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

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Smoke-Free Ontario Strategy Evaluation Report

Ontario Tobacco Research Unit

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Acronyms and Abbreviations

CAMH-M	Centre for Addiction and Mental Health Monitor
CCHS	Canadian Community Health Survey
CCS	Canadian Cancer Society
CLTCI	Comprehensive Local Tobacco Control Index
CTI	Clinical Tobacco Intervention
CTUMS	Canadian Tobacco Use Monitoring Survey
DTQC	Driven to Quit Challenge
LAFL	Lungs are for Life
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
PHA	Public Health Agency
PHU	Public Health Unit
PIMS	Performance Indicators Monitoring System
PLBTF	Play, Live, Be Tobacco-Free
PTCC	Program Training and Consultation Centre
RNAO	Registered Nurses' Association of Ontario
SAC	Scientific Advisory Committee
SC Initiative	Nursing Best Practice Smoking Cessation Initiative
SFOA	*Smoke-Free Ontario Act*
SFOS	Smoke-Free Ontario Strategy
SHL	Smokers' Helpline
SHL TXT	Smokers' Helpline Text Messaging
SHO	Smokers' Helpline Online
SHS	Secondhand Smoke
SROs	Sports and Recreation Organizations
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
YAA	Youth Action Alliance
YATI	Youth Advocacy Training Institute
YE Initiative	Youth Engagement Initiative

Introduction

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

The 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. The Government of Ontario is committed to making Ontario the lowest smoking jurisdiction in Canada. The Tobacco Strategy Advisory Group has called for decreasing the prevalence of cigarette smoking by five percentage points over five years.

This report presents evaluative information about the activities and results of the Strategy, using data available as of September 2012. For each goal area, we describe Strategy infrastructure and interventions (policies, programs and social marketing campaigns), analyze population-level changes, and explore the contributions of interventions. To further understanding of Strategy challenges and accomplishments, we include assessments of changes in the social climate and public support for tobacco control measures and in pro-tobacco influences. Throughout the report accomplishments and opportunities are highlighted, with the intention of bringing evidence to bear on the continued development of comprehensive tobacco control in the province.

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.[1] In 2010, SAC delivered its report, *Evidence to Guide Action: Comprehensive Tobacco Control in Ontario*.[2] 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*.[3]

Evidence in this report indicates that there has been progress, however the rate of change appears to be too slow to achieve the goals set by the Government and the targets recommended by the Tobacco Strategy Advisory Group.

Investment in the Smoke-Free Ontario Strategy continues to bear fruit. The *Smoke-Free Ontario Act* protects most Ontarians most of the time from exposure to secondhand smoke in indoor public places. Smoking bans, social marketing campaigns, restrictions on promotion, youth programs, and widespread availability of cessation supports are changing the social climate of tobacco use and leading to declines in smoking rates among youth. Alongside these positive developments are several trends worth noting:

- There has been no significant change in the prevalence of adult smoking in the last five years and the previous five years saw only a 3-percentage point decline.
- It has taken ten years to achieve a 5-percentage point decline.
- Smoking rates among low socioeconomic status subpopulations and in several PHUs are not noticeably decreasing.
- There has been no significant change at the population level in key cessation outcome indicators (intentions to quit, quit attempts, successful quits).
- The prevalence of overall tobacco use is 22%, unchanged in recent years. The use of alternative forms of tobacco appears to be on the rise. Notably, in 2010 the prevalence of past 30-day cigar use was 19% and 21% for 18 to 19 year old and 20 to 24 year old males, respectively. The rate of cigar use in 2000/01 was 12% and 13.5% for these corresponding ages (albeit, differences are not statistically significant over the reporting period).

Protection

Smoke-Free policies are showing their effects. Exposure to secondhand smoke in restaurants, bars, and vehicles is significantly lower than it was five years ago. There is also substantially decreased exposure in homes. Nevertheless, too many Ontarians are still exposed to secondhand smoke in a variety of settings: 26% of working Ontarians are exposed at work (CTUMS) and 14% indoors at work or in a workplace vehicle (CAMH Monitor); 57% are exposed outdoors (parks, sidewalks, etc.) and 32% of Ontarians who visited restaurant or bar patios are exposed; 11% of nonsmokers aged 12 to 19 are still exposed in their home and in vehicles.

Cessation

In recent years there have been no significant changes in the proportions of smokers who intend to quit within 30 days or 6 months, who made at least one quit attempt in the past year, and who quit for at least one month in the past 30 days. Nor has there been a decrease in the average number of cigarettes smoked each day. The cessation activities of Strategy partners, which focus primarily on providing cessation support to smokers making quit attempts, served substantially more smokers in the past year and now reach about 5% of smokers annually. However, only a small proportion of these smokers succeed in quitting. Relapse rates are high, and there is currently little support offered to prevent relapse during the post-intervention period. The Strategy funds considerable efforts to train health professionals in providing cessation support through TEACH, RNAO and PTCC. Evaluative evidence about the impact of these efforts in Ontario on actual provision of support to smokers is unknown at this point.

Following previous expert reports, the Scientific Advisory Committee (SAC) and the Tobacco Strategy Advisory Group (TSAG) have advised on ways to further develop cessation support into a comprehensive and cohesive system.[2,3] While the Government has not adopted the TSAG target of decreasing prevalence by 5 percentage points over five years, in order to reach this target the annualized quit ratio—currently at 1.3%—needs to double. The new cessation initiatives launched this past year and others currently under development indicate that attention is being given to this issue and will undoubtedly help move Ontario toward the desired quit rates and achievement of Ontario's adopted target of having the lowest smoking rate in Canada. A substantial body of evidence, recently reviewed by SAC, indicates that it is major policy interventions aimed at increasing price, decreasing availability, and restricting places where people can smoke that, combined with adequate dose and duration of mass media campaigns, are most effective in getting large numbers of smokers to quit.[1]

Prevention

There has been important progress in decreasing current smoking among youth. According to the Ontario Student Drug Use and Health Survey, the prevalence of current smoking in grades 11 and 12 has significantly decreased from 12% in 2005 to 6% in 2011, and for grades 9 and 10 it is down to 3%. A similar pattern emerges from the Canadian Community Health Survey (CCHS), with 7% of youth aged 15 to 17 reporting current use of cigarettes in 2009/10. Nevertheless, by age 20 to 24, smoking prevalence is 25% (CCHS). While the prevalence of smoking for these young adults

has also decreased substantially, the large jump in prevalence after the end of high school merits further attention.

Policies and programs to prevent initiation—including taxation, restrictions on youth access, smoking bans, advertising bans, youth engagement initiatives, and school-based programming—have met with some success in the general youth population. SAC recommended that beyond providing basic information about tobacco in all schools prevention efforts need to focus on high-risk schools and high-risk youth. The youth segmentation analysis presented in this report lends further support to this direction, demonstrating that youth who smoke are much more likely to engage in other risk behaviours – 81% of youth smokers are also hazardous drinkers, 64% have a drug use problem, and 40% engage in delinquent behaviour.

Social Climate and Public Opinion

Public support for further tobacco control action is strong: 84% of Ontarians support prohibiting smoking in multi-unit dwellings with common ventilation, 80% in homes when children are present, 88% at children's playgrounds, 57% on restaurant and bar patios, and 55% at public parks and beaches; 62% agree that the number of outlets selling tobacco should be greatly reduced, 32% think that tobacco should be sold in government owned LCBO-like stores and 20% think that tobacco products should not be sold at all. It is notable that 30% of current smokers agree that the sale of tobacco products should be phased out over the next five to ten years. The social acceptability of smoking is becoming quite low: 92% of never-smokers indicated that it is unacceptable for youth to smoke and 60% of never-smokers report that it is unacceptable for adults to smoke.

Pro-tobacco Influence

There is a need to more fully understand the forces that work to counter the accomplishments of the Smoke-Free Ontario Strategy and other tobacco control efforts. Widespread availability and use of low priced (discount) and contraband cigarettes presents a significant risk to tobacco control accomplishments and is likely compromising the ability to substantially decrease consumption and prevalence of cigarette use. The increasing availability, promotion and popularity of alternative tobacco forms may pose new challenges to the tobacco control community.

Report Structure and Methodological Approach

The report is organized around the three major goals of the Smoke-Free Ontario Strategy. These goals were 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.[4] The ultimate objective of the Strategy is to eliminate tobacco-related illness and death in Ontario. 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,[5] the Ministry of Health Promotion's 2010 *Comprehensive Tobacco Control Guidance Document* for boards of health,[6] with the core outcomes identified by the National Advisory Group on Monitoring Tobacco Control,[7] and with the Centers for Disease Control and Prevention's *Key Outcome Indicators for Evaluating Comprehensive Tobacco Control Programs*.[8] 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*.[9]

This report is organized as follows:

- Chapter 1: Key indicators related to **Tobacco Use** (additional data on current smoking, as it relates to youth and young adults, can be found in Chapter 4: Youth Prevention)
- Chapter 2: **Protection** from secondhand smoke
- Chapter 3: **Smoking Cessation**
- Chapter 4: **Youth Prevention**
- Chapter 5: **Social Climate and Public Support**
- Chapter 6: **Pro-Tobacco Influences**
- Chapter 7: **Concluding Remarks**

This report draws on information from population-level surveys, program evaluations, performance reports and administrative data. OTRU's Tobacco Informatics Monitoring System (TIMS) provides much of the population-level data analysis. 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 interviews with service providers and managers.

This report addresses Strategy interventions funded directly, but not exclusively, by the Ministry of Health and Long-Term Care. Tobacco use, initiation, and cessation are affected in both positive and negative directions by forces external to the Strategy. Pro-tobacco influences work in many, sometimes opaque, ways to promote tobacco use. In Ontario, there is also substantial trade in contraband tobacco. Prevalence estimates have varied widely due to differences in survey methodology and differences in the definition of contraband tobacco. No research has examined potential self-reporting bias associated with contraband tobacco. Given its illegality, smokers may under-report their contraband tobacco use. According to 2010 CTUMS data, 14% of current smokers in Canada reported purchasing cheaper cigarettes on aboriginal reserves in the past 6 months and 2% reported purchasing smuggled cigarettes in the past 6 months (Tobacco Informatics Monitoring System, 2012). In Ontario, estimates of the size of the contraband market vary widely: 14% to 42% of all cigarettes bought by adult smokers in Ontario may be contraband.[10,11] In Ontario, 11.5% of current smokers reported they usually bought cigarettes on reserves and 25.8% bought cigarettes from reserves in the past 6 months.[10] The Tobacco Strategy Advisory Group report calls for a "whole of government" approach to tobacco control, which requires ministries as varied as Finance, Agriculture, Food and Rural Affairs, Health and Long-Term Care, and Municipal Affairs and Housing to contribute more to the Ontario government's effort to reduce the burden tobacco places on families, communities, healthcare and the economy.

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. Since then, the Government has both established new structures for guiding Strategy implementation and taken important steps to strengthen tobacco control. The Tobacco Control Steering Committee and six Task Forces help to guide and coordinate implementation. Noteworthy new initiatives include

free access to smoking cessation medications and pharmacist counselling for Ontario Drug Benefit beneficiaries and access to free Nicotine Replacement Therapy (NRT) and cessation counselling through Family Health Teams, Community Health Centres and Aboriginal Health Access Centres.

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 tools 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,[i] which is why we include short and intermediate-level outcomes.

In light of these constraints, it is not possible to directly attribute changes in population-level outcomes to Strategy expenditures and interventions. Instead the report provides information about the reach and effects of interventions, and identifies contributions and gaps in the existing complement of interventions.

[i] 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.

Chapter 1: Tobacco Use

Reducing the overall use of tobacco is one of the main objectives of the Smoke-Free Ontario Strategy. In addition to smoking cigarettes, Ontarians use a variety of other tobacco products including cigars, pipe, snuff, chewing tobacco and waterpipe shisha.

Overall Tobacco Use

- According to the 2010 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, currently smoked cigarettes, cigars, pipes; or used snuff or chewing tobacco). This represents 2.47 million tobacco users (CCHS, 2010). This rate is not statistically different from that of 2007/08 (22% vs. 23%).
- In 2010, 19% of Ontarians smoked cigarettes,[ii] 5% smoked cigars, 1% smoked a pipe, and less than 1% used snuff or chewing tobacco (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 later sections).[ii]
- Significantly more males aged 12 years and over had used some form of tobacco in the past 30 days compared to females (29% vs. 16%).

Cigar Use

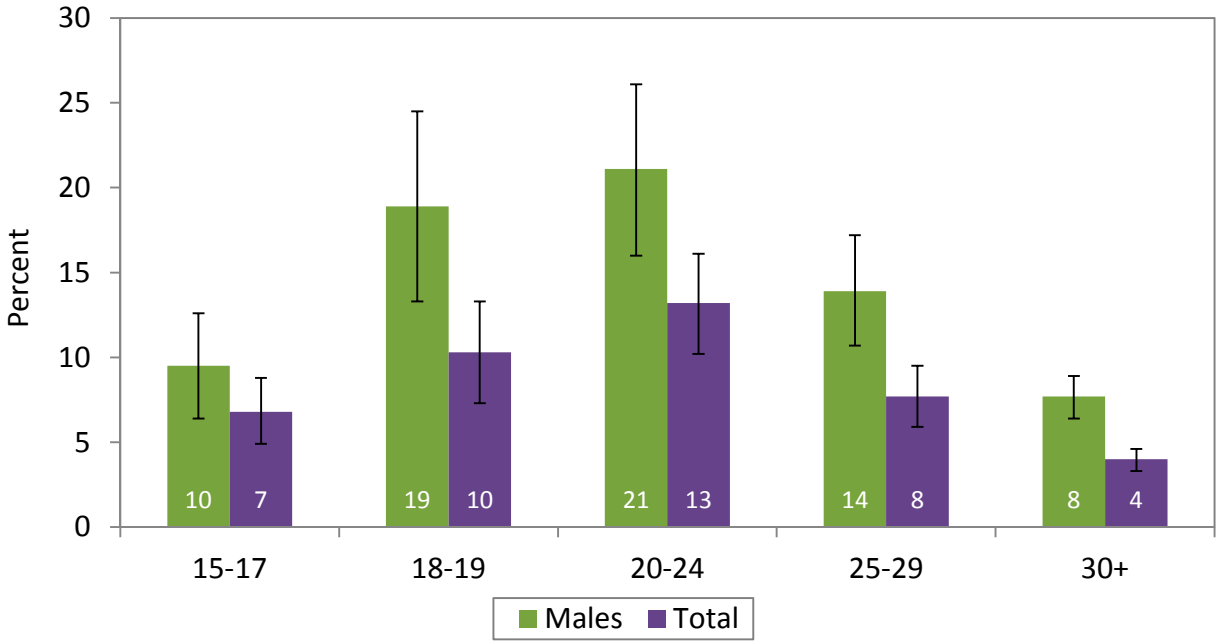
- In 2010, 5% of Ontarians aged 12 years and over had smoked cigars[iii] in the past 30 days, making cigars the second most prevalent form of tobacco used after cigarettes (18%).
- Past 30-day cigar use is particularly high among young adults—13% of all 20–24 year olds and 10% of all 18–19 year olds (Figure 1).
- Past 30-day cigar use is significantly higher among males compared to females—9.5% of all males age 12 years and over had smoked cigars in the past 30 days compared to 1% of females.

[ii] Elsewhere in this report, we report current smoking as 18%, which reflects past 30-day use and having smoked 100 cigarettes in one's lifetime. The CCHS definition used in the Overall Tobacco Use section for "current smoking" 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.

[iii] These data are from the 2010 Canadian Community Health Survey and are from a question that asks about past 30-day *cigar* smoking (cigarillo use was not explicitly asked). It is not known whether respondents who smoked cigarillos responded to this question by answering "Yes" or "No". The reported prevalence estimates of cigar use should be considered an underestimate of all cigar/cigarillo use.

- In 2010, two out of every ten males aged 18–19 and 20–24 years had smoked cigars in the past 30 days (19% and 21%, respectively). These rates do not statistically differ from 2000/01 rates (12% and 13.5%, respectively).

Figure 1: Cigar Use (Past 30 Days), by Age, Ontario, 2010



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2010.

Cigarette Smoking

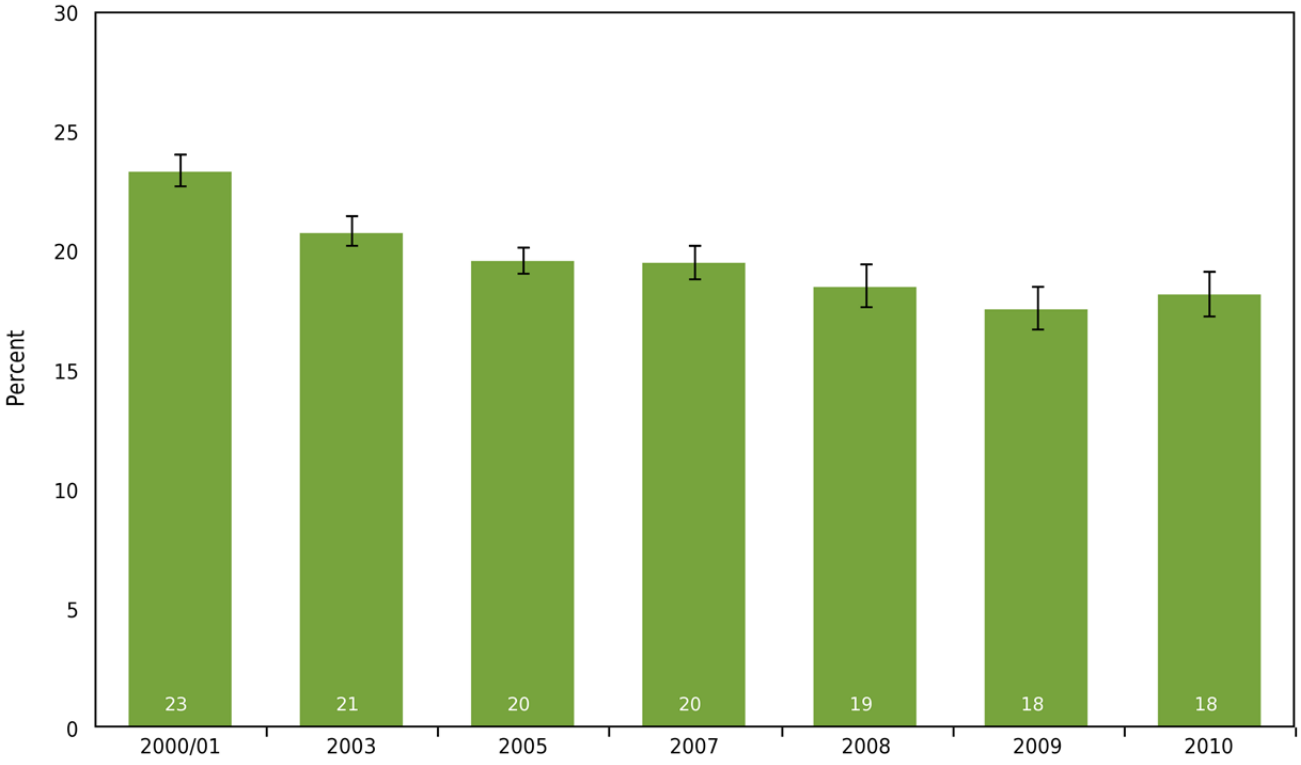
Reducing the prevalence of cigarette smoking is central to the Smoke-Free Ontario Strategy. One indicator that underscore progress toward this goal is past 30-day current smoking (variables influencing this indicator include sex, age, education, occupation, and jurisdiction).

- In 2010, 18% of Ontarians aged 12 years or over had smoked cigarettes in the past 30 days,[iv] representing 2.04 million people (Figure 2).
- Over the period 2000/01 to 2010, there was a statistically significant decline in the prevalence of past 30-day current smoking (23% to 18%; Figure 2).

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

- While there was a significant decrease in the prevalence of current smoking between 2000/01 and 2005 (from 23% to 20%), there has been no significant change over the past five years.

Figure 2: Current Smoking (Past 30 Days), Ages 12+, Ontario, 2000/01 to 2010



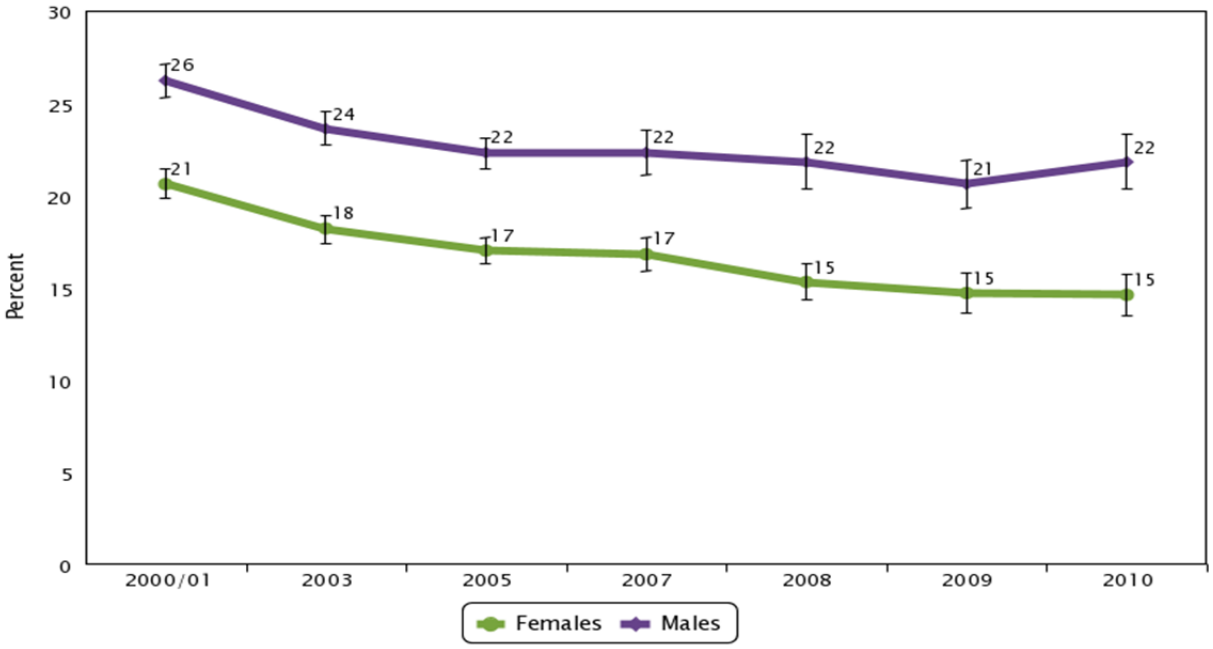
Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2000/01 to 2010.

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

- In 2010, females aged 12 years and over had a significantly lower rate of past 30-day current smoking compared to their male counterparts (15% vs. 22%; Figure 3), a finding consistent with previous years.
- From 2007 to 2010, past 30-day smoking among females aged 12 years and over significantly decreased (17% to 15%). During this period, there has not been significant change in the smoking rate for males.
- In 2010, the prevalence of current smoking among Ontarians varied substantially by age and sex (Figure 4).
- The prevalence of current smoking was highest among males aged 45-49 years (32%).

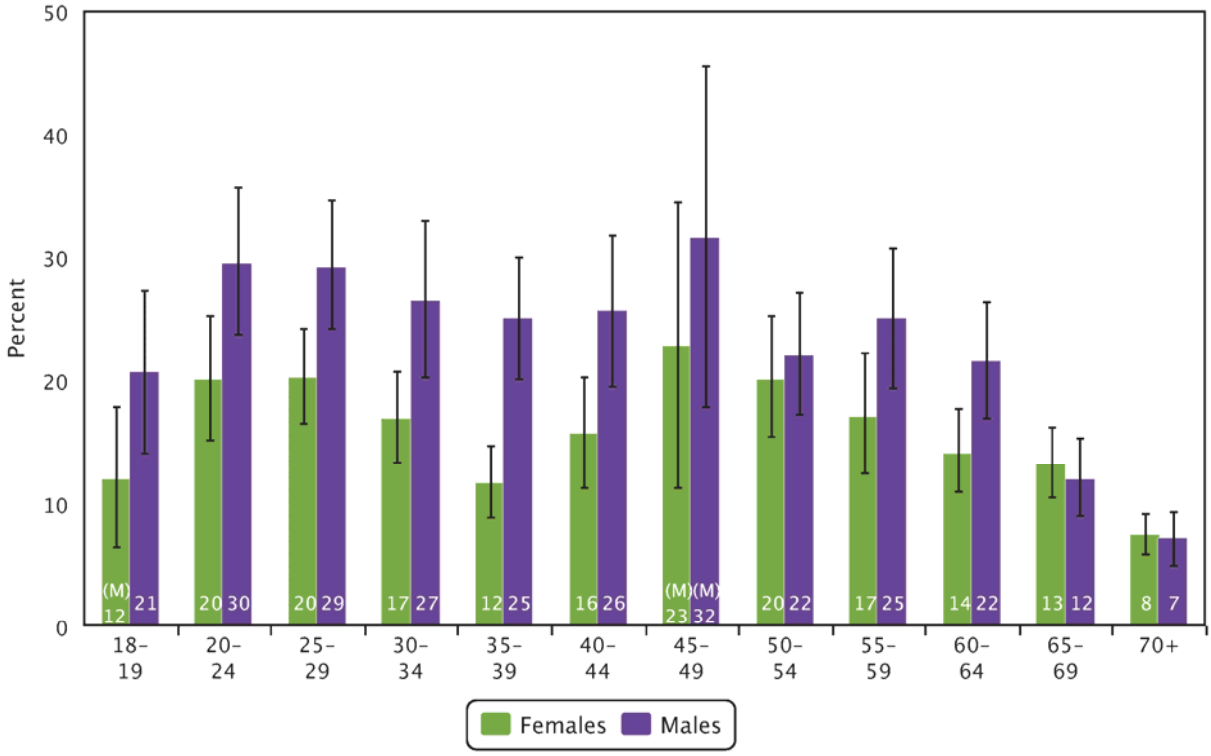
- In 2010, males aged 25-29 and 35-39 had a significantly higher smoking prevalence than their female counterparts. Using combined 2009/10 CCHS data, the rate of smoking was higher for males than females across a wide range of ages (18-19, 25-29, 30-34, 35-39, and 40-45; data not shown).
- The greatest number of current smokers among males was in the 20- to 24-year old age group, representing 151,100 of the 1,183,800 male smokers in Ontario aged 18 and over (or 13%).
- The greatest number of current smokers among females was in the 50- to 54-year old age group, representing 104,500 of the 819,700 female smokers in Ontario aged 18 years and over (or 13%).

Figure 3: Current Smoking (Past 30 Days), by Sex, Ages 12+, Ontario, 2000/01 to 2010



Note: Vertical lines represent 95% confidence intervals. X-axis scale (Year) not continuous—interpret with caution.
Source: Canadian Community Health Survey 2000/01-2010.

Figure 4: Current Smoking (Past 30 Days) by, Age and Sex, Ontario, 2010



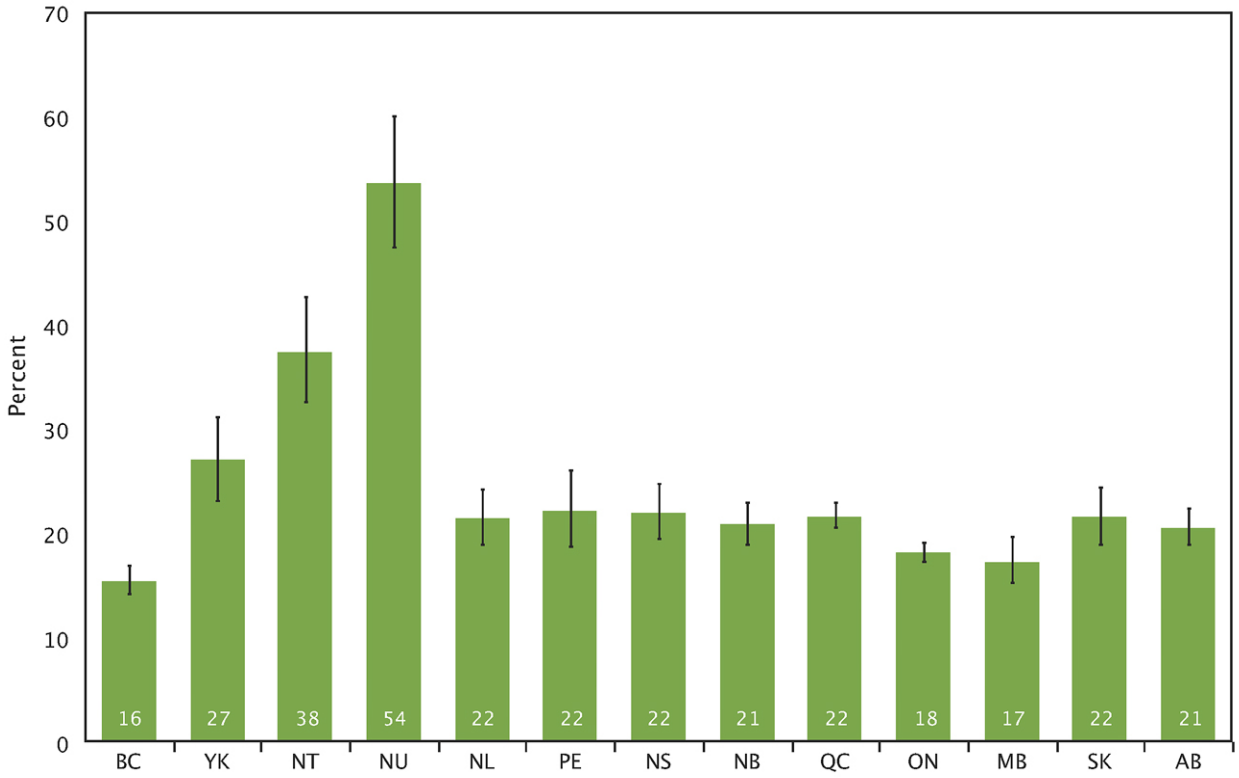
Note: M = Interpret with caution: subject to moderate sampling variability. Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2010.

Current Smoking (Past 30 Days), by Location

Federal, Provincial, Territorial

- Among the provinces, past 30-day current smoking ranged from 15.5% in British Columbia to 22% in several provinces (Figure 5). The highest rate of current smoking reported in Canada was in Nunavut at 54%.
- The rate of past 30-day smoking in Ontario was significantly higher than in British Columbia (18% vs. 15.5). The prevalence of current smoking in Ontario was not statistically different from the national average (18% vs. 19%; Figure 5).

Figure 5: Current Smoking (Past 30 Days), by Jurisdiction, Ages 12+, 2010



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2010.

Ontario Health Regions

- In 2010, smoking (defined as smoking daily or occasionally) ranged from a low of 16% in Ottawa and Halton regions to a high of 31% in Algoma (Table 1). The rate of smoking (current and occasional) in all of Ontario in 2010 was 19%.
- The prevalence of smoking was 25% or more in eleven of Ontario's 36 health regions (Table 1; 2011 values that are statistically different from 2010 are flagged with a "Y").

Table 1: Current Smoking, by Public Health Unit, Ages 12+, Ontario, 2000/01 to 2011

	Current Smoking[a] (%)							
Public Health Unit	**2000/01**	**2003**	**2005**	**2007**	**2008**	**2009**	**2010**	**2011[b]**
Windsor-Essex County	27	21.5	24	19	19	19	25	13[Y]
Ottawa	21	20	19	17	18	15	16	15
Grey Bruce	24	19	21	25	19	18	18	16
Peel	21	21.5	19	16	17	14	17	16
Toronto	22	20	18	18	18	14	18	17
York Region	23	21	16	15	14	17	17	17.5
Halton Region	24	21	18.5	18	18	19	16	19
Kingston, Frontenac and Lennox & Addington	24.5	26	23	25	23	17[M]	19	19
Niagara Region	25	24	23	28	23	21	22	19
City of Hamilton	27	23	23	25	22	18	19.5	19.5
Haldimand-Norfolk	28	28.5	30	27	25	21	24	20[M]
Eastern Ontario	32	25	27	25	30	26	25	21
Middlesex-London	22	20	18	20	20	23	17	21
Perth District	24	23	20	17	17[M]	20[M]	26	21[M]
Simcoe Muskoka District[c]	29	25	23	23	25	27	22	21
Wellington-Dufferin-Guelph	24	21	21.5	22	24	19	17	21
Algoma	30	27	24	26	19.5	26	31	22[M,Y]
Chatham-Kent	27	26	25	29	25	23	22	22
Huron County	21	22	24	21	24	19	18[M]	22[M]
Leeds, Grenville and Lanark District	30	27	25	26	22	26	25	22
Northwestern	30	27	22.5	26[M]	23.5	25	20[M]	22[M]
Brant County	30	26	27	26	17	30	28	23
Elgin-St. Thomas	28	24	27	29	25	22.5[M]	19[M]	23
Durham Region	27.5	25	25	22	19	20	17.5	23.5
Sudbury and District	32	25	24	27.5	24	25	26	24
Peterborough County-City	23	24	21	21	25	19	20	25

	Current Smoking[a] (%)							
Public Health Unit	**2000/01**	**2003**	**2005**	**2007**	**2008**	**2009**	**2010**	**2011[b]**
Thunder Bay District	29	29	27	26	26	26	23.5	25
North Bay Parry Sound District[b]	27	24	27	29	25	25	20.5	26
Waterloo	27	23	19	22	21	19	18	26[Y]
Renfrew County and District	27	27.5	28	28	21	27	24	26
Haliburton, Kawartha, Pine Ridge District	26.5	22	22	26	22	23	27	27[M]
Hastings and Prince Edward Counties	27	22	27	26	28	27	28.5	27
Lambton	27	24	25	29	20	22	23	27.5
Oxford	26	24	24	31	26	23	23	27.5
Timiskaming	35	29	26.5	21.1	27[M]	16[M]	21[M]	28[M]
Porcupine	29	31	31	26	32	30	22	29[Y]
ONTARIO	25	22	21	21	20	19	19	19

[a] Current smoking defined as smoking daily or occasionally (not restricted to past 30-day use or 100 cigarettes in lifetime).

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

[c] Muskoka-Parry Sound Health Unit was dissolved April 1, 2005. Part of the region was merged with North Bay and District Health Unit and part with Simcoe County District Health Unit. Pre- and post-2005 comparisons need to be made with caution.

[M] = Interpret with caution: subject to moderate sampling variability. Do not round reported percentages (for example, keep 22.5% as 22.5%).

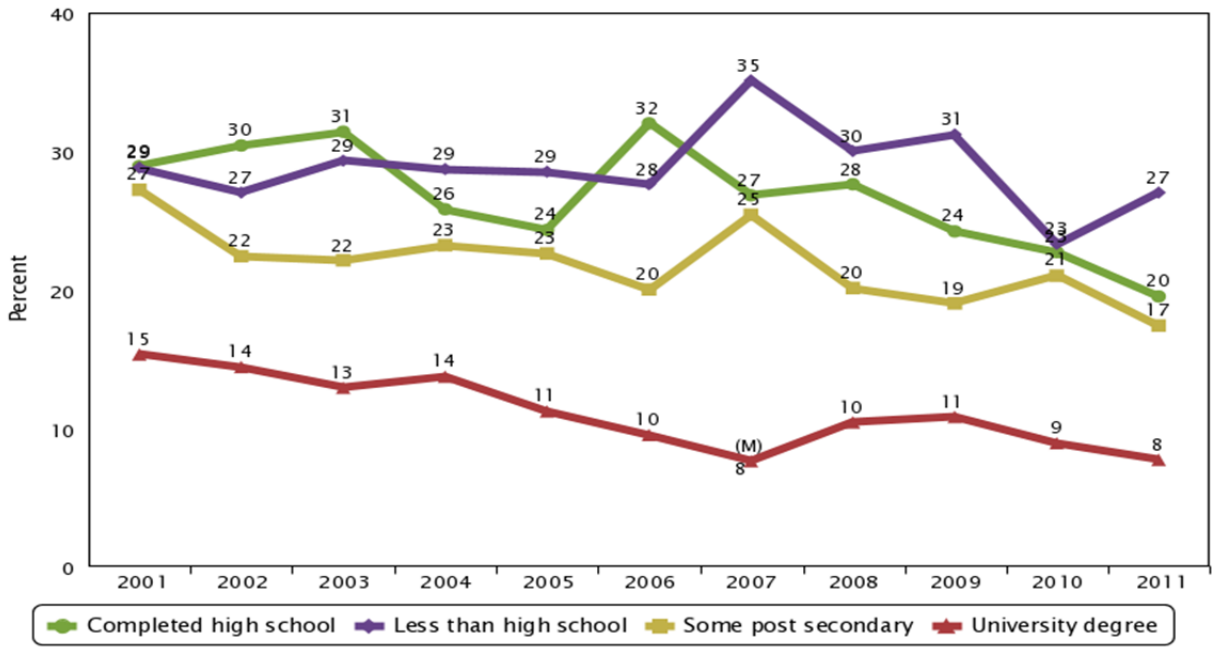
[Y] = Statistically different from 2010.

Source: CCHS 2000/01–2011 (from the Canadian Socio-economic Information Management System [CANSIM]).

Current Smoking (Past 30 Days) by Education

- The prevalence of smoking among Ontarians aged 18 years or over with a less than high school education has not decreased from 2001 to 2011. For all other education levels, there has been a significant decrease over this period (Figure 6), but levels have remained steady in recent years (data not shown).
- Over the reporting period, Ontarians with a university degree were significantly less likely to be current smokers than those with less education (Figure 6).

Figure 6: Current Smoking (Past 30 Days), by Education, Ages 18+, Ontario, 2001 and 2011

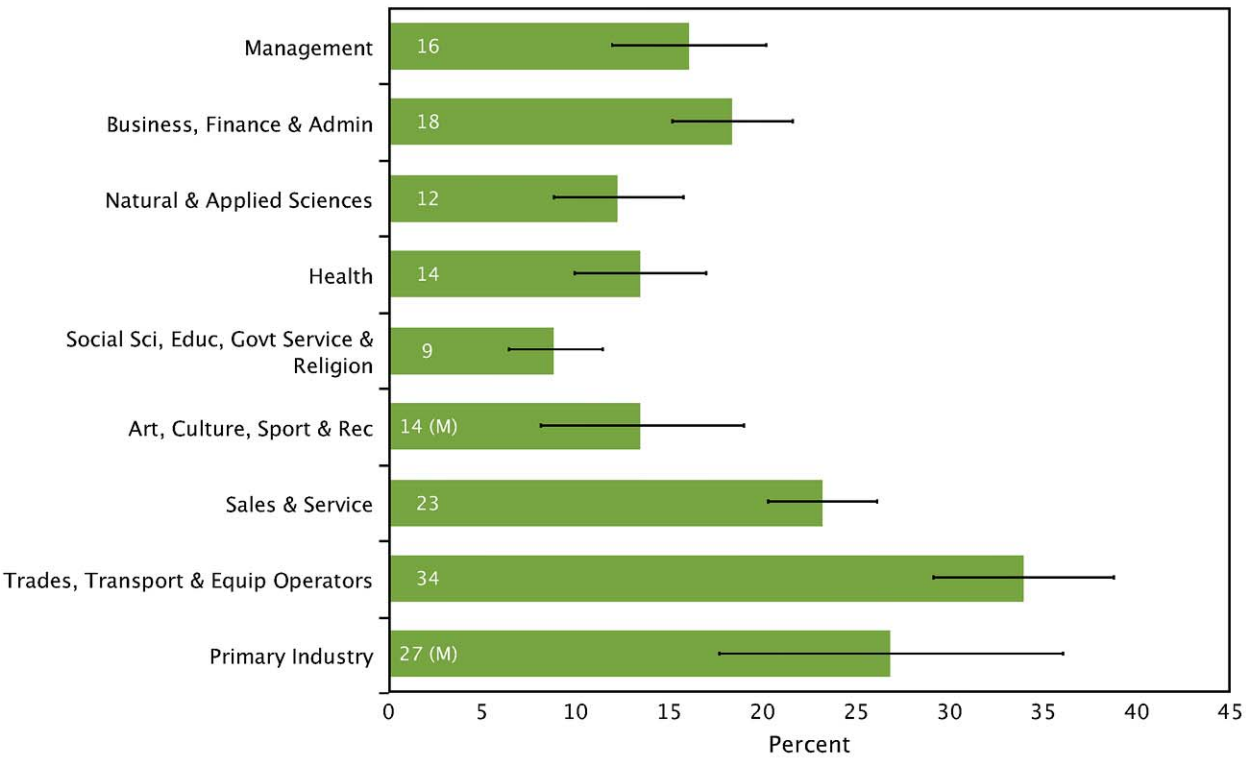


Note: M = Interpret with caution: subject to moderate sampling variability.
Source: Centre for Addiction and Mental Health Monitor 2001-2011.

Current Smoking (Past 30 Days) by Occupation

- In 2009/10, the prevalence of current smoking was highest among workers in trade occupations (33%), primary industry (28%), and sales and service (23%) representing a combined total of 691,002 (or 55%) of the 1,246,400 employed smokers in Ontario aged 15 to 75 years (Figure 7).
- The occupational classification with the greatest number of current smokers was Sales, representing 347,800 (or 28%) of the 1,246,400 employed smokers in Ontario aged 15 to 75 years (Figure 7).
- Among unemployed Ontarians aged 15 to 75 years, the prevalence of current smoking was 29%, representing 8% (166,400) of the 2 million smokers in Ontario aged 15 to 75 years (data not shown).

Figure 7: Current Smoking (Past 30 Days), by Occupation, Ages 15 to 75, Ontario, 2009/10



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2009/10.

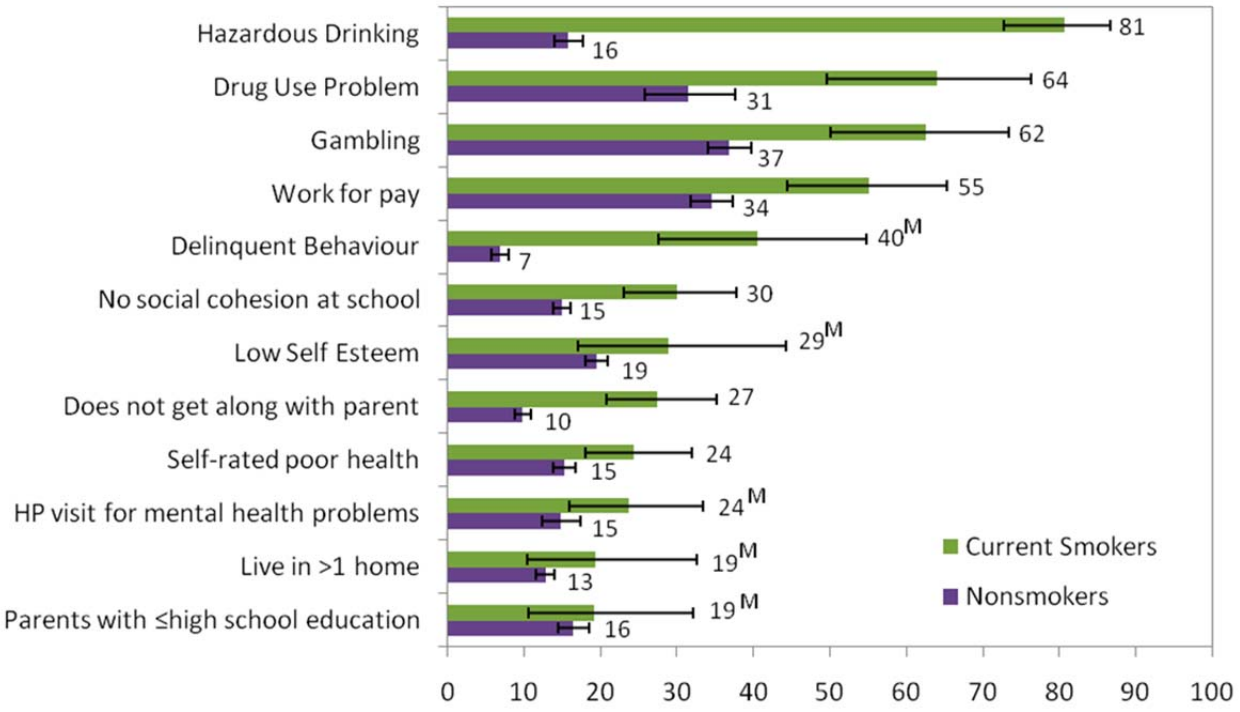
Risky Behaviours and Social Determinants of Health Associated with Smoking Status

To explore the association of risk factors and social determinants of health with respondent's 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 18 and Table 19).

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).

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



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

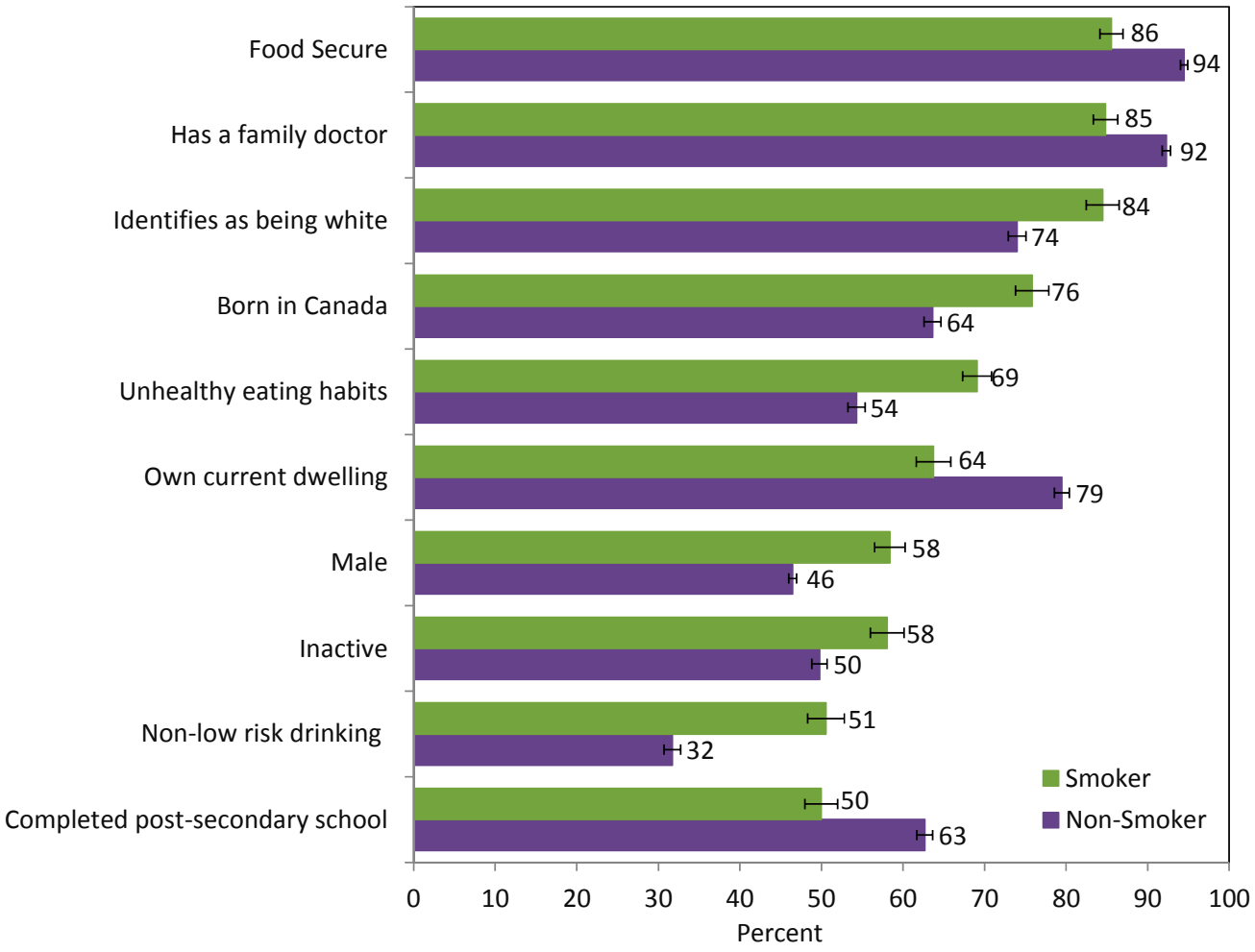
Source: Ontario Student Drug Use and Health Survey 2011.

[v] Indicator definitions and information on data analysis provided in the Appendix (See Data Analysis section).

Adults

- Fewer current smokers aged 18 years and older were categorized as being food secure compared to nonsmokers (86% vs. 94%, respectively; Figure 9) and were less likely to report that a member of their household owned the dwelling in which they currently resided (64% vs. 79%)
- A smaller proportion of current smokers reported having a regular family doctor compared to nonsmokers (85% vs. 92%, respectively).
- A greater proportion of current smokers identified as being White (84%) and were born in Canada (76%) compared to nonsmokers (74% and 64%, respectively).
- Compared to nonsmokers, more current smokers engaged in behaviours that are risk factors for the development of chronic diseases: eating less than 5 fruits or vegetables per day (69% vs. 54%, respectively), being inactive (58% vs. 50%, respectively), and drinking in excess of the low-risk drinking guidelines (51% vs. 32%, respectively).
- A greater proportion of current smokers were male compared to non-smokers (58% vs. 46%, respectively).
- Fewer current smokers had completed post-secondary school compared to non-smokers (50% vs. 63%, respectively).
- More current smokers aged 18-29 engaged in behaviours that were risk factors for the development of chronic diseases compared to nonsmokers: eating less than 5 fruits or vegetables per day (64% vs. 56%), drinking in excess of the low-risk drinking guidelines (63% vs. 45%), and using drugs in the past year (54% vs. 22%) (data not shown).
- Fewer current smokers aged 18-29 reported having a regular family doctor compared to nonsmokers (78% vs. 86%, respectively) (data not shown).

Figure 9: Top Ten Factors[vi] Associated with Smoking Status, 18+, Ontario, 2009/10



Source: Canadian Community Health Survey 2009/10.

[vi] Indicator definitions and information on data analysis provided in the Appendix (See Data Analysis section).

Chapter 2: Protection

Protection: Smoke-Free Ontario Strategy

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).[1]

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

Protection Infrastructure and Interventions

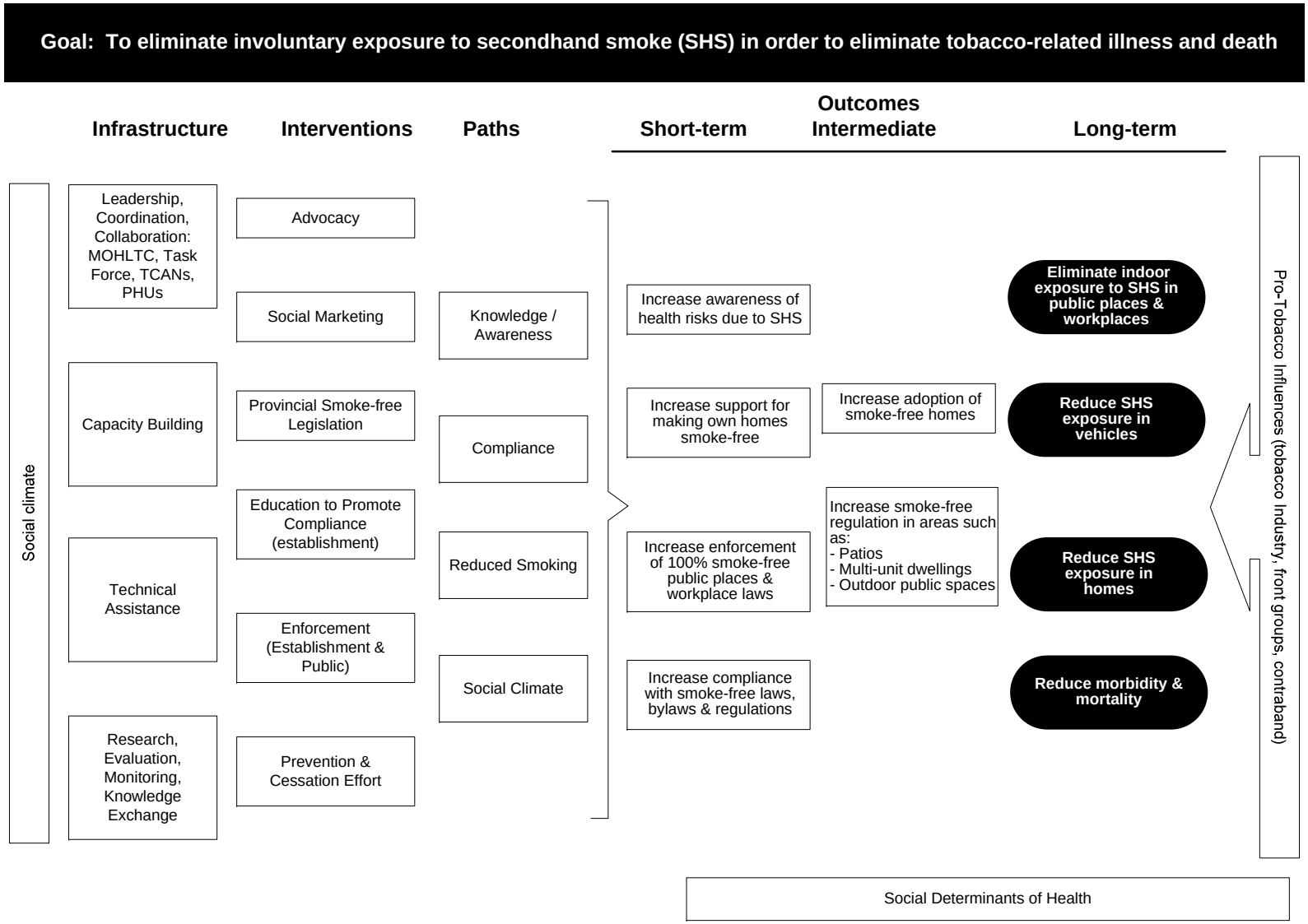
The Strategy approach to protection includes creating the infrastructure to successfully implement a variety of programs, services, and policies. In recent years, the Ministry of Health and Long-Term Care has funded seven Tobacco Control Area Networks (TCANs), which are groupings of the province's 36 health regions (prior funding came from the former Ministry of Health Promotion and Sport). 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:

- Educating the public, workers, workplaces, and 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).

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.

Figure 10: Protection Path Logic Model



Smoke-Free Ontario Act

On May 31, 2006, the smoke-free provisions of the *Act* came into force, prohibiting smoking in workplaces and enclosed public places including restaurant, 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 out of 10 Ontarians were covered by local smoke-free restaurant and bar bylaws (91% and 87%, respectively).[12] However, more than half of these bylaws (54%) allowed for designated smoking rooms.

Smoking exceptions are allowed for residents of residential care, psychiatric and veterans' facilities. Smoking is banned within 9 m of a hospital entrance or exit. The *Act* entitles home healthcare workers to request no smoking in clients' homes while providing healthcare.

Educational Programs and 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*.[13]

Vehicles

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.

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.

Waterpipe

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 is heated by charcoal, and the resulting smoke is cooled by a water-filled chamber before being inhaled through a hose and a mouthpiece. Waterpipe use is receiving growing attention, as more is learned about: the harmfulness of waterpipe smoke (particularly in indoor public settings);[14,15,16,17,18] emerging patterns of use, particularly among youth and young adults;[19] and an apparent increase in the number of indoor public establishments that provide waterpipes to their customers for in-house

use. [20,21,22] (The *SFOA* prohibits the use of waterpipes in indoor public places and enclosed workplaces only if they burn tobacco.) Evidence of the harmfulness of secondhand waterpipe smoke is beginning to emerge.[23,24,25] In a recent U.S. study, for instance, high levels of particulate concentrations were observed in waterpipe cafés, with levels worse than those in restaurants that permitted cigarette smoking.[26]

Recently, several organizations[vii] including the Non-Smokers' Rights Association (NSRA) / Smoking and Health Action Foundation (SHAF), the Ontario Program Training and Consultation Centre (PTCC), the Ontario Tobacco Research Unit (OTRU), Leave the Pack Behind (LTPB), Ottawa Public Health (OPH) and the Central West Tobacco Control Area Network (TCAN) have focused attention on issues related to waterpipe use).[27]

Social Exposure

Although there are no direct interventions addressing social exposure, the majority of protection initiatives, including smoke-free policies and educational programs, indirectly affect social exposure to tobacco.

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

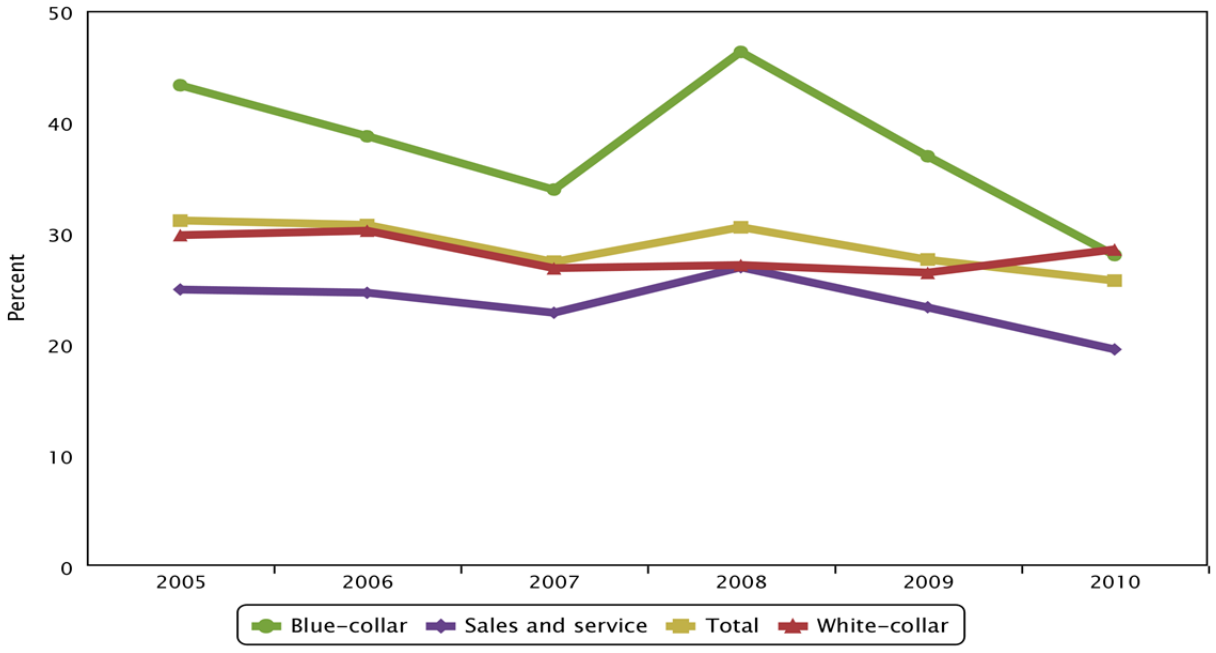
[vii] The organizations listed partnered to offer a webinar in November 2010 entitled *The Emerging Issue of Waterpipe/Hookah Use*.

Protection Outcomes: Population Level

Workplace Exposure

- According to the Canadian Tobacco Use Monitoring Survey, past 30-day exposure to secondhand smoke at the workplace[viii] among workers aged 15 years and older has not declined significantly from 2005 to 2010 (31% in 2005 and 26% in 2010; Figure 11).
- In 2005 and 2008, blue-collar workers had a significantly higher level of exposure to secondhand smoke at work compared to workers in other occupations. This was no longer the case in 2010 (Figure 11).
- According to the 2011 CAMH Monitor, 14% of adult workers (aged 18 years or older) were exposed to SHS at work for 5 or more minutes in the past week indoors or inside a work vehicle, unchanged from 2010 (16%; data not shown).

Figure 11: Workplace Exposure (Past 30 Days), by Occupation, Ages 15+, Ontario, 2005 to 2010



Occupation	2005	2006	2007	2008	2009	2010
Blue collar	43	39	34	46	37	28
Sales and service	25	25	23	27	23	19.5
White collar	30	30	27	27	26	28.5
Total	31	31	27	30.5	28	26

Source: CTUMS 2005–2010.

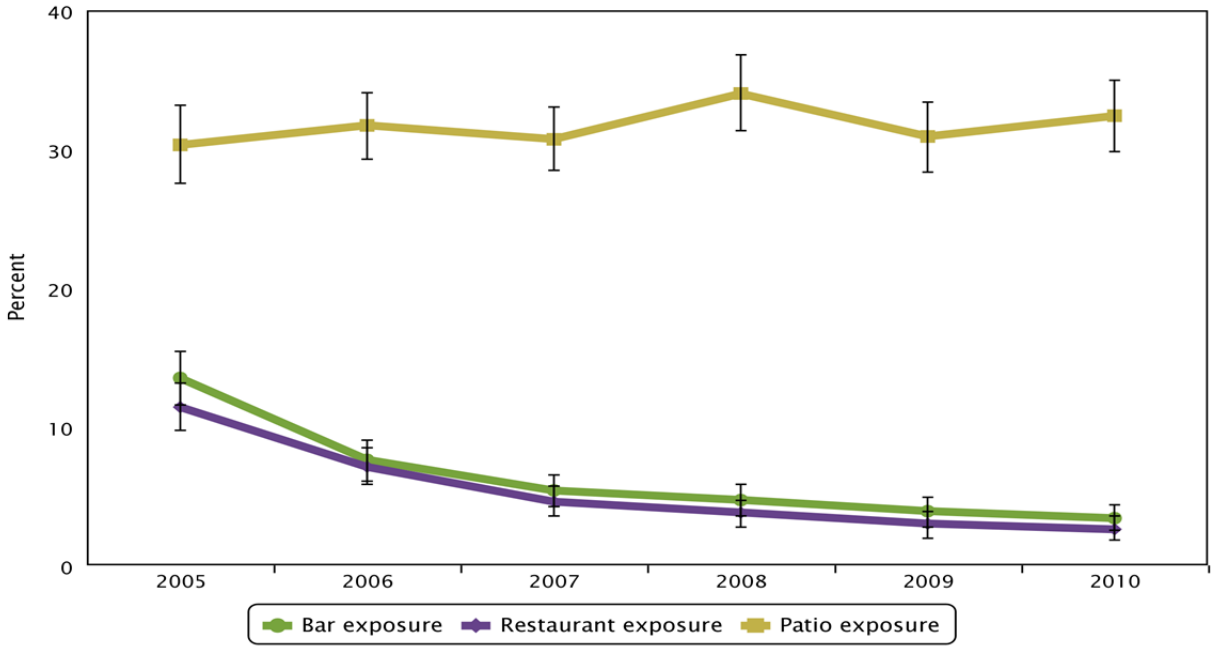
[viii] The survey question makes no distinction between indoor or outdoor exposure: "In the past month, excluding your own smoking, were you exposed to secondhand smoke at your workplace?"

Public Places Exposure

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 to 7% in 2006 (year of implementation), 5% in 2007 (one year after implementation), 4% in 2008 (2 years after implementation), and 3% in both 2009 and 2010 (three and four years, respectively, after implementation; Figure 12).
- Secondhand smoke exposure in bars was 14% in 2005 (the year prior to the *Act*), 8% in 2006 (year of implementation), 5% in 2007 (one year following implementation), 5% in 2008 (two years following implementation), 4% in 2009 (three years following implementation), and 3% in 2010 (four years following implementation).
- The *Act* only prohibits smoking on outdoor patios if any portion of a patio is covered or partially covered by a roof. 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 (32% in 2006, 31% in 2007, 34% in 2008, 31% in 2009, and 32% in 2010).
- In 2011, 57% of Ontario adults (including 69% of never-smokers) agreed that smoking should be banned on outdoor patios of restaurants and bars, unchanged from 2010 levels (CAMH Monitor, data not shown).

Figure 12: Exposure to SHS at Restaurants or Bars, Ages 15+, Ontario, 2005 to 2010



Setting	2005	2006	2007	2008	2009	2010
Bar	13.5	8	5	5	4	3
Restaurant	11	7	5	4	3	3
Patio	30	32	31	34	31	32

Note: Vertical lines represent 95% confidence intervals. The *Smoke-Free Ontario Act* was implemented May 31, 2006.
Source: CTUMS 2005–2010.

Other Public Places

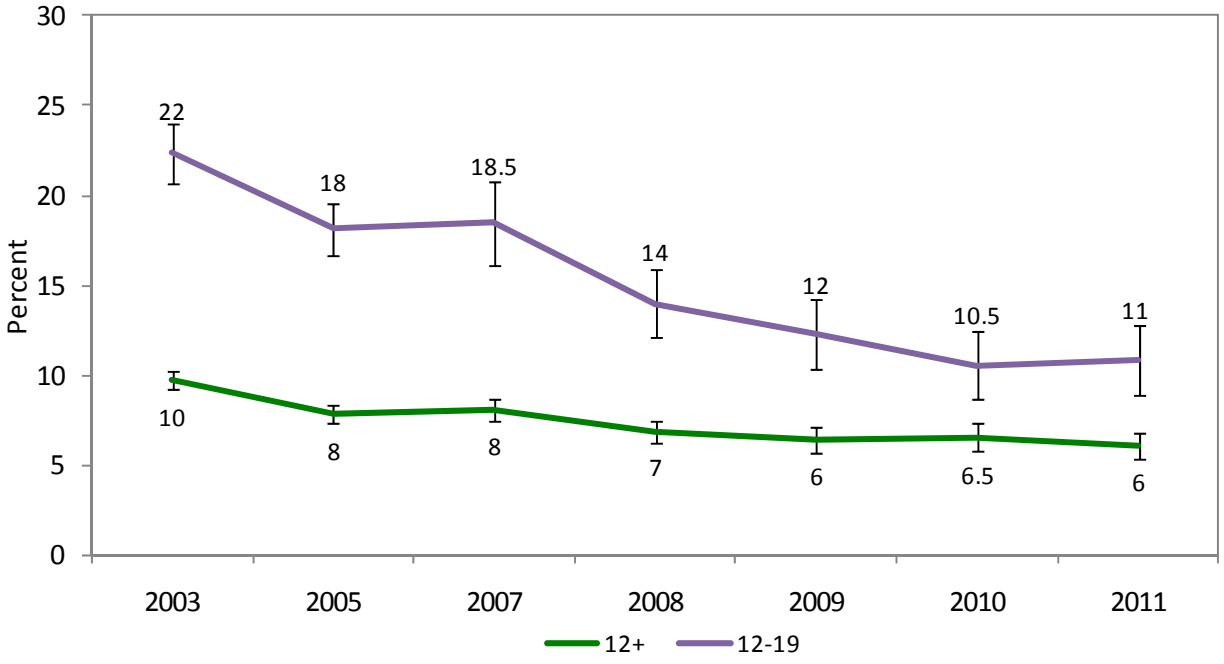
- In 2010, about half of all Ontarians reported being exposed to secondhand smoke at entrances to buildings in the previous month (53%), a level of exposure that has remained steady in recent years (CTUMS, data not shown).
- Reported past-month exposure to secondhand smoke outdoors, such as on a sidewalk or at a park, has also remained relatively stable in recent years (52% in 2006 and 57% in 2010; CTUMS, data not shown).

Vehicle Exposure

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 in vehicles was significantly lower in 2011 (6%) than in 2007 (8%; Figure 13).
- In 2011, exposure to secondhand smoke in vehicles among nonsmokers aged 12 to 19 significantly decreased compared to 2007 (11% vs. 18.5%; Figure 13). In 2011, exposure among 12 to 19 year olds was significantly higher compared to all Ontarians aged 12 years and older (11% vs. 6%).

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



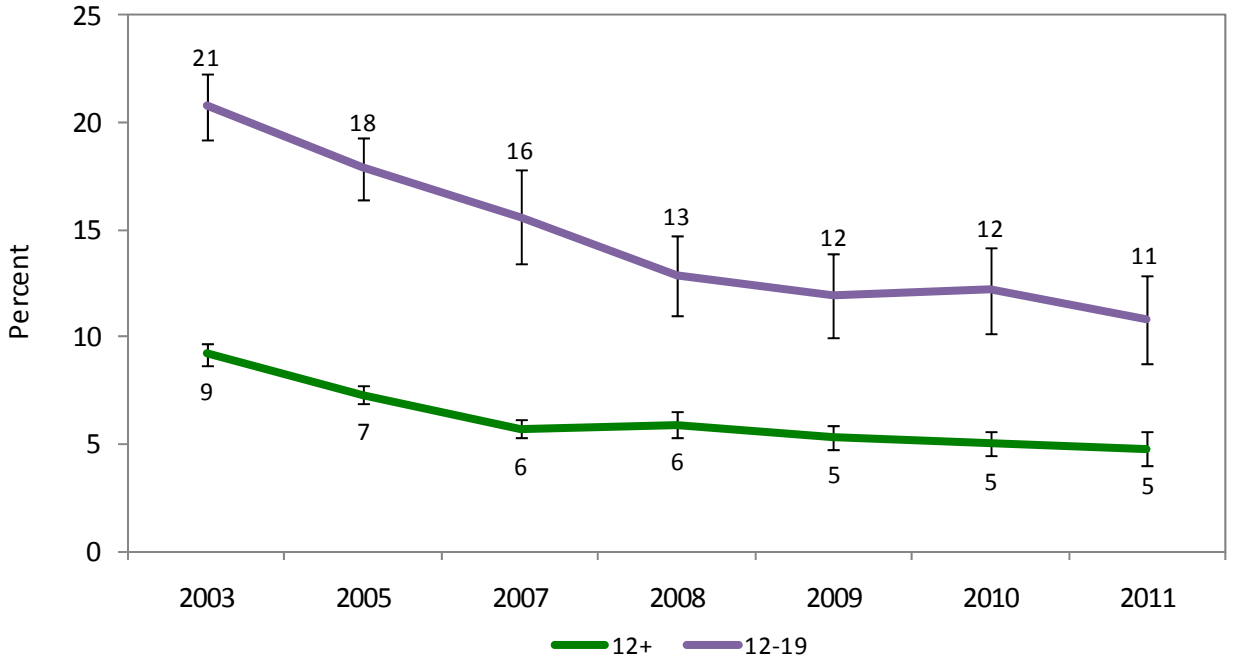
Note: Vertical lines represent 95% confidence intervals.
Source: CCHS. Statistics Canada. Table 105-0501 - Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2007 boundaries) and peer groups, occasional, CANSIM (database).

Household Exposure

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

- In 2011, 5% (or 434,548) of nonsmoking Ontarians aged 12 years and older were exposed to secondhand smoke in their home every day or almost every day (Figure 14). This level is a significant decrease from the level reported in 2005 (7%) but has remained unchanged in recent years.
- Among 12 to 19 year old nonsmokers, 11% (or 133,404) were exposed to secondhand smoke in their home in 2011, which is more than double the exposure reported by all respondents aged 12 and over (5%). Respondents aged 12 to 19 had a significantly lower rate of exposure in 2011 compared to levels reported in 2007 (16%).

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.

Source: CCHS. Statistics Canada. Table 105-0501 - Health indicator profile, annual estimates, by age group and sex, Canada, provinces, territories, health regions (2007 boundaries) and peer groups, occasional, CANSIM (database).

Contributions: Infrastructure and Interventions

Smoke-Free Ontario Act

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

A number of jurisdictions in the province have implemented protection policies over the past year that are more restrictive than the *Smoke-Free Ontario Act*.[ix] For instance, the Town of Essa prohibited smoking outdoors on Township-owned property. Smiths Falls prohibited smoking on municipal property including parks (within 9 m of any sports facility, playground, splash pad, wading pool or sports field including spectator areas). Georgina prohibited smoking and use of tobacco products at all designated town of Georgina outdoor areas. Orangeville prohibited smoking in parks, trail ways, recreational fields, transit environments, municipal parking lots, and Town facilities including entranceways to libraries, recreation centres, Town Hall, Police Services, fire hall, and the train station. Vaughan also prohibited smoking within 9 m of any City-owned wading pool, splash pad, skating rink, skate park, sports field, playground, tennis court or basketball court. Ottawa prohibited smoking in city parks and facilities, outdoor patios, café seating, as well as all outdoor areas on municipal properties including parks, playgrounds, beaches, sports fields, and outdoor areas around City facilities. Parry Sound prohibited smoking within 9m of any municipally owned or leased park, playground, recreational field or beach.

The number of Ontario Social Housing Providers with No-Smoking Policies is steadily increasing in the province, reaching 46 providers as of June 2012.[28] Waterloo was the first Regional Municipality in Ontario to implement a 100% smoke-free policy for new leases[x] for its regionally owned and operated community housing units in 2010.[29] Since the publication of our last Strategy Evaluation Report (October 2011), the following providers have implemented no-smoking policies: the United Counties of Leeds & Grenville, MennoHomes Inc.; United Counties of Leeds and Grenville, Hellenic Community of Kitchener-Waterloo Suburbs Housing; and the Municipality of Chatham-Kent Social Housing Division.

[ix] For more comprehensive information on smoke-free prohibitions stronger than the *Smoke-Free Ontario Act,* please consult the NSRA's Smoke-Free Laws Database (http://www.nsra-adnf.ca/cms/sfl-database-search.html).
[x] This policy only applies to new leases because residential tenancy law requires existing leases to be grandfathered.

Waterpipe

Since 2010, a number of forums have helped to raise the profile of waterpipe use and the harm it may cause due to active use and secondhand smoke exposure:

- The Smoking and Health Action Foundation reports that in November 2010, the Ontario Program Training and Consultation Centre partnered with the Non-Smokers' Rights Association / Smoking and Health Action Foundation, the Ontario Tobacco Research Unit, Leave the Pack Behind, Ottawa Public Health, and the Central West Tobacco Control Area Network to offer a webinar entitled *The Emerging Issue of Waterpipe/Hookah Use*.[27]
- In January 2011, the Ontario Tobacco Research Unit published an OTRU Update on the use of waterpipes including information on prevalence, toxicity, and health risks.[30]
- In October 2011, the Smoking and Health Action Foundation convened an Ontario meeting on waterpipe use that brought together stakeholders from across the province including representatives from six of the seven Tobacco Control Area Networks, tobacco enforcement officers, Ministry of Health Promotion and Sport officials, and representatives of the Ministry of Revenue, the Canadian Border Services Agency, the Royal Canadian Mounted Police, and health charities.[27]
- In February 2012, the Non-Smokers' Rights Association convened a national forum on waterpipe use to discuss this emerging health issue and to identify ways to counter waterpipe use.[31]

Additionally, several jurisdictions have stepped up implementation and enforcement of regulations related to waterpipe use. In June 2012, Ottawa's Community and Protective Services Committee endorsed a ban on waterpipes including those used for tobacco-free products.[32] The regulation would prohibit use on outdoor municipal property (e.g., parks, beaches and outdoor city facilities), settings which are currently covered by a tobacco product ban. The move to prohibit waterpipe use appears to be gaining momentum. Internationally, Saudi Arabia has banned waterpipes from most public places including restaurants and coffee shops[33] and several jurisdictions in Canada, including Vancouver and Quebec, have prohibited the burning or lighting of any substance indoors in public places (with some exceptions),[34,35] which in effect bans indoor waterpipe use.

The *Smoke-Free Ontario Act* prohibits smoking tobacco in indoor public places and enclosed workplaces including the use of tobacco in waterpipes. Waterpipe use creates some enforcement challenges because for an establishment to be found in contravention of the *Act*, tobacco must be 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 some regions of the province, health units have charged hookah bar owners for permitting tobacco products to be smoked in their indoor establishments.[22,36]

Summary

Strategy efforts are showing results. Ontarians' exposure to secondhand smoke in restaurants, bars, vehicles, and homes is significantly lower than it was five years ago, but eliminating nonsmokers' exposure to secondhand smoke in Ontario requires further action.

Although blue-collar workers are now less exposed to secondhand smoke in the workplace than they were, 26% of all adult workers were exposed to secondhand smoke indoors or outdoors at work in the past month; indoor workers (and those working inside a vehicle) are also exposed to high levels of smoke (14% exposed for 5 or more minutes in the past week).

Three in ten (32%) Ontarians who visited restaurants or bars reported being exposed on patios; more than half the population continues to be exposed outdoors: 53% at entrances to buildings and 57% on sidewalks or parks.

One in ten (11%) nonsmokers aged 12 to 19 are exposed in both their home and in vehicles.[xi]

Consideration of the Scientific Advisory Committee (SAC) protection recommendations are 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.).

With the level of exposure to secondhand smoke observed at work, on restaurant and bar patios, and at outdoor public places, Ontarians have a high degree of 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.

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

Chapter 3: Smoking Cessation

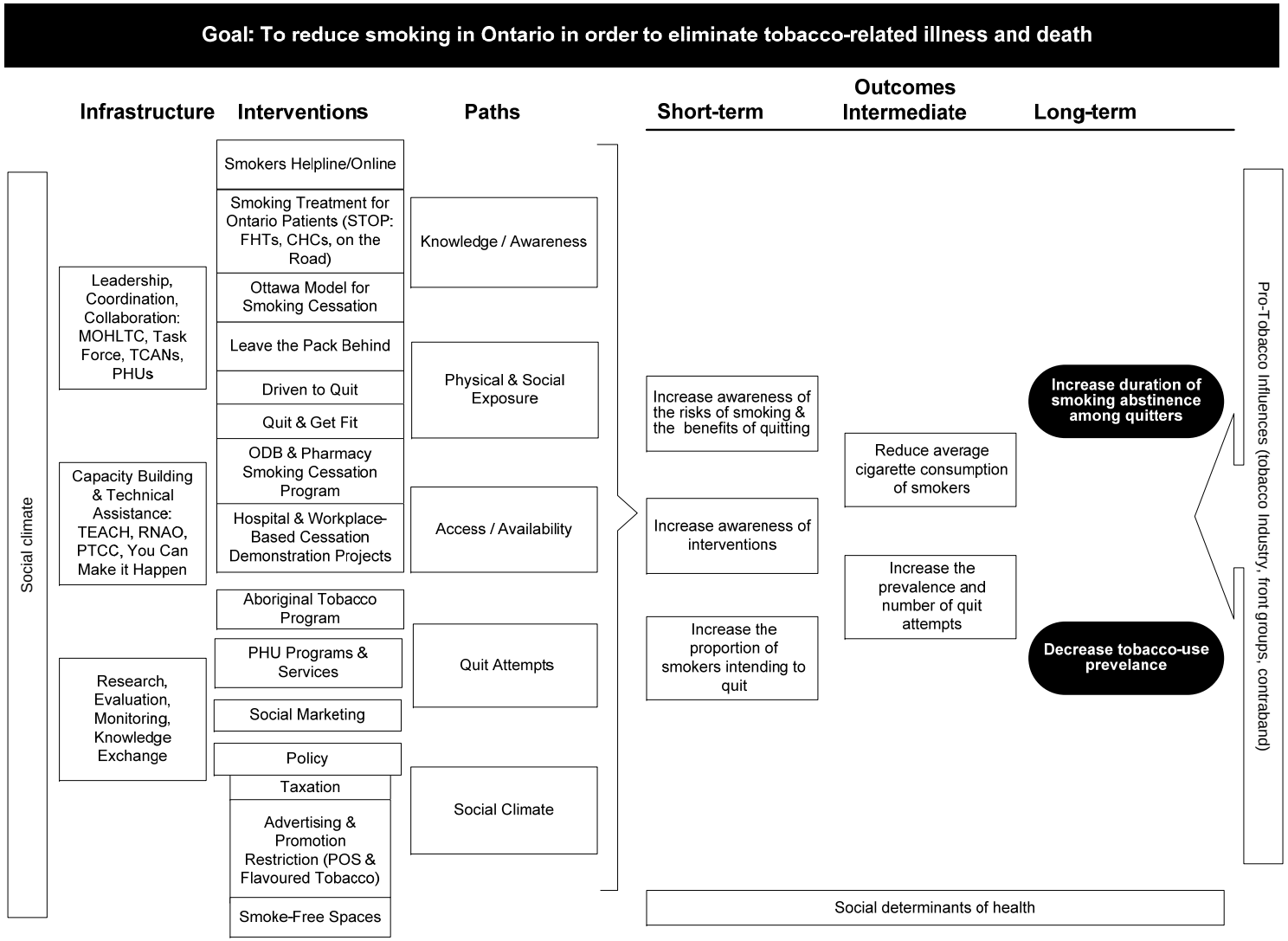
Cessation: Smoke-Free Ontario Strategy

A main objective of tobacco control efforts is to increase the proportion of smokers who successfully quit smoking. Desired outcomes here 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,[37,38] increasing *knowledge* of tobacco harm and awareness of available cessation supports, and *limiting physical and social exposure* to tobacco products[39,40] (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.[40,41,42]

In Ontario, the cessation component of the Strategy is the main avenue by which progress toward these pathways and desired cessation outcomes is expected to be achieved (Figure 15).

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

Figure 15: Cessation Path Logic Model



Cessation Infrastructure

Several cessation infrastructure components support the development and implementation of a variety of programs, services, and policies. For example, 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. The Ministry of Health and Long-Term Care – Health Promotion Division also 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.

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 Program Training and Consultation Centre (PTCC), the Training Enhancement in Applied Cessation Counselling and Health (TEACH) Project, the Registered Nurses' Association of Ontario's (RNAO) Nursing Best Practice Smoking Cessation Initiative (Initiative), and the Ontario Tobacco Research Unit (OTRU). OTRU's online course (*Tobacco & Public Health: From Theory to Practice*) is a further resource available to public health personnel across the province not only for cessation but also prevention, protection, and evaluation.

Program Training and Consultation Centre

The Program Training and Consultation Centre, a resource centre of the Smoke-Free Ontario Strategy, is responsible for providing training and technical assistance to health professionals working in tobacco control in Ontario.[43] PTCC offers workshops on a range of topics related to cessation, including brief counselling techniques for tobacco cessation and cessation strategies for specific populations—such as pregnant women. Training workshops are conducted in collaboration with public health units and Tobacco Control Area Networks.

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 Smoking Cessation Facilitators; 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.

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, pharmacists, and others. The core-training course focuses on essential skills and evidence-based strategies for intensive cessation counselling. The project also offers 14 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 wishing to offer cessation services, including Family Health Teams, Community Health Centres and Aboriginal Health Access Centres.

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 aimed at providing resources and support to health professionals to help clients quit tobacco use. The 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, optometrists, and others.

Ontario Tobacco Research Unit

The Ontario Tobacco Research Unit's current 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.

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.[44]

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.[45,46,47,48]

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.[49,50,51] 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.[52,53,54,55,56] On average, a 10% increase in price results in a 3-5% reduction in demand in higher income countries.[57,58,59]

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.[37,38,60] 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 due to voluntary administrative policies (e.g., bans on sales on university and college campuses).[61] Despite these advances, tobacco products continue to be available across the province through a large number of retail outlets (approximately 14,500 retail outlets in 2008, which is the latest data available), primarily convenience and grocery stores.

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.

The Driven to Quit Challenge (DTQC)

DTQC is the annual provincial quit smoking contest run by the Canadian Cancer Society. The main objectives of the contest are to encourage quit attempts, to increase tobacco

users' awareness of cessation resources, and to encourage tobacco users to seek help through Smokers' Helpline. The contest is open to all Ontario residents over the age of 19 who have used tobacco for at least one year. Participants register online, by fax, telephone or mail with a "buddy" who supports his/her pledge to remain smoke-free during the quit month in order to be eligible for one of several prizes. Since 2010 occasional tobacco users (along with daily tobacco users) have been eligible to participate in DTQC. In 2012, promotional efforts were also directed towards healthcare providers to further increase referrals to DTQC and the overall reach of the contest.

Aboriginal Tobacco Program

The Aboriginal Tobacco Program is an initiative of Cancer Care Ontario aimed at engaging Aboriginal communities in the creation and implementation of health promotion interventions to prevent and reduce tobacco use. This is achieved by funding communities to implement tobacco control projects, providing educational materials to raise awareness about the differences between commercial and traditional use of 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.

Social Marketing Interventions/Campaigns

While principles of social marketing guide many of the province-wide cessation interventions mentioned in this chapter, over the last several years the Strategy has included a number of social marketing interventions or campaigns that have run sub-provincially on an ad hoc or intermittent basis. These campaigns have evolved from providing broad support for smoke-free policies to targeting smokers' knowledge of the harmful effects of tobacco use and promoting services to aid in smoking cessation.

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).

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.

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.

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.

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.

Leave the Pack Behind

Leave the Pack Behind (LTPB) is a comprehensive tobacco control program targeting young adults on the college and university campuses in Ontario. The program implements extensive social marketing campaigns and peer-to-peer educational programs and services to discourage uptake of tobacco use, promote tobacco cessation, healthy lifestyles, and advocate for enhanced tobacco control policies on campuses. LTPB specific cessation programs and resources include: self-help materials (*Smoke/Quit* booklets, *Quit Plan* palm cards) disseminated by student teams and campus health professionals; *QuitRunChill* web-based cessation initiative; *Wouldurather* annual cessation contest; and smoking cessation counselling and no-cost Nicotine Replacement Therapy (NRT) provided

by campus health professionals. The no-cost NRT was provided through the *Medical Intervention to Stop Smoking in Young Adulthood* (the MISSYA) project funded by Health Canada.

The Smoking Treatment for Ontario Patients (STOP) Program

The STOP Program delivers free smoking cessation medication and counselling support to smokers. The program uses the existing healthcare infrastructure as well as new and innovative means to reach smokers across Ontario. In 2011/12, the STOP Program continued to implement the following program models:

- Zyban™ model, which explores the effectiveness of distributing bupropion for smoking cessation via CHCs and Family Health Teams (FHTs)
- STOP on the Road, an initiative that offers workshops in various locations across Ontario, where smoking cessation clinics are not easily accessible
- Web-based enrolment model (together with weekly motivational emails)

In 2011/12, two new programs were launched: STOP with Family Health Teams (FHTs) and STOP with Community Health Centers (CHCs) and Aboriginal Health Access Centers (AHACs). Both programs use the existing healthcare infrastructure (FHT, CHC and AHAC) to expand support to smokers willing to quit by providing access to free nicotine replacement therapy and counselling. The programs also aim to increase the capacity of health care practitioners to provide comprehensive smoking cessation treatment to smokers.

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 a greater number of tobacco users with effective, evidence-based tobacco dependence treatments delivered by health professionals. This is accomplished by 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. Since 2005, the Ottawa Model has been introduced in many hospitals across Ontario and other provinces of Canada. In 2011/12, the program was also launched in a number of Ontario primary health clinics.

Ontario Drug Benefit and Pharmacy Smoking Cessation Programs

The Ontario government has recently started funding prescriptions for smoking cessation medications through the Ontario Drug Benefit (ODB) program. As of August 4, 2011, ODB recipients, such as seniors and people registered in supportive care or need-based assistance, are now eligible for up to 12 weeks of treatment with Zyban and Champix per calendar year. Effective September 1, 2011, ODB recipients also have access to smoking cessation counselling provided by community pharmacists through the Pharmacy Smoking 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.

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 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, etc). 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.

Quit & Get Fit

Since 2010, the Ontario Lung Association has been implementing the Quit & Get Fit program to assist smokers in quitting by offering 16 one-hour sessions of regular exercise and behavioural smoking cessation support from a specially trained personal trainer. In

2012, the program was delivered in several types of fitness facilities (for profit, not-for-profit, municipally run), in a workplace, and other settings across Ontario.

Aboriginal Tobacco Cessation Program (Pilot)

The Aboriginal Tobacco Cessation Program aims to assist and support First Nations people to quit non-traditional tobacco use. In 2011/12, a pilot project was launched in partnership with the Heart and Stroke Foundation of Ontario, the Centre for Addiction and Mental Health, Wikwemikong First Nation, and Pfizer Canada. The pilot focuses on: building capacity of local health professionals (nurse practitioners) in smoking cessation, and increasing knowledge of the risks of non-traditional tobacco use, the benefits of quitting and of quitting strategies among First Nations people. A treatment algorithm using the 5As approach (Ask, Advise, Assess, Assist and Arrange) was developed as part of the pilot to assist health professionals to deliver smoking cessation services (personal communication, August 2012).

Hospital and Workplace-based Cessation Demonstration Projects

As part of its commitment to a renewed Smoke-Free Ontario Strategy, the Ontario government has identified workplaces and hospitals as key sites for enhancing cessation support to smokers willing to quit. In 2012/13, a number of demonstration projects will be funded to implement workplace- and hospital-based tobacco cessation interventions across the province.

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.

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 2010, 6.4% of past-year smokers had quit for 30 days or longer when interviewed. Applying a relapse rate of 79%[xii] (derived from OTRU's Ontario Tobacco Survey), it is estimated that 1.3% of previous-year smokers remained smoke-free for the subsequent 12 months (Table 2). During the period 2007-2010, there has been only slight change and no increase in the recent quit rate among Ontarians aged 12 years and older.

Table 2: Annualized (Recent) Quit Ratio among Past-Year Smokers, by Duration of Quit, Ontario, 2007 to 2010

Year	Recent Quit Ratio (95% CI)	Adjusted Quit Ratio
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- 2010.

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.

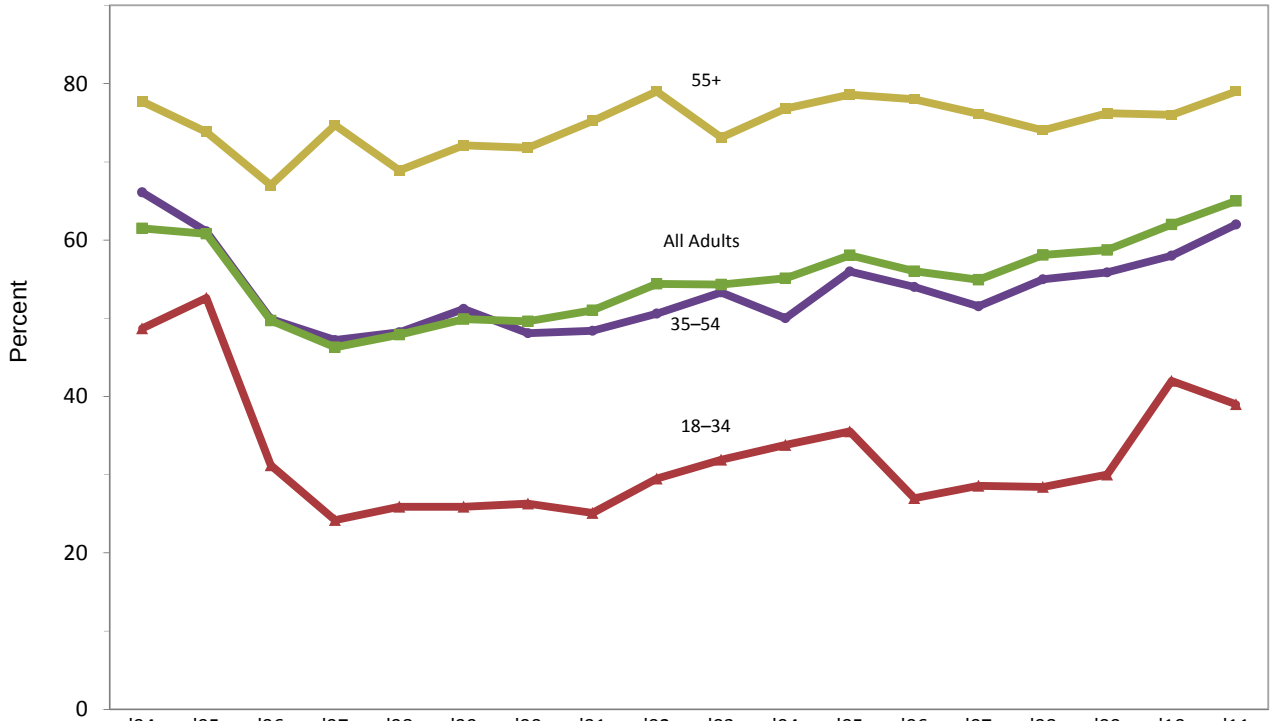
- In 2011, 65% of adults who had ever smoked had quit for at least 30 days at time of interview (Figure 16).
- Adults aged 18 to 34 had the lowest ratio of quitting (39%) among all ever smokers.
- In recent years, there is no clear pattern of change in quit ratios.

[xii] 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.

Quit Duration

- In 2011, 11% of ex-smokers (or 305,700 people) reported quitting between 1 and 11 months ago; 13% of ex-smokers quit between 1 and 5 years ago, and 75% quit smoking more than 5 years ago (CAMH Monitor 2011, data not shown).

Figure 16: Quit Ratio (Former Smokers as a Proportion of Ever Smokers), by Age, Ontario, 1994 to 2011



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

Source: CAMH Monitor 1994–2011.

Short and Intermediate-Term Outcomes

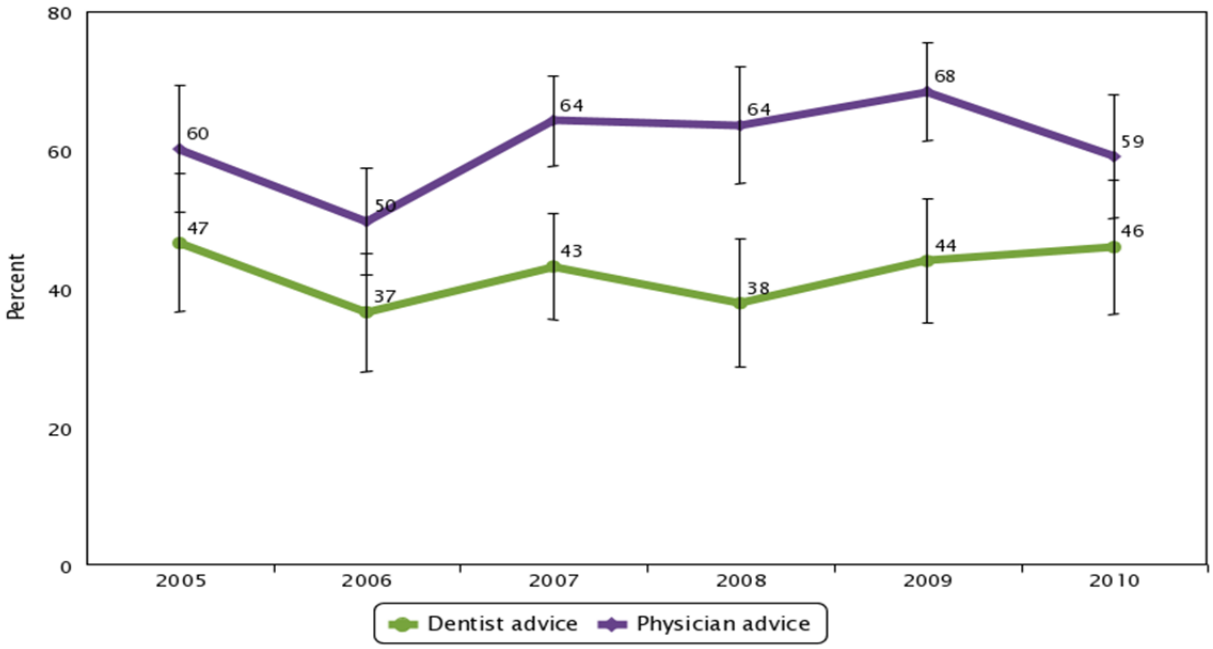
As suggested by the Path Logic Model (Figure 15), to reach desired cessation outcomes, the Strategy must increase the awareness and use of evidence-based cessation initiatives, decrease cigarette consumption, increase the proportion of smokers intending to quit, increase the prevalence and actual number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

Advice, Awareness and Use of Quit Aids

Health Professional Advice

- In 2010, six in ten survey respondents over the age of 18 who smoked (59%) and had visited a physician in the past year had been advised to quit smoking (Figure 17), unchanged in recent years.
- Among those advised to quit by a physician, 59% received information on quit smoking aids such as the patch; a product like Zyban, Wellbutrin, or Champix; or a counselling program.
- Of current smokers in Ontario who had visited a dentist in the past year, 46% reported that their dentist had advised them to quit smoking (Figure 17), unchanged in recent years.

Figure 17: Health Professional Advice to Smokers, by Occupation, Ages 18+, Ontario, 2005 to 2010

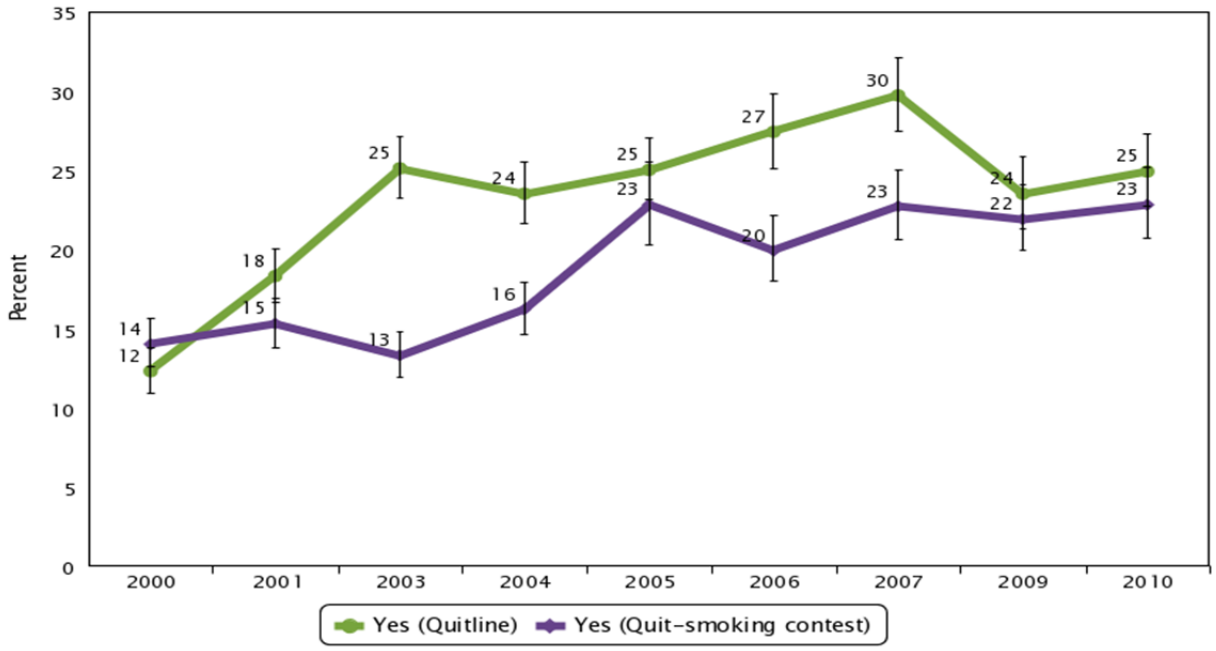


Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2005–2010.

Awareness of Quit Programs

- Following a steady increase from 2000 (12%), awareness of a 1-800 quitline significantly declined from 30% to 25% between 2007 and 2010 among Ontario adults (Figure 18).
- Awareness of a quitline differed by smoking status: 42% awareness among current smokers compared to 25% among former smokers and 19% among never-smokers (CAMH Monitor 2010, data not shown).
- Among Ontarians aged 18 years or over, 26% reported being aware of a quit-smoking contest in 2011, statistically unchanged since 2004.
- Current smokers were significantly more likely to be aware of a quit-smoking contest than never-smokers (30% vs. 19%).

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 2010



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, 2004, 2005, 2006, 2007, 2009, 2010.

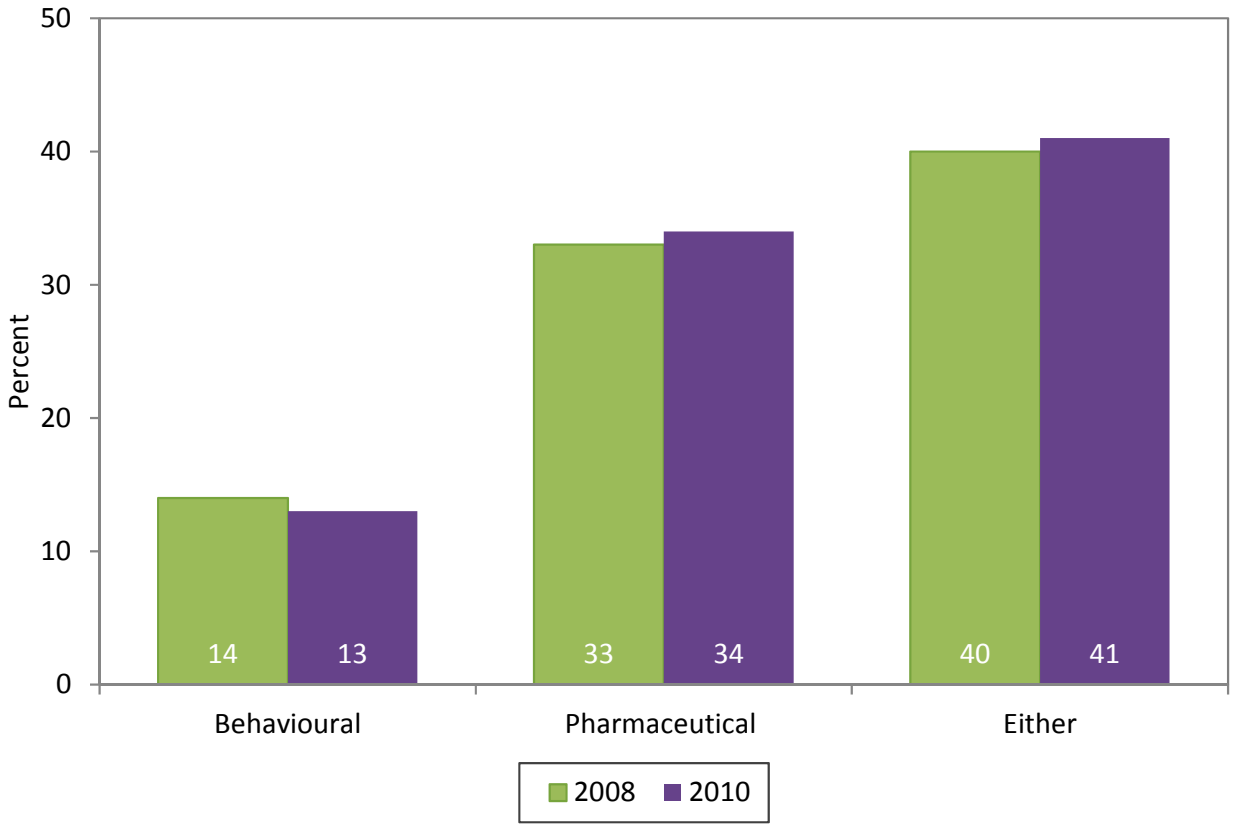
Use of Quit Aids

- In recent years, there has been no significant change in the use of the nicotine patch, nicotine gum, or behavioural or pharmaceutical smoking cessation aids (Figure 19, Figure 20).
- In 2010, the use of the nicotine patch or gum by smokers was similar (15% and 20%, respectively, difference not significant; Figure 19).
- 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.
- The proportion of respondents who used quit aids in 2010 was unchanged from that of 2008.

Figure 19: Use of Nicotine Patch (Past 2 Years) and Use of Nicotine Gum (Past 2 Years), Ages 15+, Ontario, 2005 to 2010

M= Note Interpret with caution: subject to moderate sampling variability. Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2005–2010.

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



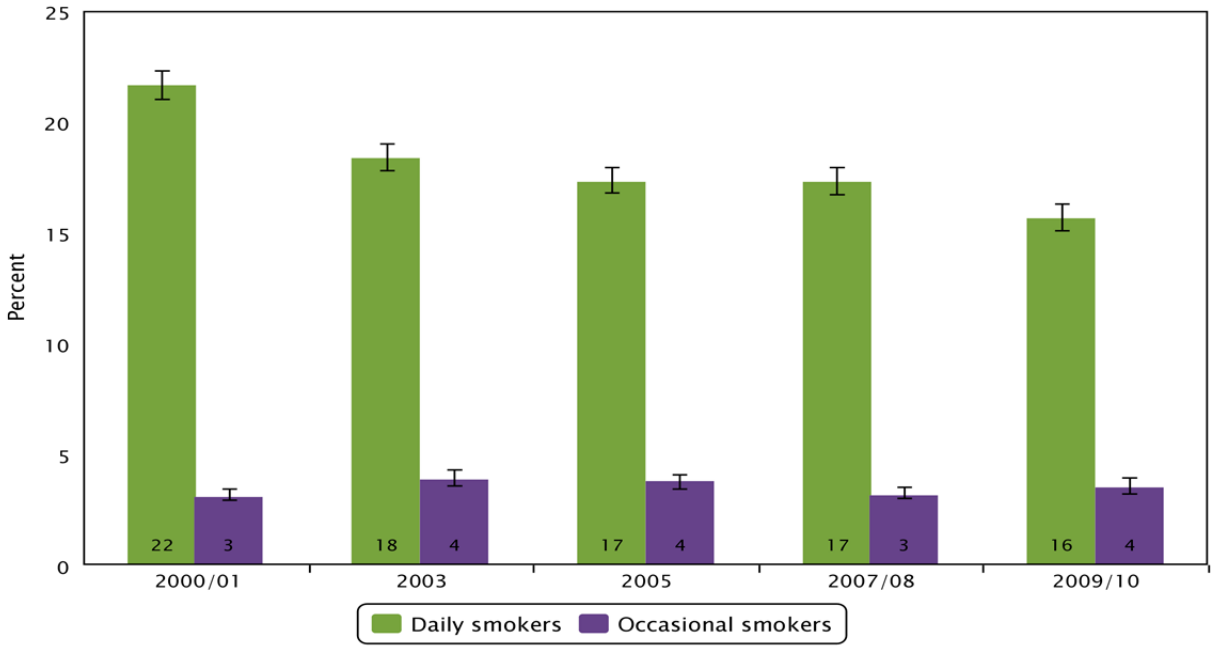
Source: Ontario Tobacco Survey 2008 and 2010.

Smoking Behaviour

Daily and Occasional Smoking (Past 30 Days)

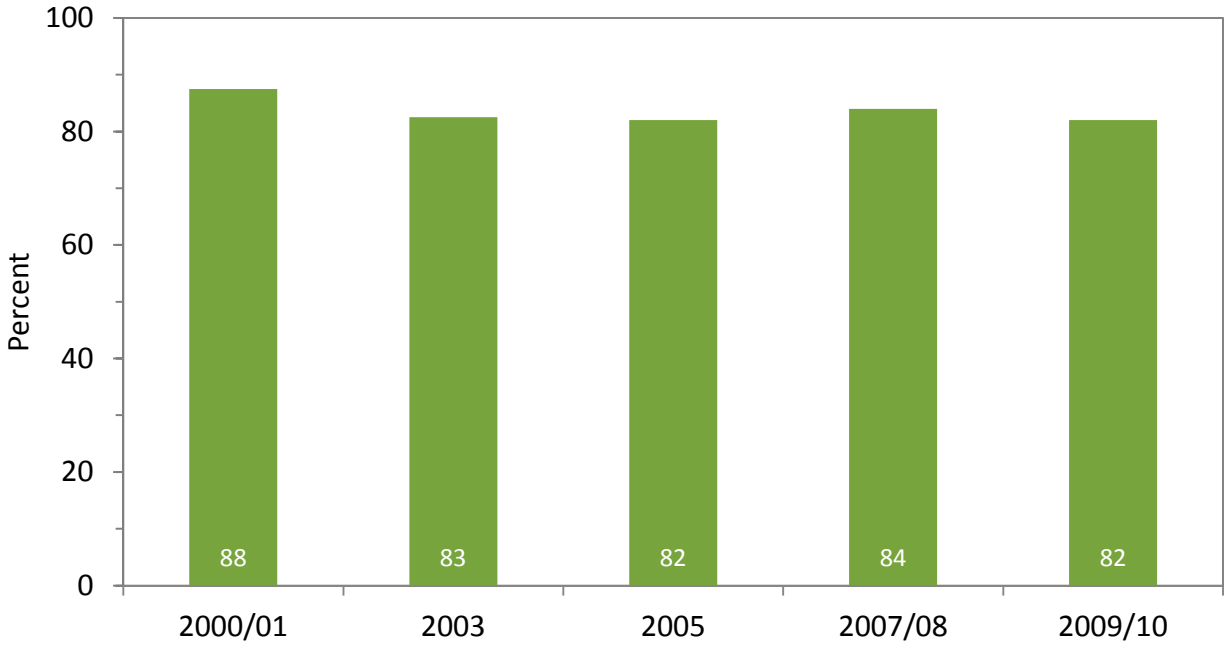
- In Ontario in 2009/10, the prevalence of current smoking among adults aged 18 or older was 19% according to the Canadian Community Health Survey, with 16% smoking daily and about 3.5% smoking occasionally in the past month (Figure 21).
- The rate of daily smoking decreased significantly from 2007/08 to 2009/10 (17% vs. 16%). The rate of occasional smoking has remained unchanged in recent years (Figure 21).
- In 2009/10, 82% of current smokers were daily smokers, unchanged in recent years (Figure 22).

Figure 21: Daily and Occasional Smoking (Past 30 Days), Ages 18+, Ontario, 2000/01 to 2009/10



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey 2000/01 to 2009/10.

Figure 22: Daily Smoking as a Proportion of Current Smoking, Ages 18+, Ontario, 2000/01 to 2009/10



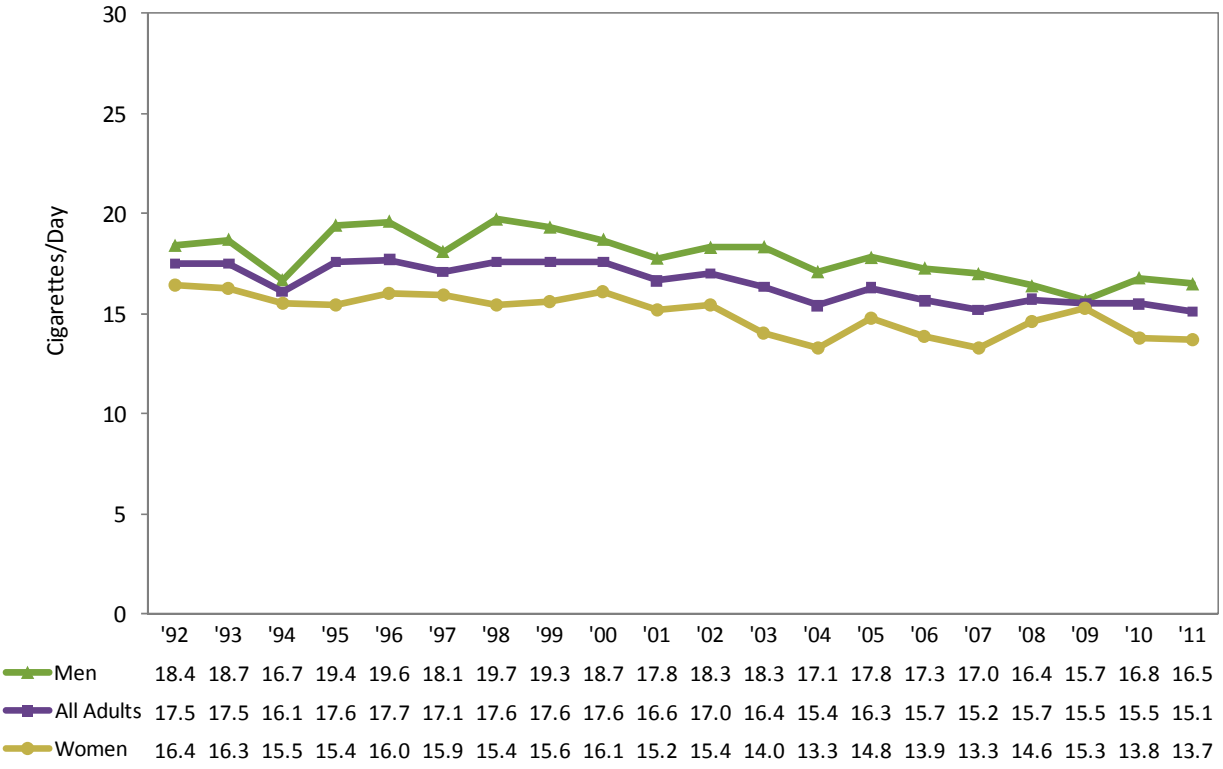
Source: Canadian Community Health Survey 2000/01 to 2009/10.

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 2011, the mean number of cigarettes smoked per day by daily smokers in Ontario was 15.1 (Figure 23), a level that has remained unchanged in recent years.
- Between 1992 and 2009, men consistently smoked more cigarettes per day than women (Figure 23).

Figure 23: Mean Number of Cigarettes Smoked Daily, by Sex, Daily Smokers, Ages 18+, Ontario, 1992 to 2011



	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11
Men	18.4	18.7	16.7	19.4	19.6	18.1	19.7	19.3	18.7	17.8	18.3	18.3	17.1	17.8	17.3	17.0	16.4	15.7	16.8	16.5
All Adults	17.5	17.5	16.1	17.6	17.7	17.1	17.6	17.6	17.6	16.6	17.0	16.4	15.4	16.3	15.7	15.2	15.7	15.5	15.5	15.1
Women	16.4	16.3	15.5	15.4	16.0	15.9	15.4	15.6	16.1	15.2	15.4	14.0	13.3	14.8	13.9	13.3	14.6	15.3	13.8	13.7

Source: CAMH Monitor 1992–2011.

Quitting Behaviour

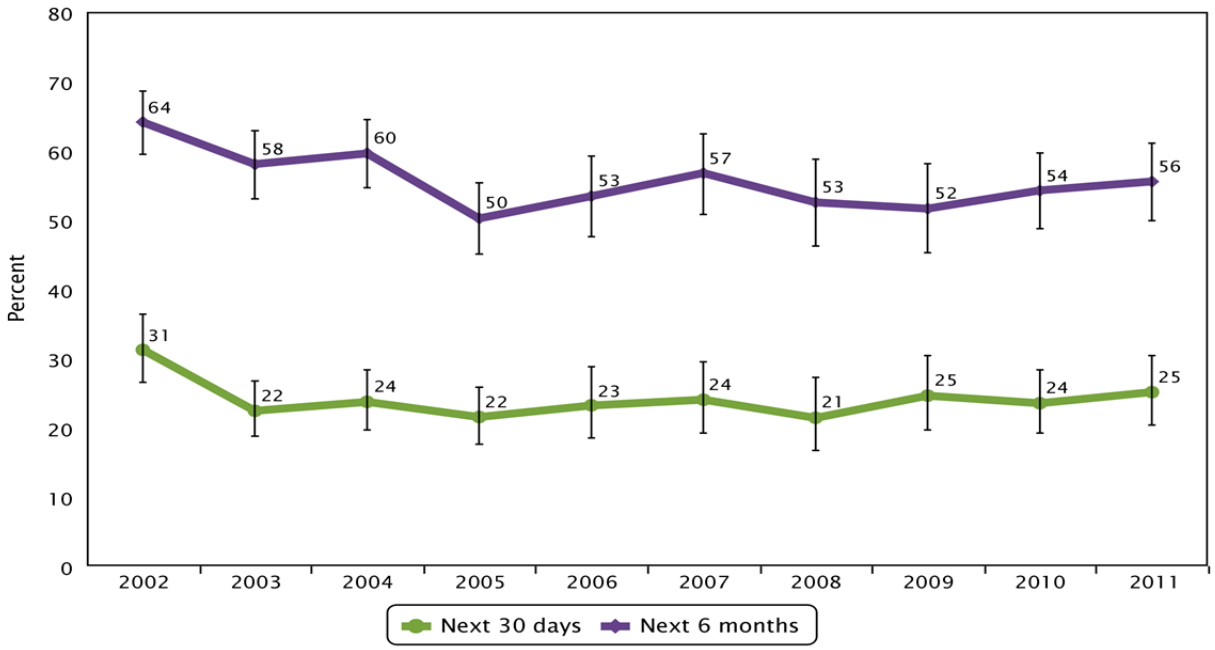
Intentions to Quit

- In 2011, more than half of all smokers intended to quit in the next six months (55.5%); there has been no statistically significant change in six-month quit intentions in recent years (Figure 24).
- Six-month quit intentions in 2011 are significantly lower in comparison to the high-water mark of 2002 (55.5% vs. 64%)
- The prevalence of 30-day quit intentions among Ontario smokers in 2011 was 25%; there has been no statistically significant change in 30-day quit intentions in recent years.

Quit Attempts

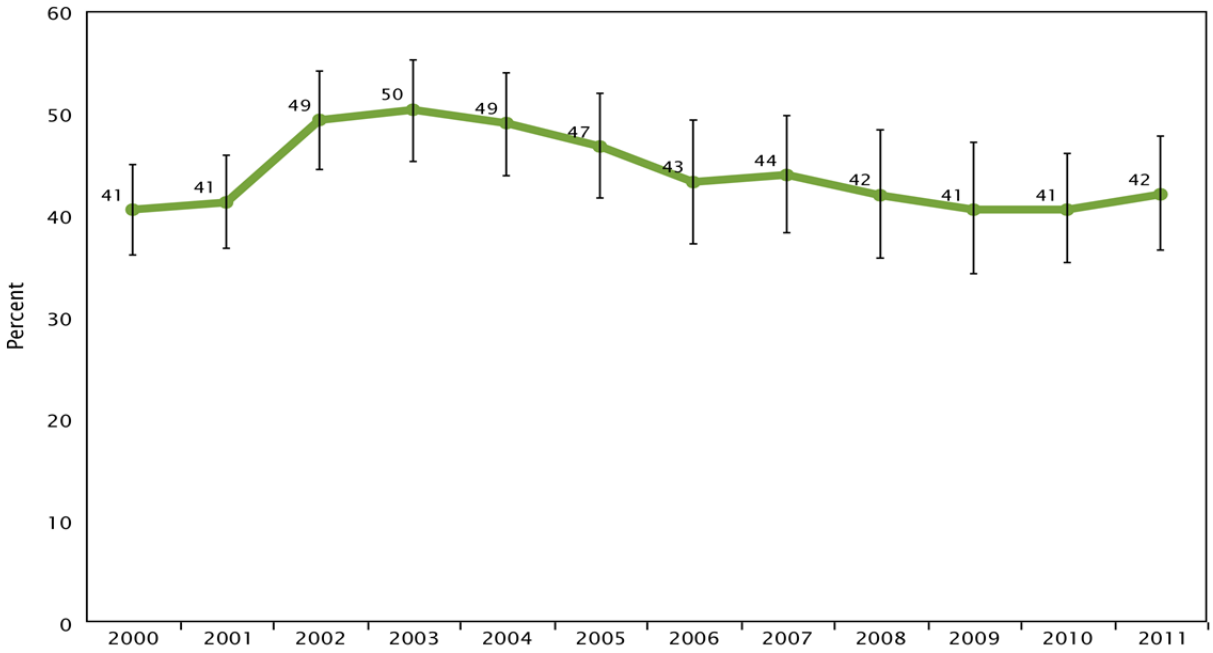
- Four in ten smokers (42%) made one or more quit attempts in the past year (Figure 25).
- Over the last decade, there has been no statistically significant change in the proportion of adult smokers making quit attempts.

Figure 24: Intentions to Quit Smoking in the Next 6 Months and Next 30 Days, Ages 18+, Ontario, 2002 to 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2002–2011.

Figure 25: One or More Quit Attempts in the Past Year, Current Smokers, Ages 18+, Ontario, 2000 to 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2000-2011.

Contributions: Infrastructure/Capacity Building Programs

This section reports on the reach and effects of Strategy partners' capacity building initiatives, funded fully or in part by the MoHLTC, in 2011/12. It should be noted that a paucity of evaluative evidence limits our understanding of the progress made toward enhancing health professionals' capacity in providing cessation support.

Program Training and Consultation Centre

Reach

Over the past two years, the number of health practitioners attending PTCC cessation training workshops has increased. As of March 2012, 563 health practitioners had participated in the training workshops, which is higher than that reported in 2010/11(456) and 2009/10(172). Since individuals attending each specific workshop were counted, this number may not reflect the total number of unique workshop participants (PTCC, personal communication, July 2012). The workshops were attended predominantly by the staff of local public health units, family health teams, community health centers, and hospitals (PTCC, personal communication, July 2012).

No evaluative information is available about the effects of the training on participants' practice behaviour.

RNAO Nursing Best Practice Smoking Cessation Initiative

Reach

Since 2007, the RNAO Initiative has trained 1,438 nurses, nursing students, and other healthcare professionals as Smoking Cessation Champions, including 408 in 2011/12 (RNAO, personal communication, July 2012). The project data show an increase in the number of healthcare professionals trained over time. Over the past year, the project spread across all seven TCAN regions to reach 14 public health units, which were engaged as project sites or had staff who were trained as Champions.

Effects

Evaluation studies of the RNAO Initiative were conducted in 2010 and 2011 using a mixed-methods approach (web survey of Champions, case studies of public health and healthcare organizations).[62,63] The studies showed that the project-specific mechanisms, such as the provision of a Smoking Cessation Facilitator and training workshops, had been instrumental in increasing nurses' capacity in smoking cessation. Champions provided evidence-based cessation resources and ongoing assistance in integrating practice recommendations into daily practice. In 2011, the RNAO Smoking Cessation Best Practice Guideline was still being widely adopted, as shown by an increase from 26.9% to 65.0% in the proportion of Champion respondents who reported using the guideline recommendations in their daily practice.[63] Evaluation studies also show that most Champions tend to deliver the minimal intervention recommended by the guideline (e.g., Ask, Advise, Assist, Arrange).

While the RNAO Initiative appears to be effective in building the individual capacity of nurses and other healthcare professionals, it has had limited success in promoting the adoption of cessation policies and practices among Ontario's public health and healthcare organizations. Barriers to the adoption and sustainability of cessation practices by organizations include: lack of staff time, funding issues, lack of buy-in from senior management, and limited availability of cessation resources.[63] All findings should be interpreted with caution due to survey response bias and limitations on the ability to generalize from information gathered through case studies.

TEACH Project

Reach

Since the project's debut in 2006, TEACH has trained 2,502 unique practitioners (individuals who attended any TEACH course) across Ontario. In 2011/12, TEACH trained 1,029 practitioners, which is the highest number trained in a year since 2006. [64]

Practitioners from diverse disciplines attended TEACH courses in 2011/12. Similar to previous years, a majority of trainees (about 60%) were registered nurses, nurse practitioners, addiction counsellors, health promoters/educators, and social workers. Other frequent attendees included pharmacists, respiratory therapists, and managers/coordinators.[64]

Effects

As part of the project evaluation, 3- and 6-month follow-up surveys were conducted with 2011/12 TEACH participants to assess changes in their practice behaviour. At the time of writing, the most complete follow-up data were available for only one training cohort (May 2011, n=239). Caution is required in interpreting findings, as relatively low survey response rates at 3 months (62.3%, n=149) and 6 months (41.4%, n=99) may bias the estimates of practice changes as a result of the TEACH project. Findings from the follow-up surveys suggest that health practitioners' capacity and engagement in the provision of smoking cessation services increased as a result of the project. At three months, 69.8% of respondents reported that TEACH changed their knowledge and attitudes to a high or very high extent; at six months, 75.5% reported the same.[64] Furthermore, the proportion of respondents currently delivering individual intensive cessation interventions increased from 41.8% pre-training to 42.6% at 3 months and to 63.9% at 6 months post-training. Delivery of brief cessation interventions and use of cessation tools rose from 25.3% pre- training to 28.4% at 3 months, and then declined to 18.6% at 6 months (personal communication, July 2012). Barriers to engaging in smoking cessation identified by TEACH participants included: lack of practitioners' time, client motivation to quit, lack of organizational support, insufficient staff for delivering cessation support, and lack of funding.[64]

You Can Make It Happen

Reach

In the first 6 months of 2012, the You Can Make It Happen website received a total of 907 unique visits. Visitors looked at an average of 3 pages on the website per visit and spent 3.5 minutes per page view (You Can Make It Happen, personal communication, August 2012). No information is

available about the number of health professionals accessing other You Can Make It Happen resources or the effects of the initiative and its cessation resources on health professionals' practice behaviour.

Contributions: Interventions to Build Knowledge and Awareness

This section describes evaluative evidence of the effects of the various interventions that promote tobacco cessation and overall reduction of tobacco use. It should be noted that evaluative data is very limited or not available for some interventions and programs.

The Driven to Quit Challenge

Reach

In 2012, a total of 37,404 tobacco users registered for the Driven to Quit Challenge (DQTC).[65] This is the highest number of registrants ever reported and represents a 3.6% increase over 2011 and an overall 46.0% increase since 2006, when the Canadian Cancer Society began hosting the DTQC (see Table 3). The estimated reach of DTQC was also at its highest in 2012 (2.5%).

The increase in number of DTQC participants in 2012 may be attributed to the expansion of the primary audience of the contest (2010), which now includes both daily and occasional tobacco users. New promotional and outreach activities, such as those targeted to healthcare providers, may have contributed to the increase in the number of registrants also.[65]

Table 3: Total Number of DTQC Registrants and Reach, 2005/06 to 2011/12

Fiscal year	No. of Enrollees	Proportion of Ontario Smokers Reached, %[a]
2005/06	25,642	1.64
2006/07	26,950	1.68
2007/08	26,623	1.43
2008/09	22,365	1.33
2009/10	28,835	1.83
2010/11	36,091	2.40
2011/12	37,404	2.49

[a] Estimates of the total population of smokers from 2006 to 2012 were calculated based on CTUMS (TIMS data).

Similar to previous years, the average age of the 2012 DTQC registrants was 40 years. Females made up 53% of the registrants. Almost all (99%) participants reported being cigarette users,

and 67% of participants had their first cigarette within 30 minutes of waking,[65] a common marker of greater nicotine addiction.[66]

Effects

The 2012 annual survey of current and former tobacco users (n = 802) explored the effects of the contest effects on participants' knowledge of cessation supports and quitting behaviour.[67] Findings are not reported here due to study limitations, such as a small sample of DTQC participants (n=112) and inclusion of DTQC participants from past years of the contest. The latter substantially precludes an understanding of the effects of a particular year of the contest (i.e., the 2012 DTQC) on participants' knowledge of cessation supports and quitting behaviour.

Registration data from SHL and SHO indicate that DTQC plays a substantial role in promoting SHL and SHO services among tobacco users. In particular, DTQC participants comprised a quarter (25.1%) of SHL and almost half (46.5%) of SHO users in 2011/12. Further, the most common way that new clients learned about SHL was through the DTQC (31%).[68]

Contributions: Interventions to Increase Quit Attempts

This section describes progress in promoting quit attempts and helping smokers quit in 2011/12.

Tobacco Taxation

Increasing the price of cigarettes through increased taxation has been found to be one of the most significant population-level strategies for reducing smoking rates.[52] 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.[69] 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 4). (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+17+24.7) = $5.69.) Ontario continues to have the second lowest total tobacco tax of any Canadian province or territory.

Table 4: Federal/Provincial/Territorial Tobacco Tax Rates (per 200 Cigarettes, April 2012)

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	$4.31	$57.85	$90.55
British Columbia	$31.13	$17.00	$37.00	HST: 12% = $10.22	See HST	$64.22	$95.35
Manitoba	$32.30	$17.00	$50.00[d]	PST (before GST): 7% = $6.95	$5.31	$79.26	$111.56
New Brunswick	$19.42	$17.00	$34.00	HST: 13% = $9.15	See HST	$60.15	$79.57
Newfoundland	$27.90	$17.00	$38.00	HST: 13% = $10.78	See HST	$65.78	$93.68
NW Territories	$34.02	$17.00	$57.20	No PST	$5.17	$79.37	$113.39
Nova Scotia	$29.35	$17.00	$43.04	HST: 15% = $13.41	See HST	$73.45	$102.80
Nunavut	$25.54	$17.00	$50.00[e]	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**
PEI	$28.11	$17.00	$50.80	No PST	$4.80	$72.60	$100.71
Quebec	$30.49	$17.00	$21.80[f]	No PST	$3.46	$42.26	$72.75
Saskatchewan	$29.17	$17.00	$42.00	PST: 5% = $4.41	$4.41	$67.82	$96.99
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 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 17 April 2012. See http://www.gov.mb.ca/finance/budget12/papers/taxation.pdf.

[e] Nunavut tobacco tax increase effective 24 February 2012. See http://www.assembly.nu.ca/sites/default/files/Bill%2035%20-%20ATA%20the%20Tobacco%20Tax%20Act%20(EF%202).pdf.

[f] Quebec tobacco tax increase effective 1 January 2012. See http://www.budget.finances.gouv.qc.ca/Budget/2011-2012/en/documents/BudgetPlan.pdf.

Source: NSRA (http://www.nsra-adnf.ca/cms/file/files/pdf/120424_map_and_table.pdf)

Smokers' Helpline

Reach

The reach[xiii] of SHL has increased over the past three years. In the 2011/12 fiscal year, SHL reached 0.53% of the smoker population in Ontario (see Table 5). This is the largest proportion of smokers contacting SHL since 2005/06. The current reach is also 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

[xiii] 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 Ontario smokers aged 18 and over.

2010.[70,71] This rate also falls far short of the reach of leading quitlines in individual US jurisdictions such as New York state (4.6%)[72] and Maine (6%),[73] 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 5: Smokers' Helpline Reach, 2005/06 to 2011/12

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

[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 2010 (TIMS data).

As in past years, females made up the greater proportion of smokers reached by SHL in 2011/12 (54.9%).[68] This is consistent with the experience of other quitlines,[74] although the majority of Ontario smokers are males (55.3%; CAMH Monitor, 2009).

More than half of SHL callers in 2011/12 were individuals 45 or more years of age (58.8%), which explains the relatively high average age of SHL callers—46.9 years of age.[68] Young adults (19-29) comprised 14.9% of all new callers in 2011/12,[68] which closely reflects the proportion of young adults in the Ontario smoking population (17.7%; CAMH Monitor, 2011). In general, SHL serves callers older than the average age of the Ontario smoking population (43.6 years) (CAMH Monitor, 2011).

Effects

The 7-month client follow-up survey conducted in 2011/12 (response rate = 64.5%) revealed that 89% of survey respondents had taken some action toward quitting after their first contact with SHL.[68] 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%).[68] Quit rates (responder rates[xiv]) at the 7-month follow-up were as follows: 25% (7-day point prevalence), 23% (30-day point prevalence), and 14% (6-month prolonged abstinence) (see Table 6).

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 6). 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 6: Smokers' Helpline Quit Rates from 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
2011/12a	25.1	23.0	14.4
US Quitline Quit Rates (from Published Literature)[b]	6 - 27	16 - 23	-

[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, 2009.

Smokers' Helpline Online

Reach

In 2011/12, a total 8,640 smokers registered for SHO, which is a 25% increase from 2010/11 and a 1.6-fold increase since the launch of the program but remains below the 2009/10 peak of 9,539 registered smokers (Table 7).[68] SHO reached an estimated 0.57% of the smoking population in 2011/12. The Driven to Quit Challenge appears to have contributed to SHO promotion and

[xiv] 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.

recruitment as almost half of people (46.5%) registered for SHO as a direct result of registering for the contest.[68]

Table 7: Smokers' Helpline Online Registration, 2006/07 to 2011/12

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

[a] Estimates of the total population of smokers aged 18+ from 2005 to 2009 were calculated based on CTUMS (TIMS data).

Similar to previous years, there were more female than male SHO participants in 2011/12 (63% vs. 36%). The average age of SHO registrants was 40 years, with 47% of them being under the age of 40. The majority of participants (79%) reported being daily smokers at registration and smoked a mean 16 cigarettes per day (Smokers' Helpline staff, personal communication, August 2012).

Effects

No evaluative data are available about the effects of SHO on smokers' quitting behaviour.

Smokers' Helpline Text Messaging

Reach

The number of SHL TXT users has increased since the service was introduced in the 2009/10 fiscal year. In 2011/12, there were 701 new service users,[68] which is a 20% increase over the number of service users registered in the previous fiscal year (see Table 8). 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. In 2011/12, females comprised a majority of participants.

Table 8: Smokers' Helpline Text Service Registration, 2009/10 to 2011/12

Fiscal year	No. of Registrants
2009/10	218
2010/11	583
2011/12	701

There is no information about demographic characteristics of tobacco users who accessed SHL TXT in 2011/12. Nor is there any evaluative information on the effects of SHL TXT on participants' quitting behaviour.

Leave the Pack Behind

Reach

In 2011/12, LTPB operated at all 20 universities and 24 applied arts colleges in Ontario.[75] LTPB's tobacco control programming was estimated to be available to a total of 598,806 students, including approximately 154,509 smokers.[xv]

In 2011/12, an estimated 5,412 student smokers directly accessed LTBP services (assuming that they only use one of LTPB services) including a full-course treatment of free NRT (2,170 smokers), cessation counselling from campus health professionals (2,924), and *QuitRunChill* web-based cessation program (318; Table 9). In addition, student teams and health professionals disseminated 20,298 *Smoke/Quit* booklets and 3,397 *Quit Plan* palm cards, while 2,549 student smokers participated in *Wouldurather* annual quit contest.[75] No data are available on participants' demographic and smoking characteristics.

Table 9: LTPB Reach (Cessation Counselling, NRT, Web-based Program), 2007/08 to 2011/12

Fiscal Year	No. of Smokers Using LTPB services	Proportion of Ontario Student Smokers Reached, %[a]
2007/08	2,225	1.7
2008/09	2,330	1.7
2009/10	2,499	1.8
2010/11	2,036	1.4
2011/12	5,412	3.5

[a] Based on LTPB estimates of the total population of student smokers from 2007/08 to 2011/12.

[xv] LTPB estimated the value based on smoking prevalence of 22% for university students and 33% for college students.[75]

Effects

There are no current data on the effects of LTPB cessation initiatives. At the time of writing, no evaluative data were available about cessation outcomes among student smokers enrolled in the cessation counseling, free NRT treatment, and web-based cessation program.

STOP Program

Reach

A total of 11,458 smokers were reached by various STOP models in 2011/12.[76] A majority of participants were enrolled through the STOP with FHTs program (n=6,392 or 55.8%), STOP on the ROAD (n=2,764 or 24.1%) and the web-based mailout models (n=2,223 or 19.4%). 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	Male, %	Female, %	Age, Mean	Proportion of Participants Smoking 20+ Cigarettes per Day, %
Zyban	48	52	47	59
STOP on The Road IV	44	56	49	64
STOP on The Road V	45	55	49	61
Web-based mailout	43	57	42	70

Source: STOP program

Effects

At 6 months post-treatment, the self-reported 7-day point prevalence quit rates (intention-to-treat[xvi]) were as follows: 17% - Zyban model; 13% - STOP on the ROAD; and 7% - web-based mailout model (Stop Study staff, personal communication, September 2012). Cessation outcomes for the STOP with FHTs and CHCs programs were not available at the time of writing this report.

[xvi] 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.

Ottawa Model for Smoking Cessation

Reach

The Ottawa Model for Smoking Cessation (the Ottawa Model) continued to expand to healthcare organizations across Ontario in the 2011/12 fiscal year. By March 2012, the Ottawa Model network included 58 hospitals sites (representing 45 hospital organizations) and 39 primary-care clinics.[77]

In 2011/12, the Ottawa Model provided services to 9,455 smokers in participating hospitals (see Table 11).[77] This is an increase of 12% in service provision over 2010/11 and a 2.5-fold increase over 2006/07. At time of writing, reach-related data for 2011/12 were available for 15 Eastern Ontario Hospitals (Champlain region), which indicated that 43% of expected admitted smokers[xvii] to these hospitals were enrolled in the Ottawa Model program (The Ottawa Model for Smoking Cessation staff, personal communication, 2012).

Table 11: Number of Smokers Reached by the Ottawa Model for Smoking Cessation (Hospitals), Ontario, 2006/07 to 2011/12

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	8,475
2011/12	9,455

Source: Ottawa Model for Smoking Cessation

Data available on a subsample of patients who participated in the Ottawa Model program (n=7748) in the referenced period show that smokers were 53.8 ± 15.8 years of age, more likely male (54.5%), had long smoking histories (33.0 ± 16.0 years smoked), and smoked a mean 18.8 ±11.9 cigarettes per day.[77] Where patient admitting diagnosis information was available (42% of smokers reached by Ottawa Model sites), the majority of patients (65%) were admitted with a smoking-related diagnosis.

[xvii] Number of expected admitted smokers is calculated by multiplying smoking prevalence for each implementing hospital by number of annual hospital admissions.

In 2011/12, the 39 primary care clinics with the Ottawa Model in place advised 6,189 patients to quit, conducted 2,476 Quit Plan Visits and referred 1,733 ready to quit patients for automated follow-up. These patients had similar smoking histories (28 years) and average daily cigarette consumption (20 cigarettes) compared to the inpatient and outpatient programs (The Ottawa Model for Smoking Cessation staff, personal communication, August 2012).

Effects

The most recent evaluative data available from hospitalized smokers who agreed to the Ottawa model automated follow-up (n=1,828) indicate that at six months post-discharge, the self-reported 7-day point prevalence quit rate (intention-to-treat[xviii]) was 25.4%. Of those who were not abstinent at 6-month follow-up, 63.6% reported being ready to quit in the next 30 days. No information on cessation outcomes of patients treated through primary care clinics was available (The Ottawa Model for Smoking Cessation staff, personal communication, August 2012).

Ontario Drug Benefit (ODB) and Pharmacy Smoking Cessation Programs

Reach

Between August 2011 and March 2012, a total of 23,593 ODB patients received cessation medication such as Zyban or Champix or a combination of both. In the same period, community pharmacists enrolled 2,516 ODB patients in their cessation-counselling program.[78] As of March 2012, all 2,516 patients had participated in the consultation meeting and half (51.1%) had attended the first (of seven) follow-up counselling session.

The majority of recipients of the cessation medication and counselling were people with disabilities (43.1%), seniors (27.0%), and low income (22.0%). There were almost equal proportions of female (50.5%) and male (48.9%) recipients of cessation medication (status unknown for 0.6% of recipients). Female and male ODB beneficiaries were also equally likely to receive counselling service (49.1-female, 50.1%-male, and 0.8%-unknown). The recipients of cessation medication represented a wide range of age groups, including most commonly those aged 30-49 (32.2%), 50-64 (31.0%) and 65-74 (24.1%) years of age. The age distribution of the recipients of counselling service was similar: 30-49 (32.7%), 50-64 (30.1%) and 65-74 (21.5%).[78]

[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.

Effects

No information is available on ODB recipients' cessation outcomes.

Smoking Cessation by Family Physicians

Reach

Billing data on cessation counselling was available for the period from 2006 to 2010. During this period, a total of 611,690 patients in Ontario received initial cessation counselling from a physician (Table 12). 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.

Table 12: Reach of Initial Cessation Discussion Compared to Number of Patients Who Visited a Physician, Ages 15+, by Year

Year	Recipients of Initial Cessation Counselling[a]	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 of the total population of smokers aged 15+ who visited a physician were calculated based on CTUMS 2006 to 2010 data

Between 2006 and 2010, a total of 114,160 patients received one or more follow-up counselling sessions (Table 13). Although the number of individuals receiving follow-up counselling sessions has increased over time, it represents only a small proportion of the initial counselling recipients (9% to 22%) and a small fraction of smokers who reported visiting a physician in the reference period (1 to 4%).

Table 13: 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 of the total population of smokers aged 15+ who visited a physician were calculated based on CTUMS 2006 to 2010 data

Effects

No information is available on patients' cessation outcomes.

Quit and Get Fit

Reach

In 2012, a total of 193 smokers enrolled in the Quit and Get Fit program at 27 fitness facilities across Ontario. The majority of participants were female (68.9%) and 40.2 years of age in average. Young adults 19-29 years of age constituted about 22% of the participants.[79]

Effects

The self-reported 7-day point prevalence quit rate (intention-to-treat) was 39.4% at the end of the program and 22.3% at 3 months follow-up. Participants who did not quit successfully did reduce consumption from 15.4 to 8.8 cigarettes a day and delay smoking their first cigarette of the day. Both smokers and quitters reported higher levels of vigorous physical activity at the end of the program (mean: 139.5 min/week) and 3 months follow-up (172.5 min/week) compared to baseline (67.2 min/week).

Aboriginal Tobacco Cessation Program

Reach

A total of 52 smokers enrolled in the pilot project from April 1, 2011 to March 31, 2012. Participants were primarily female (65.3%), and one-third (34.6%) were under the age of 40. None of the participants were smokeless tobacco users (Aboriginal Tobacco Cessation Program staff, personal communication, August 2012).

No information is available about the effects of the intervention on participants' quitting behaviour.

Overall Program Reach

In the 2011/12 fiscal year, smoking cessation programs in Ontario directly engaged about 74,000 smokers,[xix] or 5% of Ontarian smokers[xx] (assuming all clients are smokers, and that they only use one of the services; Table 14). This does not include cessation-counselling services billed by family physicians, as data were not available for 2011/12 at time of writing. Nevertheless, the overall program reach is substantially higher than that reported in 2009/10 (i.e., an estimated 28,500 smokers or 2% of the Ontario smoking population), which is partially due to an increase in the number of cessation programs and services in the past two years. Similar to 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 14: Program Reach, Characteristics of Smokers Enrolled in Ontario Smoking Cessation Programs in 2011/12

Program	Reach in 2011/12	Gender (Female), %	Age (Mean)
Smokers' Helpline	7,964	54.9	46.9
Smokers' Helpline Online	8,640	63	40
Smokers' Helpline Text Messaging	701	n/a	n/a
Leave the Pack Behind	5,412	n/a	n/a
The Ottawa Model for Smoking Cessation (hospital sites)	9,455	45.5	53.8
The Ottawa Model for Smoking Cessation (primary care sites)	6,189	n/a	n/a
The STOP Program	11,458	52-57[a]	42-47[a]
Pharmacy Smoking Cessation Program (recipients of medication only)	23,593	50.5	n/a
Quit and Get Fit	193	68.9	40. 2
Total:	73,605		

[a] Statistics represent various STOP program models

[xix] The Driven to Quit Challenge Contest is excluded from the calculation of the overall program reach in 2011/12 because of its focus on the promotion rather than direct provision of cessation services.
[xx] Estimate of the total population of smokers in 2010 was calculated based on CTUMS (TIMS data).

Summary

While 6.4% 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 1.3%. 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,[12] we have already achieved most of the short-term benefits of this policy tool in regard to quitting behavior.

Ongoing, comprehensive public education campaigns have been found to be a vital ingredient for facilitating intentions to quit and quit attempts.[80] The Ministry has funded specific campaigns through the Heart and Stroke Foundation of Ontario, Canadian Cancer Society, Ontario Lung Association and Tobacco Control Area Networks. Specific data on the scope and effects of these campaigns were not available for this report; nevertheless it is evident that recent years have not seen intensive, sustained, and well-funded province-wide public education campaigns directed toward cessation goals, apart from the annual Driven to Quit Challenge.

The province's cessation efforts have focused largely on providing cessation support to smokers in making quit attempts. To this end, the Strategy funds Smokers' Helpline, the Driven to Quit Challenge, the STOP study, LTPB and the Ottawa model. These interventions appear to reach approximately 5% of smokers annually, and only a small proportion of participants succeed in quitting. 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. Nevertheless, reach is low in Ontario, and there is currently little support offered to prevent relapse in the post-intervention period.

The Strategy also funds considerable efforts to train health professionals in providing cessation support through TEACH, RNAO, and PTCC. Evaluative evidence about the impact of these efforts in Ontario on the provision of support to smokers is currently unknown. As presented previously, it appears that only a small proportion of the 59% of smokers who were advised by physicians and the 46% who were advised by dentists to stop smoking took any action to obtain formal support.

Chapter 4: Youth Prevention

Prevention: Smoke-Free Ontario Strategy

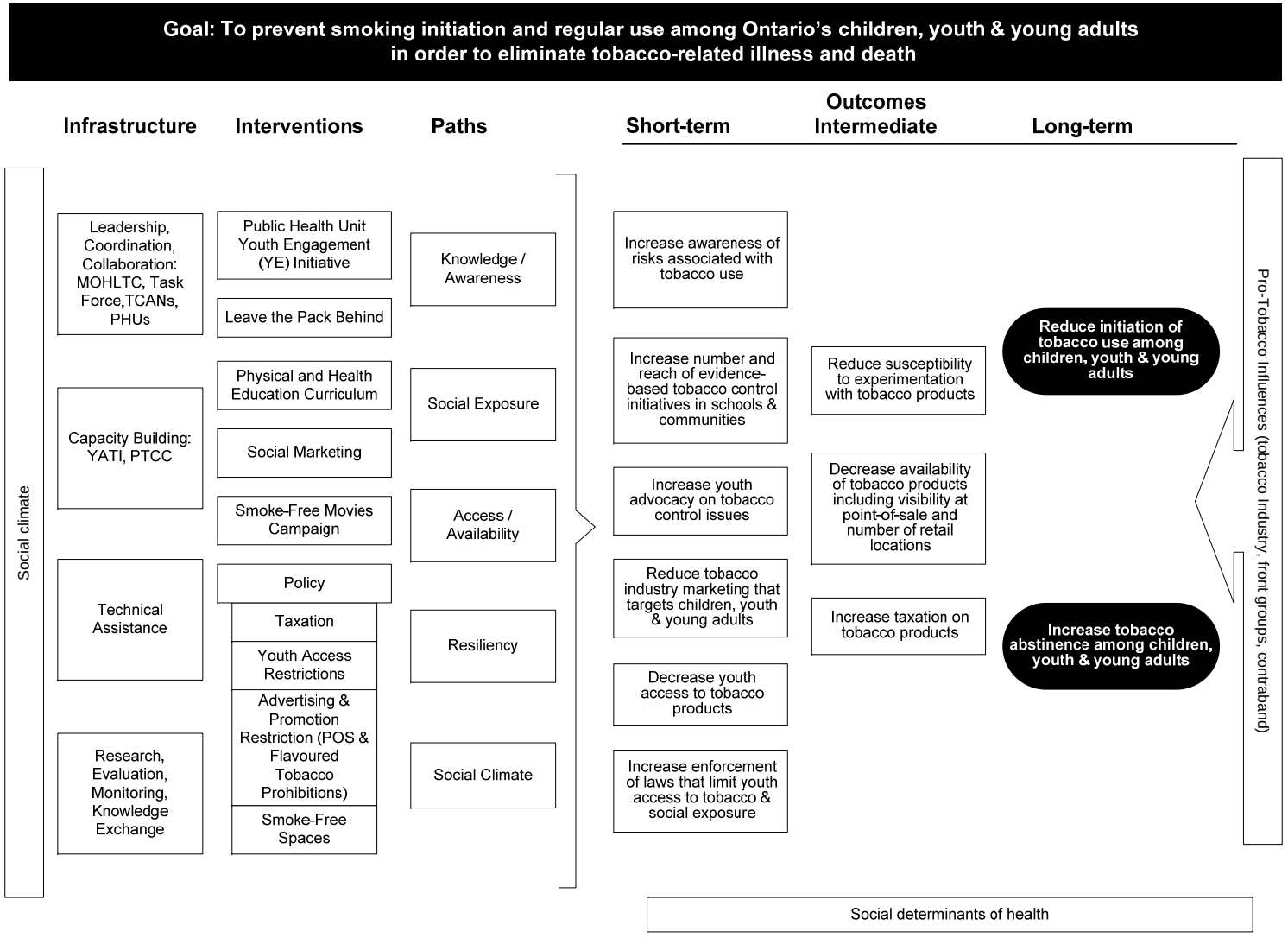
A comprehensive approach is required to prevent and reduce prevalence of tobacco use among youth due to the complexity of factors that determine smoking initiation among this population.[81] This approach includes infrastructure development programs that build capacity for the implementation of various 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. The final section reports intervention-specific outcomes.

Figure 26: Prevention Path Logic Model



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.

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).

Youth Advocacy Training Institute

The YATI was established in 2005 to support youth engagement initiatives by providing youth and adults with knowledge and skills to engage in advocacy and health promotion activities related to the Strategy. YATI seeks to increase youth and adult skills so as to create effective advocacy and health promotion campaigns for tobacco-free sports and recreation, smoke-free movies, denormalization of the tobacco industry, community health improvement, and to influence public policy on tobacco control. YATI accomplishes these objectives through the provision of training, conferences, keynote speaking, resources, technical assistance, and partnership in implementing youth engagement initiatives.[82]

Tobacco Control Area Networks

The TCANs work with PHUs in their regions to coordinate tobacco control activities at regional and local levels. As part of this work, they collaborate with PHUs, non-governmental organizations and other partners to develop regional action plans that focus on joint activity in the areas of cessation, prevention, enforcement, training, media, and public relations.[83] Regional action planning around prevention has involved the development of a number of

initiatives. For example, the Play, Live, Be Tobacco-Free initiative focused on promoting tobacco-free sports and recreation across the province. This initiative was funded through the MoHLTC-HPD's Healthy Communities Fund project in 2009/11. A website developed through this project and associated resources are 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. The key deliverables include: development of partnerships and provision of support for local, regional and provincial tobacco-free sports and recreation policy; capacity building through success stories and information exchange; establishment of a tobacco-free sports and recreation community of practice; development and sharing of a tobacco-free policy model; and implementation of capacity building initiatives.[84] Other examples of regional programs include Smoke-Free Ontario Youth Action Week and the Flavour…GONE! campaign.

Public Health Units

PHUs are important stakeholders in the implementation of tobacco use prevention programming in the province. As the focus of this chapter is on prevention interventions at the provincial level, descriptions and evaluative evidence from PHU specific programs is not presented. However, given the key role of PHUs in the implementation of many prevention programs (e.g., the Public Health Unit Youth Engagement Initiative), some evidence pertaining to programming at the PHU-level is provided.

Ontario Tobacco Research Unit

OTRU provides research, monitoring evaluation and teaching, and training resources to the prevention component of the Strategy. Prevention projects 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. 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

The PTCC provides training and technical assistance to health professionals working in tobacco control in Ontario. The 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.[85] PTCC also supports province-wide Communities of Practice in a variety of tobacco control areas (e.g., Tobacco-Free Sport and Recreation). Some PTCC training relates to tobacco use prevention in that the Centre 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 is a national, non-profit health organization that conducts research on public policy and education to reduce tobacco-related disease and death.[86] In 2011, SHAF received funding to conduct research on Smoke-Free Movies and school-based tobacco use prevention initiatives in order to inform the development of prevention programming.

Prevention Interventions

The Smoke-Free Ontario Strategy includes several 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.

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.[44,87]

Recent tobacco control policy changes that focus on limiting physical exposure, availability of tobacco, and social exposure among youth in the province of Ontario are discussed next.

Protection from Exposure to Secondhand Smoke

In May 2006, the *Smoke-Free Ontario Act* prohibited smoking in various enclosed public spaces and workplaces such as bars, restaurants, casinos, and common areas of multi-unit dwellings.[44] In January 2009, Ontario also prohibited smoking in vehicles with children under the age of 16, the most recent provincial legislation that aims to protect

youth from physical and social exposure to SHS. Municipalities continue to extend protection beyond that covered by the *Smoke-Free Ontario Act*. Bylaws that ban smoking on patios are increasingly being adopted by municipalities throughout Ontario[88] and restrictions within the park, sports and recreation industry have also gained momentum.[44,89] Furthermore, some municipalities have banned smoking in public housing.[29] The restriction of smoking outside entrances to buildings, in both the public and private sectors, is also becoming more common.[88]

Advertising and Promotion of Cigarillos, Blunt Wraps and Flavoured Tobacco

In 2009, the *Cracking Down on Tobacco Marketing Aimed at Youth Act* (Bill C-32)[90] amended the *Tobacco Act* to ban the addition of flavours or additives to cigarettes and little cigars (but not to cigars weighing more than 1.4 grams) and any images of fruit or flavours on packaging (except for menthol). The Bill also repealed the provision that allowed the promotion of tobacco products in publications with an adult readership of 85% or more.

Point-of-Sale Display Ban

In addition to the immediate and long-term health effects associated with physical exposure to secondhand smoke,[91] there are other consequences associated with social exposure to tobacco products. Such 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.[92,93] 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.[94] Those exempted from this ban include tobacconists, duty free retailers, and manufacturers.

Activities to Promote Smoke-Free Movies

A number of research studies have shown that exposure to smoking in movies is associated with the uptake of smoking among youth[95]and the risk of future tobacco use.[96] A recent study conducted in the US found that the number of onscreen tobacco impressions in youth-rated (PG and 14A) movies continued to decline, decreasing 71.6% from 2,093 incidents in 2005 to 595 in 2010.[97] In 2011, 66% of top-grossing films in Ontario were issued lower youth ratings by the Ontario Film Review Board compared to the US Motion Picture Association of America ratings.[98] As a result, a larger proportion of

tobacco impressions were delivered in youth-rated movies shown in Ontario than in the US in 2011 (80% vs. 67%, respectively).[98]

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 and related advocacy activities to reduce exposure of youth to 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. The website receives financial and in-kind contributions from these partners.[xxi] The Coalition seeks to mitigate the harmful impact of smoking in movies and supports the five WHO recommended[99] actions to reduce exposure to on-screen smoking:

1. Rate new movies with an adult rating.
2. Require strong anti-smoking ads prior to movies depicting tobacco use in all distribution channels.
3. Certify no payoffs for displaying tobacco.
4. Stop identifying tobacco brands.
5. Require films with tobacco imagery assigned a youth rating to be ineligible for government film subsidies.

An Ipsos Reid poll conducted in March 2011 on behalf of the Ontario Coalition for Smoke-Free Movies found that 73% of adults aged 18 years and older supported banning smoking in movies rated G, PG or 14A.[100] Also, 70% of those polled supported banning tobacco logos in movies, 68% supported anti-smoking ads prior to movies that depict smoking, and 53% supported mandatory adult ratings (18A) for movies that depict smoking.

In addition to providing sections on research, multimedia and social media, the website provides an opportunity for visitors to learn about advocacy activities to support the campaign for smoke-free movies. The Coalition also maintains a Facebook page and twitter account to bring awareness to the issue.

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

Interventions to Limit Availability and Access

Various tobacco control policies have also 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.[87]

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.[87]

Bans on the Sale of Single and Flavoured Cigarillos

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 less than 1.4 grams. 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. Since the implementation of this *Act*, 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. Bill C-32 (*Cracking Down on Tobacco Marketing Aimed at Youth Act*[90]), banned the manufacture, importation and sale of flavoured cigarettes, cigarillos and blunt wraps[xxii] (except menthol). The *Act* also aligned the packaging requirements of cigarillos and blunt wraps with that of cigarettes. Rather than being sold as single units for as low as $1 a cigarillo, cigarillos and blunt wraps must be sold as part of a package that contains a minimum quantity of 20. Effective April 6, 2010, the manufacturing and importation of these products were banned. Effective July 5, 2010, the sale of these products was banned. At the provincial level, an amendment to the *Smoke-Free Ontario Act* (effective July 1, 2010) also prohibits the sale of cigarillos with flavours (except menthol) and requires unflavoured or menthol cigarillos to be sold in packs of 20 or more.[87]

Flavour…GONE!

The Flavour…GONE! campaign[xxiii] is a youth-led campaign that aims to raise awareness about tobacco industry products targeting youth and raise support for lobbying the government to ban the sale of flavoured tobacco products. The campaign began in 2008,

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

before the passage of Bill C-32. Since then, youth have refocused their campaign on the inclusion of chew tobacco in the legislated flavoured tobacco sales ban.[101] In the last year they conducted many surprise public Morph Suit events where youth were dressed in head-to-toe, brightly coloured spandex suits to try to raise public awareness about flavoured tobacco products. They have also acquired over 4,000 signatures on their Parliament approved petition (Flavour…GONE! campaign staff, personal communication, August 2012).

Tobacco Taxation

Youth, particularly older adolescents, are very sensitive to the cost of tobacco products.[102,103,104] Specifically, higher cigarette prices have been shown to prevent youth initiation,[102] prevent adolescents from becoming daily, addicted smokers and can impact the smoking behaviour of those youth who are further along the smoking uptake continuum.[105] Thus, increases in the price of tobacco through taxation are central to any preventive approach.[81] As discussed in the Cessation chapter, Ontario had the second lowest total tobacco taxes in Canada ($50.95), with an average retail price of $80.41 per carton (see Table 4).

Interventions to Build Knowledge and Resiliency

Youth engagement programs—whereby youth are directly involved in program planning and implementation, educational programs like Leave the Pack Behind, and the provincial Physical and Health Education Curriculum are interventions that aim to increase knowledge and resiliency to prevent tobacco use among youth. There are a number of such interventions in Ontario.

Youth Engagement Programming

There is growing recognition that a youth engagement approach is an important strategy with which to promote positive health behaviour change.[106,107,108,109] Such an approach 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 it is a promising approach to raise awareness of the harmful effects of tobacco use, empower youth, and build skills to resist tobacco use initiation.[106,110]

Public Health Unit Youth Engagement (YE) Initiative

The YE Initiative involves the adoption of youth engagement principles across PHU programs, the recruitment of a group of core youth leaders who will then engage in health promotion on tobacco control and other health topics in the community, the provision of

training on the principles of youth engagement, the funding of youth-led health promotion activities, and opportunities for peer networking and learning.[111] Funding for the implementation of the YE Initiative provides for one Youth Engagement Coordinator (YEC) for each of the province's 36 PHUs to support the development and implementation of the YE Initiative. The YEC works collaboratively across various risk factor-related programs within the PHU, externally through community partnerships with youth organizations, and with Youth Development Specialists and other regional stakeholders at the TCANs to establish regional plans and priorities for tobacco use prevention programming.[110] OTRU worked closely with MOHLTC, TCANs, PHUs and youth representatives to conduct a formative evaluation of the PHU YE Initiative. The evaluation provides knowledge about facilitators, challenges and mechanisms to inform refinement of the YE Initiative.[112] It also examined the early perceived impact of the Initiative on individuals and communities and further builds the evidence base with respect to implementing prevention interventions.

Smoke-Free Ontario Action Week

Started in 2006, Action Week is an annual event organized through TCAN regional planning and by the Smoke-Free Ontario Youth Task Group[xxiv] to encourage youth to take action against the tobacco industry and promote the prevention of youth smoking. An Action Week promotes guide with suggested advocacy activities supports youth action. Action Week themes vary from year to year. The theme for 2011 was "iTHINK", a media literacy campaign to promote critical thinking about tobacco and other industry branding. During Action Week, the public was encouraged to interact with the iTHINK campaign Facebook page, and participate in activities in their community that raise awareness of tobacco industry advertising and branding to youth.

Educational Programs

Ontario's Health and Physical Education Curriculum

In September 2010, Ontario public schools began implementing the Ministry of Education's revised interim health and physical education curriculum for Grades 1 to 8. This is the first revision since 1998. The revised curriculum seeks to provide:

[xxiv] The Smoke-Free Ontario Youth Task Group is a group of stakeholders involved in youth tobacco prevention programming in the province of Ontario. The task group meets on an ad-hoc basis to discuss current programming across TCANS, organize knowledge translation, and plan future tobacco control activities.

> *… knowledge and skills that will benefit students throughout their lives and help them to thrive in an ever-changing world by enabling physical and health literacy as well as developing the comprehension, capacity, and commitment needed to lead healthy, active lives and to promote healthy, active living.*[113]

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 also 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.[114] Each resource includes ready-to-use lesson plans and other supports such as student templates, assessment tools, and daily physical activity ideas. As of August 2012, 67 of 72 school boards have signed on to receive these lesson plans (OPHEA, personal communication, August 2012).

Leave the Pack Behind

Leave the Pack Behind is a program focused on promoting tobacco use prevention and cessation resources among post-secondary students. It seeks to build social norms that support tobacco use cessation, healthy eating and active living, and advocates for enhanced tobacco control policies on post-secondary school campuses. The program addresses these goals through the provision of peer-to-peer tobacco education, peer-to-peer cessation support, sustained social norms marketing, interactions with health professionals, and an interactive, multi-component website.

Tobacco Use Prevention in Schools

Under the renewed Strategy, the Government is committed to working with educators and young people to keep schools smoke-free.

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 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.

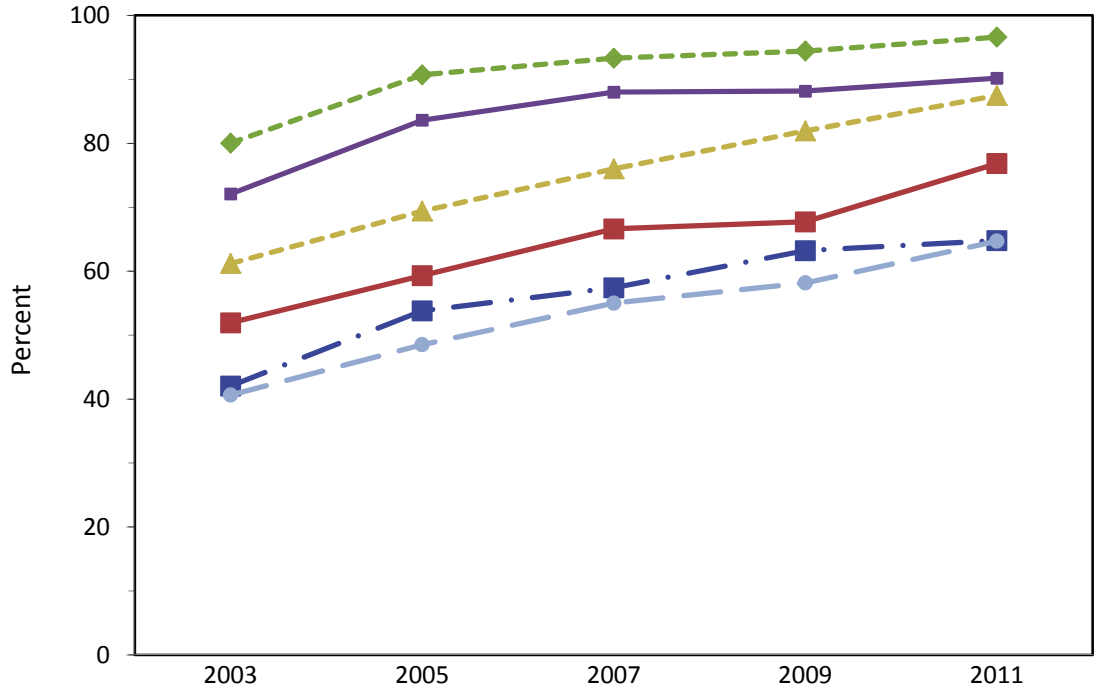
Lifetime Abstinence: Students in Grades 7 to 12

- Among students, lifetime abstinence from cigarettes ranged from 97% of students in Grade 7 to 65% of students in Grades 11 and 12 (see Figure 27), continuing an upward trend in abstinence over the period reported.
- Across all grades combined, there was a significant increase in lifetime abstinence among students in 2011 compared to 2009 (78% vs. 74%; OSDUHS, data not shown).
- Since 2005 there have been notable increases in lifetime abstinence in grades 9, 10, 11, and 12, reaching levels of 87%, 77%, 65%, and 65% respectively.

Past-Year Initiation: Students in Grades 7 to 12

- In 2011, first use of cigarettes at any time in the previous 12 months ranged from 4% of Grade 7/8 students (combined) to 9% of Grade 12 students (Figure 28).
- From 2003 to 2011, past-year initiation among all students in Grades 7 to 12 combined significantly decreased from 9% to 6%. When viewed by individual Grade, only students in Grade 9 showed a significant decrease in prevalence over this period (12% to 6%).
- From 2009 to 2011, the prevalence of initiating smoking in the previous year remained static (a) for all students combined (6%) and (b) across each grade (Figure 28).

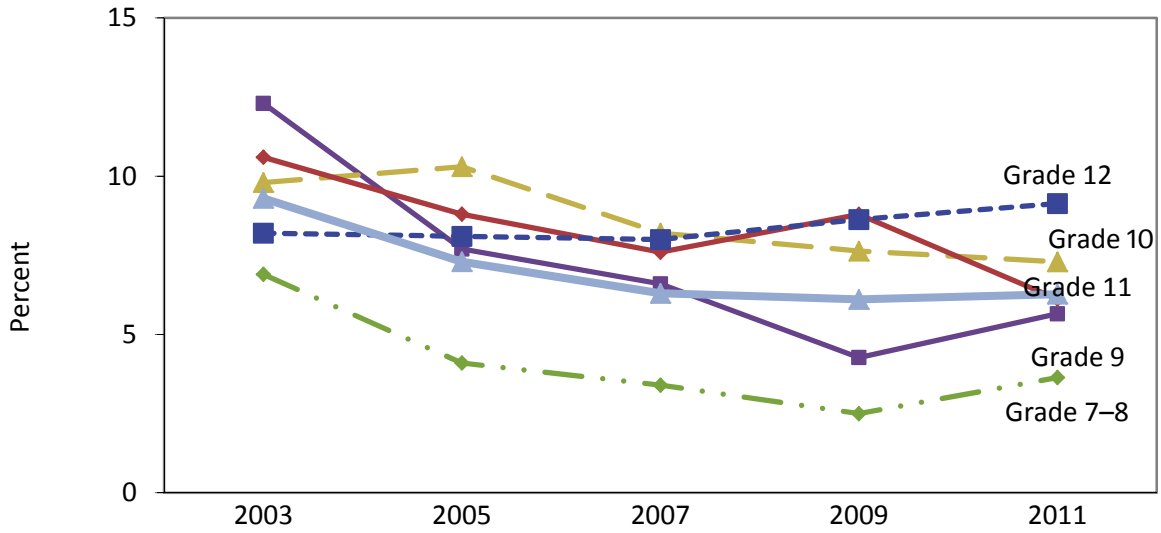
Figure 27: Lifetime Abstinence, by Grades 7–12, Ontario, 2003 to 2011



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

Source: OSDUHS 2003–2011 (Biennial).

Figure 28: First Use of Cigarettes in the Past Year, by Grades 7–12, Ontario, 2003 to 2011



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

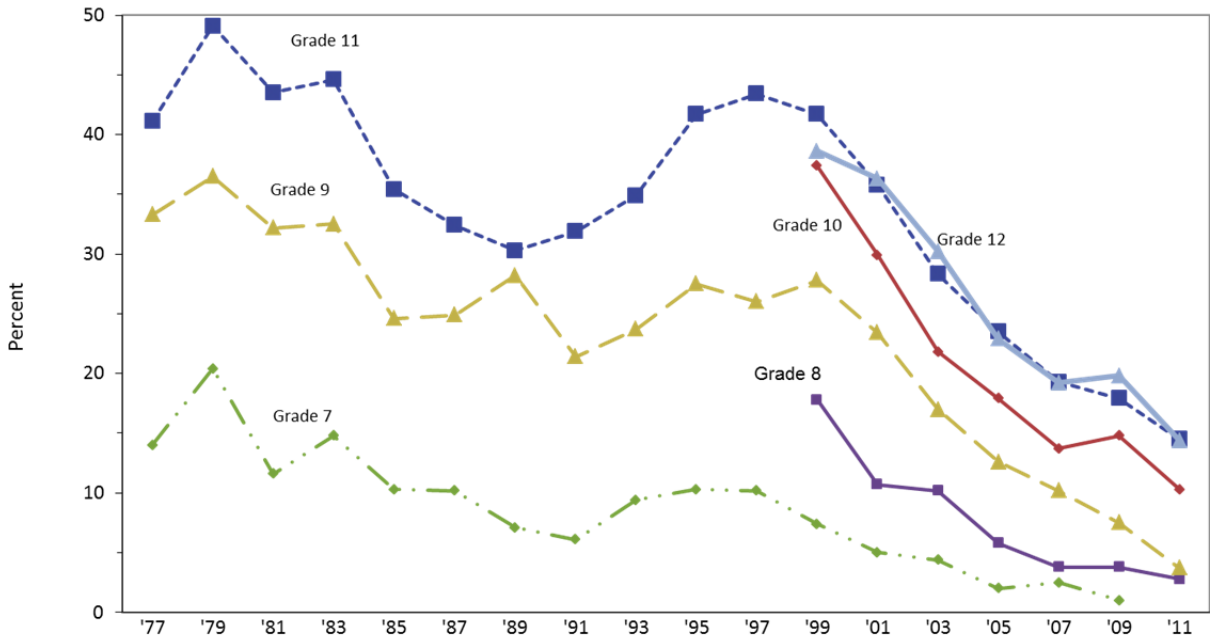
Source: OSDUHS 2003–2011 (Biennial).

Past-Year Smoking: Students in Grades 7 to 12

- Since 1999, there has been a significant decline in past-year smoking across each grade (Figure 29).
- Students in Grade 9 have a significantly lower rate of past-year smoking in 2011 compared to 2009 (4% vs. 7.5%).
- Since 2005, there have been significant decreases in past-year smoking among students in Grade 10 (18% vs. 10%), Grade 11 (23.5% vs. 14.5%), and Grade 12 (23% vs. 14).
- Among all students in Grades 7 to 12, the overall 2011 prevalence of smoking more than one cigarette in the past year (one-year current smoking) was 9% (or 88,100 students), a significant decrease over that of 2009 (12% or 119,600; OSDUHS, data not shown).
- In 2011, the prevalence of past-year smoking was 10% or higher in Grades 10, 11, and 12 (10%, 15%, and 14%, respectively; Figure 29). Encouragingly, past-year smoking has remained low in early Grades (4% in Grade 9, 3% in Grade 8, with Grade 7 not reportable).

These data suggest an important transition to past-year smoking among Grade 10 students. (Note: respondents were surveyed in Grade 10, but the reported smoking behaviour covered the previous year.)

Figure 29: Past-Year Smoking, by Grades 7–12, Ontario, 1977 to 2011



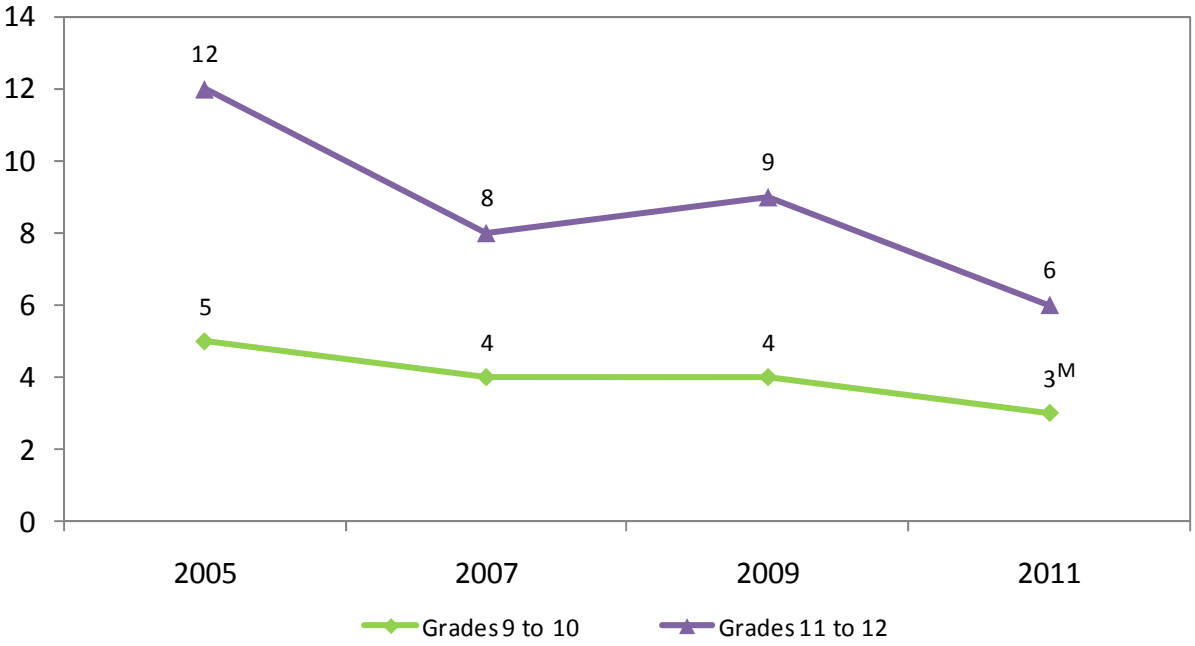
	'77	'79	'81	'83	'85	'87	'89	'91	'93	'95	'97	'99	'01	'03	'05	'07	'09	'11
Grade 7	14	20	12	15	10	10	7	6	9	10	10	7	5	4	2	2.5	1	
Grade 8												18	11	10	6	4	4	3
Grade 9	33	36.5	32	32.5	25	25	28	21	24	27.5	26	28	23	17	13	10	7.5	4
Grade 10												37	30	22	18	14	15	10
Grade 11	41	49	43.5	45	35	32	30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

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 1977–2011 (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 2011, the prevalence of past 30-day smoking was cut in half among students in Grades 11 to 12 (12% to 6%; Figure 30).

Figure 30: Current Smoking (Past 30 Days), by Grade, Ontario, 2005 to 2011

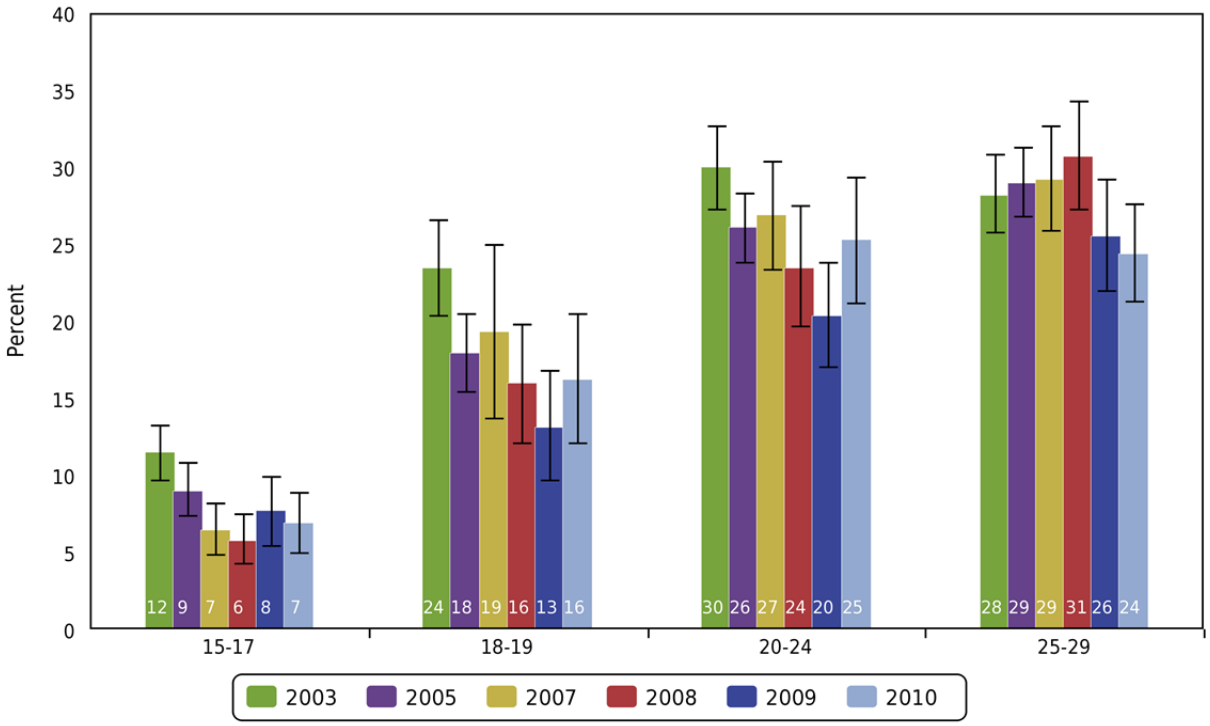


M= Interpret with caution, moderate levels of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%.
Source: OSDUHS 2005–2011 (Biennial).

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

- According to the Canadian Community Health Survey, there have been no significant change over the last few years 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. (Figure 31).
- Over the period 2003 to 2010, the rate of smoking declined from 11.5% to 7% among youth aged 15 to 17 and 23.5% to 16% among 18 to 19 year olds.
- In 2010, young adults aged 20 to 24 and 25 to 29 had similar high rates of smoking (25% vs. 24%, difference not significant). Over the period 2003 to 2010, the general trend in the prevalence of smoking among these groups has been static.

Figure 31: Current Smokers (Past 30 Days), Young Adults, Ontario, 2003 to 2010



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Community Health Survey (Master File) 2003–2010.

Short and Intermediate-Term Outcomes

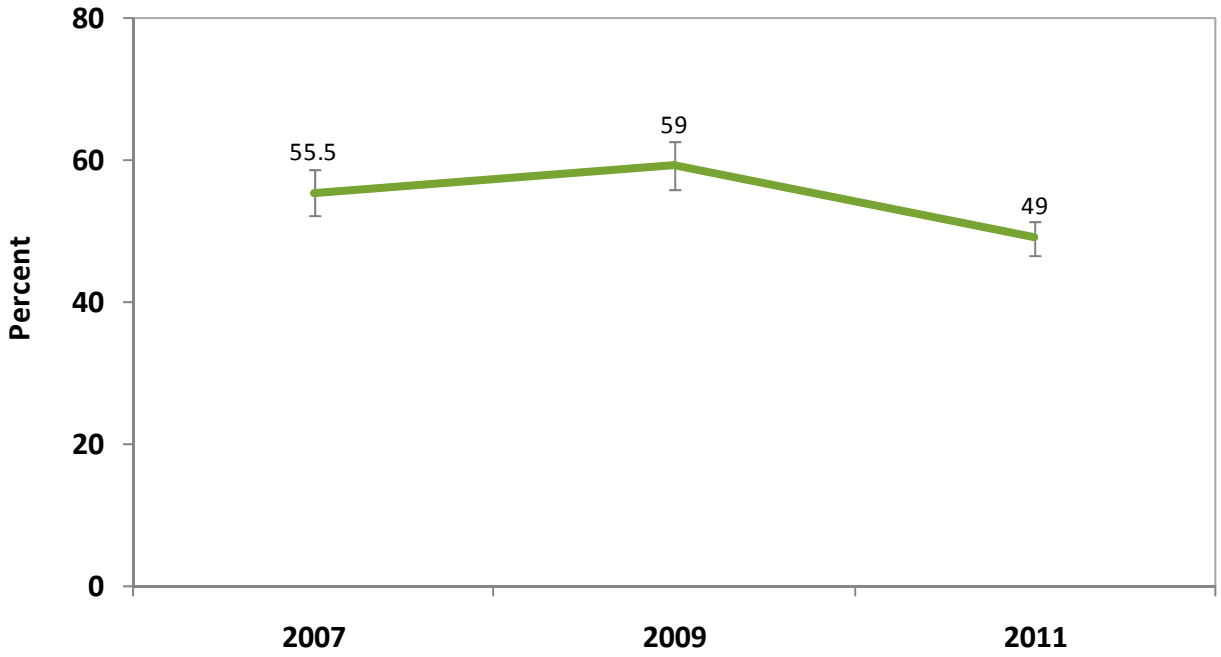
Ease of Obtaining Cigarettes

- In 2011, half of all students (51%) in grades 7 to 12 under the age of 19 believed it was easy to obtain cigarettes, a decline from 56% in 2005 (Ontario Student Drug Use and Health Survey, data not shown).
- In 2011, 87% of past-year smokers believed it was easy to obtain cigarettes.

Awareness of School and Community Prevention Initiatives

- In 2011, half of all students (49%) had seen, heard, or read news stories in the media about youth trying to raise awareness about cigarette smoking, which is a significant decline from the level of awareness reported in 2009 (59%) (Figure 32).
- Previously reported data on students participating in anti-smoking activities and in-class discussions about the effects of smoking were not asked in the available youth-oriented surveys.

Figure 32: Student Awareness of News Stories in the Media About Youth Trying to Raise Awareness About Cigarette Smoking, Students (Grades 7 to 12), Ontario, 2007 to 2011



Note: Vertical lines represent 95% confidence intervals.
Source: OSDUHS 2007–2011 (Biennial).

Contributions: Infrastructure/Capacity Building Programs

In this section, we discuss contributions over the last year of infrastructure development and capacity building programs for which evaluative data are available, namely the Youth Advocacy Training Institute and the Play, Live, Be Tobacco-Free campaign in TCANs.

Youth Advocacy Training Institute

In 2011/12, YATI conducted 79 trainings across the province (up from 65 in 2010/11), including 66 youth trainings, 13 adult trainings, 11 special event trainings and 110 partnership event trainings. YATI continued to increase participation in youth trainings in 2011/12, having trained 2,829 youth (up from 1,212 youth in 2010/11 and 681 in 2009/10); participation in adult trainings also increased from 362 adults in 2011/12 to 538 adults in 2011/12. 1,017 youth completed pre- and post-training knowledge surveys and 535 youth participants completed surveys examining self-efficacy pre- and post-training. Both of these surveys showed statistically significant increases in knowledge and self-efficacy among youth participants. Fifty-seven youth responded to an

online follow-up survey on how they were using the skills they learned at YATI trainings.[82] Results from this survey are not reported because of the low response.

Play, Live, Be Tobacco-Free Initiative

In 2011/12, 28 local level sporting organizations or teams and one regional sporting league implemented a tobacco-free sports policy for all tobacco products. One team also implemented a smoke-free policy for spectators (no smoking within 10 meters of any player, team bench, or sideline). The types of teams that implemented tobacco-free sport policies in the past year include: swimming, synchronized swimming, basketball, baseball, soccer, ringette, hockey, football, rugby, rowing, and lacrosse.[115]

Tobacco-Free Sport and Recreation (TFSR) Evaluation

In 2011/12, tobacco-free sport and recreation policies were evaluated to explore the implementation and impact of TFSR policies in organized hockey in four public health units (PHUs), and to examine barriers and facilitators in TFSR policy implementation.[116] The evaluation comprised four case studies (Peewee/Bantam teams, women's league, junior league, and a university team) to reflect a range of age, sex and geography in the Ontario hockey community. The evaluation found that the impetus for adopting a TFSR policy among those sites encompassed providing a positive role model, health and lifestyle, prevention generally, and protection from secondhand smoke. Key success factors that were identified included: strong tobacco control advocates within the hockey settings, committed PHU support, TFSR signage and advertising to sustain the TFSR policy and messaging, and sharing the policy with family members which in turn emphasized the importance of parents as role models for youth. Key barriers to implementing a TFSR policy included: maintaining the momentum from year to year with player and coach turnover, volunteer capacity and fatigue, reliance on individual teams and individual champions (volunteers) to promote TFSR policy and tobacco-free promotion, and consistent funding to maintain the local TFSR messaging. Moving forward, the evaluation concluded that a single approach might not be possible in all settings. Implementation of tobacco-free sport and recreation policies needs the engagement of management/leaders, a broad reach (beyond single teams), and enough local resources to achieve all elements (e.g., policy reminders, tobacco-free events, logos/promotional materials, signage/ advertising, swag for players).

Contributions: Interventions

We now present evaluative evidence about the effects of the various interventions that focus on prevention and reduction of tobacco use among youth. 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 Social Exposure, Availability and Access

Smoke-Free Movies Campaign

In 2011/12, the Ontario Coalition for Smoke-free Movies website received 8,451 unique visits, where on average the user viewed 2.18 pages for 1.56 minutes. The Coalition's Hooked by Hollywood Facebook page received a total of 2,213 Likes by the end of March 2012 (1,804 new Likes during 2011/12 fiscal year). The majority of their Facebook fans (73% or greater) were between the ages of 13-24 years. Also, their @HookedHollywood twitter account had a total of 463 followers at the end of March 2012 (172 new followers during 2011/12 fiscal year). Their twitter handle was mentioned 403 times and their tweets were retweeted a total of 334 times (Ontario Coalition for Smoke-free Movies, personal communication, August 2012).

In February 2012, the Coalition hosted a Twitter bomb at the time of the Oscar Awards. A Twitter bomb is a form of guerilla marketing using twitter where trending topics or popular Twitter hashtags(#) are used to direct people to websites or products. This activity used #StopSmokingOscar and aimed to provoke discussion by celebrities and studios, gain media attention, and have #StopSmokingOscar trend in Canada. As a result, 1,296 tweets were sent out using #StopSmokingOscar the week of the Oscar Awards. A total of 190,483 impressions were generated and reached an audience of approximately 57,344. Youth and adults participated from across North America, with the majority of top tweeters coming from Ontario (Ontario Coalition for Smoke-free Movies, personal communication, August 2012).

Ontario media coverage for the smoke-free movies issue has increased over the years, from a low of 19 new stories in 2005 to a high of 152 news stories in 2011. In total, 451 news stories have appeared since 2004. Themes that were included in the 2011 news stories included the World No Tobacco Day, smoking in the movie Rango, and international reports that highlighted the issue of smoking in movies (Ontario Coalition for Smoke-free Movies, personal communication, September 2012).

Minimum Age of Cigarette Purchase

In 2011, approximately 20% of Ontario students in Grades 7 to 12 who had smoked a whole cigarette in the last 12 months reported purchasing their cigarette from a corner store, grocery store, supermarket, gas station, or bar. Fifty-eight percent reported getting their cigarette from a friend or family member.[117] These data indicate that access to cigarettes by youth under the age of 19 persists and that non-compliance with the *SFOA* by tobacco vendors is an issue. OTRU, in partnership with the Ministry of Health and Long-term Care, is currently evaluating a pilot project that focuses resources on addressing non-compliance on this issue.

Interventions for Building Knowledge and Resiliency

Youth Engagement Programming

Public Health Unit Youth Engagement Initiative

The Public Health Unit (PHU) Youth Engagement (YE) Initiative formative evaluation highlighted the fact that many PHUs are advancing well in Initiative implementation.[112] However, the extent to which PHUs have been able to implement the Initiative and engage core youth leaders to promote tobacco control advocacy and shape policy within their communities has related to a number of facilitators and challenges.

Facilitators include:

- High organizational/management buy-in for the Initiative
- A strong legacy of YE programming in PHUs
- The dedicated Youth Engagement Coordinator position and relationships between staff and youth leaders

Challenges include:

- Perceived limited guidance and direction on implementation and unclear goals and outcomes of the Initiative
- Limited resources/funding, particularly an unpaid youth engagement model
- Youth engagement around tobacco control
- Geographical challenges

Despite these challenges, there are a number of examples of successful implementation and perceived early impacts at youth- and community-levels. Many core youth leaders are passionate about health promotion for tobacco control and are highly motivated to engage with their community. These youth possess and are further developing important skills, such as confidence and self-efficacy, through involvement in the Initiative.

Initiative challenges need to be addressed for implementation to advance in many PHUs. The level of organizational capacity to implement the Initiative varies across PHUs, and this clearly relates to the extent of organizational support and previous experience with the YE approach. Initiative implementation could be improved through:

- The provision of training on YE at upper management levels within the PHU (e.g., boards of health, managers) and clear articulation of goals of the Initiative to all stakeholders to improve organizational support and readiness for implementation.
- The provision of clear guidelines for implementation to assist those PHUs with less experience with the YE approach, and clear Initiative outcomes in order for PHUs to guide and inform evaluation.
- A vision for sustainability of the Initiative that enhances organizational support and investment in the Initiative at the local level.
- Formalization of infrastructure for resource sharing across the Initiative so that PHUs less advanced in implementation can learn from those that are more advanced.

Smoke-Free Ontario Action Week

As part of a small-scale evaluation of Action Week, OTRU administered a survey to capture experiences with Action Week, which took place from November 20th to 26th, 2011. The following findings need to be interpreted with caution due to low survey response rates and the risk of response bias. Among the 47 respondents who completed the survey, 49% indicated that this was their first year participating in Action Week, and 70% conducted activities related to this year's theme, the iTHINK campaign. Seventy-two percent of those who conducted activities interacted with the iTHINK campaign Facebook page, 66% held education booths and display, 56% conducted street marketing, and 41% participated in advocacy activities. Many respondents indicated that they liked the theme, and 83% indicated that their knowledge of tobacco industry branding and marketing tactics to youth increased through their participation in Action Week. One of the primary goals of

this year's Action Week was to encourage the public to interact with the iTHINK campaign Facebook page. This was achieved as Facebook post views increased from 5,000 in October to 60,000 in November (when Action Week ran), and new likes increased from 90 in October to 800 in November. While the response rate of the survey was low, survey respondents reported positive experiences with Action Week. Promotion of Action Week encouraged the public to engage with the iTHINK media literacy theme through the Facebook page; however, it was not possible to further assess the reach or impact of Action Week across the province.[118]

Educational Programs

Leave the Pack Behind

In 2011/12, LTPB interacted with 29% of enrolled students on all 20 university campuses and all 24 applied arts college campuses in Ontario in which they are active through face-to-face contact at outreach events hosted by student teams. The program assisted 3 colleges and 2 universities to implement tobacco control policies/procedures (e.g., banning tobacco sales, improving enforcement, health plan coverage of NRT/pharmacotherapy). The program also includes 36 peer teams that provide peer-to-peer programming and services, and spearhead policy advocacy efforts on their campuses.[75] Leave the Pack Behind also runs an annual contests focused on cessation, reduction, and prevention: Quit for Good, Keep the Count (to reduce the amount smoked by half), Party without the Smoke (to avoid smoking when socializing), and Don't Start and Win (for ex-smokers and nonsmokers). The Don't Start and Win contest saw a rise in enrollment from 1,209 participants in 2009 to 5,566 in 2012 (Leave the Pack Behind, personal communication, May, 2012).

Summary

Smoking initiation among Ontario students in lower grades is quite low, with lifetime abstinence being 97% in Grade 7 and 90% in Grade 8 and past-year initiation at 4% in these grades combined. Among students in Grades 9 and 10, lifetime abstinence was 87% and 77%, respectively; past-year initiation was 6% and 7%; and past-year smoking 4% and 10%, respectively. Reporting of past 30-day current smoking is too small in the lower grades to adequately measure, but is 3% in Grades 9 and 10 combined. Overall, Grades 9/10 appear to be an important year for initiation to smoking.

Indicators show that for students in higher grades, initiation has decreased over the past decade, yet the data presented here suggest that over the past couple of years, this decline has stalled. In Grades 11 and 12: lifetime abstinence was 65% for both grades; past-year initiation was 6% and 9%, respectively; past-year smoking was 14.5% and 14%, respectively, and past 30-day current smoking was 6% (combined 11/12 grades).

Compared to school-aged youth, rates of current smoking are much higher for young adults (20% for females and 30% 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 expanding Leave the Pack Behind to community colleges and targeted social marketing campaigns. There is a lack of 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 (16%) and young adults aged 20 to 24 (25%).

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.[1] 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. For instance, 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.

The amount of youth engagement programming has increased in the province over the last year including the implementation of the Youth Engagement Initiative and continuation of Action Week.

Chapter 5: Social Climate and Public Support

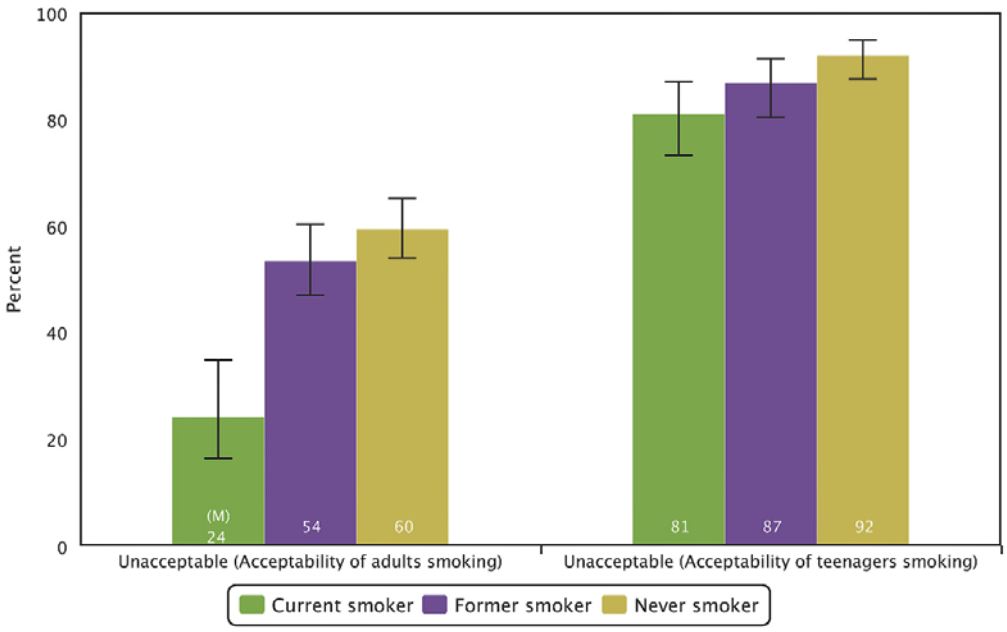
Social climate and public support can both influence the adoption of tobacco control measures and indicate the success of public education and social marketing campaigns. In this section, we examine key indicators that measure social climate and public support including the social acceptability of smoking 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 key to human behaviour change. Creating a healthy social climate is a key path for achieving and sustaining the desired outcomes of a comprehensive tobacco control program.[40,41,42] One key marker of social climate is the social acceptability of smoking. Recognizing the importance of social climate for understanding progress in tobacco control, we started measuring social acceptability of smoking over the last few years, and this is the first public reporting of results.

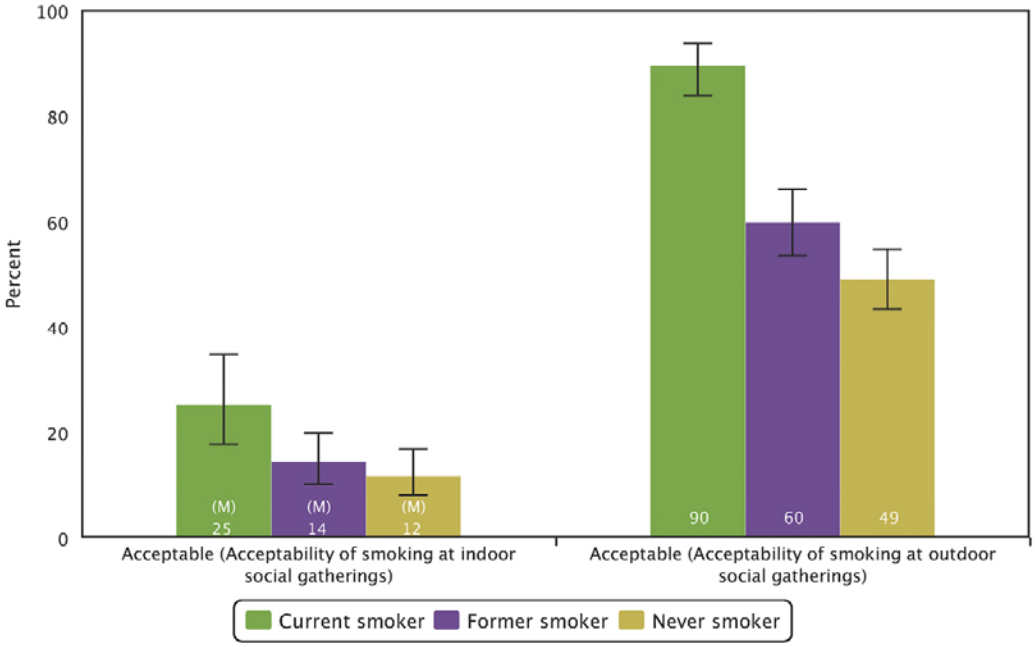
- In 2011, 60% of never-smokers, 54% of former smokers and 24% of current smokers aged 18 years and over reported that it was unacceptable for adults to smoke (Figure 33).
- Smoking by teenagers was viewed as unacceptable among all adults regardless of smoking status (Figure 33), with never-smokers having the strongest views on its unacceptability (and significantly higher than that of current smokers 92% vs. 81%).
- Slightly more than half of never-smokers (52%) and 28% of former smokers indicated that it was unacceptable for their friends to be smokers (data not shown).
- One in four current smokers (25%) believed it was acceptable to smoke indoors at celebrations, parties, or other social gatherings that they attended, double the rate of never-smokers (12%; 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 (90% vs. 60% and 49%).

Figure 33: Social Unacceptability of Adults and Teenagers Smoking Cigarettes, by Smoking Status, Ontario, 2011



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) 2011.

Figure 34: Social Acceptability of Smoking Cigarettes at Indoor and Outdoor Social Gatherings, by Smoking Status, 18+, Ontario, 2011



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) 2011.

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 policies that have been in place in Ontario for some time. As described in more detail below, survey data show that most Ontarians support smoking prohibitions at workplaces (92%) and at restaurants (77%); they also support a law prohibiting smoking in vehicles when children present (88%), as well as fines for the social supply of cigarettes to youth (85%). 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 (88%), entrances to public buildings (85%), and in multi-unit dwellings (84%); rating movies with smoking scenes as PG (74%); and reducing the number of retail outlets that sell cigarettes (62%).

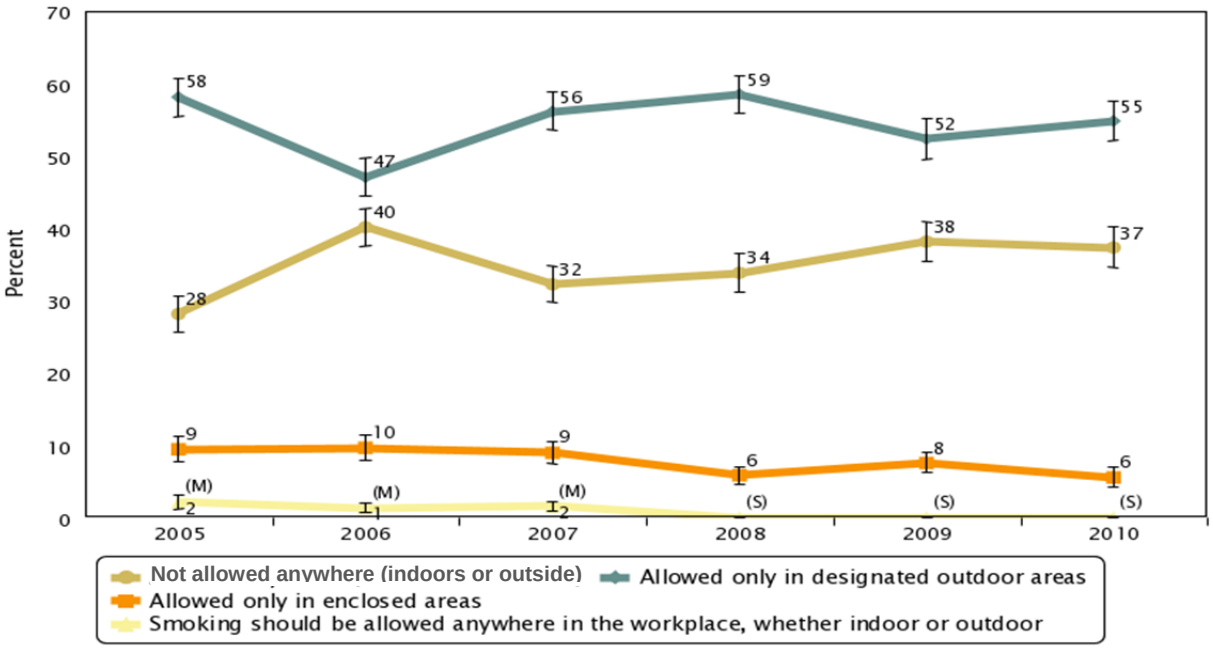
In this chapter, we provide an overview of public opinion in Ontario on a variety of key policies. We begin with *Protection from Secondhand Smoke*, an area where there has been great success and which is still at the forefront of progressive tobacco control policies in leading jurisdictions around the world (e.g., prohibiting smoking in multi-unit dwellings and outdoor settings such as parks, patios, and recreational/sport areas). Public support for the emerging area of *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 2010, 92% of respondents agreed there should be no smoking indoors in a workplace—that is, 55% responded that smoking should only be allowed in designated outdoor areas and 37% responded that it should not be allowed anywhere (Figure 35), unchanged in recent years.

Figure 35: Views on Smoking in the Workplace, 15+, 2005 to 2010

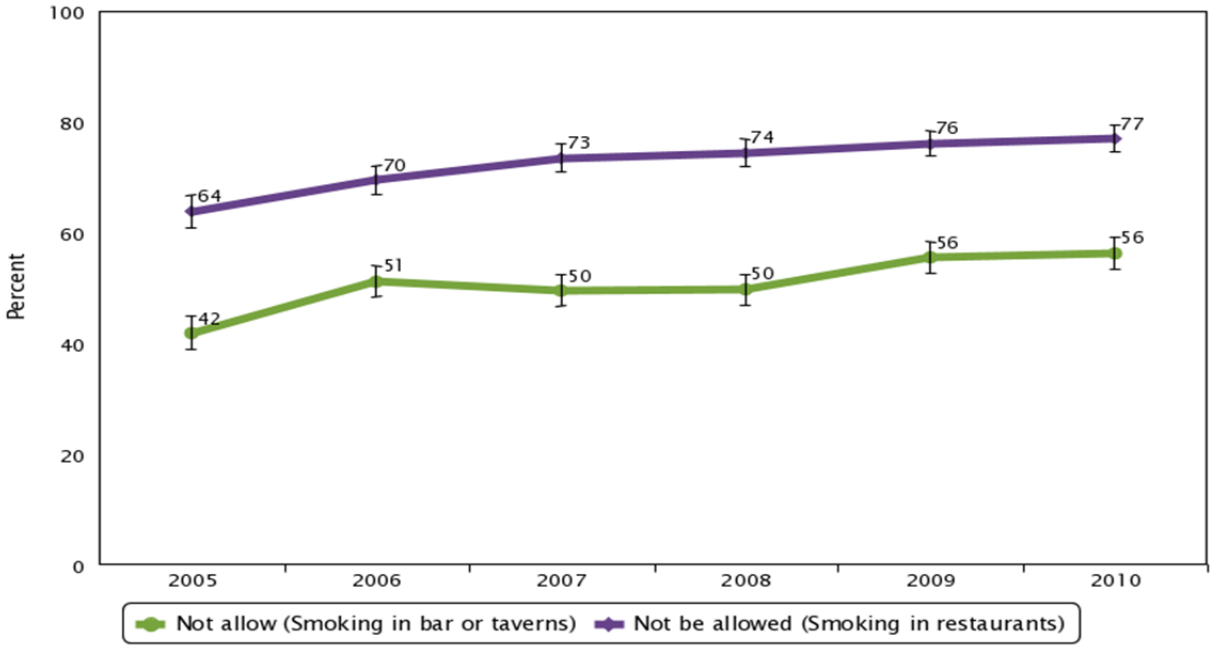


Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2005-2010.

Restaurant and Bars

- In 2010, 56% of Ontarians aged 15 years and over felt that smoking should not be allowed in bars or taverns, a significant increase from 2008 (56% vs. 50%; Figure 36).
- Support was significantly higher in 2010 for prohibiting smoking in restaurants at 77%, a significant increase from 2006 (70%). In 2010, females were significantly more likely to feel that smoking should not be allowed in restaurants (81% for females and 73% for males).
- In 2011, 57% of Ontario adults (including 69% of never-smokers) agreed that smoking should be banned on outdoor patios of restaurants and bars, unchanged from 2010 levels (CAMH Monitor, data not shown). Support for a ban in 2011 was significantly higher among females than males (64% vs. 50%, data not shown).

Figure 36: Views on Smoking in Bars and Restaurants, 15+, Ontario, 2005 to 2010

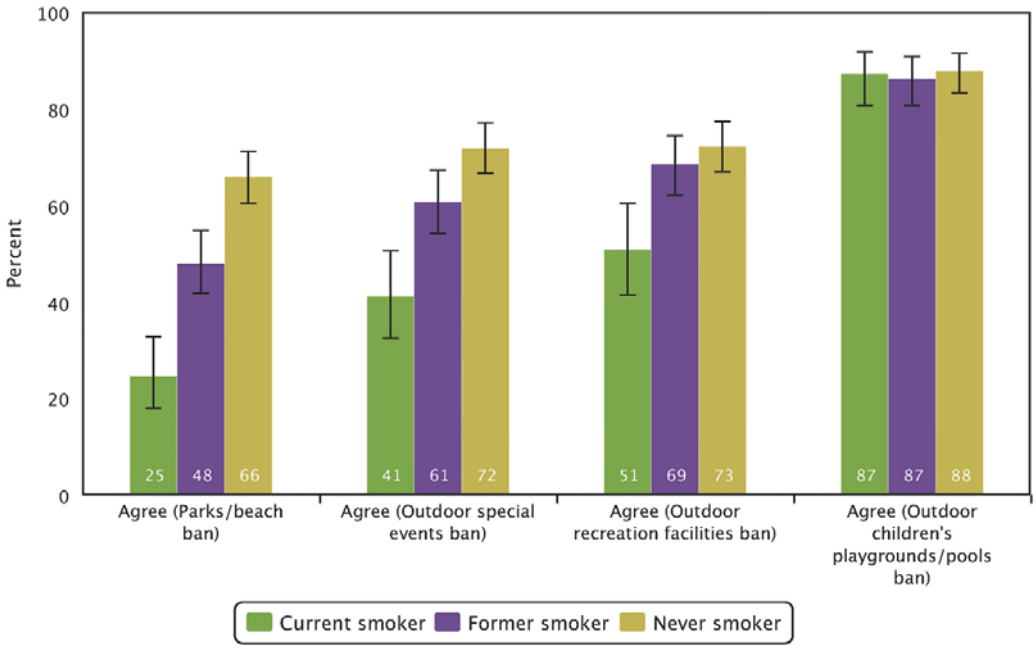


Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2005-2010.

Outdoor Places

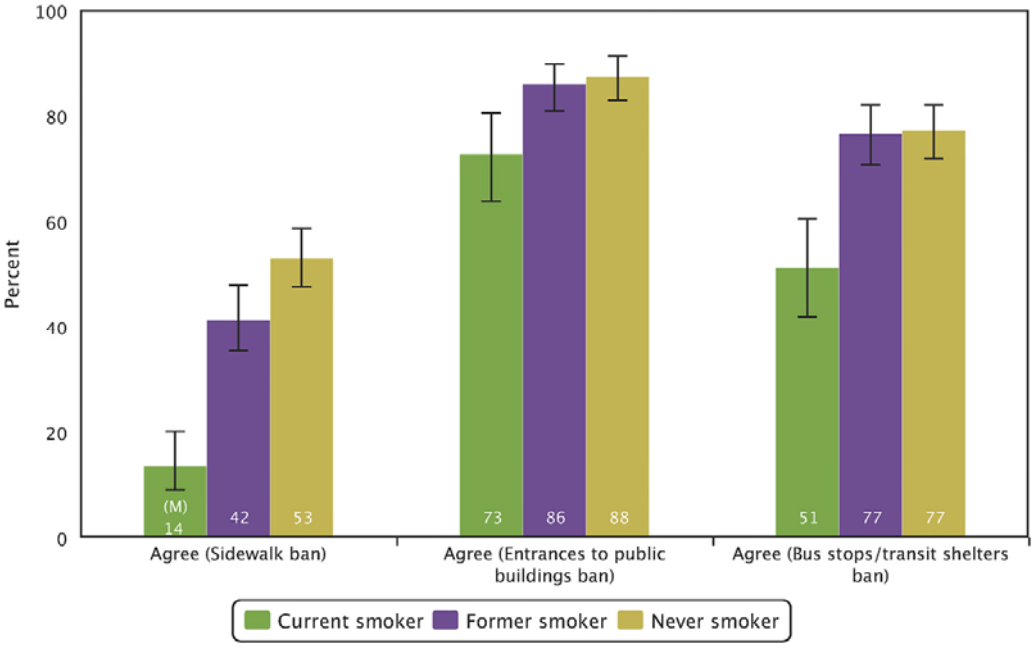
- Among the general population, support for smoking bans in public parks and on beaches has remained unchanged in recent years (55% in 2011; CAMH Monitor, data not shown; trend data not available for other settings).
- Current smokers were significantly less likely to agree that smoking should be banned in public parks and on beaches (25%), at outdoor special events (such as concerts, festivals or parades, 41%), or near outdoor recreation facilities (such as sports fields, stadiums, and entrances to arenas, 51%) compared to former smokers (48%, 61%, and 69%, respectively) and never-smokers (66%, 72%, and 73%; Figure 37).
- Support for banning smoking at outdoor children's playgrounds and wading pools is high and with similar levels of support among current smokers (87%), former smokers (87%), and never-smokers (88%; Figure 37).
- Current smokers were significantly less likely to agree that smoking should be banned on public sidewalks (14%), entrances to public buildings (73%), or bus stops/transit shelters (51%) compared to former smokers (42%, 86%, and 77%) and never-smokers (53%, 88%, and 77%; Figure 38). Among all respondents, support for smoking bans on sidewalks has remained unchanged in recent years (44% in 2011; CAMH Monitor, data not shown; trend data not available for entrances and bus stops).

Figure 37: Agreement that Smoking Should be Banned in Select Outdoor Settings, by Smoking Status, 18+, Ontario, 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor (Full Year) 2011.

Figure 38: Agreement that Smoking should be Banned on Sidewalks, Entrances, and Bus Stops, by Smoking Status, 18+, Ontario, 2011

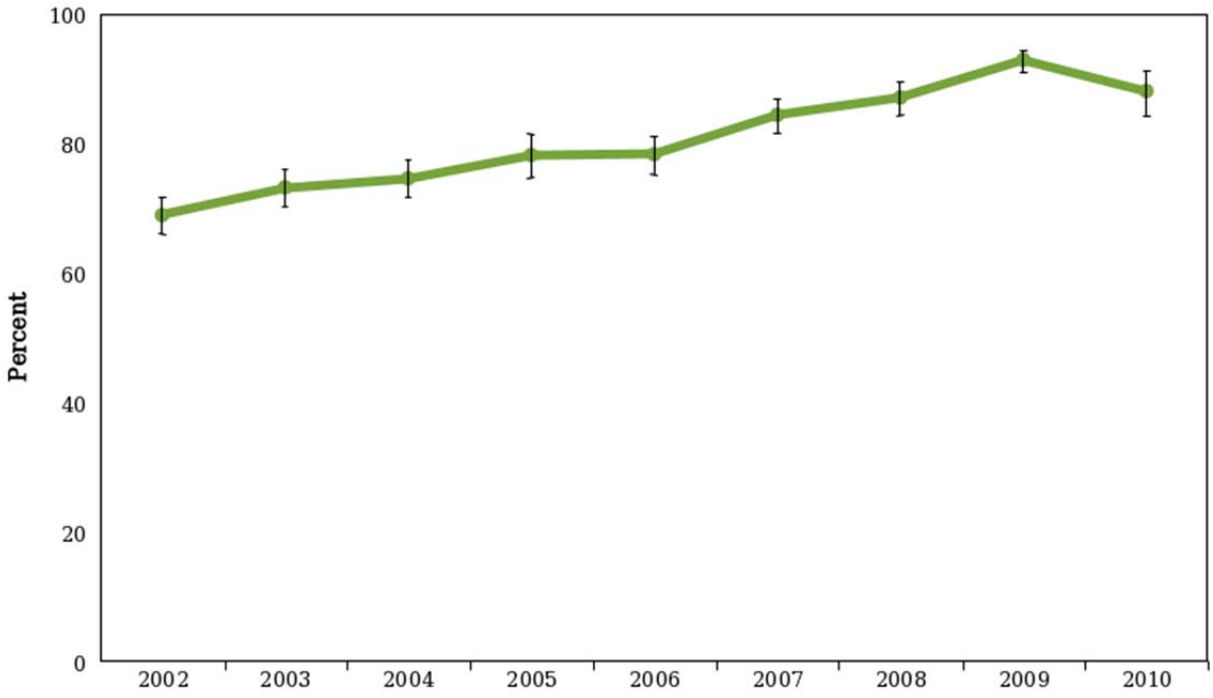


Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor (Full Year) 2011.

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

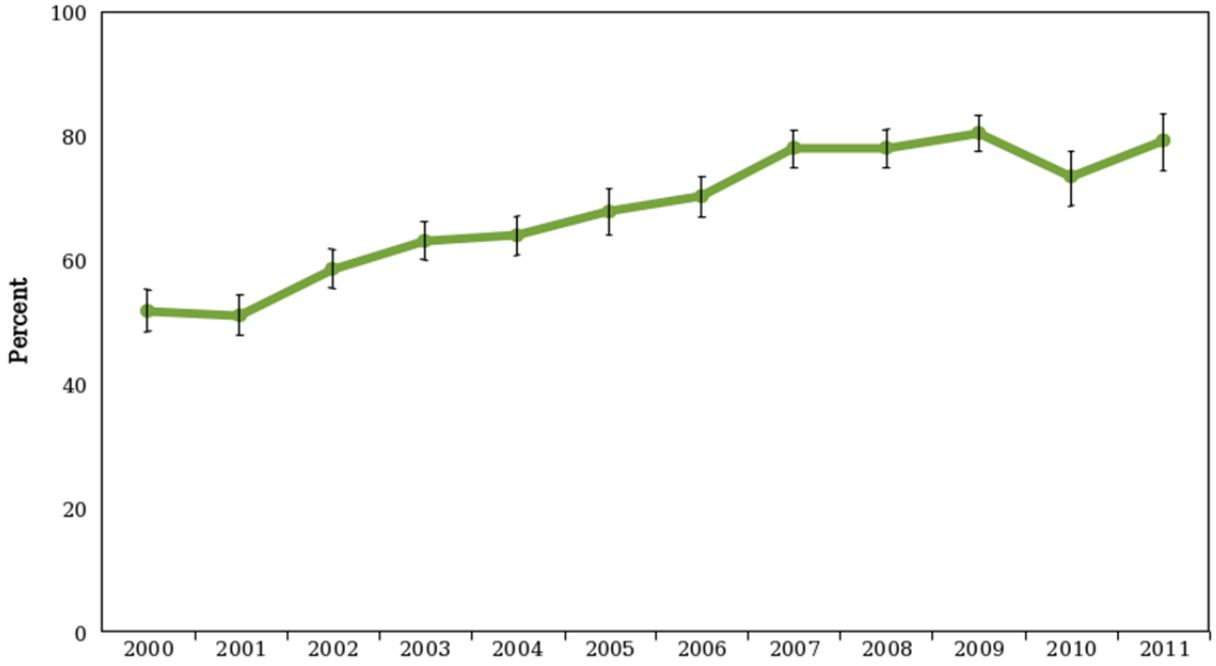


Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2002–2010.

Smoking in Homes

- In 2011, eight in ten respondents (80%) agreed that there should be a law that parents cannot smoke inside their home if children are living there, which is significantly higher than the level of agreement reported in 2006 (70%; Figure 40).
- In 2011, 84% of adults in Ontario believed that smoking should not be allowed inside multi-unit dwellings with shared ventilation, including apartment buildings, rooming houses, and retirement homes; level of support has increased significantly since 2006 (84% 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 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2000–2011.

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.[2] In this regard, 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.[119] Ontario allows tobacco sales in universities, theatres, bars, restaurants, casinos and government buildings, as well as convenience stores, grocery stores, and gas stations.

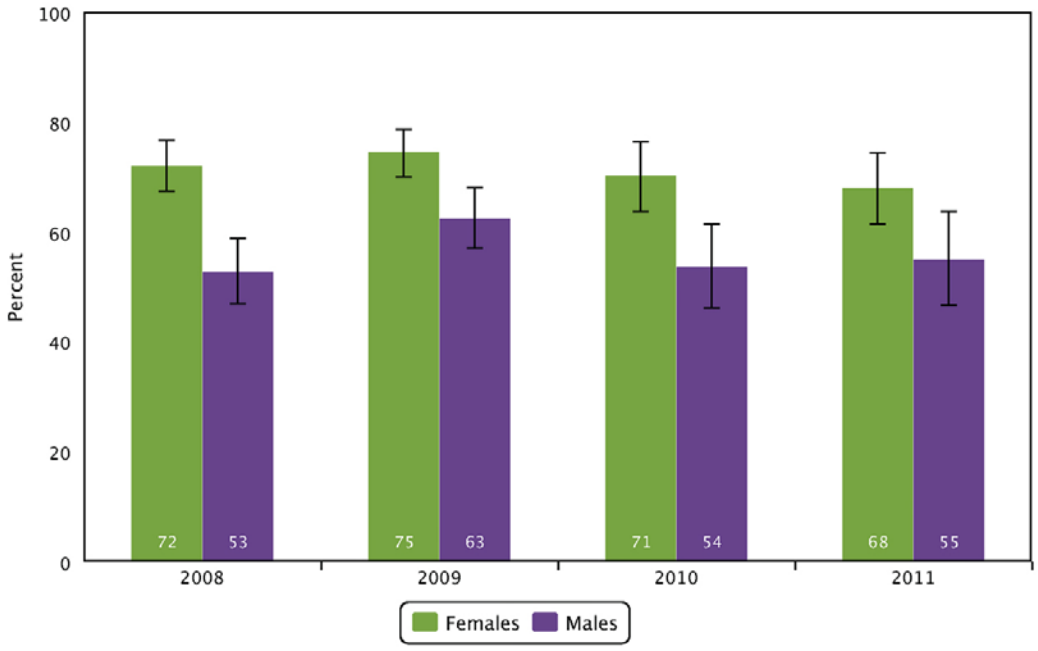
Youth Access

- 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

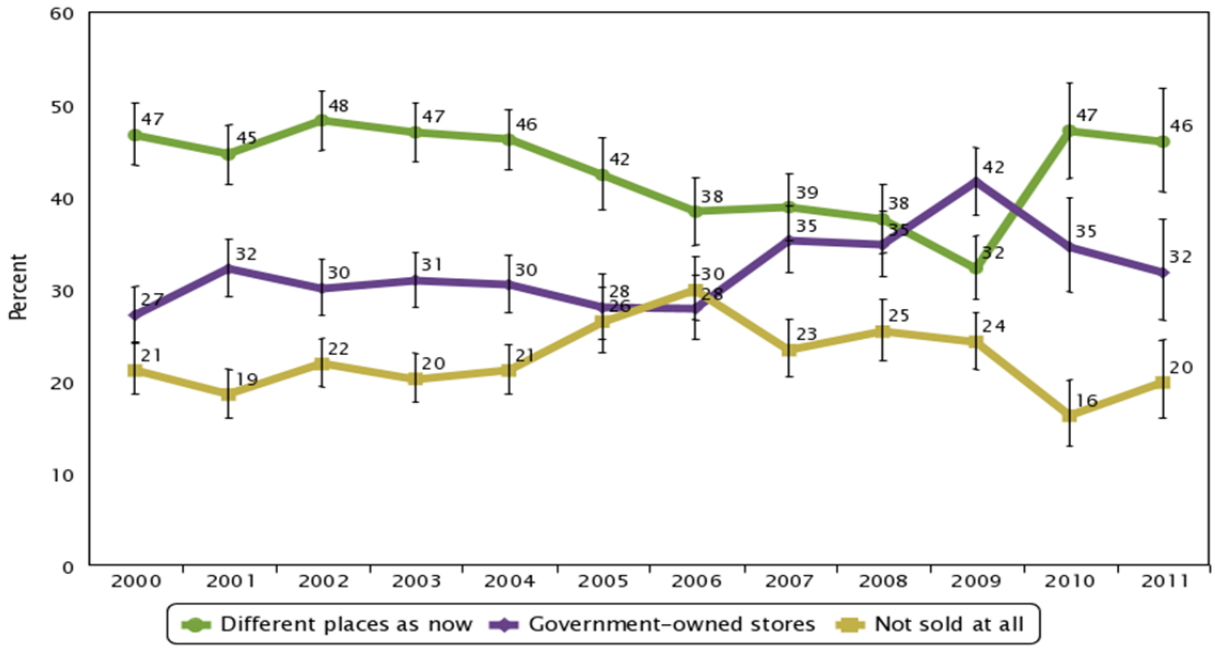
- In 2011, 62% of all Ontario adults agreed that the number of retail outlets that sell cigarettes should be greatly reduced, a rate unchanged in recent years (CAMH Monitor, data not shown). In contrast, 68% of current smokers disagreed with this policy option, significantly higher than the disagreement expressed by former smokers and never-smokers (35% and 23%, respectively; data not shown).
- In 2011, males and females did not statistically differ in their rates of agreement that the number of retail outlets should be reduced, a change from previous years in which differences were significant (Figure 41).
- In 2011, 46% of adults in Ontario reported that tobacco products should be sold in a number of different places as they are now; 32% 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, 2008-2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2008–2011.

Figure 42: Views on How Tobacco Should Be Sold, 18+, Ontario, 2000 to 2011

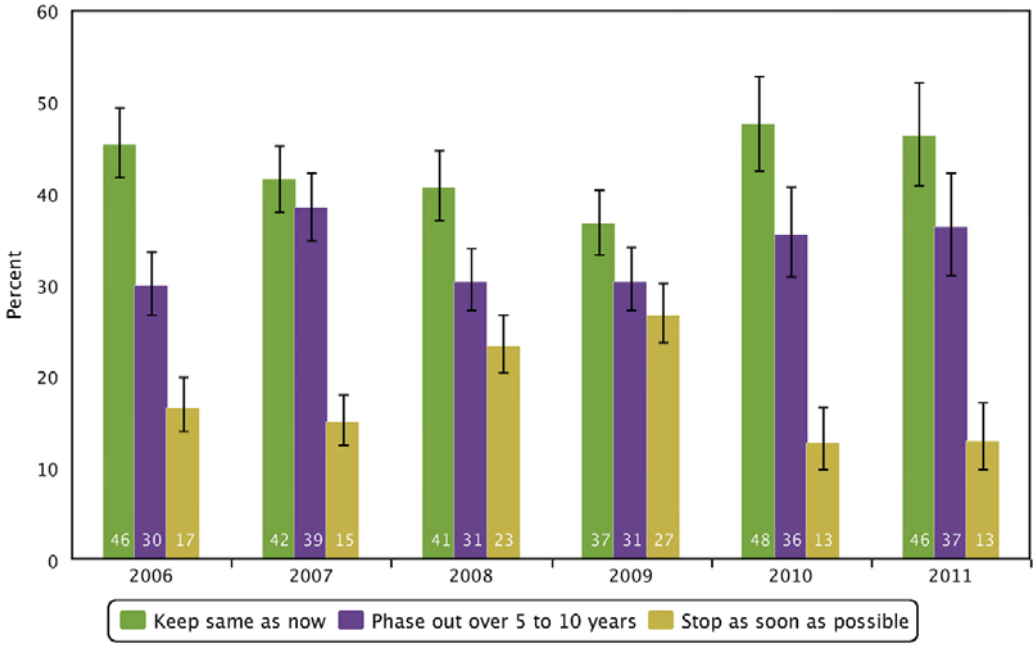


Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2000–2011.

Product

- In 2011, 13% of Ontario adults responded that the sale of cigarettes should be stopped as soon as possible, 37% felt cigarettes should be phased out over the next 5 to 10 years, and 46% felt that the sale of cigarettes should be kept as it is now (Figure 43).
- In 2011, three out of every ten smokers (31%) felt that cigarettes should be phased out in 5 to 10 years (data not shown).

Figure 43: Views on the Sale of Cigarettes, 18+, 2006 to 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2006-2011.

Support for Other Policy Initiatives

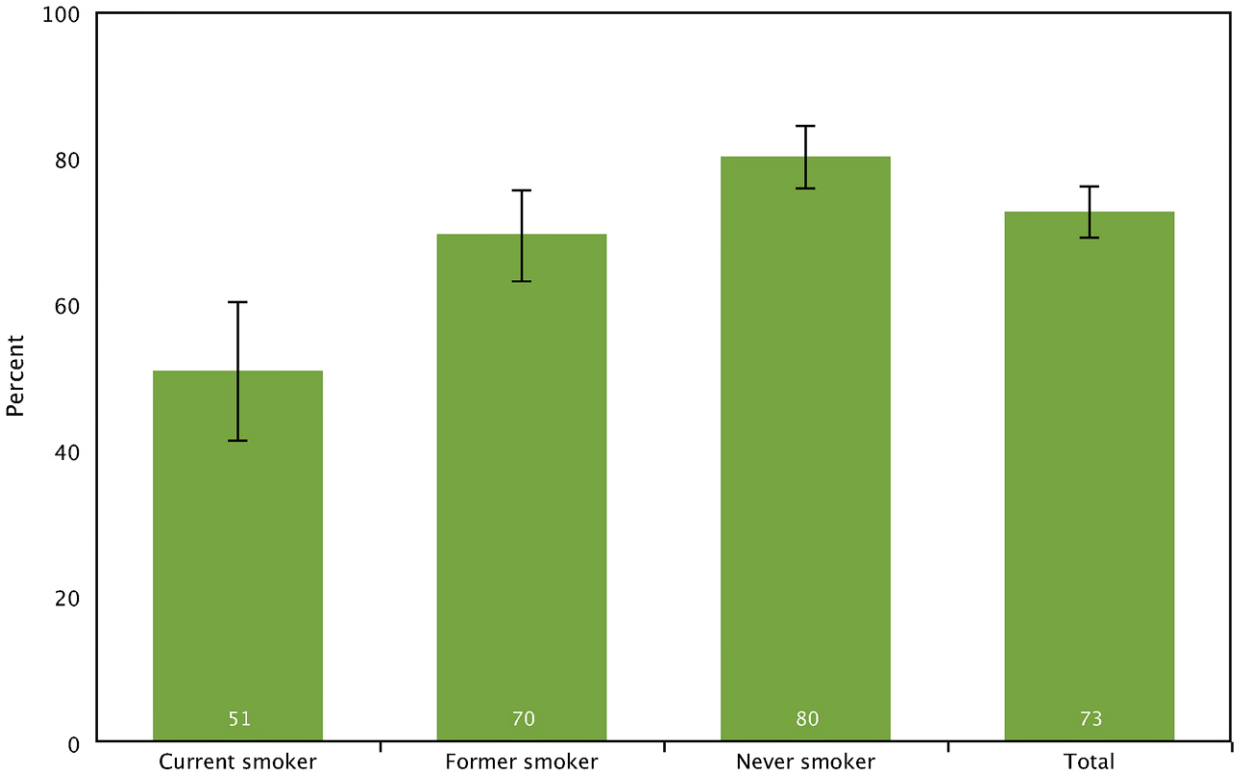
Smoking in the Movies

- In 2011, 74% of Ontario adults agreed that movies that showed characters smoking should be rated at least as Parental Guidance (PG), unchanged from the last recorded year (2006; CAMH Monitor, data not shown).
- Between 2006 and 2011, males increased their support for this policy option from 59% to 72%. Female support for this policy option was at 72% in 2006 and remained steady at 75% in 2011.

Plain Packaging

- Across all respondents surveyed, 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 remained steady over the last decade.[xxv] In 2011, half of all current smokers (51%) agreed that cigarettes should be sold in plain white packages.
- The level of agreement among smokers was significantly lower than that of never-smokers and former smokers (51% vs. 80% and 70%, respectively; Figure 44).

Figure 44: Agreement That Cigarettes Should Be Sold in Plain White Packages, by Smoking Status, 18+, 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2000–2011.

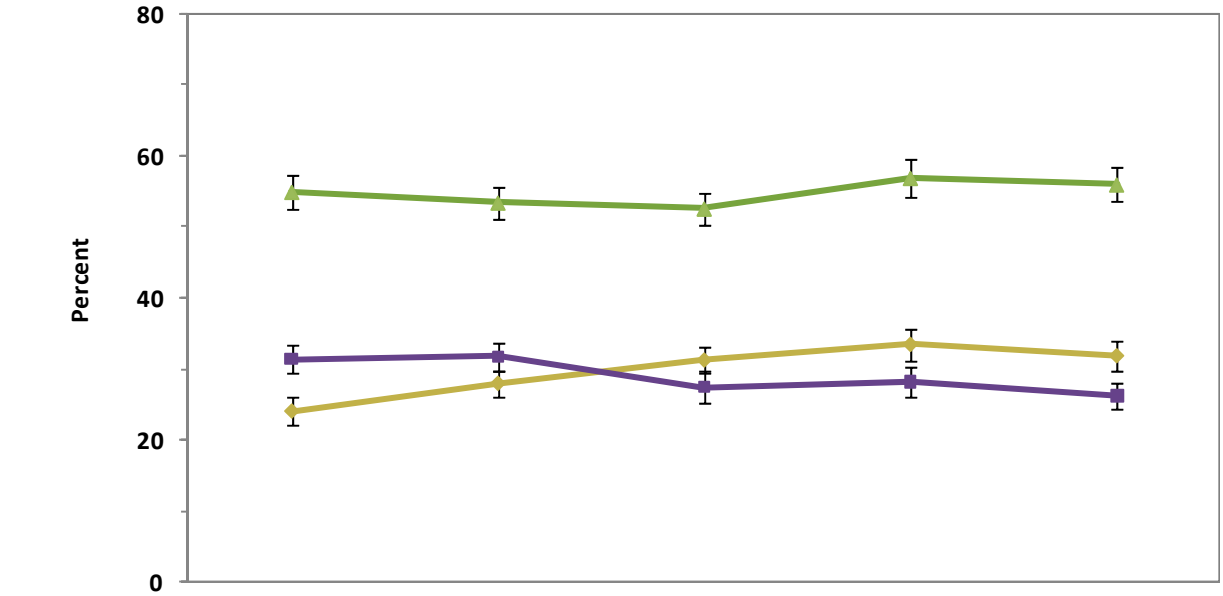
[xxv] The reference to 'white' comes from the actual survey question, which has been asked on the CAMH Monitor periodically since 2001. Current thinking on plain packaging has moved away from advocating for white packs, which may connote healthfulness. Australia recently introduced plain and standardized 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 considered 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 were likely to believe 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



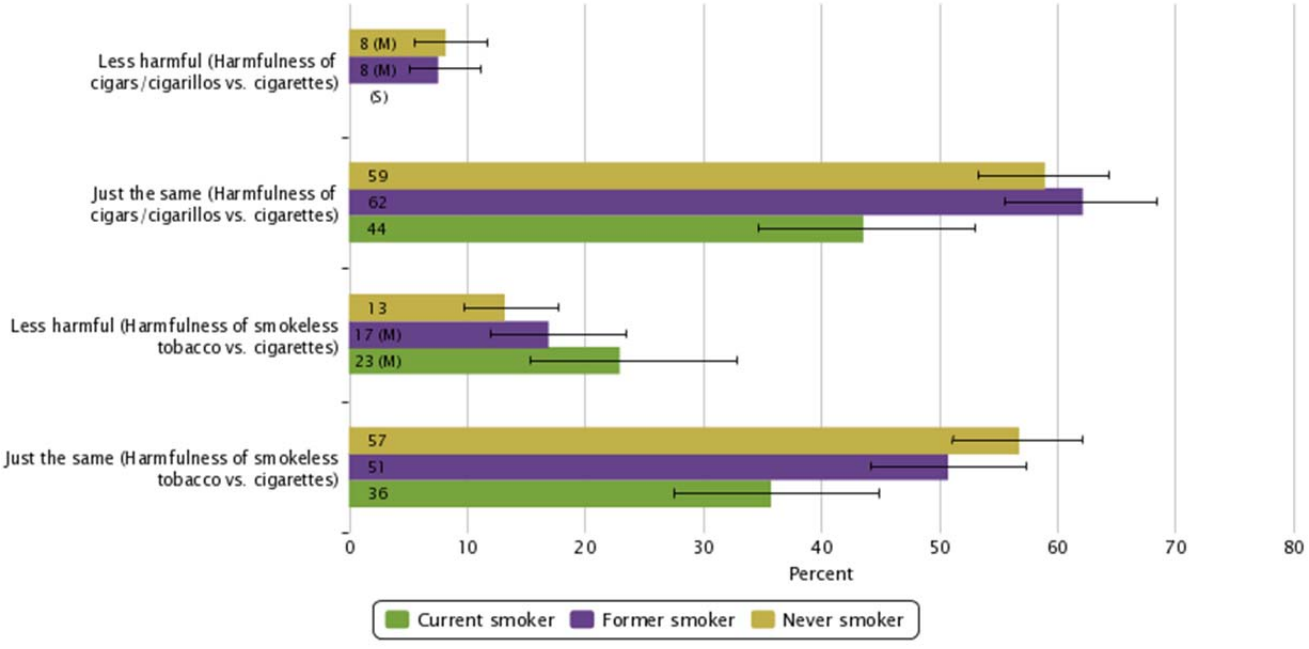
	2003	2005	2007	2009	2011
Cannabis	55	53	53	57	56
Cigarettes	24	28	31	33	32
Alcohol	31	32	27	28	26

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

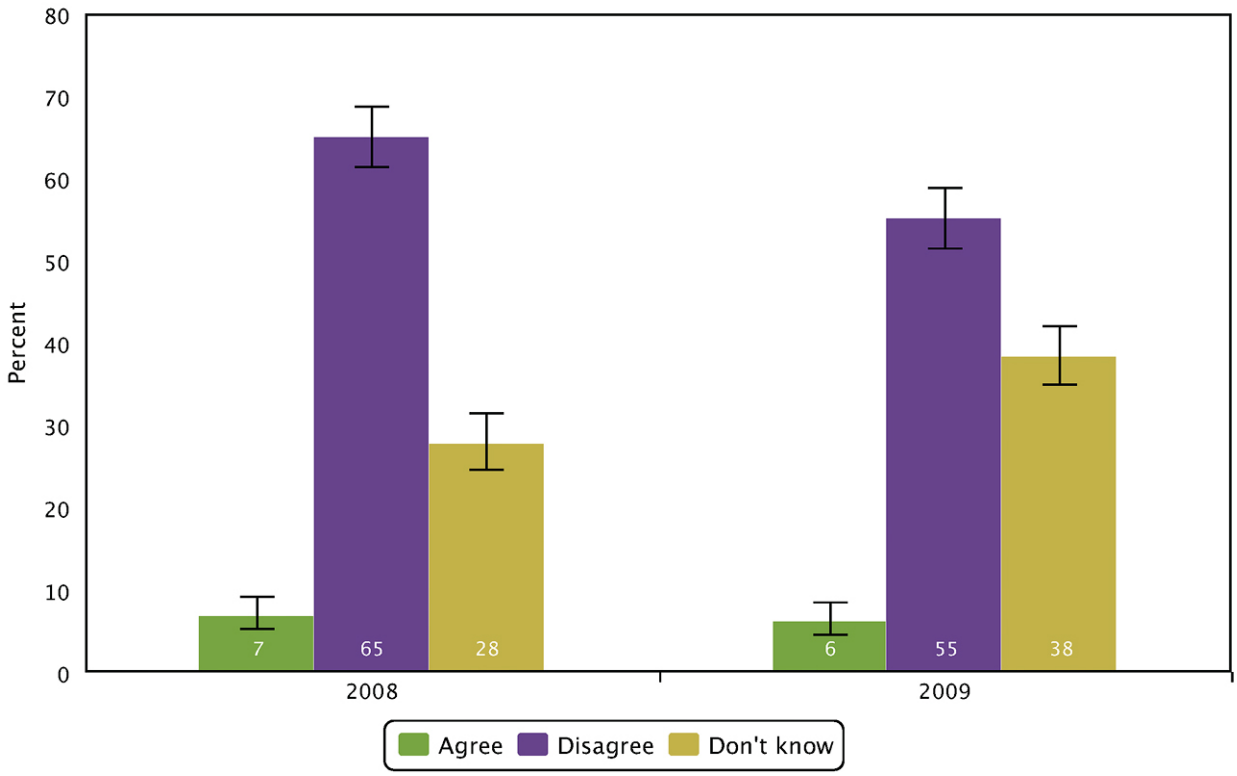
- In 2011, 44% of current smokers perceived cigars and cigarillos as causing the same harm as smoking cigarettes, which is significantly lower than the 62% former smokers and 59% of never-smokers who expressed this view (Figure 46).
- Similarly, 36% of current smokers viewed smokeless tobacco as causing the same harm as smoking cigarettes compared to 57% of never-smokers (57%).
- 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.

Figure 46: Perceived Harmfulness of Cigar/Cigarillos and Smokeless Tobacco versus Smoking Cigarettes, 18+, Ontario, 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2011.

Figure 47: Agreement About Whether Menthol Cigarettes Are Less Harmful Than Regular Cigarettes, 18+, Ontario 2008 and 2009



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

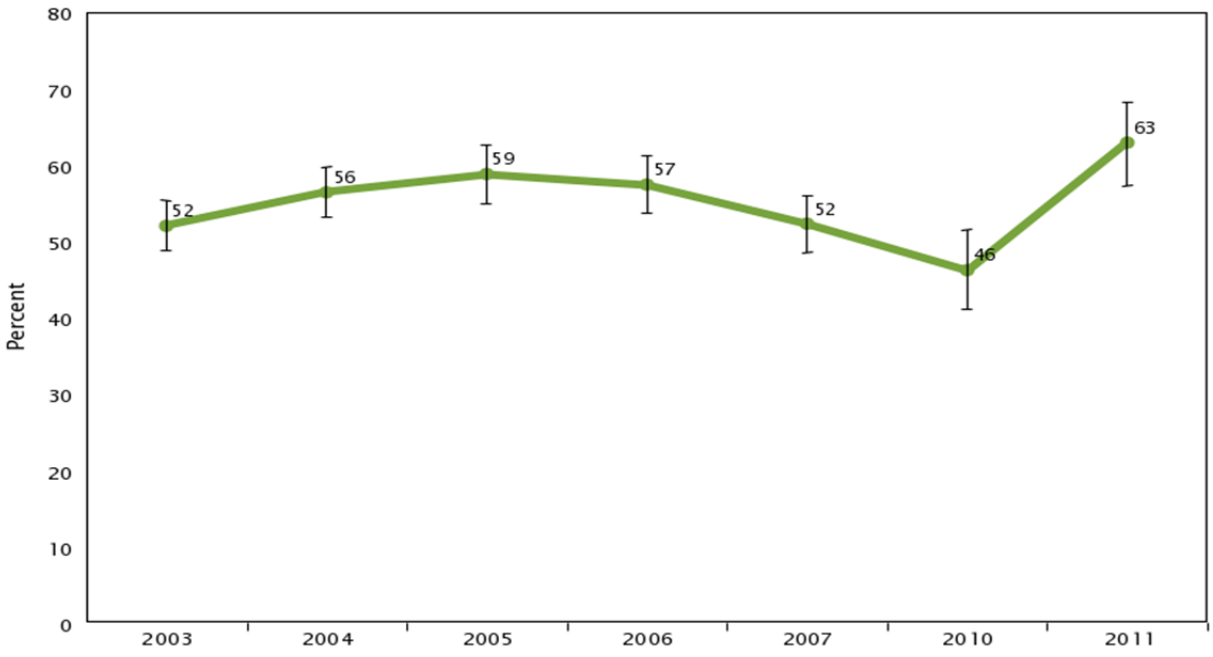
Attitudes toward the Tobacco Industry

- In 2011, 63% 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 (63% vs. 46%; Figure 48).
- Current smokers were significantly less likely to agree that the government should sue tobacco companies compared to former and never-smokers (34% vs. 68% and 70%, respectively, data not shown).

Tobacco Company Responsibility

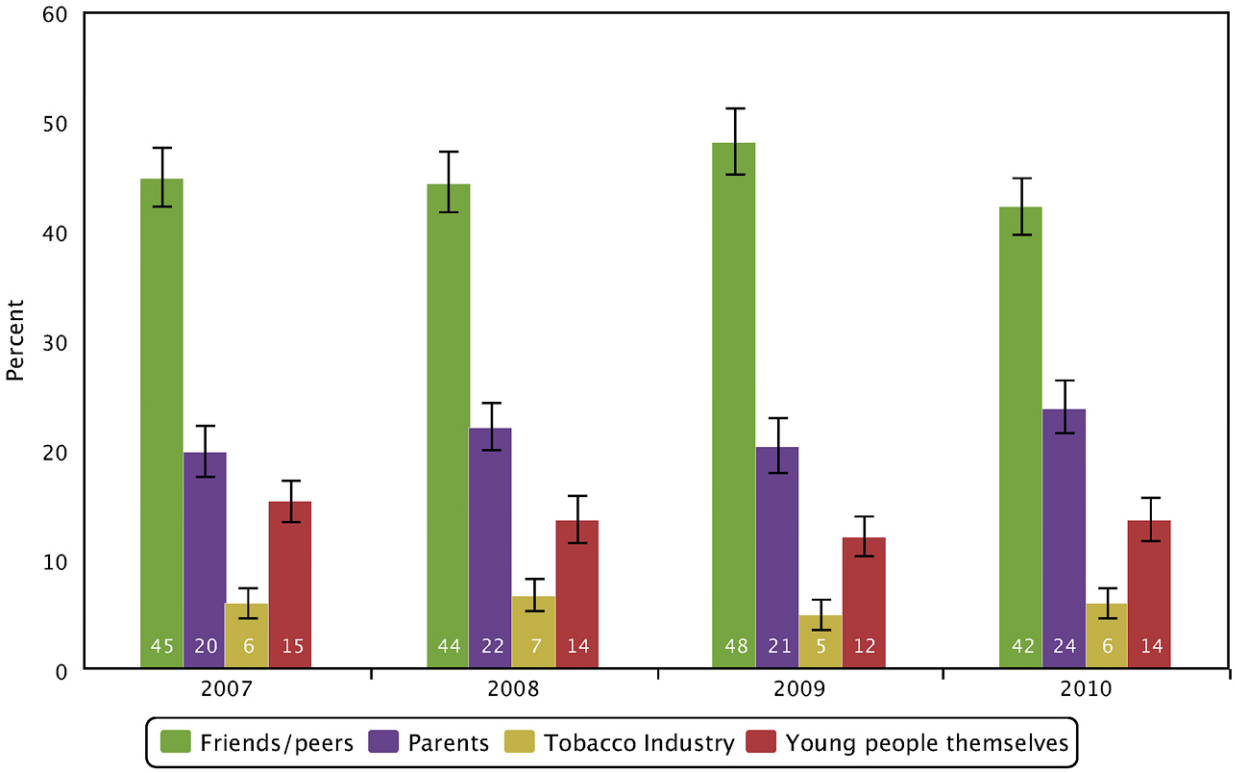
- Three–quarters (76%) of Ontario adults indicated that tobacco companies are responsible for the health problems smokers have because of their smoking (CAMH Monitor, 2010, data not shown).
- Six in ten current smokers (61%) held tobacco companies responsible for health problems smokers have because of their smoking.
- Among respondents 15 years and older, 6% believed that the tobacco industry was the most responsible for young people starting to smoke compared to friends and peers (42%), parents (24%), and young people themselves (14%; Figure 49). In Quebec, a significantly lower proportion held the industry responsible for youth smoking (10% vs. 6% in Ontario; data not shown).

Figure 48: Agreement That the Ontario Government Should Sue Tobacco Companies for Healthcare Costs That Result from Smoking Tobacco, 18+, 2003 to 2011



Note: Vertical lines represent 95% confidence intervals.
Source: Centre for Addiction and Mental Health Monitor 2003–2011.

Figure 49: Responsible Party for Smoking Initiation by Youth, Ages 15+, Ontario, 2007 to 2010



Note: Vertical lines represent 95% confidence intervals.
Source: Canadian Tobacco Use Monitoring Survey 2007-2010.

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 presented in the protection, cessation, and prevention path logic models. High public support for various smoke-free settings currently regulated underscores this positive social climate (for instance, 92% of adults support workplace policies that prohibit smoking indoors, 77% support no smoking inside restaurants, and 88% support a law prohibiting smoking inside a vehicle when children are present). Similarly, support is high for other settings not currently under provincial legislation including prohibiting smoking at outdoor children's playgrounds/wading pools (88%), entrances to public buildings (85%), in multi-unit dwellings (84%), and on outdoor patios of restaurants and bars (57%). Consistent with these data are the small numbers of

smokers (25%) who 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 (62%) agreed that the number of retail outlets that sell cigarettes should be greatly reduced and three in ten smokers (31%) 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 81%, respectively) and there is wide support for rating movies with smoking scenes as PG (74%).

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 6% of respondents 15 years and older held the tobacco industry most responsible for young people starting to smoke.

Chapter 6: Pro-Tobacco Influences

Pro-tobacco influences are any factors that promote tobacco use. These factors are often direct efforts from tobacco companies but may also include efforts by other groups that directly or indirectly encourage tobacco use. Pro-tobacco influences can be viewed as working in opposition to comprehensive tobacco control programs, which aim to prevent smoking, protect individuals from secondhand smoke, and promote quitting.

To gain a deeper understanding of tobacco control efforts, several leading organizations and jurisdictions, including the US Surgeon General, Centers for Disease Control and Prevention, and the State of California,[8,120,121] have recognized the importance of surveilling pro-tobacco influences. Monitoring pro-tobacco influences provides relevant context for interpreting the outcomes of Strategy programs and may help inform future tobacco control initiatives. Monitoring these influences may also increase awareness of efforts to counter existing programs, services, and policies. For example, recent surveillance of the cigar/cigarillo market suggests that new regulations have done little to curtail the availability of flavoured cigarillos, with tobacco companies only slightly changing the filter and weight of the stick to satisfy new requirements on flavours (for an example, see the section on New and Updated Tobacco Products, below).

By monitoring key indicators, those in tobacco control have the potential to gain not only a better understanding of pro-tobacco influences but become more informed about the larger context in which they operate. With a broader understanding of the wider environment, there is the potential to better understand the larger picture of tobacco control in Ontario including progress toward goals, as well as setbacks (which may well be explained by pro-tobacco influences).

This chapter summarizes findings on key indicators of pro-tobacco influence across six focal areas: (1) Tobacco Agriculture, (2) Distribution & Consumption, (3) Availability, (4) Price, (5) Product and Package Innovation, (6) Marketing and Promotion.

In previous work, we identified 16 key indicators that appear to be particularly fruitful for monitoring pro-tobacco influences in the Ontario context. In this chapter of the Strategy Evaluation Report, we discuss 14 of these recommended indicators (for a full list, see Appendix B). The identified indicators are meant to provide an overview of potential pro-tobacco influences; we do not suggest that these are the only indicators, nor do we suggest that this list be permanently fixed. If data quality or feasibility of data collection changes for any of the reported indicators (or an indicator that has not made the list), its recommended status may well change. Further, if we feel the need to add relevant context to the information presented, we will sometimes add secondary (non-key) indicators to the discussion.

Tobacco Agriculture and Production

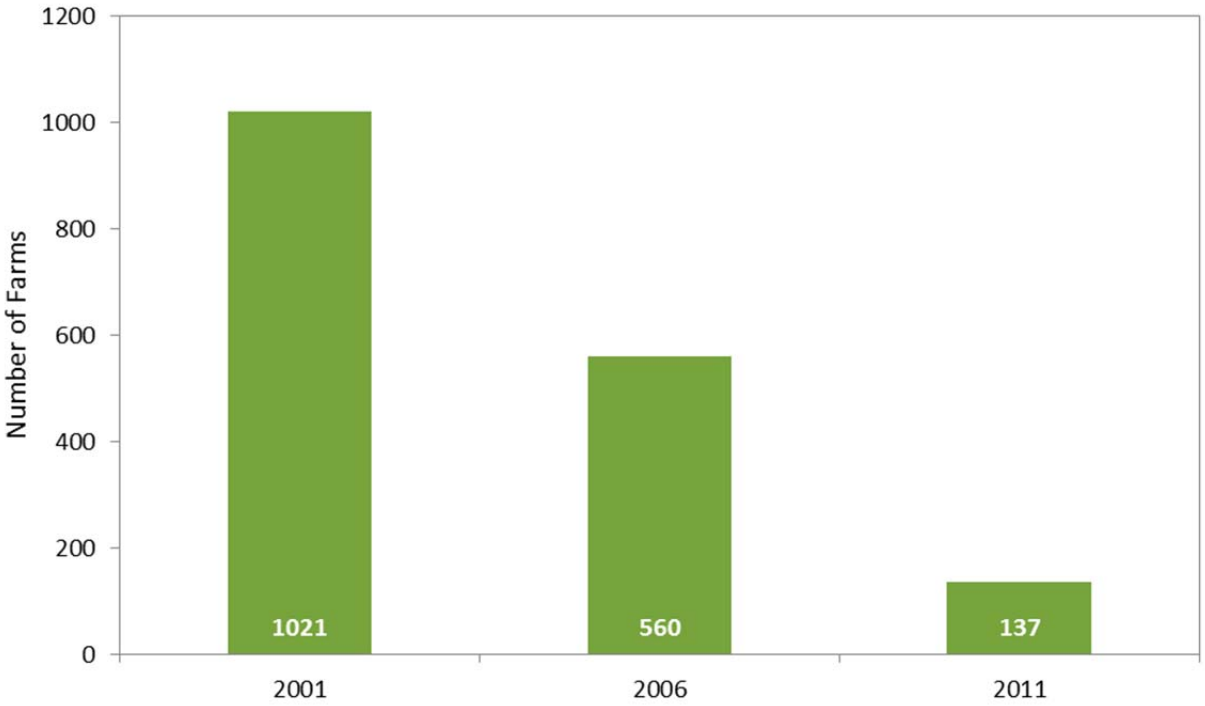
Number of Farms

Tobacco agriculture and production is a marker for both the financial health of the tobacco industry and possible political influence. Tobacco industry stakeholders have used local political influence, especially in areas of greater density of tobacco farms, to oppose tobacco control measures. For example, in North Carolina, there is evidence that individual farmers influenced the policy agenda around tobacco control, and that growers' associations developed consistent messages about the economic impact of tobacco in that area.[122]

Knowledge of key economic indicators—such as the number and location of tobacco farms across Ontario—as well as the amount of tobacco sold, provides insight into the regional economic base of the industry and could possibly identify potential areas of opposition to tobacco control legislation.

- In Ontario, the number of tobacco farms decreased from 1,021 in 2001 to 560 in 2006 to 137 in 2011 (Figure 50).[123]
- Expressed as a percentage of total census farms, the corresponding numbers decreased from 1.7% to 1.0% to 0.3% over the reporting period.

Figure 50: Number of Tobacco Farms[a] in Ontario, by Year (2001, 2006 and 2011)



[a] Farms classified as tobacco farming under the North American Industry Classification System
Source: Statistics Canada, Census of Agriculture

Production

- Between 2006 and 2009, there was a substantial decline in tobacco production. Since 2008, production has increased dramatically.
- In 2011, there were 214 licensed producers growing 18,887 acres of tobacco, for a total of 49,668,147 pounds sold (Ontario Ministry of Agriculture, Food and Rural Affairs, personal communication, August 2012). This is almost double the production of 2009 (Table 15).
- The average price of tobacco was between $2.10 and $2.15 Canadian per pound before grade (quality) discounts.
- In 2009 (the latest data available), the growing of flue-cured tobacco was concentrated in four counties/districts in southwest Ontario: Brant, Elgin, Middlesex, and Haldimand-Norfolk (Table 16).

Table 15: Flue-cured Tobacco in Ontario: Area, Production and Farm Value, 2003 to 2011

Year	Area (acres)	Yield (lb/acre)	Marketed Production ('000 lbs)	Unit Value (cents/lb)	Total value ($'000)
2003	35,700	2,625	93,955	227.6	213,827
2004	36,600	2,400	87,852	225.1	197,788
2005	34,400	2,450	83,905	216.6	181,735
2006	30,094	1,850	55,495	236.1	131,003
2007	17,000	2,025	34,381	222.1	76,343
2008	9,700	2,275	22,011	205.1	45,139
2009	9,600	2,295	22,019	209.2	46,064
2010	NA	NA	47,730	216.0	103,098
2011	18,887	2,630	49,668	212.5	105,545

Source: Ministry of Agriculture, Food and Rural Affairs

Table 16: Flue-cured Tobacco: Area, Production and Farm Value, by County, 2009

Counties & Districts	Area (acres)	Yield (lbs/acres)	Marketed Production ('000 lbs)	Unit Value (cents/lb)	Total value ($ '000)
Brant	1,200	2,295	2,752	209.2	5,757
Elgin	1,000	2,295	2,294	209.2	4,799
Middlesex	700	2,295	1,606	209.2	3,360
Haldimand-Norfolk	6,100	2,295	13,991	209.2	29,269
Other	600	2,295	1,376	209.2	2,879
Ontario	9,600	2,295	22,019	209.2	46,064

Source: Statistics Canada; and Economic Development Policy Branch, Ontario Ministry of Agriculture, Food and Rural Affairs

Distribution and Consumption

Tobacco company sales and market share provide insight into the strength of the tobacco industry and the performance of individual tobacco companies.

- In 2011, wholesale cigarette sales in Ontario totaled 10,894,112,550 cigarettes, which comprised 35% of total sales in Canada (31,066,986,500 cigarettes).[124]
- In Canada, total revenue from tobacco manufacturing in 2010 was $1.42 billion,[125] an increase over recent years ($1.22 billion in 2008 and $1.33 billion in 2009).
- Canada has three main cigarette companies: Imperial Tobacco Canada Ltd. (Imperial Tobacco), Rothmans, Benson & Hedges Inc. (Rothmans), and JTI-MacDonald Corp. (JTI)

- Imperial Tobacco has the highest market volume share (53%), followed by RBH (34%) and JTI (8%).[126]

Availability

Retail Locations

As discussed in earlier sections, restricting the retail distribution and availability of tobacco products is considered an important mechanism to limit consumption of and subsequent health effects caused by tobacco.[127,128] In Ontario, tobacco sales are banned from vending machines, pharmacies, hospitals, and other healthcare and residential-care facilities. In some places, tobacco sales may also be restricted due to voluntary policies (e.g., bans on sales on university and college campuses). Despite these advances, tobacco products continue to be available across the province through a large number of retail outlets.

- In Ontario, approximately 14,500 retail outlets sell tobacco, primarily corner store/convenience and grocery stores (2008 estimate).
- In 2011, more than half of all current smokers in Canada (54%) usually bought their cigarettes from small grocery or corner stores, with two in ten smokers (20%) buying from gas stations. Four percent of Canadians usually bought their cigarettes from First Nations Reserves.

In Ontario, municipalities have begun to introduce licensing requirements for retail tobacco sales. Monitoring the number of retail outlets with licenses to sell tobacco products has several potential advantages. If licensing was mandated across the province, these data could be used as an authoritative source to track the number of retails outlets selling tobacco including by retail category (e.g., corner store, gas station, grocery, etc.). Examples of municipalities that charge an annual tobacco retail license fee include:

- Ottawa – 802 retailers
- Markham – 260 retailers
- Richmond Hill – 143 retailers
- Barrie – 117 retailers
- Kingston – 98 retailers
- North Bay – 62 retailers

Internet Sales

Both federal and provincial legislation prohibit internet sales of cigarettes in Canada. As observed in social media postings, there are reports that smokers do buy cigarettes online so as to obtain cheaper cigarettes. Smokers in the United States who buy cigarettes online appear to be primarily motivated by lower prices, as internet vendors generally sell cigarettes without paying excise taxes for the destination state.[129] Further, compared to smokers who reported paying full-price at traditional retail stores, online cigarette purchasers in the United States reported a significant increase in cigarette consumption over time.[129] Recent online Internet searches point to numerous websites that specifically target Canadian smokers by selling and shipping cigarettes to Canada (e.g., www.CanadaCigarettes.org, CheapCigarettesCanada.com.). The market share of online cigarettes is unknown, as is the success rate of importing these products through the mail (survey data suggest rates are extremely low, with much of these data suppressed for not meeting release criteria).

Price

In Canada, tobacco companies have vigorously lobbied against tobacco tax increases and have attempted to link illicit trade in cigarettes with high taxes, as suggested by a recent excerpt from Imperial Tobacco Canada's website: "The problem [illegal cigarettes] is exacerbated by excessive levels of tobacco taxation."[130] Yet, tobacco companies in Canada continue to raise their portion of the retail price of cigarettes, which helps to enhance their financial position, as suggested by the following quote from Rothman's 2007 Annual Report: "RBH increased net sales in fiscal 2007 by $11 .4 million or 1.9% to $618.6 million, as a result of increased volumes in the cigarette price category and higher prices, which more than offset the impact of volume declines in premium cigarette and fine cut products."[131]

In the Canadian cigarette market, there is a complex interplay among price, taxation, illicit tobacco, economics, and politics. For instance, in Ontario, the last provincial tobacco-specific tax increase was made on February 1, 2006. Implementation of the HST on July 1, 2010 raised the provincial tax on a carton of 200 cigarettes in Ontario from $24.70 to $29.80. There has been no other tax increase in Ontario since, and the province has the second-lowest total tobacco tax in Canada. In contrast, available data from Rothmans' 2007 and 2008 Annual Reports[xxvi] underscore an aggressive pricing strategy, with a $1.00 per carton increase in November 2006 for premium price categories and by year end, another $1.00 per carton for select brands and all

[xxvi] Rothman's was a Canadian public company that was purchased by Philip Morris International in 2008. Since then, annual (fiscal) reports on Canadian operations have been unreported.

price brands (Accord brand excepted), as well as $1.50 for all premium brands.[132] Similarly, in fiscal 2008,[133] Rothmans implemented a price increase in the second quarter of $1.00 for Mark Ten and Canadian Classic brands and another increase of $1.00 for select premium brands and all price category brands (Accord excepted), as well as a $1.50 per carton increase for all other premium brands. By year-end, Rothmans had again increased the price per carton by $1.00 across all cigarette price points (Accord and Canadian Classique brands in Atlantic Canada excepted; Dunhill brand increased $5.20 and Québec Classique brand reduced by $5.97). Data are not readily available for more recent fiscal years or from the other two main companies in Canada (Imperial Tobacco and JTI). What is clear is that tobacco companies heavily lobby governments not to raise taxes (with the argument that is will increase illicit tobacco), yet they continue to implement price increases.

Illicit Tobacco Sales

While a detailed discussion of illicit cigarette sales is beyond the scope of this chapter, this topic merits coverage in the context of pro-tobacco influences. It is a critical (negative) vector working against tobacco control efforts in Ontario. Widespread use of illicit cigarettes poses a significant risk to Ontario's accomplishments in tobacco control and likely contributes to a slower rate of decline in the prevalence of smoking than would otherwise be the case.[134]

The actual level of contraband use is difficult to obtain. As with all measures of contraband, an estimate of the relative change in contraband from one year to the next may be more informative than an estimate of the absolute level of contraband in any given year. It is also useful to triangulate the level of illicit tobacco by comparing multiple data sources. Below, we use population survey data and administrative data on police seizures to gain a better understanding of the illicit market.

According to the Canadian Tobacco Use Monitoring Survey,[135] in 2011 4% of current smokers in Canada identified First Nation Reserves as their usual source of cigarettes. When asked about efforts to obtain cheaper cigarettes in the past six months, current smokers reported they purchased cigarettes from a First Nation Reserve (11% of respondents) and cigarettes that may have been smuggled (3%). As reported by Health Canada, purchasing cigarettes from a First Nation Reserve has declined in recent years: with 20% of current smokers purchasing these cigarettes in 2007, 16% in both 2008 and 2009, 14% in 2010, and 11% in 2011.[135]

Pounds of tobacco seized by law enforcement is another accessible measure of change in the contraband market. It should be noted, however, that it is an imperfect measure. For instance, as

more resources are put into policing, one would expect more seizures, which may or may not reflect a growth in illicit tobacco.

- According to the RCMP,[136] approximately 598,000 cartons and unmarked bags of illicit cigarettes were seized in 2011 across Canada. This represents a 22% decrease over 2010 seizures (598,000 vs. 782,000, Table 17).
- The RCMP also seized approximately 38,000 kilograms of fine cut tobacco, representing a 12% decrease from the 43,000 kilograms seized in 2010. 2,200 kilograms of raw leaf tobacco were also seized, representing a decrease of 58 % from the 5,300 kilograms seized in 2010.[136]
- In addition to the cigarette seizures in 2011, the RCMP also seized approximately 1,164,000 illegal cigars, representing a 720% increase from 2010 seizures (142,000).[136]

Table 17: RCMP Cigarette Seizures (Cartons/Unmarked Bags) and Fine-Cut Tobacco (KG), Canada, 1994 to 2011

Year	Cartons/ Unmarked Bags	KG
1994	456,300	36,000
1995	437,700	36,000
1996	356,600	62,000
1997	222,220	20,000
1998	158,300	6,000
1999	115,000	24,000
2000	36,100	16,000
2001	29,000	2,000
2002	39,800	5,000
2003	59,300	8,000
2004	120,000	11,000
2005	369,100	14,000
2006	472,300	4,000
2007	626,000	28,000
2008	965,000	70,000
2009	975,000	34,000
2010	782,000	43,000
2011	598,000	38,000

Source: RCMP 2011 Contraband Tobacco Statistics.[136]

Product and Package Innovation

New and Updated Tobacco Products

It is increasingly important to monitor the promotion of new tobacco products e.g., e-cigarettes), as well as changes to existing products (e.g., filter technology, flavours, etc.). New tobacco products have the potential to grow rapidly in popularity in part by enticing people who might otherwise never have considered smoking traditional tobacco products like cigarettes to experiment with the product. Some people may also believe that alternative products are less harmful than regular cigarettes.[137]

Electronic Devices

- One new product class recently introduced into the Ontario market is the electronic vapor device such as an e-cigarette. Figure 51 shows a variant of this product—a flavoured E-Hookah vapor device. This product is particularly troublesome given the emerging use of flavoured water pipe use in Ontario. Additionally, because this device does not contain tobacco, it is permitted to be displayed at retail point-of-sale, thus increasing customers' social exposure to flavoured smoked products.

Cigar/Cigarillos and Flavours

- Bill C-32 prohibits flavoured tobacco products if the wrapper is composed of tobacco and weighs under 1.4 grams (this includes products typically referred to as little cigars or cigarillos). The Act also prohibits the sale of these products in units of less than 20. Since Bill C-32 has come into force, it has become evident that the industry response has been to make product modifications to be fully compliant with the Bill. Figure 52 shows a recent advertisement for Colts, showing that they are now fully C-32 compliant as the stick has been made 8 mm longer. As a result, this product can now be sold in units of less than 20 and can be sold in flavours such as Rum & Wine, Whiskey and Black Cherry.
- Similarly, Figure 53 shows an advertisement pre-Bill C-32 and post-Bill C-32 demonstrating that there has been little change in the promotion of this brand. Although perhaps not readily obvious, the post-Bill C-32 advertisement shows a product that is heavier than 1.4 grams and has no actual filter (despite the appearance of one). As a result, it can retain the use of flavours (e.g., peach, grape, strawberry, cherry, etc.). Although both the terms 'cigarillo' and 'cigar' are used in the pre-Bill C-32 advertisement,

the packaging of the post-Bill C-32 ad uses the term 'cigar'. Other brands have sometimes retained the term 'cigarillo' despite the product being a cigar (the Act makes no mention of product labels).

- Given the industry's response to Bill C-32, there is some ambiguity for consumers about what is or is not a cigarillo or cigar.

Cigarettes

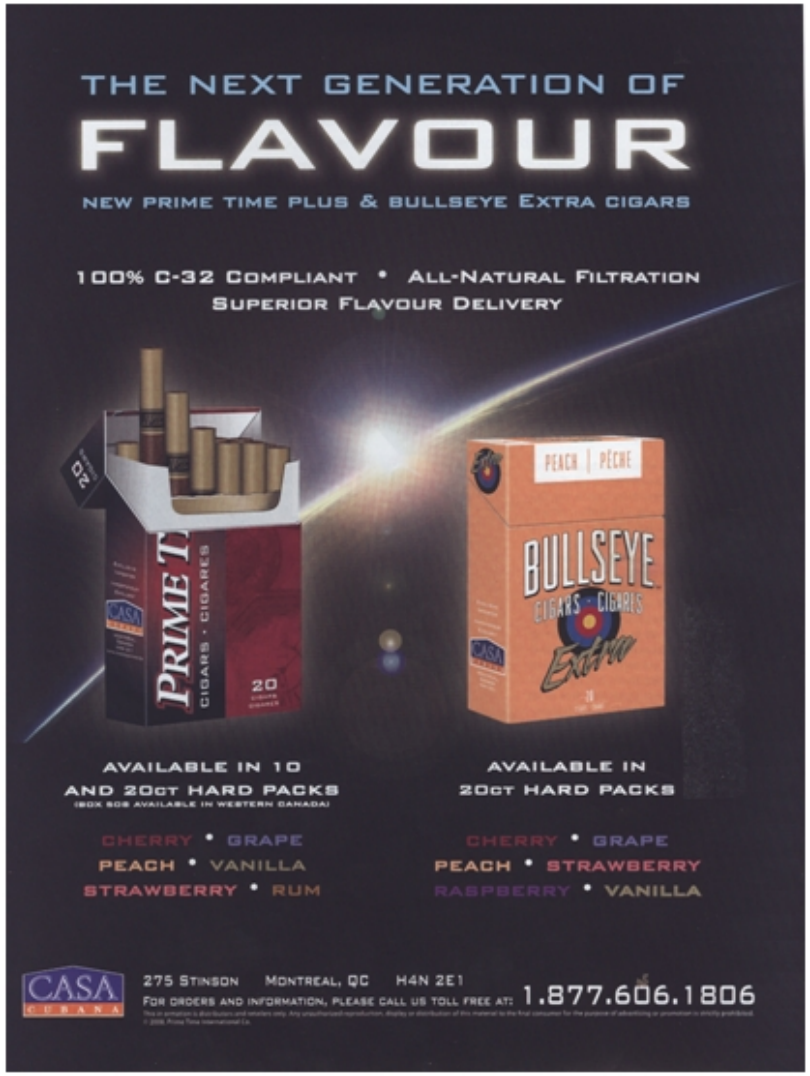
- In the Fall of 2012, JTI added two new brands to their portfolio. As shown in Figure 54, JTI has introduced the first discount super slim brand in Canada. It also introduced a premium super slim brand that is being promoted as a luxury brand and apparently strongly marketed toward females. This new brand is also notable for its brand stretching; that is, it has taken on the highly regarded Export 'A' brand name.
- The two JTI products shown in Figure 54 are also notable in that the design appears to take optimal advantage of the available industry portion of the package for branding, despite the health warning occupying 75% of the front and back principal surface areas (see the brand name "Superslims" written in large font on the side of both packages).

Figure 51: E-Hookah Electronic Vapor Device (Non-tobacco)

Figure 52: Redesign of Colts to be Compliant with Bill C-32

Figure 53: Turning a Cigarillo into a Cigar, Prime Time Refresh Pre and Post Implementation of Bill C-32

Source: Your Convenience Manager (May/June 2010)



Source: Your Convenience Manager (July/August 2010)

Figure 54: New Product Launches by JTI-MC, Fall 2012

Source: Your Convenience Manager (September/October 2012)

Package Design

With limited tobacco advertising permitted in Ontario, the package now represents one of the last means of promoting tobacco products. Cigarette packaging not only conveys information about the brand, it is imbued with messages of perceived strength and lifestyle such as glamour, luxury, masculinity and femininity.[138] For adolescents especially, the package can function as an accessory and as a way of associating themselves with specific characteristics and status.[139] The pack thus promotes a brand image despite bans on most forms of advertising.

In July 2011, a line of three special edition Number 7 cigarette packages was released by Rothmans. These special edition packs were very male-oriented, with strong metallic industrial designs covering the principal surface areas. Also of note was the reusable tin packaging. A 'window' at the bottom front of the outer paper box has a design that displays the branded front surface of the tin (Figure 55).

The tin itself features a clasp, rounded-corners, and an embossed industrial pattern on the lower front face. The pattern is repeated in ink on half of the back and all of the sides. Health warnings are depicted on 50% of the tin's outside front and back surface areas.[xxvii] When opened, the tin's inside surface area is visible, including the reverse of the front embossed pattern. The Number 7 cigarette pack, which was what the customer was buying, is inside the tin.

The packaging of this special edition substantially increases the space available for brand promotion; the consumer is exposed to 200% more promotional space when counting the outside paper box and the tin box that comes with the original purchase.[xxviii]

Perhaps more significantly, the tin facilitates the transfer of cigarettes from the original pack to the tin. Smokers who do this can circumvent the 75% health warning currently mandated on all cigarette packages sold in Canada including the Number 7 brand.[xxix]

[xxvii] When the package was purchased, regulations on health warning size mandated that 50% of the principal surface area be covered with a warning.
[xxviii] As the box has a cut-out that reveals the tin inside, consumers are exposed to the same 50% industry message of the tin twice.
[xxix] Canada's new regulations increase the size of the health warning from 50% of the front (and back) principal surface area of a cigarette package to 75%.

Figure 55: Number 7 Limited Edition Package with Tin, Rothmans

Number 7 Package, Tin, and Outer Package (with Window)

Open Tin

Marketing and Promotion

Many of the groups that monitor pro-tobacco influences recommend using various marketing-related indicators (e.g., the Surgeon General's Report, the CDC, and the State of California evaluation report).[8,120,121] There is evidence that individuals (especially adolescents) are aware of, recognize, and are influenced by tobacco advertising.[140] Exposure to tobacco advertising is one of the major factors that influence tobacco consumption, experimentation, relapse, and increased smoking prevalence among youth.[141] Tobacco marketing can take many forms including traditional advertising but also more innovative online approaches to create positive imagery around these products.[140]

In Ontario, tobacco company annual expenditures on marketing and promotion at retail totaled $3.1 million in 2009.

Digital Advertising

Tobacco companies continue to launch new products and refresh existing brands. One avenue available for promotion of these products is the Internet. For example, in conjunction with the launch of the Export 'A' Authentic Flavour line extension, JTI released four limited-edition Authentic Flavour pack designs. URLs found on and inside each package, as well as in retail trade information, invited consumers to "Make your vote count at www.myurbanvote.com." Once at the website, participants were asked to rate how likely they would be to buy each pack and to vote for their favourite design (Figure 56). In exchange, participants were mailed a $5 Tim Horton's gift voucher.

JTI engaged retailers and consumers by soliciting their aesthetic preferences with the expressed[xxx] purpose of informing the brand's packaging design. In this way, the design contest was a form of 'interactive marketing,' a technique that enables companies to "keep track of customer preferences and tailor advertising and promotions to those needs."[142] Marketing literature refers to this situation as "a marketer's dream – the ability to develop interactive relationships with individual customers."[142]

[xxx] The website states: "Your opinion counts and will ultimately help decide which new Export 'A' authentic flavor design we go with."

Figure 56: Authentic Flavour Contest

Note: The chosen design "#3 Repeater" (third from left) was revealed in early 2012 and showcased at a retail trade show (Convenience U Carwacs).

Market Research

In order to access the Authentic Flavour design contest, participants were required to provide their name, mailing address, birth date, and smoking status, as well as how many cigarettes per day the visitor smokes and the length of time s/he has been smoking.

A subsequent Export 'A' survey (www.discoveryourshade.com) asked participants what brands they smoked (Figure 57), the location of purchase, the number of cigarettes they smoke per day, the number of years the web site visitor has been a smoker, their employment status, whether the visitor is in school, and whether the visitor smokes "factory made cigarettes." It also asked whether the visitor wanted to receive the "Export 'A' newsletter." This website was ostensibly to help consumers pick their preferred package shade, but as there was no actual opportunity for consumers to 'discover their shade,' it appears the website was a pretense for market research on smokers' demographics and lifestyle characteristics.[xxxi]

The privacy policies of both sites (www.myurbanvote.com and www.discoveryourshade. com) stipulate "By providing us with your Personal Information, you [the participant] authorize us explicitly to collect, use, hold and disclose the information."

[xxxi] The site's Terms of Use document acknowledges that the "website is operated for the purpose of providing general factual information about JTI-MC products and their characteristics and to obtain feedback from adult consumers regarding such products."

Figure 57: Know Your Shade Contest

Social Marketing

Export 'A' smokers were initially drawn to www.myurbanvote.com by the web address printed on the cigarette packs. However, word of the website (and free Tim Horton's gift card) spread online and went viral on (discount) coupon sites. In this online environment, it would not have been possible to limit awareness of the contest to existing smokers, nor would it have been possible to have full control over who logged on to the site. This is particularly the case when there is an incentive to participate.

Smoking in the Movies

The depiction of tobacco use in movies increases the social exposure of tobacco products and tobacco use. Such depiction helps to normalize smoking behaviours, particularly when tobacco products are seen being used by well-known celebrities. Viewing on-screen smoking is correlated with both youth smoking uptake and becoming an established smoker.[143] Furthermore, a causal relationship has been established whereby exposure to on-screen smoking leads to subsequent smoking initiation among youth.[144]

Because of the reluctance of Canadian rating agencies to rate top-grossing United States movies as "adult" (18A), Canadian children and adolescents are being exposed to an estimated 60 percent more on-screen smoking than their US counterparts.[145] As the majority of movies depicting tobacco use released in Canadian theatres (125 of the 145) were youth-rated films (G, PG, 14A) in 2009, young Canadian movie-goers were frequently exposed to on-screen smoking. By playing these 125 G/PG/14A films across Canadian theatres, over 1.117 billion tobacco impressions were delivered, which is equivalent to 68% of all in-theatre tobacco impressions.[145]

Evidence based on four large U.S. studies suggests that a substantial proportion of youth smoking (44%) can be attributed to on-screen smoking exposure.[146] Using the American results and applying them to the Canadian youth population, an exposure to on-screen smoking could lead to tobacco addiction among approximately 130,000 Canadians aged 15 to 19. Eliminating the exposure to on-screen smoking could have the potential to stop these Canadian teenagers from starting to smoke, thereby preventing possibly 43,000 premature deaths attributable to smoking.[146]

Summary

Evaluation of efforts toward achieving Strategy goals needs to consider the opposing forces of pro-tobacco influences.

Production of tobacco in Ontario appears to be increasing. Wholesale cigarettes sales appear to be on the rise (10.8 billion cigarettes sold in 2011), which may reflect a return of some consumers to the legal market. Total revenue from tobacco manufacturing was $1.42 billion.

New products continue to be launched such as electronic vapor devices. Moreover, existing products have undergone product modification (e.g., flavoured cigars). One result is that the spirit of recently introduced legislation that prohibited flavours in cigarillos has been circumvented. Specifically, this legislation has not had the full anticipated impact given manufactures have introduced numerous flavoured cigar brands in the same likeness of the former (and now prohibited) cigarillo brands (see Prime Time and Colts Figures, above).

Tobacco companies have introduced slick new packaging for numerous brands. This packaging appears to be imbued with lifestyle messages including those connoting luxury and feminine products (see Export 'A' Superslims package), as well as masculine products (see Number 7).

Promotion occurs in other novel ways as well. Several websites offer cigarettes for sale to Canadian customers and tobacco companies are reaching current smokers and nonsmokers with Internet contests. Top-rated movies in Canadian theatres continue to have numerous tobacco scenes, which have created over a billion tobacco impressions (1.117 billion) in G/PG/14A films.

Chapter 7: Concluding Note

The Smoke-Free Ontario Strategy has made impressive inroads in implementing a comprehensive approach to achieving its vital tobacco control goals. Nevertheless, the evaluative information presented in this report makes it clear that there are still gaps between the desired and actual outcomes and in Strategy implementation.

The Smoke-Free Ontario Strategy is supporting positive changes in the physical and social climates for tobacco use, creating environments conducive to decreased initiation and increased cessation. Yet, this review indicates gaps between what the Scientific Advisory Committee deemed necessary and the scope and reach of policy, program and media interventions. For instance, while evidence suggests that increasing taxes on tobacco products is highly effective in reducing smoking rates.[52,53,54,55,56,57,58,59] Ontario has the second-lowest provincial tax on a carton of cigarettes among all provinces and territories.

Ontario has made great strides in tobacco control. To become Canada's lowest smoking jurisdiction and to relieve the health, social, and economic burdens of tobacco use, these efforts must be intensified.

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 had 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, 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 2011, estimates were based on telephone interviews with 3,039 adults (51% of eligible respondents), 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%. 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. The annual targeted sample size for 2010 was 65,724. 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 18. 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 18: 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 19. The analysis was conducted using the 2009/10 CCHS Master file. All survey estimates were weighted, and variance estimates were calculated using bootstrap weights.

Table 19: Indicators of Chronic Disease Risk Factors and Social Determinants of Health, CCHS

Indicator	Definition
Completed post-secondary school	Respondent's household's highest level of education is post-secondary school completion
Inactive	Respondent is "inactive" in their leisure time based on the total daily Energy Expenditure values
Male	Male
Unhealthy eating habits	Respondent eats less than 5 servings of fruits and vegetables per day
Identifies as being white	Respondent reported that his/her cultural / racial background is White
Food Secure	Respondent has no, or one, indication of difficulty with income-related food access
Works full-time	Respondent currently works full-time
Has a family doctor	Respondent has a regular family doctor
Past year drug use	Respondent reported illicit drug use (including one time cannabis) in the past year
Own current dwelling	Respondent's dwelling is owned by a member of the household
Born in Canada	Respondent is not an immigrant
Non-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
Accountability Agreement definition	

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.

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

Our list of recommended indicators are organized into seven thematic areas (those with check marks are used in this report), as follows:

Tobacco Agriculture & Production

- ☑ Number of farms, by region
- ☑ Amount of tobacco sold

Distribution & Consumption

- ☑ Tobacco company total sales
- ☐ Product market share

Availability

- ☑ Number of retail outlets
- ☑ Number of retailers with licenses
- ☑ Internet sales of tobacco

Price

- ☑ Average retail cigarette price and taxes
- ☑ Illicit cigarette sales

Product & Package Innovation

- ☑ New tobacco products being manufactured
- ☑ Changes in existing tobacco products
- ☑ Package design

Marketing & Promotion

- ☑ Annual marketing expenditures
- ☑ Digital advertising
- ☑ Smoking in the movies and entertainment industry

Partnerships & Corporate Activities

- ☐ Corporate social responsibility programs

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