tobacco prevention and cessation to front-line health staff, supporting youth to implement Tobacco-Wise Sports and Recreation campaigns, and other program activities.

At the time of writing, no evaluative data were available about outcomes of the activities implemented in 2012/13.

Interventions to Increase Quit Attempts

The Strategy funds several smoking cessation programs and services dedicated to encouraging people to quit smoking and helping them in their quit attempts (Figure 15).

Public Health Units

Local Boards of Health are mandated to ensure the provision of tobacco use cessation programs and services for priority populations.[3] In approaching this requirement, health units may refer smokers to community and provincial partners (see below) and run public education or social marketing campaigns to motivate smokers to quit. Health units may also provide front-line cessation services. Currently, systematic evaluative data on PHU cessation activity is not available.

Smokers' Helpline

The Canadian Cancer Society's Smokers' Helpline (SHL) is a free, confidential and province-wide smoking cessation service that provides support to individuals who want to quit, 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 has different channels to deliver cessation support, including over the phone, and by web-based and text messaging services.

1. Smokers' Helpline (Phone support)
   SHL phone support is provided by trained quit specialists. 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.
2. Smoker's Helpline Online (SHO)
   This online resource offers 24/7 web-based interactive assistance moderated by program staff and Evolution Health Systems Inc. (the program vendor). Since its introduction in 2005, the program has been providing smokers with online support groups, email support, instant messages, and personalized feedback about financial and health gains associated with quitting.
3. Smokers' Helpline Text Messaging (SHL TXT)
   In 2009, the Smokers' Helpline introduced a text messaging smoking cessation service. The service is provided either as a stand-alone service or in conjunction with phone support and online services. Registrants receive a series of supportive messages and can text key words to get help with preparing for their quit attempt, coping with their cravings, withdrawal symptoms and stress, identifying quit tips and aids, and staying motivated to maintain their quit.

Smokers' Helpline (Phone Support) Outcome Contributions

Reach: In the 2012/13 fiscal year, SHL reached 10,217 (or 0.58%) adult smokers aged 18 years and older in Ontario,[xv,55] which underscores a positive trend observed every year since 2009/10 when just 5,820 were reached (see Table 6). The 2012/13 high occurred despite the cancelation of the Driven to Quit Challenge, which brought in over 1100 registrants the previous year. Part of this may be explained by the inclusion of the SHL number (and url) on cigarette packages, a policy implemented by Health Canada during 2012/13. Preliminary data suggest that 5,589

[xv] 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.

callers (nearly 80% of all new reactive callers) indicated that the warning labels were one way in which they had heard of SHL.

The current reach in 2012/13 is higher than the median reach of quitlines in Canada in 2010 (0.21%) but is considerably lower than the median reach of quitlines in the US as reported by North American Quitline Consortium (NAQC) at 1.15% in 2010.[56,57] This rate also falls far short of the reach of leading quitlines in individual US jurisdictions, such as New York state (4.6%)[58] and Maine (6%),[59] which have been successful in achieving higher smoker penetration as a result of increased paid media and/or distribution of free cessation medication. (Comparisons among jurisdictions should be interpreted with caution as it is not completely clear to what extent New York, Maine and other US quitlines follow the definition and calculation of quitline reach provided by NAQC.)

Table 6: Smokers' Helpline Reach, 2005/06 to 2012/13

Fiscal year	No. of New Callers (Calling for Self)[a]	Proportion of Ontario Smokers Reached, %[b]
2005/06	6,127	0.39
2006/07	6,983	0.43
2007/08	7,290	0.39
2008/09	6,464	0.38
2009/10	5,820	0.37
2010/11	6,844	0.45
2011/12	7,964	0.53
2012/13	10,217	0.58

[a] Administrative data provided by SHL.
[b] Estimates of the total population of smokers aged 18+ from 2005/06 to 2011/12 were calculated based on CTUMS 2005 to 2011 (TIMS data).

As in past years, females made up a greater proportion of smokers reached by SHL in 2012/13 (50.5%).[55] This is consistent with the experience of other quitlines,[60] although the majority of Ontario smokers are male (58%; CAMH Monitor, 2012).

More than half of SHL callers in 2012/13 were individuals 45 or more years of age (55%). Young adults (18-34) comprised 27% of all new callers in 2012/13,[55] which closely reflects the proportion of young adults in the Ontario smoking population (28%; CAMH Monitor, 2012).

Effects: No evaluative data are available about the effects of SHL on smokers' quitting behaviour in 2012/13. Data from 2011/12 indicate that at the 7-month client follow-up, 89% of survey respondents had taken some action toward quitting after their first contact with SHL (response rate = 64.5%). This proportion is the same as that reported in 2009/10 (89.0%) and 2010/11 (89.5%). The most frequently reported actions include reducing cigarette consumption (75.1%), quitting for 24 hours (70.8%) and setting a quit date (55.7%).[55] Quit rates (responder rates[xvi]) 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) (see Table 7).

In the past five years, the SHL has seen an approximately 9.0 percentage-point increase in the proportion of users reporting 7-day and 30-day point prevalence abstinence (Table 7). The proportion of 6-month abstainers has doubled over the same period. Furthermore, the 7-day and 30-day quit rates achieved in 2011/12 compare favourably with the same cessation indicators reported in studies of US quitlines, which did not provide cessation medication (e.g., NRT) as part of quitline counselling service.

Table 7: Smoker's Helpline 7-Month Follow-up 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 Absence

[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.

[xvi] The responder 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. The responder rate calculation produces a higher quit rate compared to the intent-to-treat rate, in which all participants are included in the denominator whether or not they completed the follow-up survey/evaluation.

Smokers' Helpline Online Outcome Contributions

Reach. In 2012/13, a total 7,257 smokers registered for SHO, which is a 1.2-fold increase since the launch of the program but a 16% decrease from 2011/12 and below the 2009/10 peak of 9,539 registered smokers (Table 8). SHO reached an estimated 0.47% of the smoking population in 2012/13. The absence of the Driven to Quit Challenge in the field over this period may have negatively impacted the comparative number of online registrations, as this campaign was a source of registrants in 2011/12.

There is no information about demographic characteristics of tobacco users who accessed SHO in 2012/13. Nor is there evaluative information on the effects of SHO on participants' quitting behaviour over this period.

Table 8: Smokers' Helpline Online Registration, 2005/06 to 2012/13

Fiscal year	No. of Registrants	Proportion of Ontario Smokers Reached, %[a]
2005/06	3,365	0.22
2006/07	7,084	0.44
2007/08	7,692	0.41
2008/09	5,724	0.34
2009/10	9,539	0.61
2010/11	6,909	0.46
2011/12	8,640	0.57
2012/13	7,257	0.41

[a] Estimates of the total population of smokers aged 18+ from 2005 to 2011 were calculated based on CTUMS (TIMS data).

Smokers' Helpline Text Messaging Outcome Contributions

Reach. The number of SHL TXT users has increased since the service was introduced in the 2009/10 fiscal year. In 2012/13, there were 1,666 new service users,[55] which is a 99% increase over the number of service users registered in the previous fiscal year (see Table 9). Ongoing promotion, refinements to SHO registration and revisions in text message content are believed to have contributed to increasing the number of smokers using the service.

Table 9: Smokers' Helpline Text Service Registration, 2009/10 to 2012/13

Fiscal year	No. of Registrants
2009/10	218
2010/11	583
2011/12	839
2012/13	1,666

There is no information about demographic characteristics of tobacco users who accessed SHL TXT in 2012/13. Nor is there evaluative information on the effects of SHL TXT on participants' quitting behaviour over this period.

Leave The Pack Behind

Taking a comprehensive approach, LTPB uses evidence-based, age-tailored tobacco strategies to successfully reduce tobacco use among older youth and young adults on post-secondary campuses. In 2012/13, some of LTPB's key strategies to achieve this goal included (a) training and equipping campus health professionals to provide brief or intensive smoking cessation counselling and cessation treatment based on best practice guidelines; and (b) hiring, training, and supporting student teams to provide effective, peer-to-peer interventions that are responsive to post-secondary students' needs.

Reach: In 2012/13, LTPB operated at all 20 universities in the province and at 24 applied arts colleges.[61] In 2012/13, at least 30,560 smokers (20% of all 153,000 smokers) accessed LTPB programs or services.[xvii] In this section, we touch on specific smoking cessation programs or services offered by LTPB (for additional information on other programs, see the Social Marketing Campaigns section above and the LTPB section in the Prevention Chapter, below). Over eleven thousand (11,613) smokers received Smoke|Quit self-help booklets from student teams and 2,663 smokers received cessation counselling from a health professional, likely in conjunction with free nicotine replacement therapy. (At least 1,039 smokers received nicotine replacement therapy as part of their cessation treatment). Due to the multi-faceted nature of LTPB interventions and the challenges presented by collecting data from a highly transient target population, data on participants' demographic and smoking characteristics were not available.

Effects: In 2012/13, it is estimated that of the 11,613 smokers who received the Smoke|Quit booklets, 1,324 (or 11.4%) were expected to quit smoking at 3 month follow-up; of the 2,663

[xvii] 153,000 is derived from LTPB and is based on a prevalence of 22% for university students and 33% for college students, as cited in Lawrance and Jessup, 2005.

smokers who received the Smoke|Quit booklets and advice from a health professional, 304 (or 11.4%) were expected to quit smoking. (These outcomes are based on empirically derived quit rates for Smoke|Quit booklets/health professional counselling.[62] Resources that have not yet been subject to rigorous outcome evaluation were not included.)

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), which uses the existing healthcare infrastructure as well as new and innovative means to provide smoking cessation support to smokers in Ontario.
In 2012/13, the STOP Program continued to implement the following program models:

- STOP on the Road offers smokers a psycho-educational group session (1-3hrs) and a 5-week kit of nicotine replacement therapy. The initiative is implemented in various locations across Ontario, where smoking cessation clinics are not easily accessible.
- STOP with Family Health Teams (FHTs), STOP with Community Health Centres (CHCs) and STOP with Addiction Agencies (started in 2013) expands support to smokers willing to quit by providing access to free NRT and counselling. FHTs, CHCs and Addiction Agencies 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).

Reach: A total of 15,871 smokers were reached by various STOP models in 2012/13. A majority of participants were enrolled through the STOP with FHTs/CHCs (n=12,764; STOP Program, personal communication, October 2013). Demographic and smoking characteristics of the STOP program participants are summarized in Table 10.

Table 10: STOP Program Participants, by Select Characteristics, 2011/12

Program Model	No. of Participants	Male %	Female %	Age Mean	20+ Cigarettes per Day, %
STOP on The Road V	339	51	49	46.9	59
STOP on The Road VI	2,380	45	55	49.0	63
STOP with FHTs/CHCs	12,764	45	55	49.2	58
STOP with Addictions Agencies	388	62	38	48.8	52

Source: STOP program

Effects: At 6 months post-treatment, the self-reported 7-day point prevalence quit rates (intention-to- treat[xviii]) were as follows: 12% - STOP on the ROAD and 14% - STOP with FHTs/CHCs (Stop Program, personal communication, October 2013). Cessation outcomes for the STOP with Addiction Agencies program were not available at the time of writing this report as no patient was due for 6-month follow-up in 2012/2013.

Ottawa Model for Smoking Cessation

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 with effective, evidence-based tobacco dependence treatments delivered by health professionals. Systematically identifying and documenting the smoking status of all admitted 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 2013, the Ottawa Model was used at 65 hospital sites in Ontario (representing 49 hospital organizations).[63] In 2012/13, the Ottawa Model provided services to 11,873 smokers in participating hospitals (see Table 11).[63] This is an increase of 22% in service provision over 2011/12 and a 4-fold increase from that reported in 2006/07. A large subsample of patients (n=10,139) who participated in the Ottawa Model program revealed that on average smokers were 54.6 years of age (± 16.0 years), more likely to be male (53.4%), had long smoking histories (33.4 years, ± 16.3), and smoked a mean 18.3 cigarettes per day (±11.7).[63]

[xviii] In intent-to-treat quit rate, all participants who started the program are included in the denominator. This method assumes that participants who are not reached for follow-up are still smoking and hence provides a more conservative estimate of a quit rate.

Table 11: Number of Smokers Reached by the Ottawa Model for Smoking Cessation (Hospitals), Ontario, 2006/07 to 2012/13

Fiscal Year	No. of Smokers Reached by OMSC
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

Source: Ottawa Model for Smoking Cessation

Effects: The most recent evaluative survey data from a subset of OMSC hospital patients indicate that at six months post-discharge, the self-reported intention-to-treat quit rate (7-day point prevalence) was 24% (Ottawa Model for Smoking Cessation program staff, personal communication, January 2014). Excluding hospitalized smokers who did not complete the survey, the responder quit rate was 57%.[xix]

Primary-Care Organizations

Reach: As of March 2013, the Ottawa Model was used by 53 primary-care organizations, representing more than 150 primary-care sites.[63] Family Health Teams advised 14,513 patients to quit smoking. The 4,544 patients expressing an interest in quitting smoking were referred to Quit Plan Visits with trained cessation counselors, with 2,233 of these patients being referred to a Telephone/Email Follow-up program.

Ontario Drug Benefit and Pharmacy Smoking Cessation Programs

As of August 2011, the Ontario government funds counseling and prescriptions for smoking cessation medications through the Ontario Drug Benefit (ODB) program, an initiative that covers seniors, MHLTC 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™

[xix] In calculating the intent-to-treat quit rate, the numerator is defined as all respondents who report having quit smoking cigarettes, and the denominator is all participants who started the program irrespective of whether they completed the survey. (Participants not reached by the survey are assumed to be still smoking, which provides a more conservative quit rate estimate.) 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.

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 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 2012/13, a total of 31,958 ODB patients received cessation medication—such as Zyban™ and Champix™—or counselling. Of these clients, the majority received smoking cessation medication (31,044), with counselling accounting for 4,227 clients. In total, approximately 65% of clients were from Ministry of Community and Social Services programs (Ontario Disability Support Program or Ontario Works) and 27% were seniors.[64] Ontarians from across the province enrolled in ODB drug or counselling programs, with the Hamilton Niagara Haldimand Brant LHIN garnering the most clients (5,365;Table 12).

Effects: No information is available on ODB client smoking cessation outcomes.

Table 12: Unique Ontario Public Drug Program Clients, by LHIN, 2012/13

	Program		
Local Health Integrated Network	Drugs	Counselling	Drugs or Counselling
Erie St. Clair	2,631	769	2,690
South West	2,931	210	2,983
Waterloo Wellington	1,710	248	1,769
Hamilton Niagara Haldimand Brant	5,246	712	5,365
Central West	808	93	830
Mississauga Halton	958	118	993
Toronto Central	2,122	244	2,196
Central	1,727	221	1,772
Central East	3,230	452	3,357
South East	2,205	155	2,243
Champlain	3,358	463	3,511
North Simcoe Muskoka	1,473	271	1,547
North East	2,302	174	2,343
North West	591	101	612
Total	31,044	4,227	31,958

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 5As 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 services in the 12 months following the initial counselling. In 2008, the billing codes were modified and extended to include all family physicians.

Reach: The billing data on cessation counselling is available for the period 2006 to 2010. During this period, a total of 611,690 patients in Ontario received initial cessation counselling from a physician (Table 13). The largest number of patients was served in 2008 (n=218,366), 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 8% (2006) to 16% (2010) of smokers who reported visiting a physician between 2006 and 2010.

Between 2006 and 2010, a total of 114,160 patients received one or more follow-up counselling sessions (Table 14). Although the number of individuals receiving these sessions has increased over time, it represents only a small proportion of the initial counselling recipients (9% to 22%) and only a small fraction of smokers who reported visiting a physician in the reference period (1% to 4%).

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

Table 13: Reach of Initial Cessation Discussion Compared to Number of Patients Who Visited a Physician, Ages 15+, by Year

Year	Recipients of Initial Cessation Discussion	Recipients of Initial Counselling, as a Proportion of Ontario Smokers Who Visited a Physician, %[b]
2006	94,903	8
2007	119,460	8
2008	218,368	17
2009	199,311	16
2010	201,328	16

[a] Source: Ontario Health Insurance Plan

[b] Estimates based on number of smokers aged 15+ who visited a physician, using CTUMS 2006 to 2010 data.

Table 14: Reach of Follow-up Cessation Counselling Compared to Population-level and Initial Discussion Estimates, Ages 15+, by Year

Year	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]
2006	9,012	9	1
2007	14,584	12	1
2008	35,137	16	3
2009	41,480	21	3
2010	44,215	22	4

[a] Source: Ontario Health Insurance Plan

[b] Estimates based on number of smokers aged 15+ who visited a physician, using CTUMS 2006 to 2010 data.

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 are currently underway in Ontario using various strategies including both brief and intensive counselling.[65] 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.

The Ministry of Health and Long-term Care has provided one-time funding to Ontario Public Health Units to run workplace-based tobacco use cessation demonstration projects at worksites in the construction, mining, manufacturing, hospitality and service sectors. Individual cessation initiatives have been tailored to suit the needs, opportunities and circumstances of each workplace and include a variety of supports and activities, including (but not limited to):

- Self-help materials
- Group and individual counseling
- Competitions and challenges
- Smoking cessation training for workplace staff
- Smoke-free policy development
- Improving accessibility to nicotine replacement therapy (NRT)

As of September 2013, 13 PHUs were engaged with over 40 workplaces. In addition to ecological interventions in the entire workplace, each site also offers support to help individuals quit. As of November 1, 2013, approximately 300 workers had registered for cessation support.

Overall Program Reach

In the 2012/13 fiscal year, Strategy smoking cessation programs in Ontario directly engaged over 95,351 smokers, or about 5% of Ontario smokers[xx] (Table 15; Note. Assumption is that all clients are smokers, and that they use only one of the services.). This does not include cessation-counselling services billed by family physicians, given data were not available at time of writing. (In 2010, family physicians conducted 201,328 initial smoking cessation discussions, with 44,215 patients receiving one or more follow-up counselling sessions.) The overall program reach is higher than the previous fiscal (n=73,605) and substantially higher than that reported in 2009/10 when only about 28,500 smokers were reached. The last couple of years have seen a number of cessation programs and services come into effect.

As in previous years, the current cessation programs and services continue to reach more female than male smokers and, in general, tend to serve the older smoking population (with the exception of LTPB, which has a specific target group of young adults).

Table 15: Smokers Enrolled in Ontario Smoking Cessation Programs[a] in 2012/13

Program	Reach
Smokers' Helpline	10,217
Smokers' Helpline Online	7,257
Smokers' Helpline Text Messaging	1,666
Leave The Pack Behind (Smoke|Quit self-help booklets)	11,613
Leave The Pack Behind (Smoke|Quit booklets + counselling)	2,663
Ottawa Model for Smoking Cessation (hospital sites)	11,873
Ottawa Model for Smoking Cessation (primary care sites)	2,233
The STOP Program	15,871
Pharmacy Smoking Cessation Program	31,958
Total	95,351

[a] 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. Please interpret comparisons of reach among programs with caution due to different overall total populations.

[xx] The population of currents smokers in Ontario, aged 18 years and older is 1,741,600 (based on CTUMS data, TIMS estimate).

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 84,000 smokers (or about 5% of all smokers in the province). With long-term quit rates reported to range from 6% to 12% for those undergoing cessation treatment,[66] it may be that only 5,000 to 10,000 of these smokers wishing to quit go on to have a long-term successful quit. Population level data show considerable more progress than this. The difference appears to be in the relative number of smokers who go on to quit smoking by using cold turkey, trials taking place outside formal Strategy channels, and effects of 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

In 2012, 7.6% of past-year smokers reported that they had quit for 30 days or longer when interviewed. Applying a relapse rate of 79%[xxi] (derived from OTRU's Ontario Tobacco Survey), it is estimated that 1.6% of previous-year smokers remained smoke-free for the subsequent 12 months (Table 16). During the period 2007-2012, there has been only slight change and no substantial increase in the recent quit rate among Ontarians aged 12 years and older.

[xxi] This estimate is derived from the Ontario Tobacco Survey. Our previous report used 83%. The current value is based on a more robust sample of survey respondents.

Table 16: Annualized (Recent) Quit Rate among Past-Year Smokers, by Duration of Quit, Ontario, 2007 to 2010

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

Source: Canadian Community Health Survey 2007- 2012.

Lifetime Quit Ratio

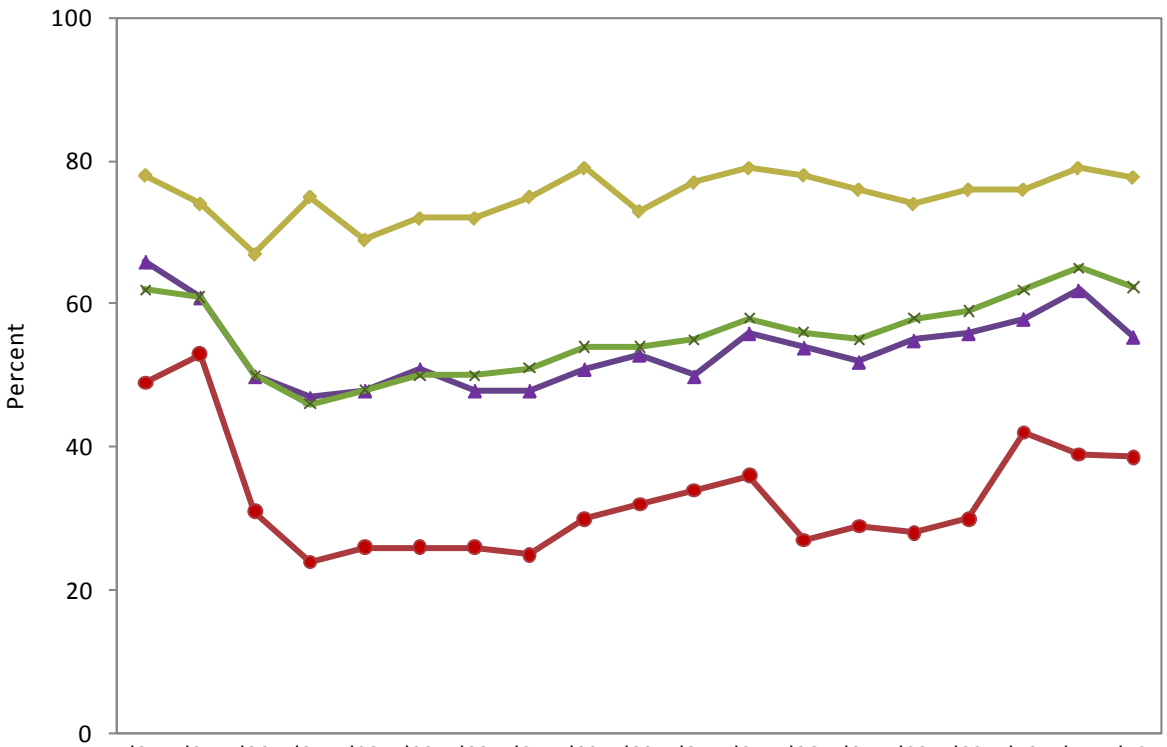
The lifetime quit ratio is the percentage of ever smokers (that is, former and current smokers) who have successfully quit smoking (based on 30-day abstinence) and is derived by dividing the number of past 30-day former smokers by the number of ever smokers in a population.

- In 2012, 62% of adults who had ever smoked had quit for at least 30 days at time of interview (Figure 16).
- Adults aged 18 to 34 had the lowest ratio of quitting (39%) among all ever smokers.
- In recent years, there is no clear pattern of change in quit ratios.

Quit Duration

- In 2012, 8% of ex-smokers (or 227,000 people) reported quitting between 1 and 11 months ago, 14% of ex-smokers quit between 1 and 5 years ago, and 78% quit smoking more than 5 years ago (CAMH Monitor 2012 data not shown), unchanged in recent years.

Figure 16: Quit Ratio (Former Smokers as a Proportion of Ever Smokers), by Age, Ontario, 1994 to 2012



	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12
55+	78	74	67	75	69	72	72	75	79	73	77	79	78	76	74	76	76	79	78
35-54	66	61	50	47	48	51	48	48	51	53	50	56	54	52	55	56	58	62	56
18-34	49	53	31	24	26	26	26	25	30	32	34	36	27	29	28	30	42	39	39
All adults	62	61	50	46	48	50	50	51	54	54	55	58	56	55	58	59	62	65	62

Source: CAMH Monitor 1994–2012.

Short and Intermediate-Term Outcomes

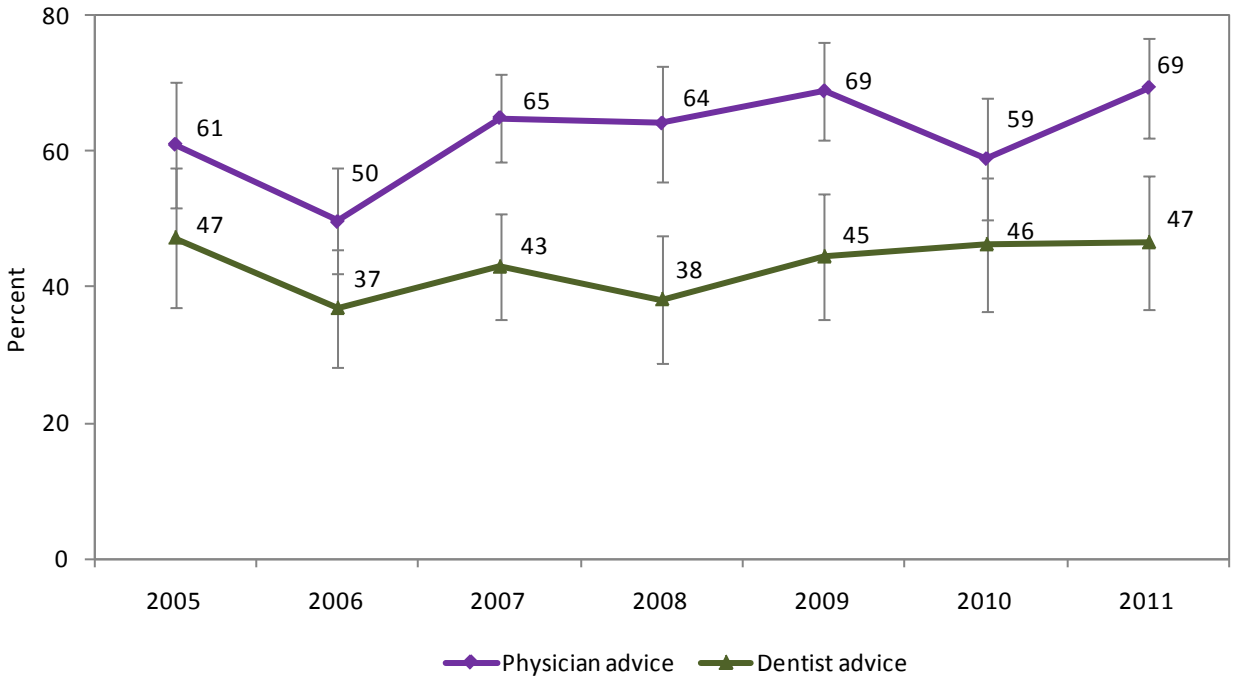
As suggested by the Path Logic Model (Figure 15), to reach desired cessation outcomes, the Strategy must increase the awareness and use of evidence-based cessation initiatives, decrease cigarette consumption, increase the proportion of smokers intending to quit, and increase the prevalence and actual number of quit attempts.

Advice, Awareness and Use of Quit Aids

Health Professional Advice

- In 2011, seven in ten survey respondents over the age of 18 who smoked (69%) and had visited a physician in the past year had been advised to quit smoking (Figure 17), unchanged in recent years (CTUMS data).
- Among those advised to quit by a physician, 56% received information on quit smoking aids such as the patch; a product like Zyban™, Wellbutrin, or Champix™; or a counselling program in 2011.
- Of current smokers in Ontario who had visited a dentist in the past year, 47% reported that their dentist had advised them to quit smoking in 2011 (Figure 17), unchanged in recent years.

Figure 17: Health Professional Advice to Smokers, by Occupation, Ages 18+, Ontario, 2005 to 2011

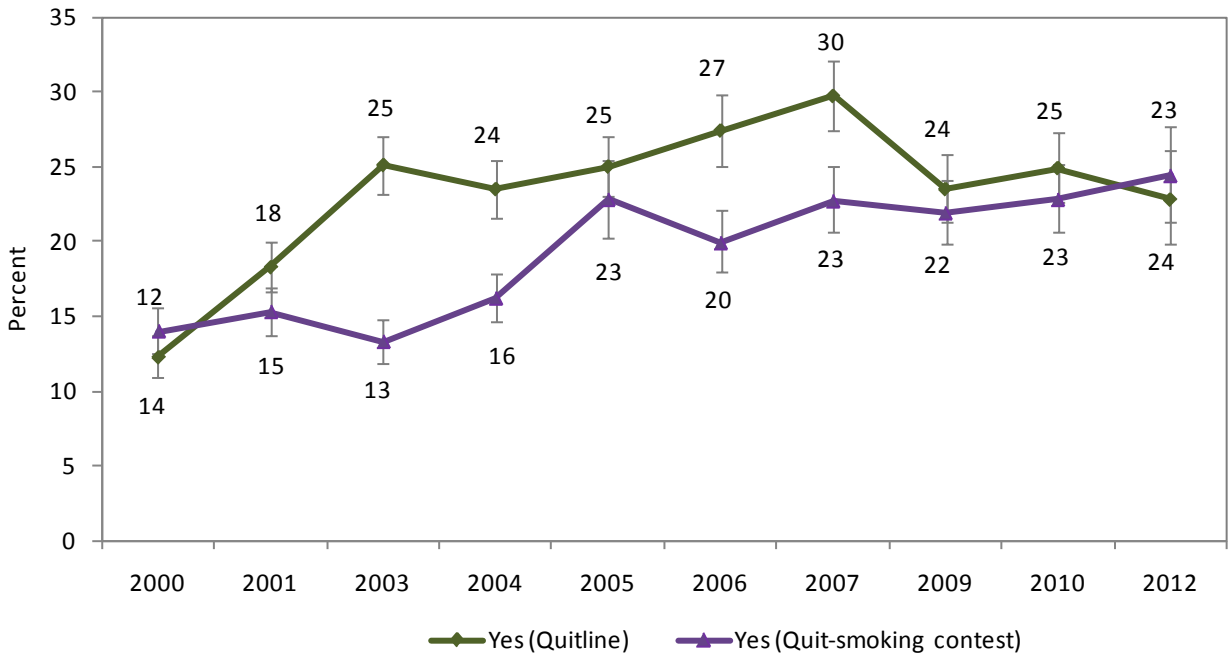


Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2005–2011.

Awareness of Quit Programs

- In 2000, 12% of Ontarians 18 years and older were aware of a 1-800 quitline. Awareness significantly increased by 2007 (30%), with awareness falling in recent years (23% in 2012; Figure 18). (These data were collected prior to the 1-800 quitline number being placed on cigarette packages.)
- Awareness of a quitline differed by smoking status: 50% of current smokers were aware compared to 20% of former smokers and 16% of never-smokers (CAMH Monitor 2012). The recent addition of a 1-800 quitline number on cigarette packages in 2012 holds promise that awareness will increase.
- Among Ontarians aged 18 years or over in 2012, 24% reported being aware of a quit-smoking contest, statistically unchanged since 2005 (CAMH Monitor data).
- Current smokers were significantly more likely to be aware of a quit-smoking contest than never-smokers (35% vs. 21%) (CAMH Monitor 2012).

Figure 18: Awareness of a 1-800 Quitline (Past 30 Days) and Awareness of a Quit Smoking Contest (Past 30 Days), Ages 18+, Ontario, Select Years 2000 to 2012

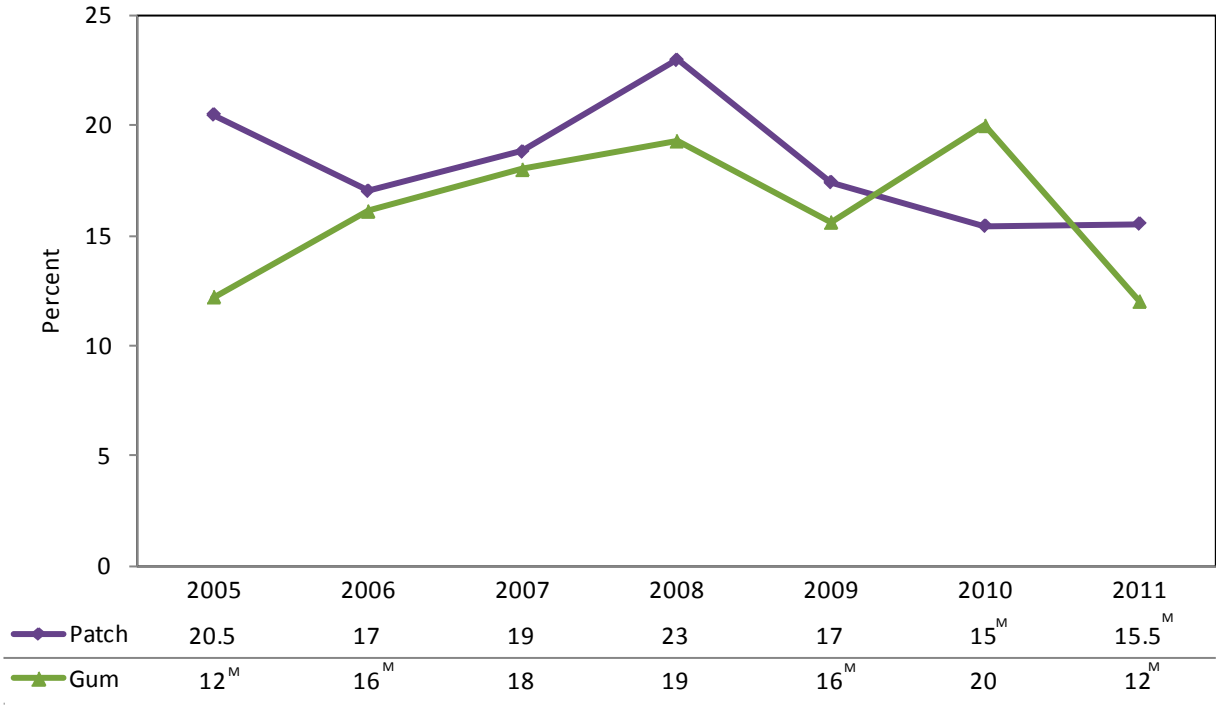


Note: Vertical lines represent 95% confidence intervals. Survey question not asked continuously over reporting period.
Source: Centre for Addiction and Mental Health Monitor 2000, 2001, 2003-2007, 2009, 2010, 2012.

Use of Quit Aids

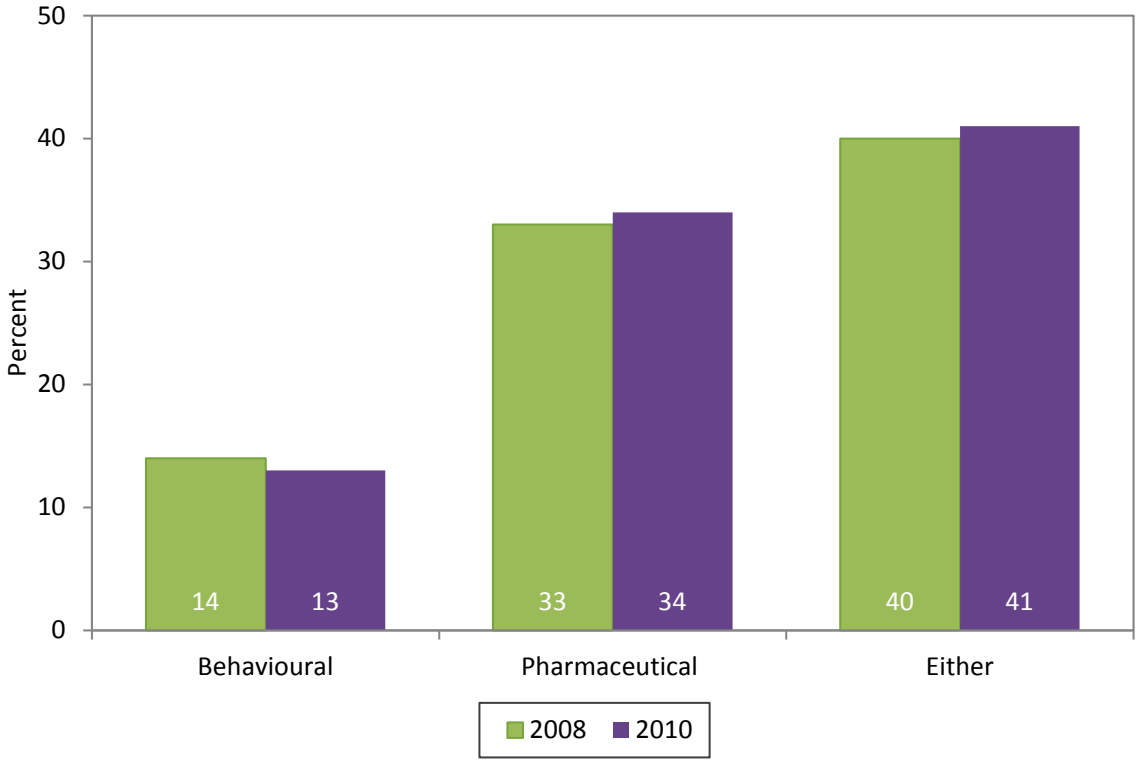
- In recent years, there has been no significant change in the use of the nicotine patch or nicotine gum (CTUMS data; Figure 19). In 2011, the use of the nicotine patch and nicotine gum by smokers was similar (16% and 12%, respectively, difference not significant).
- The proportion of respondents who used behavioural or pharmaceutical quit aids in 2010 was unchanged from that of 2008 (see Figure 20).
- In 2010, four in ten respondents (41%) had used some sort of behavioural or pharmaceutical aid. Specifically, 13% used behavioural aids—such as self-help materials, website, group counselling, support from a specialized addiction counsellor, a smokers' telephone helpline, or a quit program—and three in ten (34%) used pharmaceutical aids such as the nicotine patch, gum, inhaler, Zyban™ or Wellbutrin.

Figure 19: Use of Nicotine Patch (Past 2 Years) and Use of Nicotine Gum (Past 2 Years), Ages 15+, Ontario, 2005 to 2011



Note: M= Interpret with caution: subject to moderate sampling variability. Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2005–2011.

Figure 20: Use of Behavioural or Pharmaceutical Aids, Ages 18+, Ontario, 2008 and 2010



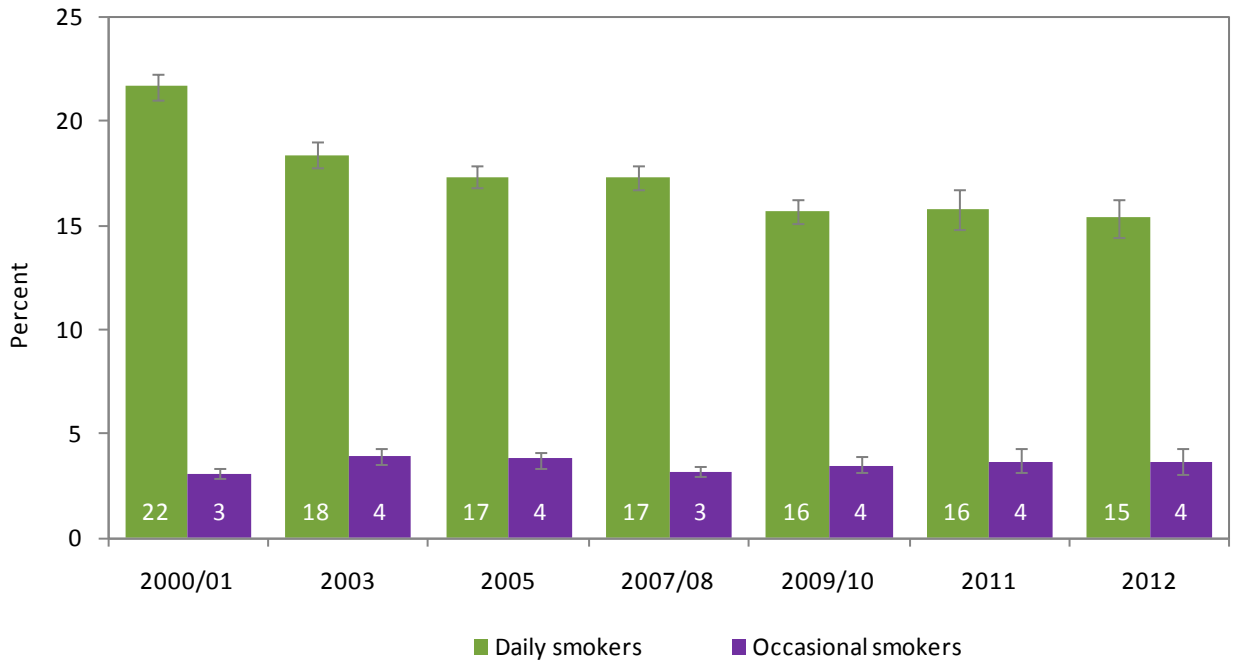
Source: Ontario Tobacco Survey 2008 and 2010.

Smoking Behaviour

Daily and Occasional Smoking (Past 30 Days)

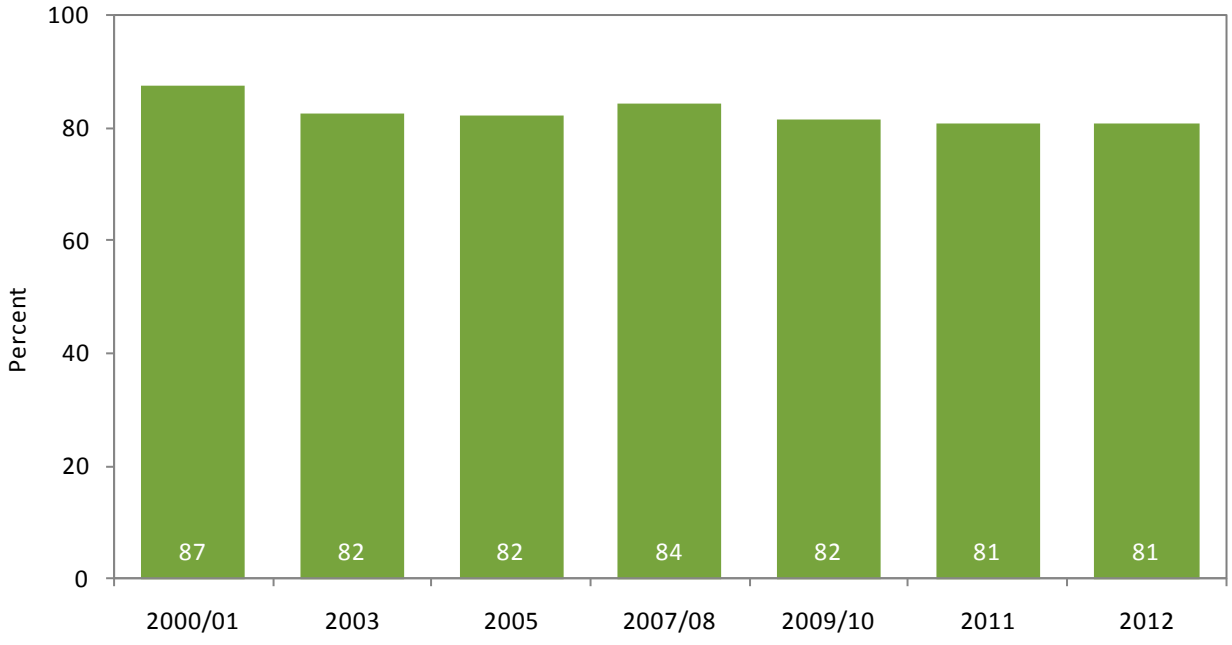
- In 2012, the prevalence of current smoking among adults aged 18 or older in Ontario was 19% according to the Canadian Community Health Survey, with 15% smoking daily and about 4% smoking occasionally in the past month (Figure 21).
- The rate of daily smoking decreased significantly from 2007/08 to 2009/10 (17% vs. 16%), but is unchanged from 2009/10 to 2012. The rate of occasional smoking has remained unchanged in recent years (CCHS data; Figure 21).
- In 2012, 81% of current smokers were daily smokers, unchanged in recent years (CCHS data; Figure 22).

Figure 21: Daily and Occasional Smoking (Past 30 Days), Ages 18+, Ontario, 2000/01 to 2012



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: Canadian Community Health Survey 2000/01 to 2012.

Figure 22: Daily Smoking as a Proportion of Current Smoking, Ages 18+, Ontario, 2000/01 to 2012



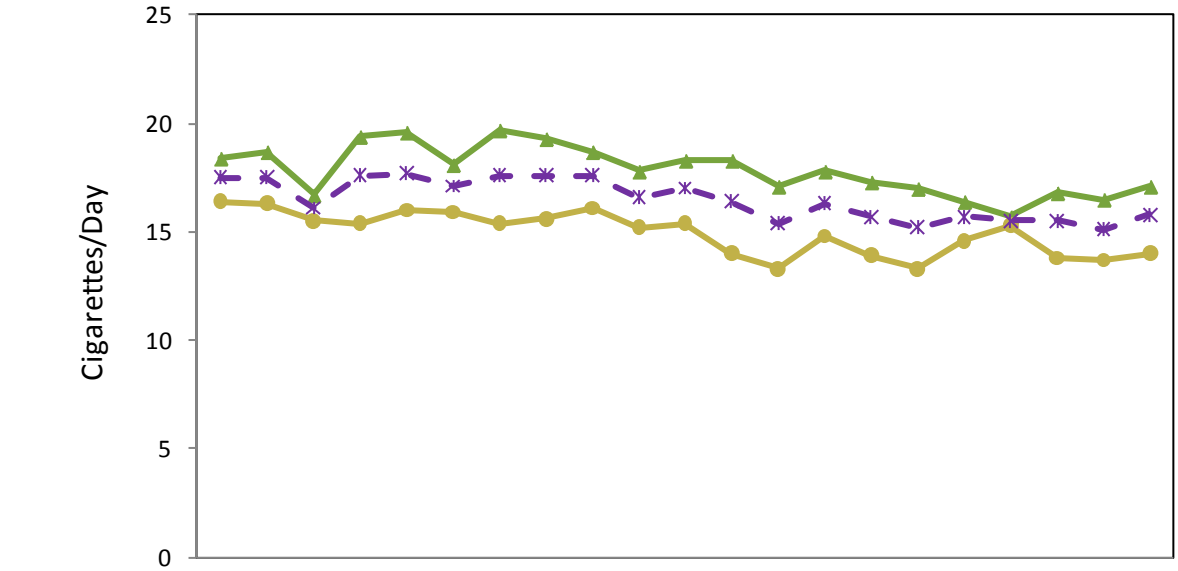
Note: X-axis scale (Year) not continuous—interpret with caution.
Source: Canadian Community Health Survey 2000/01 to 2012.

Level of Use: Cigarettes per Day

Change in the average number of cigarettes smoked (consumption) among those who continue to smoke is a commonly used indicator in tobacco control.

- In 2012, the mean number of cigarettes smoked per day by daily smokers in Ontario was 16 (CAMH Monitor data; Figure 23), a level that has remained unchanged in recent years.
- Between 1992 and 2012, men consistently smoked significantly more cigarettes per day than women (Figure 23), except in 1994 and 2009.

Figure 23: Mean Number of Cigarettes Smoked Daily, by Sex, Daily Smokers, Ages 18+, Ontario, 1992 to 2012



	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12
Men	18	19	17	19	20	18	20	19	19	18	18	18	17	18	17	17	16	16	17	17	17
Women	16	16	16	15	16	16	15	16	16	15	15	14	13	15	14	13	15	15	14	14	14
All Adults	18	18	16	18	18	17	18	18	18	17	17	16	15	16	16	15	16	16	16	15	16

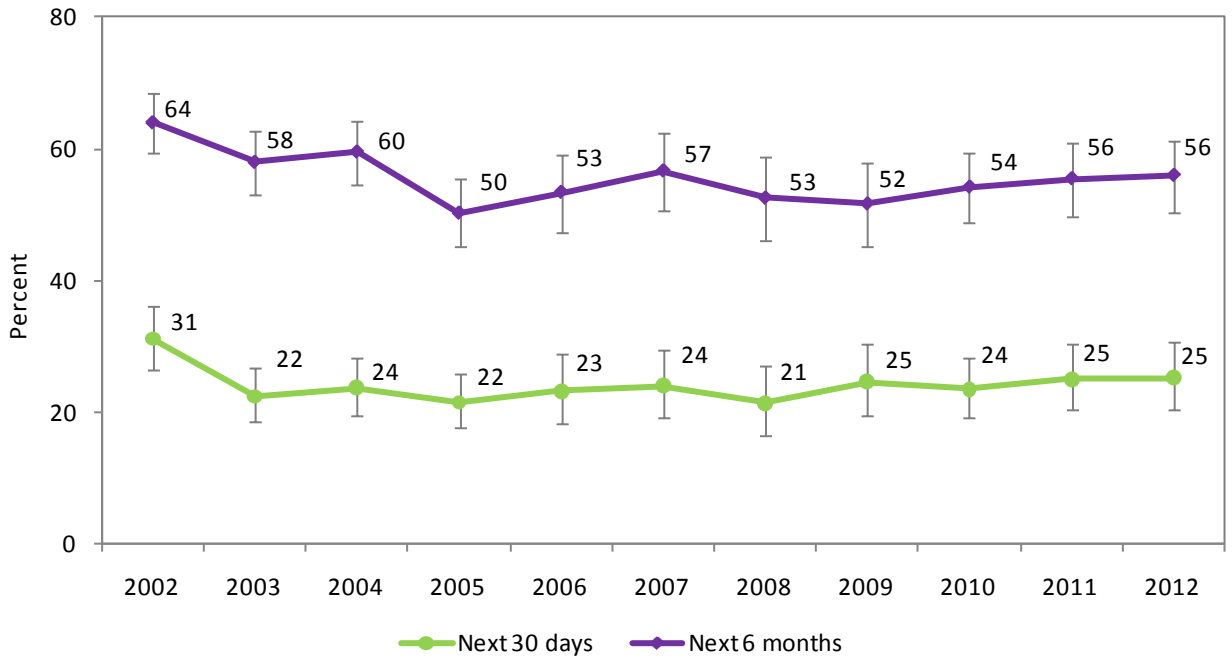
Source: CAMH Monitor 1992–2012.

Quitting Behaviour

Intentions to Quit

- In 2012, more than half of all smokers intended to quit in the next six months (56%); there has been no statistically significant change in six-month quit intentions in recent years (CAMH Monitor data; Figure 24).
- Six-month quit intentions in 2012 are significantly lower in comparison to a peak in 2002 (56% vs. 64%; CAMH Monitor data)
- The prevalence of 30-day quit intentions among Ontario smokers in 2012 was 25%, which has not changed in recent years (CAMH Monitor data).

Figure 24: Intentions to Quit Smoking in the Next 6 Months and Next 30 Days, Ages 18+, Ontario, 2002 to 2012



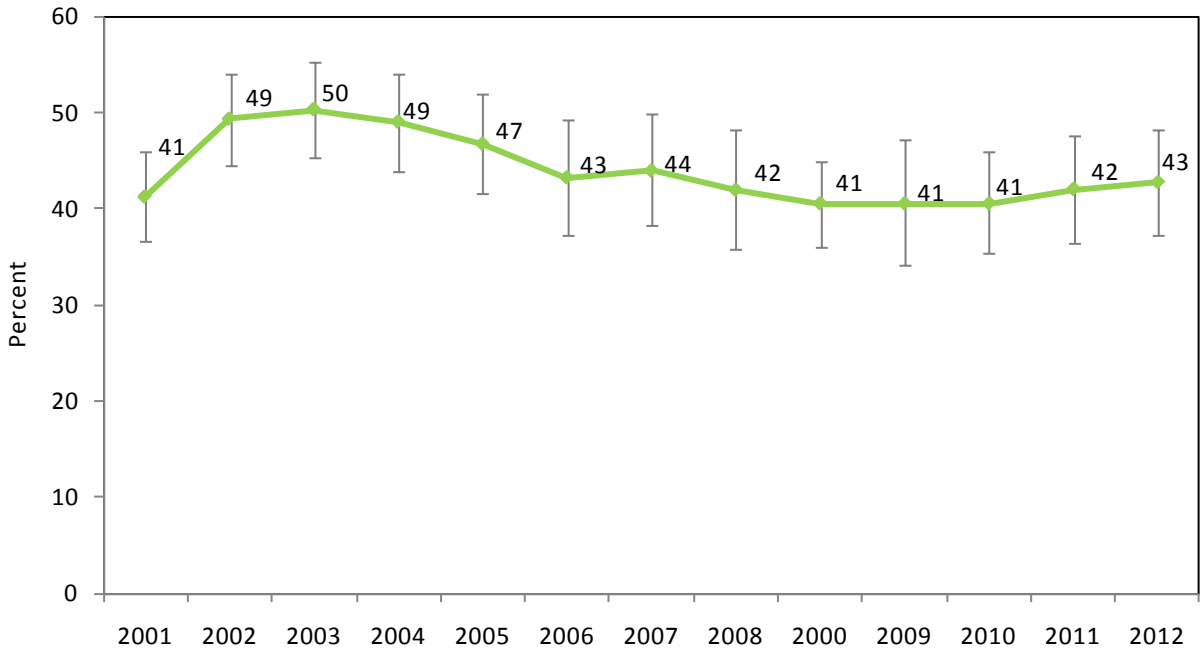
Note: Vertical lines represent 95% confidence intervals.

Source: Centre for Addiction and Mental Health Monitor 2002–2012.

Quit Attempts

- Four in ten smokers (43%) made one or more quit attempts in the past year (CAMH Monitor data; Figure 25).
- Over the last decade, there has been no statistically significant change in the proportion of adult smokers making quit attempts.

Figure 25: One or More Quit Attempts in the Past Year, Current Smokers, Ages 18+, Ontario, 2000 to 2012



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2000-2012.

MPOWER Comparison with Ontario: Cessation

Eight MPOWER comparisons relate to Cessation: Monitoring, Smoking Prevalence, Cessation Programs, Health Warning Labels, Mass Media Campaigns, Tobacco Advertising Bans, Compliance with Advertising Ban, and Taxation:

Table 17: Assessing Smoking Cessation: MPOWER Indicators Applied to Ontario

MPOWER Indicator	Highest MPOWER Score; MPOWER Requirement	Situation in Ontario
Monitoring	Score = 3; Recent, representative and periodic data for both adults and youth)	Meets the requirement for the highest score
Smoking prevalence	Score = 4; Daily smoking rate <15%	Daily smoking rate 15.4% among adults aged 18+ in 2012 (Note: This is the daily smoking rate, not current smoking)
Cessation programs	Score = 4; 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	Score = 4; 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	Score = 4; 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	The Ontario Ministry of Health and Long-Term Care created a new campaign in March 2013 called *Quit the Denial*. This campaign targets young adults aged 18 to 29 years old—who classify themselves as social smokers—through a Facebook page, video placements in movie theatres and placement of materials in restaurants and bars.
Tobacco advertising bans	Score = 4; 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	Score = 3; Complete compliance	Meets the requirement for the highest score
Taxation	Score = 4; Tobacco tax > 75% of the retail price	Tobacco tax at 64% of the retail price in Ontario in 2012

Chapter Summary

While 7.6% 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. The proportion of Ontario's smokers who successfully quit each year (defined as 12 month abstinence) is estimated to be 1.6%. In order to achieve a 5 percentage-point decrease in the prevalence of smoking over five years (with prevalence currently at 18%), the proportion of smokers who successfully quit needs to at least double.

As previously mentioned, price is one of the most effective policy tools to promote cessation; yet taxes on tobacco have increased only once since 2006, and tobacco taxes in Ontario are among the lowest in Canada.

Restrictions on smoking in public and workplaces are also effective policy tools 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,[16] we have already achieved most of the short-term benefits of this policy tool in regard to quitting behavior. Nevertheless, increased compliance with indoor bans, and extensions of smoke-free bans to outdoor settings, will undoubtedly positively impact some smokers in these settings to become nonsmokers.

Ongoing, comprehensive social marketing campaigns have been found to be a vital ingredient for facilitating intentions to quit and quit attempts.[67] Over many of the past several years, Ontario has invested less in marketing campaigns than recommended by MPOWER. In the past year, the Ontario government's Quit the Denial campaign, targeted at social smokers, may indicate a change in this trend.

The MOHLTC has previously funded specific campaigns through the Heart and Stroke Foundation of Ontario, Canadian Cancer Society, Ontario Lung Association, Tobacco Control Area Networks, and public health units. Specific data on the scope and effects of these campaigns were not available for this report; nevertheless, it is evident that in recent years, there have not been intensive, sustained, and well-funded province-wide campaigns directed toward cessation goals.

More generally, public health units address specific cessation goals, namely, to ensure the provision of best practice cessation services/policies, which may include direct provision of service or having an established referral system in place to triage smokers to community partners. Beyond local health units, the province's cessation efforts have focused on several interventions including those by the Smokers' Helpline, the STOP program, LTPB, the Ottawa model, and the Ontario Drug Benefit program. These latter interventions appear to reach approximately 5% 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 knowledge, which demonstrates that smokers make multiple quit attempts, and only a few of them go on to successfully quit, with relapse being a typical outcome in the quitting process. The reasons for this are varied. In Ontario, two challenges that have been identified about the quitting process

are participants' limited awareness of available cessation services and participants' inconsistent experience with health-care providers in terms of provider engagement and support.[68]

The Strategy does fund considerable efforts to train health professionals in providing cessation support through TEACH, RNAO, and PTCC. Evidence from TEACH and RNAO suggests that these interventions positively affect the provision of cessation support by health professionals. It appears that only a small proportion of the 69% of smokers who were advised by physicians and the 47% who were advised by dentists to stop smoking took any action to obtain formal support.

Chapter 5: Youth Prevention

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 among this population.[69] 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

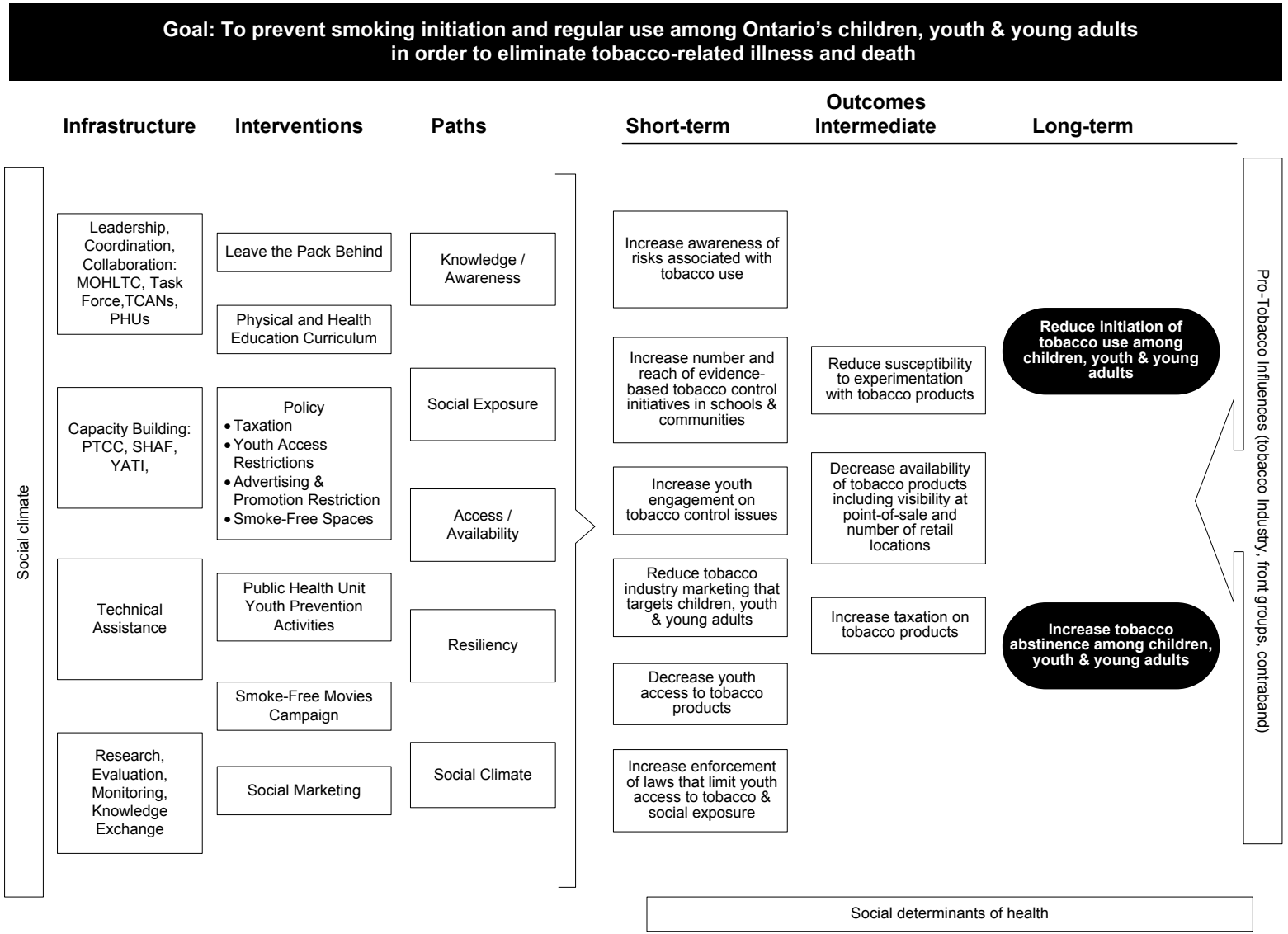
In Ontario, the prevention component of the Smoke-Free Ontario Strategy is the main avenue by which progress toward these pathways/desired goals is expected to be achieved (Figure 26).

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

The prevention strategy unites infrastructure, which allows for the implementation of a variety of programs, services, and policies. The seven Tobacco Control Area Networks, representing the 36 public health units, provide leadership, coordination, and collaborative opportunities. The Ontario Ministry of Health and Long Term Care-Health Promotion Division (MoHLTC-HPD) and public health units also have dedicated staff, including program staff and enforcement personnel, working on the prevention portfolio. The Strategy's Prevention Task Force, comprising members from relevant tobacco control partner organizations, was struck in 2011 to provide input on implementation of the renewed Strategy prevention programming and to identify areas for collaboration across programs.

Figure 26: Prevention Path Logic Model



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 the Program Training and Consultation Centre (PTCC), public health units (PHU), the Ontario Tobacco Research Unit (OTRU), Smoking and Health Action Foundation (SHAF), Tobacco Control Area Networks (TCAN), and the Youth Advocacy Training Institute (YATI).

Tobacco Control Area Networks (TCANs)

TCANs work on tobacco use prevention coordination at the local and regional level. 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. Regional action planning around prevention has involved the development of a number of initiatives. For example, the Play, Live, Be Tobacco-Free initiative focuses on promoting tobacco-free sports and recreation across the province. (A website developed by this project along with associated resources is currently being maintained by the PTCC.) This program has developed a provincial framework, resources, and a collaborative network to support local and regional communities to develop tobacco-free policies within sport and recreation organizations.[70] TCANs also assist in assessing public health department training and technical assistance needs around youth prevention and communicate Ministry policies and activities including local media and public relations initiatives.[3]

Public Health Units (PHUs)

PHUs are important stakeholders in the implementation of tobacco use prevention programming in the province. Because the focus of this chapter is on large prevention interventions with provincial-wide outcomes, PHU specific programs are reviewed only briefly. However, we do report on PHU Youth Prevention activities under the Interventions to Build Knowledge and Resiliency section.

Ontario Tobacco Research Unit (OTRU)

OTRU provides research, monitoring, evaluation, and teaching and training resources to the prevention component of the Strategy. Prevention projects conducted by OTRU investigate the influence of student and school level characteristics on student tobacco use behaviour, predictors of tobacco use comorbidities among young adults, the factors related to the retail environment that influence health outcomes and options for reducing tobacco retail outlet

density, trends and use of contraband products, the effect of pricing on the brand preferences of young people, and new approaches to youth access policy compliance (see http://otru.org/research-evaluation/prevention for additional details). OTRU's online tobacco control course has a prevention module that is widely used by public health professionals in Ontario.

Program Training and Consultation Centre (PTCC)

PTCC provides training and technical assistance to health professionals working in prevention in Ontario. PTCC builds capacity locally for tobacco control through the provision of training, consultation, referral and resource development to PHUs, TCANs, local tobacco-free coalition members, community health centres, volunteer organizations, and healthcare providers.[71] PTCC also supports province-wide Communities of Practice in a variety of tobacco control areas (e.g., Tobacco Use Reduction for Young Adults and Tobacco-Free Sport and Recreation). PTCC also provides foundations and conflict resolution training to Tobacco Enforcement Officers, whose enforcement activities include the enforcement of youth access policies.

Smoking and Health Action Foundation (SHAF)

SHAF engaged in a number of prevention related activities in 2012/13 to support, educate and build capacity in the Ontario public health community including PHUs and TCANs. For example, SHAF has researched and disseminated findings on retail reform legislative and policy including developing a model licensing system and model by-law to reduce number of retail outlets and control their type/location. 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 contraband, e-cigarettes, emerging products, tobacco industry activity, smokefree movies.

Youth Advocacy Training Institute (YATI)

The Ontario Lung Association's YATI is a program that engages Ontario youth 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. A June 2013 summative evaluation of YATI activities reveals that training programs have continued to improve in content, style and delivery and these have led to an increase in knowledge and skills required to engage youth and adults in health promotion and advocacy-oriented activities to prevent chronic diseases.[15]

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 through limiting social exposure to tobacco use, decreasing *access* and *availability* of tobacco products, increasing *knowledge* of the harmful effects of tobacco use, and increasing youth *resiliency* to make healthy choices and resist tobacco use initiation.

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 all 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 Limit Physical and Social Exposure

A number of tobacco-control policies have been implemented that limit physical exposure and the availability of tobacco products, both of which may have the secondary effect of limiting youth's social exposure (i.e., the visual exposure to tobacco products and/or use in social environments) including restrictions on smoking in schools, bars and restaurants, vehicles and workplaces; advertising and promotion of cigarillos, blunt wraps and flavoured tobacco; and display bans at point of purchase.[35,72]

Activities to Promote 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 and launched a website providing information on smoking in movies. This initiative involves partnerships between YATI, the Ontario Lung Association, the TCANs, the Canadian Cancer Society, Ontario Division, Heart and Stroke Foundation of Ontario, Non-Smokers' Rights Association/Smoking and Health Foundation (SHAF), and Physicians for a Smoke-Free Canada. (This program is not directly funded by the Ministry of Health and Long-Term Care.)

In 2012, 1 billion tobacco impressions were present in the top 137 grossing films in Ontario (paid admissions x tobacco incidents, per film).[73] This represents 59% more tobacco impressions compared to 2011. Of particular concern, 81% of tobacco impressions were delivered in youth-rated movies.

Advertising and Promotion of Cigarillos, Blunt Wraps and Flavoured Tobacco

In 2010, the *SFOA* and the Federal Bill C-32 (passed in 2009) banned the addition of flavours or additives to cigarettes and little cigars (but not cigars weighing more than 1.4 grams) as well as images of fruit or flavours on packaging (except for menthol). The federal *Tobacco Act* also repealed the provision that allowed the promotion of tobacco products in publications with an adult readership of 85% or more. (See Tobacco Use Chapter for data on current Cigar Use including prevalence and wholesale sales.)

Point-of-Sale Display Ban

In addition to the immediate and long-term health effects associated with physical exposure to secondhand smoke,[74] there are other consequences associated with social exposure to tobacco products. Exposure 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.[75,76] 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.[77] Those exempted from this ban include tobacconists, duty free retailers, and manufacturers.

Protection from Exposure to Secondhand Smoke

Protecting Ontarians from exposure to secondhand smoke has secondary prevention effects Youth not exposed to secondhand smoke are not exposed to nicotine. Lower exposure to secondhand smoke also provides less modeling/social acceptability of smoking. (See the Protection chapter for additional details.)

Interventions to Limit Availability and Access

Various tobacco control policies have been implemented to limit the availability of tobacco products to youth, contributing to prevention and reduction of tobacco use. These policies include minimum age restrictions on purchase, bans on the sale of single and flavoured cigarillos, and tobacco price increases.[72]

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.[72]

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.[78]

Contribution: According to the 2013 Ontario Student Drug Use and Health Survey, approximately 16% 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 (52.5%) reported getting their last cigarette from a friend or family member.[79] OTRU, in partnership with the MOHLTC and local PHUs, has recently evaluating a pilot project that focuses resources on addressing retail non-compliance based on a risk-based enforcement model. Results suggest that PHUs having retailers in the moderate or high risk groups, which were visited more often, were able to significantly increase compliance among these retailers. Overall, this study suggests that resources in inspections were saved and compliance increased significantly from the pre- to the post-intervention period.[80]

Bans on the Sale of 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 wraps[xxii] (except menthol).[72] 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. Small cigars weighing more than 1.4 grams—still commonly referred to as cigarillos even though they don't meet the legal definition—continue to be sold in a variety of flavours.

Regulations also aligned the packaging requirements of cigarillos with that of cigarettes. Rather than being sold as single units for as low as $1, cigarillos must be sold as part of a package that contains a minimum quantity of 20 sticks.

Contribution: In Ontario, wholesale sales of the total cigar category (little cigars/cigarillos and cigars) have fallen 18% since 2009, the year in which sales were the highest level reported in recent years (185,743,828 unit sticks in 2009 to 153,137,662 units in 2012).[xxiii] The reduction in

[xxii] Similar to rolling paper, a blunt wrap is a sheet or tube made of tobacco, which can be used to roll cigarette tobacco.
[xxiii] Health Canada, Personal Communication, September 27, 2013

sales since 2009 may reflect users' reduced consumption, as the market of little cigar and cigarillo brands was converted into nonfiltered cigar brands weighing more than 1.4g in 2010.

Flavour…GONE! (Freeze the Industry)

The Flavour…GONE! campaign[xxiv] is a youth-led campaign that aims to raise both awareness among youth about tobacco industry products and support for lobbying the federal government to ban the sale of flavoured tobacco products. The campaign began in 2008, before the passage of Bill C-32. Currently, Flavour…GONE is active in 5 of 7 TCANS and has just recently merged under the Freeze the Industry campaign.[81] Prior to its merger, Flavour…GONE had an active website and facebook page. Activities included collecting signatures on petitions to ban flavoured tobacco products and conducting social media campaigns (e.g., by releasing a monthly calendar about flavoured tobacco).

Tobacco Taxation

Youth, particularly older adolescents, are very sensitive to the cost of tobacco products.[82,83,84] Specifically, higher cigarette prices have been shown to prevent youth initiation,[82] prevent adolescents from becoming daily, addicted smokers and can impact the smoking behaviour of those youth who are further along the smoking uptake continuum.[85] Increases in the price of tobacco through taxation are central to any preventive approach.[69] As discussed in the Cessation chapter, Ontario has the second lowest total tobacco taxes in Canada ($50.95), with an average retail price of $80.41 per carton (see Table 3).

Interventions to Build Knowledge and Resiliency

Youth engagement programs aim to increase knowledge and resiliency to prevent tobacco use among youth. In Ontario, these include programs that directly involve youth in program planning and implementation, educational programs like Leave The Pack Behind, and the provincial Physical and Health Education Curriculum.

Youth Prevention (Public Health Units)

There is growing recognition that a youth engagement approach is an important strategy to promote positive health behaviour change[86,87,88,89] and is in keeping with recent recommendations issued by the Tobacco Strategy Advisory Group to decrease the number of youth who try smoking. 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.[86,90]

[xxiv] This program is not directly funded by the Ministry of Health and Long-Term Care.

In recent years, the MOHLTC has provided funding for youth tobacco use prevention at each of the province's 36 PHUs. Many PHUs have chosen to hire a Youth Engagement Coordinator. Youth prevention 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 at the TCANs to establish regional plans and priorities for tobacco use prevention programming.[90] Youth 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.[91]

Numerous youth prevention activities are running at the local level across the province. This work varies widely in scope and funding, with some projects ongoing and other work supporting a one-time event. Evaluative information is limited.

Educational Programs

Tobacco Use Prevention in Schools

Under the renewed Smoke-Free Ontario Strategy, the Government is committed to working with educators and young people to keep schools smoke-free. As one part of this process, the Ministry of Health and Long-Term Care has funded the Ontario Physical and Health Education Association (Ophea) to implement a bilingual school-based tobacco prevention pilot program in grades 6 to 11 during the 2013/14 and 2014/15 school years. Running in 24 schools, including a minimum of 16 secondary schools, the pilot program is a comprehensive tobacco control approach that will touch on four main components, which are aligned with the Foundations for a Healthy School framework.[92] These components will include high-quality instruction and programs, a healthy physical environment, a supportive social environment, and community partnerships.

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 is the first revision since 1998.

The health and physical education expectations of students are grouped into three related strands: Active Living, Movement Competence, and Healthy Living. Living Skills expectations are

found within each strand. The Healthy Living strand comprises four topic areas, one of which is Substance Use, Addictions and Related Behaviours. Under this topic area, 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) have developed online elementary and secondary school resources to support the implementation of the Health and Physical Education curriculum including substance use.[93] Each resource includes ready-to-use lesson plans and other supports such as student templates, assessment tools, and daily physical activity ideas.

Leave The Pack Behind

To address prevention goals, LTPB uses several tobacco control interventions including (a) extensive 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, support cessation, address social norms, and campus policies, and provide general tobacco control education.

Contributions: In 2012/13, there were 35 student-peer teams at 13 of all 24 colleges and 18 of all 20 universities across Ontario (some institutions have multiple sites with separate student teams at each site). At these institutions, student teams hosted 2,717 face-to-face outreach events such as display tables, presentations, and smoking area “walk-abouts,” and had one-to-one interactions with 11% of the student population. (Leave The Pack Behind, Personal Communication, July 2013)

LTPB also runs the annual wouldurather… contest. Students can sign-up to quit, cut back or stay smoke free for a chance to win prizes. In 2012/13, 2,957 smokers registered to quit or cut back in the wouldurather… contest; 7,296 registered to stay smoke-free. The number of non-smokers and ex-smokers registering to stay smoke-free increased by 24% compared to 2011/12. (Leave The Pack Behind, Personal Communication, July 2013)

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 26). 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.

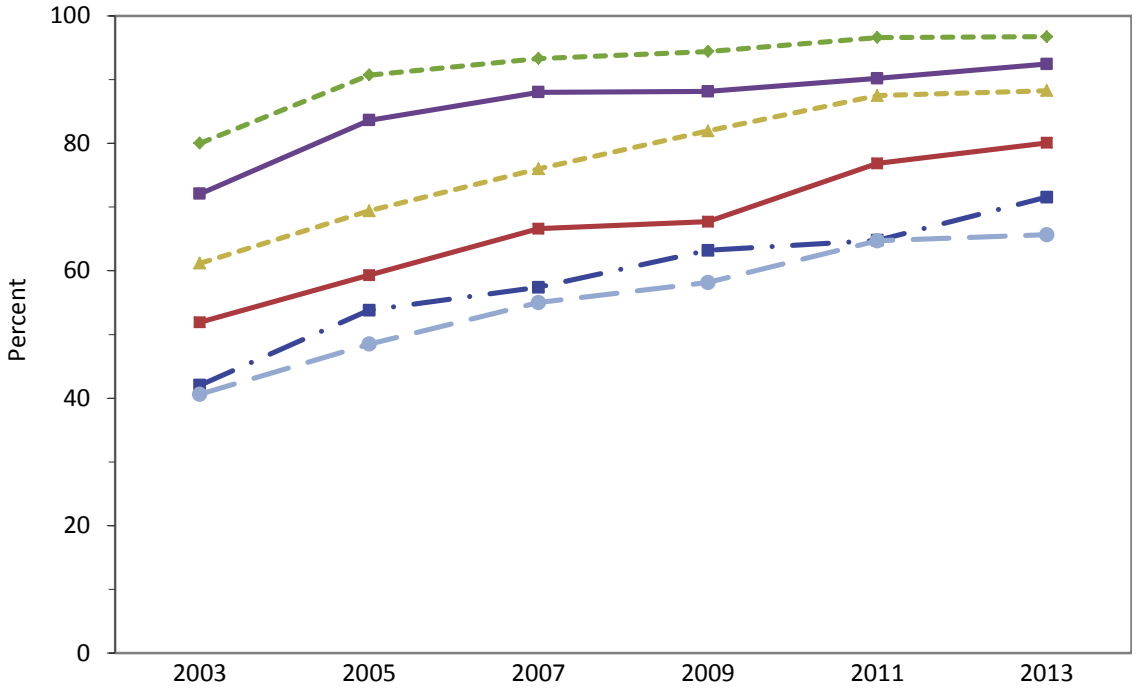
Long-Term Outcomes

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 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 97% of students in Grade 7 to 66% of students in Grade 12 (OSDUHS 2013 data; Figure 27), continuing an upward trend in abstinence over the reporting period.
- Since 2007, there have been notable increases in lifetime abstinence in grades 9, 10, 11, and 12, reaching levels of 88%, 80%, 72%, and 66% respectively.
- Across all grades combined, there was a significant increase in lifetime abstinence among students in 2013 compared to 2009 (80% vs. 74%; OSDUHS, data not shown).

Figure 27: Lifetime Abstinence, by Grades 7–12, Ontario, 2003 to 2013



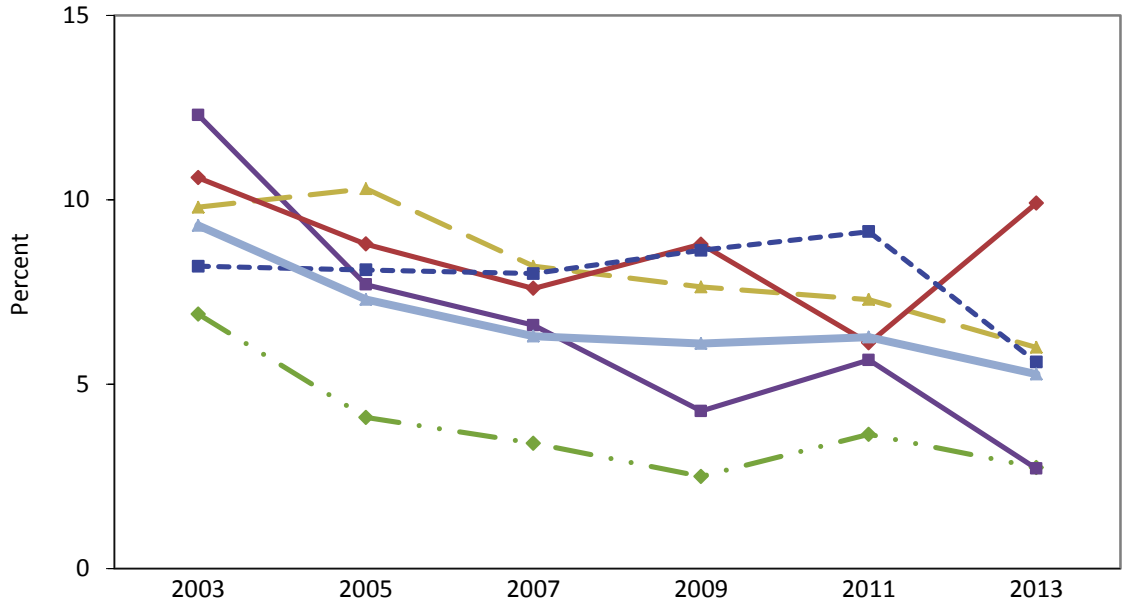
	2003	2005	2007	2009	2011	2013
Grade 7	80	91	93	94	97	97
Grade 8	72	84	88	88	90	92
Grade 9	61	69	76	82	87	88
Grade 10	52	59	67	68	77	80
Grade 11	42	54	57	63	65	72
Grade 12	41	49	55	58	65	66

Source: OSDUHS 2003–2013 (Biennial).

Past-Year Initiation: Students in Grades 7 to 12

- In 2013, first use of cigarettes at any time in the previous 12 months ranged from 3% for both Grade 7/8 students (combined) and Grade 9 students to 10% for Grade 11 students (Figure 28).
- From 2003 to 2013, past-year initiation among all students (Grades 7 to 12 combined) significantly decreased from 9% to 5%. When viewed by individual grade, only students in Grade 9 showed a significant decrease in past-year initiation over this period (12% to 6%).
- From 2011 to 2013, the prevalence of initiating smoking in the previous year remained static for all students combined and within each grade (Figure 28).

Figure 28: Use of Cigarettes for the First Time in the Past Year, by Grades 7–12, Ontario, 2003 to 2013



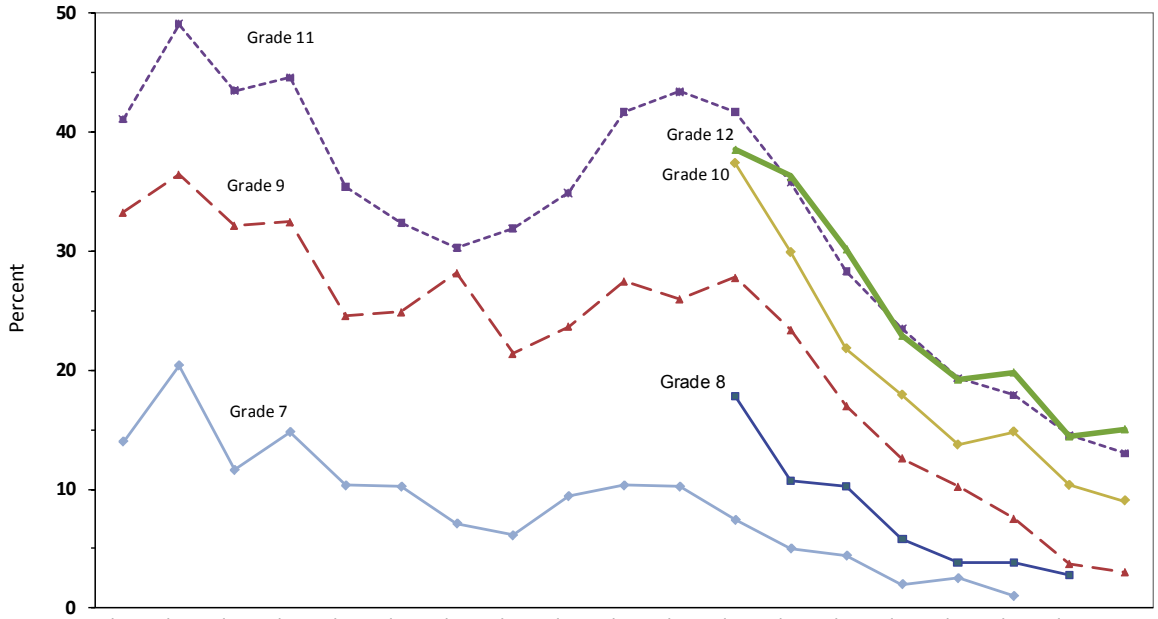
	2003	2005	2007	2009	2011	2013
Grade 7-8	7	4	3	3	4	3
Grade 9	12	8	7	4	6	3
Grade 10	10	10	8	8	7	6
Grade 11	11	9	8	9	6	10
Grade 12	8	8	8	9	9	6
Total	9	7	6	6	6	5

Source: OSDUHS 2003–2013 (Biennial).

Past-Year Smoking: Students in Grades 7 to 12

- Among students in Grades 7 to 12, the overall 2013 prevalence of smoking more than one cigarette in the past year (past-year current smoking) was 8.5% (or 83,100 students; data not shown).
- Since 1999, there has been a significant decline in past-year smoking across each grade (Figure 29), with an historical low occurring in 2011, which is unchanged in 2013.
- In 2013, the prevalence of past-year smoking was very low in Grade 9 (3%), with Grades 7 and 8 not reportable (Figure 29). In grade 10, students were three times more likely to be smokers (9%) compared to students in Grade 9 (3%), which underscore a significant transition to past-year smoking among Grade 10 students. (Note: respondents were surveyed in Grade 10, but they reported on their smoking behaviour over the previous year.) Past-year smoking was highest in Grade 12 (15%).

Figure 29: Past-Year Smoking, by Grades 7–12, Ontario, 1977 to 2013



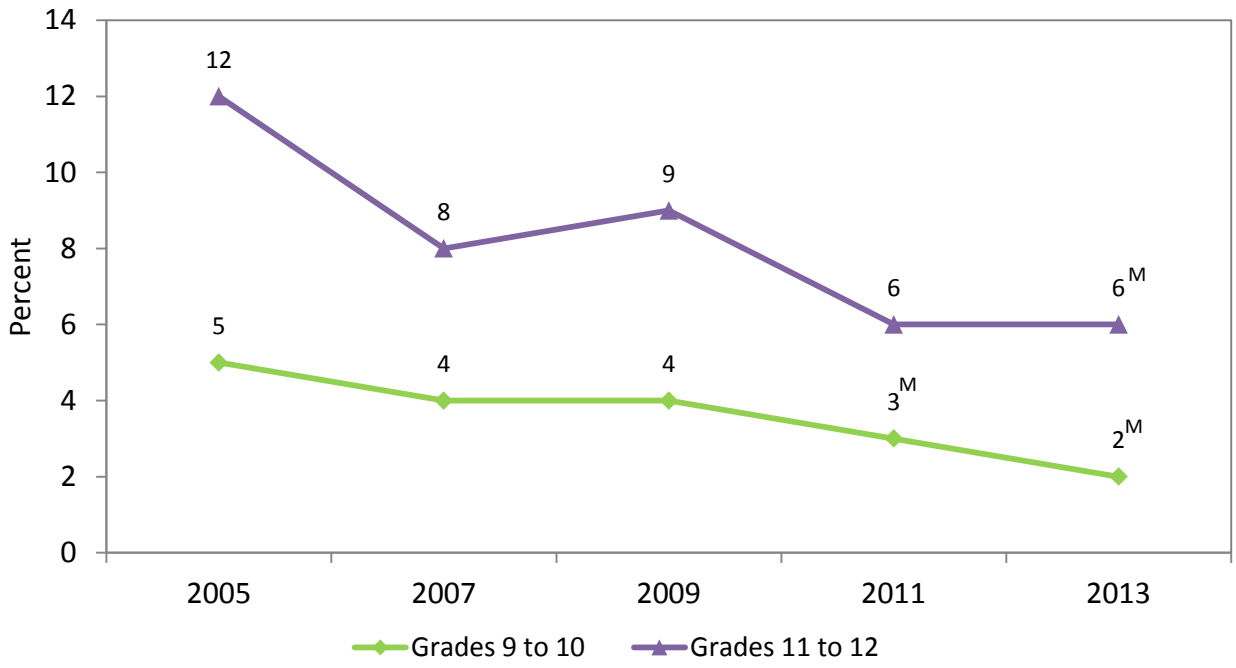
	'77	'79	'81	'83	'85	'87	'89	'91	'93	'95	'97	'99	'01	'03	'05	'07	'09	'11	13
Grade 7	14	20	12	15	10	10	7	6	9	10	10	7	5	4	2	2.5	1	(S)	(S)
Grade 8												18	11	10	6	4	4	3	(S)
Grade 9	33	36.5	32	32.5	25	25	28	21	24	27.5	26	28	23	17	13	10	7.5	4	3
Grade 10												37	30	22	18	14	15	10	9
Grade 11	41	49	43.5	45	35	32	30	32	35	42	43	42	36	28	23.5	19	18	14.5	13
Grade 12												39	36	30	23	19	20	14	15

Note: Data collection for Grades 8, 10, and 12 started in 1999. For Grade 7, 2011 data suppressed due to small sample sizes.
Source: OSDUHS 1977–2013 (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 2013, the prevalence of past 30-day smoking was cut in half for students in Grades 9 to 10 and Grades 11 to 12 (Figure 30).

Figure 30: Current Smoking (Past 30 Days), by Grade, Ontario, 2005 to 2013

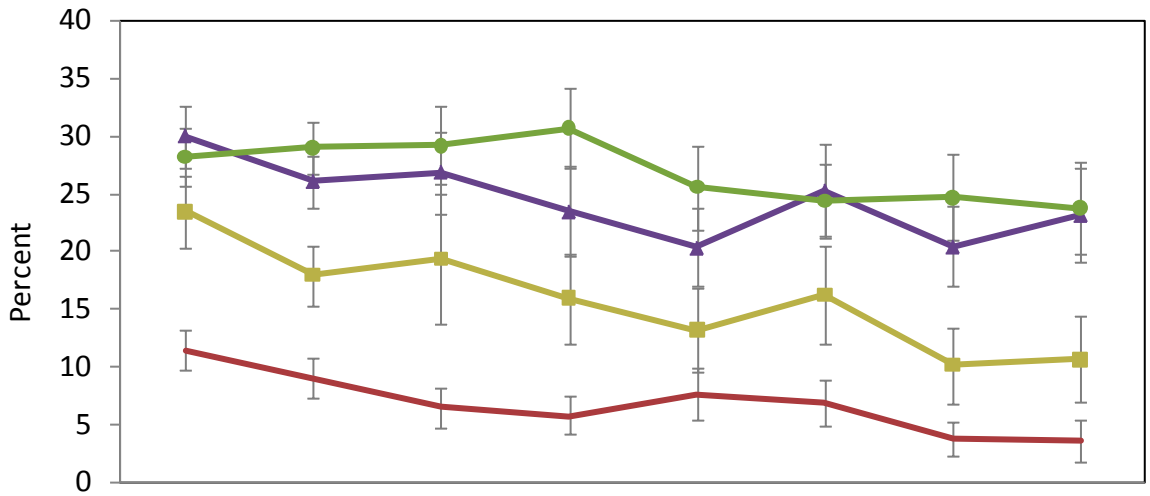


M= Interpret with caution, moderate levels of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%.
Source: OSDUHS 2005–2013 (Biennial).

Current Smoking (Past 30 Days): Young Adults Aged 18 to 29

- According to the Canadian Community Health Survey, there has been a significant decline in the prevalence of past 30-day smoking among youth and young adults aged 15 to 17, 18 to 19, 20 to 24, and 25 to 29 between 2003 and 2012, but not in the last 5 years (i.e., since 2008). (Figure 31).
- Over the period 2003 to 2012, the rate of smoking declined from 11.5% to 4% among youth aged 15 to 17, and 23.5% to 11% among 18 to 19 year olds.
- In 2012, young adults aged 20 to 24 and 25 to 29 had similar high rates of smoking (23% vs. 24%, difference not significant).

Figure 31: Current Smokers (Past 30 Days), Young Adults, Ontario, 2003 to 2012



	2003	2005	2007	2008	2009	2010	2011	2012
15-17	11.5	9	6.5	6	8	7	4	4
18-19	23.5	18	19	16	13	16	10	11
20-24	30	26	27	23.5	20	25	20.5	23
25-29	28	29	29	31	26	24	25	24

Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: Canadian Community Health Survey (Master File) 2003–2012.

Short and Intermediate-Term Outcomes

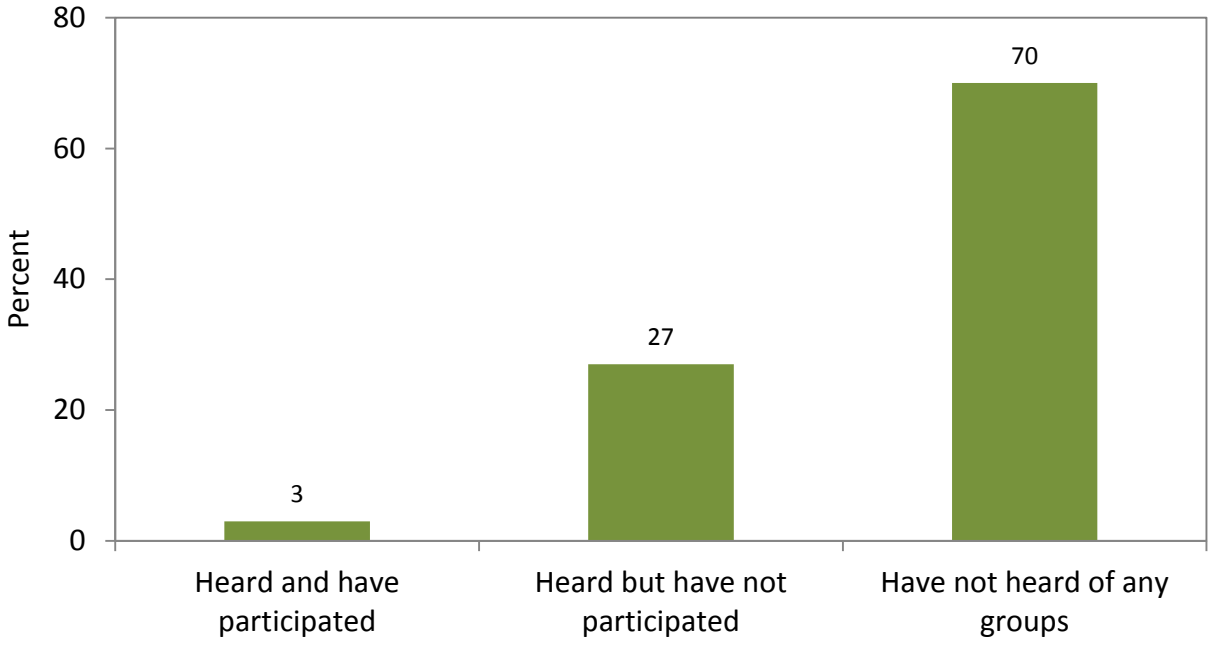
Ease of Obtaining Cigarettes

- In 2013, 60% of students in grades 7 to 12 under the age of 19 believed it was easy to obtain cigarettes, a significant increase from 51% in 2011 (Ontario Student Drug Use and Health Survey, data not shown).
- In 2013, 94% of past-year smokers believed it was easy to obtain cigarettes, unchanged from 2011.

Awareness of School and Community Prevention Initiatives

- In 2013, very few students (3%) had participated in an event sponsored by groups of youth who were raising awareness of smoking and tobacco issues (see Figure 32), although 27% had heard of such groups.

Figure 32: Awareness of Groups of Youth who Raise Concerns about Smoking and Tobacco Issues, Students (Grades 7 to 12), Ontario, 2013



Source: OSDUHS 2013.

MPOWER Comparison with Ontario: Prevention

Six MPOWER comparisons relate to Prevention: Monitoring, Health Warning Labels, Mass Media Campaigns, Tobacco Advertising Bans, Advertising Ban Compliance, and Taxation.

Table 18: Assessing Prevention: MPOWER Indicators Applied to Ontario

MPOWER Indicator	Highest MPOWER Score; MPOWER Requirement	Situation in Ontario
Monitoring	Score = 3; Recent, representative and periodic data for both adults and youth)	Meets the requirement for the highest score
Health warning labels on cigarette packages	Score = 4; 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	Score = 4; 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 major prevention campaigns have been conducted in Ontario or Canada with duration of at least 3 weeks. There has been varied online and local campaigns and the Ontario Ministry of Health and Long-Term Care created a new cessation campaign in March 2013 called Quit the Denial (a campaign targeting young adults aged 18 to 29 years old who classify themselves as social smokers).
Tobacco advertising bans	Score = 4; 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	Score = 3; Complete compliance	Meets the requirement for the highest score
Taxation	Score = 4; Tobacco tax > 75% of the retail price	Tobacco tax at 64% of the retail price in Ontario in 2012

Chapter Summary

Smoking initiation among Ontario students in lower grades is quite low, with lifetime abstinence at 97% in Grade 7 and 92% in Grade 8, and past-year initiation at 3% in these two grades combined. Among students in Grades 9 and 10, lifetime abstinence was 88% and 80%, respectively; past-year initiation was 3% and 6%; and past-year smoking 3% and 9%, respectively. Reporting of past 30-day current smoking is too small in the lower grades to

adequately measure, but is 2% in Grades 9 and 10 combined and has remained constant at 6% for Grade 11 and 12 since 2011. Overall, Grades 9/10 appear to be important years for initiation to smoking.

Indicators show that for students in higher grades, initiation has decreased over the past decade (and since 2007), yet the data presented here suggest that over the past couple of years, this decline has slowed, particularly for students in Grade 12. In Grades 11 and 12, lifetime abstinence was 72% and 66%, respectively; past-year initiation was 10% and 6%, respectively; past-year smoking was 13% and 15%, respectively, and past 30-day current smoking was 6% (Grades 11/12 combined).

Compared to school-aged youth, rates of current smoking are much higher for young adults (18% for females and 28% for males aged 20 to 24, Figure 4), suggesting that initiation continues into early adulthood. Efforts to prevent initiation in this young adult age group include expansion of Leave The Pack Behind to community colleges and targeted social marketing campaigns. Overall, there is limited evidence on the reach and effectiveness of these efforts, and more research is needed on contributing factors to these trends.

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. Yet despite improvements in recent years, smoking is still firmly established among 18- to 19-year olds (11%) and young adults aged 20 to 24 (23%).

The Scientific Advisory Committee, in its report *Evidence to Guide Action: Comprehensive Tobacco Control in Ontario*, noted that beyond basic information about tobacco being provided in all schools, prevention efforts need to focus on high-risk schools. Several factors might make a school high-risk including demographics, geographical location, socioeconomic status of students and community, and prevalence of tobacco use and other risky behaviours. Analyses conducted recently by OTRU indicate that a significant number of youth who are current smokers in Grades 7 to 12 also have problem drug use (64%) and problem drinking (81%). More generally, smoking appears to be a problem among high-school students, with virtually no smoking taking place in elementary school.

Chapter 6: Social Climate and Public Support

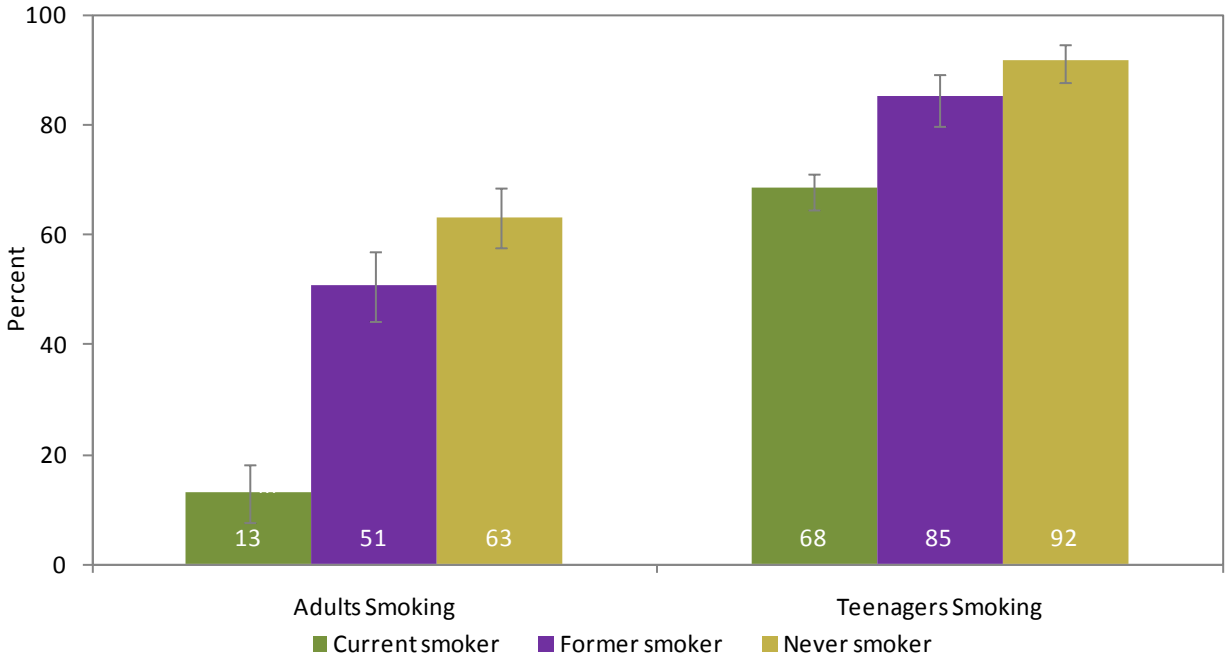
Social climate and public support can both influence the adoption of tobacco control measures and indicate the success of public education and social marketing campaigns. In this section, we examine key indicators that measure social climate and public support including the social acceptability of smoking and attitudes toward both current policies and those that may be on the public agenda in the near or distant future.

Social Climate

Social climate refers to societal norms, practices and beliefs, and to patterns of human actions and interactions. Evidence suggests that social climate is vital to human behavioural change. Creating a healthy social climate is a key path for achieving and sustaining the desired outcomes of a comprehensive tobacco control program.[28,29,30] One important marker of the social climate around tobacco use is the social acceptability of smoking. Recognizing the importance of social climate in understanding progress in tobacco control, we have measured social acceptability of smoking over the last few years, and this is the second public reporting of results.

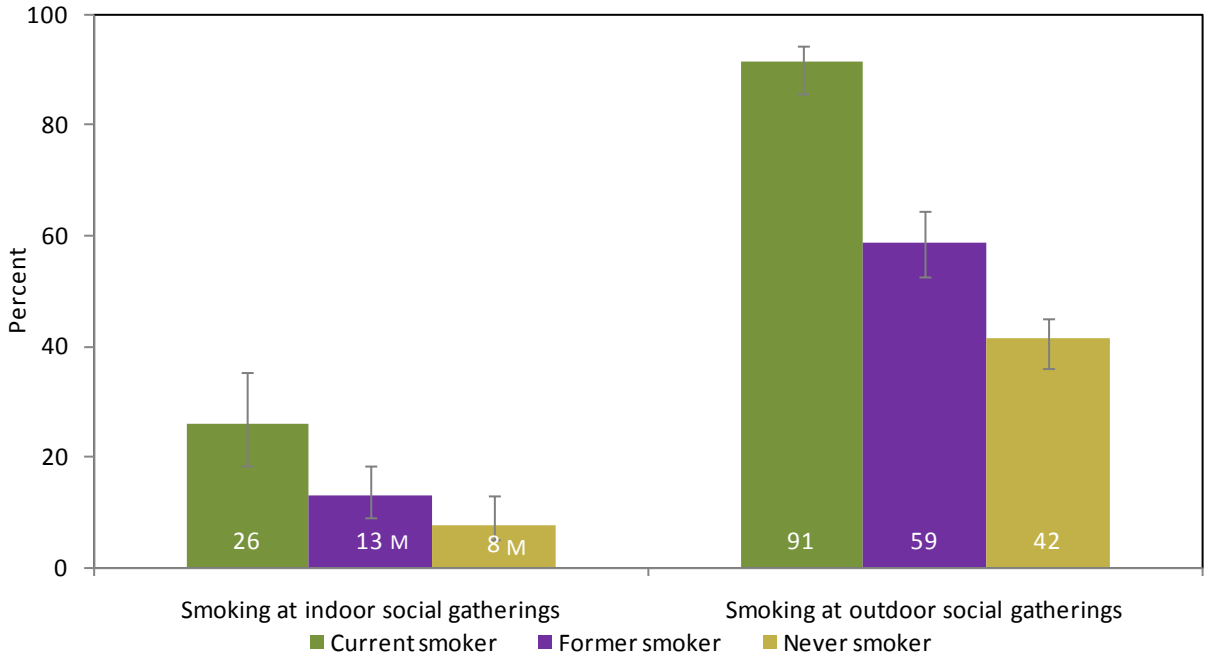
- In 2012, 63% of never-smokers, 51% of former smokers and 13% of current smokers aged 18 years and over reported that it was unacceptable for adults to smoke (CAMH Monitor data; Figure 33).
- Smoking by teenagers was viewed as unacceptable among all adults regardless of smoking status (Figure 33), with never-smokers having the strongest views on its unacceptability. Specifically, never-smokers had a significantly higher level of disapproval than current smokers (92% vs. 68%; CAMH Monitor 2012).
- Slightly more than half of never-smokers (48%) and 29% of former smokers indicated that it was unacceptable for their friends to be smokers (data not shown in the figure; CAMH Monitor 2012).
- One in four current smokers (26%) believed it was acceptable to smoke indoors while attending celebrations, parties, or other social gatherings, triple the rate of never-smokers (8%; Figure 34). Nine in ten current smokers believed it was acceptable to smoke at outdoor social gatherings that they attended, significantly higher than the rate for former smokers and never-smokers (91% vs. 59% and 42%; CAMH Monitor 2012).

Figure 33: Social Unacceptability of Adults and Teenagers Smoking Cigarettes, by Smoking Status, Ontario, 2012



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) 2012.

Figure 34: Social Acceptability of Smoking Cigarettes at Indoor and Outdoor Social Gatherings, by Smoking Status, Ages 18+, Ontario, 2012



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) 2012.

Public Support

Public support for tobacco control policies provides important information about the success of public education and social marketing efforts as well as an indication of the alignment of public attitudes toward policies already adopted and those that might be under consideration. Public support is very high for several key tobacco control policies that have been in place in Ontario for some time. Survey data show that most Ontarians support smoking prohibitions at workplaces (94%) and at restaurants (78%)(CTUMS 2011); they also support a law prohibiting smoking in vehicles when children present (89%), as well as fines for the social supply of cigarettes to youth (86%; CAMH Monitor). According to the 2012 CAMH Monitor, there is considerable support for additional policy measures that have yet to be implemented such as prohibiting smoking at outdoor children's playgrounds/wading pools (91%), entrances to public buildings (89%), and in multi-unit dwellings (87%); rating movies with characters smoking as R or Restricted (52%); and reducing the number of retail outlets that sell cigarettes (65%).

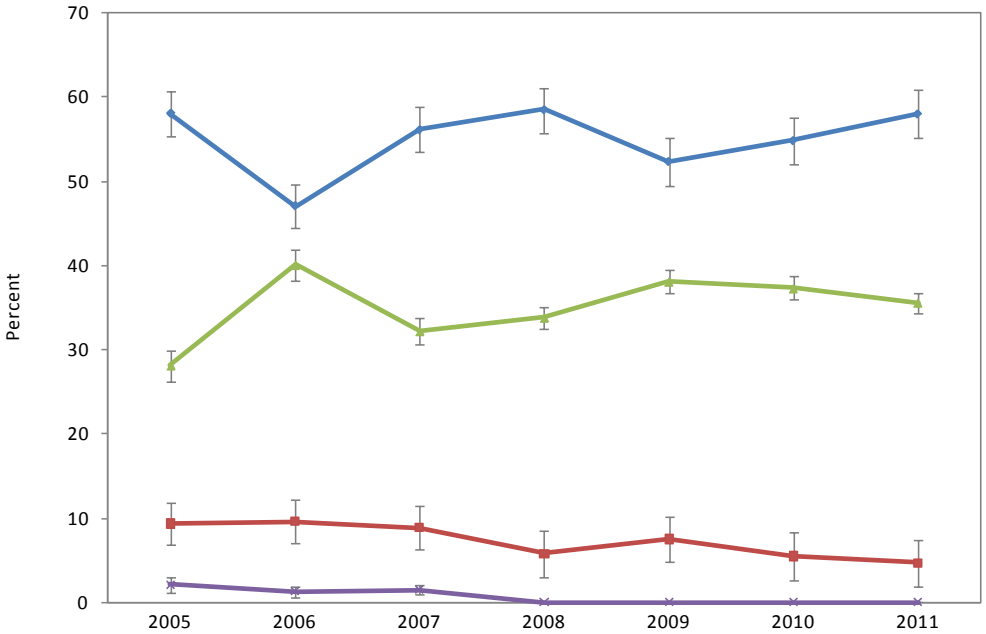
In this chapter, we provide an overview of public opinion in Ontario on a variety of key policies. We begin with *Protection from Secondhand Smoke*, an area where there has been great success and which is still at the forefront of progressive tobacco control policies in leading jurisdictions around the world (e.g., prohibiting smoking in multi-unit dwellings and outdoor settings such as parks, patios, and recreational/sport areas). Public support for *Availability*—the accessibility of tobacco products at the retail level—is also addressed, with a focus on youth access, location, and product. We end the section with public support for restricting *Smoking in the Movies* and *Plain Packaging*, two areas that have received a considerable amount of attention not only in the research literature but also in the popular press.

Protection from Secondhand Smoke

Workplace

- In 2011, 94% of respondents agreed that there should be no smoking indoors in a workplace—that is, 58% responded that smoking should only be allowed in designated outdoor areas and 36% responded that it should not be allowed anywhere (CTUMS data; Figure 35), unchanged in recent years.

Figure 35: Views on Smoking in the Workplace, Ages 15+, 2005 to 2011



	2005	2006	2007	2008	2009	2010	2011
Allowed only in designated outdoor areas	58	47	56	58.5	52	55	58
Not allowed anywhere (indoors or outdoors)	28	40	32	34	38	37	36
Allowed only in enclosed areas	9	10	9	6	7.5	5.5	5
Smoking should be allowed anywhere in the workplace, whether indoor or outdoor	2 M	1 M	1.5 M	Not reportable	Not reportable	Not reportable	Not reportable

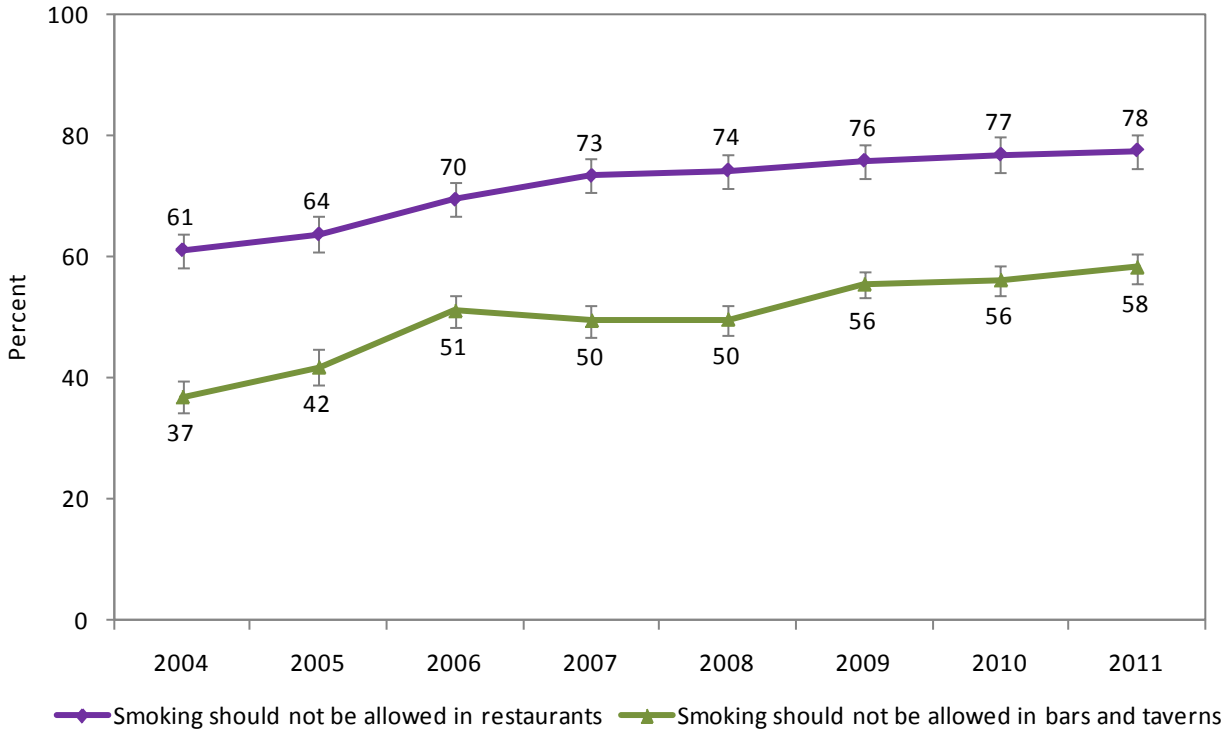
Note: Vertical lines represent 95% confidence intervals. M=Marginal. Interpret with caution: subject to moderate sampling variability.

Source: Canadian Tobacco Use Monitoring Survey 2005-2011.

Restaurant and Bars

- In 2011, 58% of Ontarians aged 15 years and over felt that smoking should not be allowed in bars or taverns, a significant increase from 2008 (58% vs. 50%; CTUMS data; Figure 36).
- Support was significantly higher in 2011 for prohibiting smoking in restaurants at 78%, a significant increase from 2006 (70%). In 2011, females were significantly more likely to feel that smoking should not be allowed in restaurants (83% for females and 72% for males).
- In 2012, 75% of Ontario adults (including 80% of never-smokers and almost half (48%) of current smokers) agreed that smoking should be banned on outdoor patios of restaurants and bars, significantly increased from 2011 levels (57%; CAMH Monitor, data not shown). In 2012, there was no difference in support for a ban between females and males (76% vs. 73%, data not shown).

Figure 36: Views on Smoking in Bars and Restaurants, Ages 15+, Ontario, 2004 to 2011

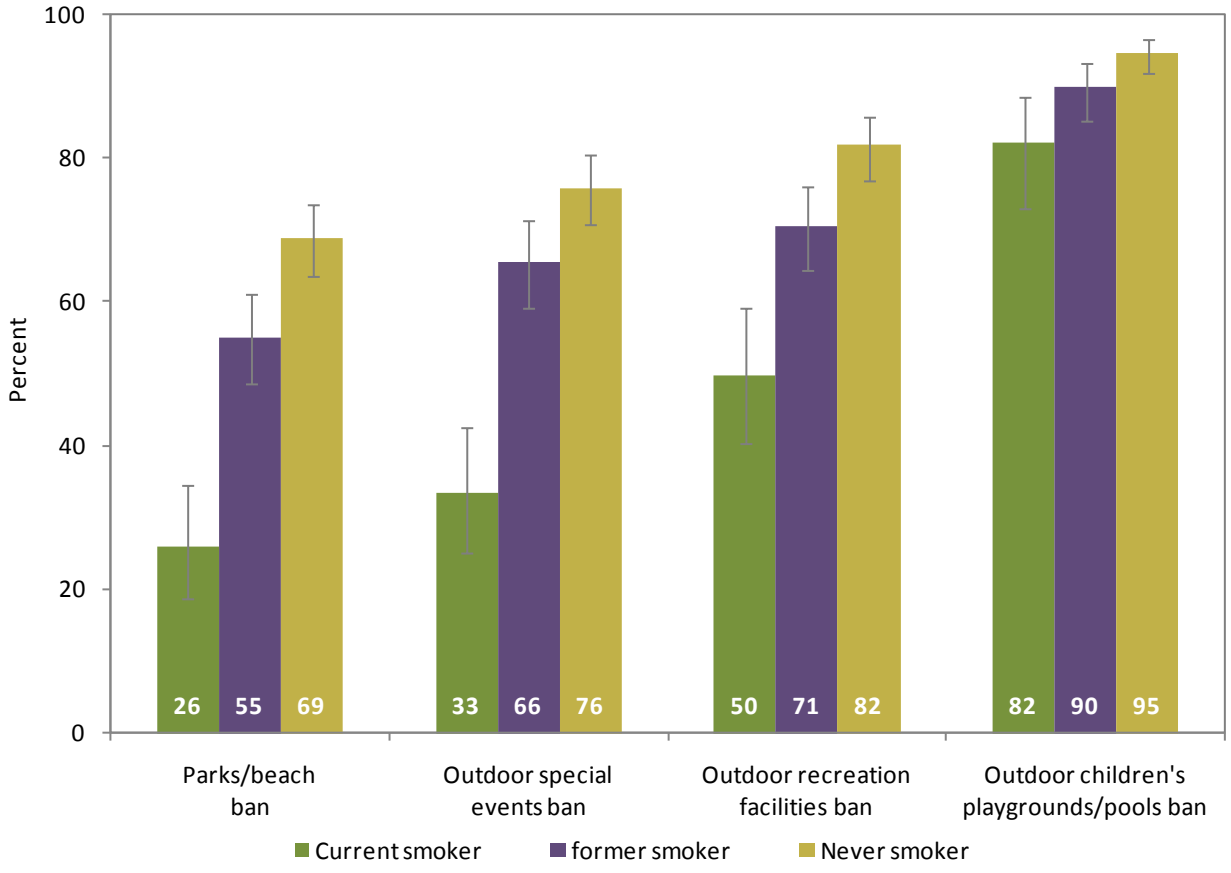


Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2004-2011.

Outdoor Places

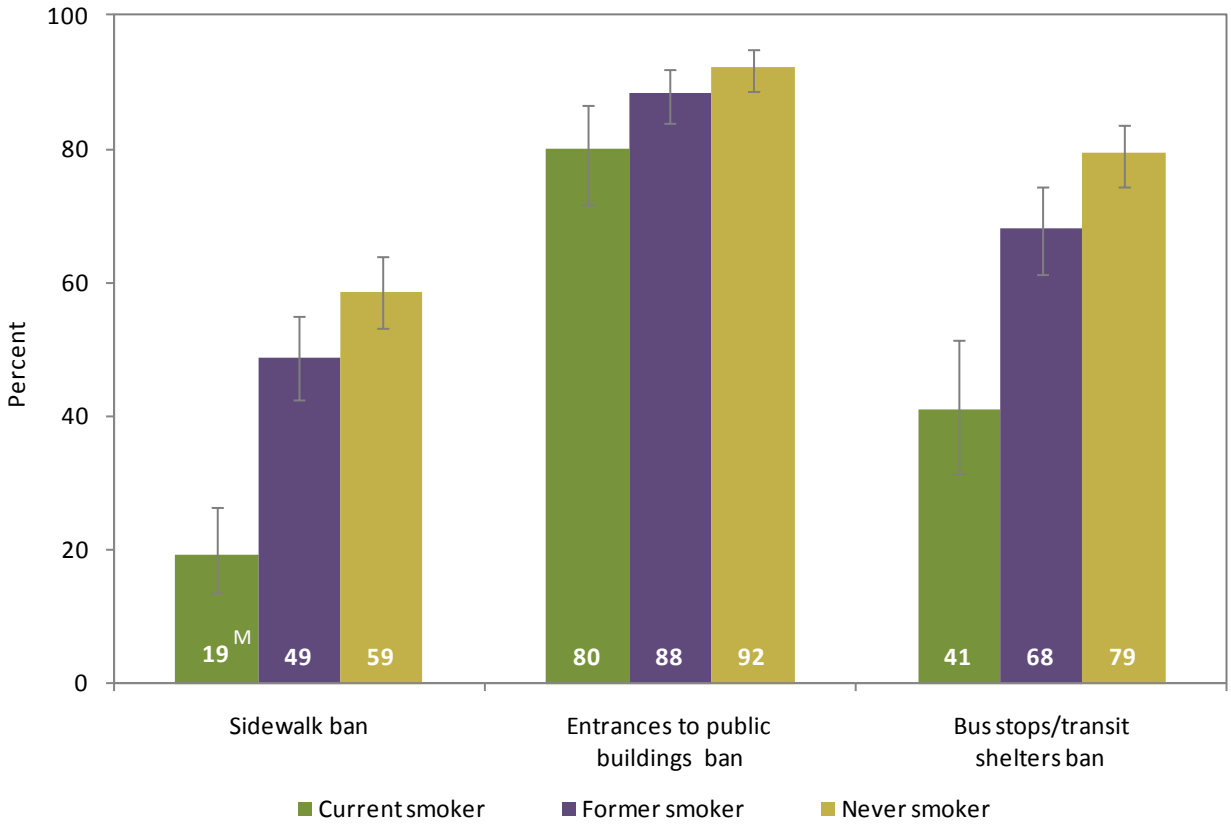
- Among the general population, support for smoking bans in public parks and on beaches has remained unchanged in recent years (58% in 2012; CAMH Monitor, data not shown; trend data not available for other settings).
- Current smokers were significantly less likely to agree that smoking should be banned in public parks and on beaches (26%), at outdoor special events (such as concerts, festivals or parades, 33%), or near outdoor recreation facilities (such as sports fields, stadiums, and entrances to arenas, 50%) compared to former smokers (55%, 66%, and 71%, respectively) and never-smokers (69%, 76%, and 82%, respectively; CAMH Monitor 2012; Figure 37).
- Support for banning smoking at outdoor children's playgrounds and wading pools is high at 91% among all respondents. Support is higher among never smokers (95%) and former smokers (90%) compared to current smokers (82%; Figure 37).
- Current smokers were significantly less likely to agree that smoking should be banned on public sidewalks (19%), entrances to public buildings (80%), or bus stops/transit shelters (41%) compared to former smokers (49%, 88%, and 68%, respectively) and never-smokers (59%, 92%, and 79%, respectively; based on Z-test for two population proportions, $p<0.05$; Figure 38).
- Among all respondents, support for smoking bans on sidewalks and at entrances to public buildings was significantly higher in 2012 (49% and 89%, respectively) than in 2011 (44% and 85%, respectively).

Figure 37: Agreement that Smoking should be Banned in Select Outdoor Settings, by Smoking Status, Ages 18+, Ontario, 2012



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor (Full Year) 2012.

Figure 38: Agreement that Smoking should be Banned on Sidewalks, Entrances, and Bus Stops, by Smoking Status, Ages 18+, Ontario, 2012



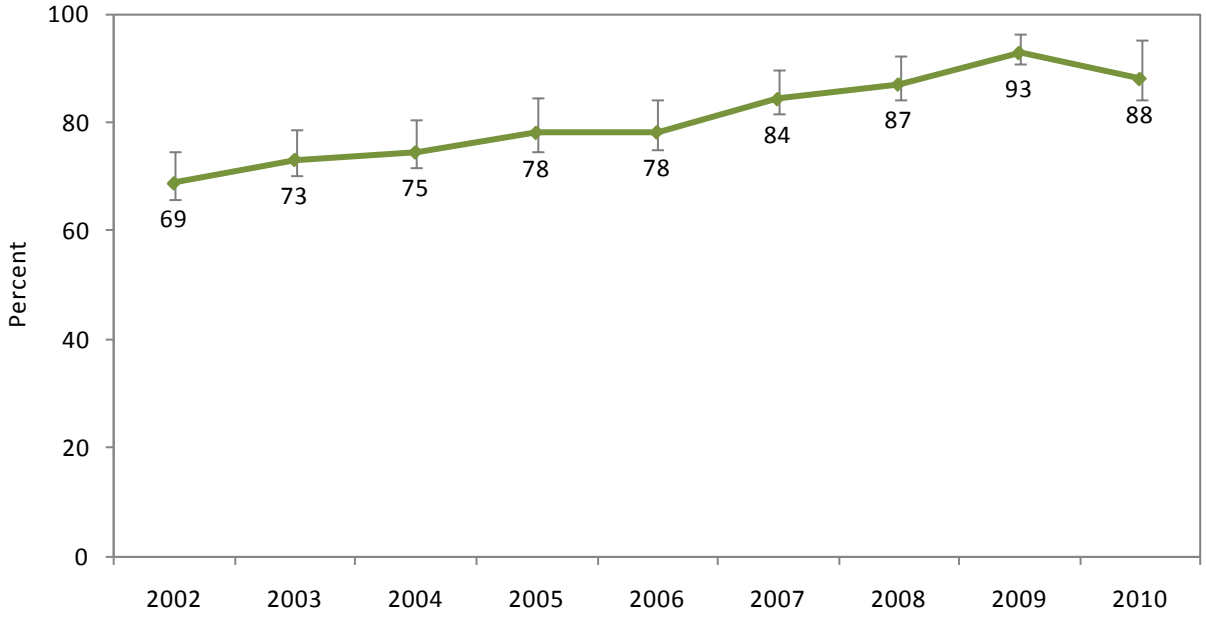
Note: Vertical lines represent 95% confidence intervals. M=Marginal. Interpret with caution: subject to moderate sampling variability.

Source: Centre for Addiction and Mental Health Monitor (Full Year) 2012.

Smoking in Vehicles

- In the first half of 2010, 88% of Ontario adults agreed that there should be a law that parents cannot smoke inside their car if children are present, unchanged from 2009 (93%), but significantly higher than 2006 (88% vs. 78%; Figure 39). Current smokers, former smokers, and never-smokers held similar views (CAMH Monitor, data not shown).
- Support across all ages was high, with no significant difference by age group reported (data not shown).

Figure 39: Agreement That There Should Be a Law that Parents Cannot Smoke Inside Their Car if Children Present, Ages 18+, Ontario, 2002 to 2010

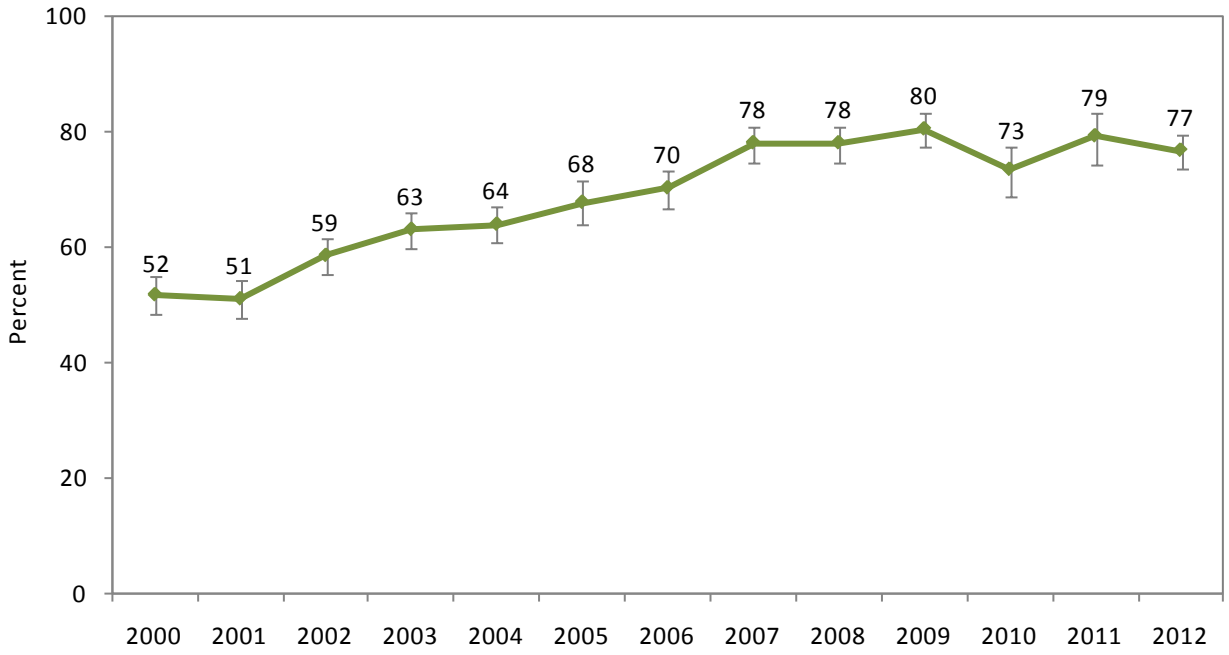


Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2002–2010.

Smoking in Homes

- In 2012, almost eight in ten respondents (77%) agreed that there should be a law that parents cannot smoke inside their home if children are living there; this is significantly higher than the level of agreement reported in 2006 (70%) and before (Figure 40).
- In 2012, 87% of adults in Ontario believed that smoking should not be allowed inside multi-unit dwellings including apartment buildings, rooming houses, and retirement homes with shared ventilation; the level of support has increased significantly since 2006 (87% vs. 73%; CAMH Monitor, data not shown).

Figure 40: Agreement That There Should Be a Law that Parents Cannot Smoke Inside Their Home if Children Are Living There, Ages 18+, Ontario, 2000 to 2012



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2000–2012.

Availability

Tobacco retail availability refers to the accessibility of tobacco products at the retail level. The current retail tobacco system in Ontario allows tobacco to be readily accessible 24 hours a day, seven days a week, in essentially every corner store, gas station and grocery store, as well as a myriad of other outlets. 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.

The Tobacco Strategy Advisory Group (TSAG) identified the pervasive availability of tobacco products in the retail environment as a major issue for tobacco control in Ontario. TSAG makes two main recommendations: (a) Ontario should move toward a system of designated sales outlets, by using methods such as 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 bans the sale of tobacco products in pharmacies and places connected to a pharmacy, public and private hospitals, psychiatric facilities (except parts of facilities under the *Mental Hospitals Act*), residential-care facilities and vending machines.[94] Ontario allows tobacco sales in universities, theatres, bars, restaurants, casinos and government buildings, as well as convenience stores, grocery stores, and gas stations.

Curtailing Youth Access

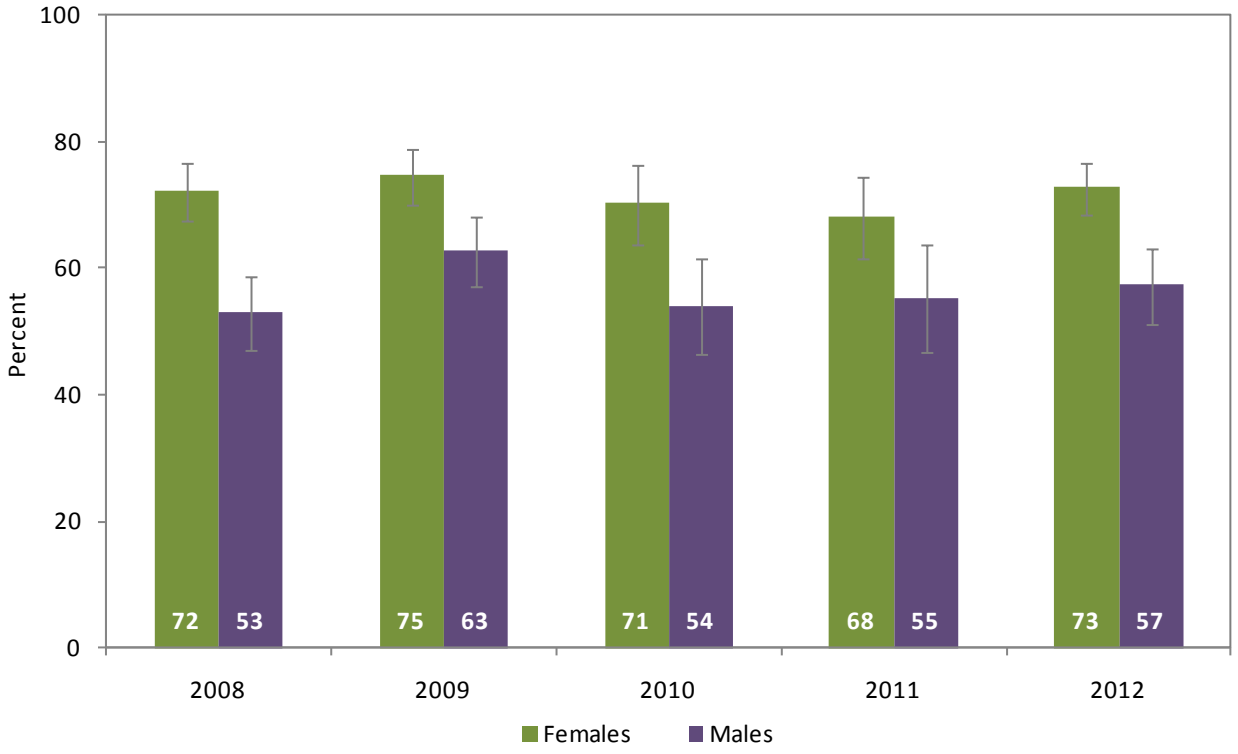
- In 2011, there was strong agreement (85%) that friends and family who supply tobacco to young people less than 19 years of age should be fined, with agreement among adults steady over time (CAMH Monitor, data not shown).

Location

- In 2012, 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 (CAMH Monitor, data not shown). In contrast, 60% of current smokers disagreed with this policy option, significantly higher than the disagreement expressed by former smokers and never-smokers (38% and 26%, respectively; data not shown).
- In 2012, females had a significantly higher rate of agreement that the number of retail outlets should be reduced than males (73% vs. 57%), a change from 2011 (no difference between males and females) but similar to previous years in which differences were significant (Figure 41).
- In 2012, 49% of adults in Ontario agreed that tobacco products should be sold in a number of different places as they are now; 28% responded they should be sold in government owned stores similar to the way alcohol is sold in Liquor Control Board of Ontario stores; and 20% responded that tobacco products should not be sold at all

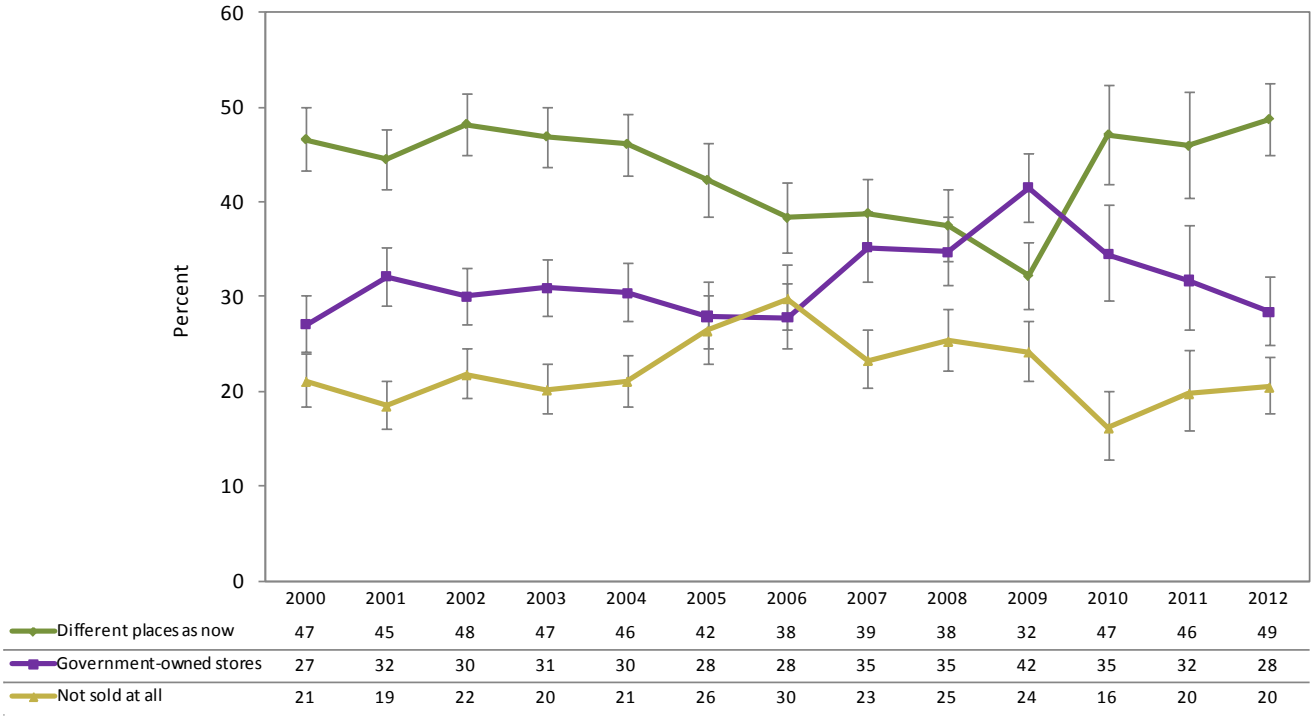
(Figure 42). Recent opinion on how tobacco should be sold has been volatile, particularly support for the option of selling tobacco products in different places, as is the case now. The continued monitoring of outlying years is expected to clarify trends for this indicator.

Figure 41: Agreement That the Number of Retail Outlets Selling Cigarettes Should Be Reduced, by Sex, Ontario, 2008-2012



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2008–2012.

Figure 42: Views on How Tobacco Should Be Sold, Ages 18+, Ontario, 2000 to 2012



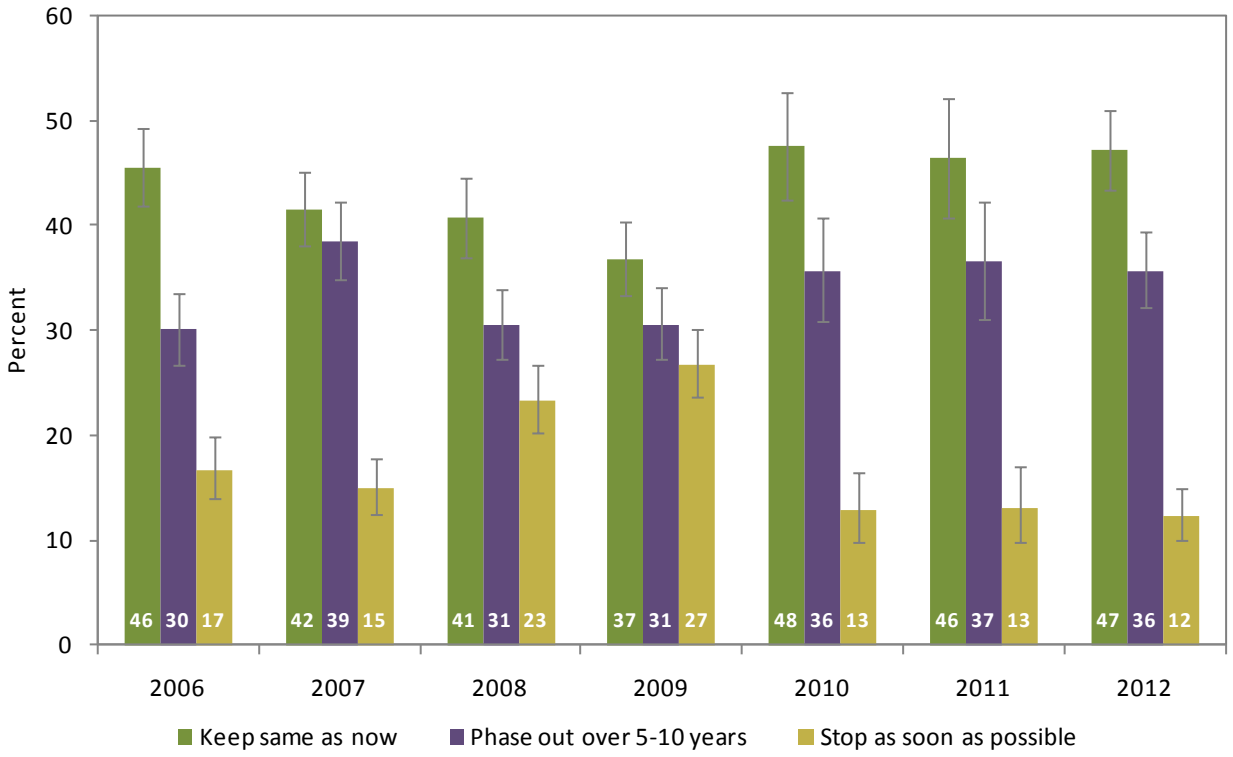
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Different places as now	47	45	48	47	46	42	38	39	38	32	47	46	49
Government-owned stores	27	32	30	31	30	28	28	35	35	42	35	32	28
Not sold at all	21	19	22	20	21	26	30	23	25	24	16	20	20

Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2000–2012.

Product

- In 2012, 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 5 to 10 years, and 47% felt that the sale of cigarettes should be kept as it is now (Figure 43).
- In 2012, two out of every ten smokers (20%) felt that cigarettes should be phased out in 5 to 10 years (data not shown).

Figure 43: Views on the Sale of Cigarettes, Ages 18+, 2006 to 2012



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2006-2012.

Support for Other Policy Initiatives

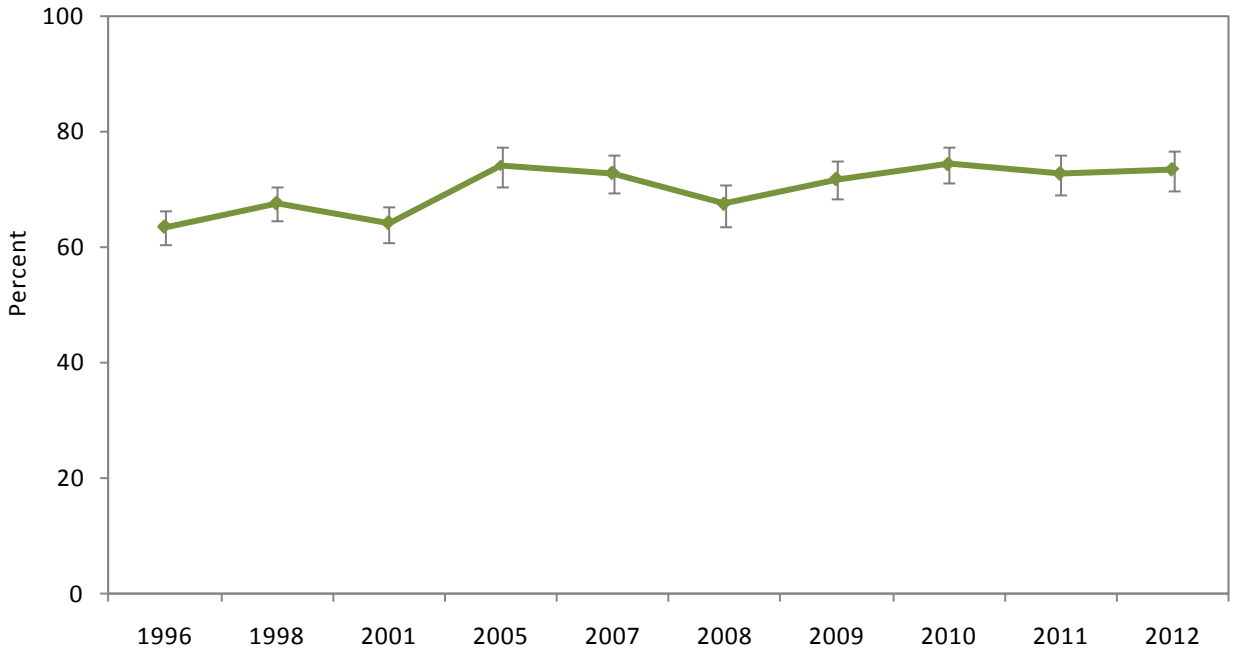
Smoking in the Movies

- In 2012, 55% of Ontario adults agreed that movies that showed characters smoking should be rated R or Restricted, while never and former smokers (55% for both never and former smokers) had a higher proportion of agreement than current smokers (37%; CAMH Monitor, data not shown).
- Female support for this policy option was at 61%, significantly higher than that of males (41%) in 2012 (CAMH Monitor, data not shown).

Plain Packaging

- Support for selling cigarettes in plain white packages that show only health warnings, ingredients, and brand name as a way of discouraging smoking among children has increased significantly from 1996 to 2012 (*p* for trend analysis ‹ 0.05) but has remained steady since 2001(CAMH Monitor data; Figure 44).[xxv] In 2012, 72% of all respondents and over half of all current smokers (57%) agreed that cigarettes should be sold in plain white packages.
- The level of support among current smokers for plain packaging was significantly lower than that of never-smokers and former smokers (57% vs. 81% and 68%, respectively; CAMH Monitor 2012; data not shown).

Figure 44: Agreement that Cigarettes Should Be Sold in Plain White Packages, Ages 18+, 1996-2012



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: Centre for Addiction and Mental Health Monitor 1996-2012.

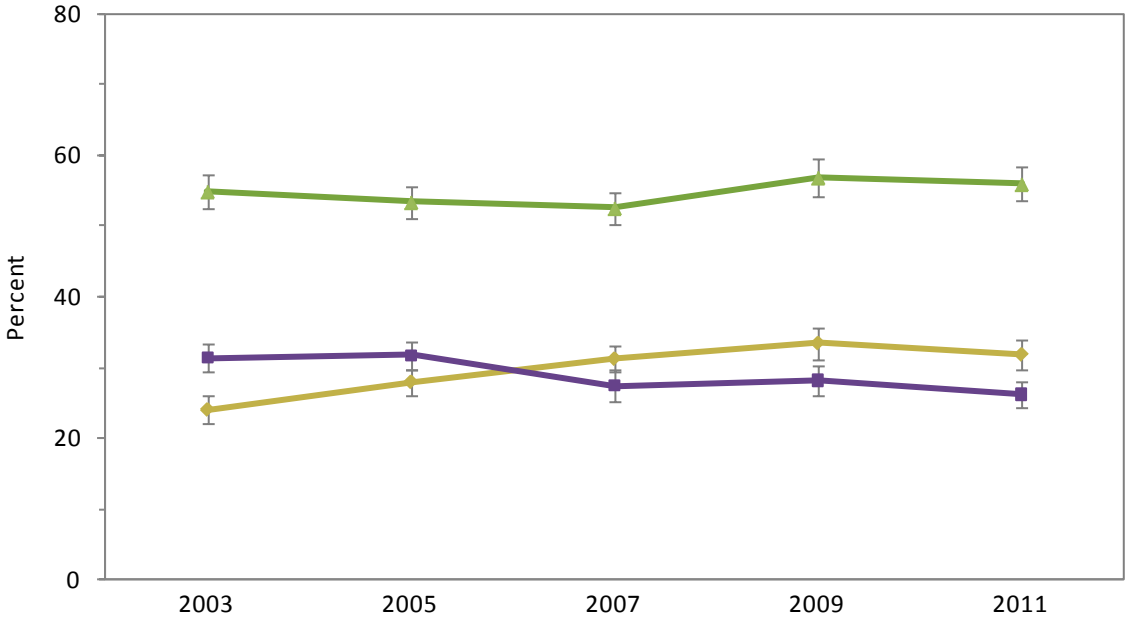
[xxv] The reference to 'white' comes from the actual survey question, which has been asked on the CAMH Monitor periodically since 2001. Current thinking on plain packaging has moved away from advocating for white packs, which may connote healthfulness. Australia recently introduced plain and standardized packaging that will use a shade of olive green.

Perceived Harmfulness of Tobacco Products

Student Perceptions

- Among students in Grades 7 to 12, 32% believe that smoking 1 or 2 cigarettes a day puts them at great risk of harming themselves, a level unchanged in recent years (Figure 45).
- Significantly more students though that smoking cannabis regularly puts them at great risk of harming themselves (56% of students) compared to smoking cigarettes (32% of students).
- More smokers than nonsmokers believed that smoking one or two cigarettes a day was of no risk to them (23% vs. 5%, respectively; data not shown).

Figure 45: Belief that There Is a Great Risk to Using Cigarettes, Alcohol, and Cannabis, Students (Grades 7 to 12), Ontario, 2003 to 2011



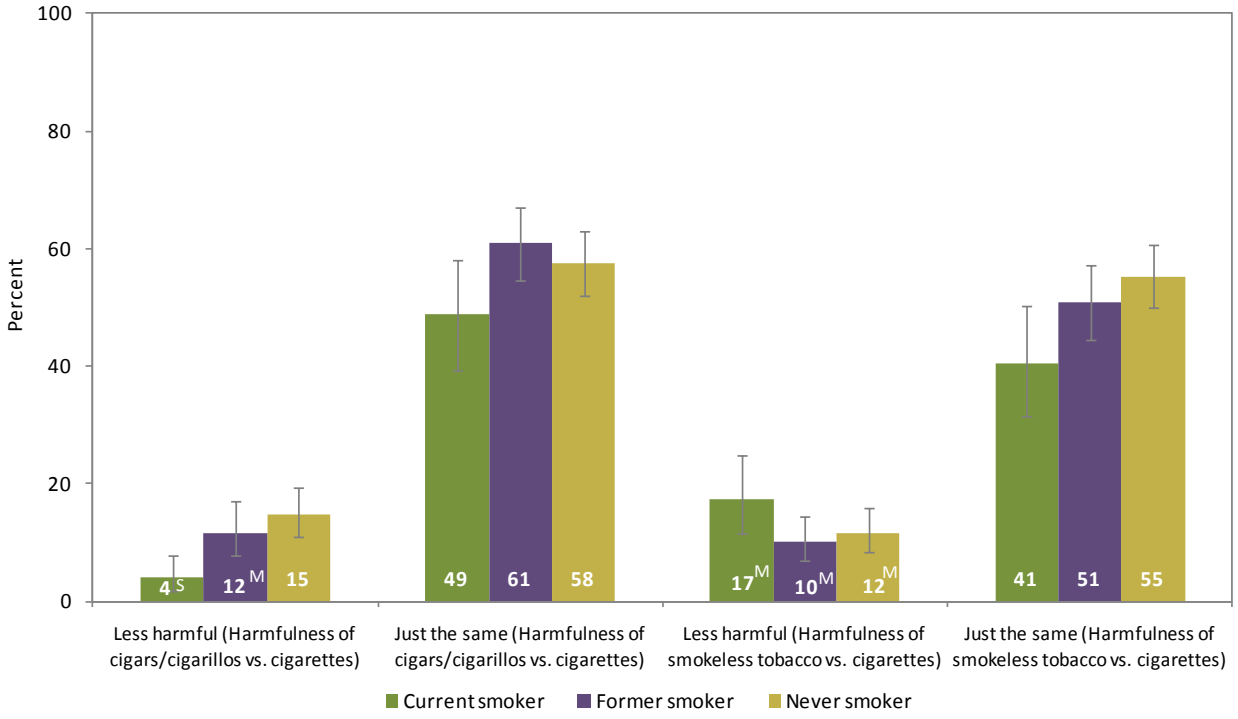
	2003	2005	2007	2009	2011
Cannabis	55	53	53	57	56
Cigarettes	24	28	31	33	32
Alcohol	31	32	27	28	26

Note: Vertical lines represent 95% confidence intervals. Cigarettes = 1 or 2 cigarettes/day. Alcohol = 5 drinks once or twice/weekend. Cannabis = smoking regularly.
Source: OSDUHS 2003–2011 (biennial).

Adult Perceptions

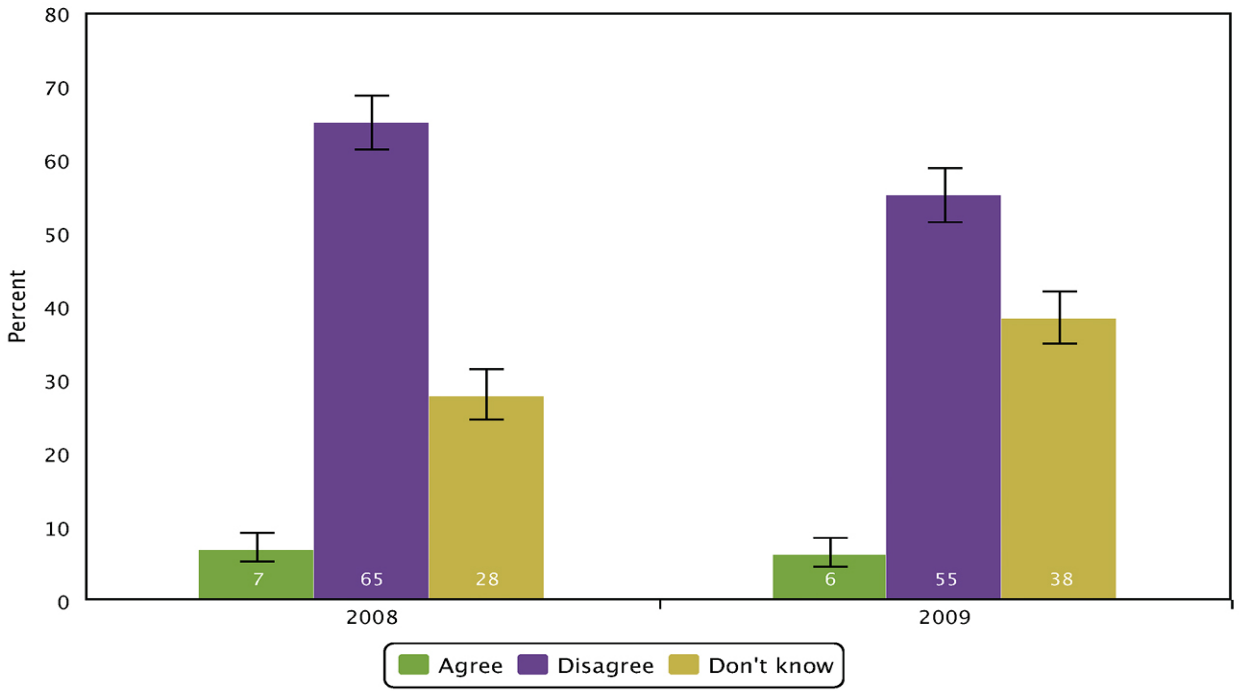
- In 2012, 49% of current smokers perceived cigars and cigarillos as causing the same harm as smoking cigarettes, which is significantly lower than the 61% former smokers and 58% of never-smokers who expressed this view (Figure 46).
- Similarly, 41% of current smokers viewed smokeless tobacco as causing the same harm as smoking cigarettes compared to 51% of former smokers and 55% of never smokers.
- In 2009, 38% of Ontarians aged 18 and over did not know whether menthol cigarettes were less harmful than regular cigarettes (Figure 47), a significant increase over that of 2008 (28%; CAMH Monitor, data not shown). Knowledge of the harmfulness of menthol cigarettes also diminished over this period, with 55% of respondents disagreeing that menthol cigarettes were less harmful in 2009 compared to 65% of respondents in 2008. (Note. 2009 is the most recent data)

Figure 46: Perceived Harmfulness of Cigar/Cigarillos and Smokeless Tobacco versus Smoking Cigarettes, Ages 18+, Ontario, 2012



Note: Vertical lines represent 95% confidence intervals. M = Marginal. Interpret with caution: subject to moderate sampling variability. S = Small sample size. Not reportable.
Source: Centre for Addiction and Mental Health Monitor 2012.

Figure 47: Agreement about Whether Menthol Cigarettes Are Less Harmful than Regular Cigarettes, Ages 18+, Ontario 2008 and 2009

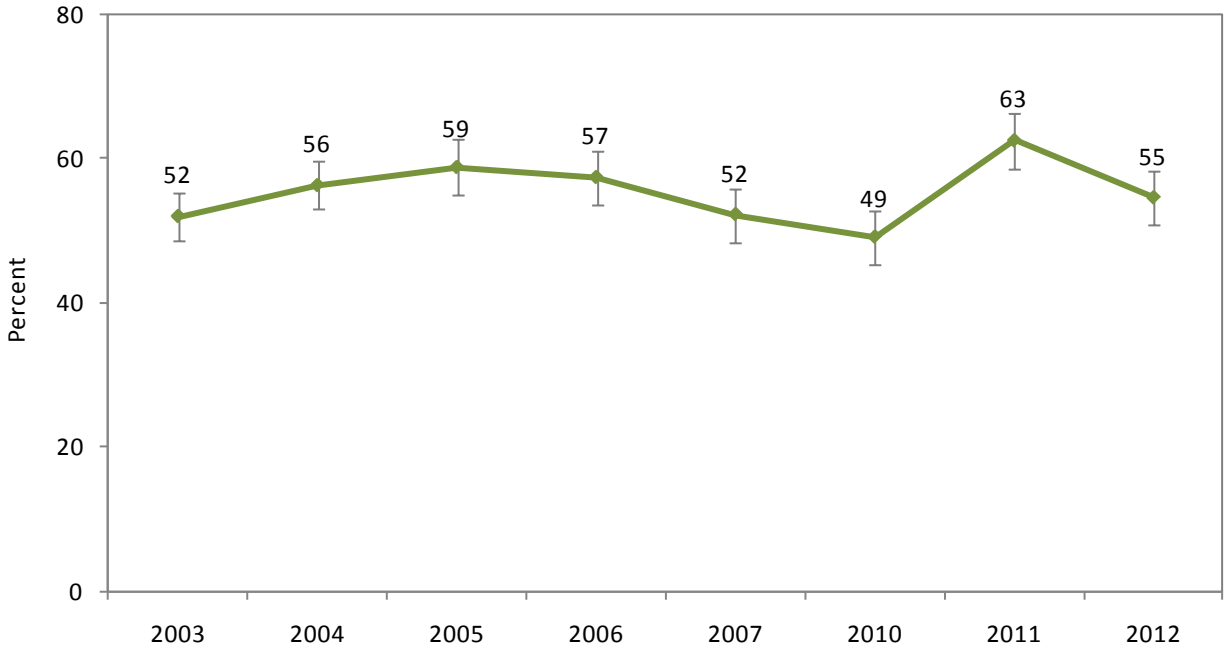


Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2008, 2009.

Attitudes toward the Tobacco Industry

- In 2012, 55% of Ontario adults agreed that the Ontario government should sue tobacco companies for healthcare costs that result from tobacco smoking, which is a significant increase over the rate for 2010 (55% vs. 46%) but lower than the rate in 2011 (63%) (Figure 48).
- Current smokers were significantly less likely to agree that the government should sue tobacco companies compared to former and never-smokers (39% vs. 50% and 62%, respectively, data not shown).

Figure 48: Agreement That the Ontario Government Should Sue Tobacco Companies for Healthcare Costs That Result from Smoking Tobacco, Ages 18+, 2003 to 2012

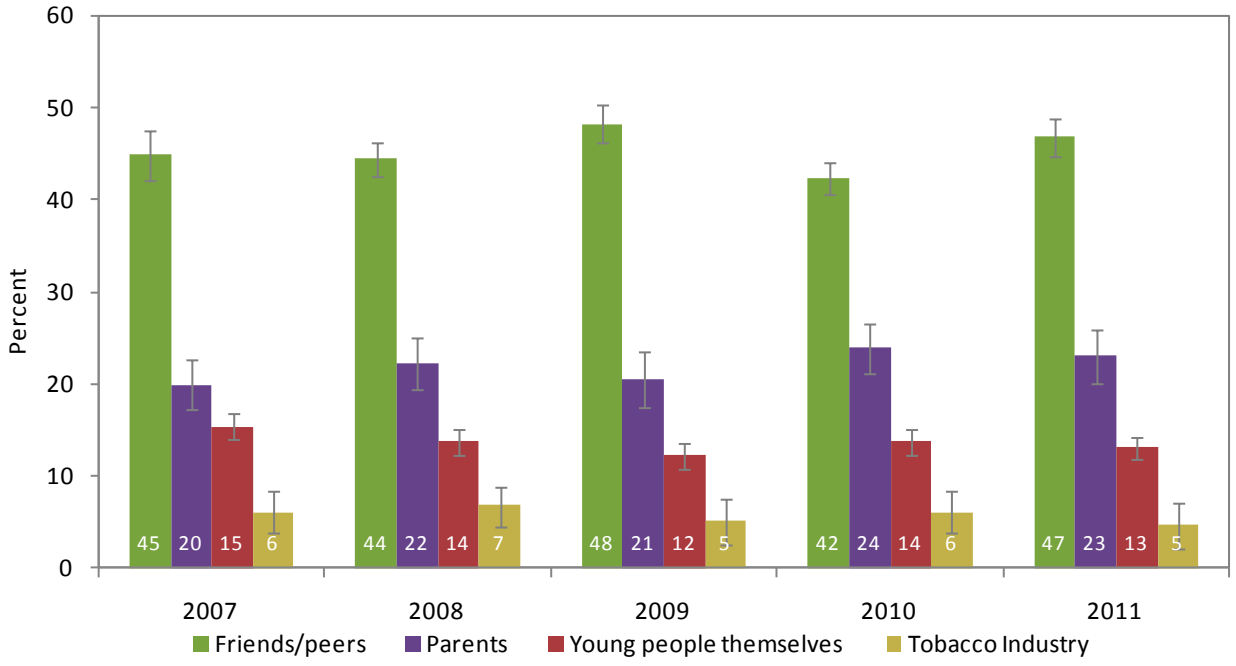


Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: Centre for Addiction and Mental Health Monitor 2003–2012.

Tobacco Company Responsibility

- Three–quarters (78%) of Ontario adults indicated that tobacco companies are responsible for the health problems smokers have because of their smoking (CAMH Monitor, 2010, data not shown).
- Six in ten current smokers (64%) held tobacco companies responsible for health problems smokers have because of their smoking (CAMH Monitor, 2010, data not shown).
- In 2011, 5% of respondents 15 years and older believed that the tobacco industry was the most responsible for young people starting to smoke compared young people themselves (13%), parents (23%), and friends and peers (47%; CTUMS data, 2011; Figure 49). In Quebec, a significantly higher proportion held the industry responsible for youth smoking (10%, data not shown), which underscores a higher social acceptability rate in Ontario (5%) for the tobacco industry.

Figure 49: Responsible Party for Smoking Initiation by Youth, Ages 15+, Ontario, 2007 to 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2007-2011.

Chapter Summary

A social climate in which tobacco use is less acceptable and support for tobacco control is strong is considered a key path toward achieving the short, intermediate, and long-term outcomes of protection, cessation, and prevention path logic models. High public support for the various smoke-free settings currently regulated underscores this positive social climate (for instance, 94% of adults support workplace policies that prohibit smoking indoors, 78% support no smoking inside restaurants, and 88% support a law prohibiting smoking inside a vehicle when children are present). Similarly, support is high for restrictions in other settings not currently under provincial legislation including prohibition of smoking at outdoor children's playgrounds/wading pools (91%), entrances to public buildings (89%), in multi-unit dwellings (87%), and on outdoor patios of restaurants and bars (75%). Consistent with these data, only a small number of smokers (26%) find it socially acceptability to smoke indoors at celebrations, parties, or other social gatherings.

Markers of a healthy social climate extend to cessation and prevention related indicators. Six in ten Ontarians (65%) agreed that the number of retail outlets that sell cigarettes should be greatly reduced and two in ten smokers (20%) support the phasing out of cigarettes in 5 to 10 years. A large number of never-smokers and current smokers believe it is socially unacceptable for teenagers to smoke (92% and 68%, respectively) and there is wide support for rating movies with smoking scenes as R or Restricted (55%).

There is room for increasing knowledge. Only 32% of students in grades 7 to 12 believed that smoking 1 or 2 cigarettes a day puts them at great risk and 38% of adults did not know whether menthol cigarettes were less harmful than regular cigarettes. Only 5% of respondents 15 years and older held the tobacco industry most responsible for young people starting to smoke.

Chapter 7: Concluding Note

In recent years there has been substantial progress in decreasing tobacco use in high school. Despite this success, the rate of tobacco use increases sharply after high school, with almost one in every four young adults (aged 20-29) being a current smoker, and males have an even higher rate of smoking. Yet, steady progress in tobacco control is being made: the proportion of smokers who are advised to quit and assisted in quitting has risen, new demonstration projects are seeking innovations for further improvements in smoking cessation in workplace and hospital settings, and significant strides have been taken at the local level to further both physical and social protection from smoking in outdoor settings.

Based on the available evidence, however, there are some gaps between what the Scientific Advisory Committee deemed necessary and the scope and reach of policy, program and media activities committed to in 2012/13 (e.g., taxation policy). A comparison with MPOWER recommendations also 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). Despite these shortfalls, Ontario has implemented many of the MPOWER policies to their fullest including monitoring, smoke-free policies, and compliance with an advertising ban. For jurisdictions who have already implemented much of MPOWER, such as Ontario, it is likely that there is a need to adopt more far reaching policies such as those recommended by the Scientific Advisory Committee[9] and those being adopted in other leading jurisdictions.

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. Likewise, 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.

Appendix A: Technical Information about Population Surveys

Data Sources

Canadian Tobacco Use Monitoring Survey (CTUMS)

Health Canada's Canadian Tobacco Use Monitoring Survey is an ongoing cross-sectional nationwide, tobacco-specific, random telephone survey, conducted every year since 1999. Annual data are based on two cycles, the first collected from February to June, and the second from July to December. The sample design is a two-stage, stratified, random sample of telephone numbers. To ensure that the sample is representative of Canada, each province is divided into strata or geographic areas (Prince Edward Island has only one stratum). As part of the two-stage design, households are selected first and then, based on household composition, one, two, or no respondents are selected. The purpose of this design is, in part, to over-sample individuals 15 to 24 years of age. In general, CTUMS samples 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 2011 was 20,703 in Canada including 2,057 in Ontario, with a person response rate of 84%. 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 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 2012, estimates were based on telephone interviews with 3,030 adults (51% 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 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 7% of Ontario students. In total, 9,372 students participated in the survey in 2011, with a student participation rate of 62%. In 2013, 10,398 students participated in the survey, with a student participation rate of 63%. (In 2013, participation rate was influenced by 11% of students who were absent and 26% 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 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, 62,103 Canadians aged 12 or older participated in the 2012 survey (including 21,257 Ontarians). All survey estimates were weighted, and variance estimates were calculated using bootstrap weights.

Unless otherwise noted, current smoking is defined as past 30-day use and 100 cigarettes in lifetime. Canadian Socio-Economic Information Management System [CANSIM] results of CCHS are based on self-reported current smoking defined as smoking daily or occasionally, with neither 30 day or 100 cigarettes smoked in lifetime used in the indicator definition (see Table 1). All tobacco use (including alternative tobacco products) is based on past 30-day use only.

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 2011 Ontario Student Use Drug Use and Health Survey (OSDUHS). The sample consisted of 9,372 students from 40 school boards, 181 schools, and 581 classes. 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, OSDUHS

Indicator	Definition
Current smoker	A current smoker is someone who has smoked at least 100 cigarettes in his or her life and smoked within the last 30 days
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")

Adults

A segmentation analysis of adult (18+ years) current smokers and nonsmokers was conducted among sub-populations defined by chronic disease risk factors (e.g., physical inactivity, overweight) and social determinants of health (e.g., food security, job security, education), as defined in Table A-2. The analysis was conducted using the 2011/12 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, 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
Excess of low risk drinking	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. 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
Renting current dwelling	Respondent's dwelling is rented by a member of the household
Past year drug use	Respondent reported illicit drug use (including one time cannabis) in the past year
Working in trades, transportation & equipment operation occupation	Respondents work in trades, transportation & equipment operation occupation
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

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

Table B-1: NSRA's Smoke-Free Laws Database: Leading Age Legislation or Bylaws, Ontario (December 2013)

Name of Jurisdiction	Legislation and Bylaw Name	Date Passed (dd/mm/yyyy)	Date Last Amended
Arnprior	Bylaw No. 5739-09, A Bylaw to Regulate Smoking on Public Beaches and Playgrounds	25/05/2009	
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
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 212-2009, By-law to amend By-law Number 265-2002 - A By-law to regulate smoking in public places and workplaces in the Municipality of Chatham-Kent	07/10/2002	23/11/2009
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	
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		
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	
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	
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
Kirkland Lake	Bylaw 13-072, Being a Bylaw to Prohibit Smoking in Children's Playgrounds and on Joe Mavrinac Community Complex Property Within Town of Kirkland Lake (Short title: Smoke-Free Recreation Space Bylaw) Bylaw 12-065, Being a Bylaw to Prohibit Smoking in Children's Playgrounds Within Town of Kirkland Lake - REPEALED 13/08/2013	13/08/2013	

Mattawa	Bylaw No. 08-25, Smoke-free Hospital Bylaw Bylaw No. 09-20, Being a Bylaw to amend Bylaw No. 08-25	10/11/2008	22/06/2009
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	
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	
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	26/11/2012
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	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	By-law No. 2004 - 276 - Parks and Facilities 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. 2012-46, 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	
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

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
Sudbury	By-law 2013-54 to Regulate Parks under the Jurisdiction of the City of Greater Sudbury	12/02/2013	
Timmins	Bylaw No. 2012-7250, Being a bylaw to amend Bylaw No. 2011-7123 to Prohibit Smoking at Timmins and District Hospital 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. 2009-6844, Being a bylaw to amend Bylaw 2003-5815 (both repealed)	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	
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		02/04/2009

Appendix C

Table C-1: Non-smokers' 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

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

[a] = Ordered by 2011/12 exposure (lowest to highest).
[M] = 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: CCHS 2007/08, 2009/10 and 2011/12 (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. http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1050502&p2=17).

Table C-2: Non-smokers' 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

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

[a] = Ordered by 2011/12 exposure (lowest to highest).

[M] = Interpret with caution: subject to moderate sampling variability.

[Y] = Significantly lower than the previous year.

Source: CCHS 2007/08, 2009/10 and 2011/12 (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. http://www5.statcan.gc.ca/cansim/a26?lang=eng&id=1050502&p2=17)

References

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

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

[3] Ministry of Health Promotion. Comprehensive Tobacco Control Guidance Document. Queen's Printer for Ontario, 2010 (ISBN: 978-1-4435-2910-5). Available at: http://www.mhp.gov.on.ca/en/healthy-communities/public-health/guidance-docs/ComprehensiveTobaccoControl.PDF. 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, Canada: Canadian Tobacco Control Research Initiative, 2006.

[5] Centers for Disease Control. Key Outcome Indicators For Evaluating Comprehensive Tobacco Control Programs. 2005. Available at: http://www.cdc.gov/tobacco/tobacco_control_programs/surveillance_evaluation/key_outcome/index.htm. Accessed April 29, 2012.

[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, Canada: Ontario Tobacco Research Unit, July 2010.

[7] World Health Organization. WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package. Geneva, Switzerland: WHO, 2008.

[8] Paglia-Boak A, Hamilton HA, Adlaf EM & Mann RE. Drug Use among Ontario Students, 1977-2013: Detailed OSDUHS Findings. (CAMH Research Document Series No. 36). Toronto, ON: Centre for Addiction and Mental Health, 2013.

[9] 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. Available at: http://www.publichealthontario.ca/en/BrowseByTopic/HealthPromotion/Pages/Evidence-to-Guide-Action-Comprehensive-Tobacco-Control-in-Ontario.aspx#.Upy_NyfAEyY. Accessed December 2, 2013.

[10] Harris, K. J., Stearns, J. N., Kovach, R. G., & Harrar, S. W. Enforcing an outdoor smoking ban on a college campus: Effects of a multicomponent approach. *Journal of American College Health,2009: 58* (2), 121-126.

[11] Ontario Tobacco Research Unit. Protection from Outdoor Smoking. OTRU Update. Toronto, Canada: Ontario Tobacco Research Unit, 2013. Available at: http://otru.org/protection-outdoor-smoking. Accessed December 2, 2013.

[12] Ontario Tobacco Research Unit. Exposure to Secondhand Smoke on Patios. OTRU Update. Toronto, Canada: Ontario Tobacco Research Unit, 2013.Available at: http://otru.org/exposure-to-secondhand-smoke-on-patios. Accessed December 2, 2013.

[13] Ontario Tobacco Research Unit. Putting Thirdhand Smoke on the Policy and Research Agenda: Knowledge User Survey Results. OTRU Update. Toronto, Canada: Ontario Tobacco Research Unit, 2012. Available at: http://otru.org/putting-thirdhand-smoke-policy-research-agenda-knowledge-user-survey-results. Accessed December 2, 2013.

[14] Ontario Tobacco Research Unit. Tobacco-Free Sports and Recreation policies. OTRU Update. Toronto, Canada: Ontario Tobacco Research Unit, 2012. Available at: http://otru.org/tobacco-free-sports-recreation-policies. Accessed on December 2, 2013.

[15] Youth Advocacy Training Institute. *YATI Summative Evaluation Report 2012-2013.* Toronto, Canada: The Lung Association, June 2013.

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

[17] Ministry of Health Promotion. *Protocol for Smoke-Free Inspections for Enclosed Workplaces and Public Places*. Toronto, Canada: Government of Ontario, 2006.

[18] Zhang B, Haji Farzana, Kaufman P, Muir S & Ferrence R. (2013). 'Enter at your own risk': a multimethod study of air quality and biological measures in Canadian waterpipe cafes. *Tobacco Control* 2013-051180 (Published online first).

[19] Toronto Public Health. Hookah/Water Pipe Smoking Fact Sheet. Available at: www.*toronto*.ca/health/smokefree/pdf/hookah_fact_sheet.pdf. Accessed September 8, 2012.

[20] Ottawa Sun. Butt ban expanded to water bongs (June 21, 2012). Available at: http://www.ottawasun.com/2012/06/21/butt-ban-expanded-to-water-bongs. Accessed September 7, 2012.

[21] Hopkins DP & Fielding JE. The guide to community preventive services: tobacco use prevention and control: reviews recommendations, and expert commentary (Cessation - Increasing the Unit Price of Tobacco Products). *Am J Prev Med* 2001;20(2):1-88.

[22] Hopkins DP, Razi S, Leeks KD, Priya Kalra G, Chattopadhyay SK & Soler RE. Smokefree policies to reduce tobacco use a systematic review. *Am J Prev Med* 2010 02;38(2):S275-S289.

[23] IARC Handbooks of Cancer Prevention, Tobacco Control, Vol. 13: Evaluating the effectiveness of smoke-free policies. Lyon, France: WHO Press, 2008. Available at: http://www.iarc.fr/en/publications/pdfs-online/prev/handbook13/handbook13.pdf.

[24] U.S. 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. Available at: http://www.surgeongeneral.gov/library/secondhandsmoke/report/index.html.

[25] Chuang YC, Cubbin C, Ahn D & Winkleby MA: Effects of neighbourhood socioeconomic status and convenience store concentration on individual level smoking. *Journal of Epidemiology & Community Health* 2005; 59 (7): 568–573.

[26] Reitzel LR, Cromley EK, Li Y, et al. The effect of tobacco outlet density and proximity on smoking cessation. *American Journal of Public Health* 2011;101(2):315-320.

[27] 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

[28] Christakis NA & Fowler JH. The collective dynamics of smoking in a large social network. *New England Journal of Medicine* 2008;358, 2249–2258.

[29] Alamar B & Glantz S. (2006). Effect of increased social unacceptability of cigarette smoking on reduction in cigarette consumption. *American Journal of Public Health 2006;* 96, 1359–1362.

[30] Stuber J, Galea S & Link BG. Smoking and the emergence of a stigmatized social status. *Social Science and Medicine* 2008;67, 420-430.

[31] Babayan A, Srikandarajah A, Di Sante E & Schwartz R. *Evaluation of the 2009-2010 RNAO Nursing Best Practice Smoking Cessation Initiative.* Toronto, ON: Ontario Tobacco Research Unit, May 10, 2010

[32] Babayan A, Krynen-Hill M & Schwartz R. *Evaluation of the 2010-2011 RNAO Nursing Best Practice Smoking Cessation Initiative.* Toronto, ON: Ontario Tobacco Research Unit, November, 2011.

[33] Babayan A, Malas M, Schwartz R. *Evaluation of the 2011-2012 Registered Nurses' Association of Ontario Nursing Best Practice Smoking Cessation Provincial Initiative.* Toronto: Ontario Tobacco Research Unit, January 2013.

[34] Canadian Cancer Society. *Smokers' Helpline Annual Report*, April 1, 2012 – March 31, 2013.

[35] Ontario Tobacco Research Unit. The Tobacco Control Environment: Ontario and Beyond. Monitoring and Evaluation Series (Vol. 16). *Protection from Secondhand Smoke: Monitoring Update*. Toronto, ON: Ontario Tobacco Research Unit, August 12, 2010.

[36] IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. *IARC monographs on the evaluation of carcinogenic risk to humans, 83, tobacco smoke and involuntary smoking*. Lyon, France: IARCPress, 2004. Available at: http://monographs.iarc.fr/ENG/Monographs/vol83/index.php.

[37] Brownson RC, Hopkins DP &Wakefield MA. Effects of smoking restrictions in the workplace. *Annual Review of Public Health* 2002;23:333-48.

[38] Farkas AJ, Gilpin EA, Distefan JM, et al. The effects of household and workplace smoking restrictions on quitting behaviours. *Tobacco Control* 1999;8:261-65.

[39] Shields M. Smoking bans: Influence on smoking prevalence. *Health Reports* 2007;18:9-24.

[40] 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, 19(4):334-337.

[41] Institute of Medicine. *Ending the tobacco problem: A Blueprint for the nation*. Washington, DC: National Academy Press, 2007.

[42] Li L, Borland R, Yong H, Hitchman SC, Wakefield MA, Kasza KA & Fong GT. 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; 107(2): 425-433.

[43] Bader P, Boisclair D, Ferrence R. Effects of Tobacco Taxation and Pricing on Smoking Behavior in High Risk Populations: A Knowledge Synthesis. *Int J Environ Res Public Health* 2011;8(11);4118-4139.

[44] 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;* 11 (Suppl 1), i62-i72.

[45] Chaloupka FJ & Grossman M. Price, tobacco control policies and smoking among young adults. *Journal of Health Economics 1997;* 16 (3): 359-373.

[46] 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;*22, 821-842.

[47] International Agency for Research on Cancer. IARC Handbooks of Cancer Prevention in Tobacco Control, Volume 14: Effectiveness of Tax and Price Policies for Tobacco Control, 2011.

[48] Patricia A, Cavazos-Rehg PA, Krauss MJ, Spitznagel EL, Chaloupka FJ, Luke DA et al. Differential effects of cigarette price changes on adult smoking behaviours. *Tobacco Control* 2012;0:1–6.

[49] Chaloupka, F.J. & Pacula, R.L. The impact of price on youth tobacco use. *Smoking and Tobacco Control Monograph 2001;* No. 14, 193-199.

[50] Tauras JA. Public policy and smoking cessation among young adults in the United States. *Health Policy 2004;* 68, 321-332.

[51] U.S. Department of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon Genera*l. Atlanta, Georgia: 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.

[52] Ontario Tobacco Research Unit. *Tobacco Taxes: Monitoring Update*. Toronto, Canada: OTRU, April 24, 2011. Available at: http://otru.org/2011-monitoring-report-tobacco-taxes-april/. Accessed October 30, 2012.

[53] Cohen JE, Anglin L. Outlet density: a new frontier for tobacco control. *Addiction* 2009 Jan;104(1):2-3.

[54] Leave The Pack Behind. *Final Report*, April 1st 2010 - March 31st, 2011. Available at: http://www.leavethepackbehind.org/pdf/10-11%20LTPB%20Final%20Activity%20Report.pdf. Accessed November 28, 2012.

[55] Canadian Cancer Society. *Smokers' Helpline Annual Report*, April 1, 2012 – March 31, 2013

[56] North American Quitline Consortium (NAQC). *U.S. Quitlines at a Crossroads: Utilization, Budget and Service Trends 2005-2010*. Phoenix, AZ: North American Quitline Consortium, 2010.

[57] Guy M, Saul JE, Walsh M, Luckett P, Bailey L. *The relationship between reach and spending for U.S. quitlines*. Presentation at: the Society for Research on Nicotine and Tobacco, Toronto, Canada, February 18, 2011.

[58] Cummings KM, Fix B, Celestino P, et al. Reach, efficacy, and cost-effectiveness of free nicotine medication give away programs. *Journal of Public Health Management and Practice* 2006;12:37-43.

[59] Swartz Woods S, Hoskins AE. Increasing reach of quitline services in a US state with comprehensive tobacco treatment. *Tobacco Control* 2007; 16 (suppl): i33-i36.

[60] North American Quitline Consortium. *Tobacco Cessation Quitlines: A Good Investment to Save Lives, Decrease Direct Medical Costs and Increase Productivity*. Phoenix, AZ: North American Quitline Consortium, 2009.

[61] Leave The Pack Behind. *Final Report, April 1, 2012 – March 31, 2013*. St. Catharines, Ontario: Brock University, 2013.

[62] Travis H & Lawrance K. (2009). A randomized controlled trial examining the effectiveness of a tailored self-help smoking cessation intervention for post-secondary smokers. *Journal of American College Health*, 57, 437- 443.

[63] University of Ottawa Heart Institute. OMSC 2012-13 Update: Smoke-free Ontario Evaluation Report, 2013.

[64] Ontario Public Drug Programs, Unpublished data, Ministry of Health and Long-Term Care. October 28. 2013.

[65] Ministry of Health and Long-Term Care. News Release: Ontario Helping More Smokers Quit. January 23, 2013. Ministry of Health and Long-Term Care. Available at: http://news.ontario.ca/mohltc/en/2013/01/ontario-helping-more-smokers-quit.html. Accessed September 26, 2013.

[66] Hughes JR, Keely J & Naud S. Shape of the relapse curve and long-term abstinence among untreated smokers. i 2004, 29-38.

[67] Durkin S, Brennan E & Wakefield M. Mass media campaigns to promote smoking cessation among adults: An integrative review. *Tobacco Control* 2012;21:127-138.

[68] Ontario Tobacco Research Unit. Evaluation News. Cessation Pathways: Exploring Opportunities for Developing a Coordinated Smoking Cessation System in Ontario. Toronto, Canada: OTRU, January, 2013 (Volume 5 Number 1). Available at http://otru.org/wp-content/uploads/2013/01/OTRU_news_vol5no1.pdf. Accessed December 18, 2013.

[69] Centers for Disease Control and Prevention (CDC). *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.

[70] Sahay T. *Play, Live, Be Tobacco-Free–Ontario: Project Evaluation Report*. Toronto, Canada: Health Promotion Consulting Group, Inc., 2011.

[71] Program Training and Consultation Centre, About Us page. Available at: https://www.ptcc-cfc.on.ca/about_us/. Accessed August 22, 2012.

[72] Ontario Tobacco Research Unit. The Tobacco Control Environment: Ontario and Beyond. Monitoring and Evaluation Series (Vol. 16). *Youth Access to Tobacco Products: Monitoring Update*. Toronto, Canada: OTRU, July, 2010. Available at: http://otru.org/16th-annual-monitoring-report-youth-access-tobacco-products/. Accessed October 30, 2012.

[73] Ontario Coalition for Smoke-Free Movies. 2012 Movies, Ratings, and On-Screen Tobacco in Ontario. Available at: http://smokefreemovies.ca/sites/default/files/Ontario%20Movies%20and%20Tobacco%202012_June%202013_FINALnew%20version.pdf. Accessed September 26, 2013.

[74] US Department of Health and Human Services. *How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: A Report of the Surgeon General*. Atlanta, GA: US 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, 2010.

[75] 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.

[76] Alesci N, Forster J, Blaine T. Smoking visibility, perceived acceptability, and frequency in various locations among youth and adults. *Preventive Medicine* 2003;36:272–81 doi:10.1016/S0091-7435(02)00029-4.

[77] 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. Available at: http://otru.org/16th-annual-monitoring-report-retail-display-tobacco-products/. Accessed October 30, 2012.

[78] Ontario Ministry of Transportation. *News Release. New Legal Age Identifier for Ontario ID*. December 17, 2012. Ministry of Transportation. Available at: http://news.ontario.ca/mto/en/2012/12/new-legal-age-identifier-for-ontario-id-1.html. Accessed September 26, 2013.

[79] Paglia-Boak A, Hamilton HA, Adlaf EM & Mann RE. (2011). *Drug Use among Ontario Students, 1977-2013: Detailed OSDUHS Findings.* (CAMH Research Document Series No. 36). Toronto, ON: Centre for Addiction and Mental Health, 2013.

[80] 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: Canada. Ontario Tobacco Research Unit, December 2013.

[81] Flavour…GONE! Home page. Available at: http://flavourgone.ca. Accessed December 2, 2013.

[82] Carpenter C, Cook P. Cigarette taxes and youth smoking: new evidence from national, state and local Youth Risk Behaviour Surveys. *Journal of Health Economics* 2008;27:287-299. doi:10.1016/j.jhealeco.2007.05.008.

[83] Gruber J, Zinman J. Youth Smoking in the US: Evidence and Implications. NBER. 2000. Working Paper W7780.

[84] Chaloupka F, Wechsler H. Price, tobacco control policies and smoking among young adults. *Journal of Health Economics* 1997;16:359-373. doi:10.1016/S0167-6296(96)00530-9.

[85] Ross H, Chaloupka FJ, Wakefield MA. Youth smoking uptake progress: price and public policy effects. *Eastern Economic Journal* 2006;32:355-367.

[86] 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, Canada: Ontario Tobacco Research Unit, 2010.

[87] Fiissel D, Schwartz R, Schnoll J, Garcia J. *Formative Evaluation of the Youth Action Alliance Program*. Toronto, Canada: Ontario Tobacco Research Unit, 2008.

[88] Paterson BL, Panessa C. Engagement as an ethical imperative in harm reduction involving at-risk youth. *International Journal of Drug Policy* 2008;19:24-32.

[89] Lantz PM, Jacobson PD, Warner KE. Wasserman J, Pollack HA, et al. (2000). Investing in youth tobacco control: a review of smoking prevention and control strategies. *Tobacco Control* 2000; 9:47-63.

[90] Evans. W.D., Ulasevich, A. & Blahut, S. Adult and group influences on participation in youth empowerment programs. *Health Education & Behavior,* 2004, 31(5),564-576.

[91] Ministry of Health Promotion and Sport. Youth Engagement Principles. Toronto: Ontario Ministry of Health Promotion and Sport; 2010. Available at: http://www.mhp.gov.on.ca/en/youth/engagement.asp. Accessed August 23, 2012.

[92] Ontario Ministry of Education. Foundations for a Healthy School. Available at: http://www.edu.gov.on.ca/eng/healthyschools/foundations.pdf. Accessed on December 20, 2013.

[93] Ontario Public Health Education Association (OPEA). H&PE Elementary Curriculum Supports page. Available at: http://www.ophea.net/programs-services/health-physical-education-hpe/hpe-curriculum. Accessed August 23, 2012.

[94] Ontario Government (Service Ontario e-Laws). Smoke-Free Ontario Act (July 1, 2010). Available at: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_94t10_e.htm. Accessed October 23, 2012.