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

Generating knowledge for public health

Busting Myths About Smoking Cessation

A Synthesis of Population-Level Findings from the Ontario Tobacco Survey

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Table of Contents

Key Messages

Many myths about smoking cessation still exist as appropriate research on the dynamics of smoking cessation at a population level is lacking. The Ontario Tobacco Survey (OTS) was developed to provide a unique dataset to further our understanding of smoking cessation. Some key findings from this study include:

- Quit attempts occur more frequently than expected and we need to do better in measuring these attempts
- Cessation medications can be effective at helping smokers succeed in quitting, especially in combination with advice from a health professional; however, different cessation medications and the duration of use affects chances of success
- Population-level interventions such as mass media campaigns, smoking bans on patios, and eliminating “light and mild” labels can have significant impacts on smoking behaviour
- Contraband tobacco and low cost cigarettes have negatively impacted the ability of smokers to quit
- Occasional smokers are a heterogeneous group, and many occasional smokers are in transition
- Smoking in Ontario is a widespread issue; however, we have not observed any indication of decreased prevalence of intentions to quit, quit attempts and success in quitting

Overview of the Ontario Tobacco Survey

Study Rationale

Most research in tobacco control focuses on the health effects of smoking. Surprisingly, little is known about the process of smoking behaviour and smoking cessation over time among the general population. This lack of knowledge has led to the development of a number of misperceptions of the dynamic and complex process of smoking cessation. The Ontario Tobacco Survey is a population-representative longitudinal survey of adult smokers and cross-sectional survey of nonsmokers on smoking attitudes and behaviours. It was undertaken by the Ontario Tobacco Research Unit (OTRU) to evaluate and inform the Smoke-Free Ontario Strategy and to gain a better understanding of the processes of, and influences on, smoking cessation and relapse.

Understanding smoking trends in this population has been limited for two main reasons:

- Many surveys are cross-sectional in nature[i]—while they provide a wealth of trend information, cross-sectional studies do not allow for tracking individual changes over time or identifying factors that predict behaviour change
- Other studies have a small sample of Ontario smokers and/or limited smoking specific content.[ii] This results in limited statistical power to assess change among Ontario smokers, as well as narrow content specific to smoking cessation behaviour change and exposure to cessation programs and policies

The Ontario Tobacco Survey (OTS) is a unique study: smokers were re-interviewed every six months for up to three years. This established a representative cohort of smokers and nonsmokers in Ontario with rich data on smoking behaviour change over time with a relatively short follow-up period.

The OTS was an initiative of the Ontario Tobacco Research Unit which receives funding from the Ontario Ministry of Health and Long-Term Care. This study received ethics approvals from the

[i] e.g., Canadian Community Health Survey (CCHS), Centre for Addiction and Mental Health Monitor Survey (CAMH Monitor), Canadian Tobacco Use Monitor Survey (CTUMS) and Canadian Tobacco, Alcohol and Drugs Survey (CTADS)
[ii] e.g., National Population Health Survey (NPHS)

University of Toronto and the University of Waterloo. This report will highlight some of the key findings from this unique study.

Participants and Methods

The OTS consists of a cross-sectional and a longitudinal component. The cross-sectional survey component of the OTS consists of a set of six population-representative telephone surveys of Ontario adults (18 years of age and over), stratified by region (Eastern, Greater Toronto Area, South Western, and Northern, based on telephone area code) and smoking status (any smoking in the past six months).[1] Data collection for the first baseline survey (Cohort 1 of the OTS) began in July 2005; collection of the final baseline study (Cohort 6) was completed in June 2008. These six cross-sectional samples were paired with a longitudinal component that allowed for repeated follow-up interviews of recent smokers (had smoked within the past six months at recruitment). Follow-up interviews took place at approximately six-month intervals, for up to three years. This cross-sectional/longitudinal hybrid design provides descriptive snapshots of the Ontario population and allows for the examination of changes over time in smoking behaviours, exposures and attitudes.[2,3,4]

For each of the first six waves of the survey, 1250 new study participants were recruited, comprising:

- 750 recent smokers who were invited to participate one baseline (cross-sectional interview) and up to six follow-up surveys which occurred at 6-month intervals
- 500 nonsmokers who were invited to participate in a single baseline (cross-sectional only) survey[5]

The overall survey response rate was 57% (61% among smokers and 51% among nonsmokers). Participant retention from baseline among smokers who were eligible for follow-up was high: 80% at the 12-month follow-up.

Evaluation of the OTS Baseline Sample

Baseline survey weights were calculated calibrated to the 2006 Census based on age and sex.[6] Further demographic comparisons to the Census data identified that the OTS sample over-represented those who were married or in a common-law relationship (70.5% vs. 56.6%), thereby

under-representing those who were never married (16.9% vs. 25.4%) and those who were widowed, separated or divorced (12.6% vs. 17.9%). In addition, the OTS over-represented those with a university degree (32.9% vs. 22.4%), while under-representing those with only a high school education or less (31.8% vs. 44.6%). This over-representation of high education is common to telephone surveys.[7]

Key Findings

Myth: Setting a Quit Date Helps Smokers Quit

Planning plays an integral role in many theories of behaviour change (e.g., Theory of Planned Behaviour, Transtheoretical Model of Change) and has been considered an important element of many quit smoking programs. OTS research identified a dose-response relationship with intention to quit and cessation behaviours: the sooner one intended to quit (up to 30 days) the more likely one was to have made an attempt to quit or be smoke-free within the next six months.[8] Additional OTS research found that while most smokers planned quit attempts, one in four attempts (26%) were unplanned; after one week, planned attempts were significantly less likely to be successful than unplanned attempts (odds ratio (OR)=0.45, 95% CI: 0.22, 0.89), controlling for other demographic and smoking-related characteristics.[9] This is consistent with similar findings from England and the United States.[10,11] There are benefits to unplanned quitting; thus, it may be appropriate for smoking cessation programming in Ontario to be adaptable to further assist those who quit spontaneously.

Fact: There are benefits to unplanned quitting with approximately 1 in 4 smokers quitting spontaneously.

Myth: If a Quit Attempt Doesn't Last 24 Hours, It's Not a Serious Attempt

A common definition of a quit attempt requires any attempt to last longer than 24 hours in order to make a distinction between substantive and trivial attempts to quit smoking.[12,13] This broadly-used definition reduces estimates of the number of quit attempts that occur within a community. Among 2974 quit attempts reported over the OTS study period, 11% did not last one day. When

adjusting for individual and smoking characteristics, higher levels of addiction, prior pharmaceutical cessation aid use, being a daily smoker and older age were independent predictors of failing to abstain from smoking for 24 hours.[14] Although recommendations suggest that Ontario align quit attempts measurements[15] with National[16] and International Comprehensive Evaluation Standards, there is no evidence to suggest that using the 24 hour criterion identifies more serious quit attempts than self-reporting a "serious" attempt. Smokers who described a serious quit attempt but had difficulty abstaining for 24 hours are systematically different from smokers who abstained 24 hours or more. Therefore, it may be appropriate to capture all smokers who make a "serious" attempt and ensure effective services are available and targeted to those who have the most difficulty quitting.

Fact: Serious quit attempts may not last 24 hours—the primary reason that quit attempts fail is a person's level of addiction to nicotine.

Myth: Quit Attempts are Relatively Uncommon

Most of the standard estimates of quit attempts are derived from population-based, cross-sectional studies that ask smokers to remember behaviour that occurred in the past year or longer. The OTS allowed for a better estimate of how often people were trying to quit by following smokers for up to three years. An annualized quit rate was calculated to estimate the average number of successful and unsuccessful quit attempts that were reported per year. Over the course of study follow-up, 64% of smokers reported at least one quit attempt. On average, adult smokers in Ontario reported 1.2 attempts per year. Men had a higher quit attempt rate than women, and young adult smokers (18-24 years) had the highest rate compared to other age groups. Occasional and less addicted smokers were more likely to make quit attempts. Ontario smokers are trying to quit–smoking cessation programming should continue to encourage, support and assist smokers making quit attempts.

Fact: Ontario smokers are making more than one quit attempt a year.

Myth: It Takes 5-7 Attempts to Quit

Many resources for smoking cessation programming cite that it takes 5-7 attempts for a smoker to quit successfully (i.e. having quit for at least a year).[17,18,19] However, these estimates are significantly biased since they rely on recalled lifetime quit attempts from successful quitters; these estimates from successful quitters are likely lower than those who are less successful. Also, quitting smoking can take many years; people are likely to forget and underestimate the true number of quit attempts made.[20,21] To overcome these limitations, the average number of attempts for successful quitters was calculated using a life table analysis. Using the OTS cohort of smokers, we found that smokers can be expected to make an average of 30 quit attempts before they succeed. This is significantly higher than previous estimates but is consistent with the estimate that smokers attempt to quit more than once per year on average. Health professionals and addiction counsellors need to understand the complex process of quitting and support smokers through the numerous attempts that may be required to succeed.

Fact: On average, it may take more than 30 attempts for smokers to successfully quit.

Myth: Use of NRT for Any Duration of Time Can Help Smokers Quit

Nicotine replacement therapy (NRT) can help people quit smoking.[22] Real world studies are important because they demonstrate the generalizability of the intervention and the potential to promote population-wide changes in smoking prevalence. The association between NRT use and smoking cessation in general population studies has been inconsistent. Population-based studies have also failed to assess the impact of the duration of NRT use has on quitting success. In Ontario, NRT is readily available over-the-counter. OTS research identified that only 1 in 4 smokers who met the clinical guidelines for use had used NRT; NRT use was low among those not trying to quit.[23] Additional OTS research identified that NRT was not associated with quitting when duration of use was not taken into account. Compared with not using NRT when attempting to quit smoking, using NRT for less than 4 weeks was associated with a lower likelihood of quitting (adjusted OR=0.51, 95% CI: 0.38, 0.67). However, using NRT for 4 weeks or longer was associated with a higher likelihood of cessation (for 4.0–7.9 weeks of NRT use, adjusted OR=2.26, 95% CI: 1.58, 3.22; for 8.0–11.9 weeks of NRT use, adjusted OR=3.84, 95% CI: 2.24, 6.58; and for ≥12 weeks of NRT use, adjusted OR=2.80, 95% CI: 1.70, 4.61). For optimal effect,

using NRT for 8 or more weeks can double or triple the odds of quitting. In order to facilitate smokers' attempts to quit, health professionals should counsel patients about the proper duration of NRT use.[24]

Fact: Using NRT for more than 4 weeks can help smokers quit; however, using NRT for less than 4 weeks may hinder success. Optimally, NRT should be used for 8 weeks or longer to double, or even triple, the odds of quitting.

Myth: All Smoking Cessation Medications Have the Same Effect in the Real World

Strong evidence from randomized control trials shows that smoking cessation medications can help people quit smoking; however, there are mixed results for the effectiveness of cessation medications in the general population. Moreover, few studies have examined the effectiveness of varenicline (e.g., Champix or Chantix) in a population-representative sample. Smokers who used varenicline were less likely to relapse (Hazard Rate (HR)=0.71, 95% CI: 0.58, 0.87), suggesting that varenicline was effective at helping smokers quit. In contrast, the use of buproprion (e.g., Zyban or Wellbutrin) did not appear to affect the rate of relapse (HR=1.03, 95% CI: 0.81, 1.84), while those who used nicotine gum were more likely to relapse (HR=1.22, 95% CI: 1.06, 1.41). The use of the nicotine patch was found to be highly effective early in a quit attempt (HR=0.74, 95% CI: 0.64, 0.86), but that effect diminished over time (HR=1.20, 95% CI: 1.09, 1.33).[25] Health professionals helping Ontario smokers quit should review the effectiveness of cessation medications and advise smokers on selecting products that meet their needs.

Fact: Cessation medications work in different ways. Varenicline and the nicotine patch appear to be more effective than nicotine gum in helping smokers quit.

Myth: Health Professionals Only Need to Advise Smokers to Quit

Health professionals play an important role in reducing tobacco use. Strong evidence from randomized controlled trials shows that even brief advice from health professionals can improve the success of quit attempts; however, in the general population, little research has been conducted on the relationship between receiving advice from health professionals and smoking cessation. Furthermore, research has not assessed the role of smoking medications in the

association between advice and cessation. We identified that smokers receiving advice to quit smoking were more likely to use cessation medications than those not receiving advice (21% vs. 13%, P<0.001). Using cessation medications was associated with making a quit attempt (adjusted OR=11.83, 95% CI: 9.93, 14.08), short-term quitting (1-6 months: adjusted OR=3.69, 95% CI: 2.90, 4.68), and long-term quitting (>6 months: adjusted OR=2.73, 95% CI: 1.95, 3.82). Using cessation medications was a significant mediator in the pathway from receiving advice to quit smoking, accounting for an estimated 83% of the impact of advice on making a quit attempt, 81% on short-term quitting, and 38% on long-term quitting. Health professionals in Ontario can optimize patient care by advising smokers to quit and encouraging them to use recommended cessation medications.

Fact: Health professionals can significantly improve their patients' health by advising smokers to quit and helping them to succeed by selecting appropriate cessation medications.

Myth: The Predictors of Cessation Are Consistent Across the Life Course

There are common clinical predictors of smoking cessation.[26] Research has shown variation of these predictors in the general population by age and geographical region. An analysis of the OTS longitudinal data identified the predictors of making a quit attempt among young adults in Ontario were use of cessation resources (pharmacological and/or behavioural), having a history of quitting and intention to quit (p<0.05).[27] In contrast, quit attempts among older Ontario adults were predicted by use of pharmacotherapies and behavioural therapy, having a history of quitting, and greater nicotine dependence.[28] Among young adults, abstinence for 30 days or more (among those attempting to quit) was predicted by higher self-efficacy, having social support, using cessation resources, and lower levels of addiction (p<0.05). Among older adults, abstinence was predicted by use of the nicotine patch (adjusted OR=3.28, 95% CI: 2.04, 5.27) or varenicline (adjusted OR=2.34, 95% CI: 1.25, 4.37); occasional older adult smokers were also more likely to maintain their abstinence than daily smokers (adjusted OR=2.12, 95% CI: 1.14, 3.95). Younger and older smokers have different predictors of cessation. Targeted programs are necessary to address the different cessation needs of younger and older smokers in Ontario.

Fact: Younger and older smokers have different predictors of smoking cessation; tailored programming can help these smokers succeed in quitting.

Myth: Transitioning from Daily to Occasional Smoking is an Effective Cessation Strategy

Cutting down to quit is frequently debated, with conflicting evidence on the effectiveness of this strategy.[29,30] Using the OTS, we assessed the transitions in smoking status among a cohort of Ontario smokers. Occasional smoking was an unstable state with the majority of previous daily smokers transitioning back to daily smoking. Daily smoking was stable, with 83% remaining daily smokers over follow-up. We also demonstrated that changes in smoking behaviour were not just determined by current smoking status and cigarette consumption, but also by past changes in smoking status. Cessation programs in Ontario should assess smokers' quitting history and encourage smokers to quit completely; those who reduce should receive continued support to abstain completely.[31]

Fact: The majority of occasional smokers who used to smoke daily transition back to daily smoking.

Myth: Occasional Smokers Are a Homogeneous Group

Occasional smokers are becoming an important segment of all smokers, with increasing proportions in several countries.[32,33] However, there is limited research and understanding whether occasional smokers are a homogeneous group. We analyzed the OTS longitudinal data to assess if distinct subgroups of occasional smokers were evident in a representative sample of Ontario smokers. We identified four different clusters of occasional smokers based on differences in age, perceived addiction, and history of daily smoking. Almost half of these occasional smokers were still occasional smokers at the 1 year follow-up, while 35% of occasional smokers were not smoking at all 1 year later. For occasional smokers, smoking cessation efforts in Ontario should continue to emphasize the health benefits of complete cessation. An assessment of appropriate cessation programs for this population may be warranted.[34]

Fact: In Ontario, there are four unique subgroups of occasional smokers. Effective messaging and programming for these subgroups may be necessary to help these occasional smokers quit.

Myth: Smokers Who Don't Want to Quit Are the Same People as Those Who Can't Quit

The hardening hypothesis suggests that as prevalence declines, the remaining population of smokers will become more resistant to quitting. Many definitions of "hardcore smokers" exist with multiple components, including high daily cigarette consumption, high nicotine dependence, being a daily smoker, history of long-term smoking, no intention to quit and having no history of attempting to quit. Every "hardcore" component examined, with the exception of "history of long-term smoking", was predictive of whether or not a quit attempt was made during follow-up. However, among smokers who tried to quit during follow-up, the likelihood of quitting was related to their smoking behaviour rather than their quitting intentions. Those who do intend to quit and who have tried to quit in the past are more likely to try to quit in the future, and therefore this group could be targeted with support and encouragement to try to quit again. As for smokers who are already attempting to quit, "hardcore" components, such as high daily cigarette consumption and being a daily smoker, could be useful in identifying those who may require additional attention and assistance to quit smoking for good.

Fact: The likelihood of quitting is related to nicotine dependence rather than the intention to quit.

Myth: Ontario Smokers Are Becoming More "Hardcore"

Many clinicians report that smokers they see in treatment clinics and programs are becoming much harder to treat and see this as representative of the population of Ontario smokers.[35] When a representative sample of the OTS was compared to the characteristics of smokers attending a nicotine dependence clinic, the analyses found that smokers in the general population were substantially different from smokers seeking treatment.[36] Smokers who sought treatment tended to smoke more cigarettes per day and were more heavily addicted. They were older and had a longer history of smoking, as well as a greater number of unsuccessful quit attempts, both assisted and unassisted. Treatment seekers had lower education and income, less social support to quit, and were more likely to live with other smokers. On the other hand, smokers in the general population had become lighter smokers, smoked fewer cigarettes and continued to

make quit attempts. This suggests that both population-based approaches for the general population and individual, as well as high risk interventions for smokers in treatment are appropriate.

Fact: Ontario smokers seeking treatment are more addicted and have had more difficulties quitting compared to the general population of smokers.

Myth: Cigarette Consumption is Increasing

The hardening hypothesis suggests that over time a greater proportion of the population of smokers will become heavier smokers but this may not be true for the general population of smokers.[37] The OTS longitudinal data and growth mixture modeling technique were used to examine whether a homogeneous trajectory is adequate to describe cigarette consumption over time among adult smokers in Ontario. Three cigarette consumption trajectories were found among recent adult smokers in Ontario:

- Fast decreasing consumption group (15% reducing 7 cigarettes per day at the 36-month follow-up)
- Slow decreasing consumption group (65% reducing 0.4 cigarettes per day at the 36-month follow-up)
- Stable consumption group (20%)

Interventions focused on encouraging smokers to make a quit attempt, implementing home smoking restrictions and using cessation aids can help smokers reduce and eventually quit smoking. Most smokers did not increase their cigarette consumption, with the majorly (80%) decreasing consumption in recent years.

Fact: We identified three unique trajectories of changes in cigarette consumption, with the majority of smokers decreasing the number of cigarettes smoked per day.

Myth: Mass Media Tobacco Control Campaigns Haven't Made an Impact on Smoking in Ontario

Multiple mass media campaigns have been broadcast in Ontario over the past decade, yet during this time, the rates of making attempts to quit smoking remained steady. To properly evaluate these campaigns, we used the OTS longitudinal design to identify changes in smoking behaviour associated with seeing tobacco control media messages. Participants were asked aided recall questions for various anti-tobacco campaigns between 2005 and 2011, as well as exposure to general news media on tobacco, and exposure to pharmaceutical ads for smoking cessation medications. Almost all smokers recalled a campaign over the study period (94%). Smokers who recalled any exposure to mass media campaigns during a specific period were 11% more likely to subsequently report a quit attempt relative to smokers who did not recall campaigns. Independent campaign effects on quit attempts were observed for five campaigns:

- "Quit: You Have It in You"—a quit tips campaign
- "Driven to Quit"—a quit contest
- "Support a Smoke-Free Ontario"—voiced by a dying waitress
- "Don't Let Your Children Be a Target"—a smoke-free homes campaign
- "Stupid.ca"—a humour-based campaign to prevent initiation among youth

In addition, news articles increased the likelihood of making quit attempts by 16% and pharmaceutical ads increased chances of quit attempts by 10%. Tobacco control mass media campaigns are critical components of the Smoke-Free Ontario Strategy. Continued programming for effective campaign messages are important to encourage and support smokers to quit. Local public health organizations can increase quitting in their regions by regularly seeking earned and paid media on tobacco issues and programming.[38]

Fact: Mass media campaigns significantly increased the likelihood of smokers making quit attempts in Ontario.

Myth: Smoking on Patios Has No Impact on Quitting Behaviours

Many jurisdictions have banned smoking in bars and restaurants. In addition to the health benefits for workers and patrons, these bans have been shown to help smokers quit smoking.[39]

Yet, most jurisdictions have allowed smoking to continue on outdoor patios associated with bars and restaurants. Using the OTS, we examined if exposure to smoking on a patio effected successful smoking cessation. Smokers who had been exposed to smoke on a patio in the previous month were 2.4 times more likely to relapse than those who had been to a patio without being exposed to smoke.[40] Ontario's recently implemented ban on smoking on patios should play a role in helping recent quitters stay smoke-free.

Fact: Being exposed to tobacco smoke on a patio negatively affected the chances of a successful quit attempt.

Myth: There Are No Differences Between Regular Brand Low-Cost Cigarette Smokers

Low-cost cigarettes are readily available in Ontario as discount or contraband cigarettes. Low-cost cigarettes can undermine tobacco control's most effective measure to reduce smoking prevalence: keeping cigarette prices high by increasing tobacco taxes.[41] OTS research identified that 1 in 4 smokers switched their brand classification (premium, discount, contraband) over the course of a year, with 70% of switchers moving from a more expensive to a less expensive cigarette type.[42] We analyzed the OTS baseline data to understand who smokes low-cost cigarettes. Compared to premium cigarette brand smokers, discount cigarette brand smokers were more likely to be older, women, have greater heaviness of smoking, and have previously tried to quit ($p<0.05$). Similar factors were also associated with contraband use (compared to premium brand smokers). Compared to discount smokers, contraband smokers were more likely to reside in rural regions, have higher smoking dependence and no intention to quit smoking within the next six months. There are significant socio-economic disparities and smoking behaviour differences among Ontario smokers regularly smoking low-cost cigarettes and those smoking premium brands. Minimum price laws and tax increases can counter the growing discount market.[43]

Fact: Significant socio-economic disparities and smoking behaviour differences exist among Ontario smokers who regularly smoke low-cost cigarettes and those who smoke premium brands.

Myth: Contraband Cigarette Use Has No Impact on Cessation Behaviours

Contraband is any tobacco product that does not comply with federal and provincial laws, which includes importation, marking, manufacturing, stamping, and payment of duties and taxes. In 2005-2006, OTS research identified that more than 1 in 4 Ontario smokers had purchased cigarettes on First Nations reserves in the previous 6 months, with 12% of smokers usually purchasing their cigarettes on reserve.[44] However, little is known about the impact these inexpensive contraband cigarettes have on smoking cessation behaviours. We analyzed the OTS longitudinal data to assess whether the use of contraband tobacco negatively affects smoking cessation outcomes. People who smoked contraband cigarettes were less likely to report a period of 30-day cessation during the subsequent 6 months (adjusted RR=0.23, 95% CI: 0.14, 0.61) and 1 year follow-up interviews (adjusted RR=0.30, 95% CI: 0.14, 0.61). There were no significant differences between those smoking contraband cigarettes and those smoking regular brands with respect to making quit attempts or long-term cessation (› 1-year). People who regularly smoked contraband cigarettes were less likely to quit for 30 days or more. Access to contraband tobacco may be undermining public health efforts at the population level.[45]

Fact: Smokers using contraband cigarettes are less likely to successfully quit in the short-term.

Myth: Smokers Stopped Smoking "Light and Mild" Cigarettes After the Terms Were Removed from the Label

In November 2006, cigarette manufacturers in Canada signed agreements with the Canadian Federal Bureau of Competition to remove "light", "mild", "ultra-light" and "ultra-mild" descriptors from cigarette packaging. The removal of these descriptors, whether part of a cigarette brand variant name or simply listed somewhere on the package, occurred between December 31, 2006 and December 31, 2007. OTS research found that even after removing the descriptors, 33% of smokers continued to report smoking "light" or "mild" cigarettes and that an increasing proportion reported smoking new "light replacement" brands where only minor

elements were changed (e.g., Canadian Classics Light became Canadian Classics Silver).[46] Legislators must be cognizant of industry efforts to undermine public health policies.

Fact: Despite legislation changes that removed "light and mild" descriptors from cigarette packaging, smokers continued to claim they smoked "light and mild" brand cigarettes.

Conclusion

The OTS is a unique population-based, prospective study of Ontario smokers. This research has advanced our knowledge and understanding of smoking and cessation behaviours in Ontario, access to programs and services, as well as the impact of policies and programming in Ontario. Additional research with this unique dataset may further identify cessation behaviours and inform health service utilization and programming in Ontario.

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