

# Young adult smoking cessation: What predicts success?

by

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## **AUTHOR'S DECLARATION**

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

## Abstract

**Background:** Across North America, smoking prevalence is highest among young adults (YAs). Understanding the cessation behaviours of YAs is critical given their higher smoking rates; however, there is a paucity of prospective studies on YA cessation from a population-based sample of smokers.

**Objectives:** This study characterizes younger and older adult smokers as well as identifies the rate of making a quit attempt (QA) and smoking cessation among a representative sample of younger and older adult smokers. Guided by the Social Cognitive Theory (SCT), this study also examines the interpersonal predictors of moving toward smoking cessation among YAs.

**Methods:** Self-report data on 592 YA and 2777 older adult smokers were compiled from the Ontario Tobacco Survey baseline and six-month follow-up interviews. Smoking cessation behaviour was measured as an ordinal variable: made no attempt to quit, made a QA that lasted for less than 30 days, and successfully quit for 30 days or longer. Design-based analyses examined the characteristics of young and older adult smokers. Making a QA and smoking cessation during a six-month follow-up period were modeled according to the SCT constructs while accounting for the complex study design.

**Results:** Young adult smokers were more likely to be men with lower levels of addiction but greater self-efficacy and an intention to quit than their older counterparts. While YA smokers were more likely to make a QA than their older counterparts (25% vs. 17%, respectively), they were no more likely to succeed (14% vs. 10%, respectively). Having an intention to quit smoking and having made two or more lifetime number of QAs predicted making a QA; the use of smoking cessation aids or resources and having knowledge that stop smoking medications make quitting a lot easier also contributed to making an attempt to quit. Self-efficacy, use of smoking cessation aids or resources and having someone to support one's QA were positive predictors of quitting whereas having high levels of addiction was a negative predictor of cessation.

**Conclusions:** Young and older adults are distinct types of smokers with different personal and smoking characteristics. Different factors predicted making a QA and smoking cessation among YAs. Smoking cessation interventions for YAs should provide social support and skills to build and maintain self-efficacy to quit. It is critical to ensure YA smokers have effective smoking cessation aids and services that are easily accessible and appropriate for this population. Future research is needed to understand long-term smoking cessation and relapse in this vulnerable population.

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## **Dedication**

To Gavin and Colleen.

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# Chapter 1

## Introduction

### 1.1 Background

Globally, smoking continues to be one of the leading causes of premature morbidity and mortality. Various cancers, cardiovascular diseases, respiratory diseases, and other adverse effects are associated with smoking (U.S. Department of Health and Human Services, 2004). In 2002, it was estimated that almost 40,000 Canadians died of smoking related deaths (Baliunas et al., 2007). While the general public is becoming more informed about the negative health effects of smoking, it is estimated that approximately 450 million adults worldwide will die from smoking-related illnesses between 2000 and 2050 (Jha, 2009). In fact, tobacco control has been identified as the most pressing non-communicable disease requiring immediate action and intervention globally (Beaglehole et al., 2011).

Comprehensive tobacco control strategies are needed to reduce tobacco use, deaths and diseases related to smoking; these strategies are multi-faceted to optimise efforts from various strategies (U.S. Department of Health and Human Services, 2000). The Framework Convention on Tobacco Control (FCTC) calls for comprehensive programs that include public education regarding the health risks and addictive nature of tobacco, protecting the public from exposure to second-hand tobacco smoke, preventing initiation, and promoting smoking cessation; other factors such as price and product regulation are also important components to comprehensive programs (World Health Organization, 2005). Smoking cessation has been identified as the primary factor to reduce tobacco-related deaths and diseases in the short-term. Jha (2009) states that increased rates of smoking cessation are needed in order to decrease the substantial number of smoking-related deaths worldwide over the next four decades. Cessation of smoking reduces the risk of smoking-related deaths, thereby increasing life expectancy and well-being (U.S. Department of Health and Human Services, 1990). This in turn will reduce the health care costs associated with smoking. The separate components act synergistically, reinforcing intervention components. For example, as more smokers quit, there is reduced exposure and fewer social models, hence lowered pressures to start smoking.

Smoking prevalence has been decreasing across North America; however, smoking rates remain significantly higher among younger adults. In Canada, the population prevalence of smoking (among those 15 years of age and older) has fallen from 25% in 1999 to 18% in 2008 (Health Canada, 2009). Over the same 10-year period, young adults (20-24 years) consistently maintained the highest

prevalence rates. In 2008, these young adults (YAs) had a smoking rate of 27% while their older counterparts (25+ years) had significantly lower rates of 17% (Health Canada, 2009). In Ontario, the smoking rate among 18 to 29 year olds was 21% while those 30 years of age and older had a smoking rate of 16% (Statistics Canada, 2009). An assessment of YA smoking patterns in the United States shows that YA smoking trends have not been linear as was the general trend of the adult population (Nelson et al., 2008). It appears that current tobacco control initiatives have been less effective on the YA population.

## **1.2 The Importance of Young Adults**

A call to action on YA smoking has generated momentum over the past number of years (Backinger, Fagan, Matthews, & Grana, 2003; Gilpin, White, White, & Pierce, 2009; Green et al., 2007; Hammond, 2005; Nelson et al., 2008; Orleans, 2007). Understanding the cessation behaviours of YAs is critical given their higher smoking rates. Research shows that the earlier smokers quit, the greater the health benefits. Doll and colleagues (2004) found that smokers who quit at 60 years of age gained three years of life expectancy whereas those who quit at age 30 gained ten years. Additionally, YA smoking status is a strong predictor of smoking status in later years (D. W. Brook et al., 2008; Chassin, Presson, Rose, & Sherman, 1996). Smoking cessation earlier in life will lead to improving public health as well as reducing the financial health care costs for the treatment of smoking-related illnesses. The health benefits to early smoking cessation speaks to the recommendation by the Smoke-Free Ontario Scientific Advisory Committee, in which effective YA smoking cessation interventions are recommended as a prevention strategy for comprehensive tobacco control in the province (Smoke-Free Ontario - Scientific Advisory Committee, 2010).

Young adults have different personal characteristics and smoking behaviours than their older counterparts. Of particular interest is the fact that YAs are less likely to smoke daily and smoke fewer cigarettes per day (Edwards, Bondy, Kowgier, McDonald, & Cohen, 2010; Hammond, 2005; Messer, Trinidad, Al-Delaimy, & Pierce, 2008; Orleans, 2007; Solberg, Boyle, McCarty, Asche, & Thoele, 2007). This generates a more diverse group of smokers than the more established smoking patterns of older adults (Lenk, Chen, Bernat, Forster, & Rode, 2009). Furthermore, research indicates that YA smokers report wanting to quit (Gilpin et al., 2009; Orleans, 2007; U.S. Department of Health and Human Services, 1990), and are more likely to try to quit (Leatherdale & Shields, 2009; Messer et al., 2008; Orleans, 2007; Pallonen, Murray, Schmid, Pirie, & Luepker, 1990; Solberg, Boyle et al., 2007). Descriptive statistics have shown YAs to be more likely to succeed at smoking cessation than their older counterparts; however, age was not a predictor in adjusted models predicting smoking cessation (Messer et al., 2008). In contrast, a cross-sectional study using population-based data from the United

States reported that YAs were less likely to quit successfully (Lee & Kahende, 2007). Similarly, a longitudinal study following adolescents into their YA years reported YA smokers to be more likely to relapse than their older counterparts (Pallonen et al., 1990). It has also been reported that compared to older adults who try to quit, YAs are less likely to use smoking cessation resources to help them quit (Curry, Sporer, Pugach, Campbell, & Emery, 2007; Hughes, Cohen, & Callas, 2009; Leatherdale & Shields, 2009; Messer et al., 2008; Solberg, Boyle et al., 2007).

Another area of consideration when studying YAs is the stress created by the life changes and transitions that this population experiences (Gilpin et al., 2009; Orleans, 2007). Welte and colleagues (2011) found that adult roles such as being married, full-time employment, and not being a student were associated with tobacco use among YAs. While YAs are more likely to have smoke-free homes (Messer et al., 2008), they are also exposed to increased levels of tobacco marketing (Gilpin, White, & Pierce, 2005; Hammond, 2005). In a focus group of college students, Berg and colleagues (2010) identified that YAs believed they could quit if they wanted to, but they felt that they did not smoke enough for quitting to be a concern. Furthermore, half of college students who smoked in the past 30 days did not identify themselves as a “smoker” (Berg et al., 2009). These beliefs, in conjunction with the high smoking rates among YAs, as well as the different characteristics, experiences, and social environments than their older counterparts, necessitate further investigation in the cessation behaviours of this high risk population.

### **1.3 Study Purpose**

The health benefits to earlier cessation and the differences in smoking behaviours and intentions between younger and older adults underscores the importance of understanding the cessation behaviours among YAs. The Centers for Disease Control (CDC) and Prevention’s objective to promote quitting is measured by quit attempts as well as smoking cessation (Starr et al., 2005). The purpose of this study is to identify the predictors of moving to smoking cessation among YAs in a population-based prospective study of smokers. The next section provides an overview of the smoking cessation literature, focusing on current literature regarding the predictors of YA cessation behaviours.

## **Chapter 2**

### **Review of the Literature**

#### **2.1 Overview**

This chapter begins with a brief introduction to behaviour change for smoking cessation. As this paper focused on the intrapersonal factors for smoking cessation, the Social Cognitive Theory (SCT) of behaviour change is described. A succinct review of the literature on intrapersonal factors for making a quit attempt (QA) and smoking cessation among the general adult population is provided; however, this review focused on the knowledge-base regarding smoking cessation behaviours among young adults (YAs). In particular, the individual-level predictors of making QAs and smoking cessation among YAs are discussed. This chapter concludes with a summary and critique of the YA smoking cessation literature as well as a discussion of the methodological challenges in this research.

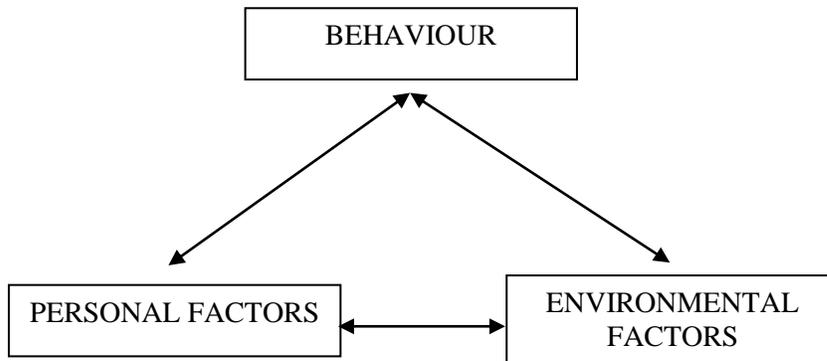
#### **2.2 Smoking Cessation Behaviour Change: Social Cognitive Theory**

Smoking cessation is a complex process likely governed by factors within the individual as well as beyond the individual. This has generated a wealth of research in attempt to understand smoking cessation. As would be expected from an ecological perspective (Bronfenbrenner, 1977; McLeroy, Bibeau, Steckler, & Glanz, 1988), predictors of cessation occur at various environmental levels, from the individual to the population level. Population-based initiatives are important aspects of comprehensive tobacco control strategies, and supported by the FCTC (Warner & Mackay, 2008; World Health Organization, 2005); however, this review focuses on predictors of smoking cessation at the individual level. While researchers have used a variety of frameworks to build an understanding of cessation processes at the individual level, such as the Theory of Planned Behaviour and Reasoned Action (Ajzen & Fishbein, 1980; Ajzen, 1991), the Health Belief Model (Kirscht, 1974; Rosenstock, 1974), and the Transtheoretical Model of Change (Prochaska & DiClemente, 1983), one that seems to be quite comprehensive and include a range of relevant factors is the Social Cognitive Theory (SCT) (Bandura, 1986). In a review of theories used in health behaviour, health education and preventive medicine in the 1990's through 2005, SCT was consistently one of the most dominant theories (Glanz, Rimer, & Viswanath, 2008).

##### **2.2.1 Social Cognitive Theory of Behaviour Change**

The SCT is a framework to understand and predict behaviour change. This theory describes behaviour change on an interpersonal level, extending beyond the individual to include environmental and social factors (Bandura, 1986). Evolved from Bandura's Social Learning Theory, the SCT underscores that

what people think, believe and feel affects their behaviour; it has been suggested that this cognitive theory may be the most comprehensive theory of behaviour change developed (Redding, Rossi, Rossi, Velicer, & Prochaska, 2000). Social cognitive theory suggests that behaviour change is affected by (and affects) individual factors (cognitive, affective, and biological), the environment, and attributes of the behaviour (Figure 1); the continuous interaction between these three factors is the basic organising principal of SCT known as reciprocal determinism (Bandura, 1986).



**Figure 1: Major components of the Social Cognitive Theory**

The SCT theory focuses on the individual and one's potential to alter and respond to environmental and social conditions (Bandura, 1986). Instrumental to this theory are:

- Self-efficacy – personal belief in one's ability to perform a given behaviour;
- Outcome Expectations – personal beliefs and value of the consequences of the given behaviour; and
- Facilitators and Barriers – environmental factors external to the individual that influence the behaviour (e.g., availability of tools or resources that encourage the desired behaviours). This may also include environmental changes or rewards and incentives to reinforce behaviours (Bandura, 1986; Glanz et al., 2008).

Therefore, individuals change their behaviour if they perceive they have control over the behaviour, confidence in their ability to execute the change, and few external barriers to behaviour change.

In addition to self-efficacy, outcome expectations, and facilitators and barriers, the following are additional constructs of the SCT (Bandura, 1986; Glanz et al., 2008; Redding et al., 2000):

- Personal Characteristics can be important factors that influence behaviours and environments;

- Observational or Experiential Learning is the individual's ability to learn new behaviours through observation and experience; learning occurs from modelling another's behaviour (e.g., peers, media) or through personal experience (e.g., trial and error);
- Self-regulation is intentional, requiring forethought that motivates individuals to purposefully guide their actions. Self-regulation mechanisms include goal setting, feedback, self-instruction and enlisting social support;
- Behavioural capability and control refers to the individual's possession of the knowledge and skills necessary to perform a given behaviour and their perceived control over the behaviour. This may include the ability for the individual to cope and respond to various situations.

This study focused on the individual and their immediate environment in order to assess predictors of smoking cessation behaviours among YAs. According to the SCT, the individual factors of YAs (e.g., beliefs, self-efficacy, and expectations) interact with social factors (e.g., tobacco industry exposure, anti-tobacco messaging, social pressure to quit/smoke) and environmental conditions (e.g., accessing cessation services, smoke-free policies) regarding their attitudes and beliefs about quitting or making an attempt to quit. The SCT of behaviour change was used to assess YA smoking cessation behaviours.

### **2.3 Smoking Cessation in the General Adult Population**

To provide an overview of the smoking cessation literature for the general public, PubMed and the Institute for Scientific Information (ISI) databases were searched. First, a recent comprehensive review on predictors of smoking cessation was obtained, in addition to systematic reviews regarding effective pharmacotherapies and smoke-free homes. These reviews were further supplemented with database searches on more recent literature regarding predictors of adult smoking cessation in prospective study designs.

The importance of health care professionals in the treatment of tobacco dependence is well known and stressed in clinical practice guidelines for treatment of tobacco dependence; in particular, it is recommended that health care professionals repeatedly provide brief interventions to assess and treat tobacco use (Clinical Practice Guideline Treating Tobacco Use and Dependence 2008 Update Panel, Liaisons, and Staff, 2008; West, McNeill, & Raw, 2000). Included in these guidelines is the significant role of counselling (individual, group or telephone) and medications (nicotine replacement therapy and other pharmacotherapies) in enhancing the success of smoking cessation (Clinical Practice Guideline Treating Tobacco Use and Dependence 2008 Update Panel, Liaisons, and Staff,

2008). Several systematic reviews provide additional evidence regarding the effectiveness of pharmacotherapies (Hatsukami, Stead, & Gupta, 2008; Stead, Perera, Bullen, Mant, & Lancaster, 2008; Wu, Wilson, Dimoulas, & Mills, 2006). However, Hammond and colleagues (2004) reported that few adult smokers in Ontario were aware of these effective cessation measures.

In a recent review, Caponnetto and Polosa (2008) describe predictors of smoking cessation in the general population, focussing on studies that reported on quit rates greater than six-months. These individual-level predictors include personal or socio-demographic factors, psychological and physiological factors as well as cognitive factors. Specifically, men are more likely to quit than women, and older smokers have more success at quitting than their younger counterparts. Further, those who begin smoking at an older age are more likely to quit than those who initiated younger (Caponnetto & Polosa, 2008). Age of initiation is often related to nicotine dependence; it is well documented that those with higher levels of dependence have more difficulties quitting. Marital status – living with a spouse or partner – and social/familial support are important predictors of successful cessation; similarly, those living with a smoker are less likely to quit. Smokers having made previous QAs are also more likely to abstain from smoking; additionally, the likelihood of sustained abstinence increases the longer a smoker remained smoke-free (greater than 5 days) during previous attempts to quit (Caponnetto & Polosa, 2008). Depression, anxiety and alcohol use are associated with reduced success of smoking cessation, whereas having motivation to quit smoking is an important predictor of success. Motivation to quit may be affected by outcome expectancy (health improvement, social approval) and confidence in ability to quit. Evidence also shows smokers motivation to quit can be increased by receiving advice from a medical professional and using behavioural supports (Caponnetto & Polosa, 2008).

In a prospective international cohort of adult smokers, Hyland and colleagues (2006) reported individual factors that predicted smoking cessation among those making a QA were: low levels of nicotine dependence, smoking occasionally at baseline, and expecting smaller health gains from quitting. In their sample of Canadian smokers, health outcome expectancy was not predictive of cessation; however, favourable attitudes about smoking hindered quitting (Hyland et al., 2006).

In the same international cohort of adult smokers, Yong and Borland (2008) assessed the predictive utility of functional beliefs about smoking, finding those smoking for stress management reduced the likelihood of quit success. Furthermore, positive reasons for smoking hindered QAs (Yong & Borland, 2008); this finding was also supported by other prospective studies (Hyland et al., 2006; West, McEwen, Bolling, & Owen, 2001). West and colleagues (2001) identified time to first cigarette of the day and age of initiation also predicted success of a QA.

Smoke-free homes and workplaces have also been associated with QAs and smoking cessation. A prospective study from the Community Intervention Trial for Smoking Cessation (COMMIT) reported that the odds of quitting were more than two times greater for smokers who worked in smoke-free environments compared to those in workplaces that allowed smoking; smoke-free workplaces also resulted in a significant reduction in cigarettes smoked per day (Bauer, Hyland, Li, Steger, & Cummings, 2005). In a longitudinal cohort study of smokers in Massachusetts, Biener and colleagues (2010) supported the finding that smoke-free policies in the workplace predicted making QAs but not successful cessation. A recent review and longitudinal studies have reported that those with smoke-free homes were more likely to quit and less likely to relapse than those allowing smoking inside their homes (Biener, Hamilton, Siegel, & Sullivan, 2010; Hyland et al., 2009; A. L. Mills, Messer, Gilpin, & Pierce, 2009).

As identified in the above review, motivation is predictive of cessation. Researchers in Massachusetts found that smokers without an intention to quit were less likely to succeed (Hyland et al., 2006; Biener et al., 2010); Hyland and colleagues (2006) report similar results for predictors of cessation among all smokers. Other researchers have reported intention to quit being predictive of QA but not abstinence (Borland et al., 2010; Hyland et al., 2006; West et al., 2001; Zhou et al., 2009); these studies assessed cessation among those who had made an attempt to quit (as opposed to all smokers in the cohort). There is growing evidence to suggest that those who make unplanned QAs were more likely to succeed (Ferguson, Shiffman, Gitchell, Sembower, & West, 2009; Murray, Lewis, Coleman, Britton, & McNeill, 2009); in fact, Ferguson and colleagues (2009) reported that those making unplanned QAs were twice as likely to succeed past six-months abstinence than those that were planned. Although smoker characteristics (e.g., those who are less dependent were more likely to make unplanned attempts to quit) did not explain the enhanced success of unplanned QAs, other factors such as confidence to quit may account for the observed differences (Ferguson et al., 2009).

Other prospective predictors of making a QA include: longer time smoke-free during past QA, non-daily smoking, negative attitudes towards smoking, and being younger (Hyland et al., 2006). Lower levels of nicotine dependence has been associated with making a QA in prospective studies (Dollar, Homish, Kozlowski, & Leonard, 2009; Hyland et al., 2006), as has being married to a non-smoker and drinking less alcohol (Dollar et al., 2009). Past QAs are predictive of future QAs (Hyland et al., 2006; West et al., 2001; Zhou et al., 2009); Zhou and colleagues (2009) reported that past QAs were also predictive of subsequent relapse.

The literature on predictors of smoking cessation in the general public has significantly developed with these more recent prospective study designs. This provides a picture of potential factors that may predict smoking cessation and QAs among YAs. However, these studies are limited as they are based on the general adult population; analyses are not stratified for young adult smokers.

## **2.4 Young Adult Smoking Cessation Behaviours**

A review of the literature on predictors of YA smoking cessation was obtained by searching PubMed using the following MeSH terms: “young adult”, “smoking cessation” and “epidemiologic factors”. The following keyword search also identified relevant literature in PubMed and the databases of Institute of Scientific Information (ISI): “young adult”, “smoking cessation”, and “predictors”. Studies that specifically assessed individual-level factors of QAs or successful quitting among YAs were selected. The reference lists of key articles on YA smoking cessation were also searched for additional research papers. In general, there has been limited population-based literature on YA smoking cessation (Bader, Travis, & Skinner, 2007; Green et al., 2007).

### **2.4.1 Young Adult Attempts to Quit**

As outlined previously, the Centers for Disease Control (CDC) and Prevention’s goal of promoting quitting is measured by QAs as well as smoking cessation (Starr et al., 2005). This section discusses the current literature on making a QA among YA smokers.

In cross-sectional studies, making a QA among YAs has been associated with higher income (Ling, Neilands, & Glantz, 2009) and shorter time to first cigarette (Fagan et al., 2007); those who are exposed to tobacco industry advertising, who are more assertive (Ling et al., 2009), who deny their smoking status (Berg et al., 2009), and who smoke no usual brand of cigarettes (Fagan et al., 2007) were less likely to make a QA. Cross-sectional studies can only conclude an association for making a QA, whereas longitudinal studies can address predictors of making a QA. Being married and reporting an intention to quit smoking was predictive of making a QA in a longitudinal study (Rose, Chassin, Presson, & Sherman, 1996). While general health beliefs about smoking did not predict attempts to quit, Rose and colleagues (1996) found that those who believed smoking had a negative impact on their personal health were more likely to make a QA. In a cross-sectional study, age was not associated with making a QA (Fagan et al., 2007); similarly, age of smoking onset did not predict attempts to quit in both a cross-sectional (Fagan et al., 2007) and a longitudinal study of YAs (Rose et al., 1996).

There are some conflicting results for demographic predictors of QAs in the literature. In a cross-sectional study, higher levels of education were associated with increased likelihood to make a QA

(Green et al., 2007); a longitudinal study only showed education to be a predictor in a regression model that assessed motives for smoking, while education was not predictive of QAs in models assessing smoking behaviours or one's smoking environment (Rose et al., 1996). Conflicting results were also found for employment status: a cross-sectional study reported that those who were employed were more likely to make a QA (Fagan et al., 2007) while a longitudinal study reported no association (Rose et al., 1996). The association with making a QA and sex differences also varied between studies: in a cross-sectional study, there was no association with sex and making a QA among all current smokers, but among non-daily smokers, men were less likely to make an attempt to quit (Fagan et al., 2007). In contrast, a longitudinal study reported that women were more likely to make an attempt to quit smoking (Rose et al., 1996). The cross-sectional studies can only conclude an association for making a QA in this population, whereas the longitudinal study by Rose and colleagues speaks to predictors of making a QA. However, the data in the study by Rose and colleagues (1996) was collected more than 15 years ago; the social and environmental picture at present may vary significantly from those 15 years ago. Given the conflicting evidence between this longitudinal study and more recent cross-sectional studies, additional prospective research is needed to determine the predictive nature of these demographic factors for making a QA among YAs.

The literature also identifies some conflicting findings regarding the relationship between making a QA and smoking exposures and behaviours. A recent cross-sectional study identified an association between making a QA and exposure to smokers (Ling et al., 2009); in contrast, a longitudinal study of students followed into young adulthood reported any parental smoking, number of friends who smoke or perceived smoking prevalence to have no relationship with making attempts to quit (Rose et al., 1996). Similarly, a cross-sectional study found that those who consumed more cigarettes per day were less likely to make a QA (Fagan et al., 2007), while the longitudinal study by Rose and colleagues (1996) did not identify cigarette consumption to be predictive of making an attempt to quit.

#### **2.4.2 Young Adult Smoking Cessation**

There are several cohort studies of adolescents that have followed participants into young adulthood. In these studies, a number of researchers reported that being employed was predictive of smoking cessation (Chassin et al., 1996; Paavola, Vartiainen, & Puska, 2001; Rose et al., 1996); however, in a cohort study that followed New Jersey adolescents into adulthood, Chen and colleagues (2001) reported that employment status per se was not predictive of smoking cessation. Similarly, better grades (Ellickson, McGuigan, & Klein, 2001; Tucker, Ellickson, & Klein, 2002) or higher education (Breslau & Peterson, 1996; D. W. Brook et al., 2008; Chassin et al., 1996; McDermott, Dobson, & Owen, 2008; McDermott, Dobson, & Owen, 2009; Rose et al., 1996) was predictive of YA smoking

cessation in several longitudinal studies. There was agreement that being married was predictive of cessation among YAs (Chassin et al., 1996; McDermott et al., 2009; Paavola et al., 2001), especially if married to a non-smoker (Chen, White, & Pandina, 2001). Chen and colleagues (2001) did not find age of YAs to be predictive of cessation. A cohort study of Australian YA women reported that those who live rural areas were more likely to continue smoking than those in urban centres (McDermott et al., 2009). Another cohort study of Finnish adolescents found that YA females were more likely to quit than YA males (Paavola et al., 2001); however, similar studies from the United States did not report sex to be predictive of smoking cessation (Chen et al., 2001; Rose et al., 1996). Becoming a parent was not predictive of cessation (Chassin et al., 1996; Chen et al., 2001); however, living with children was predictive of quitting smoking among YAs (Rose et al., 1996).

Smoking behaviours serve as important predictors for YA cessation. A few researchers report that age of smoking initiation was predictive of cessation among YAs (Breslau & Peterson, 1996; Ellickson et al., 2001); however, similar cohort studies of adolescents followed into young adulthood report no association with age of initiation and quitting as a YA (Chen et al., 2001; Rose et al., 1996). Similar to predictors of adult cessation, smoking dependence or frequency generally appears to predict YA smoking cessation – light smokers or those with low dependency are more likely to quit smoking (Breslau & Peterson, 1996; Hanewinkel & Wiborg, 2006; McDermott et al., 2009; Paavola et al., 2001; Rose et al., 1996); however, one longitudinal study reported no association (Chen et al., 2001). McDermott and colleagues (2008) further reported that Australian YA women who reduced to non-daily smoking were more likely to subsequently quit as a YA. Research on relapse of smokers who quit as YAs identified that individuals who had made only one lifetime QA were more likely to sustain their quit than those who had made three or more attempts to quit (Macy, Seo, Chassin, Presson, & Sherman, 2007). Young adults who had no desire or intention to quit were less likely to stop smoking (Ellickson et al., 2001; Rose et al., 1996; Tucker et al., 2002).

As noted above, social context plays an important role in smoking cessation. Among YAs, there was general consensus that having friends who smoke hindered cessation (Chen et al., 2001; Ellickson et al., 2001; Macy et al., 2007; Paavola et al., 2001; Rose et al., 1996; Tucker, Ellickson, Orlando, & Klein, 2005); a similar relationship was reported for parental smoking in several cohort studies (Bricker, Rajan, Andersen, & Peterson, 2005; Bricker, Otten, Liu, & Peterson, 2009; J. S. Brook et al., 2010; Chassin et al., 1996; Macy et al., 2007; Otten, Bricker, Liu, Comstock, & Peterson, 2011; Paavola et al., 2001; Tucker et al., 2002), while other studies found no relationship (Chen et al., 2001; Rose et al., 1996). A cohort study assessing the probabilities of not transitioning from daily smoking to quitting did not identify friend smoking as a significant factor for not

transitioning; however, older adolescents with a strong desire to comply with friends were more likely to maintain their smoking status as YAs (Otten et al., 2011). A cohort study of adolescents residing along the west coast of the United States and followed into young adulthood reported that household smoking had no relationship with YA cessation (Ellickson et al., 2001). In repeated cross-sectional analyses of data from the United States, it was reported that smoking restrictions in public places and workplaces increased the probability of YA cessation (Tauras, 2004); similarly, a longitudinal study reported that working in a smoke-free environment was protective of smoking relapse (Macy et al., 2007).

Psychological and emotional aspects have been associated with smoking cessation (Caponnetto & Polosa, 2008); however, among YAs, there are conflicting results regarding the impact of alcohol consumption and drug use (Chen et al., 2001; Ellickson et al., 2001; McDermott et al., 2009; Paavola et al., 2001; Tucker et al., 2002). Similarly, the impact of psychological difficulties or depression on YA smoking cessation was contradictory. Brook and colleagues (2008) reported that YAs who had emotional difficulties in early adolescence were more likely to continue to smoke into their thirties; similarly, Breslau and colleagues (1996) found that YAs who reported a history of depression prior to the age of 15 were less likely to quit. Schmid (2001) found that YAs who smoke for relaxation were less likely to quit three years later during follow-up. In contrast, Chen and colleagues (2001) reported that those with psychological difficulties in their early YA years were not less likely to quit during their later YA years than those without psychological difficulties; this finding was supported by Tucker and colleagues (2002). Several longitudinal studies have reported rebelliousness or deviance to have no association with smoking cessation (Ellickson et al., 2001; Tucker et al., 2002). However, a cohort study of adolescents and YAs from Washington State reported rebelliousness to increase the probability of not quitting as a YA (Otten et al., 2011).

Personal beliefs can have a significant impact on individual behaviours. Having the self-efficacy or motivation to stop smoking has been shown to predict cessation (Caponnetto & Polosa, 2008); this was also supported by cohort studies of YA smokers (Ellickson et al., 2001; Tucker et al., 2002). Furthermore, several studies reported that YAs who value healthy lifestyles (Rose et al., 1996), or had better perceived health (Tucker et al., 2005) were more likely to quit. In addition, YA women who had higher physical health scores were more likely to quit smoking as YAs (McDermott et al., 2008). However, longitudinal studies have also reported that health beliefs (Rose et al., 1996; Tucker et al., 2005) and health status did not predict smoking cessation (Tucker et al., 2002).

## 2.5 Summary and Critique of Young Adult Quit Attempts and Smoking Cessation Literature

There appears to be conflicting information and some different factors that predict making a QA and smoking cessation among YAs; the literature results are summarised in the Table 1.

**Table 1: Summary of the literature on the predictors for making a quit attempt and smoking cessation among young adults**

Factor	Quit Attempt (direction of association for making a quit attempt) - Evidence	Smoking Cessation (direction of association for smoking cessation) - Evidence
Age	No association – D	Not predictive – B
Sex	Conflicting evidence – B,D	Conflicting evidence – A
Marital status	Positive predictor (married) – B	Positive predictor (married) – A
Employment	Conflicting evidence – B, D	Positive predictor (employed) – A
Education	Conflicting evidence – B, D	Positive predictor (higher education) – A
Age of smoking onset	Not predictive – A	Conflicting evidence – A
Cigarette consumption / dependence	Conflicting evidence – B, D	Positive predictor (heavy smokers / high dependence) - A
Exposure to smokers	Conflicting evidence – B, D	Friend smoking: Negative predictor (having friends who smoke) – A  Parental smoking: Conflicting evidence – A
Intention to quit	Positive predictor (having an intention to quit) – B	Positive predictor (having an intention to quit) – A
Self efficacy	Not analysed/reported	Positive predictor (high self-efficacy to quit) – A
Health beliefs	Positive predictor (negative beliefs about the impact on personal health) – B	Perceived health: Positive predictor (perceive oneself to be in good health) – A  Health beliefs about smoking: Not predictive – A
Smoking restrictions	Not analysed/reported	Household Restrictions: Not predictive – B  Public Restrictions: Positive association (public and workplace smoking restrictions) – B, D
Tobacco industry advertising	Negative association (exposure to tobacco industry advertising) – D	Not analysed/reported
Psychological difficulties	Negative association (higher levels of assertiveness) – D	Conflicting evidence – A
Previous quit attempts	Not analysed/reported	Negative predictor (greater number of lifetime quit attempts) – B

NOTES: A – multiple longitudinal studies  
 B – single longitudinal study  
 C – multiple cross-sectional studies  
 D – single cross-sectional study

Compared to the general adult population, the impact of the transition period during the YA years has warranted investigation of factors such as becoming a parent. The predictive ability of making a QA for this factor was not tested in the literature, and there was conflicting evidence on the predictive ability of becoming a parent on YA smoking cessation.

It is evident from Table 1 that these studies on YA smoking cessation behaviours have not incorporated all components of Social Cognitive Theory (SCT). In particular, the predictive ability of Facilitators and Barriers appears to have been omitted from these studies. In fact, the majority of studies in the literature did not identify a specific theoretical framework for identifying the independent variables that were tested. The present study utilised the SCT framework to assess smoking cessation behaviours among YAs.

### **2.5.1 Methodological Challenges in the Young Adult Smoking Cessation Literature**

There are several methodological challenges with the YA literature on smoking cessation behaviours. First is the nature of the study designs. Cross-sectional and retrospective studies are unable to identify future QAs or cessation and are thus unable to identify prospective predictors of smoking cessation. There are a few key longitudinal studies reporting predictors of making a QA or smoking cessation among YAs. In general, these are cohort studies of adolescents, recruited during secondary school. The limitation with many of these studies is the very long intervals between follow-up interviews, which range from three to more than seven years; this impacts retention of the sample (possible selection bias) and recall. To counter the recall issue, many of these studies assess QAs or smoking cessation during the past year or two; in some cases, researchers assessed the most recent attempt. As a result, researchers fail to assess predictors of quitting that may have lasted several months or longer even though the individual subsequently relapsed.

A second limitation with the YA smoking cessation literature is the representativeness of study samples. Many studies assess adolescent cohorts recruited from defined regions which have limited representativeness beyond the adolescents in the recruited schools; the representativeness of YAs is further diminished as study participants are lost-to-follow-up. Furthermore, the majority of longitudinal studies have been from the United States or Australia; there are no population-based longitudinal studies of YA smoking cessation from Canada.

A third methodological challenge is the issue of measurement. One measurement issue that arises from studies designed with long periods between follow-up intervals is the measurement of predictor variables; these are measured more than three years prior to the reported change in smoking behaviour and may not be appropriate for the identified change. For example, dependence or self-

efficacy at time one may not be consistent prior to a change in smoking measured five years later at the follow-up interview.

Another measurement issue arises with definitions which often vary across studies. This is of particular concern for the definition of smoking cessation as studies used various definitions of quit success or abstinence. All measures in the prospective studies reported above are from self-report data. Definitions of cessation or quit include self-report status at the time of interview, and smoke-free status for at least one month, six months, and in two studies, one-year. These various definitions present a challenge for understanding and interpreting the smoking cessation literature.

In 1994, Health Canada convened a workshop to develop consensus on a standard set of measures for monitoring tobacco use. The summary report defines current smokers as those who have smoked at least 100 lifetime cigarettes and have smoked in the past 30 days (C. Mills, Stephens, & Wilkins, 1994); long-term smoking cessation was defined as being smoke-free for one year or longer, while those who have not smoked between 30 days and one year were considered recent quitters (C. Mills et al., 1994). The Centers for Disease Control and Prevention defines the indicator to measure smokers who have sustained abstinence as being smoke-free for six months or longer; current smokers are defined as those who have smoked at least 100 lifetime cigarettes and presently smoke every day or some days (Starr et al., 2005). Research on smoking cessation definitions show these two measures – 30 day and six-month abstinence – have different results in smoking cessation studies, whereas shorter periods of abstinence have similar outcomes as 30 day abstinence (Velicer & Prochaska, 2004). The Health Canada Workshop definition of 30 day abstinence allows for more parallels with the current YA literature. While prolonged cessation of six-months or one year is optimal for long-term smoking cessation, the data in this study do not have sufficient numbers to assess prolonged smoking cessation in the YA population.

The measurement of QAs was fairly consistent in the literature on YA smoking cessation behaviours. Specifically, QAs were defined as a self-report attempt to quit smoking; in only a few studies, the question was more specific, asking respondents if they made an attempt to quit smoking for one day or longer. An issue to consider was the specified time period for reporting a QA, varying from ‘since your last interview’ (which had large variation in follow-up periods as reported above), ‘in the last year’, and ‘in the past five years’. Longer periods to recall QAs may result in recall bias which was also discussed above.

Finally, the measurement of YAs also varied somewhat across studies. Definitions included 18-24/25 year olds, 18-29/30 year olds, and a number of studies that followed YAs into their thirties (generally including those under the age of 35). Standardization across these methodological issues

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may be an important consideration for future research in the area of YA smoking cessation behaviours.

## **Chapter 3**

### **Study Objectives and Rationale**

The purpose of this study was to evaluate quit attempts (QAs) and smoking cessation among young adults (YAs) in a population-based prospective study of smokers. The main objective was to determine the predictors of moving towards smoking cessation in the YA population. The complete study objectives include the following:

- To identify differences between younger and older adult smokers in a population-based sample of smokers;
- To determine if the rates of making a QA (an attempt that lasted for less than 30 days) and rates of cessation (at least 30 days of abstinence) differ in a representative sample between younger and older adult smokers;
- To determine the interpersonal factors that predict moving toward smoking cessation (making a QA that lasted for less than 30 days or sustained abstinence for 30 days or more) among YAs.

This investigation used population-based data to study YA smoking behaviours, providing a representative sample of YAs; this expands on the literature which has predominately been limited to YAs who were enrolled in formal, secondary school education programs at the time of recruitment. Previous longitudinal studies of YAs also had long durations between follow-up periods, interviewing participants every three to five years. This study adds to the literature by using data from a survey that re-interviewed YAs at six month intervals, therefore improving retention and recall over the previous studies. In addition, shorter interview periods allows for the predictors of smoking cessation behaviours to more accurately reflect participants' characteristics prior to the behaviour change being studied.

This study provides additional insight into YA smoking cessation. To date, most of the literature on YAs has studied QAs and sustained cessation independently; in this study, smoking cessation among YAs was assessed along a continuum (e.g., did not make a QA; made a QA, but was not sustained for 30 days; and sustained cessation for 30 days or more). It is well documented that smoking cessation has a high rate of relapse, with the majority of quitters making several attempts to quit before they succeed (Ontario Tobacco Research Unit, October 2008; U.S. Department of Health and Human Services, 2000). Measuring cessation along a continuum enhances our understanding of the progression to smoking cessation and the success of QAs which can be used to inform and target cessation programs and policies for this high-risk population. A more detailed understanding of

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smoking cessation among YAs is necessary in order to reduce mortality and improve the health for the current generation of YA smokers.

## Chapter 4

### Methods

#### 4.1 Data Source

This study used data from the Ontario Tobacco Survey (OTS), a population-representative telephone survey of adult (18 years of age and older) recent smokers (any cigarette smoking in the past six months) and nonsmokers in Ontario, Canada (Diemert et al., 2008). The OTS is an initiative of the Ontario Tobacco Research Unit; it was designed to monitor smoking and cessation behaviours over time in order to inform the tobacco control strategy in Ontario (Diemert, Victor, Chaiton, & Bondy, April 2010). This is a self-report, observational study with no intervention.

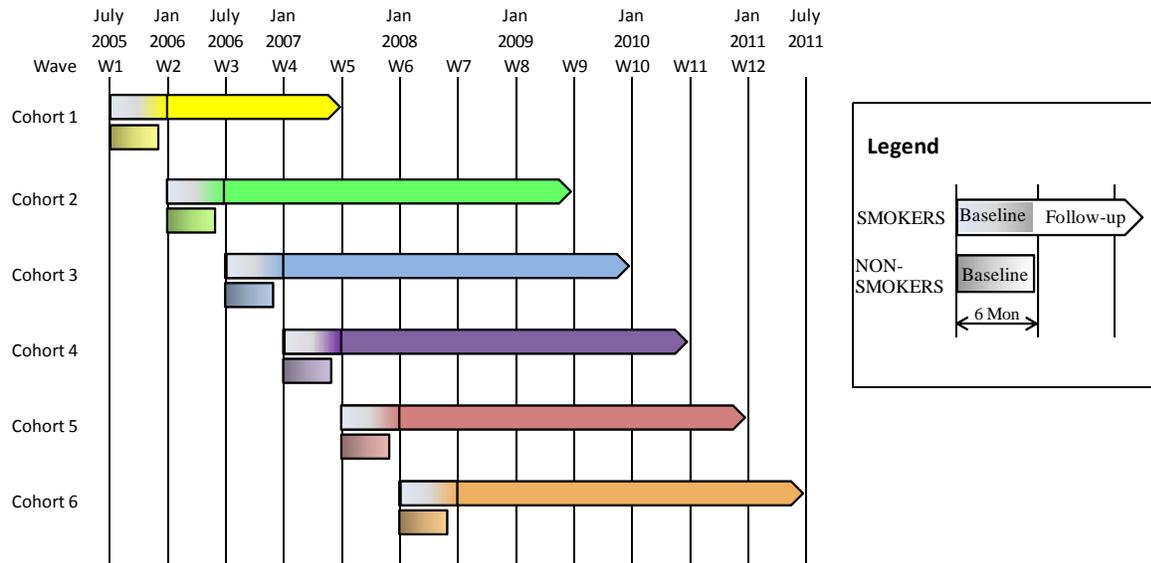
##### 4.1.1 Instrument and Design

The OTS is a rolling cohort design which combines six semi-annual cross-sectional surveys of adult nonsmokers and recent smokers. This was paired with a longitudinal component that allowed for repeated follow-up of recent smokers at approximately six-month intervals for up to three years. The study focuses on attitudes, behaviours and beliefs about smoking, factors that influence cessation, and exposures to second-hand smoke (Bondy et al., 2006; Diemert, Victor et al., April 2010). See Appendix A for the OTS Baseline Survey and Appendix B for the OTS Follow-up Survey.

Data collection for the OTS began in July 2005 using computer-assisted telephone interview (CATI) technology and random digit dialling (RDD) on a purchased sample of Ontario telephone numbers. The sampling frame was stratified into four regional strata defined by telephone area code: Eastern (area code 613), Greater Toronto Area (area codes 416, 647, 905 and 289), South Western (area code 519) and Northern (area codes 807 and 705) Ontario. Recent smokers (the primary group of interest for the survey) were oversampled to allow for finer analysis of this group and to accommodate for attrition in the longitudinal design. During each month of recruitment, quota sampling of recent smokers and nonsmokers was maintained. For each of six waves of the survey, 1250 new study participants were recruited, comprising:

- 750 recent smokers who were invited to participate in one baseline (cross-sectional interview) and a minimum of three follow-up surveys occurring at 6-month intervals; and
- 500 nonsmokers who were invited to participate in a single baseline (cross-sectional only) survey (Diemert, Victor et al., April 2010).

The figure below is a schematic diagram to demonstrate the OTS data collection schedule.



**Figure 2: Ontario Tobacco Survey Study Design and Data Collection Schedule**

Recent smokers completed a baseline interview that averaged 23 minutes in length; follow-up participants completed an interview that averaged 20 minutes in length and focussed on changes in smoking behaviours since their interview six-months ago (Diemert, Chaiton, Victor, & Bondy, April 2010; Diemert, Victor et al., April 2010). The OTS has interviewed more than 3000 nonsmokers and recruited more than 4500 recent smokers to the longitudinal panel (Diemert, Victor et al., April 2010). The overall recent smoker response rate was 61%<sup>a</sup>. The specific details of the OTS protocols and study design are reported elsewhere (Bondy et al., 2006; Diemert, Chaiton et al., April 2010; Diemert, Victor et al., April 2010).

The OTS data provide weights to reflect the Ontario population of adults based on age, sex and region (area code) (Diemert, Victor et al., April 2010). In brief, sampling weights were calculated as the inverse or reciprocal of the probability of inclusion, approximated as follows:

$$\frac{N}{n} \times a_j \times \frac{1}{c_{ss}}$$

where: N is the estimated number of households in the region;

<sup>a</sup> AAPOR Guidelines Response Rate #4, removes from the denominator those who were ineligible (e.g. language problem) and those estimated to be ineligible among those with unknown eligibility (American Association for Public Opinion Research., 2006).

$n$  is the total number of non-refusal households screened in the region where an eligible person is identified;

$a_j$  is the number of adults in the household of the  $j^{\text{th}}$  person in the sample. Where  $a_j$  was more than four, its value was replaced by four; where  $a_j$  was missing, its value was set equal to one; and

$c_{ss}$  is the completion rate based on the smoking status of the  $j^{\text{th}}$  person.

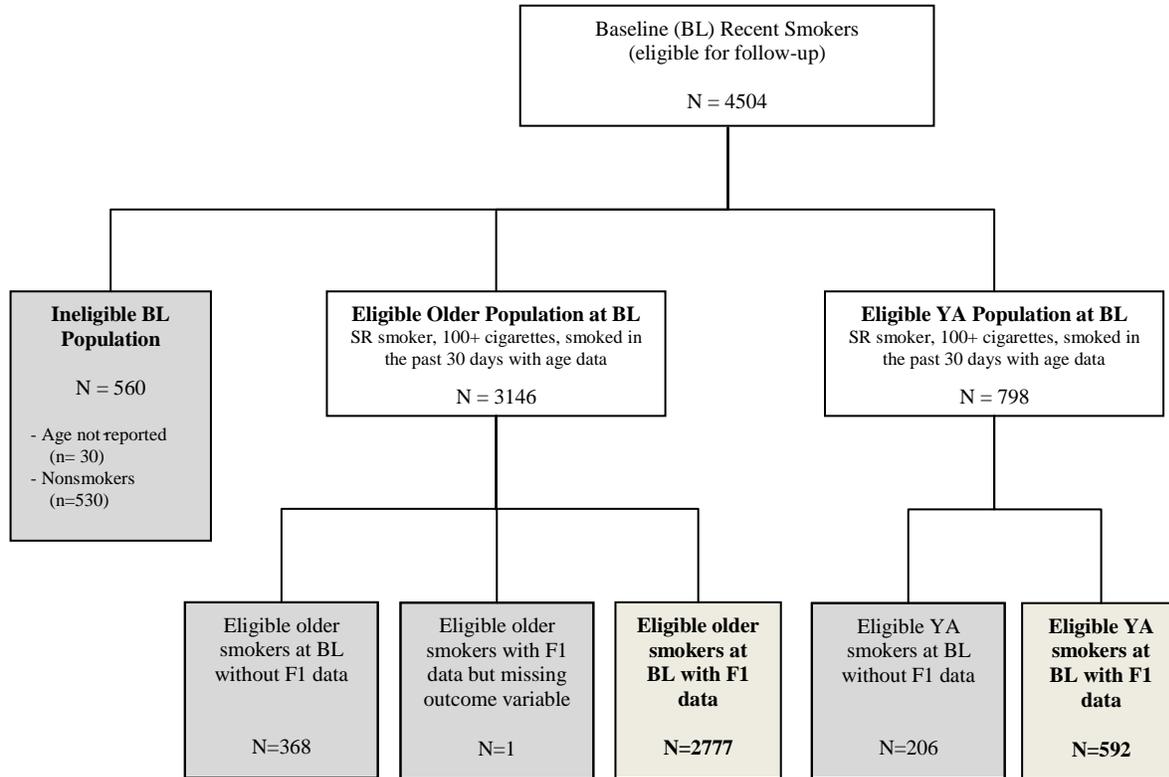
For a more detailed description of the study weights, please see the Ontario Tobacco Survey Technical Report 1: Baseline Data (Diemert, Victor et al., April 2010). The representativeness of the study sample was evaluated according to other demographic characteristics; the OTS over-represented individuals who were married or common-law and under-represented respondents who had less than high school education (Diemert, Victor et al., April 2010); an over-representation of highly educated individuals is common in telephone surveys (Trewin & Lee, 1988).

Ethical approval for the OTS initiative was obtained from the Universities of Waterloo and Toronto; procedural changes over time have also been approved.

## 4.2 Study Sample

The primary sample for this study was derived from OTS data on young adult (YA) smokers, defined as respondents who were under the age of 30 at baseline and who self-reported as a smoker at baseline. The remaining OTS data on older smokers (i.e., those 30 years of age and older) was used to compare rates of smoking cessation behaviours with YA smokers.

This study collated data from self-report smokers in the longitudinal component of the OTS (recruited between July 2005 and June 2008) with six-month follow-up data. The recent smoker response rate for these data was 64% with retention of 85% at six-month follow-up. The population of interest for this study was self-report YA smokers at baseline who smoked in the past 30 days and smoked at least 100 lifetime cigarettes with follow-up data to six months; the older adult comparison group met the same selection criteria. These collated OTS data include 592 YA smokers and 2777 older smokers with baseline and six-month follow-up data. Figure 3 details the number of respondents eligible for inclusion in the study.



**Figure 3: Ontario Tobacco Survey Respondent Eligibility**

Notes: BL = Baseline survey; F1 = Follow-up 1 survey; SR smoker = self-report smoker  
Eligible smokers were respondents who smoked at least 100 lifetime cigarettes and smoked every day or almost every day, or those who smoked occasionally at the time of the baseline interview but smoked in the past 30 days, and provided responses for age and smoking cessation.

## 4.3 Study Variables

### 4.3.1 Dependent Variable

The dependent variable in this study was smoking cessation behaviour, measured as a three-level ordinal variable: made no attempt to quit smoking, made an attempt to quit completely but did not succeed for at least 30 days, and successfully quit for 30 days or longer. Specifically, respondents were classified as making no serious attempt to quit if they reported one of the following: no to the question “[a]t any time during the past 6 months, did you change your smoking behaviour with the intention of quitting or reducing the amount you smoke?”; or they indicated yes to this question and reported no to the question “[d]id you try to quit smoking completely [in the past six months]?”; or they indicated yes to the previous two questions and reported zero to the question “[h]ow many times have you made a serious attempt to quit smoking in the past six months?” Respondents who reported having tried to quit completely in the past six months were then asked another question to assess the

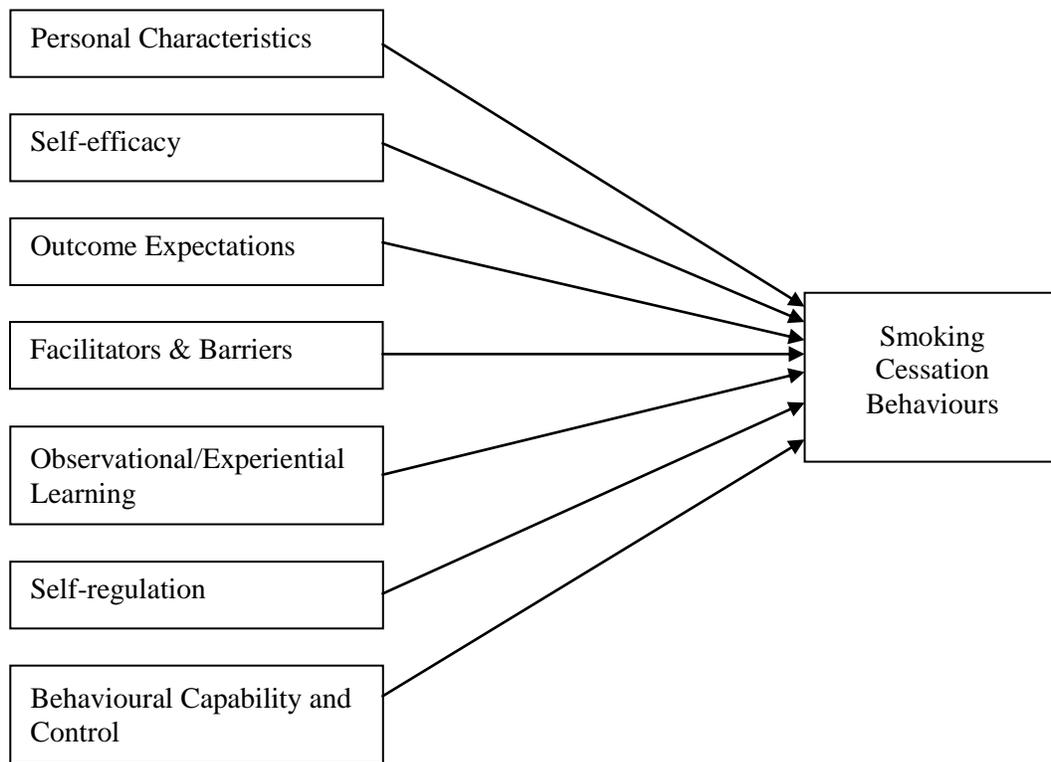
duration of their quit: “[i]n the past 6 months, what was the longest time that you stayed smoke-free?” Those who reported having quit for less than 30 days, as well as those who reported “don’t know”, were classified as having made an attempt but did not succeed for at least 30 days. Respondents who reported quitting for 30 or more days were classified as having successfully quit (smoking cessation for 30 days or more). Respondents who reported being a “not at all” smoker at the time of the follow-up interview and last smoked a cigarette one month ago or longer (“[h]ow long ago was it that you last smoked a cigarette?”) were also classified as having sustained smoking cessation for 30 days or longer.

Respondents who, at the time of their six-month interview, were “not at all” smokers but reported smoking in the past month (“[h]ow long ago was it that you last smoked a cigarette?”) were assessed for their smoking status at the twelve month interview. Among these respondents, those who reported last smoking a cigarette six months ago or longer at their twelve-month interview were considered to have had a quit at the six-month interview that was successful for 30 days or longer. Respondents who, at their twelve-month interview, reported current smoking or last smoked a cigarette within the past six-months were considered to have made a quit attempt (QA) at the six-month interview but were not successful for at least 30 days. Respondents who were “not at all” smokers but smoked in the past month at their six-month follow-up interview but did not have twelve month follow-up data were also considered to have made a QA but were not successful for at least 30 days.

Long-term smoking cessation of six months or more was assessed to determine if there was sufficient data for analyses. At the time of this study, the OTS dataset comprising baseline, first follow-up and second follow-up interviews did not have sufficient sample size to allow for analysis of cessation that lasted six months or more in the YA population.

#### **4.3.2 Independent Variables**

The Social Cognitive Theory (SCT) was used to inform the potential independent variables for this study. Figure 4 illustrates the constructs of the SCT and the relationship with the outcome variables in this study.



**Figure 4: Independent variables and their relationship to smoking cessation behaviours according to Social Cognitive Theory Constructs**

Personal characteristics included age, sex and education, employment status and marital status which were measured on the baseline survey; these characteristics can be compared with previous studies on YAs. Additionally, two smoking-related characteristics measured at baseline were included: the type of smoker (self-report daily *versus* occasional) and heaviness of smoking index (HSI). The HSI is a measure of addiction based on number of cigarettes per day and time to first cigarette of the day, resulting in a score that ranges from zero and six (Heatherton, Kozlowski, Frecker, Rickert, & Robinson, 1989). The HSI and respondent age were continuous variables while education, employment and marital status were each dichotomised: high school education or less *versus* more than high school education, employed *versus* unemployed, and single *versus* married or common law, respectively.

Self-efficacy was measured at the baseline interview prior to reporting smoking cessation behaviours during follow-up. A four-point ordinal scale assessed confidence in one’s ability to quit smoking in the next six months; this was then dichotomised into those who were “very” confident and those who were less confident or unsure about their ability to quit (“fairly”, “not very”, “not at all”, or “don’t know”).

Outcome expectations included one's perceived health and perceived health benefits to quitting, measured at the baseline interview prior to measuring cessation behaviours. Perceived health was determined from self-report health status which asked respondents if they considered their health to be "excellent", "very good", "good", "fair", or "poor" (Smith, Glazier, & Sibley, 2010). For the purposes of this study, perceived health was dichotomised into very good health ("excellent" or "very good") and those who view themselves as less healthy ("good", "fair", or "poor"). Perceived benefits to quitting smoking – or expectations – was determined from responses on a four-point ordinal scale to the question "[h]ow much do you think you would benefit from health and other gains if you were to quit smoking permanently in the next six months?" This was then dichotomised into those who believed they would benefit ("a lot" or "quite a bit") compared to those who were uncertain or perceived that they would not benefit from quitting ("a little", "not at all", or "don't know").

Facilitators to making a QA or cessation included the use of smoking cessation resources, social support, as well as smoke-free homes. Respondents who reported use of any behavioural therapies or supports or any pharmacotherapies during the follow-up period were considered to have used smoking cessation resources. Behavioural therapies and supports included self-help materials (including videos, websites or chat groups), group or individual counselling to help one quit or reduce smoking, physician advice to quit, participation in a local quit program, or accessing the Smokers' Helpline or Smokers' Helpline Online. Pharmacotherapies included any use of nicotine replacement therapies (patch, gum, inhaler or lozenge) or use of prescription medications to help one quit or reduce smoking such as Zyban (bupropion), Wellbutrin, or Champix (varenicline). As stated in the literature review, these resources have been shown to increase quit success. It should also be noted that use of these resources were self-reported and there is no indication whether or not these resources were used appropriately; this is a common limitation to self-report interviews and secondary data analyses. Second, having social support if one decided to quit (yes *versus* no known support (no and don't know)), and third, rules against smoking in the home among inhabitants (no one smokes indoors *versus* people smoke indoors), as reported during the baseline interview, were also included as measures of facilitation. The lack of these facilitators can generate barriers. An additional barrier to the above included having someone who would make quitting more difficult (yes *versus* no known individual to make quitting difficult (no and don't know)); this barrier was measured at the baseline interview, prior to the reported smoking cessation behaviour during the six-month follow-up interview.

Observational or experiential learning was indicated by exposures to tobacco industry marketing, exposure to anti-tobacco media campaigns, and having previously made attempts to quit smoking. All

three indicators were dichotomised into *yes versus no* and assessed at the baseline interview prior to measuring cessation behaviour during follow-up. Exposure to any tobacco industry marketing, as well as any smoking cessation and protection mass media campaigns, were dichotomised into *yes versus no* (Appendix C, Tables C-1 and C-2); however, the items to measure each varied depending on the industry and media questions on the survey instrument at the time of the interview. The specific questionnaire items and coding of these various questions are detailed in Appendix C (Tables C1 and C2). A history of serious QAs was also assessed at baseline and categorised into having made no serious QA, one QA, or two or more lifetime attempts to quit smoking.

Self-regulation was measured by future intention to quit and setting a firm quit date. On the OTS, quit intention was measured by a single question “Are you planning to quit smoking within the next month, within the next six months, sometime in the future beyond six months, or are you not planning to quit?” (Bondy et al., 2010; Etter & Perneger, 1999; Stockwell, 1996). Respondents were considered to have an intention if they responded “within the next month” or “within the next six months” to this question; setting a firm quit date was also dichotomised (*yes versus no*). Both of these factors were measured at the baseline interview.

Behavioural capability and control was measured by several factors. First, knowledge was measured by one’s belief that stop smoking medications and belief that counselling make smoking cessation a lot easier than trying to quit on your own.<sup>b</sup> These questions were measured at the baseline interview; the specific questions and measures are detailed in Appendix C, Table C-3. Second, a measure of control was assessed as one’s perceived addiction to smoking, which asked if respondents considered themselves to be “not at all addicted to cigarettes, somewhat addicted to cigarettes, or very addicted to cigarettes”; these responses, measured at baseline, were dichotomised into “very addicted” and those who view themselves as less addicted (“somewhat” and “not at all”). Third, perceived ease of quitting was determined from responses on a four-point ordinal scale to the question “[h]ow easy or hard would it be for you to completely quit smoking if you wanted to? Would it be very easy, somewhat easy, somewhat hard or very hard?” This item was measured at baseline and dichotomised into those who perceived that quitting smoking would be easy (“very easy” or “somewhat easy”) compared to those who perceived quitting to be hard (“somewhat hard” or “very hard”).

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<sup>b</sup> The question format for these items changed during data collection. Variations in responses were evaluated between the two formats. The specific details regarding these questions are detailed in Appendix C.

#### 4.4 Data Analysis

Data analysis followed three stages: (a) descriptive statistics of all variables; (b) bivariate analyses; and (c) multivariable analyses to assess the predictors of progressing along the smoking cessation continuum.

The OTS is a population-representative survey that employed regionally-stratified sampling. Therefore, design-based analyses correcting for the complex sampling design were used throughout; all estimates, with the exception of those examining loss-to-follow-up, were weighted to reflect the Ontario population.

The characteristics of respondents that were lost-to-follow-up were evaluated by age using design-based chi-square tests (categorical variables) or t-tests (continuous variables). As appropriate, unweighted frequencies and proportions were reported for categorical factors, while means and standard errors were reported for factors that were continuous. All estimates were weighted to reflect the Ontario population.

Univariate analyses were performed on all independent and dependent variables to characterize the OTS sample of eligible respondents. Bivariate analyses were performed to characterize the sample of young and older adults in the OTS dataset using design-based chi-square tests (categorical variables) or t-tests (continuous variables). These analyses allowed for evaluation of the proposed measures of the study variables to ensure adequate distribution of scores. For example, perceived health was reclassified from a three-level categorical variable (very good/excellent, good, fair/poor) into a dichotomous variable (very good/excellent *versus* good/fair/poor), given the smaller sample in the lower health categories. As appropriate, frequencies and proportions were reported for categorical factors, while means and standard errors were reported for factors that were continuous. All variables were evaluated for missing data; variables in which more than ten percent of data were missing were excluded from further analyses (Forthofer, Lee, & Hernandez, 2007). Missing data were not used in the calculation of statistical tests or weighted estimates.

Bivariate analyses using design-based chi-square tests were also performed to examine the proportion of younger and older adult smokers who report smoking cessation behaviours during the six-month follow-up period – making no attempt, making a QA that did not last for at least 30 days or successful cessation for 30 days or longer. Among YAs, population-weighted design-based chi-square tests were used to evaluate the association of each independent variable with the categorical dependent variable. These frequencies were evaluated to ensure there were adequate numbers in each cell; variables that, when crossed with the dependent variable, had cell sizes less than five were

excluded from the multivariable model (Diemert, Victor et al., April 2010). Population-weighted design-based chi-square tests and t-tests were conducted to assess the association between all independent variables. Independent variables that had very strong associations ( $p < 0.0001$ ) were each evaluated based on the literature and the SCT to determine if similar constructs were being measured. In cases where two independent variables were determined to be measuring similar constructs, one variable was selected for the multivariable model.

Third, a multivariable proportional odds regression model (Agresti, 2002) was used to model the ordinal outcome of smoking cessation behaviours on personal and environmental factors of the SCT framework as outlined above. A proportional odds model assumes that the odds ratio for each predictor is constant for all levels of the outcome variable: that is, the odds of falling above a given category of the outcome variable as opposed to falling in or below this category are proportional for all levels of the outcome (Agresti, 2002; Rothman & Greenland, 1998). This assumption must be tested. In this study, the assumption of proportionality was violated and thus separate multivariable logistic regression models were used to model making a QA that lasted less than 30 days *versus* making no QA (Model 1) and a successful quit (lasting 30 days or more) *versus* making a QA that lasted less than 30 days and making no attempt to quit (Model 2). Each regression model excluded putative independent factors from the SCT framework (personal characteristics, self-efficacy, outcome expectations, facilitators and barriers, observational/experiential learning, self-regulation, and behavioural capability and control) where the relationship with the outcome variable was not significant ( $p > 0.20$ ). Independent variables that were determined to be measuring similar constructs were also excluded from the multivariable model, as were variables that had insufficient cell frequencies (less than five). The multivariable model was then constructed, accounting for the study design and using study weights to reflect the Ontario population. A final check of collinearity statistics was performed: independent variables with a variance inflation factor greater than four were candidates for subsequent removal (Kleinbaum, Kupper, Nizam, & Muller, 2008).

The final *a priori* multivariable models generated models with many parameters; therefore, to ensure that important associations were not obscured by over-fitted models, parsimonious models were identified in order to evaluate the strength of the results in the complex models. In each of the two complex models, all variables were tested for removal using backwards elimination (Kleinbaum et al., 2008; Rothman & Greenland, 1998), with alpha set to 0.10 (Mickey & Greenland, 1989); as above, data were weighted to reflect the Ontario population and all analyses accounted for the complex study design.

All analyses were carried out using the software SAS version 9.2 (SAS Institute Inc., Cary, NC).

## 4.5 Power Calculations

### 4.5.1 Precision of Estimates

The OTS has 592 YA smokers with six-month follow-up data. To account for the complex survey design, the design effect (DEFF) must be accounted for in the precision calculations for each outcome; however, each estimate has a unique DEFF (Lohr, 1999). For the purposes of these calculations, three DEFF conditions were assumed: 2.0 (i.e. the sample size required is twice that of a simple random sample), 1.5 and 1.25. Table 2 illustrates the expected precision, 95% confidence interval, given the OTS sample of YAs (n=592) and the three DEFF conditions under various scenarios of the proportions making a QA that lasted for less than 30 days and the proportion that successfully quit for at least 30 days. Putative scenarios were chosen based on expected levels of QAs and smoking cessation among Ontario adults (Ontario Tobacco Research Unit, October 2008). As an example, if 25% of the YA population made a QA (n=148) but did not succeed for at least 30 days (Table 2, Scenario 1), the sample of 592 would result in a precision (95% confidence interval) of  $\pm 0.049$  around the estimate of 25% with a DEFF of 2.0; greater precision (i.e., narrower confidence interval) is observed if the DEFF was 1.5 or 1.25, with a precision around the estimate of  $\pm 0.043$  and  $\pm 0.039$ , respectively. If five percent of YAs were to successfully quit for at least 30 days (Table 2, Scenario 12), (i.e. 30 respondents reporting being smoke-free for at least 30 days), the precision around this estimate would be  $\pm 0.025$  with a DEFF of 2.0; greater precision of  $\pm 0.022$  and  $\pm 0.020$  is obtained if the DEFF was 1.5 and 1.25, respectively.

**Table 2: Sample power calculations for making a quit attempt lasting less than 30 days and smoking cessation for 30 days or more over a six-month follow-up period for the sample of young adults in the Ontario Tobacco Survey**

Scenario	Sample (N) <sup>a</sup>	Quit Attempts (abstinent for 30 days or less)				
		Proportion of outcome	Number of events (n)	Half-width precision for outcome with a DEFF of 2.0	Half-width precision for outcome with a DEFF of 1.5	Half-width precision for outcome with a DEFF of 1.25
1	592	0.25	148	0.049	0.043	0.039
2	592	0.30	178	0.052	0.045	0.041
3	592	0.40	237	0.056	0.048	0.044
4	592	0.45	266	0.057	0.049	0.045
5	592	0.50	296	0.057	0.049	0.045
6	592	0.60	355	0.056	0.048	0.044
7	592	0.70	414	0.052	0.045	0.041
Successful Quitting (30 days or more)						
8	592	0.010	6	0.011	0.010	0.009
9	592	0.020	12	0.016	0.014	0.013
10	592	0.030	18	0.019	0.017	0.015
11	592	0.040	24	0.022	0.019	0.018
12	592	0.050	30	0.025	0.022	0.020
13	592	0.075	44	0.030	0.026	0.024
14	592	0.100	59	0.034	0.030	0.027

<sup>a</sup> Estimates based on 592 eligible young adults in the Ontario Tobacco Survey Baseline and Follow-up 1 data (July 2005 – December 2008); eligible YAs were respondents who smoked at least 100 lifetime cigarettes and smoked every day or almost every day, or those who smoked occasionally at the time of the baseline interview but smoked in the past 30 days, and provided responses for age and smoking cessation.

#### 4.5.2 Study Power for Bivariate Analyses

Table 3 demonstrates the power to detect differences in proportions (as measured by crude odds ratios (OR)) for bivariate analyses based on the YA sample in the OTS. To construct the power calculations, assumptions regarding the expected rate of making a QA and successful quitting (one to six months) were made. In 2006, 43% of Ontario adults made an attempt to quit smoking (Ontario Tobacco Research Unit, October 2008); previous analyses with the OTS data have reported that 6% of baseline respondents reported last smoking one to six months ago (Diemert et al., 2008). Thus, it was assumed that the rate of making a QA and successful 30-day quitting was 43% and 6%, respectively.

Assuming a conservative DEFF of 2.0, this study has the power to detect ORs for making a QA of 1.75 or greater at alpha set to 0.20 (the significance level set for inclusion of factors in the multivariable model), and ORs of 2.00 or greater at alpha set to 0.05 (Table 3). For successful smoking cessation, this study has the power to detect ORs of 2.50 or greater at alpha set to 0.20 and ORs of 3.25 or greater at alpha set to 0.05 (Table 3). For example, if the odds of YA males making a QA were two times greater than those of YA females, there would be sufficient power to call this significantly different; however, if the odds of YA males making a QA were 1.5 times greater than

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those of YA females, there would not be sufficient power call this statistically significant. Again, this assumes a very conservative DEFF of 2.0.

However, each individual estimate has a different DEFF (Lohr, 1999). Should the DEFF be lower at 1.5, the power for detecting differences in proportions for making a QA would be similar; however, there would be more power for detecting differences in proportions for successful smoking cessation with the power to detect ORs of 2.25 and 2.75 for alpha set to 0.20 and alpha set to 0.05, respectively (Table 3). If the DEFF was 1.25, the power to detect ORs increases for making a QA and successful smoking cessation: there would be sufficient power to detect ORs of 1.50 (alpha = 0.20) and 1.75 (alpha = 0.05) for making a QA and sufficient power to detect ORs of 2.25 (alpha = 0.20) and 2.50 (alpha = 0.05) for successful smoking cessation (Table 3).

**Table 3: Study power to detect odds ratios in young adult bivariate analyses for making a quit attempt and smoking cessation under various design effect scenarios**

Odds Ratio of outcome compared across 2 groups (e.g., male vs. female)	DEFF = 2.0				DEFF = 1.5				DEFF = 1.25			
	Quit Attempt (est. % = 43%)		Successful Quit (est. % = 6%)		Quit Attempt (est. % = 43%)		Successful Quit (est. % = 6%)		Quit Attempt (est. % = 43%)		Successful Quit (est. % = 6%)	
	alpha = 0.20	alpha = 0.05	alpha = 0.20	alpha = 0.05	alpha = 0.20	alpha = 0.05	alpha = 0.20	alpha = 0.05	alpha = 0.20	alpha = 0.05	alpha = 0.20	alpha = 0.05
1.25	0.437	0.196	0.250	0.076	0.437	0.196	0.266	0.085	0.477	0.227	0.279	0.093
1.50	0.766	0.518	0.366	0.147	0.766	0.518	0.414	0.180	<b>0.822</b>	0.594	0.452	0.207
1.75	<b>0.932</b>	0.790	0.505	0.249	<b>0.932</b>	0.790	0.581	0.315	0.961	<b>0.859</b>	0.635	0.368
2.00	0.984	<b>0.929</b>	0.638	0.369	0.984	<b>0.929</b>	0.726	0.467	0.994	0.964	0.783	0.540
2.25	0.997	0.979	0.748	0.494	0.997	0.979	<b>0.834</b>	0.612	1.000	0.993	<b>0.882</b>	0.693
2.50	1.000	0.995	<b>0.833</b>	0.610	1.000	0.995	0.905	0.735	1.000	0.999	0.941	<b>0.810</b>
2.75	1.000	0.999	0.893	0.711	1.000	0.999	0.949	<b>0.828</b>	1.000	1.000	0.972	0.891
3.00	1.000	1.000	0.934	0.793	1.000	1.000	0.973	0.894	1.000	1.000	0.988	0.941
3.25	1.000	1.000	0.960	<b>0.856</b>	1.000	1.000	0.987	0.937	1.000	1.000	0.995	0.969

Note: Estimates based on 592 eligible young adults in the Ontario Tobacco Survey Baseline and Follow-up 1 data (July 2005 – December 2008). Assumption: The estimated rate for making a quit attempt and smoking cessation was assumed to be 43% and 6% respectively.

### 4.5.3 Study Power for Multivariable Logistic Regressions

To examine the power available for a multiple logistic regression, the method proposed by Hsieh and colleagues (1998) was used. In this validated method, the sample size for a simple logistic regression modelling a single independent variable  $X_1$  on the outcome is inflated by a variance inflation factor equal to  $1 / (1 - \rho^2_{X_2 \dots X_p})$ , where  $\rho^2_{X_2 \dots X_p}$  is equal to the proportion of the variance of  $X_1$  explained by the regression relationship with  $X_2 \dots X_p$  (Hsieh, Bloch, & Larsen, 1998). As above, the same rates were assumed for making a QA and smoking cessation – 43% and 6%, respectively.

As every estimate has a different DEFF (Lohr, 1999), Table 4 illustrates ORs for three different DEFF scenarios. For example, if comparing males and females while adjusting for a variety of factors, and assuming that combined the other factors in the model explain 10% ( $R^2 = 0.10$ ), then the smallest OR that could be detected for making a QA would be 1.75 with a DEFF of 1.25; this would increase to 2.00 if the DEFF were to be 1.5 or 2.0 (Table 4). For successful quitting for 30 days or longer, the smallest OR that could be detected would be 2.75 with a DEFF of 1.25; this would increase to 3.00 and 3.25 if the DEFF were to be 1.5 and 2.0, respectively (Table 4). In general, we have the ability to detect ORs for making a QA as small as 1.75, 2.00 and 2.00 with DEFFs of 1.25, 1.5 and 2.0, respectively; for successful quitting, we have the ability to detect ORs as small as 2.50, 2.75 and 3.25 with DEFFs of 1.25, 1.5 and 2.0, respectively (Table 4). For the purposes of these calculations, only ORs greater than one were reported; however, detectable protective ORs can be determined by taking the inverse of the OR value in Table 3. In the example above, the minimum detectable protective OR for comparing QAs among males and females would be 0.57 ( $1 / 1.75$ ). These calculations are more conservative than the precision needed if a proportional odds model was used (Agresti, 2002); however, the assumption of proportionality does not often hold for a proportional odds model (Agresti, 2002), in which case these calculations would reflect the precision estimates for separate multivariable models.

**Table 4: Study power to detect odds ratios in young adult multivariable logistic regression analyses for making a quit attempt and smoking cessation under various design effect scenarios**

R <sup>2</sup>	DEFF = 2.0				DEFF = 1.5				DEFF = 1.25			
	Quit Attempt (est. % = 43%)		Successful Quit (est. % = 6%)		Quit Attempt (est. % = 43%)		Successful Quit (est. % = 6%)		Quit Attempt (est. % = 43%)		Successful Quit (est. % = 6%)	
	OR	Power	OR	Power	OR	Power	OR	Power	OR	Power	OR	Power
0.02	2.00	0.835	3.25	0.848	2.00	0.924	2.75	0.820	1.75	0.852	2.50	0.802
0.05	2.00	0.822	3.25	0.836	2.00	0.916	2.75	0.808	1.75	0.841	2.75	0.874
0.10	2.00	0.802	3.25	0.817	2.00	0.901	3.00	0.859	1.75	0.821	2.75	0.856
0.15	2.25	0.889	3.50	0.848	2.00	0.883	3.00	0.839	2.00	0.933	2.75	0.835
0.20	2.25	0.871	3.50	0.827	2.00	0.865	3.00	0.818	2.00	0.918	2.75	0.812
0.25	2.25	0.850	3.50	0.803	2.00	0.843	3.25	0.856	2.00	0.901	3.00	0.859
0.30	2.25	0.822	3.75	0.824	2.00	0.817	3.25	0.830	2.00	0.880	3.00	0.835
0.35	2.50	0.881	4.00	0.841	2.25	0.896	3.25	0.802	2.00	0.857	3.00	0.808
0.40	2.50	0.851	4.00	0.809	2.25	0.871	3.50	0.827	2.00	0.827	3.25	0.841
0.45	2.50	0.821	4.25	0.817	2.25	0.840	3.75	0.842	2.25	0.901	3.25	0.808
0.50	2.75	0.857	4.50	0.819	2.25	0.803	3.75	0.805	2.25	0.871	3.50	0.827
0.55	2.75	0.815	4.75	0.809	2.50	0.851	4.00	0.809	2.25	0.833	3.75	0.835
0.60	3.00	0.831	5.25	0.825	2.50	0.811	4.25	0.807	2.50	0.874	4.00	0.834

Note: Estimates based on 592 eligible young adults in the Ontario Tobacco Survey Baseline and Follow-up 1 data (July 2005 – December 2008).

Assumption: The estimated rate for making a quit attempt and smoking cessation was assumed to be 43% and 6% respectively.

## Chapter 5

### Results

#### 5.1 Study Sample

Among recent smokers in the OTS, there were 3944 current smokers<sup>c</sup> and 530 nonsmokers<sup>d</sup> recruited to the panel study; 30 respondents were excluded from this study as they did not report their age. Of the 3944 eligible smokers at baseline, there were 798 young adults (YAs) and 3146 older adults; 74% of YAs (592) and 88% of older adults (2777) had six-month follow-up data ( $\chi^2(df:1) = 102.03, p < 0.001$ ); one older adult respondent was excluded from the sample as there was information missing in order to classify this respondent's smoking cessation behaviour at six-month follow-up. Young adults lost-to-follow-up were more likely to be employed, single, smoke occasionally, and have a lower heaviness of smoking index (HSI) score than their older counterparts that were lost-to-follow-up (Table 5). There were no sex, education, or self-efficacy differences among young and older adults lost-to-follow-up (Table 5).

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<sup>c</sup> Current smokers were respondents who smoked at least 100 lifetime cigarettes and smoked every day or almost every day, or those who smoked occasionally at the time of the baseline interview but smoked in the past 30 days.

<sup>d</sup> Nonsmokers were recent smokers (smoked within the past six-months) who have not smoked 100 cigarettes in their lifetime, those who smoked “not at all” at the baseline interview, or those who smoke “occasionally” at the baseline interview and last smoked more than one month ago.

**Table 5: Characteristics of respondents lost-to-follow-up by age**

Characteristic	Eligible <sup>a</sup> Young Adults Lost-to-Follow-up (n=206)		Eligible <sup>a</sup> Older Adults Lost-to-Follow-up (n=368)		Test statistic, <sup>b</sup> p-value
	n <sup>c</sup>	% <sup>d</sup>	n <sup>c</sup>	% <sup>d</sup>	
<b>Sex</b>					
Women	96	46.6	174	47.3	0.03,
Men	110	53.4	194	52.7	0.875
<b>Education</b>					
High school or less	111	53.9	196	53.4	0.01,
More than high school	95	46.1	171	46.6	0.912
<b>Employment</b>					
Unemployed	47	22.8	123	33.4	7.14,
Employed	159	77.2	245	66.6	0.008
<b>Marital Status</b>					
Single	140	68.0	178	48.9	19.41,
Married/common law	66	32.0	186	51.1	<0.001
<b>Smoking Status</b>					
Daily/almost daily	171	83.0	340	92.4	11.91,
Occasional	35	17.0	28	7.6	0.022
<b>Heaviness of Smoking Index (HSI, continuous)</b>					
Mean (SE)	203	2.60 (0.13)	360	3.44 (0.09)	5.26 <sup>b</sup> , <0.001
<b>Efficacy</b>					
Not confident or uncertain confidence	142	68.9	276	75.2	2.63,
Very confident	64	31.1	91	24.8	0.105

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data, July 2005 – December 2008.

<sup>a</sup> OTS Baseline respondents who were self-report smokers who smoked in the past 30 days and at least 100 lifetime cigarettes, who also reported their age.

<sup>b</sup> All variables tested using Rao-Scott chi-square test of association with the exception of HSI which was tested using a design-adjusted t-test.

<sup>c</sup> Unweighted sample size.

<sup>d</sup> Unweighted estimates. Estimates may not sum to 100% due to rounding.

Among all eligible respondents (older and younger adults), 52% were men, 54% had more than high school education, 70% were employed and 59% were married/common law (Table 6). Eighty-seven percent of eligible respondents were daily smokers, and almost one-quarter of respondents were not confident in their ability to quit. Almost half of Ontario adult smokers perceived their health to be very good or excellent, while one in four perceived that they would benefit quite a bit from quitting (Table 6). Half of adult smokers had used some form of smoking cessation resources; 86% had someone they can count on for support, but 46% had someone who would make quitting more difficult. Only five percent of smokers had been exposed to tobacco industry marketing, however, 89% had been exposed to anti-tobacco mass media campaigns. Three out of five smokers had made two or more lifetime quit attempts (QAs) with similar proportions reporting no intention to quit smoking in the next six months; less than ten percent of smokers have set a date to quit smoking (Table 6). Sixty percent of respondents perceived themselves to be very addicted to cigarettes while

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76% perceived quitting to be difficult. Smokers' knowledge of stop smoking medications and counselling to make quitting easier was low at 23% and 16%, respectively (Table 6).

Among eligible respondents for this study, there was less than two percent of missing data for each of the independent variables; the majority of missing data was observed among the older adult sample. The variable with the most missing data was HSI, which had a total of 45 missing cases: 12 for YAs and 33 for older adults (Table 6).

The mean age of young and older adult smokers was 23 and 48 years, respectively (Table 6). Young adult smokers were more likely to be men, single, employed, and have less than high school education than their older counterparts ( $p < 0.01$  for all associations, Table 6). Compared to older smokers, YA smokers were more likely to smoke occasionally, have lower levels of addiction (as measured by HSI), and greater self efficacy for quitting ( $p < 0.01$  for all associations, Table 6). Young adult smokers were also less likely to have made two or more lifetime QAs than older adult smokers; however, YAs were more likely to have an intention to quit smoking in the next six months (Table 6). Compared to older smokers, YA smokers were more likely to have someone they can count on for support if they decided to quit but also more likely to have someone who would make quitting more difficult ( $p < 0.001$ , Table 6). Furthermore, YA smokers were more likely to have smoke-free homes and be exposed to tobacco industry marketing than their older counterparts. Compared to older smokers, YA smokers were less likely to have perceived themselves as very addicted to cigarettes and more likely to have perceived quitting to be easy ( $p < 0.001$ , Table 6). Young adult smokers were less likely to have knowledge that stop smoking medications would make quitting a lot easier compared to their older counterparts ( $p < 0.001$ , Table 6). There were no significant differences between younger and older adult smokers with respect to perceived health, perceived benefits to quitting, use of smoking cessation resources, exposure to anti-tobacco mass media campaigns, having set a quit date as well as knowledge regarding counselling benefits for smoking cessation (Table 6).

**Table 6: Sample characteristics for young and older adult smokers: results of univariate and bivariate analyses**

Characteristic	All Eligible <sup>a</sup> Respondents (N=3369)		Eligible Young Adults (n=592)		Eligible Older Adults (n=2777)		Test statistic, <sup>b</sup> p-value
	n <sup>c</sup>	% <sup>d,e</sup>	n <sup>c</sup>	% <sup>d,e</sup>	n <sup>c</sup>	% <sup>d,e</sup>	
<b>Age (years, continuous)</b>							
Mean (SE)	3369	41.92 (0.36)	592	23.39 (0.19)	2777	47.82 (0.30)	---
<b>Sex</b>							
Women	1887	47.8	287	39.8	1600	50.4	12.11,
Men	1482	52.2	305	60.2	1177	49.6	<0.001
Missing	0		0		0		
<b>Education</b>							
High school or less	1599	45.7	347	53.1	1252	43.4	9.65,
More than high school	1763	54.3	244	46.9	1519	56.6	0.002
Missing	7		1		6		
<b>Employment</b>							
Unemployed	1140	29.6	143	22.2	997	32.0	12.03,
Employed	2226	70.4	449	77.8	1777	68.0	<0.001
Missing	3		0		3		
<b>Marital Status</b>							
Single	1516	40.8	373	70.0	1143	31.5	204.46,
Married/common law	1842	59.2	219	30.0	1623	68.5	<0.001
Missing	11		0		11		
<b>Smoking Status</b>							
Daily/almost daily	3021	87.0	488	79.8	2533	89.3	19.72,
Occasional	348	13.0	104	20.2	244	10.7	<0.001
Missing	0		0		0		
<b>Heaviness of Smoking Index (HSI, continuous)</b>							
Mean (SE)	3324	3.09 (0.05)	580	2.34 (0.10)	2744	3.32 (0.05)	8.89 <sup>b</sup> ,
Missing	45		12		33		<0.001
<b>Efficacy</b>							
Not confident or uncertain confidence	2560	72.5	410	66.2	2150	74.5	8.33,
Very confident	809	27.5	182	33.8	627	25.5	0.004
Missing	0		0		0		
<b>Perceived Health</b>							
Good/fair/poor	1835	52.1	314	53.0	1521	51.9	0.12,
Very good/excellent	1531	47.9	278	47.0	1253	48.1	0.725
Missing	3		0		3		
<b>Perceived benefits to quitting</b>							
Benefit a little/not at all/don't know	759	23.6	121	20.3	638	24.7	2.73,
Benefit quite a bit/a lot	2608	76.4	470	79.7	2138	75.3	0.098
Missing	2		1		1		
<b>Use of cessation resources/supports<sup>f</sup></b>							
No	1663	50.8	317	53.2	1346	50.0	1.07,
Yes	1679	49.2	270	46.8	1409	50.0	0.301
Missing	27		5		22		
<b>Support to quit</b>							
No, DK	564	13.9	60	8.4	504	15.7	14.03,
Yes	2804	86.1	532	91.6	2272	84.3	<0.001
Missing	1		0		1		
<b>Smoke-free homes</b>							
People smoke indoors	1839	45.8	217	29.5	1622	51.0	55.48,
No one smokes indoors	1528	54.2	375	70.5	1153	49.0	<0.001
Missing	2		0		2		

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Characteristic	All Eligible <sup>a</sup> Respondents (N=3369)		Eligible Young Adults (n=592)		Eligible Older Adults (n=2777)		Test statistic, <sup>b</sup> p-value
	n <sup>c</sup>	% <sup>d,e</sup>	n <sup>c</sup>	% <sup>d,e</sup>	n <sup>c</sup>	% <sup>d,e</sup>	
<b>Someone to make quitting more difficult</b>							
No, DK	1925	54.3	188	34.2	1737	60.6	71.08, <0.001
Yes	1444	45.7	404	65.8	1040	39.4	
Missing	0		0		0		
<b>Exposure to tobacco industry marketing</b>							
No	3195	94.6	540	90.8	2655	95.7	11.93, <0.001
Yes	166	5.4	51	9.2	115	4.3	
Missing	8		1		7		
<b>Exposure to anti-tobacco mass media campaigns</b>							
No	372	11.4	62	10.9	310	11.6	0.12, 0.734
Yes	2997	88.6	530	89.1	2467	88.4	
Missing	0		0		0		
<b>Lifetime number of quit attempts</b>							
None	503	17.2	112	21.4	391	15.9	28.53, <0.001
One	754	23.0	182	31.2	572	20.4	
Two or more	2107	59.7	297	47.4	1810	63.7	
Missing	5		1		4		
<b>Quit intention</b>							
No (incl DK)	2007	61.0	336	56.4	1671	62.5	4.13, 0.042
Yes	1362	39.0	256	43.6	1106	37.5	
Missing	0		0		0		
<b>Quit date</b>							
No	3093	91.3	540	90.0	2553	91.8	0.94, 0.333
Yes	275	8.7	52	10.0	223	8.2	
Missing	1		0		1		
<b>Perceived addiction</b>							
Not at all/somewhat addicted	1133	39.4	291	55.1	842	34.5	47.32, <0.001
Very addicted	2222	60.6	299	44.9	1923	65.5	
Missing	14		2		12		
<b>Perceived ease of quitting</b>							
Very/somewhat hard	2667	76.4	419	66.1	2248	79.7	25.58, <0.001
Very/somewhat easy	678	23.6	173	33.9	505	20.3	
Missing	24		0		24		
<b>Knowledge: smoking medications make quitting a lot easier</b>							
No	2578	77.0	487	83.4	2091	74.9	11.42, <0.001
Yes	790	23.0	105	16.6	685	25.1	
Missing	1		0		1		
<b>Knowledge: counselling makes quitting a lot easier</b>							
No	2842	84.1	506	86.5	2336	83.3	2.08, 0.150
Yes	525	15.9	86	13.5	439	16.7	
Missing	2		0		2		

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data, July 2005 – December 2008.

<sup>a</sup> OTS Baseline respondents who were self-report smokers who smoked in the past 30 days and at least 100 lifetime cigarettes, who also reported their age and responded to smoking cessation questions.

<sup>b</sup> All variables tested using Rao-Scott chi-square test of association with the exception of HSI which was tested using a design-adjusted t-test.

<sup>c</sup> Unweighted sample size.

<sup>d</sup> Weighted estimates. Estimates may not sum to 100% due to rounding.

<sup>e</sup> Missing data were not used in the calculation of statistical tests or weighted estimates.

<sup>f</sup> Use of cessation aids and resources include any use of self-help materials, pharmacotherapies, physician advice to quit smoking measured during six-month follow-up.

## 5.2 Six-Month Smoking Cessation Behaviours

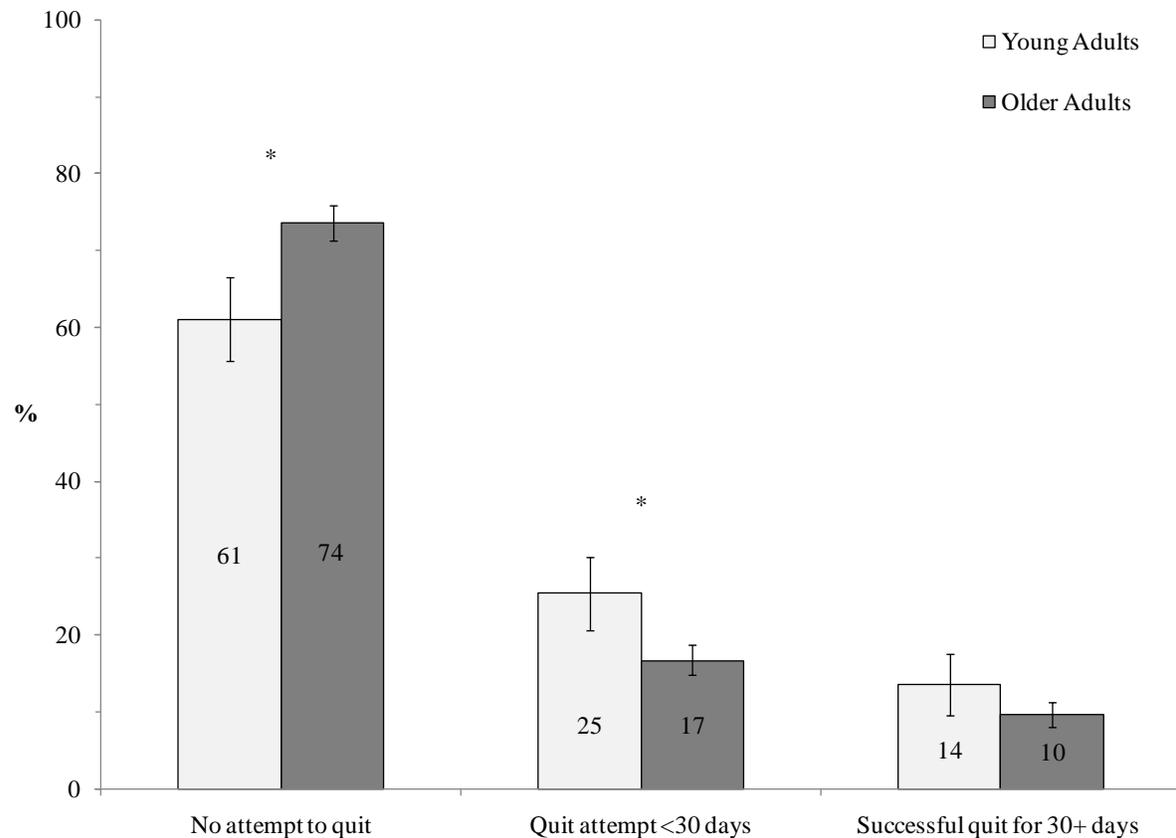
There were 286 eligible respondents who reported being a “not at all” smoker at the six-month follow-up interview. Forty-two of the YAs and 177 older adults last smoked a cigarette one month ago or longer and were classified as having successfully quit for 30 days or longer (Appendix D, Figure D-1). Twenty-one of the YAs and 46 older adults reported smoking in the past month; the smoking status of these respondents were assessed at the twelve-month interview to determine if they had been smoke-free for six-months or more (i.e., they had sustained their QA made during the first follow-up period). Respondents with no twelve-month follow-up data and those who were smoking at the twelve-month interview or last smoked within the past six-months were considered to have made a QA at the six-month interview but did not succeed for 30 days or more (n=59). At the twelve-month interview, eight respondents reported last smoking a cigarette more than six months ago and were considered to have quit smoking for 30 days or longer at the six-month interview (Appendix D, Figure D-1).

Among all eligible respondents, 11% had a successful quit that lasted for 30 days or longer, 19% made a QA but were not successful for at least 30 days and 71% made no QA during follow-up.<sup>e</sup> Young adult smokers were more likely to have made a QA but not succeed for at least 30 days than older adults (25% *versus* 17%, respectively), and less likely to have made no attempt to quit during follow-up (61% *versus* 74%, respectively; Figure 5). Differences for cessation that lasted 30 days or longer were not as pronounced between older and younger adults (Figure 5).

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<sup>e</sup> Estimates may not sum to 100% due to rounding.

## Young adult smoking cessation



**Figure 5: Smoking cessation behaviours at six-month follow-up by young and older adults**

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data (July 2005 – December 2008) of baseline respondents who were self-report smokers who smoked in the past 30 days and at least 100 lifetime cigarettes, who also reported their age and responded to smoking cessation questions.

Note: Vertical lines represent 95% confidence intervals. Weighted estimates; estimates may not sum to 100% due to rounding.

\* $p < 0.05$

### 5.2.1 Young Adult Smoking Cessation

Education was the only demographic characteristic associated with YA smoking cessation behaviours at follow-up: those with more than high school education were more likely to quit smoking for 30 days or longer than those with less than high school education ( $p = 0.045$ , Table 7). Age, sex, employment and marital status of YAs were not associated with six-month smoking cessation behaviours (Table 7). Young adults who were occasional smokers were more likely to have quit for 30 days or more during follow-up than those who smoked daily; similarly, YAs with lower levels of addiction (HSI) were more likely to move towards smoking cessation (make a QA or quit for 30 days or more) than those with higher levels of addiction ( $p = 0.003$  and  $p < 0.001$ , respectively, Table 7). Young adults who used smoking cessation resources were less likely to make no attempt to

## Young adult smoking cessation

quit compared to those who did not use smoking cessation resources during follow-up ( $p = 0.005$ ); YAs who had someone they could count on to support them during a QA were more likely to make a successful quit for 30 days or longer than those who did not have support ( $p = 0.006$ , Table 7). Young adults who had made two or more lifetime QAs were more likely to make an attempt to quit during follow-up than those who had fewer lifetime QAs; similarly, YAs who had an intention to quit or had set a quit date were more likely to make a QA during follow-up than their respective counterparts ( $p < 0.001$ , Table 7). Young adults who perceived themselves to be very addicted were less likely to quit for 30 days or longer than those who perceived themselves to be less addicted (Table 7). Smoking cessation behaviours among YAs were not associated with the following: self-efficacy, perceived health, perceived benefits to quitting, smoke-free homes, having someone to make quitting more difficult, exposure to tobacco industry marketing, exposure to anti-tobacco media campaigns, perceived ease of quitting as well as knowledge of the benefits of stop smoking medications and counselling (Table 7).

**Table 7: Young adult smoking cessation behaviours at follow-up by respondent characteristics**

SCT DOMAIN Characteristic	No attempt to quit smoking (n=375)		Serious attempt to quit sustained for <30 days (n=149)		Sustained quit for 30+ days (n=68)		Chi- square, p-value
	n <sup>a</sup>	% <sup>b,c</sup>	n <sup>a</sup>	% <sup>b,c</sup>	n <sup>a</sup>	% <sup>b,c</sup>	
<b>PERSONAL CHARACTERISTICS</b>							
Age (years, continuous)							
Mean (SE)	375	23.47 (0.25)	149	23.34 (0.32)	68	23.14 (0.56)	0.310, 0.578
Sex							
Women	187	61.2	63	23.1	37	15.6	1.13,
Men	188	60.9	86	26.9	31	12.1	0.569
Missing	0		0		0		
Education							
High school or less	221	63.0	96	28.0	30	9.1	6.22,
More than high school	153	58.7	53	22.7	38	18.6	0.045
Missing	1		0		0		
Employment							
Unemployed	94	61.1	30	22.6	19	16.3	0.82,
Employed	281	61.0	119	26.2	49	12.7	0.664
Missing	0		0		0		
Marital Status							
Single	231	61.7	102	26.2	40	12.1	1.35,
Married/common law	144	59.5	47	23.7	28	16.8	0.509
Missing	0		0		0		
Smoking Status							
Daily/almost daily	315	63.3	126	26.6	47	10.2	11.36,
Occasional	60	52.2	23	21.0	21	26.8	0.003
Missing	0		0		0		
Heaviness of Smoking Index (HSI, continuous)							
Mean (SE)	367	2.55 (0.13)	145	2.43 (0.18)	68	1.27 (0.20)	11.94, <0.001
Missing	8		4		0		
<b>SELF EFFICACY</b>							
Self Efficacy							
Less confident or uncertain confidence	259	61.6	111	27.5	40	10.9	3.97, 0.137
Very confident	116	59.9	38	21.3	28	18.7	
Missing	0		0		0		
<b>OUTCOME EXPECTATIONS</b>							
Perceived Health							
Good/fair/poor	197	60.1	84	27.4	33	12.5	0.81,
Very good/excellent	178	62.1	65	23.3	35	14.7	0.668
Missing	0		0		0		
Perceived benefits to quitting							
Benefit a little/not at all/don't know	89	65.5	20	20.7	12	13.8	0.88,
Benefit quite a bit/a lot	285	59.9	129	26.7	56	13.5	0.644
Missing	1		0		0		
<b>FACILITATORS &amp; BARRIERS</b>							
Use of cessation resources/supports <sup>d</sup>							
No	226	69.5	64	21.6	27	8.9	10.82,
Yes	148	52.0	85	30.2	37	17.8	0.005
Missing	1		0		4		
Support to quit							
No, DK	39	54.3	16	42.3	5	3.4	10.26,
Yes	336	61.7	133	23.9	63	14.4	0.006
Missing	0		0		0		

Young adult smoking cessation

SCT DOMAIN Characteristic	No attempt to quit smoking (n=375)		Serious attempt to quit sustained for <30 days (n=149)		Sustained quit for 30+ days (n=68)		Chi-square, p-value
	n <sup>a</sup>	% <sup>b,c</sup>	n <sup>a</sup>	% <sup>b,c</sup>	n <sup>a</sup>	% <sup>b,c</sup>	
<b>Smoke-free homes</b>							
People smoke indoors	148	67.4	53	24.3	16	8.2	4.45,
No one smokes indoors	227	58.4	96	25.9	52	15.7	0.108
Missing	0		0		0		
<b>Someone to make quitting more difficult</b>							
No, DK	129	63.0	31	19.9	28	17.2	3.34,
Yes	246	60.0	118	28.3	40	11.6	0.189
Missing	0		0		0		
<b>OBSERVATIONAL / EXPERIENTIAL LEARNING</b>							
<b>Exposure to tobacco industry marketing</b>							
No	343	60.4	133	25.2	64	14.4	2.89,
Yes	31	67.1	16	27.9	4	5.0	0.236
Missing	1		0		0		
<b>Exposure to anti-tobacco mass media campaigns</b>							
No	45	66.7	12	17.1	5	16.3	1.36,
Yes	330	60.4	137	26.5	63	13.2	0.506
Missing	0		0		0		
<b>Lifetime number of quit attempts</b>							
None	88	75.2	12	10.4	12	14.4	18.02,
One	130	66.3	30	19.8	22	14.0	0.001
Two or more	157	52.0	107	36.2	33	11.8	
Missing	0		0		1		
<b>SELF-REGULATION</b>							
<b>Quit intention</b>							
No (incl DK)	256	73.1	53	17.3	27	9.6	23.95,
Yes	119	45.5	96	35.9	41	18.6	<0.001
Missing	0		0		0		
<b>Quit date</b>							
No	356	65.2	125	22.1	59	12.8	22.21,
Yes	19	24.1	24	55.8	9	20.1	<0.001
Missing	0		0		0		
<b>BEHAVIOURAL CAPABILITY &amp; CONTROL</b>							
<b>Perceived addiction</b>							
Not at all/somewhat addicted	180	59.3	66	21.3	45	19.4	15.07,
Very addicted	193	62.7	83	30.8	23	6.4	<0.001
Missing	2		0		0		
<b>Perceived ease of quitting</b>							
Very/somewhat hard	268	62.1	114	27.8	37	10.2	5.90,
Very/somewhat easy	107	59.1	35	20.9	31	20.0	0.052
Missing	0		0		0		
<b>Knowledge: smoking medications make quitting a lot easier</b>							
No	318	63.1	113	23.7	56	13.2	3.25,
Yes	57	50.5	36	34.4	12	15.1	0.197
Missing	0		0		0		
<b>Knowledge: counselling makes quitting a lot easier</b>							
No	323	61.5	128	25.7	55	12.8	0.89,
Yes	52	57.9	21	24.0	13	18.1	0.642
Missing	0		0		0		

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data (July 2005 – December 2008) of young adult respondents who were self-report smokers at baseline who smoked in the past 30 days and at least 100 lifetime cigarettes, who also reported their age.

<sup>a</sup> Unweighted sample size.

<sup>b</sup> Weighted estimates. Estimates may not sum to 100% due to rounding.

<sup>c</sup> Missing data were not used in the calculation of statistical tests or weighted estimates.

<sup>d</sup> Use of cessation aids and resources include any use of self-help materials, pharmacotherapies, physician advice to quit smoking measured during six-month follow-up.

## 5.3 Factors Predicting Moving Along the Smoking Cessation Continuum

### 5.3.1 Evaluating Independent Variables

Putative independent factors that had an association ( $p \leq 0.20$ ) with the outcome— smoking cessation behaviours – were considered for inclusion in the multivariable proportional odds model. These included: education, smoking status, HSI, self-efficacy, use of smoking cessation resources or supports, having someone to support their QA and having someone to make a QA more difficult, smoke-free homes, lifetime number of QAs, having an intention to quit and having set a quit date, perceived addiction, perceived ease of quitting, and knowledge of the benefits of stop smoking medications (Table 7). Age and sex were also included in the model.

These independent factors were further evaluated for co-linearity (Appendix E, Table E-1). While this table demonstrates associations between all independent variables, the purpose of this table was to evaluate factors that were potentially measuring similar constructs based on the significance levels and the literature. Smoking status and HSI are both Personal Characteristics that were strongly associated (Appendix E, Table E-1); these factors measure similar constructs as occasional smokers are assigned a low time to first cigarette (a component in the HSI score (Heatherton et al., 1989)) as they do not smoke daily. Thus, only one of these factors was included in the multivariable model: HSI was selected as it is a measure of addiction that incorporates cigarette consumption and time to first cigarette. Similarly, perceived addiction and perceived ease of quitting were highly associated (Appendix E, Table E-1), both measuring components of Behavioural Capability and Control in the SCT; thus, perceived addiction was selected for inclusion in the multivariable model as this measure was significantly associated with the outcome whereas perceived ease of quitting was not. Quit intention and having set a quit date both measure the Self-regulation component of the SCT. A significance test was not possible to obtain for these two factors as there was a cell with a zero frequency; however, these factors are likely to be strongly related given that respondents were asked the question about having a quit date only if they indicated they had an intention to quit smoking. While both factors were significantly associated with the outcome, having a quit date was excluded from the multivariable model as this variable was not explicitly measured or reported on in the YA literature whereas intention to quit directly parallels measures used in previous research on YAs.

Education and HSI were strongly associated (Appendix E, Table E-1), an association that is well documented in the smoking literature. Although these variables are both components of the Personal Characteristics construct of the SCT, they measure different aspects of an individual's characteristics; thus, each variable was included in the multivariable model. Education was also highly associated

with perceived addiction (Appendix E, Table E-1); however, these variables measure different constructs of the SCT (Personal Characteristics and Behavioural Capability and Control, respectively); thus, both variables were included in the multivariable model. Similarly, there were several strong associations with HSI, namely, self-efficacy, smoke-free homes, lifetime number of QAs, and perceived addiction (Appendix E, Table E-1): these variables measure different constructs of the SCT and thus each variable was included in the modelling. Perceived addiction had a strong negative association with self-efficacy and a strong positive association with lifetime number of QAs (Appendix E, Table E-1). The variables in these associations also measure different components of the SCT and thus each variable was included in the multivariable model.

A final evaluation of the independent variables for inclusion in the multivariable analyses was done for appropriate sample size with the outcome variable; each cell was confirmed to have at least a sample size of five or more respondents (Table 7). The independent variables that were included in the multivariable modelling included the following: age, sex, education, HSI, self-efficacy, use of smoking cessation resources or supports, having someone to support their QA and having someone to make a QA more difficult, smoke-free homes, lifetime number of QAs, having an intention to quit smoking, perceived addiction, and knowledge of the benefits of stop smoking medications. The remaining independent variables were excluded from multivariable analyses.

## 5.4 Multivariable Modelling

A multivariable proportional odds model was used to identify the factors associated with moving along the smoking cessation continuum. First, the Score Test for the proportional odds assumption was assessed and determined to be significant ( $\chi^2(df:14) = 53635.47, p < 0.001$ ), which leads to the rejection of the proportional odds assumption. This indicates that the effect for each predictor is not constant across the continuum of smoking cessation behaviours. Therefore, less restrictive models were fitted: separate logistic regressions applying survey design information and population weights were used to assess the factors that predict smoking cessation behaviours at six-month follow-up.

Logistic regression requires all variables in the model to have valid data (i.e., no missing data). Twenty respondents (three percent of the YA population) were excluded from the multivariable models as they were missing data on one or more variables. Of these excluded respondents, eleven made no QA, five made a QA that lasted for less than 30 days, and four successfully quit for 30 days or more.

In the complex model the following four factors predicted YAs making a QA that lasted for less than 30 days during the six-month follow-up period (compared to making no QA): use of smoking

## Young adult smoking cessation

cessation aids or resources, lifetime number of QAs, quit intention and knowledge of stop smoking medications (Table 8). Specifically, the odds of making a QA that lasted for less than 30 days was almost two times greater among YAs who used smoking cessation resources compared to those who did not use smoking cessation resources (Table 8). Young adults who made two or more QAs in their lifetime were more likely to make a QA than those who have not made any lifetime QAs (OR = 3.62, 95% CI: 1.31-10.01). The odds of making a QA that lasted for less than 30 days was almost four times greater among YAs who had an intention to quit smoking than those with no intention to quit (Table 8). Young adults who were aware of the benefits of stop smoking medications were more likely to make a QA than those who were not aware of the benefits (OR=2.28, 95% CI: 1.15-4.54 Table 8). These same four factors remained in the parsimonious model predicting making a QA with similar magnitude and direction as the complex model (Table 9); however, use of smoking cessation aids or resources and knowledge of the benefits of stop smoking medications were no longer significant at the 0.05 level (Table 9). See Appendix F, Table F-1 for the summary of the backward elimination procedure.

The factors that predicted successful smoking cessation among YAs (i.e., quit for 30 days or longer *versus* making a QA that lasted for less than 30 days and making no attempt to quit) in the complex model included the following: HSI, self-efficacy, use of smoking cessation aids or resources, and support to quit (Table 8). The odds of having successful cessation for 30 days or longer were significantly greater among YAs who were very confident in their ability to quit smoking, had used smoking cessation resources and had someone they could count on for support, compared to their respective counterparts (OR=3.18, 95% CI: 1.14-8.85; OR=3.72, 95% CI: 1.75-7.89; and OR=4.61, 95% CI: 1.20-17.73, respectively; Table 8). Young adults who had higher levels of addiction (as measured by HSI) were less likely to successfully quit smoking than their respective counterparts (OR=0.72, 95% CI: 0.52-0.95; Table 8). The parsimonious model predicting YA smoking cessation also consisted of these four factors with similar results to the complex model (Table 9). See Appendix F, Table F-2 for the summary of the backward elimination procedure.

**Table 8: Factors predicting young adult smoking cessation behaviours: odds ratios and confidence intervals from simultaneously adjusted multivariable logistic regression models**

Characteristic	MODEL 1: Attempt to quit that lasted <30 days vs. no attempt to quit OR (95% CI)	MODEL 2: Successful quit for >=30 days vs. quit attempt that lasted <30 days and no attempt to quit OR (95% CI)
<b>Age (years)</b>		
Continuous	0.97 (0.89 – 1.06)	0.96 (0.85 – 1.09)
<b>Sex</b>		
Women	REF	REF
Men	1.53 (0.81 – 2.87)	0.65 (0.32 – 1.34)
<b>Education</b>		
High school or less	REF	REF
More than high school	0.82 (0.41 – 1.65)	1.54 (0.62 – 3.84)
<b>Heaviness of Smoking Index</b>		
Continuous	0.85 (0.69 – 1.05)	<b>0.72 (0.54 – 0.95)</b>
<b>Self Efficacy</b>		
Less confident or uncertain confidence	REF	REF
Very confident	0.52 (0.26 – 1.05)	<b>3.18 (1.14 – 8.85)</b>
<b>Use of cessation resources/supports<sup>a</sup></b>		
No	REF	REF
Yes	<b>1.86 (1.05 – 3.30)</b>	<b>3.72 (1.75 – 7.89)</b>
<b>Support to quit</b>		
No, don't know	REF	REF
Yes	0.43 (0.16 – 1.11)	<b>4.61 (1.20 – 17.73)</b>
<b>Smoke-free homes</b>		
People smoke indoors	REF	REF
No one smokes indoors	1.81 (0.98 – 3.34)	1.36 (0.53 – 3.51)
<b>Someone to make quitting more difficult</b>		
No, DK	REF	REF
Yes	1.15 (0.57 – 2.32)	0.72 (0.34 – 1.53)
<b>Lifetime number of quit attempts</b>		
None	REF	REF
One	1.52 (0.53 – 4.39)	1.31 (0.43 – 3.97)
Two or more	<b>3.62 (1.31 – 10.01)</b>	1.37 (0.47 – 4.02)
<b>Quit intention</b>		
No (incl DK)	REF	REF
Yes	<b>3.94 (2.22 – 7.01)</b>	1.44 (0.71 – 2.92)
<b>Perceived addiction</b>		
Not at all/somewhat addicted	REF	REF
Very addicted	1.22 (0.58 – 2.59)	0.57 (0.25 – 1.33)
<b>Knowledge: smoking medications make quitting a lot easier</b>		
No	REF	REF
Yes	<b>2.28 (1.15 – 4.54)</b>	1.59 (0.61 – 4.13)

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data for young adult smokers, July 2005 – December 2008. Weighted data.

NOTE: Bold text indicates statistical significance.

<sup>a</sup> Use of cessation aids and resources include any use of self-help materials, pharmacotherapies, physician advice to quit smoking measured during six-month follow-up.

**Table 9: Parsimonious models of factors predicting young adult smoking cessation behaviours: odds ratios and confidence intervals following backwards elimination**

Characteristic	MODEL 1: Attempt to quit that lasted <30 days vs. no attempt to quit OR (95% CI)	MODEL 2: Successful quit for ≥30 days vs. quit attempt that lasted <30 days and no attempt to quit OR (95% CI)
Age (years)		
Continuous		
Sex		
Women		
Men		
Education		
High school or less		
More than high school		
Heaviness of Smoking Index		
Continuous		<b>0.63 (0.51 – 0.79)</b>
Self Efficacy		
Less confident or uncertain confidence		REF
Very confident		<b>3.74 (1.40 – 9.99)</b>
Use of cessation resources/supports <sup>a</sup>		
No	REF	REF
Yes	1.72 (0.99 – 2.98)	<b>3.58 (1.73 – 7.42)</b>
Support to quit		
No, don't know		REF
Yes		<b>4.12 (1.17 – 14.49)</b>
Smoke-free homes		
People smoke indoors		
No one smokes indoors		
Someone to make quitting more difficult		
No, DK		
Yes		
Lifetime number of quit attempts		
None	REF	
One	1.85 (0.72 – 4.79)	
Two or more	<b>4.44 (1.85 – 10.67)</b>	
Quit intention		
No (incl DK)	REF	
Yes	<b>3.14 (1.81 – 5.45)</b>	
Perceived addiction		
Not at all/somewhat addicted		
Very addicted		
Knowledge: smoking medications make quitting a lot easier		
No	REF	
Yes	1.82 (0.92 – 3.60)	

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data for young adult smokers, July 2005 – December 2008. Weighted data.

NOTE: Bold text indicates statistical significance.

<sup>a</sup> Use of cessation aids and resources include any use of self-help materials, pharmacotherapies, physician advice to quit smoking measured during six-month follow-up.

#### **5.4.1 Final Test of Collinearity**

The complex multivariable models presented in Table 8 were checked to determine the level of collinearity among independent variables. The model for predicting making a QA that lasted for less than 30 days (*versus* making no QA) had variance inflation factors of two or less, with similar variance inflation factors in the model predicting smoking cessation for 30 days or longer (*versus* making a QA that lasted for less than 30 days and making no attempt to quit) (Appendix G, Table G-1). Since all variance inflation factors were less than four, the complex models had limited collinearity among study variables.

## Chapter 6

### Discussion

The aim of this study was to assess smoking cessation behaviours among young adults (YAs), with smoking cessation measured as an ordinal variable – no quit attempt (QA), QA that lasted for less than 30 days, and successful quit for 30 days or longer. Twenty-five percent of YAs made a QA (lasting for less than 30 days) and 14% of YAs quit for 30 days or longer. This study identified that different factors predicted making a QA that lasted for less than 30 days and smoking cessation for 30 days or more. Specifically, the predictors of making a QA lasting less than 30 days were having an intention to quit smoking and having made two or more lifetime number of QAs; the use of smoking cessation aids or resources and having knowledge that stop smoking medications make quitting a lot easier appear to make a contribution to making an attempt to quit that was marginally significant. In comparison, self-efficacy to quit smoking, use of smoking cessation aids or resources and having someone to support one's QA were positive predictors of sustained cessation (30 days or longer); having high levels of addiction (as measured by the Heaviness of Smoking Index (HSI)) was a negative predictor of sustained cessation.

#### 6.1 Study Data

Attrition – or loss-to-follow-up – is inherent in longitudinal studies. The Ontario Tobacco Survey (OTS) employed a number of strategies to minimise attrition, including: a short time period (six-months) between follow-up interviews; participants were sent thank-you letters following an interview, reminder letters were sent prior to contact for a follow-up interview, and those that were not successfully contacted were mailed letters to ask them to contact the toll-free number; participants were also asked to provide alternate numbers at which they could be contacted; and telephone directories were checked to try to locate a study participant (Diemert, Chaiton et al., April 2010). In the OTS, those lost-to-follow-up at the six-month interview were reported to be younger, male, single, and smoke fewer cigarettes per day (Diemert, Chaiton et al., April 2010). Young adults lost-to-follow-up were more likely to be employed, single, smoke occasionally, and have lower HSI than their older counterparts; these are characteristics that also differentiated younger and older adult smokers. Greater attrition of YAs may impact the generalisation of the study findings.

## **6.2 Interpretation of Findings and Comparison of Study Results to the Literature**

### **6.2.1 Older and Younger Adult Smokers**

Young adult smokers were distinct from older adult smokers. The descriptive differences between young and older adult smokers were evident in almost all of the constructs of the Social Cognitive Theory (SCT). In fact, Outcome Expectations was the only construct in which there were no differences observed between these groups: young and older adults did not differ with respect to their perceived health or their perceived benefits to quitting. This illustrates that the ill effects of smoking are well understood in the population.

Younger and older adult smokers were different on all aspects of Personal Characteristics and Self-efficacy assessed in this study. Young adult smokers were more likely to be men, employed, single, and have less than high school education than their older counterparts. A higher smoking prevalence among YA men has also been reported among YA smokers in the United States (Lawrence, Fagan, Backinger, Gibson, & Hartman, 2007; Nelson et al., 2008). It seems logical for younger individuals to be single and have lower levels of education. Education was determined from the highest level completed. When looking at various age groups, those 18-24 years of age and those 65 years of age and older were least likely to have completed more than high school education (38% and 40%, respectively; see Appendix H, Table H-1). This is likely due to generational differences: the oldest adults had less pressure to pursue higher levels of education, while at present there is a growing proportion of YAs who are delaying the start of their post-secondary education. In fact, Ontario, compared to other provinces, has the highest rate of YAs who delay starting post-secondary education following high school (Hango, 2008). Several studies have reported YA smoking to be lower among those who are enrolled in post-secondary education programs (Green et al., 2007; Lantz, 2003), or among YAs with higher levels of education (Ling et al., 2009; Nelson et al., 2008; Solberg, Asche, Boyle, McCarty, & Thoele, 2007). In this study, enrolment in post-secondary programs was not assessed on the OTS; however, a greater proportion of YA smokers completed lower levels of education.

It seems contradictory for younger respondents to have a greater likelihood of employment than their older counterparts. Retirement age in Canada is 65, however, in 2007, the average age of retirement was 61 (Statistics Canada, Labour Statistics Division, 2007). When respondents who were in their retirement years (62 years of age and older) were excluded, there was no significant difference in the rate of employment among older and younger adult smokers (74% *versus* 79%,

respectively). Furthermore, the rate of employment was similar among YA smokers 18-24 years of age and those 25-29 years of age (77 versus 79%, respectively). It is important to note that on the OTS, employment was determined from the question “Do you work outside your home for pay?” Thus, those who work from their home would not be captured by this question; additionally, this question does not differentiate between part-time and full-time work. A national study reported that Canadian YAs were less likely to smoke if they were students, professionals or administrative workers (Hammond, 2005); similar occupation results were reported from a study of American YAs (Lawrence et al., 2007). Unfortunately, the OTS did not ask respondents about specific information on their type of employment.

Young adults were more likely to smoke occasionally and have lower levels of addiction (measured by HSI) than older adult smokers, which is consistent with most other studies (Edwards et al., 2010; Hammond, 2005; Messer et al., 2008; Solberg, Boyle et al., 2007). One study of young and middle aged adults from Vermont also reported YAs to have lower levels of addiction, however, occasional smoking did not differ from middle-aged smokers (Hughes et al., 2009); it should be noted that this study had a small sample of YA smokers. The present analysis also found YAs to have greater self-efficacy for quitting than their older counterparts. This belief relates to some of the factors in the Behavioural Capability and Control construct of the SCT – perceived addiction and perceived ease of quitting. Compared to older smokers, YAs were less likely to perceive themselves as very addicted and more likely to perceive quitting as easy. With these perceptions, in conjunction with a shorter smoking history than older adult smokers, it is not surprising that YAs had greater self-efficacy for quitting. This is in contrast to a US study of YAs which reported no differences in confidence to quit between younger and middle-aged adults (Hughes et al., 2009). The inclusion of older adults in this present study may account for differences observed in quitting confidence between younger and older adult smokers.

Knowledge of stop smoking medications and counselling to make quitting easier were the remaining factors of Behavioural Capability and Control. Compared to older adults, YAs were less likely to have knowledge that stop smoking medications make quitting easier; however, there was no difference in knowledge regarding counselling. Thus, programs may be necessary to increase population knowledge and utility of stop smoking medications, along with appropriate instructions for use of these medications; while this would highly benefit YAs, such programs would also help older adult smokers since knowledge of the benefits of stop smoking medications was relatively low in the adult population. Similarly, programs to increase the knowledge regarding the benefits of counselling for smoking cessation may help both younger and older adults as the overall knowledge

of counselling benefits was low. While there were some differences in knowledge of the benefits of smoking cessation resources, at the bivariate level there was no difference in the use of these resources between younger and older adult smokers – the SCT construct of Facilitators and Barriers. This is in contrast to a number of studies that have reported YAs to be less likely to use smoking cessation aids or resources (Curry et al., 2007; Ellis, Perl, Davis, & Vichinsky, 2008; Hughes et al., 2009; Leatherdale & Shields, 2009; Messer et al., 2008; Solberg, Boyle et al., 2007). In the present study, use of any smoking cessation resources – pharmacotherapy, advice to quit, counselling and other self-help resources – were grouped together to generate a measure of use for smoking cessation resources; this increased the sample size to allow for analysis of use among YAs. However, it is possible that differentiating between the various types of smoking cessation resources may generate some differences in use between younger and older adults.

Other Facilitators and Barriers – smoke-free homes, support to quit, and someone to make quitting more difficult – were each significantly different among younger and older adults: YAs were more likely to have smoke-free homes, someone support their QA, and someone to make quitting more difficult. An analysis of national data from the United States reported that compared to older adults, YAs were more likely to have smoke-free homes (Messer et al., 2008), paralleling the findings from the present study. While having support to quit and someone to make quitting more difficult have not been specifically measured or reported on in the literature, the finding that YAs were more likely to have someone to make quitting more difficult corresponds with research from the United States that found YAs were more likely to have one or more close friends who smoke than their older counterparts (Solberg, Boyle et al., 2007). The role of peer influences is critical among YAs, which may be particularly challenging given that YAs were more likely to have both someone to support their QA as well as someone to make quitting more difficult.

In the Observational or Experiential Learning construct of the SCT, exposure to tobacco industry marketing and lifetime number of QAs were significantly different among young and older adult smokers; exposure to anti-tobacco mass media campaigns did not differ between the two groups. It is well documented that the tobacco industry directs significant advertising to influence YAs (Gilpin et al., 2005; Ling et al., 2009; Orleans, 2007): this study supports these claims as YAs were more likely to be exposed to tobacco industry advertising than older adult smokers. It was expected that YAs would have made fewer lifetime QAs as they have not been smoking as long as their older counterparts.

In the Self-Regulation construct of the SCT, YA smokers were more likely to have an intention to quit smoking than their older counterparts. The literature indicates that YA interest in quitting is high

(Gilpin et al., 2009; Orleans, 2007; U.S. Department of Health and Human Services, 1990); however, compared to older adults, several studies have reported no differences in quit intentions or their motivation to quit (Curry et al., 2007; Green et al., 2007; Leatherdale & Shields, 2009). One small study from the United States found YAs were less likely to report a 30-day quit intention than middle-aged smokers (Hughes et al., 2009); a larger study from the Midwestern United States reported that daily YA smokers were less likely to report an intention to quit in the next six-months than older daily smokers (Solberg, Boyle et al., 2007). It is possible that some of the different findings among these studies may be accounted for in the various measures of quit intentions – 30 days, six-months, or an overall motivation to quit smoking. In the present study, there was no difference between younger and older adults for setting a quit date. This may indicate a need for programs that assist YAs in making plans to successfully follow through with their quit intentions. It is important to note, however, that recent research indicates that unplanned quitting may actually result in increased likelihood of sustained cessation (West & Sohal, 2006). Thus, it may be more important to ensure that YAs have appropriate and easily accessible smoking cessation programs.

In summary, young and older adults are distinct types of smokers with different personal and smoking characteristics as well as different smoking influences. Since YAs have the highest smoking prevalence, it is essential to ensure that appropriate cessation resources are available. At present, there is limited evidence to demonstrate effective smoking cessation interventions for YAs (Lantz, 2003; Villanti, McKay, Abrams, Holtgrave, & Bowie, 2010). A recent review of the literature on Internet-based treatment for addictions reported that this form of therapy was preferred by adolescents and YAs, citing familiarity with the technology as well as convenience and privacy as reasons for their preference (Gainsbury & Blaszczynski, 2011). Additional research is needed to identify and tailor effective smoking cessation policies and programs to YA smokers. Furthermore, additional policies are required to eliminate advertising to the vulnerable YA population.

### **6.2.2 Smoking Cessation Behaviours Among Older and Younger Adults**

The differences between young and older adult smokers extend to their smoking cessation behaviours. During the six-month follow-up period, 25% of YAs made an attempt to quit smoking that lasted for less than 30 days, whereas only 17% of older adults made an attempt to quit. Fourteen and ten percent of younger and older adult smokers, respectively, successfully quit for 30 days or more; however, this was not statistically significant. While 61% of YA smokers made no attempt to quit smoking, a greater proportion of older adults (74%) made no QA.

This study assessed smoking cessation as an ordinal variable (having made no QA, made an attempt to quit but did not succeed for at least 30 days, or made a successful quit that lasted for 30

days or longer); however, much of the literature assessed making a QA independently from successful quitting. That said, the finding that YAs were more likely to make a QA corresponds to much of the previous literature (Curry et al., 2007; Leatherdale & Shields, 2009; Messer et al., 2008; Pallonen et al., 1990; Solberg, Boyle et al., 2007). In a small study from the United States, YAs were not significantly more likely to report having made a QA in the past year; however, this study compared YAs to middle-aged smokers and had a small YA sample (Hughes et al., 2009).

The present study did not identify significant differences between younger and older adults for successful quitting for 30 days or longer. In a population-based study of smokers from the United States, Messer and colleagues (2008) reported YAs aged 18 to 24 years were more likely to successfully quit smoking than smokers 35 to 64 years of age; however, in adjusted models among those who seriously tried to quit, age no longer predicted successful smoking cessation for six-months or longer (Messer et al., 2008). In another cross-sectional study using population-based data from the United States, Lee and colleagues (2007) reported that older smokers were more likely to successfully quit than their younger counterparts. A longitudinal study of adolescents followed into their early adult years reported that YAs were less likely to maintain their quit than older smokers (Pallonen et al., 1990). The findings from these studies correspond with literature on adult smoking cessation, as reported above in the brief review of the literature on adult smoking cessation. Power in the present study may have limited the identification of differences for successful quitting among older and younger adults.

Young and older adults have distinct smoking cessation behaviours. It is concerning that although YAs were more likely to make a QA than older smokers they were not any more likely to succeed. The earlier a smoker quits, the greater the years of life expectancy gained (Doll, Peto, Boreham, & Sutherland, 2004); thus, increasing smoking cessation among YAs would enhance the future health of the population as well as reduce the health care costs associated with smoking. In essence, YA smoking cessation policies and programs function as both smoking cessation and prevention initiatives within a comprehensive tobacco control program (Smoke-Free Ontario - Scientific Advisory Committee, 2010). An understanding of the types of cessation resources that YAs would utilise and benefit from may be warranted in order to increase the rate of success for smoking cessation among YAs.

### **6.2.3 Predictors of Smoking Cessation Behaviours**

This study assessed the predictors of smoking cessation behaviours among YA smokers. Of particular interest was the fact that there were different predictors for making a QA that lasted for less than 30 days and successful smoking cessation for 30 days or longer. There was only one factor that

contributed to both making a QA that lasted for less than 30 days (compared to making no QA) and successful smoking cessation for 30 days or longer (compared to making a QA that lasted for less than 30 days and making no attempt to quit) among YAs, namely the use of smoking cessation resources. In fact, the odds of smoking cessation was more than three times greater among those using smoking cessation resources than those not using these resources. Although cessation aid use was no longer significant in the parsimonious model that predicted making a QA, it continued to demonstrate some level of importance for predicting attempts to quit among YA smokers.

The use of smoking cessation aids are known to predict cessation among adults (Clinical Practice Guideline Treating Tobacco Use and Dependence 2008 Update Panel, Liaisons, and Staff, 2008; Stead et al., 2008; Wu et al., 2006); however, few of the longitudinal studies on YA smoking behaviours have assessed the utility of smoking cessation resources in YA attempts to quit and successful quitting. Since the use of smoking cessation resources was a predictor of smoking cessation and an important factor for making a QA, the use of smoking cessation resources among YAs deserves further attention. Knowledge of the benefits of stop smoking medications also seems to contribute to attempts to quit smoking among YAs. While researchers have identified the need to investigate how to promote YA participation in smoking cessation programs (Audrain-McGovern, Halbert, Rodriguez, Epstein, & Tercyak, 2007; Audrain-McGovern et al., 2009), a recent review of the literature on smoking cessation interventions underscores that there is limited evidence of effective interventions for YA smokers (Lantz, 2003; Villanti et al., 2010). Young adults respond positively to Internet-based treatment programs for their convenience and sense of privacy (Gainsbury & Blaszczynski, 2011); research from the United States indicated that smoking cessation programs offering additional support via telephone, web, or email show potential for effective interventions for YA smokers (Villanti et al., 2010). Additional research is needed to identify the utility of web-based smoking cessation programs for YAs and other forms of support that utilise social media (e.g., blogs, Facebook, and Twitter). Other population-based programs such as Quit and Win Contests, free NRT, and plain cigarette packaging also need to be evaluated for their impact on YA smoking cessation. This may guide program and policy makers to ensure YAs have easy and appropriate access to a wide range of effective smoking cessation resources. Furthermore, the use of smoking cessation resources should be considered in all YA smoking cessation research.

Other positive predictors of successful smoking cessation among YAs included having lower levels of addiction, high self-efficacy and support to quit. In contrast, having made two or more lifetime QAs, and having an intention to quit smoking considerably increased the odds of making an attempt to quit. In the YA literature on smoking cessation, having an intention to quit smoking was predictive

of both making a QA (Rose et al., 1996) and successful smoking cessation (Ellickson et al., 2001; Rose et al., 1996; Tucker et al., 2002). The results from the present study parallel the literature with respect to making a QA; however, study findings conflict with the literature regarding successful smoking cessation. One challenge is that these studies have different measures of smoking cessation (more than 30 days, six months, and one year); however, these differences were also present in the literature. Of greater importance is that the longitudinal studies in the literature measured intention to quit smoking five to seven years prior to measuring smoking cessation behaviours. Behavioural intentions are likely to change more often; thus, the quit intention measured five to seven years prior to the behaviour change may not accurately reflect the measured behaviour. The finding that intention to quit predicts making a QA but not smoking cessation reflects some findings from the adult smoking cessation literature (Borland et al., 2010; Hyland et al., 2006; West et al., 2001; Zhou et al., 2009). As stated by Borland and colleagues (2010), having motivation to quit is necessary to initiate the QA, however, it is not sufficient to ensure success; this statement also holds true for the YA population. Findings from other research in adult smoking cessation indicates that unplanned quitting may actually result in sustained smoking cessation than planned attempts to quit (West & Sohal, 2006): these findings may provide another possible explanation for the contrast between the present study findings that quit intentions positively predict making a QA but do not play a role in successful smoking cessation and what has been reported in the YA literature.

Having made two or more previous QAs was a positive predictor of making a QA, but not a factor in successful smoking cessation. There is a paucity of literature on previous number of QAs and YA smoking cessation behaviours; however, research on relapse to smoking among those who quit as YAs demonstrated that a history of QAs was predictive of relapse (Macy et al., 2007). In the adult literature on smoking cessation it has been reported that those who have a history of previous QAs were more likely to make an attempt to quit (Zhou et al., 2009). It is well documented that smoking cessation has a high rate of relapse with the majority of smokers making repeated QAs before they achieve long-term abstinence (U.S. Department of Health and Human Services, 2000). The present study highlights this issue among YAs and underscores the need for effective treatment programs for YA smokers, especially to assist and continue to motivate those who require multiple quit attempts before they succeed.

Self-efficacy to quit smoking was not associated with smoking cessation behaviours in the bivariate analyses; however, in the adjusted models, high self-efficacy for quitting was a strong predictor of successful smoking cessation. This corresponds with findings from a cohort study of adolescents from the Western United States that were followed into their YA years which also reported self-efficacy to

be predictive of smoking cessation (Ellickson et al., 2001); further analyses of this cohort data identified self-efficacy to be predictive of smoking cessation among YA women but not among YA men (Tucker et al., 2002). These study findings also coincide with adult smoking cessation literature in which higher self-efficacy was associated with a lower probability of relapse (Herd, Borland, & Hyland, 2009). Smoking cessation programs must provide YA smokers with the knowledge and skills required to develop and maintain confidence in one's ability to quit.

Support to quit smoking was associated with smoking behaviours; however, having someone who would make quitting difficult and smoking restrictions in the home were not associated with YA smoking cessation behaviours. These associations held in the adjusted model predicting successful smoking cessation for 30 days or longer; however, none of these factors were predictors of making a QA (lasting for less than 30 days). A cohort study of adolescents followed into their YA years also reported that smoke-free homes did not predict smoking cessation (Ellickson et al., 2001). Exposure to smokers has generally been found to be a negative predictor of smoking cessation (Chassin et al., 1996; Chen et al., 2001; Ellickson et al., 2001; Paavola et al., 2001; Rose et al., 1996; Tucker et al., 2002; Tucker et al., 2005). While the present study did not assess exposure to smokers per se, it did assess smokers' social environment to support quitting or make quitting more difficult. Having support to quit was a strong predictor of successful smoking cessation, while having someone to make quitting more difficult was not predictive. These findings highlight the importance of social supports in YA smoking cessation.

Smokers with high levels of addiction (i.e., a high HSI score) were less likely to successfully quit for 30 days or longer than those with lower levels of addiction. This parallels findings from the literature on YA smoking cessation which reported higher levels of cigarette consumption or addiction among YAs to be a negative predictor of smoking cessation (Breslau & Peterson, 1996; McDermott et al., 2009; Paavola et al., 2001; Rose et al., 1996). Many of the studies in the literature measured consumption five to seven years prior to measuring smoking cessation due to the long periods between follow-up interviews. While it is possible that cigarette consumption levels changed prior to measuring smoking cessation behaviours in the literature, it is evident that addiction plays an important role in cessation. This raises the question about gradual reduction in smoking prior to full abstinence. A cohort study of Australian YA women reported that smokers were more likely to quit if they reduced to non-daily smoking (McDermott et al., 2008). In contrast, a cohort study of adult smokers in four countries concluded that among those who made a QA, those who quit cold turkey were more likely to be smoke-free for one month or more than those who gradually cut down to quit (Cheong, Yong, & Borland, 2007). The impact of smoking reduction on smoking cessation among

YA smokers may be necessary in order to recommend reduction as a smoking cessation strategy for this population.

In this study, the other demographic factor associated with smoking cessation behaviours was education; however, in the adjusted models, education was not predictive of making a QA (that lasted for less than 30 days) or successful smoking cessation (30 days or longer). This is in contrast to several studies which reported that YAs with higher levels of education were more likely to make a QA and successfully quit than those with lower levels of education (Breslau & Peterson, 1996; Chassin et al., 1996; Green et al., 2007; McDermott et al., 2009; Rose et al., 1996). The YA literature had conflicting evidence for sex differences and smoking cessation behaviours; this study did not identify any sex differences for making a QA or successful smoking cessation. Power in the present study may have limited the identification of demographic factors predictive of smoking cessation behaviours. There continues to be several discrepancies among the demographic predictors of YA smoking cessation behaviours.

### **6.3 Study Strengths and Limitations**

This study is unique as it uses prospective data from a population-based sample of Ontario smokers. Furthermore, smoking cessation is measured as an ordinal variable, assessing QAs and successful smoking cessation in the YA population. This study uses data with shorter periods between follow-up interviews which improves the recall of attempts to quit and smoking cessation, and helps ensure that other factors that are examined are more likely to be related to the changes observed in smoking behaviour. Furthermore, this population-based longitudinal study is the first Canadian study of YA smoking cessation behaviours.

Guided by the SCT, this study examined predictors of smoking cessation behaviours among YAs. While this is advantageous as much of the literature on YA smoking cessation has not been based on a theoretical model per se, this also presents some challenges. Specifically, the items available on the OTS were not necessarily the best measures of each construct in the theoretical model: the utility of the SCT was limited to the best measures available on the OTS instrument. In addition, the SCT considers each construct to contribute directly to behaviour change; however, it is possible that one or more factors are mediating variables which was not explored in this analysis.

As this study focuses on individual behaviours, the effects of contextual variables were not explored. Other study limitations are a function of the data and include: secondary data analysis, self-report data, and the eligible population for the OTS. A universal limitation of secondary data analyses is that the survey instrument may lack relevant data for the proposed research question. In this case,

the OTS does not ask respondents about depression, stress levels, or major life events (e.g. having a child, job loss). The role these factors play on making QAs and smoking cessation cannot be explored in this analysis. Furthermore, the OTS does not assess other health behaviours such as nutrition and physical activity, thereby preventing an investigation of YA smoking cessation and other health behaviours.

Like many population-based studies, the OTS relies on self-report smoking status and cessation behaviours. While the validity of self-report data is often questioned, meta-analyses have concluded that self-report smoking status is accurate for most studies (Patrick et al., 1994).

The OTS is a telephone-based sample of Ontario adults residing in households with a telephone; this excludes individuals who are homeless or living in institutions. Additionally, households that use only cell phones and individuals who are unable to communicate in English were excluded from the OTS. According to Statistics Canada, approximately one percent of households had no telephone service during 2005 and 2008, the years of OTS recruitment; during this same period, cell phone only households increased from 4.8% in 2005 to 8.0% in 2008 (Statistics Canada, June 2009; Statistics Canada, May 2007). A longitudinal study like the OTS is also subject to attrition. While the OTS has low attrition rates for a telephone-based study, these rates are higher among younger respondents (Stephens, Brown, Ip, & Ferrence, June 2009). The smaller sample size of YAs results in reduced power to detect associations and may threaten the external validity of this study. As previously mentioned, the OTS over-represented individuals who were married or in common-law relationships, and under-represented individuals who have less than high school education (Diemert, Victor et al., April 2010). An under-representation of the population may impact the generalization of the study findings; however, an over-representation of highly educated individuals is common to telephone surveys (Trewin & Lee, 1988).

#### **6.4 Recommendations for Future Directions**

While the present study sheds light on YA smoking cessation behaviours, additional research is needed. In particular, research with an enhanced sample of YA smokers would increase study power to detect associations. This study looked at YA smoking cessation over a six-month period; further research is needed on YAs followed repeatedly over a longer period of time in order to allow for evaluation of smoking cessation that is sustained for greater than six-months. Follow-up data collection for the OTS will conclude in July 2011: the full dataset will provide additional follow-up data to allow for enhanced analyses on YA smokers. First, the present analyses could be expanded upon by assessing QAs during each six-month follow-up period, allowing each respondent multiple

opportunities to make smoking cessation behaviour changes using more advanced statistical techniques that take into account the repeated measures of the OTS data, such as generalised estimating equations (GEE) or hierarchical modelling; this would increase the power of the current study. Second, the longitudinal data could also be analysed to assess longer periods of abstinence and length of time to relapse in the YA population using time to event or survival techniques such as Cox models.

This study identified that young and older adults have different smoking cessation behaviours; however, the present analyses did not further examine smoking cessation models with both groups of adult smokers. Future research should expand on the young and older adult bivariate analyses, examining adult smoking cessation models that include age interactions or stratification by age. The present analyses only focused on main effects: future research on YA smokers should expand beyond the main effects to study potential interaction effects. Similarly, future research on this population should assess for mediation variables which were not assessed in this study. In addition, the comprehensive and complex nature of the OTS data could be utilised to identify mediators and/or latent constructs via methods such as mediation analysis and structural equation modelling (SEM).

The OTS did not assess the impact of environmental variables on YA smoking cessation; future research should also assess key environmental variables on smoking behaviour changes in this population. Similarly, additional research on the impact of stress and other transitions for YAs (getting married or parenting) would be informative to YA smoking cessation behaviours.

This study identified that the use of smoking cessation resources significantly increases smoking cessation among YAs. Further research regarding the types of smoking cessation resources used by YAs, how they are used, and their effectiveness in this population would further inform smoking cessation programs for YA smokers. Furthermore, a clear understanding of the impact of gradual and abrupt quitting in this population may lead to recommending effective smoking cessation strategies and programs to YA smokers. This study also identified that while an intention to quit predicted making a QA, it was not sufficient to ensure successful smoking cessation. Further exploration of planned and unplanned quitting in a longitudinal sample of YA smokers is needed to further understand the relationship of quit intentions and sustained smoking cessation in this population.

## **6.5 Conclusions**

This study set out to characterise younger and older adult smokers as well as identify the predictors of smoking cessation behaviours among YAs. Young adult smokers differ from their older counterparts with respect to their personal and smoking characteristics as well as different smoking influences. It is

concerning that although YAs were more likely to make a QA they were not more likely to successfully quit than older adult smokers. Of particular importance was the finding that there were distinct predictors for making a QA that lasted for less than 30 days and successful smoking cessation for 30 days or longer among YAs. The study findings also highlight the fundamental importance of cessation resources in smoking cessation behaviours among YAs – this was the only factor that played an important role in making an attempt to quit as well as predicted successful smoking cessation. Thus, it is critical to ensure that YA smokers have readily available to them a wide range of effective and appropriate smoking cessation resources. Having social supports and high self-efficacy were predictors of YA smoking cessation while having an intention to quit encouraged making a QA but did not affect cessation; thus, smoking cessation interventions directed at the high-risk YA population should provide valuable support and skills to build and maintain self-efficacy to quit. In fact, the different predictors for making a QA and successful smoking cessation may indicate a need for separate programs to promote YAs to make attempts to quit and programs to sustain YA smoking cessation. Additional research is necessary in order to understand long-term smoking cessation and relapse in this vulnerable population; future research is also needed to comprehend the impact of gradual or abrupt quitting among YA smokers. The high smoking rates among YAs is a significant concern for public health. Enhancing smoking cessation efforts within this population provides the potential to minimise the health problems related to smoking and possibly reduce the overall cost incurred by the health care system.

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**Appendix A**  
**Ontario Tobacco Survey Baseline Questionnaire**

Wave 6:  
January – June 2008



Young adult smoking cessation

Hello, my name is \_\_\_\_\_ and I am calling on behalf of the Ontario Tobacco Research Unit, an ACADEMIC research network at the University of Waterloo and University of Toronto. This is a survey of *non-smokers and recent smokers* that will track changes over time in attitudes, behaviours and beliefs related to smoking in Ontario. We are not asking for money or selling anything.

**IF (contact ~=" ") Show:** [no previous contact with household]

“May I ask someone 18 years of age or *older* a few questions to see whether anyone in your household qualifies for the survey?”

**IF (Intro1 = 01 | Intro1 = 03) Show:** [previous contact with name of possible respondent]

“May I ask you a few questions to see whether you qualify for the survey?”

**IF (Intro1 = 09) Show:**

“May I ask [REPORTED NAME OF POTENTIAL RESPONDENT] a few questions to see whether they qualify for the survey?”

IF CHILD ANSWERS, ASK TO SPEAK TO AN ADULT. (Begin again)

- |                              |                          |
|------------------------------|--------------------------|
| 1 – Yes                      | GOTO Q.2                 |
| 2 – Child-no adult available | GOTO Q.1(b)              |
| 3 - No adult in household    | Thank, terminate (CS 19) |
| 4 – No/Respondent refuses    | GOTO Q.1c                |
| 5 – I am a non-smoker        | GOTO Q.NS                |
| 6 – I am at the cottage      | GOTO Q.1g                |

[response category 06 added at W3 – July 14, 2006]

*Coverage: no previous call to the household or no call where the PMK identified the name of person with the next birthday*

**Q.NS** [If NSQUOTA is **not full**, interviewer to follow with:]

R: “I am a non-smoker”

Probe I: “We have questions for both smokers and non-smokers”

Probe II: “As smokers and non-smokers alike are affected by public health programs and policies, the survey will also help us understand how these affect the lives of adults in Ontario.”

- |                                    |          |
|------------------------------------|----------|
| 01 – Yes/ok – continue with survey | GOTO Q2  |
| 02 – Refusal                       | GOTO Q1c |

*Coverage: respondents who indicate they are a non-smoker when non-smoker quota is NOT full*

[Modified to “18 years of age or older” at W4, Jan07]

If NSQUOTA is **full**, interviewer to follow with:

**QNSfull**

I: Actually, I'd like to speak to the person in your household who is 18 years *of age or older* whose birthday is coming up next. Would that be you?

ADD IF NECESSARY: We need to select somebody at random. With each call we make, we ask to speak to the person whose birthday is coming up next. This helps us to ensure that we have a representative sample.

PROBE (If respondent not sure of next birthday): We need to speak to the person whose birthday is next to the best of your knowledge.

- |          |              |
|----------|--------------|
| 01 – Yes | GOTO Q.NSQ.2 |
|----------|--------------|

Young adult smoking cessation

02 – No

GOTO Q.4b

*Coverage: respondents who indicate they are a non-smoker when non-smoker quota IS full*

### **Q.NSQ2**

Have you smoked at least one cigarette in the past six months?

01 – Y

GOTO DNSQ2

02 – N

GOTO DNSQ2

06 – DK

GOTO Q.NSQ2b

09 – R

GOTO Q.NSQ2b

*Coverage: respondents who indicate they are a non-smoker when non-smoker quota IS full and the person on the phone is the person in the household with the next birthday*

### **Q.NSQ2b**

We require this information to determine eligibility for this survey.

[Pause to allow respondent to answer "Have you smoked at least one cigarette in the past six months?"]

[DO NOT READ]

01 - Yes

02 - No

06 - Don't Know

09 - Refused

*Coverage: respondents who indicate they are a non-smoker when non-smoker quota IS full and the person on the phone is the person in the household with the next birthday*

### **DNSQ2**

If (Q.NSQ2 = 01 | Q.NSQ2b = 01) then do

STAT1 = RECENT SMOKER

GOTO Q.NSQ3

end;

If (Q.NSQ2 = 02 | Q.NSQ2b = 02) then do

STAT1 = NON-SMOKER

GOTO Q.FULL

end;

If (Q.NSQ2b = 06 | Q.NSQ2 = 09) then do

Thank and terminate: "Thank-you for your time. Good-bye"

end;

### **Q.NSQ3**

*[added underlined text in W5 – Nov. 19, 2007]*

Given your responses, you may be eligible for this survey. Participation is voluntary and you may stop at any time. The answers you provide to the following questions will be kept absolutely confidential. This call may be monitored by my supervisor at the University of Waterloo Survey Research Centre to assess my performance. Can I ask you a few quick questions to confirm your eligibility?

01 – Yes

GOTO Q.6

02 – No

GOTO NSQ3b

*Coverage: respondents who indicate they are a non-smoker when non-smoker quota IS full and may be eligible for the survey as they have had a cig in the past 6 months*

Young adult smoking cessation

**Q:NSQ3b**

*[removed text at W5 – July 2007 – in response to ethics: ‘This is an important research survey and your...’]*

Your responses are important to ensure we have good representation of the people in Ontario. We will be reimbursing you for your time - can we ask you a few questions to see if you are eligible for the study?

[DO NOT READ]

01 – Yes

GOTO Q6

02 – No

Thank and Terminate:

“Thank you for your time. Goodbye”

*Coverage: respondents who indicate they are a non-smoker when non-smoker quota IS full and respondent is a potential participant*

**Q.1b**

I would like to speak to someone age 18 or older in your household. Is there a better time to call back to speak to them?

[DO NOT READ]

01 – Yes “Could you please tell me their name so that I know who to ask for?”

RECORD CALLBACK INFO AND TERMINATE

02 - No adult in household

Thank & Terminate

03 – No/Don’t know

“Thanks, I’ll try them at another time”

*Coverage: child answers phone*

**Q.1c**

*[removed text at W5 – July 2007 – in response to ethics: ‘This is an important research survey and your...’]*

Your responses are important to ensure we have good representation of the people in Ontario. We will be reimbursing respondents for their time – could I ask you a few more questions to see if anyone in your household is eligible?

[DO NOT READ]

01 – Yes

GO TO Q.2

02 – No

Thank and terminate

*Coverage: PKU refuses participation*

If Necessary, See Q.HELP for additional background information.

**Q.1g** *[question added at W3, July 14, 2006]*

*[removed text at W5 – July 2007 – in response to ethics: ‘This is an important research survey and your...’]*

Your responses are important to ensure we have good representation of the people in Ontario. We will be reimbursing respondents for their time. We would like to speak with you at a time that is more convenient for you. Can you provide us with the phone number to your primary residence and indicate when would be a good time to contact you there?

Probe: Can you provide us with the telephone number to your permanent residence or an alternate number that you prefer to be reached at?

[DO NOT READ]

01 – Yes

GOTO Q.1h1

02 – No (refusal)

Thank and terminate

Young adult smoking cessation

*Coverage: PKU refuses participation b/c they are at the cottage*

**Q.1h1** *[question added at W3, July 14, 2006]*

Enter alternate number: XXX-XXX-XXXX

Extension:

Enter best time to call: Date: and time (if provided)

*Coverage: respondents who wish to be contacted at another number (or permanent residence)*

“Thank-you. We look forward to speaking with you again soon. Good-bye.”

**Q.1h2** *[added at W3, July 14, 2006]*

ENTER EXTENSTION: XXXX [ALTnum\_ext]

**Q.2**

Thank you. I first need to ask a few questions about the household in order to select someone for the survey. How many people age 18 or older live in your household, including yourself?

[DO NOT READ]

01 – Enter number

GOTO Q2num

06 – DK

GOTO Q.2a

09 – R

GOTO Q.2a

*Coverage: respondents who agree to be asked questions for eligibility*

**Q.2a**

I'm sorry. We require this information to verify that participants in this survey are 18 years of age or older.

[Pause to allow respondent to confirm number of adults in household]

[DO NOT READ]

01 – Enter number

GOTO Q2num

06 – DK

THANK AND TERMINATE

09 – R

THANK AND TERMINATE

*Coverage: respondents who agree to be asked questions for eligibility but refuse/DK number of adults in HH*

**Q2num**

[\_\_ \_\_] Enter number of residents in household 18+

IF Q2num = 0

GOTO Q.1b

ELSE IF Q2num = 1

GOTO Q.5

ELSE IF Q2num >1

GOTO Q.4a

Young adult smoking cessation

**Q.4a**

*[Modified to “18 years of age or older” at W4, Jan07]*

*[probe2 added at W5 – July 2007]*

I'd like to speak to the person in your household who is 18 years *of age or older* whose birthday is coming up next. Would that be you?

ADD IF NECESSARY : We need to select somebody at random. With each call we make, we ask to speak to the person whose birthday is coming up next. This helps us to ensure that we have a representative sample.

PROBE (If respondent not sure of next birthday): We need to speak to the person whose birthday is next to the best of your knowledge.

PROBE2 if respondent hesitant about personal information: “We are not asking for the specific date. We ask to speak with the person in your household who’s birthday is next as this helps us ensure we have a random sample of the population.”

[DO NOT READ]

01 - Yes

GO TO Q.5

02 – No

GO TO Q.4b

*Coverage: respondents where there is more than one adult in the HH*

**Q.4b**

May I speak to that person now?

[DO NOT READ]

01 – Yes

GO TO Q.4e

02 - No (refusal)

GO TO Q.4c

03 – Not home/unavailable

GO TO Q.4d

*Coverage: respondents where there is only one adult in the HH which is not the person on the phone*

**Q.4c**

*[removed text at W5 – July 2007 – in response to ethics: ‘This is an important research survey and their...’]*

Their responses are important to ensure we have good representation of the people in Ontario. We will be reimbursing them for their time. Could we call back to ask them a few questions to see if they are eligible for the study?

[DO NOT READ]

01 – Yes

GOTO 4d

02 – No

Thank and Terminate

*Coverage: PKU refuses participation for person eligible for participation (next birthday)*

If Necessary, See Q.HELP for additional background information.

**Q.4d**

When can I call back to speak to that person?

[DO NOT READ]

01 – Make callback. “Could you please tell me their name so that I know who to ask for?”

RECORD CALLBACK INFO AND TERMINATE

02 – Refuse/don’t callback

IF (Q.4d=02 & (Q4c=01 | Q4c = 02))

Thank and Terminate

Young adult smoking cessation

ELSE IF Q.4d=02

GOTO Q.4c

*Coverage: respondents where the person eligible is not available*

**Q.4e**

*[bold words added at W3 – July 06]*

*[italic text revised at W4 (Jan 24,07) from “...survey of recent smokers and non-smokers...”]*

*[Deleted sentence as it appeared to be confusing potential non-smokers – W4, Jan 23/07: ‘The information gathered will help us understand why certain people might be able to quit smoking and why others might not’]*

*[W5, November 2007: removed underlined text from the first sentence: ...I am calling from the University of Waterloo on behalf of...]*

Hello, my name is \_\_\_\_\_ and I am calling on behalf of the Ontario Tobacco Research Unit, an ACADEMIC research network at the University of Waterloo and University of Toronto. This is a survey of *non-smokers and recent smokers* that will track changes over time in attitudes, behaviours and beliefs related to smoking in Ontario. All responses will be kept absolutely confidential. We are not asking for money or selling anything. Can I ask you a few questions to see whether you qualify for the survey?

[DO NOT READ]

01 – YES

GO TO Q.5

02 – No time

“When would be a better time to call back?”

Make appointment, Thank and Terminate

03= Refuses

GO TO 4f

*Coverage: eligible person in HH comes to the phone*

INTERVIEWER NOTE: See Q.HELP for info/answers to questions

**Q.4f**

*[removed text at W5 – July 2007 – in response to ethics: ‘This is an important research survey and your...’]*

Your responses are important to ensure we have good representation of the people in Ontario. We will be reimbursing you for your time – can we ask you a few questions to see if you are eligible for the study?

[DO NOT READ]

01 – YES

GOTO Q.5

02 – NO

Thank and terminate

*Coverage: eligible respondent refuses*

INTERVIEWER NOTE: See Q.HELP for info/answers to questions

**Q.5**

*[added underlined text in W5 – Nov. 19, 2007]*

Thank-you. This call may be monitored by my supervisor at the University of Waterloo Survey Research Centre to assess my performance. I first need to ask a few questions in order to check your eligibility for our survey. Participation is voluntary and you may stop at any time. The answers you provide to the following questions will be kept absolutely confidential.

*Coverage: All eligible respondents who agree to participate*

Young adult smoking cessation

**Q.6**

Note sex – DO NOT ASK UNLESS UNSURE

01 – Female

02 – Male

*Coverage: All eligible respondents who agree to participate*

**Q.7a**

Are you 18 years of age or older?

01 – Yes

GOTO D7d

02 – No

GOTO Q.7c

06 – DK

GOTO Q.7b

09 – R

GOTO Q.7b

*Coverage: All eligible respondents who agree to participate*

**Q.7b**

“I’m sorry. We require this information to verify that participants in this survey are 18 years of age or older.”

[Pause to allow respondent to confirm age. DO NOT READ]

01 - Respondent confirms age is 18+

GOTO D7d

02 - Respondent confirms age is <18

GOTO Q7c

03 - No confirmation of age

Thank and Terminate

*Coverage: All eligible respondents who refuse to confirm age*

**Q.7c**

If Q2num = 1

“The survey requires that respondents are at least 18 years old.”

THANK AND TERMINATE

If Q2num = 2

“The survey requires that respondents are at least 18 years old if possible, I’d like to speak with someone who is 18 or older.”

GOTO Q.4b

IF Q2num>2

“The survey requires that respondents are at least 18 years old- if possible, I’d like to speak with the person in the household who is 18 or over and whose birthday is next.”

GOTO Q.4b

**D7d**

IF (Q.NSQ2 = 01 | Q.NSQ2b = 01)

THEN GOTO D8b

Young adult smoking cessation

**Q.8**

Have you smoked **one or more cigarettes** in the past six months?

[DO NOT READ]

- |         |          |
|---------|----------|
| 01 – Y  | GOTO D8b |
| 02 – N  | GOTO D8b |
| 06 – DK | GOTO Q8b |
| 09 – R  | GOTO Q8b |

*Coverage: All eligible respondents who agree to participate (when not previously asked if non-smoker quota is full)*

**Q.8b**

We require this information to determine eligibility for this survey.

[Pause to allow respondent to answer "Have you smoked at least one cigarette in the past six months?"]

[DO NOT READ]

- 01 - Yes
- 02 - No
- 06 - Don't Know
- 09 - Refused

*Coverage: All eligible respondents who refuse to confirm smoking behaviour in last 6 months*

**D8b**

If (Q.8 = 01 | Q.8b = 01 | Q.NSQ2 = 01 | Q.NSQ2b = 01)

then STATUS1 = RECENT SMOKER

If (Q.8 = 02 | Q.8b = 02)

then STATUS1 = NON-SMOKER

If Q8 = 06 or Q8 = 09

then thank and terminate

**Q. CONSENTS**

**If STATUS1 = RECENT SMOKER**

*[bold words added at W3 – July 06]*

*[deleted W4 – Jan 2007: "... The first follow-up survey will be in approximately six months." As it was redundant with the statement earlier in this paragraph]*

*[underlined text added at W5 – July '07 – to inform participants there will be up to 6 follow-up surveys and length of survey changed to "ranging from 10-20 minutes"]*

*[W5 – Oct 1, 2007 – Text deleted, "This survey is being conducted by the University of Waterloo Survey Research Centre on behalf of the Ontario Tobacco Research Unit" and "who would be willing"]*

Thank you. We are looking for **recent** smokers to answer a survey that would take about 20 minutes. To thank you for your time, we will send you \$15 in the next few days. There will be up to six additional follow-up surveys ranging from 10-20 minutes in length that take place every six months. We will send you \$15 each time you complete a survey.

Your answers to this survey will be kept **ABSOLUTELY** confidential. All personal information, including your name and address, will be kept **STRICTLY** confidential and will not be shared with any person or group that is not associated with this survey.

Young adult smoking cessation

Participation is voluntary and you may stop at any time. I can provide you with the contact numbers if you have any concerns about this survey.

**If STATUS1 = NON-SMOKER**

*[W5 – Oct 1, 2007 – Text deleted, “This survey is being conducted by the University of Waterloo Survey Research Centre on behalf of the Ontario Tobacco Research Unit” and “who would be willing”]*

Thank you. We are looking for non-smokers to answer a survey that would take about 12 minutes. To thank you for your time, we will send you \$15 in the next few days.

Your answers to this survey will be kept ABSOLUTELY confidential. All personal information, including your name and address, will be kept STRICTLY confidential and will not be shared with any person or group that is not associated with this survey.

Participation is voluntary and you may stop at any time. I can provide you with the contact numbers if you have any concerns about this survey.

INTERVIEWER NOTE (only if necessary):

If answering the survey right now is inconvenient for you, we could schedule a time next week.

Is now a good time to start the survey?

[DO NOT READ]

01 – YES

GO TO SB\_INTRO

02 – NO

GO TO Q.12

09 – REFUSAL

GOTO Q.11a

**Q.FULL**

Thank-you for your interest, but at this time we are only looking for [other group (recent smokers OR non-smokers)]. Good-bye.

*Coverage: respondents who are non-smokers and non-smoker quota is full*

**Q.11a**

This is an important research survey and we think you will find the questions interesting. Your responses are important to ensure we have good representation of the people in Ontario. Would you be willing to give the survey a try?

[DO NOT READ]

01 – Yes

GOTO SB\_INTRO

02 - If no/refusal

Thank and Terminate

03 – Yes/Maybe (But respondent does not have time)

GOTO Q.13

*Coverage: eligible respondents who refuse further participation*

**Q.12**

Ok, we will schedule a time to call you back to complete the survey. First, in order for us to send you the \$15 honourarium, I need to confirm your name, address and postal code where you receive your mail.

Young adult smoking cessation

[MAKE SURE THAT SPELLING IS CORRECT—REPEAT BACK TO RESPONDENT TO CHECK]

- 01 – SPECIFY ADDRESS: \_\_\_\_\_ GOTO Q.FNAME – Q.Altnum  
02 – NO GOTO Q.12a  
03 – Respondent does not have time – call back GOTO Q.13

*Coverage: eligible respondents who schedule callback to complete the survey*

Q12a

Without this information, we are unable to send you the \$15 honourarium for participation in this survey.

DO NOT READ

- 01 - Respondent offers address GOTO Q.FNAME  
02 - Respondent does not offer address GOTO Q.ID

*Coverage: eligible respondents who schedule callback to complete the survey but do not provide their address information*

**Q.FNAME – Q.ALTNUM**

Q.ID

*[added December 2005 to ensure we are able to ask for the eligible respondent during a callback to avoid repeating the next birthday method]*

Can you please provide us with something that uniquely identifies you so that when we call back we will be able to reach you? For example, just your first name, a nickname or your initials? .

- 01 – enter name/initials GOTO Q.Acont  
02 – R GOTO Q.Acont

*Coverage: eligible respondents who schedule callback to complete the survey and refuse to provide their name and mailing address*

**Q.Acont**

We would just like to confirm this phone number as well. [**VERIFY THE NUMBER CALLED**]

Is there an alternative number that you can also be reached at?

- 01 – Yes GOTO Q.ALTNUM  
02 – No GOTO Q.13

**Q.ALTNUM**

Enter alternative phone number: \_\_\_\_\_

**Q.Alt\_ex**

*[added beginning of W2 – Jan ‘06]*

“Extension” – enter [altnum\_ext]: \_\_\_\_

**Q.13**

Thank you. We look forward to talking to you again. When would be a good time for us to call you back to complete the survey?

ENTER CALLBACK INFO \_\_\_\_\_

Young adult smoking cessation

NOTE: Participants must schedule an interview within the next 14 days. If they attempt to schedule beyond this time, say: "I'm sorry, but we would like to complete the survey within TWO WEEKS of today's date. Could we schedule the survey for any time after tomorrow, before [today's date + 14 days]."

[In the few cases where respondent will be away for the coming weeks, allow for scheduling outside of the 2 week period.]

[Closing]

"Thank you very much for your help. If you would like any more information about this project, you can phone us at 1-866-303-2822. Good-bye."

\*\*\*\*\*

### Q.HELP

R: "What is this survey about?"

I: "This is an ongoing study that will survey both **recent** smokers and non-smokers across Ontario. We will ask you questions about what you think, what you feel and your experiences relevant to tobacco use and second-hand smoke."

IF RESPONDENT CONTINUES TO INQUIRE, INTERVIEWER TO RESPOND:

"I HAVE BEEN GIVEN SOME EXAMPLE QUESTIONS TO PROVIDE YOU, THESE ARE:"

"In the past 30 days, have you been inside a restaurant where other people were smoking around you?" AND for smokers "Are you thinking about quitting in the next 6 months?"

R: "How much" (for reimbursement) *[W5 – revised estimated time from 25 to 20]*

I: "There will be an honorarium of \$15 for an interview of up to **20** minutes"

R: "Is that a tobacco company?" [referring to OTRU]

I: "No, the Ontario Tobacco Research Unit is not a tobacco company." And continue with response below for "WHAT IS OTRU?"

R: "What is OTRU?"

I: "The Ontario Tobacco Research Unit is an academic research network at the University of Toronto and University of Waterloo. The Unit conducts tobacco research on smoking behaviours and second-hand smoke in order to identify factors that might help reduce tobacco-related illness and death in Ontario."

R: "I am not a smoker/recent smoker" *[New at W3, July 2006]*

I: "We are interested in speaking with all eligible respondents who have smoked even just one cigarette in the past 6 months"

Young adult smoking cessation

*[New for W5 – July 2007]*

R: How many follow-up interviews?

I: We will try to contact you every 6 months for 6 follow-up interviews. Follow-up interviews will be shorter in length, ranging from 10-20 minutes. Your participation in each interview is voluntary and you will continue to receive a \$15 cheque for each interview you complete.

Young adult smoking cessation

## **SMOKING BEHAVIOUR**

### SB\_INTRO

Thank you very much for agreeing to participate in our survey. First, I would like to ask you some specific questions about your smoking behaviour

### SB1

At the present time, do you smoke cigarettes every day, almost every day, occasionally, or not at all?

PROBE: [If respondent does not know or refuses: “We require this information to determine eligibility for this survey.”]

[DO NOT READ CATEGORIES]

01 – Every day

02 – Almost every day

03 – Occasionally

04 – Not at all

05 – I have never smoked a cigarette in my life [DO NOT READ]

06 – DK

08 – R

09 – R (respondent does not have time to complete survey)

**GOTO DSB3**

**GOTO DEintro [error=1]**

**GOTO DEintro [error=1]**

**GOTO Q.12**

Coverage: All respondents

### SB2

Have you smoked at least 100 cigarettes in your life?

[PROBE: That is approximately 4-5 packs of cigarettes]

PROBE: [If respondent does not know or refuses – “We require this information to determine eligibility for this survey.”]

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents providing valid response (01-04) to SB1

### DSB3

IF STATUS1=1 AND (SB1=1 OR SB1=2) THEN GOTO SB4intro *[everyday or almost e.d. smk]*  
*[GOTO changed from SB4 to SB4intro in W5 – July 2007]*

IF STATUS1=1 AND (SB1=3 OR SB1=4) THEN GOTO SB3a *[occas and not at all smk]*

IF STATUS1=1 AND (SB1=05) THEN GOTO SBE1b *[error in reporting]*

IF STATUS1=2 AND (SB1=1 OR SB1=2) THEN GOTO SBE1a *[error in reporting]*

IF STATUS1=2 AND SB1=3 THEN GOTO SB3b *[occasional “not at all” smk >6mon]*

IF STATUS1=2 AND SB1=4 AND SB2=1 THEN GOTO SB3b *[former smk >6mon]*

IF STATUS1=2 AND SB1=4 AND (SB2=2 OR SB2=6 OR SB2=9) *[non smoker]*

THEN GOTO SB36 *[GOTO changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]*

IF (STATUS1 = “Non-Smoker” & SB1=05 *[non-smoker]*

THEN GOTO SB36 *[GOTO changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]*

Young adult smoking cessation

SBE1a

Earlier you said that you had NOT smoked at least one cigarette in the past six months. I would just like to confirm your answer to this question: In the past six months have you smoked AT LEAST ONE cigarette?

PROBE: [If respondent does not know or refuses – “We require this information to determine eligibility for this survey.”]

[DO NOT READ CATEGORIES]

01 – Yes

**STATUS1=RECENT SMOKER,  
GOTO SB4intro**

02 – No

**GOTO SBE2a**

06 – DK

**GOTO DEintro [error=1]**

09 – R

**GOTO DEintro [error=1]**

Coverage: Respondents who originally responded ‘No’ to smoking a cigarette in last 6 months, but then respond to smoking every day or almost every day

SBE1b

Earlier you said that you HAD smoked at least one cigarette in the past six months. I would just like to confirm your answer to this question: In the past six months have you smoked AT LEAST ONE cigarette?

PROBE: [If respondent does not know or refuses – “We require this information to determine eligibility for this survey.”]

[DO NOT READ CATEGORIES]

01 - Yes

**GOTO SBE2a**

02 – No

**STATUS1=NON-SMOKER,  
GOTO SB36**

*[GOTO changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]*

06 - Don't Know

**GOTO DEintro [error=1]**

09 – Refused

**GOTO DEintro [error=1]**

Coverage: Respondents who originally responded ‘YES’ to smoking a cigarette in last 6 months, but then responded they have never smoked a cigarette in their life

SBE2a

Okay then, I would just like to confirm your answers to a couple previous questions.

At the present time, do you smoke cigarettes every day, almost every day, occasionally, or not at all?

PROBE: [If respondent does not know or refuses – “We require this information to determine eligibility for this survey.”]

[DO NOT READ CATEGORIES]

01 - Every day

02 - Almost every day

03 - Occasionally

04 - Not at all

05 - I have never smoked a cigarette in my life

06 - Don't Know

09 - Refused

Coverage: Respondents who originally provided contradictory responses to their smoking behaviour

IF (Status1 = "Non-smoker" & (ANS = 01 | ANS = 02 | ANS = 06 | ANS = 09))

**THEN GOTO DEintro [error=1]**

Young adult smoking cessation

IF (Status1 = "Non-smoker" & (ANS = 03 | ANS = 04))

**THEN GOTO SBE2b**

IF (Status1 = "Non-smoker" & (ANS = 05))

**THEN GOTO SB36** [*GOTO changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan '08*]

IF (Status1 = "Recent smoker" & (ANS = 05 | ANS = 06 | ANS = 09))

**THEN GOTO DEINTRO [error=1]**

IF (Status1 = "Recent smoker" & (ANS = 01 | ANS = 02 | ANS = 03 | ANS = 04))

**THEN GOTO SBE2b**

SBE2b

Have you smoked at least 100 cigarettes in your life?

PROBE: That is approximately 4-5 packs of cigarettes

PROBE: [If respondent does not know or refuses – “We require this information to determine eligibility for this survey.”]

[DO NOT READ]

01 - Yes

02 - No

06 - Don't Know

09 - Refused

Coverage: Respondents who originally provided contradictory responses to their smoking behaviour

DSBE3

IF (Status1 = "Recent smoker" & (SBE2a=01 | SBE2a=02))

**THEN GOTO SB4intro**

IF (Status1 = "Recent smoker" & (SBE2a=03 | SBE2a=04))

**THEN GOTO SB3a**

IF (Status1 = "Non-smoker" & SBE2a=03)

**THEN GOTO SB3b**

IF (Status1 = "Non-Smoker" & SBE2a=04 & SBE2b=01)

**THEN GOTO SB3b**

IF (Status1 = "Non-Smoker" & SBE2a=04 & (SBE2b=02 | SBE2b=06 | SBE2b=09))

**THEN GOTO SB36** [*GOTO changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan '08*]

IF (Status1 = "Non-Smoker" & SBE2a=05)

**THEN GOTO SB36** [*GOTO changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan '08*]

Young adult smoking cessation

SB3a

How long ago was it that you last smoked a cigarette: was it

[READ CATEGORIES 1 – 3]

01 – one week or less

**GOTO SB4intro**

02 – more than one week but less than one month

**GOTO SB4intro**

03 – 1 to 6 months ago

**GOTO DSB4a**

Coverage: Occasional and ‘not at all’ smokers who have smoked at least ONE cig in past 6 months (classified as a Recent Smoker according to recruitment question Q.8=01)

SB3b

How long ago was it that you last smoked a cigarette: was it

[READ CATEGORIES 1 – 3]

01 – 7 to 11 months ago

02 – 1 to 5 years ago OR

03 – more than 5 years ago

06 – DK

09 – R

**GOTO SB36**

[GOTO for all response categories changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]

Coverage: Occasional smokers and former smokers who have not smoked a cigarette in past 6 months (classified as a Non-smoker according to recruitment question Q.8=01) but have smoked 100 cigarettes in their life

DSB4a

IF (SB2=1 | SBE2b=01) [Former smokers (1-6months) who have smoked 100+ cig]

**THEN GOTO SB9**

IF (SB2=2 | SBE2b=02) [Former smokers (1-6months) who have not smoked 100+ cig in lifetime]

**THEN GOTO SB36** [GOTO changed from PO1intro to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]

SB4intro

Now I’m going to ask you a few questions about your smoking behaviours over the past 30 days

*NOTE: moved SB7 and SB8 before SB4-SB6 as this has been an issue for interviewers/respondents (W5 – July 2007)*

SB7

Some people smoke more or less depending on the day of the week.

So, thinking back over the past month, on the WEEKEND DAYS that you did smoke, about how many cigarettes did you usually smoke?

[PROBE: For instance, on your average Saturday, how many cigarettes do you usually smoke?]

INTERVIEWER NOTE: Please consider the respondents “weekend days” regardless of the day of the week

[DO NOT READ CATEGORIES]

01 - \_\_\_ Enter number (SB7num RANGE: 0-100)

06 – DK

09 – R

Young adult smoking cessation

Coverage: Current smokers (self-reported everyday/almost every day smokers (SB1<=2) or any recent smokers (Q.8=01) who last smoked in the past 30 days (SB3a<=2))

*[interviewer note added W6 – March 6, 2008]*

SB8

On the WEEKDAYS that you did smoke, about how many cigarettes did you usually smoke?

[IF ASKED, INTERVIEWER TO REMIND RESPONDENT IN LAST 30 DAYS]

PROBE: For instance, on your average Monday, how many cigarettes do you usually smoke?

INTERVIEWER NOTE: Please consider the respondents “work days” to be “weekdays” regardless of the day of the week

[DO NOT READ CATEGORIES]

01 - \_\_\_\_ Enter number (SB8num RANGE: 0-100)

06 – DK

09 – R

Coverage: Current smokers

*[Interviewer probe added in W2 – January 2006]*

*[Interviewer note added W6 – March 6, 2008]*

SB4

On how many of the past 30 days did you smoke cigarettes?

INTERVIEWER NOTE: If participant responds “everyday” to this question, enter 30

[DO NOT READ CATEGORIES]

01 - \_\_\_\_ ENTER NUMBER (SB4num RANGE=0-30)

**IF SB4num=30 GOTO DSB9**

06 – DK

09 – R

Coverage: Current smokers

*[revised question wording from “...did you smoke at least one cigarette?” on January 24, 2007 – W4]*

*[added interviewer note at W5 – July 2007]*

*[revised GOTO for SB4num = 30 from SB7 to DSB9 as questions were reordered at W5 – July 2007]*

SB5

In the past month, on how many WEEKEND days did you smoke at least one cigarette?

PROBE: Some people ONLY smoke on occasion or on certain days of the week. In the past 30 days, how many weekend days did you smoke at least one cigarette?

[DO NOT READ CATEGORIES]

01 – ENTER NUMBER (SB5num RANGE=0-10)

06 – DK

09 – R

Coverage: Current smokers smoking less than 30 days in the past month [SB4num<30]

*[added interviewer probe at W5 – July 2007]*

Young adult smoking cessation

SB6

In the past month, on how many WEEKDAYS did you smoke at least one cigarette?

PROBE: Some people ONLY smoke on occasion or on certain days of the week. In the past 30 days, how many weekdays days did you smoke at least one cigarette?

[DO NOT READ CATEGORIES]

01 - \_\_\_\_ Enter Number (SB6num RANGE: 0 – 25)

06 – DK SKP DSB9

09 – R SKP DSB9

Coverage: Current smokers smoking less than 30 days in the past month

[added interviewer probe at W5 – July 2007]

[Corrected CATI routing error from “IF (ANS = 06|ANS = 09) SKP SB7” – W5- Sept.20, 2007]

DSB9

IF (SB1=1 OR SB1=2) AND SB2=1 [everyday or almost every day smokers and 100+cig]

**THEN GOTO SB10**

IF SB2=2 [not 100+ cig]

**THEN GOTO SB36** [GOTO changed from DAD1 to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]

IF (SB1=3 OR SB1=4) AND SB2=1 [occasional and “not at all” smokers and 100+ cig]

**THEN GOTO SB9**

SB9

Have you ever smoked cigarettes daily?

[DO NOT READ CATEGORIES]

01 – Y **GOTO SB10**

02 – N **GOTO SB36**

06 – DK **GOTO SB36**

09 – R **GOTO SB36**

Coverage: Recent smokers who self-report smoking occasionally or 'not at all' and have smoked 100 cigarettes in their lifetime

[response categories 02,06,09 GOTO changed from DAD1 to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]

SB10

At what age did you begin to smoke cigarettes daily?

Interviewer Note: If respondent provides age less 8, repeat question and stress DAILY

[DO NOT READ CATEGORIES]

01 - \_\_\_\_ ENTER NUMBER (SB10num RANGE: 8 – 50)

06 – DK

09 – R

Coverage: All respondents (current, occasional, and 1-6mon former) who have smoked cigarettes daily in their lifetime (100+ cig in lifetime)

[Interviewer Note added and SB10num range lowered (from 10 to 8) at W2 - January 2006]

DSB11

IF SB1=1 OR SB1=2 OR SB9 = 02 [daily smk and those who never smoked daily]

**THEN GOTO SB36** [GOTO changed from AD1 to SB28 at W2 – Jan 06; then to SB36 at W6 – Jan ‘08]

Young adult smoking cessation

IF SB1=3 AND SB9 = 01 [*occasional smk who EVER smoked daily*]

**THEN GOTO SB11**

IF SB1=4 AND SB9=1 [*presently smoke "not at all" but have smoked DAILY in lifetime*]

**THEN GOTO SB11**

SB11

How long ago was it that you smoked cigarettes DAILY: was it,

[READ CATEGORIES 1 – 6]

01 – one week or less

02 – More than one week but less than a month ago

03 – 1 to 6 months ago

04 – 7 to 11 months ago

05 – 1 to 5 years ago OR

06 – More than 5 years ago

08 – DK

09 – R

Coverage: All respondents who ever smoked daily and have now stopped smoking daily (current, occasional, and 1-6mon former; 100+ cig in lifetime)

SB12

What was the main reason you stopped smoking cigarettes daily?

\_\_\_\_\_ Enter Response

[CATEGORY CODES NOT TO BE READ]

01 – Reduce disease risk / improve health

02 – Illness / Disability

03 – As quitting strategy/trying to quit

04 – Too expensive / cost

05 – Smoking restrictions

06 – Reduce others' exposure to second-hand smoke

07 – Pregnancy/breastfeeding

08 – Reduced need/craving

09 – Family pressure

10 – Other Specify \_\_\_\_\_

66 – DK

99 – R

Coverage: All respondents who ever smoked daily and have now stopped smoking daily

~~SB28~~ [*deleted/revised to SB36 and SB37 for W6 – Jan '08; added at beginning of W2 – Jan /06*]

SB36

[*revised SB28: added W6 – Jan '08*]

Besides cigarettes, in the past 6 months, have you used any other tobacco products that you smoke such as cigars or pipes?

PROBE: Other tobacco products that are smoked include cigarillos, bidis, kreteks, shisha, and hooka

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Young adult smoking cessation

Coverage: All respondents

SB37

*[revised SB28: added W6 – Jan '08]*

Besides cigarettes, in the past 6 months, have you used any other tobacco products that are NOT smoked such as snuff, chewing tobacco, or snus?

NOTE: “snus” is pronounced “snoose” – rhymes with moose/goose

PROBE: Other tobacco products include pinch

PROBE2: Snus is moist tobacco in a pouch placed in the mouth. It is not smoked or burned.

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents

DSB38

*[added at W6: Jan '08]*

IF SB36 = 1 OR SB37 = 1 THEN GOTO SB38

ELSE GOTO DAD1

SB38

*[added W6 – Jan '08]*

What is the MAIN reason you use other tobacco products?

[DO NOT READ CATEGORIES]

01 – to hide/mask your smoking

02 – a source of nicotine/tobacco when you are not allowed to smoke (i.e. airplane)

03 – because they cost less than cigarettes

04 – to reduce the risks of smoking

05 – as a step towards quitting smoking completely OR

06 – because you are curious about the product

07 – Other: SPECIFY

08 – use at social occasions

*[new coding options added in W6 – Apr 2008]*

09 – just enjoy it

*[new coding options added in W6 – Apr 2008]*

66 – DK

*[response DK recoded to 66 (from 08) in W6 – Apr 2008]*

99 – R

*[response R recoded to 99 (from 09) in W6 – Apr 2008]*

Coverage: Respondents who have used other tobacco products in the past 6 months

*[New coding options added for response 08 and 09 in W6 – Apr 2008; DK and R recoded]*

DAD1

IF SB1 = 04 & (SB2 = 02 | SB2 = 06 | SB2 = 09) GOTO PO1Intro

*[currently does not smoke and has not smoked 100+ cig in life, incl DK,R]*

IF (SB1 = 05) GOTO PO1Intro *[never smoker]*

IF (SB1 = 04 & Status1 = “Non-smoker”) GOTO PO1intro *[currently does not smoke and has not smoked a cig in the past 6 months]*

IF (SB1 = 01 | SB1 = 02 | SB1 = 03) GOTO AD1a *[everyday/almost everyday, occasional smoker]*

IF (SB1 = 04 & Status1 = “Recent smoker”) GOTO AD1b *[currently does not smoke but has smoked a cig in the past 6 months and 100+ cig]*

*[last 2 IF statements revised at W2 – Jan '06 – to account for new question AD1b]*

Young adult smoking cessation

**ADDICTION QUESTIONS**

AD1a [W1 variable is AD1; renamed AD1a at W2 – Jan06 – for parallel question AD1b]

Thinking about your own smoking, would you say that you are NOT AT ALL ADDICTED to cigarettes, SOMEWHAT ADDICTED to cigarettes or VERY ADDICTED to cigarettes?

[DO NOT READ CATEGORIES]

- 01 – Not at all addicted
- 02 – Somewhat addicted
- 03 – Very addicted
- 06 – DK
- 09 – R

**GOTO DAD2**

Coverage: Self report smokers

AD1b

[Added at beginning of WAVE 2 – Jan ‘06]

At the present time would you say that you are NOT AT ALL ADDICTED to cigarettes, SOMEWHAT ADDICTED to cigarettes or VERY ADDICTED to cigarettes?

[DO NOT READ CATEGORIES]

- 01 - Not at all addicted
- 02 - Somewhat addicted
- 03 - Very addicted
- 06 - Don't Know
- 09 - Refused

Coverage: Respondents who currently do not smoke but have smoked a cigarette in the past 6 months [100+ cigarettes in lifetime]

DAD2

IF (SB2= 01 & (SB1 = 01 | SB1 = 02)) GOTO AD2 [e.day or almost e.day smoker, 100+ cig]

IF ((SB2 = 01 & SB1 = 03) | SB2 = 02) GOTO AD3 [occasional 100+ and those who currently smoke but have not smoked 100+cig]

IF (SB1 = 04 & Status1 = “Recent smoker”) GOTO QAintro [currently do not smoke but have smoked in the past 6 months] [this IF statement added at W2 – Jan ‘06]

AD2

How soon after you wake up do you usually smoke your first cigarette?

[PROBE: What I mean is how long in hours or minutes]

[DO NOT READ]

[MODIFIED FROM CAMH/CTUMS]

- 01 – ENTER NUMBER OF MINUTES \_\_\_\_\_ [AD2min RANGE: 0 – 240]
- 02 – ENTER NUMBER OF HOURS \_\_\_\_\_ [AD2hr RANGE: 0 – 15]
- 06 – DK
- 09 – R

Coverage: Daily smokers (100+ cigarettes in lifetime) [self-report everyday or almost everyday]

AD3

Do you find it difficult to refrain from smoking in places where it is NOT ALLOWED?

[IF NECESSARY, READ RESPONSE CATEGORIES]

- 01 – Yes it is difficult to refrain from smoking OR
- 02 – No, it is not difficult to refrain from smoking

Young adult smoking cessation

06 – DK

09 – R

Coverage: Self report smokers

## **QUITTING QUESTIONS**

QBintro

I am now going to ask you some questions about quitting smoking.

QB1

How easy or hard would it be for you to completely quit smoking if you wanted to? Would it be:

[READ CATEGORIES 1 – 4]

01 – Very easy

02 – Somewhat easy

03 – Somewhat hard OR

04 – Very hard

06 – DK

09 – R

Coverage: Self report smokers

QB2

You said it would be [QB1 RESPONSE] to quit smoking if you wanted to. How confident are you that you would succeed if you decided to quit COMPLETELY in the next six months?

[READ CATEGORIES 1 – 4]

01 – Not at all confident

02 – Not very confident

03 – Fairly confident OR

04 – Very confident

06 – DK

09 – R

Coverage: Self report smokers

QB3

If you decided to quit smoking, do you have at least one person you could count on for support?

[DO NOT READ CATEGORIES]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: Self report smokers

QB4

Is there anyone who might make it more DIFFICULT for you to quit smoking if you wanted to?

[DO NOT READ CATEGORIES]

01 – Yes

02 – No

06 – DK

Young adult smoking cessation

09 – R

Coverage: Self report smokers

QB5

In general, would you say your health is:

[READ CATEGORIES 1 – 5]

01 – Excellent

02 – Very good

03 – Good

04 – Fair OR

05 – Poor

06 – DK

09 – R

Coverage: Self report smokers

*[Note: The question coverage identifies self-report smokers. To obtain information for all respondents, self report non-smokers are asked an equivalent question later in this survey (see DE3 for equivalent question)]*

QB6 *[in follow-up surveys, this question is QB6a]*

How much do you think you would benefit from health and other gains if you were to quit smoking permanently in the next 6 months? Would you:

[READ CATEGORIES 1 – 4]

01 – Not benefit at all

02 – Benefit a little

03 – benefit quite a bit OR

04 – benefit a lot

06 – DK

09 - R

Coverage: Self report smokers

DQB7

IF SB2=1 *[100+ cig]*

**THEN GOTO QB7**

IF SB2=2 *[have not smoked 100+ cig]*

**THEN GOTO QAintro**

QB7

Are you planning to quit smoking...

[READ CATEGORIES 1 – 4]

01 – Within the next month?

02 – Within the next 6 months?

03 – Sometime in the future, beyond 6 months? Or are you

**GOTO QB10**

04 – Not planning to quit.

**GOTO QB10**

05 – I have already quit [DO NOT READ]

**GOTO QB10**

06 – DK

**GOTO QB10**

09 – R

**GOTO QB10**

Coverage: Self report smokers who have smoked 100 cig in lifetime

Young adult smoking cessation

QB8

What is the main reason you plan to quit smoking?

\_\_\_\_\_ Enter Response

[CATEGORY CODES – DO NOT READ]

01 – Reduce disease risk / improve health

02 – Illness / Disability

03 – Too expensive / cost

04 – Smoking restrictions

05 – Reduce others' exposure to second hand smoke

06 – Pregnancy/breastfeeding

07 – Reduced need/craving

08 – Family pressure

09 – Other (Specify) \_\_\_\_\_

66 – DK

99 – R

Coverage: Self report smokers [100+ cigarettes in lifetime] who plan to quit smoking in the next 6 months

QB9

Have you set a firm quit date?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

09 – R

Coverage: Self report smokers [100+ cigarettes in lifetime] who plan to quit sometime in the next 6 months

QB10

How many times have you EVER made a serious attempt to quit smoking? By serious, we mean that you made a conscious attempt to stay off cigarettes for good.

01 - \_\_\_\_\_ ENTER NUMBER (IF RANGE GIVEN, USE MIDPOINT) GOTO QB10num

09 – R GOTO QAintro

Coverage: Self report smokers who have smoked 100 cig in lifetime

QB10num

[QB10num RANGE: 0 – 50]

IF QB10num >=1 & QB10num<51 GOTO QB10a

ELSE GOTO QAintro

QB10a

*[added at Wave 2 – Jan '06 - to derive Stages of Change]*

When did your last serious quit attempt end? Was it...

Probe: By serious, we mean that you made a conscious attempt to stay off cigarettes for good.

[READ CATEGORIES 1-4]

01 – less than one month ago

02 – 1-6 months ago

03 – 7-12 months ago OR

04 – More than one year ago

05 – Currently in a quit attempt [DO NOT READ] *[response category added at W4 – Jan '07]*

Young adult smoking cessation

06 – DK

09 – R

Coverage: Self report smokers who have smoked 100 cig in lifetime and made one or more attempts to quit smoking in their lifetime (1 < QB10num < 51)

QB18a *[added at W5 – July 2007]*

Which of these statements best describes how your most recent quit attempt started:

[READ CATEGORIES 01 – 06]

PROBE: Which statement best describes your most recent quit attempt: you just did it; you planned to quit for later the same day; or did you plan to quit the day beforehand; a few days beforehand, a few weeks beforehand OR a few months beforehand?

01 – I did not plan the quit attempt in advance, I just did it;

02 – I planned the quit attempt for later the same day;

03 – I planned the quit attempt the day beforehand;

04 – I planned the quit attempt a few days beforehand;

05 – I planned the quit attempt a few weeks beforehand; OR

06 – I planned the quit attempt a few months beforehand;

07 – other

08 – DK

09 – R

Coverage: Self report smokers who have smoked 100 cig in lifetime and made one or more attempts to quit smoking in their lifetime (1 < QB10num < 51)

NOTE: coding “other” for anything greater than 3months

*[PROBE added April 2008 – W6]*

## **QUIT AIDS**

QAINTRO

Now I am going to ask you some questions about resources and aids to help *people* quit smoking...

*[revised “you” to “people” in W4 – Jan 24, 07]*

QA1

Can you NAME 5 aids or resources that help people quit smoking?

*[Replaced “NAME” for “think of” at the beginning of Wave 3 – July ‘06]*

[IF RESPONDENT STRUGGLING INTERVIEWER MAY RESPOND WITH “IT IS OK IF YOU CANNOT” – INTERVIEWER NOT TO AID RESPONDENT]

ENTER RESPONSES

01 – Enter response

QA1a \_\_\_\_\_

QA1b \_\_\_\_\_

QA1c \_\_\_\_\_

QA1d \_\_\_\_\_

QA1e \_\_\_\_\_

06 – DK

09 – R

Coverage: Self-report smokers and recent smokers who smoke ‘not at all’ (SB1=4) but have smoked 100+ lifetime cigarettes

Young adult smoking cessation

DQA2

IF SB2=1 *[100+ cig]*

**THEN GOTO QA2intro**

IF SB2=2 [not 100+ cig in lifetime]

**THEN GOTO QA21**

QA2intro

Now I am going to ask if you have EVER used any of the following to help you quit or reduce smoking.

QA2

Have you EVER used nicotine patches to help you quit or reduce smoking?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA3

Have you EVER used nicotine gum or chewing pieces like Nicorette?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA4

Have you EVER used nicotine inhalers?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA43 *[added at W6 – Jan '08]*

Have you EVER used a nicotine lozenge?

NOTE: “lozenge” is pronounced “law – zen – je”

PROBE: A Nicotine lozenge is a small hard candy that you suck on that contains nicotine.

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

Young adult smoking cessation

*[Interviewer Note and Probe added in W6 – April 2008]*

QA5d *[added at W6 – Jan '08: combined QA5A and QA5b from previous surveys]*

Have you EVER used a pill prescribed by your doctor called bupropion, Zyban or Wellbutrin to help you stop smoking?

NOTE: “bupropion” is pronounced “byoo – pro – pee – on”

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

*[Interviewer Note added in W6 – April 2008]*

~~QA5a~~ EVER used Zyban/bupropion replaced with QA5d in W6 – Jan '08; QA5 renamed QA5a at beginning of W2 – Jan '06 – for new question]

~~QA5b~~ EVER used Wellbutrin replaced with QA5d in W6 – Jan '08; added at beginning of WAVE 2 – Jan '06]

QA34 *[added at W5 – July 2007]*

Have you EVER used a pill prescribed by your doctor called Champix or Varenicline to help you stop smoking?

INTERVIEWER NOTE: “Varenicline” is pronounced “var-en-i-clean”

NOTE2: If respondent says they have used Chantix, code as yes (01)

[DO NOT READ]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

*[Interviewer Note2 added in W6 – April 2008]*

QA6

Have you EVER used hypnosis, acupuncture, or laser therapy to help you quit or reduce smoking?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

*[Clarification added to Q at W6 – Jan '08: “...to help you quit or reduce smoking”]*

Young adult smoking cessation

QA7

Have you EVER used a self-help booklet or video, a website or a chat group *to help you quit or reduce smoking?* [PROBE: THIS MAY INCLUDE ANY SELF-HELP MATERIAL SUCH AS CDs]

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

[Probe added at beginning of W2 – Jan '06; clarification added to Q at W6 – Jan '08: "...to help you quit or reduce smoking"]

QA8

Have you EVER been to group counselling or a group support program *to help you quit or reduce smoking?*

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

[clarification added to Q at W6 – Jan '08: "...to help you quit or reduce smoking"]

QA9

Have you EVER seen a specialized addiction counsellor *to help you quit or reduce smoking?*

PROBE: This could be a medical doctor or other health professional trained in nicotine addiction.

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

[clarification added to Q at W6 – Jan '08: "...to help you quit or reduce smoking"]

QA10intro

I am now going to ask you about your thoughts on stop smoking medications such as the nicotine patch, gum, inhalers, lozenge, or pills from your doctor.

[W5 – July 2007 – deleted "Please tell me if you strongly agree, ..." given revised questions]

[W6 – Jan 2008 – revised intro text from "...going to read a list of statements about stop smoking..." and added "lozenge" to list of medications]

QA35 [revised from QA10 in W5 – July 2007; deleted from F.UP surveys]

Compared to trying to quit on your own, do you feel that stop smoking medications make it:

[READ CATEGORIES 01 – 05]

01 - A LOT easier than trying to quit on your own

02 - A LITTLE easier

03 - About the same

Young adult smoking cessation

04 – A LITTLE harder than trying to quit on your own, or

05 - A LOT harder than trying to quit on your own

06 - DK

09 - R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA36 *[revised from QA11 in W5 – July 2007; deleted from F.UP surveys]*

Do you feel that stop smoking medications cost:

[READ CATEGORIES 01 – 03]

01 - Too little

02 - About right

03 - Too much

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA37 *[revised from QA12 in W5 – July 2007; deleted from F.UP surveys]*

Do you feel that stop smoking medications are:

[READ CATEGORIES 01 – 04]

01 - Very easy to get

02 - Somewhat easy to get

03 - Somewhat difficult to get OR

04 - Very difficult to get

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA13 [deleted at W3, July 14, 2006]

QA38 *[revised from QA14 in W5 – July 2007; deleted from F.UP surveys]*

Do you feel that stop smoking medications have:

[READ CATEGORIES 01 – 03]

01 - A LOT of side effects

02 - A FEW side effects OR

03 - NO side effects that concern you

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

IF QA7 AND QA8 AND QA9 = 02 THEN **GOTO QA15intr**

*[NO previous use of self-help, group counselling, and specialized addiction counsellor]*

IF QA7 OR QA8 OR QA9 = 01 THEN **GOTO QA39** *[revised goto at W5 –July '07– from QA17intr]*

*[previous use of self-help, group counselling, or specialized addiction counsellor]*

QA15intr

Now I am going to ask you about your thoughts on telephone and other counselling programs delivered by trained professionals.

Young adult smoking cessation

[W6 – Jan 2008 – revised intro text from “...going to read a list of statements about stop smoking...”]

DQA15

IF QA7 AND QA8 AND QA9 = 02 [NO previous use of self-help, group counselling, and specialized addiction counsellor]

THEN **GOTO QA15**

IF QA7 OR QA8 OR QA9 = 01 OR (SB1=4 AND SB3a=3) [previous use of self-help, group counselling, or specialized addiction counsellor OR you have already quit]

THEN **GOTO QA39** [revised goto at W5 –July '07– from QA17intr]

QA15

If SB1=4 and SB3a<=3 then show:

"Would you be willing to participate in counselling to help you stay smoke-free?"

ELSE show: [added IF statement at W6 – Jan 18, 2008 – Else statement is original Q]

*If you were going to quit smoking, would you be willing to participate in counselling to help you quit?*

PROBE: We are not providing a counselling program. We would just like to determine if these programs are something you would consider if you decided to quit smoking.

[DO NOT READ CATEGORIES]

01 – Y **GOTO QA16**

02 – N **GOTO QA39** [revised goto at W5 – July '07– from QA17intr]

06 – DK **GOTO QA16**

09 – R **GOTO QA16**

Coverage: Recent smokers who have smoked 100 cig in lifetime and have never gone to counselling to help them quit smoking

[Revised italicised Question wording and probe added in W4 – Jan '07. Was “Would you be willing to participate in counselling to help you quit smoking?”]

QA16

If SB1=4 and SB3a<=3 then show:

"If you were going to participate in counselling to help you stay smoke-free..."

[added IF statement at W6 – Jan 18, 2008 – Else statement is original Q]

ELSE show (original question):

"If you were going to participate in counselling to help you quit..."

Show for all:

"...what type of counselling would you prefer? Would it be..."

PROBE: We are not providing a counselling program. We would just like to determine if these programs are something you would consider if you decided to quit smoking.

[READ CATEGORIES 1 – 5]

01 – Group counselling

02 – One-on-one counselling

03 – Telephone-based counselling

04 – Web-based counselling OR

05 – Self-help counselling, for example, reading materials [added “for example” to 05 at W3–Jul '06]

06 – Other Specify: \_\_\_\_\_

07 – DK

08 – R

Young adult smoking cessation

Coverage: Recent smokers who have smoked 100 cig in lifetime and have never gone to counselling but are willing to attend counselling to help them quit (QA15=1,6,9)

*[revised question wording and probe added in W4 – Jan ‘07. Was “What type of counselling would you prefer to participate in?”]*

[W5 – July 2007 – deleted QA17intr and text as the following Qs were revised]

QA39 *[revised from QA17 in W5 – July 2007; deleted from F.UP surveys]*

Do you feel that counselling programs would make quitting smoking:

[READ CATEGORIES 01 – 04]

01 - A LOT easier

02 - A LITTLE easier OR

03 - Counselling would NOT make quitting smoking any easier than trying to quit on your own OR

04 - Counselling would make quitting smoking harder than trying to quit on your own

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA40 *[revised from QA18 in W5 – July 2007; deleted from F.UP surveys]*

Do you feel that counselling programs to help people to quit smoking cost:

[READ CATEGORIES 01 – 03]

01 - Too little

02 - About right

03 - Too much

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA41 *[revised from QA19 in W5 – July 2007; deleted from F.UP surveys]*

Do you feel that counselling programs to help people stop smoking are:

[READ CATEGORIES 01 – 04]

01 - Very easy to get

02 - Somewhat easy to get

03 - Somewhat difficult to get OR

04 - Very difficult to get

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA42 *[revised from QA20 in W5 – July 2007; deleted from F.UP surveys]*

How well do you know what happens during stop-smoking counseling? Would you say that you:

[READ CATEGORIES 01 – 04]

01 - Know a lot about what happens

02 - Know a little bit

03 - Not very much OR

04 - Not at all about what happens during stop-smoking counseling

06 – DK

09 – R

Young adult smoking cessation

Coverage: Recent smokers who have smoked 100 cig in lifetime

QA21

Can you tell me the name of a free telephone helpline designed to help smokers who want to quit or the organisation that sponsored this helpline?

[DO NOT READ CATEGORIES]

01 - _____ (Open ended; record response if not 02 or 03)	<b>GOTO QA22</b>
02 – Ontario Smokers’ Helpline	<b>GOTO DQA23</b>
03 – Canadian Cancer Society	<b>GOTO DQA23</b>
06 – DK	<b>GOTO QA22</b>
09 – R	<b>GOTO QA22</b>

Coverage: Self-report smokers and recent smokers who smoke ‘not at all’ (SB1=4) but have smoked 100+ lifetime cigarettes

QA22

Have you EVER heard of the Ontario Smokers’ Helpline sponsored by the Canadian Cancer Society?

[DO NOT READ CATEGORIES]

01 – Yes	<b>GOTO DQA23</b>
02 – No	<b>GOTO QA24</b>
06 – DK	<b>GOTO QA24</b>
09 – R	<b>GOTO QA24</b>

Coverage: Respondents who did not identify the Ontario Smokers’ Helpline/CCS in QA21 (QA21 ne 2,3)

DQA23

IF SB2=1 *[100+ cig]*  
**THEN GOTO QA23**

IF SB2=2 *[respondents who have not smoked 100+ cig]*  
**THEN GOTO QA24**

QA23

Have you EVER called the Ontario Smokers’ Helpline?

[DO NOT READ CATEGORIES]

01 – Y  
02 – N  
06 - DK  
09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime and were aware (unaided or aided) of the Ontario Smokers’ Helpline

QA23a

*[added at W5 – July 2007]*

Have you EVER accessed the “Smokers’ Helpline Online” sponsored by the Canadian Cancer Society?

PROBE: The “Smokers’ Helpline Online” is a web-based counselling service to help smokers quit

[DO NOT READ]

01 – Y  
02 – N  
06 - DK

Young adult smoking cessation

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime and were aware (unaided or aided) of the Ontario Smokers' Helpline

QA24

Have you EVER seen or heard of any other “quit program” that offers help to smokers who want to quit through workshops, counselling, or printed materials?

[DO NOT READ CATEGORIES]

01 – Y

**GOTO DQA25**

02 – N

**GOTO DHP1**

06 – DK

**GOTO DHP1**

09 – R

**GOTO DHP1**

Coverage: Self-report smokers and recent smokers who smoke ‘not at all’ (SB1=4) but have smoked 100+ lifetime cigarettes

[W6 – Jan '08: added “any other” to question wording]

DQA25

IF SB2=1 THEN GOTO QA25 [100+ cig]

IF SB2=2 THEN GOTO QA26b[respondents who have not smoked 100+ cig]

QA25

Did you EVER take part in these other quit programs?

[DO NOT READ CATEGORIES]

01 – Y

**GOTO QA26a**

02 – N

**GOTO QA26b**

06 – DK

**GOTO QA26b**

09 – R

**GOTO DHP1**

Coverage: Recent smokers who have smoked 100 cig in lifetime and were aware of a quit program

[W6 – Jan '08: added “these other” to question wording]

QA26a

Can you tell me the name of this quit program or what organisation sponsored the program?

[DO NOT READ CATEGORIES]

01 - \_\_\_\_\_ (Open ended; record response)

**GOTO DHP1**

06 – DK

**GOTO DHP1**

09 – R

**GOTO DHP1**

Coverage: Respondents who EVER participated in other quit programs (QA25=1)

QA26b

Can you tell me the name of a quit program or an organisation that sponsors a quit program?

[DO NOT READ CATEGORIES]

01 - \_\_\_\_\_ (Open ended; record response)

06 – DK

09 – R

Coverage: Respondents who have never participated in other quit programs (QA25 = 2.6)

Young adult smoking cessation

**HEALTH PROFESSIONALS**

DHP1

IF SB2=1 [100+ cig]

**THEN GOTO RAND1**

IF SB2=2 [respondents who have not smoked 100+ cig]

**THEN GOTO PP1intro**

HPintro

Now I'd like to ask you about your visits with health professionals.

[SOFTWARE TO RANDOMISE ORDER OF HP1A HP1B HP1C HP1D TO RESPONDENT, USE SAME A,B,C ORDER FOR QUESTIONS HP2A HP2B HP2C HP2D]

[ADMINISTRATIVE VARIABLE:

RAND1 = RANDOMISATION SCHEME OF RESPONDENT]

HP1A

Has a dentist EVER advised you to reduce or quit smoking?

[DO NOT READ]

INTERVIEWER NOTE: If respondent initially replies "never", ask respondent "Have you NEVER been to a dentist or has a dentist never advised you to quit smoking?"

01 – Y

02 – N

03 – I have never seen a dentist [added at beginning of W4 – Jan '07]

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

[Added note in W4 - January 24, 2007; revised in W5 – July 2007 to clarify "never"]

HP1B

Has a pharmacist EVER advised you to reduce or quit smoking?

INTERVIEWER NOTE: If respondent initially replies "never", ask respondent "Have you NEVER been to a pharmacist or has a pharmacist never advised you to quit smoking?"

[DO NOT READ]

01 – Y

02 – N

03 – I have never seen a pharmacist [added at beginning of W4 – Jan '07]

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

[Added note in W4 – January 24, 2007; revised in W5 – July 2007 to clarify "never"]

HP1C

Has a doctor EVER advised you to reduce or quit smoking?

INTERVIEWER NOTE: If respondent initially replies "never", ask respondent "Have you NEVER been to a doctor or has a doctor never advised you to quit smoking?"

[DO NOT READ]

Young adult smoking cessation

01 – Y

02 – N

03 – I have never seen a doctor *[added at beginning of W4 – Jan ‘07]*

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

*[Added note in W4 - January 24, 2007; revised in W5 – July 2007 to clarify “never”]*

HP1D *[added at beginning of W6 – Jan ‘08]*

Has a nurse EVER advised you to reduce or quit smoking?

INTERVIEWER NOTE: If respondent initially replies “never”, ask respondent “Have you NEVER seen a nurse or has a nurse never advised you to quit smoking?”

[DO NOT READ]

01 – Y

02 – N

03 – I have never seen a nurse

06 – DK

09 – R

Coverage: Recent smokers who have smoked 100 cig in lifetime

DHP2

IF (SB1=1 OR SB1=2 OR SB1=3) *[respondents who currently smoke daily or occasionally]*

**THEN GOTO HP2A**

IF SB1=4 *[respondents who currently do not smoke]*

**THEN GOTO PO1INTRO**

HP2A

If you were going to quit smoking, how likely would you be to ask a DENTIST for advice? Would you be ...[READ CATEGORIES 1 – 3]

01 – Very likely

02 – Somewhat likely OR

03 – Not likely at all

06 – DK

09 – R

Coverage: Self report smokers who have smoked 100 cig in lifetime

HP2B

If you were going to quit smoking, how likely would you be to ask a PHARMACIST for advice? Would you be ...[READ CATEGORIES 1 – 3]

01 – Very likely

02 – Somewhat likely OR

03 – Not likely at all

06 – DK

09 – R

Coverage: Self report smokers who have smoked 100 cig in lifetime

Young adult smoking cessation

HP2C

If you were going to quit smoking, how likely would you be to ask a DOCTOR for advice? Would you be ... [READ CATEGORIES 1 – 3]

01 – Very likely

02 – Somewhat likely OR

03 – Not likely at all

06 – DK

09 - R

Coverage: Self report smokers who have smoked 100 cig in lifetime

HP2D

*[added at beginning of W6 – Jan '08]*

If you were going to quit smoking, how likely would you be to ask a NURSE for advice? Would you be ... [READ CATEGORIES 1 – 3]

01 – Very likely

02 – Somewhat likely OR

03 – Not likely at all

06 – DK

09 - R

Coverage: Self report smokers who have smoked 100 cig in lifetime

## **PURCHASING PROFILE**

PP1intro

Now I would like to ask you a few questions about the cigarettes that you usually smoke and where you purchase them....

PP1

*[revised in W4 - Jan '07 – to account for brand changes with the discontinuation of the terms “light/mild” by tobacco manufacturers: originally provided coded answers for interviewers, now open ended]*

Can you tell me the exact brand of cigarettes that you usually smoke, including the size and type?

[DO NOT READ]

ENTER ONE BRAND ONLY

NOTE: PROBE FOR THE RESPONDENT TO READ THE ENTIRE BRAND OF CIGARETTES, SUCH AS SIZE AND/OR TYPE

PROBE: What type of cigarette do you usually smoke, for example, menthol, mild, special blend, or platinum... *[Revised probe in W4: Jan 07]*

PROBE: What size do you usually smoke, is it regular or king size?

PROBE IF CANNOT REMEMBER: Do you have a pack of cigarettes near you that you could read me the name? *[added probe in W4: Jan 07]*

01 – enter full brand

GOTO PP1txt then GOTO DPP21

02 – no regular brand

GOTO PP11 *[W4: category 99 in previous waves]*

*waves]*

03 – roll-your-own/loose leaf, any brand GOTO PP11 *[W4: category 100 in previous waves]*

04 – Native cigarettes or cigarettes from native reserve GOTO DPP21

Young adult smoking cessation

06 – DK GOTO PP11 [W4: category 166 in previous waves]

09 – R GOTO PP11 [W4: category 199 in previous waves]

Coverage: Self report smokers

[Response categories 02 – 09 renumbered in W4 for new question wording – see previous surveys]

[GOTO for response categories 02 – 09 revised in W5 – July '07 – to PP11 (previously PP3)]

[Response category 04 added in W6 – April 2008]

DPP2

~~IF PP1 INCLUDES “LIGHT”, “MILD”, “ULTRA LIGHT”, “ULTRA MILD”, “EXTRA LIGHT”, OR “EXTRA MILD”~~

~~THEN GOTO PP2~~

~~ELSE~~

~~THEN GOTO PP3~~

DPP21 [new decision at W6 – Apr 2008]

IF PP1 = 1 THEN GOTO PP2b

IF PP1 = 4 THEN GOTO PP21

PP21 [new at W6 – Apr 2008]

Do these cigarettes have a brand name or a trade name, or do they not have a name at all?

PROBE: IF YES, “Can you tell me the name of the cigarettes?”

[DO NOT READ CATEGORIES]

01 – Yes enter full name GOTO PP21tx

02 - No GOTO PP2b

06 – DK GOTO PP2b

09 – R GOTO PP2b

Coverage: Respondents who report their usual brand are native cigarettes (PP1=04)

PP2b (revised PP2 in W4)

What is the main reason you smoke this brand of cigarettes? Is it...

[READ CATEGORIES 1 – 4]

01 – for the taste

02 – because of cost

03 – to reduce the risks of smoking OR

04 – as a step towards quitting smoking completely

05 – I have always smoked this brand (habit) [DO NOT READ]

06 – Other: SPECIFY [DO NOT READ]

07 – DK

09 – R

Coverage: Self report smokers who provide a regular cigarette brand (PP1=01 OR PP21=01)

[REVISED Question in W4 (Jan 07); originally asked “...reason you smoke light/mild cigarettes”]

[Revised coverage at W4 – Jan '07 given new wording for PP1 – now asked for all respondents who provide a regular brand whereas previously only asked to those who smoked light/mild cigarettes]

Young adult smoking cessation

PP11 [added at W5 – July 2007]

The last time you bought cigarettes, how much did you pay?

[DO NOT READ]

01 – Enter price [PP11num] GOTO PP20

02 – Other (e.g. other currency) GOTO PP12 [corrected this GOTO W5 – Aug 3, 2007]

06 – DK GOTO PP12

09 – R GOTO PP12

Coverage: Self report smokers

PP20 [added at W5 – July 2007]

Approximately how many cigarettes did that buy? For example, a carton *or bag* of 200, or pack of 25?

PROBE: IF RESPONDENT SAYS A PACKAGE, CARTON, OR BAG RESPOND "How many cigarettes were in that [CARTON\PACK\BAG]?"

Interviewer Note: code "other" and provide details if the respondent cannot estimate number of cigarettes that they last purchased.

[DO NOT READ]

01 – enter number of cigarettes [PP20num] GOTO PP12

02 – other [specify] GOTO PP12

06 – DK GOTO PP12

09 – R GOTO PP12

Coverage: Self report smokers providing price of last cigarette purchase (PP11=01)

[W6 – Jan '08 – added "...or bag..." to Q wording]

PP12 [added at W5 – July 2007]

Does your usual brand have large coloured health warnings on the outside of the cigarette package?

[DO NOT READ]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: Self report smokers

PP3

Do you usually buy your cigarettes in Ontario, out of province, over the internet, through the mail, *or do you usually buy your cigarettes from family or friends?*

[DO NOT READ CATEGORIES]

01 – Ontario **GOTO PP4**

02 – Out of province **GOTO PP5**

03 – Over the internet or through the mail **GOTO PP5**

*04 – buy from family or friends* **GOTO PP5**

*05 – do not usually buy own cigarettes* **GOTO PP5**

06 – DK **GOTO PP4**

09 – R **GOTO PP4**

Coverage: Self report smokers

[Response categories 04 and 05 added at W4 – Jan '07; italicized question wording extended at W4 – Jan '07 - to incorporate response category 04]

Young adult smoking cessation

PP4

Where do you usually buy your cigarettes?

[READ CATEGORIES 1 – 5]

[Note: please code Giant Tiger as a discount store]

PROBE: "A First Nations or Indian Reserve"

01 – At convenience stores

**GOTO PP5**

02 – At gas stations

**GOTO PP5**

03 – At supermarkets

**GOTO PP5**

04 – At discount stores such as Costco OR

**GOTO PP5**

05 – On a First Nations Reserve

**GOTO PP6**

06 – Other Specify \_\_\_\_\_

**GOTO PP5**

07 – DK

**GOTO PP5**

09 – R

**GOTO PP5**

Coverage: Self report smokers who usually buy their cigarettes in Ontario (including PP3=DK, R)

[Note added at Wave3 – July '06]

[response category 05 reworded from "Indian Reserve" to "First Nations" in W3 – Oct 20/06]

[probe added in W3 – Oct 20, 2006]

PP5

Have you EVER purchased cigarettes on a First Nations Reserve?

PROBE: "A First Nations or Indian Reserve"

[DO NOT READ CATEGORIES]

01 – Y

**GOTO PP6**

02 – N

**GOTO DPP7**

06 – DK

**GOTO DPP7**

09 – R

**GOTO DPP7**

Coverage: Self report smokers not usually buying their cigarettes on a First Nations/Indian Reserve

[PP4 NE 05]

[Question reworded from "Indian Reserve" to "First Nations" in W3 – Oct 20/06]

[probe added W3 – Oct 20/06]

PP6

About how many packs of cigarettes have you bought on a FIRST NATIONS RESERVE in the past 6 months?

PROBE: "A First Nations or Indian Reserve"

[DO NOT READ]

01 – ENTER NUMBER OF CIGARETTES \_\_\_\_\_ [PP6numa range: 0-1000] [new W3]

02 – ENTER NUMBER OF PACKS \_\_\_\_\_ [PP6numb range: 0-1000]

[PP6num (now PP6numb) range increased from 500 to 1000 at W2 – Jan '06]

03 – ENTER NUMBER OF CARTONS \_\_\_\_\_ [PP6numc range: 0-1000] [new at W3]

06 – DK

09 – R

Coverage: Self report smokers EVER purchasing their cigarettes on a First Nations/Indian Reserve

[PP4=01]

[added choice of cigarettes (01), or cartons (03) at W3 – July '06; previously included packs only as response 01]

[Question reworded from "Indian Reserve" to "First Nations" in W3 – Oct 20/06]

[probe added Oct 20, 2006]

Young adult smoking cessation

DPP7

IF PP3=03 *[respondents who already reported usually purchasing their cig through web/mail]*  
**THEN GOTO PP8**

PP7

Have you EVER purchased cigarettes from the internet or through the mail?

[DO NOT READ CATEGORIES]

01 – Y

**GOTO PP8**

02 – N

**GOTO PP17**

06 – DK

**GOTO PP17**

09 – R

**GOTO PP17**

Coverage: Self report smokers not usually buying their cigarettes from the internet or through the mail [PP3 NE 03]

*[revised skip logic for 02 – 09 at W5 – July 2007 from PO1intro to PP17]*

PP8

About how many packs of cigarettes have you bought over the INTERNET in the past 6 months?

[DO NOT READ]

01 – ENTER NUMBER OF CIGARETTES \_\_\_\_\_ [PP8numa range: 0-1000] *[new at W3]*

02 – ENTER NUMBER OF PACKS \_\_\_\_\_ [PP8numb range: 0-1000]

*[PP8num (now PP8numb) range increased from 200 to 1000 at W2 – Jan '06]*

03 – ENTER NUMBER OF CARTONS \_\_\_\_\_ [PP8numc range: 0-1000] *[new at W3]*

06 – DK

**GOTO PP9**

09 – R

**GOTO PP9**

Coverage: Self report smokers EVER purchasing or usually purchasing their cigarettes over the internet or through the mail

*[added choice of cigarettes (01), or cartons (03) at W3 – July '06; previously included packs only as response 01]*

PP9

About how many packs of cigarettes have you bought through the MAIL in the past 6 months?

[DO NOT READ]

01 – ENTER NUMBER OF CIGARETTES \_\_\_\_\_ [PP9numa range: 0-1000] *[new at W3]*

02 – ENTER NUMBER OF PACKS \_\_\_\_\_ [PP9numb range: 0-1000]

*[PP9num (now PP9numb) range increased from 200 to 1000 at W2 – Jan '06]*

03 – ENTER NUMBER OF CARTONS \_\_\_\_\_ [PP9numc range: 0-1000] *[new at W3]*

06 - Don't Know

**GOTO PP17**

09 - Refused

**GOTO PP17**

Coverage: Self report smokers EVER purchasing or usually purchasing their cigarettes over the internet or through the mail

*[added choice of cigarettes (01), or cartons (03) at W3 – July '06; previously included packs only as response 01]*

*[revised skip logic for 02 – 09 at W5 – July 2007 from PO1intro to PP17]*

Young adult smoking cessation

PP17

*[added at W5 – July 2007]*

Have you EVER purchased cigarettes from a non-retail source, such as out of a person's home, out of a person's vehicle, or from someone on the street?

[DO NOT READ]

PROBE: The answers you provide are to be used for research purposes only. They will be kept strictly confidential.

IF ABSOLUTELY NEEDED: “You are free to refuse to answer any of the questions that I ask you”

01 – Yes

02 – No

06 – DK

09 – R

Coverage: Self report smokers

### **POINT OF PURCHASE**

PO1intro

The next questions ask about stores that commonly sell cigarettes such as convenience stores, corner stores, and gas stations.

PO1b (revised PO1 in W6 with “inside” added to question wording)

Over the past 7 days how often have you been INSIDE a convenience store, corner store, or gas station?

PROBE: Did you go INSIDE for ANY reason (if needed: not just to buy cigarettes)?

NOTE: If respondent indicates they have been to a gas station but pay at the pump, code as “Not at all” [READ CATEGORIES 1 – 4]

01 – Not at all

**GOTO DPO6**

02 – One or two days

**GOTO DPO5**

03 – Three to five days OR

**GOTO DPO5**

04 – Six or seven days

**GOTO DPO5**

06 – DK

**GOTO DPO6**

09 – R

**GOTO DPO6**

Coverage: All respondents

*[Revised skip logic for response category 01,06,09 from ESintro to DPO6 at W5 – July 2007]*

*[Revised skip logic for response category 02-04 from PO2 to DPO5 at W5 – July 2007]*

*[Added probe/note at W5 – July 2007]*

*[Added “INSIDE” to question and probe wording in W6 – April 2008; also added interviewer NOTE]*

DPO5

*[added at W5 – July 2007]*

IF (SB1=1 OR SB1=2 OR SB1=3) *[e.day, almost e.day, occasional smokers]*

**THEN GOTO P05**

IF ((SB1=4 AND (SB3a=1 OR SB3a=2)) *[presently “not at all” smoker who smoked in the last month]*

**THEN GOTO P05**

Else GOTO PO2

Young adult smoking cessation

PO5 *[added at W5 – July 2007]*

On how many of these occasions did you purchase cigarettes?

Probe: On how many of your visits to a convenience store, corner store, or gas station in the past 7 days did you purchase cigarettes?

[READ CATEGORIES 1-4]

01 - Not at all

02 - One or two days

03 - Three to five days OR

04 - Six or seven days

06 - DK

09 - R

Coverage: Self-report smokers or those who have smoked at least one cigarette in the past month who have visited a corner store/gas station in the past 7 days

PO2

In the last 7 days, how often did you notice cigarette packs or other tobacco products displayed BEHIND THE COUNTER at convenience stores, corner stores, or gas stations?

Probe: There is a province-wide cigarette retail display ban [that came into force on May 31, 2008, but we are looking to see if people are still seeing cigarette packs or other tobacco products BEHIND the counter at these stores/gas stations.

[READ CATEGORIES 01 - 04]

01 – Never

02 – Sometimes

03 – Most of the time OR

04 – Always

06 – DK

09 – R

Coverage: All respondents who have been to a convenience store, corner store, or gas station in the past 7 days

*[Added probe in W6 – April 2008]*

~~PO3 – ON THE COUNTER~~ *[deleted at W5 – July 2007]*

PO4

Again, in the last 7 days, how often did you notice SIGNS OR POSTERS advertising CIGARETTE BRANDS OR TOBACCO COMPANIES at convenience stores, corner stores, or gas stations?

[READ CATEGORIES 01 - 04]

01 – Never

02 – Sometimes

03 – Most of the time OR

04 – Always

06 – DK

09 – R

Coverage: All respondents who have been to a convenience store, corner store, or gas station in the past 7 days

*[Modified question wording from “...associated with...” to “...advertising...” and stressing CIGARETTE BRANDS OR TOBACCO COMPANIES in W6 – April 2008]*

Young adult smoking cessation

DPO6 *[added at W5 – July 2007]*

IF (SB1=05) OR SB2=2 *[never smoker OR not 100+ cig in lifetime]*

**THEN GOTO ESintro**

*[SRC coding error revised SB1=05 to Q8=non-smoker in W6 from Jan 11/08 to March 25/08]*

IF (SB1=1 OR SB1=2 OR SB1=3) AND SB2=1 AND QB10a ne 05 *[e.day, almost e.day, occasional smokers, 100+ cig who are not in a quit attempt]*

**THEN GOTO P06b**

IF QB10a=05 OR ((SB1=4 AND (SB3a=1 OR SB3a=2)) AND SB2=1) *[current smoker currently in quit attempt OR presently “not at all” smoker who smoked in the last month and 100+ cig]*

**THEN GOTO PO6a**

IF (SB1=4 AND (SB3a=3 OR SB3b<4))

**THEN GOTO PO6a** *[presently “not at all” smoker who smoked >1mon ago]*

PO6a *[added at W5 – July 2007]*

IF SB1=4 and (SB3a=3 OR SB3b<4) SHOW: *[added IF statement Jan 18 '08 – W6]*

“You indicate that you have smoked cigarettes in the past.”

SHOW FOR EVERYONE (original question):

Do you feel that seeing cigarettes in stores makes it a lot harder, somewhat harder, or not hard at all for you to resist buying cigarettes?

PROBE (especially for long time former smokers): We are asking this question because some former smokers are tempted to begin smoking again when seeing cigarettes in stores.

[DO NOT READ]

01 – a lot harder

02 – somewhat harder OR

03 – not hard at all?

06 – DK

09 – R

GOTO ESintro

Coverage: Self-report ‘Not at All’ smokers who have smoked 100+ lifetime cigarettes, or self report smokers in a quit attempt (QB10a=05)

*[probe added at W6 – Jan 18, 2008]*

PO6b *[added at W5 – July 2007]*

If you were going to quit smoking, do you feel that seeing cigarettes in stores would make it a lot harder, somewhat harder, or not hard at all for you to resist buying cigarettes?

[DO NOT READ]

01 – a lot harder

02 – somewhat harder OR

03 – not hard at all?

06 – DK

09 – R

GOTO ESintro

Coverage: Self report smokers (100+ lifetime cigarettes) not in a quit attempt

Young adult smoking cessation

**SECOND-HAND SMOKE**

ESintro

Now I would like to ask you a few questions about smoking in your home, your workplace, and in other places such as restaurants and bars.

ES1

Which of the following best describes the smoking behaviours in your home by the people who LIVE there....

[READ CATEGORIES 1 – 5]

- |  |   |
|--|---|
| 01 - No one smokes anywhere on the property  | <b>GOTO ES1b</b> <i>[revised GOTO at W4]</i>      |
| 02 - No one smokes indoors at all  | <b>GOTO ES1b</b> <i>[revised GOTO at W4]</i>      |
| 03 - People smoke in certain rooms only  | <b>GOTO ES2b</b>                                  |
| 04 – People smoke except when young children are present OR                            | <b>GOTO ES2b</b>                                  |
| 05 - People smoke anywhere in the home   | <b>GOTO ES2b</b>                                  |
| 06 – Both response 3 and 4: People smoke in certain rooms except when children present | <b>GOTO ES2b</b>                                  |
| [DO NOT READ] <i>[response added at W5, July 2007]</i>                                 | <b>GOTO ES2b</b>                                  |
| 07 – DK  | <b>GOTO ES2b</b> <i>[coded as 06 prior to W5]</i> |
| 09 – R   | <b>GOTO ES2b</b>                                  |

Coverage: All respondents

*[skip logic for 01 and 02 response categories were revised to goto the new question below in W4 – Jan 24, 2007; previously went to ES2a]*

*[response category 06 added at W5 – July 2007; response 07 was renumbered in W5 – July 2007]*

ES1b [added in W4 – Jan 24, 2007]

Do you ever allow VISITORS to smoke inside your home?

[DO NOT READ CATEGORIES]

- |         |           |
|---------|-----------|
| 01 – Y  | GOTO ES2a |
| 02 – N  | GOTO ES23 |
| 06 – DK | GOTO ES2a |
| 09 – R  | GOTO ES2a |

Coverage: Respondents who live in homes where inhabitants do not smoke [ES1 = 1,2]

*[revised skip logic for response category 02 from DTY1 to ES23 at W5 – July 2007]*

ES2a

Thinking about *these* REGULAR VISITORS, how often does someone smoke inside your home? Is it...

[READ CATEGORIES 1 – 6]

- |  |                  |
|--|------------------|
| 01 – Daily or almost every day             | <b>GOTO ES23</b> |
| 02 – Three or four times a week            | <b>GOTO ES23</b> |
| 03 – One or two times a week               | <b>GOTO ES23</b> |
| 04 – Less than once a week to once a month | <b>GOTO ES23</b> |
| 05 – Less than once a month OR             | <b>GOTO ES23</b> |
| 06 – Not at all                            | <b>GOTO ES23</b> |
| 07 – DK                                    | <b>GOTO ES23</b> |
| 09 – R                                     | <b>GOTO ES23</b> |

Coverage: Respondents who live in homes where inhabitants do not smoke [ES1 = 1,2] *but allow visitors to smoke inside their home [ES1b = 1,6,9]*

Young adult smoking cessation

*[added "these" to the question wording in W4 – Jan 24, 2007]*

*[revised in W4 – Jan 24, 2007 - coverage restricted to those who allow visitors to smoke inside their home, incl DK/R in ES1b]*

*[GOTO for all response categories revised to ES23 at W5 – July 2007 (previously DTY1)]*

ES2b

Including YOURSELF, family members and regular visitors, how often does someone smoke inside your home? Is it...

[READ CATEGORIES 1 – 5]

01 – Daily or almost every day

02 – Three or four times a week

03 – One or two times a week

04 – Less than once a week to once a month OR

05 – Less than once a month

06 – DK

09 – R

Coverage: Respondents who live in homes where people smoke [ES1 ne 1,2]

~~DTY1, DDTY1, TY1~~

*[deleted at W5, July 2007]*

ES23

*[added to BL only; added at W5 – July 2007]*

In the past 6 months, how often have you noticed any tobacco smoke entering your home from a neighbour, a neighbouring unit or from outside the building?

PROBE: I am referring to ANY second-hand-smoke entering your home from someone who does not live in your home.

[READ CATEGORIES 1-4]

01 – Every day or almost every day

02 – At least once a week

03 – At least once a month

04 – Never or almost never

06 – DK

09 – R

Coverage: All respondents

ES3

Which of the following best describe the behaviours of people smoking in the PRIVATE vehicle you travel in the most?

[READ CATEGORIES 1 – 5]

PROBE: "That is, for everyone that travels in the vehicle"

IF RESPONDENT DOES NOT HAVE A CAR, Probe2: "I am interested to know about the vehicle that you travel in the most"

01 – No one ever smokes

02 – People smoke except when children are present

03 – People smoke when they are the only person in the car

*[revised response 03 at W3]*

04 – People smoke whenever they want OR

05 – I do not travel in a private vehicle [USE PUBLIC TRANSIT]

06 – DK

09 – R

Young adult smoking cessation

Coverage: All respondents

[response category revised at W3–July 2006; was “...smoke except when other adults present”]  
[added probes at W5 – July 2007]

ES4intro

Now I would like to ask about smoking in restaurants, bars and taverns in Ontario.

[Added “...in Ontario” in W4 – Jan 24, 2007]

ES4

How often during the past 6 months did you go to a restaurant? This includes any restaurant with seating, except food courts. Would you say...

[READ CATEGORIES 1 – 5]

Probe: In Ontario, how often did you go to a restaurant in the past 6 months?”

01 – More than once a week **GOTO ES5**

02 – About once a week **GOTO ES5**

03 – One to four times a month **GOTO ES5**

04 – Less than once a month OR **GOTO ES6**

[GOTO changed to response 04 to ES6 from ES5 at W2 – January 2006]

05 – Not at all **GOTO ES6**

06 – DK **GOTO ES5**

09 – R **GOTO ES5**

Coverage: All respondents

[Probe added in W4 - Jan 24, 2007]

ES5

In the past 30 days, have you been INSIDE a restaurant where other people were smoking around you?

Probe: There is a province-wide smoking ban [that came into force on May 31, 2006]; but we are looking to see if people are still being exposed to second-hand-smoke inside.

Probe2: In the past 30 days, have you been inside a restaurant in Ontario where other people were smoking around you?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents who have been to a restaurant in the past 30 days

[Probe added in W3 – July 14/06; stressed INSIDE in question wording at W3]

[Probe2 added in W4 - Jan 24, 2007]

ES14

[NEW at beginning of Wave 3 – July 2006]

In the past 30 days, when you have been to a restaurant, how often were you OUTSIDE on a PATIO?

Would you say...

Probe: Some patios provide heat lamps and other protection to function throughout the year

[READ CATEGORIES 1 – 3]

01 – Most of the time **GOTO ES15**

02 – Some of the time **GOTO ES15**

03 – Not at all **GOTO ES6**

Young adult smoking cessation

06 – DK

**GOTO ES15**

09 – R

**GOTO ES15**

*Coverage: All respondents who have been to a restaurant in the past 30 days*

*[CATI coding error in W5 – July – Sept 30, 2007 those responding 03 were being skipped to DES21; corrected back to ES6 on Oct. 1, 2007]*

*[W6 – Jan '08 – added probe and revised Q from "...did you sit OUTSIDE..." to "...were you..."]*

ES15

*[NEW at beginning of Wave 3 – July 2006]*

In the past 30 days, have you been OUTSIDE on a PATIO of a restaurant where other people were smoking around you?

Probe: Some patios provide heat lamps and other protection to function throughout the year

[DO NOT READ]

01 – Y

02 – N

06 – DK

09 – R

*Coverage: All respondents who have been to a PATIO of a restaurant in the past 30 days*

*[W6 – Jan '08 – added probe]*

ES6

How often during the past 6 months did you go to a bar or tavern? Would you say...

[READ CATEGORIES 1 – 5]

Probe: In Ontario, how often did you go to a bar or tavern in the past 6 months?"

01 – More than once a week

**GOTO ES7**

02 – About once a week

**GOTO ES7**

03 – One to four times a month

**GOTO ES7**

04 – Less than once a month OR

**GOTO DES21** *[revised goto at W5]*

05 – I never go to bars or taverns

**GOTO DES21** *[revised goto at W5]*

06 – DK

**GOTO ES7**

09 – R

**GOTO ES7**

*Coverage: All respondents*

*[Probe added in W4 - Jan 24, 2007]*

*[GOTO for response category 04,05 revised to DES21 (from ES8intro) at W5 – August 1, 2007]*

ES7

In the past 30 days, have you been INSIDE a bar or tavern where other people were smoking around you?

Probe: There is a province-wide smoking ban [that came into force on May 31, 2006]; but we are looking to see if people are still being exposed to second-hand-smoke inside.

Probe2: In the past 30 days, have you been inside a bar or tavern in Ontario where other people were smoking around you?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

*Coverage: All respondents who have been to a bar or tavern in the past 30 days*

*[Probe added in W3 – July 14, 2006]*

Young adult smoking cessation

[Probe2 added in W4 – Jan 24, 2007]

ES16 [NEW at beginning of Wave 3– July 2006]

In the past 30 days, when you have been to the bar or tavern, how often were you OUTSIDE on a PATIO? Would you say...

Probe: Some patios provide heat lamps and other protection to function throughout the year

[READ CATEGORIES 1 – 3]

01 – Most of the time

**GOTO ES17**

02 – Some of the time

**GOTO ES17**

03 – Not at all

**GOTO DES21** [revised GOTO at W5]

06 – DK

**GOTO ES17**

09 – R

**GOTO ES17**

Coverage: All respondents who have been to a bar or tavern in the past 30 days

[GOTO for response category 03 revised to DES21 (from ES8intro) at W5 – August 1, 2007]

[W6 – Jan '08 – added probe and revised Q from "...did you sit OUTSIDE..." to "...were you..."]

ES17 [NEW at beginning of Wave 3– July 2006]

In the past 30 days, have you been OUTSIDE on a PATIO of a bar or tavern where other people were smoking around you?

Probe: Some patios provide heat lamps and other protection to function throughout the year

[DO NOT READ]

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents who have been to a PATIO of a bar or tavern in the past 30 days

[W6 – Jan '08 – added probe]

DES21 [added to BL only; added at W5 – July 2007]

IF (SB1=1 OR SB1=2 OR SB1=3) [e.day, almost e.day, occasional smokers]

THEN GOTO ES8intro

If ES4=05 AND ES6=05 [did not go to restaurant/bar in past 6 months]

THEN GOTO ES8intro

Else GOTO ES21 [non-smokers who frequent bars/restaurants]

ES21 [added to BL only; added at W5, July 2007]

In the past 6 months, did you decide NOT to sit on a restaurant or bar patio because people were smoking there?

Probe: Some patios provide heat lamps and other protection to function throughout the year

NOTE: if necessary, remind respondent: "In the past 6 months..."

[DO NOT READ]

01 – yes

02 – No

06 – DK

09 – R

Coverage – Former smokers (1+ mon) or self-report non-smokers who frequented bars/restaurants in the past 6 months

[W6 – Jan '08 – added probe and interviewer note]

Young adult smoking cessation

ES8intro

Now I am going to ask you some questions about smoking at your workplace or job.

ES8

First, do you work for pay outside your home?

[DO NOT READ]

01 – Y

**GOTO ES9**

02 – N

**GOTO ES18** [new GOTO at W4]

03 – Do not work for pay

**GOTO ES18** [new GOTO at W4]

06 – DK

**GOTO ES18** [new GOTO at W4]

09 – R

**GOTO ES18** [new GOTO at W4]

Coverage: All respondents

[changed skip logic for response categories 02-09 at W4 – Jan '07 - for new ES questions; previously skipped to TYintro now to ES18]

ES9

When you are at work, where do you spend most of your time? Are you ...

[READ CATEGORIES 1 – 3]

01 – Mainly indoors

**GOTO ES10a**

02 – Mainly in a vehicle OR

**GOTO ES10c**

03 – Mainly outdoors

**GOTO ES10a**

[GOTO for response 03 changed to ES10a from ES10b at W3 (July06)–now ask indoor/outdoor]

04 – Equally indoors and outdoors [DO NOT READ]

**GOTO ES10a**

05 – equally indoors and in a vehicle [DO NOT READ]

GOTO ES10a [added at W5]

06 – DK

**GOTO ES11**

09 – R

**GOTO ES11**

Coverage: All respondents who work outside the home

[response category 05 added at W5 – July 2007]

ES20a (Revised wording and variable name from ES10a in Wave 3 – July 2006)

Which of the following describes the policy on smoking INDOORS where you work?

Probe: There is a province-wide smoking ban [that came into force on May 31, 2006]; but not all indoor workplaces are covered.

Probe2: For example, hotel rooms

[READ CATEGORIES 1-4]

01 - smoking is allowed anywhere indoors;

02 - smoking is allowed only in certain areas indoors;

03 - smoking is not allowed anywhere indoors OR

04 - there are no specific rules or policies for smoking indoors

05 – Do not work indoors [DO NOT READ] [response 05 added in W4 – Jan 24/07]

06 - DK

09 - R

Coverage: All respondents who spend the majority of their time at work indoors or outdoors

(ES9=1,3,4)

[Probes added at W3 – July 14, 2006; also added "...INDOORS..." to question wording in W3]

[W3 – July 2006: Response categories modified from previous Waves to be specific to indoors; SEE PREVIOUS SURVEYS]

Young adult smoking cessation

*[Revised coverage at W3 – July 2006 – to include all indoor and outdoor workers; all respondents sent to ES10b at W3 (July 06) instead of ES11 as in previous surveys]*

*[W4 – Jan 24, 2007 – added response category 05]*

**IF ES9=05 GOTO ES10c**

*[added IF statement at W5 – July 2007]*

**ELSE GOTO ES20b**

ES20b (Revised wording and variable name from ES10b in Wave 3 – July 2006)

Which of the following describes the policy on smoking OUTDOORS where you work?

[READ CATEGORIES 1-4]

01 - smoking is allowed anywhere outdoors on the property

02 - smoking is allowed only in certain areas outdoors on the property; [W3–revised from “...areas outside”]

03 - smoking is not allowed anywhere on the property

04 - there are no specific rules or policies for smoking outdoors

06 - DK

09 - R

Coverage: All respondents who spend the majority of their time at work indoors or outdoors

*(excludes those who work “mainly indoors and in a vehicle”) (ES9=1,3,4)*

*[W3 – July 2006: Response categories modified from previous Waves to be specific to outdoors (SEE PREVIOUS SURVEYS); underlined text was added to response categories]*

*[Revised coverage at W3 – July 2006 – to include all indoor and outdoor workers; W5 – July 2007 – added exclusion]*

ES22

*[added at W5 – July 2007]*

Is smoking allowed around doorways to your workplace?

[DO NOT READ]

01 – Yes

02 – No

06 – DK

09 – R

**GOTO ES11**

Coverage: Respondents who work mainly indoors or outdoors (however, CATI code excluded those who work “mainly indoors and in a vehicle”)

ES10c

Which of the following describes the policy or rules on smoking inside the vehicle in which you work?

[READ CATEGORIES 1 – 3]

01 – Smoking is allowed inside the vehicle;

**GOTO ES11**

02 – Smoking is not allowed inside the vehicle OR

**GOTO ES11**

03 – There are no specific rules or policies

**GOTO ES11**

06 – DK

**GOTO ES11**

09 – R

**GOTO ES11**

Coverage: All respondents who work mainly in a vehicle or those who work “mainly indoors and in a vehicle”

*[W5 – July 2007 – added those who work “indoors and in a vehicle”]*

Young adult smoking cessation

ES11

In the past 30 days, have you been exposed to other people's smoke at work?

Probe: There is a province-wide smoking ban [that came into force on May 31, 2006]; but not all workplaces are covered.

Probe2: For example, outdoor workplaces and some indoor workplaces like hotel rooms

[DO NOT READ]

01 – Y

02 – N

03 – *Do not work*

06 – DK

09 – R

Coverage: All respondents who work outside home

[Probes added at W3 – July 14, 2006]

ES18

[NEW AT W4 – Jan '07]

In the past 30 days, have you been exposed to other people's smoke in ANY INDOOR public place, OTHER than your workplace, or in bars or restaurants? [for those who work outside the home and have been to bar/restaurant in past month]

IF (ES8intro=2 or 3) AND ((ES4 NE 4 | ES4 NE 5) AND (ES6 NE 4 | ES6 NE 5)) [do NOT work outside the home and have been to bar/restaurant in past month]

THEN SHOW: "OTHER than in bars or restaurants?"

IF (ES8intro=1 or 6 or 9) AND (ES4=4 or 5) AND (ES6=4 or 5) [work outside the home but have NOT been to bar/restaurant in past month]

THEN SHOW: "OTHER than your workplace?"

IF (ES8intro=2 or 3) AND (ES4=4 or 5) AND (ES6=4 or 5) [do NOT work outside the home and have NOT been to bar/restaurant in past month]

THEN ONLY SHOW: "...public place?"

PROBE: For example, in a sport complex or concert hall

PROBE2: "By being exposed, I mean even just noticing someone else's tobacco smoke"

NOTE: Outdoor enclosed spaces are outdoors unless there is a door that physically separates the two environments

IF NEED TO DEFINE INDOOR/OUTDOOR: "Does the [bus shelter/building/etc] have a door that closes completely? If yes, then "indoor", if no, then "outdoor"

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents

[added probe2 and definition at W5 – July 2007]

[added differential question wording (for underlined text in original Q) based on answers to previous questions at W6 – Jan '08]

Young adult smoking cessation

ES19

[NEW AT W4 – Jan '07]

In the past 30 days, have you been exposed to other people's smoke in ANY OUTDOOR public place, OTHER than your workplace, or on patios of bars or restaurants? [for those who work outside the home and have been to bar/restaurant in past month]

IF (ES8intro=2 or 3) AND ((ES4 NE 4 | ES4 NE 5) AND (ES6 NE 4 | ES6 NE 5)) [do NOT work outside the home and have been to bar/restaurant in past month]

THEN SHOW: "OTHER than on patios of bars or restaurants?"

IF (ES8intro=1 or 6 or 9) AND (ES4=4 or 5) AND (ES6=4 or 5) [work outside the home but have NOT been to bar/restaurant in past month]

THEN SHOW: "OTHER than your workplace?"

IF (ES8intro=2 or 3) AND (ES4=4 or 5) AND (ES6=4 or 5) [do NOT work outside the home and have NOT been to bar/restaurant in past month]

THEN ONLY SHOW: "...public place?"

PROBE: For example, in a park, or on the sidewalk

PROBE2: "By being exposed, I mean even just noticing someone else's tobacco smoke"

NOTE: Outdoor enclosed spaces are outdoors unless there is a door that physically separates the two environments

IF NEED TO DEFINE INDOOR/OUTDOOR: "Does the [bus shelter/building/etc] have a door that closes completely?: If yes, then "indoor", if no, then "outdoor"

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents

[added probe2 and definition at W5 – July 2007]

[added differential question wording based on answers to previous questions at W6 – Jan '08]

TYintro

Now I would like to ask you about your general opinions on smoking

## **TYOLOGY**

~~TY2 (enough controls on smoking)~~

DELETED AT W5 – JULY 2007

TY3

Restrictions should be increased to help smokers quit. Do you...

[READ CATEGORIES 1 – 4]

01 – Strongly agree

02 – Somewhat agree

03 – Somewhat disagree OR

04 – Strongly disagree

06 – DK

09 – R

Coverage: All respondents

~~TY4 (restrictions have gone too far)~~

DELETED AT W5 – JULY 2007

Young adult smoking cessation

DTY5

IF (SB1=1 OR SB1=2 OR SB1=3) AND SB2=1 [*e.day, almost e.day, occasional smokers, 100+ cig*]

**THEN GOTO TY6** [*revised GOTO at W5 – July 2007 – from TY5*]

IF (SB1=4 AND (SB3a=1 OR SB3a=2)) AND SB2=1

**THEN GOTO TY6** [*presently “not at all” smoker who smoked in the last month and 100+*] [*revised GOTO at W5 – July 2007 – from TY5*]

IF (SB1=4 AND (SB3a=3 OR SB3b<4)) OR SB2=2

**THEN GOTO TY8** [*presently “not at all” smoker who smoked >1mon ago OR not 100+*]

IF (SB1=05)

[*never smoker*]

**THEN GOTO TY8**

~~TY5 (smoking around non-smokers)~~

DELETED AT W5 – JULY 2007

TY6

Do you care if most people know you smoke?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Current or self report smokers (100+ cig in lifetime)

~~TY7 (you enjoy smoking)~~

DELETED AT W5 – JULY 2007

TY8

Everything possible should be done to reduce smoking. Do you...

[READ CATEGORIES 1 – 4]

01 – Strongly agree

02 – Somewhat agree

03 – Somewhat disagree OR

04 – Strongly disagree

06 – DK

09 – R

Coverage: All respondents

DTY9

IF (SB1=1 OR SB1=2 OR SB1=3) AND SB2=1

[*e.day, almost e.day, occasional smk, 100+*]

*cig*]

**THEN GOTO TIntro**

IF (SB1=4 AND (SB3a=1 OR SB3a=2)) AND SB2=1

[*presently “not at all” smk who smoked <1*]

*month ago and has smoked 100+ cig in lifetime*]

**THEN GOTO TIntro**

~~TY9 (ask someone not to smoke in your home)~~

DELETED AT W5 – JULY 2007

Young adult smoking cessation

TY10

How easy or difficult would it be for you to ask someone not to smoke in a non-smoking area?

[READ CATEGORIES 1 – 5]

01 – Very easy

02 – Somewhat easy

03 – Somewhat difficult

04 – Very difficult OR

05 – You wouldn't ask

06 – DK

09 – R

Coverage: Self-report 'Not at All' smokers that have not smoked in the past month, Never smokers, or those who have not smoked 100+ lifetime cigarettes

~~TY11 (make a face, coughing sound, etc.)~~ DELETED AT W5 – JULY 2007

~~TY12 (approach person smoking where not allowed)~~ DELETED AT W5 – JULY 2007

~~TY13~~ DELETED AT W4 – JAN 2007

~~TY14\_REVISIED (sit in smoking area of restaurant)~~ DELETED AT W5 – JULY 2007

## **TOBACCO INDUSTRY**

TIintro

Now I would like to ask you about advertising of tobacco products.

*[W4 (Jan 24/07) deleted "...a few questions..." from the intro above as some respondents only get one question]*

*[W5 – July 2007 – revised "...events sponsored by tobacco companies" to "...advertising of tobacco products"]*

TI4 *[added at W5 – July 2007]*

Have you seen any advertising of tobacco products in the last 30 days: in Canadian newspapers or magazines? Canadian magazines are those that focus on Canadian people or stories such as MacLeans, Chatelaine, Flare and Readers' Digest. *[modified Question on July 18<sup>th</sup> with specific info for CDN magazines]*

NOTE: See help for sample list of Canadian magazines *[Help screen added July 17/07]*

[DO NOT READ]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: All respondents

TI5 *[added at W5 – July 2007]*

Have you seen any advertising of tobacco products in the last 30 days: in Canadian buses or subway stations or on outdoor billboards?

[DO NOT READ]

Young adult smoking cessation

01 – Yes

02 – No

06 – DK

09 – R

Coverage: All respondents

~~TI1, TI2, TI3~~

*[DELETED AT W5 – July 2007]*

HELP:

Canadian Magazines (NOT a complete list)

7 Jours/TV 7 Jours

Canadian Living

Coup de Pouce

Financial Post Magazine

Harrowsmith

Homemaker's/Madame au Foyer

Le Lundi

Reader's Digest

Saturday Night

The Medical Post

TV Guide

Western Living

Canadian Business

Chatelaine

Elle Québec

Frank Magazine

Hockey News

L'Actualite

Macleans

Report on Business Magazine

Selection du Reader's Digest

Toronto Life

TV Hebdo

## **MASS MEDIA**

MM1Intro

Now I want to ask you about the media more generally.

MM1

First, thinking about news stories related to smoking or tobacco companies that might have been on TV, radio, or in the newspapers. In the past 30 days, that is since [ANCHOR] how often have you seen or heard a news story about smoking?

[READ CATEGORIES 1 – 4]

01 – Never

02 – Sometimes

03 – Often OR

04 – Very often

05 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

[THE MASS MEDIA QUESTIONS CHANGE THROUGHOUT THE WAVES AS THE CURRENT CAMPAIGNS AND SLOGANS CHANGE]

Young adult smoking cessation

MM2INTRO

The next several questions are about anti-smoking advertisements. In the past 30 days, have you seen any anti-smoking advertisement or campaign taking place in Ontario with the following themes or slogans:

MM2

An ad about stop smoking medications like the patch or gum?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

*Deleted in W6- January 2008 - MM3, MM7, MM8, MM13, MM12*

MM4 *[MM4 deleted during W2, February 1, 2006: Ad about a former waitress...support SFO]*

MM5 *[MM5 deleted during W2, May 1, 2006: Ad about Bob...]*

MM6 *[MM6 deleted during W2, February 1, 2006: smoke-rings]*

MM9 *[MM9 deleted at W4, January 5, 2007: Heather Crowe ad (was added during W2, May 1/06)]*

MM10

*[false MM question added at W3 July 2006]*

An ad showing a young child using alphabet blocks to spell out the names of health problems associated with smoking?

INTERVIEWER NOTE: if necessary, remind respondent “IN THE PAST 30 DAYS...”

[DO NOT READ CATEGORIES]

01 – Y

02 – N

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

*[Interviewer note added in W4 – Jan 24/07]*

MM11 *[MM11 deleted at W4, January 5, 2007: support for Ontario smoking ban (was added during W2, June 2/06)]*

MM15

*[Added during W4 – April 27, 2007]*

An ad where a boy passes his dad a CD with a recorded message encouraging his dad to quit smoking?

INTERVIEWER NOTE: if necessary, remind respondent “IN THE PAST 30 DAYS...”

[DO NOT READ CATEGORIES]

01 – Y

02 – N

Young adult smoking cessation

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

MM16

*[added in W6 – Mar 6, 2008]*

An ad where smokers talk about craving cigarettes, how hard it is to quit, and subsequent weight gain. Sick people counter each comment with statements about their tobacco-related illnesses such as the patient who needs oxygen and the cancer patient who has lost 25 pounds.

[PROBE:] If necessary, remind respondent: "IN THE PAST 30 DAYS..."

[DO NOT READ CATEGORIES]

01 - Yes

02 - No

03 - Do not watch TV/read newspaper

06 - Don't Know

09 - Refused

Coverage: All respondents

MM14

*[Added W4 – Jan 24/07; Deleted W5 – July 2007; added back W6- Jan 23, 2008]*

Have you seen or heard of radio or newspaper ads for the 2008 Driven to Quit Challenge, sponsored by the Canadian Cancer Society?

Probe: The Driven to Quit Challenge is a quit smoking contest for the month of March.

INTERVIEWER NOTE: if necessary, remind respondent "IN THE PAST 30 DAYS..."

[DO NOT READ CATEGORIES]

01 – Y

02 – N

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

*["Interviewer Note" added in W4-Jan 24/07]*

## **DEMOGRAPHICS**

DEintro:

Finally, these last questions are for classification purposes only.

DE1

First, in what year were you born?

[DO NOT READ CATEGORIES]

01 - \_\_\_\_\_ ENTER YEAR [DE1yr range: 1900-1990]

02 – DK

03 – R

Coverage: All respondents

**GOTO DE2**

**GOTO DE1a**

**GOTO DE1a**

Young adult smoking cessation

DE1a

Ok, can you tell me to which age group you belong? Are you...

[READ CATEGORIES 1-6]

01 – 18 – 24

02 – 25 – 34

03 – 35 – 44

04 – 45 – 54

05 – 55 – 64 OR

06 – 65 years of age and over

07 – DK

09 – R

Coverage: Respondents who refuse to give year of birth

DE2

What is the highest level of education you have completed?

[DO NOT READ CATEGORIES]

01 – No schooling

02 – Some elementary

03 – Completed elementary

04 – Some secondary

05 – Completed secondary

06 – Some community college, CEGEP or nurse's training

07 – Completed community college, CEGEP or nurse's training

08 – Some university or teacher's college

09 – Completed university or teacher's college

10 – Other education or training

66 – DK

99 – R

Coverage: All respondents

*[W6 – Jan '08 - asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews. If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]*

DE9

*[added at W5 – July 2007]*

How would you describe your sense of belonging to your local community? Would you say:

PROBE: How strongly do you feel that you are part of your local community?

[READ CATEGORIES 01 – 04]

01 – Very strong,

02 – Somewhat strong,

03 – Somewhat weak, OR

04 – Very weak

06 – DK

09 – R

Coverage: All respondents

Young adult smoking cessation

DDE3

*[W3 – Oct 20/06 – revised decision from: IF Q8 = 1 AND (SB1=1 OR SB1=2 OR SB3a =1 OR SB3a = 2) to new code to ensure we do not miss respondents]*

IF !QB5=0 *[response to “health” question asked earlier]*

**THEN GOTO DE4**

ELSE GOTO DE3

DE3

In general, would you say your health is:

[READ CATEGORIES 1 – 5]

01 – Excellent

02 – Very good

03 – Good

04 – Fair OR

05 – Poor

06 – DK

09 – R

*Coverage: Self-report ‘not at all’ smokers who smoked in the past 30 days, former (30days +) and non-smokers*

*[Note: The question coverage identifies former and non-smokers. To obtain information for all respondents, self report smokers are asked an equivalent question earlier in this survey (see QB5 for equivalent question)]*

DE4

At present are you married, living with a partner, widowed, divorced, separated, or have you never been married?

[READ CATEGORIES IF NECESSARY]

01 – Married or living with a partner

02 – Widowed

03 – Divorced

04 – Separated

05 – Never been married

06 – DK

09 – R

*Coverage: All respondents*

*[W6 – Jan ’08 - asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews. If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]*

DE10

*[added to BL only; added at W5 – July 2007]*

Which of the following best describes your main residence?

[READ CATEGORIES 1-4]

01 – A detached, single family home

02 – An attached house such as a townhouse, or a semi-detached house.

03 – A multiple unit dwelling, such as an apartment building, a condominium apartment, or a duplex

04 – Shared accommodation, such as a rooming house, dorm, or retirement home

05 – Other specify

06 – DK

Young adult smoking cessation

09 – R

Coverage: All respondents

DE11

*[added to BL only; added at W5 – July 2007]*

Is this residence owned by yourself or a member of your household?

[DO NOT READ]

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents

DE12

*[added W6, Jan '08]*

If ES8intro=1 show:

Earlier you reported that you work for pay outside your home. Are you presently working for pay in a full-time or in a part-time job?

Else show:

Are you presently working for pay in a full-time or in a part-time job, are you unemployed, retired, a homemaker, a student, or something else?

[DO NOT READ]

01 – full-time job, including those on vacations, pregnancy leave, illness or other types of leave from work

02 – part-time job

03 – two or more jobs

*[added on W6 – March 25,2008]*

04 – unemployed

05 – retired (includes retired and working part-time)

06 – homemaker

07 – student (includes students working part-time)

08 – self-employed

09 – disability (not returning to work)

*[added on W6 – March 25<sup>t</sup>,2008]*

10 – other [specify]

*[recoded from 09 to 10 March 25, 2008]*

66 – DK

99 – R

Coverage: All respondents

*[Modifications made in W6 – March 25, 2008 – to improve clarity of questions; was modelled from CAMH Monitor and they made similar edits to their survey; some response categories recoded]*

DDE5 (deleted at W6 as additional questions were added – now one question DE5b)

DE5a (deleted at W6 for single question only – DE5b)

DE5b

How many children under 18 years of age live in your household?

[DO NOT READ CATEGORIES]

01 - \_\_\_\_\_ Enter number [DE5num range: 0-15]

02 – DK

03 – R

Coverage: All respondents

Young adult smoking cessation

[W6 – Jan 2008 – changed coverage to include all respondents; previously DE5a and DE5b for all respondents]

DE14 [added at W6, Jan '08]  
Including yourself, how many people in your household smoke cigarettes?  
[DO NOT READ CATEGORIES]  
01 - \_\_\_\_ Enter number [DE14num range: 0-15]  
06 – DK  
09 – R

Coverage: All respondents

[W6 – Jan '08 - asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews. If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]

DDE6 [moved/modified DDE5 at W6, Jan '08]  
IF (Consents = 01 | (Consents = 02 & (Q12 = 03 | Q12a = 02))) [consented at recruitment where asked address at end of survey or at recruitment did not provide address]  
THEN GOTO DE6  
IF (Consents = 02) [scheduled callback – address provided at recruitment]  
THEN GOTO COMMENTS  
IF (Consents=09 & Q11a=3) [initial refusal but converted by scheduling callback (and address on file)]  
GOTO COMMENTS  
IF (Consents=09 & Q11a=1) [initial refusal but converted and completed interview at time of conversion (no address on file)]  
GOTO DE6

DE6  
Finally, in order for us to send you payment for this survey, can you tell me your name, address and postal code where you receive your mail?  
PROBE: This is a UNIVERSITY based research study. Your answers to this survey will be kept absolutely confidential. All personal information, including your name and address, will be kept strictly confidential and will not be shared with any person or group that is not associated with this survey.

[MAKE SURE THAT SPELLING IS CORRECT—REPEAT BACK TO RESPONDENT TO CHECK]

01 – SPECIFY ADDRESS: \_\_\_\_\_ **GOTO DEFNAME**  
02 – NO **GOTO DE7INTRO**  
Coverage: All respondents

DE7INTRO  
Without this information, we are unable to send you the \$15 honourarium for participation in this survey.  
01 – Respondent offers FULL address, Enter address **GOTO DEFNAME**  
02 – Respondent does NOT offer FULL address **GOTO DE7**

Young adult smoking cessation

DE7

Can you just tell me your postal code?

[PROBE: This information will be used for regional classification purposes only]

01 - \_\_\_\_\_ ENTER 6-DIGIT POSTAL CODE **GOTO DEPCconf**

06 – DK **GOTO DE8**

09 – No/R **GOTO DE8**

Coverage: Respondents who do not want to provide full address

DE8

Would you be willing to provide me with the first 3 digits of your postal code?

PROBE: As a reminder, this information will be kept completely confidential and will not be shared with any person or group that is not associated with this survey. This information will be used to help us understand regional differences in behaviours and beliefs related to tobacco.

01 - \_\_\_\_\_ ENTER 3-DIGIT POSTAL CODE **GOTO DEPCconf**

06 – DK **GOTO DDEID1**

09 – No/R **GOTO DDEID1**

Coverage: Respondents who do not want to provide full postal code

DEFNAME – DEPCconf

DDEID1

*[Added W2 – Jan 2006]*

IF ERROR=1 THEN GOTO COMMENTS

IF STAT1 = RECENT SMOKER & DE7INTRO = 02

THEN GOTO DEID1

ELSE GOTO DCONFIRM (ID1=01)

DEID1

*[Added W2 – Jan 2006]*

Can you please provide us with something that uniquely identifies you so that when we call back we will be able to reach you? For example, just your first name, a nickname or your initials? .

01 – enter name/initials [DEID1txt] **GOTO DCONFIRM**

02 – R **GOTO DCONFIRM**

DCONFIRM

IF (ERROR=1)

**THEN GOTO COMMENTS**

IF STAT1 = RECENT SMOKER

**THEN GOTO DEACONT**

IF STAT1 = NON-SMOKER

**THEN GOTO COMMENTS**

Q.DEAcont

Is there an alternate number that you can also be reached at?

01 - Yes [Enter: DEAltnum (###) ### - #####]

02 – No **GOTO COMMENTS**

Young adult smoking cessation

EDAlt\_ex *[added at beginning of W2 – Jan '06]*

“Extension” – enter [altnum\_ext]: \_\_\_\_

#### COMMENTS

If respondent would like to provide comments, enter them here. Interviewer - Do not ask respondent if they have any comments.

DEND

IF (error = 1)

**THEN GOTO Q.END\_ERR**

ELSE

**THEN GOTO Q.DEND**

Q.END\_ERR

Thank you very much for participating in this survey.

You should receive your cheque within a few days.

If you would like any more information about this project,  
you can phone us at our toll free number 1-866-303-2822.

Goodbye.

Q.DEND

IF STAT1 = RECENT SMOKER

**THEN GOTO Q\_Close2**

IF STAT1 = NON-SMOKER

**THEN GOTO Q\_Close1**

Q\_Close1 (cross-sectional participants)

Thank you very much for participating in this survey. You should receive your cheque within a few days. If you would like any more information about this project, you can phone us at our toll free number 1-866-303-2822. Goodbye.

THANK AND TERMINATE

Q\_Close2 (longitudinal participants)

Thank you very much for participating in this survey. You should receive your cheque within a few days. We will contact you again in approximately 6 months time. If you would like any more information about this project, you can phone us at our toll free number 1-866-303-2822. Goodbye.

THANK AND TERMINATE

A7. [POSTAL CODE]

A8. [INTERVIEW COMPLETION TIME: HH:MM]

A9. [SURVEY LENGTH]

A11. [Q2num]

**Appendix B**  
**Ontario Tobacco Survey Follow-up Questionnaire**

Wave 7:

July – December 2008

Young adult smoking cessation

**ADMINISTRATIVE**

A1 X. [ID NUMBER]

A2. X [INTERVIEW DATE: MMM/DD/YYYY]

A3. X [INTERVIEW START TIME: HH:MM]

A4 X. [CALL NUMBER] (documenting A1 – A4 for each attempted call)

A5 X. [DISPOSITION CODE]

A6 X. [WAVE NUMBER]

A10 X [FOLLOW-UP NUMBER]

**RECRUITMENT**

*[“Alt” code is being added to provide appropriate scripting for interviewers when we have had to look up alternate numbers for a participant who is not reachable by the number used 6 months ago. “Alt” is repeated for each alternate number we try for a given longitudinal participant. Added December 2005]*

**Q:Alt1**

Alternate Number:

Last Call Outcome:

Message:

Hello, may I please speak with [RESPONDENT’S NAME]?

*[W5 – July 2007 – changed “our” to “an” academic survey...]*

If respondent reached, follow with:

Hello, my name is \_\_\_\_\_ and I am calling from the University of Waterloo. We are looking for the [RESPONDENT’S NAME], who took part in an academic survey approximately six months ago. Would that be you?

NOTE: underlined text changes depending on the respondent and previous interviews: if they missed ONE prior interview then CATI shows “...one year ago.”; if they missed 2 consecutive follow-up interviews, CATI shows ‘...one and a half years ago.’

If respondent is not the correct person, code as 03 Wrong Number

Enter call outcome:

01 Respondent reached - proceed with interview	GOTO Q4ea_X
02 No answer/Answering Machine	Callback
03 Busy	Callback
04 Not available	Callback
05 Wrong Number	try next alternate ph#
06 Not in service	try next alternate ph#
07 Other	

**Q.Alt2 – Q.Alt5** (repeat of Q.Alt1 for each alternate number we have for the respondent)

Coverage: Respondents who we are no longer able to contact via their recorded phone number and alternate numbers are checked (i.e. 411).

Young adult smoking cessation

**Q:Alt\_d** [Assign disposition for unreachable respondent with alternate numbers]

Respondent Name:

Message:

01 - NIS: Alternate numbers - no response

02 - Moved: Alternate numbers - no response

03 - Wrong Number: Alternate numbers - no response

**Q1f\_X**

Hello, my name is \_\_\_\_\_ and I am calling from the University of Waterloo. Approximately six months ago an adult in your household took part in our ongoing academic survey. Would that be you?

01 – Yes

GOTO Q4ea\_X

02 – No

GOTO Q1g\_X

06 – DK

GOTO Q1g\_X

09 – R

[Thank and terminate (CALL

BACK)]

Coverage: Respondents/households who did not provide their name at baseline/previous interview

NOTE: underlined text changes depending on the respondent and previous interviews: if they missed ONE prior interview then CATI shows “...one year ago.”; if they missed 2 consecutive follow-up interviews, CATI shows ‘...one and a half years ago.’

**Q1g\_X**

I would like to speak with the adult in your household who participated in our survey. We would have spoken to the person whose birthday is closest to [BASELINE SURVEY DATE]. Would it be possible to speak with them now?

PROBE IF RESPONDENT IS NOT SURE: “Can I speak with another adult in the household to see if they participated in our study?”

01 – Yes, Respondent is available

GOTO Q1f\_X

02 – Respondent is NOT available

GOTO Q4d\_X

03 – Unknown respondent (the person on the phone does not know who the participant could be)

Thank and terminate (Call Back)

“Thank-you, we will try back another time”

04 – No (proxy refusal)

GOTO Q4c\_X

Coverage: Respondents/households who did not provide their name at baseline/previous interview

**Q4c\_X**

[W5 – July 2007 – removed “This is an important research survey and ...”]

Their responses are important as we are speaking to the same people a number of times to better understand changes over time in attitudes, behaviours and beliefs. We will be reimbursing them for their time. Could we call back to ask them if they participated in our study?

[DO NOT READ]

01 – Yes

GOTO Q4d\_X

02 – No

Thank and Terminate (Call back)

Coverage: Refusal by proxy to speak to adult who may have participated in the baseline survey 6 months ago; for respondents/households who did not provide their name at baseline/previous interview

Young adult smoking cessation

**Q4d\_X**

When can I call back to speak to that person?

[DO NOT READ]

01 – Make callback. “Could you please tell me their name so that I know who to ask for?”

[enter Contact Name] RECORD CALLBACK INFO AND TERMINATE

02 – Refuse Thank and Terminate (Call back at a later date)

IF (Q4d\_X=02 & (Q4c\_X=01 | Q4c\_X = 02)) Thank and Terminate

ELSE IF Q4d\_X=02 GOTO Q4c\_X

Coverage: Respondents/households who did not provide a name at baseline/previous interview

**Q1\_X**

Hello, may I please speak with [RESPONDENT FIRSTNAME LASTNAME]?

IF NON-COMPREHENDING ADULT/LANGUAGE PROBLEM, REPEAT

01 – Yes	GOTO Q2_X
02 – No, he/she is not available	GOTO Q1d_X
03 – Respondent answers phone	GOTO Q4ea_X
04 – Child	GOTO Q1b_X
05 – Language barrier/misunderstanding	TERMINATE CALL, RETURN NUMBER TO QUEUE
06 – No/Respondent refuses OR asks who is calling	GOTO Q1e_X
07 – Wrong number	Thank and Terminate
08 – Respondent has moved	Thank and Terminate
09 – Other	GOTO other_X

Coverage: All Respondents (for recorded phone number and recorded name of participant)

**Q1b\_X**

Can I please speak with an adult?

01 – Y	GOTO Q1c_X
02 – No / Non-responsive	[THANK AND TERMINATE (CALL BACK)]
09 – Refuse	[THANK AND TERMINATE (CALL BACK)]

Coverage: Child answers phone

**Q1c\_X**

Hello, may I please speak with [RESPONDENT FIRSTNAME LASTNAME]?

01 – Yes	GOTO Q2_X
02 – No, he/she is not available	GOTO Q1d_X
03 – Respondent answers phone	GOTO Q4ea_X
04 – No/Respondent refuses	GOTO Q1e_X
05 – Wrong number	Thank and Terminate
06 – Respondent has moved	Thank and Terminate
07 – Other	GOTO other_X

Coverage: Adult comes to phone

Young adult smoking cessation

**Q1d\_X**

Thank you, when would be a better time to call back to reach them?

01 – Y [provide time]

GOTO CBACKc\_X

02 – N [no time provided]

[Thank and terminate (CALL BACK)]

Coverage: Participant not available

**Q1e\_X**

[W5 – July 2007 – added ...an “ongoing” academic survey; removed “This is an important research survey and ...”]

My name is \_\_\_\_\_ and I am calling from the University of Waterloo. Approximately six months ago, [RESPONDENT FIRSTNAME] agreed to take part in an *ongoing* academic survey.

We need to speak directly with [RESPONDENT FIRSTNAME]. When would be a better time to call back to reach them?

[DO NOT READ]

01 – Yes, call back

GO TO CBACKc\_X

02 – Respondent is available

GOTO Q2\_X

03 – No/Refusal

[Thank and terminate (CALL BACK)]

04 – Other

GOTO other\_X

Coverage: PKU refuses for participant or asks who is calling

If Necessary, See Q.HELP for additional background information.

NOTE: underlined text changes depending on the respondent and previous interviews: if they missed ONE prior interview then CATI shows “...one year ago.”; if they missed 2 consecutive follow-up interviews, CATI shows ‘...one and a half years ago.’

other\_X

"Other Disposition"

Thank and terminate

**Q2\_X**

Thank you. [WAIT FOR RESPONDENT. GOTO Q4ea\_X]

**Q4ea\_X**

[italicized words added at W3 – July 2006]

[deleted specific references to “the third and final...” at W5 – July 2007 for additional F.Ups; added “...and you agreed to take part in several follow-up surveys.”]

Hello [RESPONDENT FIRSTNAME]. My name is \_\_\_\_\_ and I am calling from the University of Waterloo on behalf of the Ontario Tobacco Research Unit, an ACADEMIC research network at the University of Waterloo and University of Toronto.

About six months ago, you completed a follow-up survey of *recent* smokers in Ontario, and you agreed to take part in *several* follow-up surveys. This follow-up survey should take approximately **20** minutes.

Coverage: Participant comes to phone

IF (ADDRESS = “ ” ) GOTO Q4i\_X

[W6 – Jan ’08: modified survey time from 25 min to 20 min]

NOTE: Length of time (underlined text) changes depending on the respondent and previous interviews: if they missed ONE prior interview then CATI shows “...one year ago.”; if they missed 2 consecutive follow-up interviews, CATI shows ‘...one and a half years ago.’

Young adult smoking cessation

**Q4eb\_X**

Recently, you should have received a letter saying that I would be calling along with a \$15 cheque to thank you for your continued participation.

Did you receive the letter and the cheque?

01 – YES

GOTO Q4g\_X

02 – NO [ADDRESS ON FILE]

GOTO Q4h\_X

Coverage: Respondents with address on file

**Q4g\_X**

As with the last survey, your answers to this survey will be kept absolutely confidential. All personal information, including your name and address, will be kept strictly confidential and will not be shared with any person or group that is not associated with this survey.

Participation is voluntary and you may stop at any time.

Is now a good time to start the survey?

[DO NOT READ]

01 – YES

GOTO SbaInt\_X

02 – NO

GOTO CBACKa\_X

09 – REFUSAL

GOTO Q4f\_X

Coverage: Respondents who received their cash incentive

**CBACKa\_X**

OK, when would be a good time to call you back?

01 – Respondent provides call back time

GOTO CBACKc\_X

09 – Respondent refuses

GOTO Q4f\_X

Coverage: Participants who cannot complete the survey at the time of the call

**Q4h\_X**

I'm very sorry. Our mailing service sent the reminder letter with the cheque on [DATE LETTER SENT]. We fully intended for the letter and cheque to get to you by today. We would like you to answer the survey today, but if you feel more comfortable waiting until you receive the cheque, we could schedule the survey in a few days time. As with the last survey, your answers to this survey will be kept absolutely confidential. All personal information, including your name and address, will be kept strictly confidential and will not be shared with any person or group that is not associated with this survey.

Participation is voluntary and you may stop at any time.

Is now a good time to start the survey?

01 – ANSWER SURVEY NOW

GOTO SBbInt\_X

02 – WAIT

CONFIRM ADDRESS RESCHEDULE FOR 1 WEEK, THANK AND TERMINATE [see CLOSING]

09 – REFUSAL

GOTO Q4f\_X

Coverage: Participants who did not receive their cash incentive [address on file]

Young adult smoking cessation

**Q4i\_X**

It appears that we did not have your address on file from the last time we spoke. I will ensure that we send you your \$15 honorarium for the previous surveys you completed and for today's survey. We would like you to answer this survey today, but if you feel more comfortable waiting until you receive the cheque, we could schedule the survey in a few days time. As with the last survey, your answers to this survey will be kept absolutely confidential. All personal information, including your name and address, will be kept strictly confidential and will not be shared with any person or group that is not associated with this survey.

Participation is voluntary and you may stop at any time.

Is now a good time to start the survey?

- 01 – ANSWER SURVEY NOW GOTO SBbInt\_X
- 02 – WAIT ENTER ADDRESS AND CONFIRM, RESCHEDULE APPOINTMENT, THANK AND TERMINATE [see CLOSING]
- INFORM SUPERVISOR, NEED TO CONFIRM COMPLETION OF PREVIOUS SURVEYS AND SEND APPROPRIATE AMOUNT FOR PARTICIPATION FOR PREVIOUS SURVEYS AND THIS WAVE
- 03 – RESPONDENT DOES NOT WANT TO PROVIDE ADDRESS/RECEIVE CHEQUE, but willing to answer survey now GOTO SBaInt\_X
- 04 – Callback – respondent does not want cheque but requests to answer survey at another time GOTO Q4j\_X
- 09 – REFUSAL GOTO Q4f\_X

Coverage: Participants who did not provide address at baseline/previous interview(s)

**Q4f\_X**

We understand how you feel. We really appreciate your participation in the previous surveys. The difference between this and most other surveys is that we are speaking to the same people a number of times to better understand changes over time in attitudes, behaviours and beliefs related to smoking. This is why your participation is so important to us, would you like to complete the survey now, or can we arrange a better time?

[DO NOT READ]

- 01 – YES Complete now GOTO SBaInt\_X
- 02 – NO, reschedule GOTO Q4j\_X
- 09 – NO, Refusal Thank and terminate

Coverage: Participants who refuse participation in the follow-up survey

**Q4j\_X**

*[Added December 2005]*

If name/initials on file GOTO CBACKb\_X

Else show:

Can you please provide us with something that uniquely identifies you so that when we call back we will be able to reach you? For example, just your first name, a nickname or your initials?

- 01 - Enter name/initials (Q4jtxt\_X)
  - 02 - Refused
- GOTO CBACKb\_X

Coverage: Participants who do not want to provide name/address

Young adult smoking cessation

**CBACKb\_X**

OK, when would be a good time to call you back?

01 – Respondent provides call back time

[GOTO FN\_X]

09 – Respondent refuses

[Thank and terminate]

Coverage: Participants who cannot complete survey at time of call

**FN\_X – PC\_X**

**DAc\_X**

If (Acont=02) GOTO Acon\_X (no alternate number provided)

Else if (Acont=01) GOTO Ac2\_X (provided alternate number)

**Acon\_X**

Is there an alternate number that you can be reached at?

01 – Yes

GOTO Altn\_X

02 – No

GOTO Closing

Coverage: Participants who did not provide an alternate number at previous interviews

**Ac2\_X**

Last time we spoke, you told us that an alternate phone number that you can be reached at was [read number provided]. Is this still your alternate phone number?

01 – Yes

GOTO Closing

02 – No, record new #

GOTO Altn\_X

03 – No longer has alternate #

GOTO Closing

Coverage: Participants who provided an alternate number at previous interviews

**Altn\_X**

Enter phone number (Altnum) XXX-XXX-XXXX

**Altx\_X**

Extension (Altnum\_ext) XXXX

GOTO Closing

**Q4k\_X**

*[added at W3 – July 2006]*

**[WAITING FOR CHEQUE – requested callback at recent contact]**

If respondent has requested callback and received their cheque or respondent does not want their cheque GOTO SbaInt\_X

Else show:

Hello, my name is \_\_\_\_\_ and I am calling from the University of Waterloo. We recently spoke with you regarding this phase of our study. Did you receive your letter and \$15 cheque to thank you for your continued participation?

01 – Yes

GOTO Q4l\_X

02 – No

GOTO Q4h\_X

Coverage: Participants who are waiting for their cheque before completing the survey (recently contacted them regarding participation in this wave of the survey)

Young adult smoking cessation

**Q41\_X**

*[added at W3 – July 2006]*

Great. Just a reminder that your answers to this survey will be kept strictly confidential. Participation is voluntary and you may stop at any time. Is now a good time to start the survey?

01 – Yes

GOTO SBaInt\_X

02 – No (schedule callback)

GOTO CBACKb\_X

03 – Refusal

GOTO Q4f\_X

Coverage: Participants who were waiting for their cheque before completing the survey

Closing

“Thank you very much for your help and we look forward to speaking with you on [SCHEDULED DATE AND TIME OF INTERVIEW]. If you would like any more information about this project, you can phone us at 1-866-303-2822. Good-bye.”

Coverage: Participants scheduling callback for interview

NOTE: Participants must schedule an interview within the next 14 days. If they attempt to schedule beyond this time, say: “I'm sorry, but we would like to complete the survey within TWO WEEKS of today's date. Could we schedule the survey for any time after tomorrow, before [today's date + 14 days].”

[In the few cases where respondent will be away for the coming weeks, allow for scheduling outside of the 2 week period.]

Young adult smoking cessation

\*\*\*\*\*

**Q.HELP**

R: "What is this survey about?"

I: "This is an ongoing study that will survey both recent smokers and non-smokers across Ontario. We will ask you questions about what you think, what you feel and your experiences related to tobacco use and second-hand smoke."

R: "What is OTRU?"

I: "The Ontario Tobacco Research Unit is not a tobacco company; it is an academic research network at the University of Toronto and University of Waterloo. The Unit conducts tobacco research on smoking behaviours and second-hand smoke in order to identify factors that might help reduce tobacco-related illness and death in Ontario."

*[deleted "I am not a smoker/recent smoker" from F.UP surveys at W5 to provide sufficient room for more important HELP info – this info provided at interviewer stations]*

*[New for third follow-up – July 2006; revised W5 July 2007 and slightly modified W6, Jan '08 and W7 – July 2008]*

**For C4 in Wave 7 ONLY**

R: How many follow-up interviews / How much for reimbursement?

I: "We are extending the number of follow-up interviews in order to better understand changes over time in attitudes, behaviours and beliefs related to smoking. This is your third detailed follow-up interview; at the end of this survey we will ask if we can contact you again for additional follow-up interviews. There will be up to 3 additional interviews occurring in 6-month intervals in which you may participate. Each will only take 10-15 minutes and you will continue to receive a \$15 cheque for each survey in which you participate."

*[New for W6 – Jan 2008; modified coverage in W7 – July 2008]*

**All other cohorts:**

I: We will try to contact you every 6 months for 6 follow-up interviews that will range from 10-20 minutes. This is your \_\_\_ follow-up interview. Your participation in each interview is voluntary and you will continue to receive a \$15 cheque for each interview you complete.

Young adult smoking cessation

## **SMOKING BEHAVIOUR**

### SBaInt\_X

Thank you very much for agreeing to continue your participation. This call may be monitored by my supervisor at the University of Waterloo Survey Research Centre to assess my performance. You may recognise some of the questions from the previous surveys. For these questions, we are interested in what may or may not have changed since the last time we spoke. First, I would like to ask you some specific questions about your smoking behaviour.

Coverage: Participants who agree to participate in the follow-up survey and received their cash incentive (or do not want their incentive)

[W6 – Jan 2008: added underlined text to Intro]

### SBbInt\_X

We will confirm your address at the end of the survey to ensure that the letter was sent to the correct location. Once again, thank you very much for agreeing to continue your participation. This call may be monitored by my supervisor at the University of Waterloo Survey Research Centre to assess my performance. You may recognise some of the questions from the previous surveys. For these questions, we are interested in what may or may not have changed since the last time we spoke. First, I would like to ask you some specific questions about your smoking behaviour

Coverage: Participants who agree to participate in the follow-up survey and have NOT received their cash incentive

[W6 – Jan 2008: added underlined text to Intro]

### SB1\_X

At the present time, do you smoke cigarettes every day, almost every day, occasionally, or not at all? PROBE: [If respondent does not know or refuses: “In order to complete this survey, it is really important that we know if you smoke cigarettes every day, almost every day, occasionally, or not at all?.”]

[DO NOT READ CATEGORIES]

01 – Every day

02 – Almost every day

03 – Occasionally

04 – Not at all

06 – DK

09 – R

Coverage: All respondents

### DSB2\_X

IF SB2 = 1 THEN GOTO DSB3\_X (smoked 100+ cig at previous interview(s))

IF SB2 = 2 | SB2=6 | SB2=9 THEN GOTO SB2\_X

[SB2 coded as most recent data point from previous surveys]

Young adult smoking cessation

SB2\_X

Have you smoked at least 100 cigarettes in your life?

[PROBE: That is approximately 4-5 packs of cigarettes]

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Respondents who had not smoked 100+ cigarettes at previous interview(s), including DK,R

DSB3\_X

IF (SB1\_X=1 OR OR SB1\_X=2) THEN GOTO SB4int\_X

*[currently smoke every day or almost every day]*

IF (SB1\_X=3 OR SB1\_X=4 OR SB1\_X=06 OR SB1\_X=09) THEN GOTO SB29\_X

*[currently smoke occasionally or not at all, incl DK,R]*

*[W3 – July 26, 2006: GOTO for 2<sup>nd</sup> if statement changed from SB3\_X TO SB29\_X]*

*[W3 – July 26, 200: moved SB1=6,9 (DK,R) from first if statement to second if statement; previously sent to SB4int, now sent to SB29]*

SB29\_X

*[added at W3 – July 2006]*

Have you smoked a cigarette since we last spoke with you in [Date of last interview]?

NOTE: If respondent initially responds DK or R, Interviewer to probe:

“For this research study, it is really important that we know if you have smoked since your last interview?”

[DO NOT READ]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: Respondents presently smoking occasionally or not at all, including DK and R (SB1>=3)

SB3\_X

Ok, how long ago was it that you last smoked a cigarette: was it:

If F1 then [READ CATEGORIES 1 – 4] ELSE [READ CATEGORIES 1 – 6]

01 – one week or less GOTO SB4int\_X

02 – more than one week but less than one month GOTO SB4int\_X

03 – 1 to 6 months ago GOTO DSB4a\_X

04 – 7 to 12 months ago GOTO DSB4a\_X

05 – 13 to 18 months ago OR GOTO DSB4a\_X

06 – 18 to 24 months ago GOTO DSB4a\_X

07 – more than 24 months [DO NOT READ] GOTO DSB4a\_X

Coverage: Respondents presently smoking occasionally or not at all (incl DK and R)

*[W3, July 26, 2006: changed instructions from “Read categories 1-3” to “...1-4”; added SB1=DK,R to coverage]*

*[W3 – July 2006: response categories 05 and 06 added to F2 and F3 surveys]*

*[W4 – Jan 2007: response category 07 added to F2 and F3 surveys]*

*[W6 – Jan 2008: response categories 05-07 available for all surveys but only read if F.UP is > 1]*

Young adult smoking cessation

DSB4a\_X

NOTE: All respondents at this point have SB1\_X >= 3, SB3\_X >= 3.

R = respondent

IF (SB2\_X >= 2) GOTO SB36\_X [GOTO changed from PO1intro to SB28 at W3, July 26/06;  
then to SB36 at W6 – Jan '08]

(Respondent has not smoked 100+ cigarettes, has not smoked in past month or more)

NOTE: All respondents at this point have smoked 100+ cigarettes (SB2 = 1)

IF (SB1\_X >= 6 & SB29\_X != 2) GOTO SB4int\_X [added at W3, July 26/06]

(DK/R for current smoking (SB1) and respondent has smoked since last interview)

IF FOLLOW-UP INTERVIEW >F1 THEN DO [W6 – Jan 2008: removed the >F1 restriction  
(i.e. applies for all interviews)]

IF (SB1\_X = 3 & SB3\_X >= 5) GOTO SB26\_X [W3, Oct 24, 2006: added to F2, F3; W6: added to  
F1]

(Occasional smokers, last smoked >12 months ago)

IF (SB1\_X = 3) GOTO SB13\_X

(Occasional smoker, last smoked 1-12 months ago)

NOTE: All respondents at this point are currently not smoking at all, or have DK/R for frequency of  
smoking (SB1\_X >= 4)

IF (SB29\_X = 1 & Sb3(X-1) >= 3) GOTO QB18\_X [added at W3, July 26/06]

(RELAPSER: Smoked since last interview and reported smoking >= 1 month ago at last  
interview)

IF (SB29\_X >= 6 & Sb3(X-1) >= SB3\_X) GOTO QB18\_X

(RELAPSER: DK/R for smoked since last interview, but time since last smoked is less than  
or equal to what was reported on previous interview)

IF (SB29\_X = 2 & Sb3(X-1) >= 3) GOTO SB24\_X

(PREVALENT QUITTER - Has not smoked since last interview and smoked >= 1 month ago  
at last interview)

IF (SB29\_X >= 6 & Sb3(X-1) >= 3 & SB3\_X > Sb3(X-1)) GOTO SB24\_X

(PREVALENT QUITTER - DK/R for smoked since last interview, smoked >= 1 month ago at  
last interview, this interview they last smoked > previous interview)

IF (Sb3(X-1) <= 2 | SB1(X-1) <= 3) GOTO QB11b\_X

(INCIDENT QUITTER - Last smoked >= 1 month, current smoker at last interview)

[Some revisions to the above code at W3 to better incorporate all types of possible responses – check  
previous documents]

**NOTE: SB3(X-1) refers to the last valid SB3 response, regardless of whether that was 6 months  
ago or longer; this nomenclature also applies to SB1(X-1)**

SB4int\_X

Now I'm going to ask you a few questions about your smoking behaviours over the past 30 days

NOTE: moved SB7 and SB8 before SB4-SB6 as this has been an issue for interviewers/respondents  
(W5 – July 2007)

Young adult smoking cessation

SB7\_X

Some people smoke more or less depending on the day of the week.

So, thinking back over the past month, on the WEEKEND DAYS that you did smoke, about how many cigarettes did you usually smoke?

[PROBE: For instance, on your average Saturday, how many cigarettes do you usually smoke?]

INTERVIEWER NOTE: Please consider the respondent's "work days" to be "weekdays" regardless of the day of the week.

[DO NOT READ CATEGORIES]

01 - \_\_\_ Enter number (SB7num\_X RANGE: 0-100)

06 – DK

09 – R

Current smokers or undefined smokers who have smoked 100+

*[W3 – July 2006: added underlined text to question coverage]*

*[W6 – March 2008: Interviewer note added]*

SB8\_X

On the WEEKDAYS that you did smoke, about how many cigarettes did you usually smoke?

[IF ASKED, INTERVIEWER TO REMIND RESPONDENT IN LAST 30 DAYS]

[PROBE: For instance, on your average Monday, how many cigarettes do you usually smoke?]

INTERVIEWER NOTE: Please consider the respondent's "work days" to be "weekdays" regardless of the day of the week.

[DO NOT READ CATEGORIES]

01 - \_\_\_ Enter number (SB8num\_X RANGE: 0-100)

06 – DK

09 – R

Current smokers or undefined smokers who have smoked 100+

*[W3 – July 2006: added underlined text to question coverage]*

*[W6 – March 2008: Interviewer note added]*

SB4\_X

On how many of the past 30 days did you smoke cigarettes?

INTERVIEWER NOTE: If participant responds "everyday" to this question, enter 30

[DO NOT READ CATEGORIES]

01 - \_\_\_\_\_ ENTER NUMBER (SB4num\_X RANGE=0-30)

IF SB4num\_X=30 GOTO SB13\_X

*[GOTO changed at W5]*

06 – DK

09 – R

Current smokers or undefined smokers who have smoked 100+

*[W3 – July 2006: added underlined text to question coverage]*

*[W4 – January 24, 2007: revised question wording from "...did you smoke at least one cigarette?"]*

*[W5 – July 2007: added interviewer note]*

*[W5 – July 2007: revised GOTO for SB4num\_X=30 from SB7 to SB13 as questions were reordered]*

Young adult smoking cessation

SB5\_X

In the past month, on how many WEEKEND days did you smoke at least one cigarette?

PROBE: Some people ONLY smoke on occasion or on certain days of the week. In the past 30 days, how many weekend days did you smoke at least one cigarette?

[DO NOT READ CATEGORIES]

01 – ENTER NUMBER (SB5num\_X RANGE=0-10)

06 – DK

09 – R

Coverage: Respondents smoking less than 30 days in the past month [SB4 num<30]

[W5 – July 200 7: added interviewer probe]

SB6\_X

In the past month, on how many WEEKDAYS did you smoke at least one cigarette?

PROBE: Some people ONLY smoke on occasion or on certain days of the week. In the past 30 days, how many weekdays did you smoke at least one cigarette?

[DO NOT READ CATEGORIES]

01 - \_\_\_\_ Enter Number (SB6num\_X RANGE: 0 – 25)

06 – DK

09 – R

Coverage: Respondents smoking less than 30 days in the past month [SB4num<30]

[W5 – July 200 7: added interviewer probe]

SB13\_X

Compared to 6 months ago, that is since [ANCHOR], would you say that you are now smoking...

[READ CATEGORIES 1-3]

01 – the same as you were smoking

GOTO SB14\_X

02 – more than you were smoking OR

GOTO SB14\_X

03 – less than you were smoking

GOTO SB15\_X

04 – Quit completely [DO NOT READ]

GOTO QB11b\_X

06 – DK

GOTO SB14\_X

09 – R

GOTO SB14\_X

NOTE: IF SB1\_X=4 AND SB3\_X<=2 (Those who smoke “not at all” and last smoked <1month ago)

THEN response category 04 is read: “04 – Or did you quit smoking completely?”

Coverage: Current, self-report, or undefined smokers (100+ for those who have not smoked in the past month)

[W3 – July 2006: added underlined text to question coverage]

[W6 – Jan 8, 2008: revised coding in note to show if ... and SB3 <=2 (previously SB3=2)]

[W7 – July '08: Added code such that “OR” to option 2 is not visible if SB1=4 and SB3<=2], i.e., when response category 04 is read]

SB14\_X

At any time during the past 6 months, did you change your smoking behaviour with the intention of quitting or reducing the amount you smoke?

[DO NOT READ CATEGORIES]

01 – Yes

GOTO SB15\_X

02 – No

GOTO DSB23\_X

06 – DK

GOTO SB15\_X

Young adult smoking cessation

09 – R

GOTO SB15\_X

Coverage: Respondents smoking the same amount or more than 6 months ago (SB13=1,2,6,9)

SB15\_X

IF SB14\_X=01 SHOW “In the past 6 months...”

IF (SB13\_X=03 | SB14\_X=06 | SB14\_X=09) SHOW:

“How did you change your smoking behaviour when you were trying to reduce the amount you smoke in the past 6 months? ...”

Did you try to quit smoking completely?

[If necessary, remind respondent “during the past 6 months”]

[DO NOT READ CATEGORIES]

01 – Yes GOTO DQB11\_X

*[modified GOTO in W6]*

02 – No GOTO SB16\_X

06 – DK GOTO SB16\_X

09 – R GOTO SB16\_X

Coverage: Respondents smoking less than 6 months ago as well as those who attempted to quit/reduce (SB13\_X=3 OR SB14\_X=1,6,9)

*[W6 – Jan 2008: changed goto for response 01 from QB11a to DQB11]*

DQB11\_X

*[new decision in W6 – Jan 2008]*

IF SB1\_X = 4 AND SB3\_X IN (1,2) THEN GOTO QB11b\_X

*[“current smokers” by definition but not smoking at the present time – ie. In a quit attempt]*

ELSE GOTO QB11a\_X

QB11a\_X

How many times have you made a serious attempt to quit smoking IN THE PAST 6 MONTHS? By serious, we mean that you made a conscious attempt to stay off cigarettes for good.

[DO NOT READ CATEGORIES]

01 - \_\_\_\_ ENTER NUMBER (IF RANGE GIVEN, USE MIDPOINT)

[QB11aN\_X RANGE: 1 – 50]

GOTO QB18a\_X

*[W5–July 2007: revised goto]*

06 – DK GOTO SB16\_X

09 – R GOTO SB16\_X

Coverage: Respondents who tried to quit smoking completely in the past 6 months (SB15=1), excluding those who are 'current smokers who are no longer smoking'

*[W5 – July '07: revised skip logic for response category 01 from SB21b\_X to QB18a\_X]*

*[W6 – Jan 2008: slight modification to coverage with new decision DQB11, ensuring 'current smokers' by definition who are not presently smoking (SB1=4 and SB3=1,2) answer the parallel question QB11b]*

Young adult smoking cessation

QB18a\_X

[added at W5 – July 2007]

Which of these statements best describes how your most recent quit attempt started:

[READ CATEGORIES 01 – 06]

PROBE: Which statement best describes your most recent quit attempt: you just did it; you planned to quit for later the same day; or did you plan to quit the day beforehand; a few days beforehand, a few weeks beforehand OR a few months beforehand?

01 – I did not plan the quit attempt in advance, I just did it;

02 – I planned the quit attempt for later the same day;

03 – I planned the quit attempt the day beforehand;

04 – I planned the quit attempt a few days beforehand;

05 – I planned the quit attempt a few weeks beforehand; OR

06 – I planned the quit attempt a few months beforehand;

07 – other

08 – DK

09 – R

**GOTO SB21b\_X**

Coverage: Respondents who provide number of quit attempts made in the past 6 months (QB11a=1)

[NOTE: coding “other” for anything greater than 3months]

[W6 – Jan 2008: slight modification to coverage in QB11a with new decision DQB11, ensuring ‘current smokers’ by definition who are not presently smoking (SB1=4 and SB3=1,2) answer the parallel question QB18b]

[W6 – April 2008: PROBE added]

QB11b\_X

IF (SB29\_X=2) SKP SB24\_X

[added IF statement in W7 – July 2008]

In the past 6 months, that is since [ANCHOR], how many times did you make a serious attempt to quit before you were able to quit smoking? By serious, we mean that you made a conscious attempt to stay off cigarettes for good.

[DO NOT READ CATEGORIES]

01 - \_\_\_\_ ENTER NUMBER (IF RANGE GIVEN, USE MIDPOINT)

[QB11bN\_X RANGE: 1 – 50]

GOTO QB18b\_X

[W5 – July2007: revised goto]

06 – DK

GOTO SB24\_X

09 – R

GOTO SB24\_X

Coverage: Incident quitters, or current smokers who are no longer smoking (SB1\_X = 4 AND SB3\_X = 1,2)

[NOTE: parallel question to QB11a]

[W2 – Jan 2006: definition of incident quitter was not based on previous interview data (see FIC1 Questionnaire)]

[W5 – July2007: revised skip logic for response category 01 from SB24 to QB18b]

[W6 – Jan 2008: slight change to coverage such that all ‘current smokers’ by definition who are no longer smoking answer this question (previously, in this group, restricted to those who reported having quit completely)]

Young adult smoking cessation

QB18b\_X

*[added at W5 – July 2007]*

Which of these statements best describes how your most recent quit attempt started:

PROBE: Which statement best describes your most recent quit attempt: you just did it; you planned to quit for later the same day; or did you plan to quit the day beforehand; a few days beforehand, a few weeks beforehand OR a few months beforehand?

[READ CATEGORIES 01 – 06]

- 01 – I did not plan the quit attempt in advance, I just did it;
- 02 – I planned the quit attempt for later the same day;
- 03 – I planned the quit attempt the day beforehand;
- 04 – I planned the quit attempt a few days beforehand;
- 05 – I planned the quit attempt a few weeks beforehand; OR
- 06 – I planned the quit attempt a few months beforehand;
- 07 – other
- 08 – DK
- 09 – R

**GOTO SB24\_X**

Coverage: Respondents who provide number of quit attempts made in the past 6 months before actual quit (QB11b=1)

[NOTE: coding “other for anything greater than 3months]

*[NOTE: parallel question to QB11b]*

*[W7 – July 2008: PROBE added to ease repeated question if needed]*

SB16\_X

In the past 6 months, did you try to go whole days without smoking?

[DO NOT READ CATEGORIES]

- 01 – Y           GOTO SB17\_X
- 02 – N           GOTO SB18\_X
- 06 – DK          GOTO SB18\_X
- 09 – R           GOTO SB18\_X

Coverage: Respondents who changed their smoking behaviour during the past 6 months but did NOT attempt to quit completely (SB15>=2 OR QB11a>=6)

SB17\_X

Approximately how many days a week did you try to not smoke?

Note: IF RESPONDENT ANSWERS ZERO, INTERVIEWER TO REPEAT QUESTION STRESSING “How many days did you **TRY** to not smoke?” before coding response “02”

[DO NOT READ CATEGORIES]

- 01 - \_\_\_\_\_ Enter Number       (SB17N\_X RANGE: 1 – 7)
- 02 – Zero
- 06 – DK
- 09 – R

Coverage: Respondents who went whole days without smoking and did not try to quit completely (SB16=1)

Young adult smoking cessation

SB18\_X

IF SB16\_X=01 SHOW: "On the days that you did smoke...."

Did you reduce the number of cigarettes you usually smoke?

[DO NOT READ CATEGORIES]

01 – Y GOTO SB19\_X

02 – N GOTO SB20\_X

06 – DK GOTO SB20\_X

09 – R GOTO SB20\_X

Coverage: Respondents who changed their smoking behaviour during the past 6 months but did NOT attempt to quit completely (SB15>=2 OR QB11a>=6)

SB19\_X

Approximately how many cigarettes per day did you cut back?

[DO NOT READ CATEGORIES]

01 - \_\_\_\_\_ Enter Number (SB19N\_X RANGE: 1 – 100)

06 – DK

09 – R

Coverage: Respondents who reduced the number of cigarettes they smoke and did not try to quit completely (SB18=1)

SB20\_X

Did you try not to smoke the whole cigarette?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Respondents who changed their smoking behaviour during the past 6 months but did NOT attempt to quit completely (SB15>=2 OR QB11a>=6)

SB21a\_X

In the past 6 months, what was the longest amount of time you were able to reduce your smoking?

[DO NOT READ CATEGORIES]

01 – ENTER NUMBER OF HOURS [SB21aH\_X RANGE: 0 – 24]

02 – ENTER NUMBER OF DAYS \_\_\_\_\_ [SB21aD\_X RANGE: 0 – 168]

03 – ENTER NUMBER OF WEEKS \_\_\_\_\_ [SB21aW\_X RANGE: 0 – 24]

06 – DK

09 – R

**GOTO SB22\_X**

Coverage: Respondents who changed their smoking behaviour during the past 6 months but did NOT attempt to quit completely (SB15>=2 OR QB11a>=6)

Young adult smoking cessation

SB21b\_X

In the past 6 months, what was the longest time that you stayed smoke free?

[DO NOT READ CATEGORIES]

- 01 – ENTER NUMBER OF HOURS \_\_\_\_\_ [SB21bH\_X RANGE: 0 – 24]  
02 – ENTER NUMBER OF DAYS \_\_\_\_\_ [SB21bD\_X RANGE: 0 – 168]  
03 – ENTER NUMBER OF WEEKS \_\_\_\_\_ [SB21bW\_X RANGE: 0 – 24]  
06 – DK  
09 – R

Coverage: Respondents who attempted to quit and provided the number of attempts made in the past 6 months (QB11a=1)

SB22\_X

What was the MAIN reason you cut back the amount you were smoking?

[CHECK ALL THAT APPLY]

[W7 – allowed for multiple responses]

[DO NOT READ CATEGORIES]

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

- 01 – Reduce disease risk / improve health GOTO DQB15\_X  
02 – Illness / Disability GOTO DQB15\_X  
03 – As quitting strategy/trying to quit GOTO DQB15\_X  
04 – Too expensive / cost GOTO DQB15\_X  
05 – Smoking restrictions GOTO DQB15\_X  
06 – Reduce others' exposure to second-hand smoke GOTO DQB15\_X  
07 – Pregnancy/breastfeeding GOTO DQB15\_X  
08 – Reduced need/craving GOTO DQB15\_X  
09 – Family pressure GOTO DQB15\_X  
10 – New Years Resolution GOTO Q22a\_X  
11 – Other Specify \_\_\_\_\_ GOTO DQB15\_X  
66 – DK  
99 – R

Coverage: Respondents smoking less than 6 months ago as well as those who attempted to quit/reduce (SB13\_X=3 OR SB14\_X=1,6,9)

[W7 – October 23, 2008: added “[CHECK ALL THAT APPLY]” and interviewer note]

SB22a\_X

Why did you make a New Year's resolution to cut back the amount you were smoking?

[CHECK ALL THAT APPLY]

[W7 – allowed for multiple responses]

[DO NOT READ CATEGORIES]

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

- 01 – Reduce disease risk / improve health  
02 – Illness / Disability  
03 – As quitting strategy/trying to quit  
04 – Too expensive / cost  
05 – Smoking restrictions  
06 – Reduce others' exposure to second-hand smoke  
07 – Pregnancy/breastfeeding  
08 – Reduced need/craving  
09 – Family pressure  
11 – Other Specify \_\_\_\_\_

Young adult smoking cessation

66 – DK

99 – R

Coverage: Respondents who reduced, or attempted to reduce, smoking during the last 6 months as a New Year's resolution (SB22=10)

[W7 – October 23, 20'08: added “[CHECK ALL THAT APPLY]” and interviewer note]

DQB15\_X

IF SB15\_X = 01 THEN GOTO QB15\_X [SMOKERS WHO TRIED TO QUIT IN PAST 6M]

ELSE GOTO DSB23\_X

QB18\_X

[added at W3, July 26, 2006]

Did you continue to smoke for more than one day?

[DO NOT READ]

01 – Yes

02 – NoGOTO QB15\_X

06 – DK

09 – R

Coverage: Relapsers

QB19\_X

[added at W3, July 26, 2006]

How long did you continue to smoke before you quit again?

[READ CATEGORIES 1-4]

01 – 2 or 3 days

02 – 4 to 7 days

03 – more than one week but less than one month

04 – one month or longer

06 - DK

09 – R

Coverage: Relapsers who smoked for more than one day (QB18=1,6,9)

QB15\_X

IF QB18\_X = 02 THEN SHOW: [IF statement added for Relapsers at W3; else statement is original W2 question]

“Where were you when you smoked that day? Were you...”

ELSE SHOW:

“Thinking about your most recent quit attempt, where were you when you started smoking again?

Were you...”

[READ CATEGORIES 1 - 5]

01 – At home

02 – At a friend's place

03 – At work

04 – At a bar OR

05 – At a restaurant

06 – Some other place [Specify]

07 – DK

09 – R

Coverage: Respondents who tried to quit smoking completely in the past 6 months (SB15=1) as well as Relapsers

Young adult smoking cessation

[W3 – July 26, 2006: added IF statement to question wording and italicized group added to coverage]

QB16\_X

IF QB18\_X = 02 THEN SHOW: *[IF statement added for Relapsers at W3; else statement is original W2 question]*

“Were others smoking around you when you smoked that day?” *[W3 - edited wording]*

ELSE SHOW:

Were others around you smoking when you started to smoke again?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Respondents who tried to quit smoking completely in the past 6 months (SB15=1) as well as Relapsers

[W3 – July 26, 2006: added IF statement to question wording and italicized group added to coverage]

[W3 – October 24, 2006: edited question wording in the IF statement to include “smoking” (see underlined/italicized text)]

QB17\_X

IF QB18\_X = 02 THEN SHOW: *[IF statement added for Relapsers at W3; else statement is original W2 question]*

“Were you drinking alcohol when you smoked that day?”

ELSE SHOW:

Were you drinking alcohol when you started to smoke again?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Respondents who tried to quit smoking completely in the past 6 months (SB15=1) as well as Relapsers

[W3 – July 26, 2006: added IF statement to question wording and italicized group added to coverage]

DSB23\_X

NOTE: (X-1) is the response to this question from the previous interview

IF SB1\_X >=04 & (SB2 = 01 | SB2(X-1) = 01) & SB3(X-1) = 03 & (SB29\_X = 01 | (SB29\_X >= 06 & SB3\_X = 03))) *[added to F1 in W3 (July 2006); added to F2, F3 on Oct. 20, 2006]*

THEN GOTO SB23a\_X *[RESPONDENTS WHO RELAPSED\*]*

*[\*NOTE: CATI coding error in F1 survey such that this IF statement read: “IF SB1(X-1) >= 04...” instead of SB1\_X >=04; either code appears to capture relapsers with slightly different definitions; error was present from July 2006 (W3) – March 27, 2007 (W4) in F1 SURVEYS ONLY]*

Young adult smoking cessation

IF SB13\_X = 01 & SB14\_X = 01 THEN GOTO SB23a\_X

*[now smoking the same as 6 months ago but tried to reduce/quit in the last 6 months]*

IF SB13\_X = 02 THEN GOTO SB23b\_X

*[now smoking more than 6 months ago]*

IF SB13\_X = 01 | SB13\_X = 03 | SB13\_X = 06 | SB13\_X = 09 THEN GOTO SB36\_X

*[now smoking less than 6 months ago, incl dk/r and those smoking the same but did not attempt to reduce/quit during the past 6 months]*

*[W6 – Jan 2008: GOTO changed from SB28 to SB36]*

SB23a\_X

IF QB18\_X = 02 THEN SHOW:

*[IF statement added for Relapsers at W3; else statement is original W2 question]*

“What was the MAIN reason you smoked that day?”

ELSE SHOW:

What was the MAIN reason you increased your smoking again?

[CHECK ALL THAT APPLY]

*[W7 – allowed for multiple responses]*

[DO NOT READ CATEGORIES]

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

01 – To control body weight

02 – Stress; need to relax or calm down

03 – Boredom

04 – Addiction / habit

05 – Lack of support/information

06 – Going out more (bars, parties)

07 – Increased availability

08 – No reason/felt like it

09 – Family or friends smoke

11 – Other (specify)

66 – DK

99 – R

**GOTO DSB24\_X** *[corrected skip logic October 20 2006 from SB28 to DSB24]*

Coverage: Respondents smoking the same as 6 months ago but made an attempt to quit/reduce (SB13=1 & SB14=1) as well as relapsers\*

*[W3 – July 26, 2006: added IF statement to question wording]*

*[W3 – July 26, 2006: added italicized group added to coverage in F1 questionnaire (see asterisk)]*

*[W3 – Oct 20, 2006: added italicized group to coverage in F2 and F3 questionnaires]*

*[W7 – October 23, 2008: added “[CHECK ALL THAT APPLY]” and interviewer note]*

\*NOTE: due to CATI coding error F1 survey such that, Relapser in W3 and the early months of W4 was defined as respondents (100+) who at their last interview smoked ‘not at all’ and 1-6months ago and at present, smoked since their last interview (SB29=1 or SB3=3); error was present from July 2006 (W3) – March 27, 2007 (W4) in F1 SURVEYS ONLY

Young adult smoking cessation

SB23b\_X

What was the MAIN reason you increased the amount you were smoking?

[CHECK ALL THAT APPLY]

[W7 – allowed for multiple responses]

[DO NOT READ CATEGORIES]

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

01 – To control body weight

02 – Stress; need to relax or calm down

03 – Boredom

04 – Addiction / habit

06 – Going out more (bars, parties)

07 – Increased availability

08 – No reason/felt like it

09 – Family or friends smoke

10 – Enjoy it more

11 – Other (specify)

66 – DK

99 – R

**GOTO SB36\_X** [W6 – Jan 2008: revised GOTO from SB28]

Coverage: Respondents who report smoking more than 6 months ago (SB13=2)

[W7 – October 23, 2008: added “[CHECK ALL THAT APPLY]” and interviewer note]

DSB24\_X

[added to F1 in W3 (July 2006); added to F2, F3 on Oct. 20, 2006]

NOTE: (X-1) implies response to this question from the previous interview

IF (SB1\_X >= 04 & SB2(X-1)=01 & SB3(X-1) >= 03 & (SB29\_X = 01|(SB29\_X >= 6 & SB3\_X >= 3)) THEN GOTO SB24\_X [RESPONDENTS WHO RELAPSED\*]

[\*NOTE: SRC coding error in F1 survey such that this IF statement read: “IF SB1(X-1) >= 04...” instead of SB1\_X >=04; either code appears to capture relapsers with slightly different definitions; error was present from July 2006 (W3) – Oct. 20, 2006 (W3) in F1 SURVEYS ONLY]

ELSE GOTO SB36\_X [GOTO changed from SB28 to SB36 at W6 – Jan 2008]

SB24\_X

IF (SB1\_X >= 04 & SB2(X-1)=01 & SB3(X-1) >= 03 & (SB29\_X = 01|(SB29\_X >= 6 & SB3\_X >= 3)) THEN SHOW:

[the if statement added at W3; else statement is original W2 question]

[error in F1 survey code corrected in W3, Oct. 20, 2006: was IF SB1(X-1) > 4...]

“What was the MAIN reason you quit smoking again?”

ELSE SHOW ORIGINAL QUESTION:

What was the MAIN reason you quit smoking?

[CHECK ALL THAT APPLY]

[W7 – allowed for multiple responses]

[DO NOT READ CATEGORIES]

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

01 – Reduce disease risk / improve health

GOTO SB25\_X

02 – Illness / Disability

GOTO SB25\_X

04 – Too expensive / cost

GOTO SB25\_X

05 – Smoking restrictions

GOTO SB25\_X

06 – Reduce others’ exposure to second-hand smoke

GOTO SB25\_X

Young adult smoking cessation

- |                              |              |
|------------------------------|--------------|
| 07 – Pregnancy/breastfeeding | GOTO SB25_X  |
| 08 – Reduced need/craving    | GOTO SB25_X  |
| 09 – Family pressure         | GOTO SB25_X  |
| 10 – New Year’s Resolution   | GOTO SB24a_X |
| 11 – Other Specify _____     | GOTO SB25_X  |
| 66 – DK                      |              |
| 99 – R                       |              |

Coverage: Incident and prevalent quitters, or current smokers who are no longer smoking (SB1\_X = 4 AND SB3\_X = 1,2) *as well as respondents who relapsed\**

[W3 – July 26, 2006: added IF statement to question wording]

[W3 – July 26, 2006: added italicized group added to coverage in F1 questionnaire (see asterisk)]

[W3 – Oct 20, 2006: added italicized group to coverage in F2 and F3 questionnaires]

[W6 – Jan 2008: slight change to coverage such that all ‘current smokers’ by definition who are no longer smoking answer this question (previously, in this group, restricted to those who reported having quit completely); see underlined text]

[W7 – October 23, 2008: added “[CHECK ALL THAT APPLY]” and interviewer note]

\*NOTE: due to CATI coding error F1 survey such that, Relapser in the early months of W3 was defined as respondents (100+) who at their last interview smoked ‘not at all’ and 1-6months ago and at present, smoked since their last interview (SB29=1 or SB3=3); error was present from July 2006 (W3) – Oct 20, 2006 (W3) in F1 SURVEYS ONLY

SB24a\_X

Why did you make a New Year’s resolution to quit smoking?

[CHECK ALL THAT APPLY]

[W7 – allowed for multiple responses]

[DO NOT READ CATEGORIES]

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

- 01 – Reduce disease risk / improve health
- 02 – Illness / Disability
- 04 – Too expensive / cost
- 05 – Smoking restrictions
- 06 – Reduce others’ exposure to second-hand smoke
- 07 – Pregnancy/breastfeeding
- 08 – Reduced need/craving
- 09 – Family pressure
- 11 – Other Specify \_\_\_\_\_
- 66 – DK
- 99 – R

Coverage: Respondents who quit because of a New Year’s resolution (SB24=10); see coverage for SB24

[W7 – October 23, 2008: added “[CHECK ALL THAT APPLY]” and interviewer note]

Young adult smoking cessation

SB25\_X

You indicate that you are no longer smoking, but do you ever have a cigarette or puff on a cigarette once in a while?

[DO NOT READ CATEGORIES]

- 01 – Y           GOTO SB26\_X
- 02 – N           GOTO SB36\_X[W6: *changed goto*]
- 06 – DK         GOTO SB36\_X[W6: *changed goto*]
- 09 – R           GOTO SB36\_X[W6: *changed goto*]

Coverage: Incident and prevalent quitters, or current smokers who are no longer smoking (SB1\_X = 4 AND SB3\_X = 1,2) as well as respondents who relapsed\*

*[W3 – July 26, 2006: added italicized group added to coverage in F1 questionnaire (see asterisk)]*

*[W3 – Oct 20, 2006: added italicized group to coverage in F2 and F3 questionnaires]*

*[W6 – Jan 2008: slight change to coverage such that all ‘current smokers’ by definition who are no longer smoking answer this question (previously, in this group, restricted to those who reported having quit completely); see underlined text]*

*[W6 – Jan 2008: GOTO for response categories 02,06,09 changed from SB28 to SB36]*

\*NOTE: due to CATI coding error F1 survey such that, Relapser in the early months of W3 was defined as respondents (100+) who at their last interview smoked ‘not at all’ and 1-6months ago and at present, smoked since their last interview (SB29=1 or SB3=3); error was present from July 2006 (W3) – Oct 20, 2006 (W3) in F1 SURVEYS ONLY

SB26\_X

About how often, on average, do you have a cigarette or puff on a cigarette? Would you say....

[READ CATEGORIES 1-3] [CTS]

- 01 – Once a week or more
- 02 – Less than weekly but at least once a month OR        *[W5 -modified response category]*
- 03 – Less than once a month                                    *[W5 -modified response category]*
- 06 – DK
- 09 – R

Coverage: Respondents indicating they have quit but report they occasionally have a cigarette (SB25=1 – see coverage for SB25); and self-defined occasional smokers (100+) who report smoking their last cigarette >12 months ago

*[W3 - Oct 24, 2006: added underlined group for F2 and F3 surveys (included in coverage for F1 surveys at W6, although unlikely to have any eligible respondents in F1)]*

*[W5 – July 11, 2007: slight modifications to response category 02 (from “less often than weekly, but at least monthly) and 03 (from “less than monthly”)]*

SB27\_X

On the occasions that you do have a cigarette or puff on a cigarette, about how many do you typically smoke?

IF RESPONDENT DOES NOT INDICATE IF THEY OCCASIONALLY HAVE PUFFS OR FULL CIGARETTES, INTERVIEWER TO PROBE: “Would that be puffs or would that be cigarettes?”

[DO NOT READ CATEGORIES]

- 01 - \_\_\_\_\_ Enter Number of puffs                    [SB27Np\_X Range: 1-100]
- 02 - \_\_\_\_\_ Enter Number of cigarettes           [SB27Nc\_X Range: 1-100]
- 06 – DK
- 09 – R

Young adult smoking cessation

Coverage: Respondents indicating they have quit but report they occasionally have a cigarette (SB25=1 – see coverage for SB25); and self-defined occasional smokers (100+) who report smoking their last cigarette >12 months ago

[W3 – Oct 24, 2006: added underlined group for F2 and F3 surveys (included in coverage for F1 surveys at W6, although unlikely to have any eligible respondents in F1)]

DSB30\_X [W3 – October 24, 2006: added to F2 and F3]

IF QB15\_X = (NO VALUE) GOTO SB30\_X

[all occasional smokers not smoking in the past 12 months and former smokers (1-12 months)]

ELSE GOTO SB36\_X [GOTO changed from SB28 to SB36 at W6 – Jan '08]

[relapsers – people who were previously asked these questions – QB15, 16, 17]

SB30\_X [W3 – October 24, 2006: added to F2 and F3]

When you have a cigarette or puff on a cigarette, would you say that you are usually...

[READ CATEGORIES 1 - 5]

01 – At home

02 – At a friend's place

03 – At work

04 – At a bar OR

05 – At a restaurant

06 – Some other place [Specify]

07 – DK

09 – R

Coverage: Self-defined occasional smokers (100+) in F2 or F3 who report smoking their last cigarette >12 months ago, current smokers (100+) who are no longer smoking, incident or prevalent quitters

NOTE: parallel question to QB15 for relapsers

SB31\_X [W3 – October 24, 2006: added to F2 and F3]

When you have a cigarette or puff on a cigarette, would you say that others are usually smoking around you?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Self-defined occasional smokers (100+) in F2 or F3 who report smoking their last cigarette >12 months ago, current smokers (100+) who are no longer smoking, incident or prevalent quitters

NOTE: parallel question to QB16 for relapsers

SB32\_X [W3 – October 24, 2006: added to F2 and F3]

Would you say that you are usually drinking alcohol when you have a cigarette or puff on a cigarette?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Young adult smoking cessation

Coverage: Self-defined occasional smokers (100+) in F2 or F3 who report smoking their last cigarette >12 months ago, current smokers (100+) who are no longer smoking, incident or prevalent quitters

NOTE: parallel question to QB17 for relapsers

[DELETED SB28 AT W6, Jan 2008 and replaced with SB36,37; SB28 was originally added at W2]

SB36\_X

[added at W6 - Jan 2008]

Besides cigarettes, in the past 6 months, have you used any other tobacco products that you smoke such as cigars or pipes?

PROBE: Other tobacco products that are smoked include cigarillos, bidis, kreteks, shisha, and hooka

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents

[NOTE – modified version of SB28 from previous waves (including SB37)]

SB37\_X

[revised SB28: added W6 – Jan 2008]

Besides cigarettes, in the past 6 months, have you used any other tobacco products that are NOT smoked such as snuff, chewing tobacco, or snus?

NOTE: “snus” is pronounced “snoose” – rhymes with moose/goose

PROBE: Other tobacco products include pinch

PROBE2: Snus is moist tobacco in a pouch placed in the mouth. It is not smoked or burned.

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents

[NOTE – modified version of SB28 from previous waves (including SB36)]

DSB38\_X

[added at W6, Jan 2008]

IF SB36\_X = 1 OR SB37\_X = 1 THEN GOTO SB38\_X

ELSE GOTO DAD1\_X

SB38\_X

[added at W6, Jan 2008]

What is the MAIN reason you use other tobacco products?

[DO NOT READ CATEGORIES]

01 – to hide/mask your smoking

02 – a source of nicotine/tobacco when you are not allowed to smoke (i.e. airplane)

03 – because they cost less than cigarettes

04 – to reduce the risks of smoking

05 – as a step towards quitting smoking completely OR

06 – because you are curious about the product

07 – Other: SPECIFY

08 – use at social occasions

[new coding options added in W6 – Apr 2008]

09 – just enjoy it

[new coding options added in W6 – Apr 2008]

66 – DK

[response DK recoded to 66 (from 08) in W6 – Apr 2008]

Young adult smoking cessation

99 – R *[response R recoded to 99 (from 09) in W6 – Apr 2008]*

Coverage: Respondents who have used other tobacco products

*[W6 – Apr 2008: new coding options added for response 08 and 09; DK and R recoded]*

*[NOTE –interviewer instructions corrected in W6 (January 18<sup>th</sup>) from “read categories 1-6” to “do not read categories]*

DSB33\_X

IF SURVEY =F2 THEN GOTO SB33\_2

ELSE GOGOTO DAD1\_X

SB33\_2 (2<sup>nd</sup> F.UP only) *[added at W5 – July 2007]*

Tobacco companies are developing new types of cigarettes or cigarette-like products that are supposed to be less harmful than ordinary cigarettes. Have you heard of such products?

[DO NOT READ CATEGORIES]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: All respondents in F2

SB34\_2 (2<sup>nd</sup> F.UP only) *[added at W5 – July 2007]*

How likely do you think you would be to use these cigarette-like products?

[DO NOT READ CATEGORIES]

01 – Very likely

02 – Somewhat likely

03 – Not very likely

06 – DK

09 – R

Coverage: All respondents in F2

SB35\_2 (2<sup>nd</sup> F.UP only,) *[added at W5 – July 2007]*

New smokeless tobacco products called SNUS are being introduced in the United States and probably soon in Canada. These products are small pouches of tobacco that are placed between the gum and teeth; they are sucked and do not require spitting. How likely do you think you would be to use these products?

NOTE: “snus” is pronounced “snoose” – rhymes with moose/goose

[DO NOT READ CATEGORIES]

01 – Very likely

02 – Somewhat likely

03 – Not very likely

06 – DK

09 – R

Coverage: All respondents in F2

Young adult smoking cessation

**ADDICTION QUESTIONS**

DAD1\_X

IF SB2 >=2 *[not 100+ cig in lifetime]*

GOTO PO1int\_X *[added at W3, July 26, 2006]*

IF SB1\_X = 04 & SB3\_X >= 02 THEN GOTO AD1b\_X

*[current "not at all" smokers (100+) who last smoked > 1 week ago]*

ELSE GOTO AD1a\_X *[self-report smokers, 100+]*

AD1a\_X *[W1 baseline variable is AD1; renamed AD1a at W2 baseline and for all follow-up surveys – Jan06 – for parallel question AD1b]*

Thinking about your own smoking, would you say that you are NOT AT ALL ADDICTED to cigarettes, SOMEWHAT ADDICTED to cigarettes or VERY ADDICTED to cigarettes?

[DO NOT READ CATEGORIES]

01 – Not at all addicted

02 – Somewhat addicted

03 – Very addicted

06 – DK

09 – R

**GOTO DAD2\_X**

*Coverage: Self-report smokers or current smokers who smoked within the past week, 100+ cig in lifetime*

*[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (italicized group)]*

AD1b\_X *[Added at beginning of WAVE 2 – Jan '06 (ie not in W1 baseline)]*

At the present time would you say that you are NOT AT ALL ADDICTED to cigarettes, SOMEWHAT ADDICTED to cigarettes or VERY ADDICTED to cigarettes?

[DO NOT READ CATEGORIES]

01 - Not at all addicted

02 - Somewhat addicted

03 - Very addicted

06 - Don't Know

09 - Refused

**SKP QB6b\_X**

*Coverage: Former smokers or current smokers who last smoked more than 1 week ago, 100+ cig in lifetime*

DAD2\_X

IF (SB1\_X=01 OR SB1\_X=06 OR SB1\_X=09 OR SB1\_X=02)

THEN GOTO AD2\_X *[SELF-REPORT DAILY SMK, INCL. DK/R, 100+]*

IF SB1\_X=03 & SB3\_X >= 5 THEN GOTO QA27\_X

*[SELF-REPORT OCCASIONAL SMK, 100+ WHO LAST SMOKED >12 MONTHS AGO]*

Young adult smoking cessation

IF SB1\_X=03 THEN GOTO AD3\_X

*[SELF-REPORT OCCASIONAL SMK, 100+, WHO LAST SMOKED >1 MONTH AGO]*

AD2\_X

How soon after you wake up do you usually smoke your first cigarette?

[PROBE: What I mean is how long in hours or minutes]

[DO NOT READ]

01 – ENTER NUMBER OF MINUTES \_\_\_\_\_ [AD2min\_X RANGE: 0 – 240]

02 – ENTER NUMBER OF HOURS \_\_\_\_\_ [AD2hr\_X RANGE: 0 – 15]

06 – DK

09 – R

Coverage: Self-report daily or almost daily smokers (incl DK/R), 100+ cig in lifetime

AD3\_X

Do you find it difficult to refrain from smoking in places where it is NOT ALLOWED?

[IF NECESSARY, READ RESPONSE CATEGORIES]

01 – Yes it is difficult to refrain from smoking OR

02 – No, it is not difficult to refrain from smoking

06 – DK

09 – R

Coverage: Self-report smokers or current smokers who smoked within the past week, 100+ cig in lifetime

*[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (italicized group)]*

## **QUITTING QUESTIONS**

QB1\_X

How easy or hard would it be for you to completely quit smoking if you wanted to? Would it be:

[READ CATEGORIES 1 – 4]

01 – Very easy GOTO QB2\_X

02 – Somewhat easy GOTO QB2\_X

03 – Somewhat hard OR GOTO QB2\_X

04 – Very hard GOTO QB2\_X

06 – DK GOTO QB2\_X

09 – R GOTO QB2\_X

Coverage: Self-report smokers or current smokers who smoked within the past week, 100+ cig in lifetime

*[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (italicized group)]*

Young adult smoking cessation

QB2\_X

IF QB1\_X = 1,2,3,4 SHOW:

You said it would be [QB1\_X RESPONSE] to quit smoking if you wanted to.

How confident are you that you would succeed if you decided to quit COMPLETELY in the next six months?

[READ CATEGORIES 1 – 4]

01 – Not at all confident

02 – Not very confident

03 – Fairly confident OR

04 – Very confident

06 – DK

09 – R

Coverage: Self-report smokers or current smokers who smoked within the past week, *100+ cig in lifetime*

[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (*italicized group*)]

QB3\_X

If you decided to quit smoking, do you have at least one person you could count on for support?

[DO NOT READ CATEGORIES]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: Self-report smokers or current smokers who smoked within the past week, *100+ cig in lifetime*

[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (*italicized group*)]

QB4\_X

Is there anyone who might make it more DIFFICULT for you to quit smoking if you wanted to?

[DO NOT READ CATEGORIES]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: Self-report smokers or current smokers who smoked within the past week, *100+ cig in lifetime*

[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (*italicized group*)]

QB5\_X

In general, would you say your health is:

[READ CATEGORIES 1 – 5]

01 – Excellent

02 – Very good

03 – Good

04 – Fair OR

05 – Poor

06 – DK

09 – R

Young adult smoking cessation

Coverage: Self-report smokers or current smokers who smoked within the past week, 100+ cig in lifetime (equivalent to DE3 for all other respondents)

[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (italicized group)]

QB6a\_X [in baseline surveys, this question is QB6; renamed to QB6a in F.UP]

How much do you think you would benefit from health and other gains if you were to quit smoking permanently in the next 6 months? Would you:

[READ CATEGORIES 1 – 4]

- 01 – Not benefit at all
- 02 – Benefit a little
- 03 – benefit quite a bit OR
- 04 – benefit a lot
- 06 – DK
- 09 - R

Coverage: Self-report smokers or current smokers who smoked within the past week, 100+ cig in lifetime

[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig (italicized group)]

DQB7\_X

~~IF SB2\_0=01|SB2\_1=01 THEN GOTO QB7\_X [Have smoked 100+ cig]~~

~~IF SB2\_0=02|SB2\_1=02 THEN GOTO QA\_int\_X [Have not smoked 100+ cig]~~

[NOTE: At W3, DQB7\_X no longer relevant given all respondents who have still not smoked 100+ cigarettes are skipped to POInt\_X at DAD1\_X]

QB7\_X

Are you planning to quit smoking...

[READ CATEGORIES 1 – 4]

- 01 – Within the next month?
- 02 – Within the next 6 months?
- 03 – Sometime in the future, beyond 6 months? Or are you GOTO QA\_int\_X
- 04 – Not planning to quit. GOTO QA\_int\_X
- 05 – I have already quit [DO NOT READ] GOTO QA\_int\_X
- 06 – DK GOTO QA\_int\_X
- 09 – R GOTO QA\_int\_X

Coverage: Self-report smokers or current smokers who smoked within the past week, 100+ cig in lifetime

QB8\_X

What is the MAIN reason you plan to quit smoking?

[CATEGORY CODES – DO NOT READ]

[CHECK ALL THAT APPLY]

[W7 - allowed for multiple responses]

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

- 01 – Reduce disease risk / improve health
- 02 – Illness / Disability
- 03 – Too expensive / cost
- 04 – Smoking restrictions
- 05 – Reduce others' exposure to second hand smoke
- 06 – Pregnancy/breastfeeding

Young adult smoking cessation

07 – Reduced need/craving

08 – Family pressure

09 – Other (Specify) \_\_\_\_\_

66 – DK

99 – R

Coverage: Respondents (100+) who plan to quit smoking in the next 6 months (QB7=1,2)

[W7 – October 23, 2008: added “[CHECK ALL THAT APPLY]” and interviewer note]

QB9\_X

Have you set a firm quit date?

01 – Y

02 – N

09 – R

GOTO DQA2\_X

Coverage: Respondents (100+) who plan to quit smoking in the next 6 months (QB7=1,2)

QB6b\_X

How much do you think you have benefited from health and other gains since you quit smoking?

Have you:

[READ CATEGORIES 1 – 4]

01 – Not benefited at all

02 – Benefited a little

03 – benefited quite a bit OR

04 – benefited a lot

06 – DK

09 - R

Coverage: Former smokers or current smokers who last smoked more than 1 week ago (100+)

QB12\_X

How confident are you that you will be able to stay smoke-free for the next 6 months?

[READ CATEGORIES 1-4]

01 – Not at all confident

02 – Not very confident

03 – Fairly confident OR

04 – Very confident

06 – DK

09 – R

Coverage: Former smokers or current smokers who last smoked more than 1 week ago (100+)

Young adult smoking cessation

QB13\_X

Do you think that there is ANY possible situation that might make you start smoking again?

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Former smokers or current smokers who last smoked more than 1 week ago (100+)

## QUIT AIDS

DQA27\_X

IF SB1\_X = 04 AND SB3\_X >= 04 THEN GOTO QA27\_X     *[Former smokers (>=7 mon)]*

ELSE GOTO QA\_int\_X

QA27\_X

In the past 6 months, did you use any quit aids or resources to help you STAY smoke free?

[PROBE: By quit aids or resources we mean aids such as nicotine patches, gum, medications, hypnosis, acupuncture, or self-help material]

[DO NOT READ CATEGORIES]

01 – Y           GOTO QA2ab\_X

02 – N           GOTO QA23\_X                     *[corrected goto in W3]*

03 – DK          GOTO QA23\_X                     *[corrected goto in W3]*

04 – R           GOTO QA23\_X                     *[corrected goto in W3]*

Coverage: Former smokers who last smoked more than 6 months ago (100+)

*[W3 – July 26, 2006: limited coverage to those who have smoked 100+ cig in their lifetime]*

*[W3 – Oct 24, 2006: skip logic corrected for responses 02,03,04 from QA10in to QA23]*

QA\_int\_X

Now I am going to ask you some questions about resources and aids to help people quit smoking...

*[W4 – Jan 24, 07: revised “you” to “people”]*

DQA2\_X

IF SB14\_X ne 2 THEN GOTO QA2aa\_X

*[smokers (100+) who have quit or reduced their smoking in the past 6m, incl DK/R]*

IF SB14\_X = 2 THEN GOTO QA32\_X

*[smokers (100+) smoking the same or more than 6m ago w/o changing their behaviour to quit/reduce]*

~~IF SB2\_0=02|SB2\_X=02|SB2\_2=02 THEN GOTO DQA10I\_X~~ *[current smoker not smoking 100+]*

*[NOTE: At W3 (July 26, 2006) the last IF statement is no longer relevant given all respondents who have still not smoked 100+ cigarettes are skipped to PO1int at DAD1]*

Young adult smoking cessation

QA2aa\_X

In the past 6 months, that is since [ANCHOR] did you use nicotine patches to help you quit or reduce smoking?

[DO NOT READ CATEGORIES]

01 – Y           GOTO QA2b\_X

02 – N           GOTO QA3\_X

06 – DK         GOTO QA3\_X

09 – R           GOTO QA3\_X

Coverage: Smokers (100+) who [attempted to] quit/reduced in the past 6 months as well as former (1-6mon) smokers (100+)

QA2ab\_X

In the past 6 months, that is since [ANCHOR], did you use nicotine patches to help you stay smoke free?

[DO NOT READ CATEGORIES]

01 – Y           GOTO QA2b\_X

02 – N           GOTO QA3\_X

06 – DK         GOTO QA3\_X

09 – R           GOTO QA3\_X

Coverage: Former smokers (>6mon) who recently used cessation aids (QA27=1)

QA2b\_X

Over the past 6 months, how long did you use the patch?

If response > 6months PROBE: "OK, so you have been using the patch for all of the past 6 months and longer?" if yes, enter 6 months

01 – DAYS       \_\_\_\_\_ [QA2bD\_X LIMIT: 200]

02 – WEEKS     \_\_\_\_\_ [QA2bW\_X LIMIT: 26]

03 – MONTHS   \_\_\_\_\_ [QA2bM\_X LIMIT: 6.5]

06 – DK

09 – R

Coverage: Respondents using patches in the past 6 months (QA2aa OR QA2ab=1)

QA3\_X

In the past 6 months, did you use nicotine gum or chewing pieces like Nicorette?

[DO NOT READ CATEGORIES]

01 – Y           GOTO QA3b\_X

02 – N           GOTO QA4\_X

06 – DK         GOTO QA4\_X

09 – R           GOTO QA4\_X

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

Young adult smoking cessation

QA3b\_X

Over the past 6 months, how long did you use the gum or chewing pieces?

If response > 6months PROBE: "OK, so you have been using gum or chewing pieces for all of the past 6 months and longer?" if yes, enter 6 months

01 – DAYS \_\_\_\_\_ [QA3bD\_X LIMIT: 200]

02 – WEEKS \_\_\_\_\_ [QA3bW\_X LIMIT: 26]

03 – MONTHS \_\_\_\_\_ [QA3bM\_X LIMIT: 6.5]

06 – DK

09 – R

Coverage: Respondents using the gum in the past 6 months (QA3=1)

QA4\_X

In the past 6 months, did you use a nicotine inhaler?

[DO NOT READ CATEGORIES]

01 – Y GOTO QA4b\_X

02 – N GOTO QA43\_X

06 – DK GOTO QA43\_X

09 – R GOTO QA43\_X

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

[W6 – Jan 2008: revised GOTO for response categories 02-09 from QA5a to QA43]

QA4b\_X

Over the past 6 months, how long did you use the inhaler?

If response > 6months PROBE: "OK, so you have been using the inhaler for all of the past 6 months and longer?" if yes, enter 6 months

01 – DAYS \_\_\_\_\_ [QA4bD\_X LIMIT: 200]

02 – WEEKS \_\_\_\_\_ [QA4bW\_X LIMIT: 26]

03 – MONTHS \_\_\_\_\_ [QA4bM\_X LIMIT: 6.5]

06 – DK

09 – R

Coverage: Respondents using the inhaler in the past 6 months (QA4=1)

QA43\_X

[added at W6 – Jan '08]

In the past 6 months, did you use a nicotine lozenge?

NOTE: "lozenge" is pronounced "law – zen – je"

PROBE: A Nicotine lozenge is a small hard candy that you suck on that contains nicotine.

[DO NOT READ CATEGORIES]

01 – Y GOTO QA43b\_X [Added W7]

02 – N GOTO QA5d\_X [Added W7]

06 – DK GOTO QA5d\_X [Added W7]

09 – R GOTO QA5d\_X [Added W7]

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

[W6 – April 25, 2008: Interviewer note and probe added]

[W7 – Oct 2008: added goto statements given addition of QA43b\_X]

Young adult smoking cessation

QA43b\_X

*[Added W7-Oct '08]*

Over the past 6 months, how long did you use the lozenge?

If response > 6 months, PROBE: "OK, so you have been using the lozenge for all of the past 6 months and longer?" If yes, enter 6 months.

[DO NOT READ CATEGORIES]

01 - Enter number of DAYS [QA43bD\_X LIMIT: 200]

02 - Enter number of WEEKS [QA43bW\_X LIMIT: 26]

03 - Enter number of MONTHS [QA43bM\_X LIMIT: 6.5]

06 - Don't Know

09 - Refused

Coverage: Respondents using the lozenge in the past 6 months (QA43=1)

*[W7 - July 2008 - October 23, 2008: CATI error was directing respondents who provided data for response categories 01 and 02 to QA5d instead of QA43; full coverage for QA43 available after Oct 23, 2008]*

QA5d\_X

*[added at W6 - Jan '08: combined QA5A and QA5b from previous surveys]*

In the past 6 months, did you use a pill prescribed by your doctor called bupropion, Zyban or Wellbutrin to help you stop smoking?

IF SB1\_X = 04 AND SB3\_X >= 04 *[Former smokers (>=7 mon)]*

THEN SHOW: "...stay smoke-free"

[DO NOT READ CATEGORIES]

INTERVIEWER NOTE: "bupropion" is pronounced "byoo - pro - pee - on"

01 - Y GOTO QA5c\_X

02 - N GOTO QA34\_X

06 - DK GOTO QA34\_X

09 - R GOTO QA34\_X

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

*[W6 - April 2008: Interviewer note added]*

*[W7- July 2008: Clarified question from "...help you stop smoking" to "...stay smoke-free" FOR former smokers]*

~~QA5a\_X use of Zyban/bupropion~~

*[DELETED at W6 - Jan 2008 - and replaced with QA5d]*

~~QA5b\_X use of Wellbutrin~~

*[DELETED in W6 and replaced with QA5d]*

~~[QA5c\_X decision for use Zyban (QA5a) or Wellbutrin (QA5b) deleted in W6 - Jan 2008]~~

Young adult smoking cessation

QA5c\_X

Over the past 6 months, how long did you use these medications?

PROBE: “Over the past 6 months, what was the total amount of time that you were on these medications?”

If response > 6months PROBE: “OK, so you have been using these medications for all of the past 6 months and longer?” if yes, enter 6 months

*[Probe added and question wording slightly revised beginning of Wave 2 – January 2006]*

[DO NOT READ CATEGORIES]

01 – DAYS \_\_\_\_\_ [QA5cD\_X LIMIT: 200]

02 – WEEKS \_\_\_\_\_ [QA5cW\_X LIMIT: 26]

03 – MONTHS \_\_\_\_\_ [QA5cM\_X LIMIT: 6.5]

06 – DK

09 – R

Coverage: Respondents using Zyban/bupropion or Wellbutrin in the past 6 months (QA5d=1)

*[W6 – Jan 2008: removed code to reference specific names of drug(s); revised question wording to use a general statement “...these medications” (underlined text) given newly merged question (QA5d)]*

QA34\_X

*[added at W5 – July 2007]*

In the past 6 months, did you use a pill prescribed by your doctor called Champix or Varenicline to help you stop smoking?

IF SB1\_X = 04 AND SB3\_X >= 04 *[Former smokers (>=7 mon)]*

THEN SHOW: “...stay smoke-free”

INTERVIEWER NOTE: “Varenicline” is pronounced “var-en-i-clean”

NOTE: If respondent says they have used Chantix, code as yes (01)

[DO NOT READ CATEGORIES]

01 – Y GOTO QA34b\_X

02 – N GOTO QA6\_X

06 – DK GOTO QA6\_X

09 – R GOTO QA6\_X

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

*[W6 – April 2008: Interviewer Note 2 added]*

*[W7- July 2008: Clarified question from “...help you stop smoking” to “...stay smoke-free” FOR former smokers]*

QA34b\_X

*[added at W5 – July 2007]*

Over the past 6 months, how long did you use Champix or Varenicline?

INTERVIEWER NOTE: “Varenicline” is pronounced “var-en-i-clean”

If response > 6months PROBE: “OK, so you have been using this medication for all of the past 6 months and longer?” if yes, enter 6 months

[DO NOT READ CATEGORIES]

01 – DAYS \_\_\_\_\_ [QA34bD\_X LIMIT: 200]

02 – WEEKS \_\_\_\_\_ [QA34bW\_X LIMIT: 26]

03 – MONTHS \_\_\_\_\_ [QA34bM\_X LIMIT: 6.5]

06 – DK

09 – R

Coverage: Coverage: Respondents using Campix/Varenicline in the past 6 months (QA34=1)

Young adult smoking cessation

[NOTE: original variable name was QA35\_X; renamed for combined datasets (e.g., BL, F1 datasets)]

QA6\_X

In the past 6 months, have you used hypnosis, acupuncture, or laser therapy *to help you quit or reduce smoking?*

IF SB1\_X = 04 AND SB3\_X >= 04 [Former smokers (>6 mon)]

THEN SHOW: "...stay smoke-free?"

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

[W6 – Jan 2008: added italicized text "...to help you quit or reduce smoking"]

[W7 – July 2008: added code to read "...stay smoke-free" for FORMER (>6MONTH) smokers]

QA7\_X

In the past 6 months, have you used a self-help booklet or video, a website or a chat group *to help you quit or reduce smoking?*

IF SB1\_X = 04 AND SB3\_X >= 04 [Former smokers (>6 mon)]

THEN SHOW: "...stay smoke-free?"

PROBE: THIS MAY INCLUDE ANY SELF-HELP MATERIAL SUCH AS CDs

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

[W6 – Jan 2008: added italicized text "...to help you quit or reduce smoking"]

[W7 – July 2008: added code to read "...stay smoke-free" for FORMER (>6MONTH) smokers]

QA8\_X

In the past 6 months, have you been to group counselling or a group support program *to help you quit or reduce smoking?*

IF SB1\_X = 04 AND SB3\_X >= 04 [Former smokers (>6 mon)]

THEN SHOW: "...stay smoke-free?"

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

[W6 – Jan 2008: added italicized text "...to help you quit or reduce smoking"]

[W7 – July 2008: added code to read "...stay smoke-free" for FORMER (>6MONTH) smokers]

Young adult smoking cessation

QA9\_X

In the past 6 months, have you seen a specialized addiction counsellor *to help you quit or reduce smoking?*

IF SB1\_X = 04 AND SB3\_X >= 04 [*Former smokers (>6 mon)*]

THEN SHOW: "...stay smoke-free?"

PROBE: This could be a medical doctor or other health professional trained in nicotine addiction.

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Smokers (100+) who [attempted to] quit/reduced, former (1-6 month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

[W6 – Jan 2008: added italicized text "...to help you quit or reduce smoking"]

[W7 – July 2008: added code to read "...stay smoke-free" for FORMER (>6MONTH) smokers]

DQA28\_X

IF RESPONDENT HAS SAID YES TO MORE THAN ONE OF (QA2aa\_X, QA2ab\_X, QA3\_X, QA4\_X, QA43\_X, QA5d\_X, QA34\_X, QA6\_X, QA7\_X, QA8\_X, QA9\_X) THEN GOTO QA28\_X ELSE GOTO DQA30\_X

[W5 – added QA34 to decision list]

[W6 – added QA43 and QA5d (modified) to decision list]

QA28\_X

In the past 6 months, did you use some combination of quit aids or resources to help you quit or reduce smoking, or remain smoke free?

PROBE: Have you used more than one quit aid at the same time? For example, some people might have used both the patch and the gum at the same time.

[DO NOT READ CATEGORIES]

01 – Y GOTO QA29in\_X

02 – N GOTO DQA30\_X

06 – DK GOTO DQA30\_X

09 – R GOTO DQA30\_X

Coverage: Respondents who have used more than one quit aid in past 6 months

QA29in\_X

What quit aids or resources have you used at the same time in the past 6 months?

01 – enter responses (GOTO QA29a\_X, QA29b\_X, QA29c\_X, QA29d\_X, QA29e\_X)

09 – R GOTO DQA30\_X

QA29a\_X, QA29b\_X, QA29c\_X, QA29d\_X, QA29e\_X

\_\_\_\_\_ Enter response

Coverage: Respondents who have used 2 or more quit aids in combination in past 6 months

(QA28=1)

Young adult smoking cessation

DQA30\_X

IF QA2aa\_X = 01 | QA2ab\_X=01 | QA3\_X=01 | QA4\_X=01 | QA43\_X THEN GOTO QA30\_X

*[use of NRT in past 6 months]*

ELSE GOTO DQA31\_X

*[no use of NRT in past 6 months]*

*[W6 – added QA43 to decision list]*

QA30\_X

You said that you had used nicotine replacement therapy such as the patch, gum, or inhaler. Who paid for this quit aid?

[READ CATEGORIES 1-4, SELECT ALL THAT APPLY]

PROBE: Was there anyone else that helped pay for the quit aid?

01 – You

02 – A private insurance plan [PROBE: Like a workplace health benefit plan]

03 – Your local public health unit OR

04 – The government

05 – Other: SPECIFY

06 – DK

09 – R

Coverage: Respondents using NRT in the past 6 months (100+)

*[W5 – July 2007: probe added]*

DQA31\_X

IF (QA5d\_X = 01 | QA34\_X=01) THEN GOTO QA31\_X *[use of zyban or Wellbutrin or Champix in past 6 months; added skip for Champix at W5 – July 2007]*

ELSE GOTO QA32\_X

*[W6 – added QA5d (revised) to decision list; W5 – added QA34 to decision list]*

QA31\_X

You said that you had used pills prescribed by your doctor. Who paid for this quit aid?

[READ CATEGORIES 1-4: SELECT ALL THAT APPLY]

PROBE: Was there anyone else that helped pay for the quit aid?

01 – You

02 – A private insurance plan [PROBE: Like a workplace health benefit plan]

03 – Your local public health unit OR

04 – The government

05 – Other: SPECIFY

06 – DK

09 – R

Coverage: Respondents using zyban and/or Wellbutrin and/or champix in the past 6 months, (100+)

*[W5 – July 2007: revised question wording to remove specific name of drug and be more general for any pills prescribed by a physician (given new question); coverage extended to include those who have used champix (italicized text)]*

*[W5 – July 11, 2007: probe added]*

Young adult smoking cessation

QA32\_X

Who should pay for medications, such as the patch, or the pill named zyban to help people stop smoking?

[READ CATEGORIES 1-5: SELECT ALL THAT APPLY]

PROBE: Is there anyone else that should pay for the medications?

01 – You

02 – A private insurance plan [PROBE: Like a workplace health benefit plan]

03 – Your local public health unit

04 - The government OR

05 – The tobacco companies

06 – Other: SPECIFY

07 – DK

09 - R

Coverage: Current, self-report or former (1-6month) smokers, as well as former (>6mon) smokers who recently used cessation aids (100+)

[W5 – July 11, 2007: probe added]

DQA33\_X

IF ((SB1\_X = 01 | SB1\_X = 02) | (SB1\_X=03 & (SB3\_X = 01 | SB3\_X = 02)) [*current smokers*]  
THEN GOTO QA33\_X

ELSE GOTO DQA10i\_X

[W7-July '08: Changed "IF" statement to above from: "IF ((SB1\_X=01 | SB1\_X=02 | SB1\_X=03) & (SB3\_X=01 | SB3\_X=02)) SKP DQA10i\_X"]

NOTE: Coding error for IF statement in CATI code such that only current occasional smokers were sent to QA33 between W2-W6

QA33\_X

If the government subsidised the cost of stop smoking medications such as the patch or zyban, how much would you be willing to co-pay on a weekly basis for these medications?

[READ CATEGORIES 1 – 5]

01 – Nothing

02 – Five dollars

03 – Ten dollars

04 – Fifteen dollars OR

05 – Twenty dollars or more

06 – DK

09 – R

Coverage: Current smokers (100+)

[W7 - July 2008: corrected coding error to correct coverage (previous coverage was current smokers (100+) who smoked occasionally)]

NOTE: Coding error for IF statement in CATI code such that only **current occasional smokers** were sent to QA33 between W2-W6

Young adult smoking cessation

DQA10i\_X

IF SB1\_X=3 & SB3\_X >= 4 [occasional smokers who last smoked >6 months ago]

THEN GOTO PO1int\_X

[this IF added Oct 24, 2006, W3]

~~IF SB1\_X=04 & SB3\_X >=04 THEN GOTO QA23\_X~~ [former smokers (>=7mon ago)]

~~ELSE GOTO QA10in\_X~~

*NOT RELEVANT IN FOLLOW-UP SURVEYS AFTER W5 AS FOLLOWING QUESTIONS WERE DELETED*

*W5 – JULY 2007: DELETED QA10in TO QA12 AND QA14 FROM FOLLOW-UP SURVEYS – BELIEFS ABOUT STOP SMOKING MEDICATIONS*

*Wave 3 – July 2006: deleted QA13 from surveys*

*W5 – JULY 2007: DELETED QA17in, QA17 TO QA20 FROM FOLLOW-UP SURVEYS – BELIEFS ABOUT COUNSELLING*

QA23\_X

In the past 6 months, have you called the Ontario Smokers' Helpline?

[PROBE: The Ontario Smokers' Helpline is a telephone based counselling service to help smokers quit]

[DO NOT READ CATEGORIES]

01 – Y

02 – N

06 - DK

09 – R

Coverage: Current or former smokers (100+)

[W3 – July 26, 2006: limited coverage to those who have also smoked 100+ cig in their lifetime]

[W3 – Oct 24, 2006: limited to current smokers (i.e. removed self-report occasional smokers who smoked more than 6 months ago)]

QA23a\_X

[added at W5 – July 2007]

In the past 6 months, have you accessed the “Smokers' Helpline Online” sponsored by the Canadian Cancer Society?

PROBE: The “Smokers' Helpline Online” is a web-based counselling service to help smokers quit

[DO NOT READ]

01 – Y

02 – N

06 - DK

09 – R

Coverage: Current or former smokers (100+)

DQA25\_X

IF SB1\_X=04 AND SB3\_X >=04 THEN GOTO PO1int\_X [former smokers (>=7 months)]

ELSE GOTO QA25\_X

Young adult smoking cessation

QA25\_X

In the past 6 months, have you taken part in any other quit programs?

[DO NOT READ CATEGORIES]

01 – Y	GOTO QA26a_X
02 – N	GOTO QA26b_X
06 – DK	GOTO QA26b_X
09 – R	GOTO DHP1_X

Coverage: Current or former (1-6mon) smokers (100+)

[W3: July 26, 2006: limited coverage to those who have also smoked 100+ cig in their lifetime]

[W3, Oct 24, 2006: limited to current smokers (i.e. removed self-report occasional smokers who smoked more than 6 months ago)]

[W6 – Jan '08: added underlined text to question wording (“...any other...”)]

QA26a\_X

Can you tell me the name of this quit program or what organisation sponsored the program?

01 - _____ (Open ended; record response)	GOTO DHP1_X
06 – DK	GOTO DHP1_X
09 – R	GOTO DHP1_X

Coverage: Respondents who participated in a quit program in the past 6 months (QA25=1)

QA26b\_X

Can you tell me the name of a quit program or an organisation that sponsors a quit program?

01 - _____ (Open ended; record response)	
06 – DK	
09 – R	

Coverage: Respondents aware of, but did not participate in, a quit program months (QA25=2,6) (but have not participated in a program)

## **HEALTH PROFESSIONALS**

DHP1\_X

IF (SB2\_0=1|SB2\_1=01|SB2\_2=01) THEN GOTO RAND1\_X

IF SB2\_0=02|SB2\_1=02|SB2\_2=2 THEN GOTO PP1INT\_X [those who have not smoked 100+ cig]

[W3 – DHP1 no longer relevant as R who have not yet smoked 100+ cig in lifetime are directed to PO1int earlier in the survey]

HPint\_X

Now I'd like to ask you about your visits with health professionals.

[SOFTWARE TO RANDOMISE ORDER OF HP0A\_X HP0B\_X HP0C\_X HP0D\_X TO RESPONDENT, USE SAME A,B,C ORDER FOR QUESTIONS HP2A\_X HP2B\_X HP2C\_X HP0D\_X]

[W6 – Jan 2008: added HP0D to randomisation list]

[ADMINISTRATIVE VARIABLE:

RAND1\_X = RANDOMISATION SCHEME OF RESPONDENT]

Young adult smoking cessation

HP0A\_X

In the past 6 months, have you seen a dentist?

- 01 – Y GOTO HP1A\_X
- 02 – N GOTO (NEXT RANDOM QUESTION)
- 06 – DK GOTO (NEXT RANDOM QUESTION)
- 09 – R GOTO (NEXT RANDOM QUESTION)

Coverage: Current or former (1-6mon) smokers (100+)

HP1A\_X

Did the dentist advise you to reduce or quit smoking?

PROBE: In the past 6 months...

- 01 – Y
- 02 – N
- 06 – DK
- 09 – R

Coverage: Respondents who saw a dentist in the past 6 months (HP0A=1)

[W – Jan '07: probe added]

HP0B\_X

In the past 6 months, have you seen a pharmacist?

- 01 – Y GOTO HP1B\_X
- 02 – N GOTO (NEXT RANDOM QUESTION)
- 06 – DK GOTO (NEXT RANDOM QUESTION)
- 09 – R GOTO (NEXT RANDOM QUESTION)

Coverage: Current or former (1-6mon) smokers (100+)

HP1B\_X

Did the pharmacist advise you to reduce or quit smoking?

PROBE: In the past 6 months...

- 01 – Y
- 02 – N
- 06 – DK
- 09 – R

Coverage: Respondents who spoke with a pharmacist in the past 6 months (HP0B=1)

[W4 – Jan '07: probe added]

HP0C\_X

In the past 6 months, have you seen a doctor?

- 01 – Y GOTO HP1C\_X
- 02 – N GOTO (NEXT RANDOM QUESTION)
- 06 – DK GOTO (NEXT RANDOM QUESTION)
- 09 – R GOTO (NEXT RANDOM QUESTION)

Coverage: Current or former (1-6mon) smokers (100+)

HP1C\_X

Did the doctor advise you to reduce or quit smoking?

PROBE: In the past 6 months...

- 01 – Y

Young adult smoking cessation

02 – N  
06 – DK  
09 – R

Coverage: Respondents who saw a doctor in the past 6 months (HP0C=1)  
[W4 – Jan '07: probe added]

HP0D\_X

[added at W6 – Jan '08]

In the past 6 months, have you seen a nurse?

01 – Y           GOTO HP1D\_X  
02 – N           GOTO (NEXT RANDOM QUESTION)  
06 – DK          GOTO (NEXT RANDOM QUESTION)  
09 – R           GOTO (NEXT RANDOM QUESTION)

Coverage: Current or former (1-6mon) smokers (100+)

HP1D\_X

[added at W6 – Jan '08]

Did the nurse advise you to reduce or quit smoking?

PROBE: In the past 6 months...

01 – Y  
02 – N  
06 – DK  
09 – R

Coverage: Respondents who saw a nurse in the past 6 months (HP0D=1)

DHP2\_X (revised at W6 given deletions of HP2A – HP2C)

IF (SB1\_X=01 OR SB1\_X=06 OR SB1\_X=09 OR SB1\_X=02 OR SB1\_X=03) [self-report smokers]

THEN GOTO PP1int\_X           [W6 – Jan 2008: revised GOTO from HP2A to PP1int]

IF SB1\_X=04 THEN GOTO PO1int\_X           [those who currently do not smoke]

DELETED AT W6 – JAN '08 – FROM ALL F.UP SURVEYS: DHP2, HP2A, HP2B, HP2C  
(likeliness of seeking advice to quit by doctor/dentist/pharmacist)

Young adult smoking cessation

**PURCHASING PROFILE**

PP1int\_X

Now I would like to ask you a few questions about the cigarettes that you usually smoke and where you purchase them. . . .

PP1\_X

*[revised in W4 - Jan '07 – to account for brand changes with the discontinuation of the terms “light/mild” by tobacco manufacturers: originally provided coded answers for interviewers, now open ended]*

Can you tell me the exact brand of cigarettes that you usually smoke, including the size and type?

DO NOT READ

ENTER ONE BRAND ONLY

NOTE: PROBE FOR THE RESPONDENT TO READ THE ENTIRE BRAND OF CIGARETTES, SUCH AS SIZE AND/OR TYPE

PROBE: What type of cigarette do you usually smoke, for example, menthol, mild, special blend, or platinum. . . . *[W4 – Jan 07: revised probe]*

PROBE: What size do you usually smoke, is it regular or king size?

PROBE IF CANNOT REMEMBER: Do you have a pack of cigarettes near you that you could read me the name? *[W4 – Jan 07: added probe]*

- 01 – enter full brand GOTO PP1txt\_X then GOTO DPP10a\_X
- 02 – no regular brand GOTO PP11\_X *[W4: category 99 in previous waves]*
- 03 – roll-your-own/loose leaf, any brand GOTO PP11\_X *[W4: category 100 in previous waves]*
- 04 – Native cigarettes or cigarettes from native reserve GOTO PP21\_X *[revised GOTO in W7]*
- 06 – DK GOTO PP11\_X *[W4: category 166 in previous waves]*
- 09 – R GOTO PP11\_X *[W4: category 199 in previous waves]*

*Coverage: Self report smokers (100+) who have smoked within the past 6 months*

*[W3 – July 26, 2006: limited coverage to those who have also smoked 100+ cig in their lifetime (italicized text)]*

*[W3 – Oct 24, 2006: limited coverage to occasional smokers who smoked within the past 6 months (italicized text)]*

*[W4 – Jan 2007: question revised from “what brand of cigarettes do you usually smoke?” and response categories completely revised from previous waves]*

*[W4 – Feb 1, 2007: interviewer notes for abbreviations added to code. See abbreviations doc]*

*[W5 – July 2007: GOTO for response categories 02 – 09 revised to new question PP11 (previously PP3)]*

*[W6 – Apr 2008: added response category 04 and revised GOTO for response category 01]*

*[W7 – July 2008: revised GOTO for response category 01 (previously went to DPP21 in W6 and to DPP10 prior to W6); revised goto to response category 04 from DPP21 TO PP21]*

DPP21\_X \_\_\_\_\_

\_\_\_\_\_ IF PP1\_X = 1 THEN GOTO DPP10\_X

\_\_\_\_\_ IF PP1\_X = 4 THEN GOTO PP21\_X

*[Decision added in W6 – April 2008; deleted in W7- July '08 by incorporating into PP1 above]*

Young adult smoking cessation

PP21\_X *[added in W6 – April 2008]*

Do these cigarettes have a brand name or a trade name, or do they not have a name at all?

PROBE: IF YES, “Can you tell me the name of the cigarettes?”

[DO NOT READ CATEGORIES]

01 – Yes enter full name                   GOTO PP1txt\_X then DPP10\_X  
02 - No                                       GOTO PP11\_X *[W7: revised from PP3]*  
06 – DK                                       GOTO PP11\_X *[W7: revised from PP3]*  
09 – R                                       GOTO PP11\_X *[W7: revised from PP3]*

Coverage: Respondents who report their usual brand are native cigarettes (PP1=04)

*[W7 – July 2008: PP21tx\_X variable name was edited to the open-ended variable PP1txt\_X]*

*[W7 – Sept 17, 2008: revised GOTO for response categories 02-09 from PP3]*

~~DPP10\_X~~

~~IF PP1 = PP1\_X THEN GOTO PP10\_X~~

~~ELSE GOTO PP3\_X~~

*[old DPP10\_X not relevant at W4 given new coding for PP1]*

*[new DPP10\_X added to allow interviewer to determine if there was a brand change from the last interview]*

DPP1a\_X *[added W7 – July 2008]*

INTERVIEWER: Determine if current brand includes “light” or “mild”

Show PP1txt\_X

If PP1txt\_X includes “light”, “L”, “l”, “mild”, “M” or “m”

GOTO PP1a\_X

ELSE GOTO DPP10\_X

PP1a\_X *[added W7 – July 2008]*

Does the word [light/mild] still appear on the package of cigarettes that you are smoking?

PROBE IF UNSURE: Do you have a pack of your cigarettes near you that you could confirm the name?

01 – Yes, pack includes light/mild                   GOTO DPP10\_X  
02 – No, pack no longer includes light/mild                   GOTO PP1b\_X  
06 – DK                                       GOTO DPP10\_X  
09 – R                                       GOTO DPP10\_X

Coverage: Respondents who report smoking light/mild in PP1txt

PP1b\_X *[added W 7 – July 2008]*

Can you tell me the new name of your cigarettes, as it appears on your cigarette pack?

DO NOT READ

PROBE: Do you have a pack of cigarettes near you that you could confirm what’s written on the pack?

PROBE: What type of cigarette do you usually smoke, for example, menthol, mild, special blend, or platinum...

PROBE: What size do you usually smoke, is it regular or king size?

01 – enter full brand                                   GOTO PP1btX\_X  
06 – DK                                       GOTO DPP10\_X  
09 – R                                       GOTO DPP10\_X

Young adult smoking cessation

Coverage: Respondents who report smoking light/mild cigarettes but these terms no longer appear on their cigarette packs [PP1a=02]

DPP10\_X (revised)

*[revised at W4 – Jan 2007]*

INTERVIEWER: Determine whether the old brand is the same as the new brand (DO NOT ASK RESPONDENT)

If PP1txt\_(X-1) is missing GOTO PP11\_X

*[W5: revised GOTO]*

Show Old Brand (at last interview): \_\_\_\_\_ SHOW PP1txt\_(X-1) at last interview

Show New Brand (reported in PP1txt\_X or PP1btX\_X): \_\_\_\_\_

01 – same GOTO PP11\_X

*[GOTO for response 01 revised in W5]*

02 – different GOTO PP10\_X

NOTE: if any part of the name has changed (e.g. strength, size, brand) then code as 02. Do not ask the respondent.

*[W4 – Jan 2007: This decision was added given the changed structure for coding PP1 in W4; previously, the CATI code determined if BL and F1 responses were equivalent]*

*[W5 – July 2007: GOTO for response 01 revised to new question PP11 (previously PP3); also revised GOTO for missing previous brand to PP11 (from PP3)]*

PP10\_X

What is the MAIN reason that you changed the brand of cigarette that you smoke? Is it...

[READ CATEGORIES 1 - 5]

[CHECK ALL THAT APPLY]

*[W7 – allowed for multiple responses]*

NOTE: Please probe for main reason. If respondent insists on two reasons, check both reasons.

01 – for a stronger taste

GOTO PP11\_X

02 – for a milder taste

GOTO PP11\_X

03 – because they cost less

GOTO PP11\_X

04 – to reduce the risks of smoking OR

GOTO PP11\_X

05 – as a step towards quitting smoking completely

GOTO PP11\_X

06 – Other: SPECIFY [DO NOT READ]

GOTO PP11\_X

07 – original brand no longer available [DO NOT READ]

*[new response at W4]*

GOTO PP11\_X

08 – Did not change brand [DO NOT READ]

*[response category recoded at W4]*

GOTO PP10a\_X

*[changed goto from PP11 in W6]*

66 – DK

GOTO PP11\_X

*[recoded response category to 66 from 08 at W4]*

99 – R

GOTO PP11\_X

*[recoded response category to 99 from 09 at W4]*

Coverage: Respondents who currently smoke a different brand than what was reported at their previous interview (100+ and smoked in the past 6 months)

*[W3 – July 26, 2006: limited coverage to those who have smoked 100+ and smoked within the past 6 months]*

*[W4 – Jan 2007: added response category 07; recoded ‘did not change brand’ response from 07 to 08; DK/R response categories recoded to 66 and 99 respectively (from 08 and 09 respectively)]*

*[W6 – April 2008: revised GOTO for response category 08 (previously went to PP11)]*

*[W7 – October 23, 2008: added “[CHECK ALL THAT APPLY]” and interviewer note]*

Young adult smoking cessation

PP10a\_X *[new at W6 – April 2008]*

Did the brand name of the cigarettes that you currently smoke change in the past 6 months?

[DO NOT READ CATEGORIES]

01 – Yes

02 – No

06 – DK

09 – Refusal

Coverage: Respondents who smoke a different brand since their last interview, but report they did not change brands (PP10=08)

PP11\_X *[added at W5 – July 2007]*

The last time you bought cigarettes, how much did you pay?

NOTE: If respondent indicates that price is not in Canadian dollars, code 02 and record both price and currency

[DO NOT READ]

01 – Enter price [PP11n\_X]

GOTO PP20\_X

02 – Other (e.g. other currency)

GOTO PP12\_X

*[W5 – Aug 3, '07: corrected CATI error; was going to PP11n]*

06 – DK

GOTO PP12\_X

09 – R

GOTO PP12\_X

Coverage: Self report smokers (100+) who have smoked within the past 6 months

*[W6 – April 25, 2008: excluded from coverage underlined text: those who usually buy native cigarettes without providing a brand name (PP21>=2)]*

*[W7 – Sept 17, 2008: removed restriction on coverage to original coverage]*

PP20\_X *[added at W5 – July 2007]*

Approximately how many cigarettes did that buy? For example, a carton or bag of 200 or pack of 25?

PROBE: IF RESPONDENT SAYS A PACKAGE, CARTON, OR BAG RESPOND "How many cigarettes were in that [CARTON\PACK\BAG]?"

Interviewer Note: code "other" and provide details if the respondent cannot estimate number of cigarettes that they last purchased.

[DO NOT READ]

01 – enter number of cigarettes [PP20n\_X]

02 – other [specify]

06 – DK

GOTO PP12\_X

09 – R

GOTO PP12\_X

Coverage: Respondents providing price of last cigarette purchase (PP11=1)

*[W6 – Jan 2008: added "... or bag..." to question wording]*

PP12\_X *[added at W5 – July 2007]*

Does your usual brand have large coloured health warnings on the outside of the cigarette package?

[DO NOT READ]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: Self report smokers (100+) who have smoked within the past 6 months

Young adult smoking cessation

[W6 – April 25, 2008: limited coverage to those providing the brand of their usual cigarettes (PP1=1 OR PP21=1)]

[W7 – Sept 17, 2008: removed restriction on coverage to original coverage]

PP19\_X

[W5 – July 2007: added to follow-up surveys only]

Packages of cigarettes are often wrapped in cellophane and may have coloured tear strips. Are the packs of your usual brand wrapped in any of the following:

[READ CATEGORIES 01 – 03]

NOTE: Code gold as yellow; code orange as peach

01 – clear cellophane with a yellow tear strip;

02 – clear cellophane with a peach tear strip; OR

03 – clear cellophane with no coloured tear strip

04 – packages are not wrapped in cellophane [DO NOT READ]

05 – Other – specify [DO NOT READ] [added in W6 – June 6, 2008]

06 – DK

09 – R

Coverage: Self report smokers (100+) who have smoked within the past 6 months

[W6 – April 25, 2008: added note; W6 – June 6, 2008: added response category 05]

[W6 – April 25, 2008: limited coverage to those providing the brand of their usual cigarettes (PP1=1 OR PP21=1)]

[W7 – Sept 17, 2008: removed restriction on coverage to original coverage]

PP3\_X

In the past 6 months did you usually buy your cigarettes in Ontario, out of province, over the internet, through the mail, *or do you usually buy your cigarettes from family or friends?*

[DO NOT READ CATEGORIES]

01 – Ontario

GOTO PP4\_X

02 – Out of province

GOTO DPP13\_X [revised GOTO at W5]

03 – Over the internet or through the mail

GOTO DPP13\_X [revised GOTO at W5]

04 – buy from family or friends

GOTO DPP13\_X [added at W4; revised at W5]

05 – do not usually buy own cigarettes

GOTO DPP13\_X [added at W4; revised at W5]

06 – DK

GOTO PP4\_X

09 – R

GOTO PP4\_X

Coverage: Self report smokers (100+) who have smoked within the past 6 months

[W3 – July 26, 2006: limited coverage to those who have also smoked 100+ cig in their lifetime]

[W3 – Oct 24, 2006: limited coverage to occasional smokers who smoked within the past 6 months (italicized text)]

[W4 – Jan 2007: Response categories 04 and 05 added; italicized question wording extended at to incorporate response category 04]

[W5 – July 2007: revised GOTO for response categories 02,03,04,05 from PP5 to DPP13]

Young adult smoking cessation

PP4\_X

In the past 6 months, where did you usually buy your cigarettes?

[READ CATEGORIES 1 – 5]

[Note: please code Giant Tiger as a discount store]

*[Note added beginning of Wave3]*

PROBE: "A First Nations or Indian Reserve"

*[probe added in W3]*

01 – At convenience stores

GOTO DPP13\_X

02 – At gas stations

GOTO DPP13\_X

03 – At supermarkets

GOTO DPP13\_X

04 – At discount stores such as Costco OR

GOTO DPP13\_X

05 – On a First Nations Reserve

GOTO DPP13\_X

06 – Other Specify \_\_\_\_\_

GOTO DPP13\_X

07 – DK

GOTO DPP13\_X

09 – R

GOTO DPP13\_X

Coverage: Smokers who usually buy cigarettes in Ontario, incl DK,R (PP3=1,6,9)

*[W3 – July 26, 2006: added interviewer NOTE]*

*[W3 – Oct 20, 2006: added interviewer PROBE and modified wording to response category 05 from "Indian Reserve" to "...First Nations Reserve"]*

*[W5 – July '07: revised GOTO for all response categories from PP5 (from PP6 for response 05) to DPP13]*

DPP13\_X

*[W5 – July 2007: added to follow-up surveys only]*

IF PP12\_X=02 *[usual cigarettes do not contain health warnings]*

THEN GOTO PP15\_X

ELSE GOTO PP13\_X *[usual cigarettes contain large health warnings]*

PP13\_X

*[W5 – July 2007: added to follow-up surveys only]*

In the last 6 months, that is since [ANCHOR], have you purchased cigarettes that did NOT have large coloured health warnings on the outside of the cigarette package?

[DO NOT READ]

NOTE: If respondent hesitates to respond, see HELP2 for more probes

01 – Y GOTO PP14\_X

02 – N GOTO PP17\_X

06 – DK GOTO PP17\_X

09 – R GOTO PP17\_X

Coverage: Smokers with a usual brand that have large coloured health warnings (PP12=1,6,9)

*[W5, July 11, 2007: Added note for respondents who hesitate]*

PP14\_X

*[W5 – July 2007: added to follow-up surveys only]*

Can you tell me the name of the brand of cigarettes that did not contain the health warnings on the package?

ENTER ONE BRAND ONLY

NOTE: PROBE FOR THE RESPONDENT TO PROVIDE THE ENTIRE BRAND OF CIGARETTES, SUCH AS SIZE AND/OR TYPE

PROBE: Can you tell me the type of these cigarettes without the large coloured health warnings, for example, menthol, mild, special blend, or platinum...

PROBE: Can you tell me the size of these cigarettes, for example, are they regular or king size?

[DO NOT READ]

01 – ENTER BRAND

GOTO PP14tx\_X

Young adult smoking cessation

02 – No brand name GOTO PP15\_X  
06 – DK GOTO PP15\_X  
09 – R GOTO PP15\_X

Coverage: Smokers usually purchasing cigarettes with health warnings but, in the past 6 months, have purchased cigarettes without large coloured health warnings (PP13=1)

PP15\_X [W5 – July 2007: added to follow-up surveys only]

In the past 30 days, how many packs of these cigarettes without the large health warnings did you purchase?

[DO NOT READ]

NOTE: If respondent hesitates to respond, see HELP2 for more probes

01 – ENTER NUMBER OF CIGARETTES \_\_\_\_\_ [PP15na\_X range: 0-1000]

02 – ENTER NUMBER OF PACKS \_\_\_\_\_ [PP15nb\_X range: 0-1000]

03 – ENTER NUMBER OF CARTONS \_\_\_\_\_ [PP15nc\_X range: 0-1000]

06 – DK GOTO PP16\_X

09 – R GOTO PP16\_X

Coverage: Smokers who have purchased cigarettes without health warnings in the past 6 months (PP12=2 OR PP13=1)

[W5, July 11, 2007: Added note for respondents who hesitate]

PP16\_X [W5 – July 2007: added to follow-up surveys only]

Did you purchase these cigarettes at a convenience store or other retail location?

Probe: Did you purchase the cigarettes without health warnings at a convenience store or other retail location?

[DO NOT READ]

NOTE: If respondent hesitates to respond, see HELP2 for more probes

01 – Y

02 – N

06 – DK

09 – R

Coverage: Smokers who have purchased cigarettes without health warnings in the past 6 months (PP12=2 OR PP13=1)

[W5, July 11, 2007: Added note for respondents who hesitate]

PP17\_X [added at W5 – July 2007]

In the past 6 months, have you purchased cigarettes from a non-retail source, such as out of a person's home, out of a person's vehicle, or from someone on the street?

[DO NOT READ]

NOTE: If respondent hesitates to respond, see HELP2 for more probes

01 – Y GOTO PP18\_X

02 – N GOTO DPP5\_X

06 – DK GOTO DPP5\_X

09 – R GOTO DPP5\_X

Coverage: Self report smokers (100+) who have smoked within the past 6 months

[W5, July 11, 2007: Added note for respondents who hesitate]

Young adult smoking cessation

PP18\_X *[W5 – July 2007: added to follow-up surveys only]*

How were these cigarettes packaged? Were they,,,

PROBE: The last time you purchased these cigarettes, how were they packaged?

[READ CATEGORIES 1 – 4]

NOTE: If respondent hesitates to respond, see HELP2 for more probes

01 – in a small plastic bag like a Ziploc bag

02 – in a large plastic bag like a grocery or garbage bag

03 – in standard loose cigarette PACKAGES OR

04 – in standard cigarette cartons

05 – Other: Specify

06 – DK

09 – R

Coverage: Smokers who have purchased from a non-retail source in the past 6 months (PP17=1)

*[W5, July 11, 2007: Added note for respondents who hesitate]*

HELP2

PROBE: The answers you provide are to be used for research purposes only. They will be kept strictly confidential.

IF ABSOLUTELY NEEDED: “You are free to refuse to answer any of the questions that I ask you”

DPP5\_X *[added at W5 – July 2007]*

IF PP4\_X=05 *[usually bought cigarettes on First Nation’s Reserve in past 6m]*

THEN GOTO PP6\_X *[corrected CATI error in W5 – Aug 1, 2007 – was coded as PP16 instead of PP6]*

ELSE GOTO PP5\_X

PP5\_X

In the past 6 months, did you ever purchase cigarettes on a First Nations Reserve?

PROBE: "A First Nations or Indian Reserve" *[probe added in W3]*

01 – Y GOTO PP6\_X

02 – N GOTO DPP7\_X

06 – DK GOTO DPP7\_X

09 – R GOTO DPP7\_X

Coverage: Smokers who do not usually buy their cigarettes on an Indian/First Nation Reserve (PP4 ne 5)

*[W3 – Oct 20, 2006: Question reworded from “Indian Reserve” to “First Nations Reserve”]*

PP6\_X

About how many packs of cigarettes have you bought on a FIRST NATIONS RESERVE in the past 6 months?

PROBE: "A First Nations or Indian Reserve" *[probe added in W3]*

[DO NOT READ]

01 – ENTER NUMBER OF CIGARETTES \_\_\_\_\_ [PP6na\_X range: 0-1000] *[new W3]*

02 – ENTER NUMBER OF PACKS \_\_\_\_\_ [PP6nb\_X range: 0-1000]  
*[PP6num (now PP6nb) range increased from 500 to 1000 at W2 – Jan ‘06]*

03 – ENTER NUMBER OF CARTONS \_\_\_\_\_ [PP6nc\_X range: 0-1000] *[new W3]*

06 – DK

09 – R

Young adult smoking cessation

Coverage: Smokers who have purchased cigarettes on an Indian or First Nations Reserve in the past 6 months (PP5=1)

[W3 – July 2006: added choice of cigarettes (01), or cartons (03); previously included packs only as response 01 (now response 02 which was also recoded response as PP6nb\_X from PP6num\_X)]

[W3 - October 20/06: Question reworded from “Indian Reserve” to “First Nations Reserve” and probe added]

DPP7\_X

IF PP3\_X=03 THEN GOTO PP8\_X

[respondents who already reported usually purchasing their cig through web/mail]

ELSE GOTO PP7\_X

PP7\_X

In the past 6 months, did you purchase any cigarettes from the internet or through the mail?

[DO NOT READ]

01 – Y GOTO PP8\_X

02 – N GOTO PO1int\_X

06 – DK GOTO PO1int\_X

09 – R GOTO PO1int\_X

Coverage: Smokers who do not usually buy their cigarettes from the internet or through the mail (PP3 ne 3)

PP8\_X

About how many packs of cigarettes have you bought over the INTERNET in the past 6 months?

[DO NOT READ]

01 – ENTER NUMBER OF CIGARETTES \_\_\_\_\_ [PP8na\_X range: 0-1000] [new at W3]

02 – ENTER NUMBER OF PACKS \_\_\_\_\_ [PP8nb\_X range: 0-1000]

[PP8num (now PP8nb) range increased from 200 to 1000 at W2 – Jan ‘06]

03 – ENTER NUMBER OF CARTONS \_\_\_\_\_ [PP8nc\_X range: 0-1000] [new at W3]

06 – DK GOTO PP9\_X

09 – R GOTO PP9\_X

Coverage: Smokers who have purchased cigarettes over the internet or mail in the past 6 months (PP7=1)

[W3 – July 2006: added choice of cigarettes (01), or cartons (03); previously included packs only as response 01 (now response 02 which was also recoded response as PP8nb\_X from PP8num\_X)]

PP9\_X

About how many packs of cigarettes have you bought through the MAIL in the past 6 months?

[DO NOT READ]

01 – ENTER NUMBER OF CIGARETTES \_\_\_\_\_ [PP9na\_X range: 0-1000] [new at W3]

02 – ENTER NUMBER OF PACKS \_\_\_\_\_ [PP9nb\_X range: 0-1000]

[PP9num (now PP9numb) range increased from 200 to 1000 at W2 – Jan ‘06]

03 – ENTER NUMBER OF CARTONS \_\_\_\_\_ [PP9nc\_X range: 0-1000] [new at W3]

06 - Don't Know GOTO PO1int\_X

09 - Refused GOTO PO1int\_X

Coverage: Smokers who have purchased cigarettes over the internet or mail in the past 6 months (PP7=1)

Young adult smoking cessation

[W3 – July 2006: added choice of cigarettes (01), or cartons (03); previously included packs only as response 01 (now response 02 which was also recoded response as PP9nb\_X from PP9num\_X)]

## **POINT OF PURCHASE**

PO1int\_X

The next questions ask about stores that commonly sell cigarettes such as convenience stores, corner stores, and gas stations.

PO1b\_X (revised PO1\_X in W6)

Over the past 7 days how often have you been INSIDE a convenience store, corner store, or gas station?

PROBE: Did you go INSIDE for ANY reason (if needed: not just to buy cigarettes)?

NOTE: If respondent indicates they have been to a gas station but pay at the pump, code as “Not at all”

[READ CATEGORIES 1 – 4]

01 – Not at all	GOTO DPO6_X
02 – One or two days	GOTO DPO5_X
03 – Three to five days OR	GOTO DPO5_X
04 – Six or seven days	GOTO DPO5_X
06 – DK	GOTO DPO6_X
09 – R	GOTO DPO6_X

Coverage: All respondents

[W5 – July 2007: revised skip logic for response category 01,06,09 from ESint to DPO6; revised skip logic for response category 02-04 from PO2 to DPO5]

[added probe at W5 – July 2007]

[W6 – April 2008: added “INSIDE” to question and probe wording; thus revised variable to PO1b\_X; also added interviewer NOTE]

DPO5\_X [added at W5 – July 2007]

IF (SB1\_X=01 OR SB1\_X=02 OR SB1\_X=03) [e.day, almost e.day, occasional smokers]

THEN GOTO P05\_X

IF (SB1\_X=04 AND (SB3\_X=01 OR SB3\_X=02)) [presently “not at all” smoker who smoked in the last month]

THEN GOTO PO5\_X

Else GOTO PO2\_X

PO5\_X [added at W5 – July 2007]

On how many of these occasions did you purchase cigarettes?

Probe: On how many of your visits to a convenience store, corner store, or gas station in the past 7 days did you purchase cigarettes?

[READ CATEGORIES 1-4]

01 - Not at all  
02 - One or two days  
03 - Three to five days OR  
04 - Six or seven days  
06 - DK

Young adult smoking cessation

09 - R

Coverage: Current or self-report smokers who have visited a corner store/gas station in the past 7 days

PO2\_X

In the last 7 days, how often did you notice cigarette packs or other tobacco products displayed BEHIND THE COUNTER at convenience stores, corner stores, or gas stations?

PROBE: There is a province-wide cigarette retail display ban [that came into force on May 31, 2008]; but we are looking to see if people are still seeing cigarette packs or other tobacco products BEHIND the counter at these stores/gas stations.

[READ CATEGORIES 01 - 04]

01 – Never

02 – Sometimes

03 – Most of the time OR

04 – Always

06 – DK

09 – R

Coverage: All respondents who have been to a convenience store, corner store, or gas station in the past 7 days (PO1=2,3,4)

[W6 – April 2008: Added probe]

~~PO3\_X – cigarette displays on the counter~~ DELETED AT W5 – JULY 2007

PO4\_X

Again, in the last 7 days, how often did you notice SIGNS OR POSTERS advertising cigarette brands or tobacco companies at convenience stores, corner stores, or gas stations?

[READ CATEGORIES 01 - 04]

01 – Never

02 – Sometimes

03 – Most of the time OR

04 – Always

06 – DK

09 – R

Coverage: All respondents who have been to a convenience store, corner store, or gas station in the past 7 days (PO1=2,3,4)

[W6 – April 2008: Modified question wording from “...associated with...” to “...advertising...” and stressing CIGARETTE BRANDS OR TOBACCO COMPANIES]

DPO6\_X

[added at W5 – July 2007]

IF (SB1\_X=1 OR SB1\_X=2 OR SB1\_X=3) AND SB13\_X != 04 [e.day, almost e.day, occasional smokers, who are not in a quit attempt]

THEN GOTO P06b\_X

ELSE GOTO PO6a\_X [former smokers and current smokers in a quit attempt]

PO6a\_X

[added at W5 – July 2007]

1f SB1=4 and (SB3a=3 OR SB3<4) SHOW: [added if statement in W7 – July 2008]

“You indicate that you have smoked cigarettes in the past.”

Young adult smoking cessation

SHOW FOR EVERYONE (original question):

Do you feel that seeing cigarettes in stores makes it a lot harder, somewhat harder, or not hard at all for you to resist buying cigarettes?

PROBE (especially for long time former smokers): We are asking this question because some former smokers are tempted to begin smoking again when seeing cigarettes in store.

DO NOT READ]

01 – a lot harder

02 – somewhat harder OR

03 – not hard at all?

06 – DK

09 – R

GOTO ESint\_X

Coverage: Former smokers or current smokers in a quit attempt

[W7 – July 2008: added probe and IF statement for question intro to be read to long-time former smokers]

PO6b\_X

[added at W5 – July 2007]

If you were going to quit smoking, do you feel that seeing cigarettes in stores would make it a lot harder, somewhat harder, or not hard at all for you to resist buying cigarettes?

[DO NOT READ]

01 – a lot harder

02 – somewhat harder OR

03 – not hard at all?

06 – DK

09 – R

GOTO ESint\_X

Coverage: Current or self-report smokers not in a quit attempt

## **SECOND-HAND SMOKE**

ESint\_X

Now I would like to ask you a few questions about smoking in your home, your workplace, and in other places such as restaurants and bars.

ES1\_X

Which of the following best describes the smoking behaviours in your home by the people who LIVE there....

[READ CATEGORIES 1 – 5]

01 - No one smokes anywhere on the property

GOTO ES1b\_X

02 - No one smokes indoors at all

GOTO ES1b\_X

03 - People smoke in certain rooms only

GOTO ES2b\_X

04 – People smoke except when young children are present OR

GOTO ES2b\_X

05 - People smoke anywhere in the home

GOTO ES2b\_X

06 – Both response 3 and 4: People smoke in certain rooms except when children present

[DO NOT READ] [response added at W5]

GOTO ES2b\_X

07– DK [response was 06; revised to 07 in W5]

GOTO ES2b\_X

Young adult smoking cessation

09 – R

GOTO ES2b\_X

Coverage: All respondents

[W4 – Jan 24, 2007: skip logic for 01 and 02 response categories were revised to goto the new question below (previously went to ES2a)]

[W5 – July 2007: response category 06 added; response 07 – DK was renumbered to account for new category (previously 06)]

ES1b\_X

[added in W4 – Jan 24, 2007]

Do you ever allow VISITORS to smoke inside your home?

01 – Y

GOTO ES2a\_X

02 – N

GOTO ES3\_X

06 – DK

GOTO ES2a\_X

09 – R

GOTO ES2a\_X

Coverage: Respondents who live in homes where inhabitants do not smoke [ES1 = 1,2]

[W5 – July 2007: revised skip logic for response category 02 from DTY1 to ES3]

ES2a\_X

Thinking about these REGULAR VISITORS, how often does someone smoke inside your home? Is it...

[READ CATEGORIES 1 – 6]

01 – Daily or almost every day

GOTO ES3\_X

02 – Three or four times a week

GOTO ES3\_X

03 – One or two times a week

GOTO ES3\_X

04 – Less than once a week to once a month

GOTO ES3\_X

05 – Less than once a month OR

GOTO ES3\_X

06 – Not at all

GOTO ES3\_X

07 – DK

GOTO ES3\_X

09 – R

GOTO ES3\_X

Coverage: Respondents who live in homes where inhabitants do not smoke [ES1 = 1,2] but allow visitors to smoke inside their home [ES1b = 1,6,9]

[W4 – Jan 24, 2007: added “these” to the question wording (underlined text)]

[W4 – Jan 24, 2007 - coverage restricted to those who allow visitors to smoke inside their home, incl DK/R in ES1b (italicized text)]

[W5 – July 2007: GOTO for all response categories revised to ES3 (previously DTY1)]

ES2b\_X

Including YOURSELF, family members and regular visitors, how often does someone smoke inside your home? Is it...

[READ CATEGORIES 1 – 5]

01 – Daily or almost every day

02 – Three or four times a week

03 – One or two times a week

04 – Less than once a week to once a month OR

05 – Less than once a month

06 – No one EVER smokes inside your home [W6: new response added to question for MDS]

07 – DK

[W6: DK recoded from 06]

09 – R

Coverage: Respondents who live in homes where people smoke [ES1 ne 1,2]

Young adult smoking cessation

*[W6 – Jan 2008: response category 06 added and DK recoded to 07 as this is needed for the MDS questionnaires (F4-F6); not read for F1 to F3]*

~~DTY1\_X, DDTY1\_X, TY1\_X~~ DELETED AT W5, JULY 2007

ES3\_X

Which of the following best describes the behaviours of people smoking in the PRIVATE vehicle you travel in the most?

[READ CATEGORIES 1 – 5]

PROBE: “That is, for everyone that travels in the vehicle”

IF RESPONDENT DOES NOT HAVE A CAR, Probe2: “I am interested to know about the vehicle that you travel in the most”

01 – No one ever smokes

02 – People smoke except when children are present

03 – People smoke when they are the only person in the car *[revised at W3]*

04 – People smoke whenever they want OR

05 – I do not travel in a private vehicle [USE PUBLIC TRANSIT]

06 – DK

09 – R

Coverage: All respondents

*[W3–July 2006: response category 03 revised from “People smoke except when other adults are present”]*

*[W5 – July 2007: added probes]*

ES4int\_X

Now I would like to ask about smoking in restaurants, bars and taverns in Ontario.

*[W4 – Jan 24, 2007: Added “...in Ontario”]*

ES4\_X

How often during the past 6 months did you go to a restaurant? This includes any restaurant with seating, except food courts. Would you say...

[READ CATEGORIES 1 – 5]

Probe: In Ontario, how often did you go to a restaurant in the past 6 months?

01 – More than once a week GOTO ES14\_X

02 – About once a week GOTO ES14\_X

03 – One to four times a month GOTO ES14\_X

04 – Less than once a month OR GOTO ES6\_X

05 – Not at all GOTO ES6\_X

06 – DK GOTO ES14\_X

09 – R GOTO ES14\_X

Coverage: All respondents

*[W4 - Jan 24, 2007: Probe added]*

*[W5 – July 2007: revised GOTO for response categories 01,02,03,06,09 from ES5 to ES14]*

~~ES5\_X~~ DELETED from follow-up surveys at W5 – July '07

Young adult smoking cessation

ES14\_X (revised in W6)

[NEW at Wave 3 – July 2006]

In the past 30 days, when you have been to a restaurant, how often were you OUTSIDE on a PATIO?  
Would you say...

Probe: Some patios provide heat lamps and other protection to function throughout the year

[READ CATEGORIES 1 – 3]

01 – Most of the time	GOTO ES15_X
02 – Some of the time	GOTO ES15_X
03 – Not at all	GOTO ES6_X
06 – DK	GOTO ES15_X
09 – R	GOTO ES15_X

Coverage: Respondents who have been to a restaurant in the past 30 days [ES4 NE 4,5]

[W6 – Jan 2008: added probe and revised question from “...did you sit OUTSIDE...” to “...were you...” (underlined text)]

ES15\_X

[NEW at Wave 3 – July 2006]

In the past 30 days, have you been OUTSIDE on a PATIO of a restaurant where other people were smoking around you?

Probe: Some patios provide heat lamps and other protection to function throughout the year

[DO NOT READ]

01 – Y  
02 – N  
06 – DK  
09 – R

Coverage: Respondents who have been to a PATIO of a restaurant in the past 30 days [ES14 NE 3]

[W6 – Jan 2008: added probe]

ES6\_X

How often during the past 6 months did you go to a bar or tavern? Would you say...

Probe: In Ontario, how often did you go to a bar or tavern in the past 6 months?"

[READ CATEGORIES 1 – 5]

01 – More than once a week	GOTO ES7_X
02 – About once a week	GOTO ES7_X
03 – One to four times a month	GOTO ES7_X
04 – Less than once a month OR	GOTO ES8int_X
05 – I never go to bars or taverns	GOTO ES8int_X
06 – DK	GOTO ES7_X
09 – R	GOTO ES7_X

Coverage: All respondents

[W4 - Jan 24, 2007: Probe added]

ES7\_X

In the past 30 days, have you been INSIDE a bar or tavern where other people were smoking around you?

Probe: There is a province-wide smoking ban [that came into force on May 31, 2006]; but we are looking to see if people are still being exposed to second-hand-smoke inside.

Probe2: In the past 30 days, have you been inside a bar or tavern in Ontario where other people were smoking around you?

[DO NOT READ]

Young adult smoking cessation

- 01 – Y
- 02 – N
- 06 – DK
- 09 – R

Coverage: Respondents who have been to a bar or tavern in the past 30 days [ES6 NE 4,5]

[W3 – July 14, 2006: Probe added]

[W4 – Jan 24, 2007: Probe2 added]

ES16\_X (revised in W6)

[NEW at Wave 3 – July 2006]

In the past 30 days, when you have been to the bar or tavern, how often were you OUTSIDE on a PATIO? Would you say...

Probe: Some patios provide heat lamps and other protection to function throughout the year

[READ CATEGORIES 1 – 3]

- |                       |               |
|-----------------------|---------------|
| 01 – Most of the time | GOTO ES17_X   |
| 02 – Some of the time | GOTO ES17_X   |
| 03 – Not at all       | GOTO ES8int_X |
| 06 – DK               | GOTO ES17_X   |
| 09 – R                | GOTO ES17_X   |

Coverage: Respondents who have been to a bar or tavern in the past 30 days [ES6 NE 4,5]

[W6 – Jan 2008: added probe and revised question from “...did you sit OUTSIDE...” to “...were you...” (underlined text)]

ES17\_X

[NEW at Wave 3 – July 2006]

In the past 30 days, have you been OUTSIDE on a PATIO of a bar or tavern where other people were smoking around you?

Probe: Some patios provide heat lamps and other protection to function throughout the year

[DO NOT READ]

- 01 – Y
- 02 – N
- 06 – DK
- 09 – R

Coverage: Respondents who have been to a PATIO of a bar or tavern in the past 30 days [ES16 NE 3]

[W6 – Jan 2008: added probe]

ES8int\_X

Now I am going to ask you some questions about smoking at your workplace or job.

ES8\_X

First, do you work for pay outside your home?

[DO NOT READ]

- |                          |             |                  |
|--------------------------|-------------|------------------|
| 01 – Y                   | GOTO ES12_X |                  |
| 02 – N                   | GOTO ES18_X | [new GOTO at W4] |
| 03 – Do not work for pay | GOTO ES18_X | [new GOTO at W4] |
| 06 – DK                  | GOTO ES18_X | [new GOTO at W4] |
| 09 – R                   | GOTO ES18_X | [new GOTO at W4] |

Coverage: All respondents

[W4 – Jan 2007: changed skip logic for response categories 02-09 for new ES questions; previously skipped to TYintro, now to ES18]

Young adult smoking cessation

ES12\_X

Over the past 6 months, that is since [ANCHOR], has your job or position changed?

[DO NOT READ]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Respondents who work for pay outside the home [ES8=1]

ES9\_X

When you are at work, where do you spend most of your time? Are you ...

[READ CATEGORIES 1 – 3]

01 – Mainly indoors

GOTO ES20a\_X

02 – Mainly in a vehicle OR

GOTO ES10c\_X

03 – Mainly outdoors

GOTO ES20a\_X

04 – Equally indoors and outdoors [DO NOT READ]

GOTO ES20a\_X

05 – equally indoors and in a vehicle [DO NOT READ]

GOTO ES20a\_X

06 – DK

GOTO ES11\_X

09 – R

GOTO ES11\_X

Coverage: Respondents who work outside the home [ES8=1]

[W3 – July06: GOTO for response 03 changed to ES10a from ES10b–now ask indoor/outdoor]

[W5 – July 2007: response category 05 added]

ES20a\_X

(Wave 3 – July 2006: Revised wording and variable name from ES10a)

Which of the following describes the policy on smoking INDOORS where you work?

Probe: There is a province-wide smoking ban [that came into force on May 31, 2006]; but not all indoor workplaces are covered.

Probe2: For example, hotel rooms

[READ CATEGORIES 1-4]

01 - smoking is allowed anywhere indoors;

02 - smoking is allowed only in certain areas indoors;

03 - smoking is not allowed anywhere indoors OR

04 - there are no specific rules or policies for smoking indoors

05 – Do not work indoors [DO NOT READ] [response 05 added in W4]

06 - DK

09 - R

Coverage: Respondents who spend the majority of their time at work indoors or outdoors

(ES9=1,3,4,5)

[W3 – July 2006: Question edited, probes added and response categories modified from previous Waves to be specific to indoors; variable renamed from ES10a - SEE PREVIOUS SURVEYS]

[W3 – July 2006: Revised coverage from ES10a to include all indoor and outdoor workers; all respondents sent to ES10b, instead of ES11 as in previous surveys]

[W4 – Jan 24, 2007 – added response category 05 and extended coverage to include responses from ES9=5 (work mainly indoors and in a vehicle)]

**IF ES9\_X=05 GOTO ES10c\_X**

**ELSE GOTO ES20b\_X**

Young adult smoking cessation

[W5 – July 2007: added IF statement]

[W7 – July 2008: CATI code for if statement was deleted; this was rectified and the IF statement put back in the code on Oct 21, 2008]

ES20b\_X

(Wave 3 – July 2006: Revised wording and variable name from ES10b)

Which of the following describes the policy on smoking OUTDOORS where you work?

[READ CATEGORIES 1-4]

01 - smoking is allowed anywhere outdoors on the property

02 - smoking is allowed only in certain areas outdoors on the property;

03 - smoking is not allowed anywhere on the property

04 - there are no specific rules or policies for smoking outdoors

06 - DK

09 - R

Coverage: Respondents who spend the majority of their time at work indoors or outdoors

(ES9=1,3,4)

[W3 – July 2006: Response categories modified from previous Waves to be specific to outdoors; variable renamed from ES10b – SEE PREVIOUS SURVEYS]

[W3 – July 2006: Revised coverage from ES10b to include all indoor and outdoor workers]

ES22\_X

[added at W5 – July 2007]

Is smoking allowed around doorways to your workplace?

[DO NOT READ]

01 – Yes

02 – No

06 – DK

09 – R

**GOTO ES11\_X**

Coverage: Respondents who work mainly indoors or outdoors [ES9=1,3,4]

(Note: excludes those who work "mainly indoors and in a vehicle" [ES9=5])

[NOTE: W7 – July 2008: CATI coding error deleted IF statement in ES20a to direct 'mainly indoors and in a vehicle' workers to ES10c; this was rectified and the IF statement put back in the code on Oct 21, 2008. Thus, this group is included in this coverage for several months in W7]

ES10c\_X

Which of the following describes the policy or rules on smoking inside the vehicle in which you work?

[READ CATEGORIES 1 – 3]

01 – Smoking is allowed inside the vehicle;

GOTO ES11\_X

02 – Smoking is not allowed inside the vehicle OR

GOTO ES11\_X

03 – There are no specific rules or policies

GOTO ES11\_X

06 – DK

GOTO ES11\_X

09 – R

GOTO ES11\_X

Coverage: Respondents who work mainly in a vehicle or those who work "mainly indoors and in a vehicle" [ES9=2,5]

[W5 – July 2007: Expanded coverage to include "those who work indoors and in a vehicle", ES9=5]

Young adult smoking cessation

*[NOTE: W7 – July 2008: CATI coding error deleted IF statement in ES20a to direct 'mainly indoors and in a vehicle' workers to ES10c; this was rectified and the IF statement put back in the code on Oct 21, 2008. Thus, this group (ES9=5) is excluded from this coverage for several months in W7]*

ES11\_X

In the past 30 days, have you been exposed to other people's smoke at work?

Probe: There is a province-wide smoking ban [that came into force on May 31, 2006]; but not all workplaces are covered.

Probe2: For example, outdoor workplaces and some indoor workplaces like hotel rooms

[DO NOT READ]

01 – Y

02 – N

03 – *Do not work*

06 – DK

09 – R

Coverage: Respondents who work outside home [ES8=1]

*[W3 – July 14, 2006: Probes added]*

ES13\_X

Over the past 6 months, how have the smoking policies changed at your workplace? Would you say...

[READ CATEGORIES 1 – 3]

01 – There have been no changes

02 – There are FEWER restrictions on smoking OR

03 – There are MORE restrictions on smoking

06 – DK

09 – R

Coverage: Respondents who work outside home [ES8=1]

ES18\_X

*[NEW AT W4 – Jan '07]*

In the past 30 days, have you been exposed to other people's smoke in ANY INDOOR public place, IF ES8intro=1 AND (ES4=1,2,3,6,9 OR ES6=1,2,3,6,9) *[work outside the home and have been to bar/restaurant in past month][Includes D/K &R responses- W6 Jan.2008]*

THEN SHOW: "OTHER than your workplace, or in bars or restaurants?"

IF ES8intro>1 AND (ES4<=3 OR ES6<=3) *[do NOT work outside the home and have been to bar/restaurant in past month] [Includes D/K &R responses- W6 Jan.2008]*

THEN SHOW: "OTHER than in bars or restaurants?"

IF ES8intro=1 AND (ES4=4,5 OR ES6=4,5) *[work outside the home but have NOT been to bar/restaurant in past month]*

THEN SHOW: "OTHER than your workplace?"

PROBE: For example, in a sport complex or concert hall

PROBE2: "By being exposed, I mean even just noticing someone else's tobacco smoke"

NOTE: Outdoor enclosed spaces are outdoors unless there is a door that physically separates the two environments

IF NEED TO DEFINE INDOOR/OUTDOOR: "Does the [bus shelter/building/etc] have a door that closes completely?: If yes, then "indoor", if no, then "outdoor"

01 – Y

02 – N

Young adult smoking cessation

06 – DK

09 – R

Coverage: All respondents

[W5 – July 2007: added probe2, note and definition]

[W6 – Jan 2008: added differential question wording based on answers to previous questions]

ES19\_X

[NEW AT W4 – Jan '07]

In the past 30 days, have you been exposed to other people's smoke in ANY OUTDOOR public place,

IF ES8intro=1 AND (ES4<=3 OR ES6<=3) [work outside the home and have been to bar/restaurant in past month]

THEN SHOW: "OTHER than your workplace, or in bars or restaurants?"

IF ES8intro>1 AND (ES4<=3 OR ES6<=3) [do NOT work outside the home and have been to bar/restaurant in past month]

THEN SHOW: "OTHER than in bars or restaurants?"

IF ES8intro=1 AND (ES4>3 OR ES6>3) [work outside the home but have NOT been to bar/restaurant in past month]

THEN SHOW: "OTHER than your workplace?"

PROBE: For example, in a park, or on the sidewalk

PROBE2: "By being exposed, I mean even just noticing someone else's tobacco smoke"

NOTE: Outdoor enclosed spaces are outdoors unless there is a door that physically separates the two environments

IF NEED TO DEFINE INDOOR/OUTDOOR: "Does the [bus shelter/building/etc] have a door that closes completely?: If yes, then "indoor", if no, then "outdoor"

01 – Y

02 – N

06 – DK

09 – R

Coverage: All respondents

[W5 – July 2007: added probe2, note and definition]

[W6 – Jan 2008: added differential question wording based on answers to previous questions]

NOTE: CATI CODE ORIGINALLY PLACED ES18\_X AND ES19\_X BEFORE ES13\_X (Jan 2007 - April 2, 2007: W4 AND PART OF W5); THIS WAS SUBSEQUENTLY REVISED ON APR 2, 2007 TO COME AFTER ES13 FOR BETTER FLOW

TYint\_X

Now I would like to ask you about your general opinions on smoking

Young adult smoking cessation

## **TYPOLOGY**

[Deleted at W5 – July 2007 – TY2, TY4, TY5, TY7, TY9, TY11, TY12, TY14]

TY3\_X

Restrictions should be increased to help smokers quit. Do you...

[READ CATEGORIES 1 – 4]

01 – Strongly agree

02 – Somewhat agree

03 – Somewhat disagree OR

04 – Strongly disagree

06 – DK

09 – R

Coverage: All respondents

DTY5\_X

IF (SB1\_X=01 OR SB1\_X=06 OR SB1\_X=09 OR SB1\_X=02 OR SB1\_X=03) AND SB2=01

*[self-report smoker (100+), incl DK,R]*

THEN GOTO TY6\_X *[revised GOTO at W5 – July 2007]*

IF (SB1\_X=04 AND (SB3\_X=01 OR SB3\_X=02)) AND SB2=01

THEN GOTO TY6\_X *[“not at all” smoker (100+)] [revised GOTO at W5]*

IF (SB1\_X=04 AND (SB3\_X>=03)) OR (SB2\_X=2)

THEN GOTO TY8\_X *[former smokers (>=1mon) and not 100+ cig]*

TY6\_X

Do you care if most people know you smoke?

[DO NOT READ]

01 – Y

02 – N

06 – DK

09 – R

Coverage: Current or self-report smokers (100+)

TY8\_X

Everything possible should be done to reduce smoking. Do you...

[READ CATEGORIES 1 – 4]

01 – Strongly agree

02 – Somewhat agree

03 – Somewhat disagree OR

04 – Strongly disagree

06 – DK

09 – R

Coverage: All respondents

DTY9\_X

IF (SB1\_X=01 OR SB1\_X=06 OR SB1\_X=09 OR SB1\_X=02 OR SB1\_X=03) AND (SB2\_(X-

1)|SB2\_X=01)

*[self-report smoker (100+), incl DK,R]*

THEN GOTO TI\_int\_X

Young adult smoking cessation

IF (SB1\_X=04 AND (SB3\_X=01 OR SB3\_X=02)) AND SB2=01  
THEN GOTO TI\_int\_X [*“not at all” smoker (100+)*]

TY10\_X

How easy or difficult would it be for you to ask someone not to smoke in a non-smoking area?

[READ CATEGORIES 1 – 5]

01 – Very easy

02 – Somewhat easy

03 – Somewhat difficult

04 – Very difficult OR

05 – You wouldn't ask

06 – DK

09 – R

Coverage: Former smokers or those who have not smoked 100+ lifetime cigarettes

~~TY13\_X~~ [DELETED at W4]

## **TOBACCO INDUSTRY**

TI\_int\_X

Now I would like to ask you about advertising of tobacco products.

[W4 – Jan 24, 2007: deleted “...a few questions...” from the intro above as some respondents only get one question]

[W5 – July 2007: revised “events sponsored by tobacco companies” to “advertising of tobacco products” (underlined text)]

TI4\_X

[added at W5 – July 2007]

Have you seen any advertising of tobacco products in the last 30 days: in Canadian newspapers or magazines? Canadian magazines are those that focus on Canadian people or stories such as MacLeans, Chatelaine, Flare and Readers' Digest.

[modified question wording on July 18<sup>th</sup> with specific info for CDN magazines]

NOTE: See help for sample list of Canadian magazines

[DO NOT READ]

01 – Yes

02 – No

06 – DK

09 – R

Coverage: All respondents

[NOTE: MDS (F4-F6) has a combined version of TI4 and TI5 to minimise questions – variable TI6]

TI5\_X

[added at W5 – July 2007]

Have you seen any advertising of tobacco products in the last 30 days: in Canadian buses or subway stations or on outdoor billboards?

[DO NOT READ]

01 – Yes

02 – No

06 – DK

Young adult smoking cessation

09 – R

Coverage: All respondents

[NOTE: MDS (F4-F6) has a combined version of TI4 and TI5 to minimise questions – variable TI6]

HELP:

[added list in W5 – July 17, 2007]

Canadian Magazines (NOT a complete list)

7 Jours/TV 7 Jours

Canadian Living

Coup de Pouce

Financial Post Magazine

Harrowsmith

Homemaker's/Madame au Foyer

Le Lundi

Reader's Digest

Saturday Night

The Medical Post

TV Guide

Western Living

Canadian Business

Chatelaine

Elle Québec

Frank Magazine

Hockey News

L'Actualite

Macleans

Report on Business Magazine

Selection du Reader's Digest

Toronto Life

TV Hebdo

W5 – July 2007: DELETED DT11, TI1, TI2, TI3

## **MASS MEDIA**

MM1int\_X

Now I want to ask you about the media more generally.

MM1\_X

First, thinking about news stories related to smoking or tobacco companies that might have been on TV, radio, or in the newspapers. In the past 30 days, that is since [ANCHOR] how often have you seen or heard a news story about smoking?

[READ CATEGORIES 1 – 4]

01 – Never

02 – Sometimes

03 – Often OR

04 – Very often

05 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

[THE MASS MEDIA QUESTIONS CHANGE THROUGHOUT THE WAVES AS THE CURRENT CAMPAIGNS AND SLOGANS CHANGE]

MM2int\_X

The next several questions are about anti-smoking advertisements. In the past 30 days, have you seen any anti-smoking advertisement or campaign taking place in Ontario with the following themes or slogans:

Young adult smoking cessation

MM2\_X

An ad about stop smoking medications like the patch or gum?

INTERVIEWER NOTE: if necessary, remind respondent "IN THE PAST 30 DAYS..."

[DO NOT READ CATEGORIES]

01 – Y

02 – N

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

[W4 – Jan 24, 2007: note added]

~~MM3\_X~~ [stupid.ca: W1-W5]

~~MM4\_X~~ [Support SFO (Heather Crowe Ad): W1-W2]

~~MM5\_X~~ [Ad about Bob: W1-W2]

~~MM6\_X~~ [Smoke-rings: W1-W2]

~~MM7\_X~~ [You have it in you: W2-W5]

~~MM8\_X~~ [What's your quit date?: W2-W5]

~~MM9\_X~~ [Heather Crowe Ad: W2-W3]

MM10\_X

[Added at W3 – July 2006: false MM question]

An ad showing a young child using alphabet blocks to spell out the names of health problems associated with smoking?

INTERVIEWER NOTE: if necessary, remind respondent "IN THE PAST 30 DAYS..."

[DO NOT READ CATEGORIES]

01 – Y

02 – N

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

[W4 – Jan 24, 2007: note added]

~~MM11\_X~~ [Breathe easier (support SFO): W2-W3]

~~MM13\_X~~ [Make your home smoke-free (teddy bear): W4-W5]

Young adult smoking cessation

MM15\_X

[Added W4 – April 27, 2007]

An ad where a boy passes his dad a CD with a recorded message encouraging his dad to quit smoking?

INTERVIEWER NOTE: if necessary, remind respondent “IN THE PAST 30 DAYS...”

[DO NOT READ CATEGORIES]

01 – Y

02 – N

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

~~MM12\_X~~ [Quit Tip...: W2-W5]

MM16\_X

[Added W6 – March 6, 2008]

An ad where smokers talk about craving cigarettes, how hard it is to quit, and subsequent weight gain. Sick people counter each comment with statements about their tobacco-related illnesses such as the patient who needs oxygen and the cancer patient who has lost 25 pounds.

[DO NOT READ CATEGORIES]

01 – Y

02 – N

03 – Do not watch tv/read newspaper [DO NOT READ CATEGORY]

06 – DK

09 – R

Coverage: All respondents

~~MM14\_X~~ [Driven to Quit: Added W4 (Jan 2007); Deleted W5 (July 2007); added back W6 (Jan 2008); deleted W7 (July 2008)]

## **DEMOGRAPHICS**

DEint\_X

These last questions are for classification purposes only.

[removed “Finally” from intro statement – W6 January 2008]

DDE1\_X

IF DE1\_(X-1) = 02 | DE1\_(X-1) = 03 THEN GOTO DE1\_X

[no previous reporting of year of birth in earlier interviews]

ELSE GOTO DDE2\_X

DE1\_X

First, in what year were you born?

01 - \_\_\_\_\_ ENTER YEAR [DE1yr\_X range: 1900-1990]

GOTO DDE3\_X

02 – DK

GOTO DDE1a\_X

03 – R

GOTO DDE1a\_X

Coverage: Respondents not providing year of birth at baseline/previous interview(s)

DDE1a\_X

Young adult smoking cessation

If DE1a\_(X-1) = 07 | DE1a\_(X-1) = 09 THEN GOTO DE1a\_X  
ELSE GOTO DDE2\_X [W6 – Jan 2008: revised GOTO from DDE3 to DDE2]

DE1a\_X

Ok, can you tell me to which age group you belong? Are you...

[READ CATEGORIES 1-6]

01 – 18 – 24

02 – 25 – 34

03 – 35 – 44

04 – 45 – 54

05 – 55 – 64 OR

06 – 65 years of age and over

07 – DK

09 – R

01 Coverage: Respondents not providing year of birth

DDE2\_X [W6 – Jan 2008: added to follow-up surveys but code not applied/read until W7]

If survey = F2, F4, OR F6 THEN GOTO DE2\_X [to ask every other survey (once per year)]

ELSE GOTO DDE3\_X

DE2\_X

[W6 – Jan 2008: added to follow-up surveys]

What is the highest level of education you have completed?

[DO NOT READ CATEGORIES]

01 – No schooling

02 – Some elementary

03 – Completed elementary

04 – Some secondary

05 – Completed secondary

06 – Some community college, CEGEP or nurse's training

07 – Completed community college, CEGEP or nurse's training

08 – Some university or teacher's college

09 – Completed university or teacher's college

10 – Other education or training

66 – DK

99 – R

Coverage: All respondents in W6 (then asked every other survey, once per year at BL, F2, F4, F6)

[W6 – Jan 2008: asked of all longitudinal respondents; subsequently in W7 asked once per year, BL and even numbered follow-up interviews. If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]

DDE3\_X

IF QB5\_X ~= (1,2,3,4,5,6,9) THEN GOTO DE3\_X

ELSE GOTO DE4\_X

Young adult smoking cessation

DE3\_X

In general, would you say your health is:

[READ CATEGORIES 1 – 5]

01 – Excellent

02 – Very good

03 – Good

04 – Fair OR

05 – Poor

06 – DK

09 – R

Coverage: Self-report ‘not at all’ smokers who smoked between 1 week and the past 30 days, and non-current smokers

[Note: Parallel to QB5 above for smokers]

DDE4\_X [W6 – Jan 2008: added to follow-up surveys but code not applied/read until W7]

IF (fnum=1 or fnum=3 or fnum=5) and missed=0 THEN GOTO DE15\_X

ELSE GOTO DE4\_X

**Note DE2, DE4, DE12, DE13, DE5a, DE14:**

In W6, these once-per-year questions were asked on all follow-up surveys as they were initially asked only at BL. This allows us to begin rotating to even numbered surveys in W7. If a respondent misses an even numbered survey, they would be asked these alternate year questions in the next interview (odd numbered), then again 6-months later at the appropriate even numbered interview.

DE4\_X

At present are you married, living with a partner, widowed, divorced, separated, or have you never been married?

[READ CATEGORIES IF NECESSARY]

01 – Married or living with a partner

02 – Widowed

03 – Divorced

04 – Separated

05 – Never been married

06 – DK

09 – R

Coverage: All respondents in W1-W6 (then asked every other survey, once per year at BL, F2, F4, F6)

[W6 – Jan 2008: limited question to be asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews. If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]

Young adult smoking cessation

DE12\_X

[W6 – Jan 2008: added to follow-up surveys]

If ES8intro=1 show:

Earlier you reported that you work for pay outside your home. Are you presently working for pay in a full-time or in a part-time job?

Else show:

Are you presently working for pay in a full-time or in a part-time job, are you unemployed, retired, a homemaker, a student, or something else?

[DO NOT READ]

NOTE: Full-time job includes those on vacations, pregnancy leave, illness or other types of leave from work. Student includes STUDENTS working part-time or a summer job.

01 – full-time job, including those on

02 – part-time job

03 – two or more jobs

[revised in W6 – May 26,2008]

04 – unemployed

05 – retired (includes retired and working part-time)

06 – homemaker

07 – student (includes students working part-time or a summer job)

08 – self-employed

09 – disability (not returning to work)

[added on W6 – March 25,,2008]

10 – other [specify]

[recoded from 09 to 10 in May 26,2008]

66 – DK

99 – R

Coverage: All respondents in W6 (then asked every other survey, once per year at BL, F2, F4, F6)

[W6 – March 26, 2008: Modifications made to improve clarity of questions; was modelled from CAMH Monitor and they made similar edits to their survey; some response categories recoded]

[W6 – Jan 2008: asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]

[W7-July '08, added to response category 07: "Includes students working part-time or a summer job"]

DE13\_X

[W6 – Jan 2008: added to follow-up surveys]

Including yourself, how many people 18 years of age or older are currently living in your household?

01 - \_\_\_\_ Enter number [DE13an\_X range: 0-15]

02 – DK

03 – R

Coverage: All respondents in W6 (then asked every other survey, once per year at BL, F2, F4, F6)

[W6 – Jan 2008: asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]

DE5a\_X

How many children under 18 years of age live in your household?

01 - \_\_\_\_ Enter number [DE5an\_X range: 0-15]

02 – DK

03 – R

Coverage: All respondents in W1-W6 (then asked every other survey, once per year at BL, F2, F4, F6)

Young adult smoking cessation

*[W6 – Jan 2008: limited question to be asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews. If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]*

DE14\_X *[W6 – Jan 2008: added to follow-up surveys]*

Including yourself, how many people in your household smoke cigarettes?

01 - \_\_\_\_ Enter number [DE14n\_X range: 0-15]

06 – DK

09 – R

**Coverage:** All respondents in W6 (then asked every other survey, once per year at BL, F2, F4, F6)

*[W6 – Jan '08 - asked of all longitudinal respondents once per year, BL and even numbered follow-up interviews If they miss F2, they would be asked these questions in F3, then again 6-months later at F4 then F6 if they do not miss a survey before then.]*

(for ALL follow-up surveys, F1-F6)

DE15\_X *[added at W6 – Jan 2008]*

Has your address changed since we last spoke to you on [DATE OF LAST INTERVIEW]?

01 – Yes GOTO DE9int\_X

02 – No GOTO DDE6d\_X

09 – R

**Coverage:** All respondents

DE9int\_X

I will get your new address in a minute. I just have two more quick questions.

DE9\_X *[added at W5 – July 2007]*

How would you describe your sense of belonging to your local community? Would you say:

PROBE: How strongly do you feel that you are part of your local community?

[READ CATEGORIES 01 – 04]

01 – Very strong,

02 – Somewhat strong,

03 – Somewhat weak, OR

04 – Very weak

06 – DK

09 – R

**Coverage:** Respondents who have changed their address since their last interview

*[W6 – Jan 2008: limited coverage to those who have changed their address since their last interview; changed placement of question in follow-up surveys to allow for better interview flow]*

DE10\_X *[added to F.UP at W6, Jan 2008]*

Which of the following best describes your main residence?

[READ CATEGORIES 1-4]

01 – A detached, single family home

02 – An attached house such as a townhouse, or a semi-detached house.

03 – A multiple unit dwelling, such as an apartment building, a condominium apartment, or a duplex

04 – Shared accommodation, such as a rooming house, dorm, or retirement home

05 – Other specify

06 – DK

Young adult smoking cessation

09 – R

Coverage: Respondents who have changed their address since their last interview

DDE6d\_X *[added for F3 surveys at W5 – July 2007]*

If survey is F3 and Cohort = 3 or 4 THEN GOTO DE6d *[cohorts not previously asked if we could recontact them for additional follow-up interviews: C2 asked in W5 and C5 and C6 had new recruitment script with additional follow-ups]*

ELSE GOTO DDE6\_X

DE6d\_X *[added for F3 surveys at W5 – July 2007]*

Thank you for answering my questions. As this is an important ACADEMIC survey to better understand changes over time in attitudes, behaviours and beliefs related to smoking, we are extending the number of follow-up interviews. We will be conducting up to 3 additional surveys that will be reduced to 10-15 minutes in length - you will continue to receive a \$15 cheque for each survey in which you participate. Can we contact you again in approximately 6-months from now for an additional follow-up interview?

NOTE: see HELP for more information on number of follow-up interviews

01 – Yes GOTO DDE6\_X

02 – No GOTO DE6e\_X

Coverage: F3 surveys for cohorts 3,4

DE6e\_X *[added for F3 surveys at W5 – July 2007]*

We really appreciate your participation in the previous surveys. The difference between this and most other surveys is that we are speaking to the same people a number of times to better understand changes over time in attitudes, behaviours and beliefs related to smoking. This is why your participation is so important to us.

[DO NOT READ]

01 – YES will participate

02 – NO,

Coverage: C3 and C4 F3 participants who refuse participation in future follow-up surveys

DDE6\_X

IF address = " " {no address given previously} THEN GOTO DE6a\_X

IF Q4eb\_X = 02 {address given previously, did not receive payment for previous survey(s)}

THEN GOTO DE6b\_X

IF Q4i\_X = 03 | Q4i\_X = 04 THEN GOTO DE7\_X {does not want to provide address}

IF (DE6e\_X=2) THEN GOTO DE7\_X {address on file, but does not want to participate in F4-F6} *[added at W5 – July 2007]*

ELSE GOTO DE6c\_X {baseline address and follow-up payment}

Young adult smoking cessation

DE6a\_X

Thank you again for answering my questions. We would like to send you the \$15 honourarium for participating in this survey. Can you tell me your name, address and postal code where you receive your mail?

PROBE: This is a UNIVERSITY based research study. Your answers to this survey will be kept absolutely confidential. All personal information, including your name and address, will be kept strictly confidential and will not be shared with any person or group that is not associated with this survey.

[MAKE SURE THAT SPELLING IS CORRECT—REPEAT BACK TO RESPONDENT TO CHECK]

01 – SPECIFY ADDRESS: \_\_\_\_\_ GOTO DEFN\_X – DEPCconf\_X

02 – NO GOTO DE7\_X

Coverage: Respondents with no address on file

DE6b\_X

Thank you again for answering my questions. We are sorry that you have not yet received your cheque for this survey. IF DE15\_X = 1 THEN SHOW:

Can you tell me your new mailing address?

IF DE15\_X != 1 THEN SHOW:

I would like to confirm your address that we have on our files

01 – SPECIFY NEW ADDRESS/CONTACT INFO \_\_\_\_\_

GOTO DEFN\_X – DEPCconf\_X

02 – CONFIRM STORED ADDRESS/CONTACT NUMBER

GOTO REPAY\_X

Coverage: Respondents with address on file but no cheque received

REPAY\_X

[CONFIRM ADDRESS]

Please call us if you have not received the cheque by next week and we will ensure that you receive it. Our toll-free number is 1-866-303-2822.

DE6c\_X

Thank you again for answering my questions. About 6 months from now, in [month], we plan to contact you again for the next follow-up survey. Before calling you, we will send you another cheque for \$15, as a token of our thanks. To make sure that the cheque for the next survey reaches you, we would like to keep your contact information up to date. Do you expect your address or phone number to change at any time over the next year?

IF DE15\_X = 1 THEN SHOW:

Can you tell me your new mailing address?

01 – YES SPECIFY ADDRESS/CONTACT INFO: \_\_\_\_\_

GOTO DEFN\_X – DEacon\_X

02 – NO [CONFIRM ADDRESS from previous interview]

Coverage: All respondents who received their cheque

Young adult smoking cessation

DE7\_X

Can you just tell me your postal code?

[PROBE: This information will be used for regional classification purposes only]

01 - \_\_\_\_\_ ENTER 6-DIGIT POSTAL CODE GOTO DEPCconf\_X

06 – DK GOTO DE8\_X

09 – No/R GOTO DE8\_X

Coverage: Respondents who do not want to provide full address

DE8\_X

Would you be willing to provide me with the first 3 digits of your postal code?

PROBE: As a reminder, this information will be kept completely confidential and will not be shared with any person or group that is not associated with this survey. This information will be used to help us understand regional differences in behaviours and beliefs related to tobacco.

01 - \_\_\_\_\_ ENTER 3-DIGIT POSTAL CODE GOTO DEPCconf\_X

06 – DK GOTO DCONFIRM\_X

09 – No/R GOTO DCONFIRM\_X

Coverage: Respondents who do not want to provide full postal code

DEFNAME\_X – DEPCconf\_X

DDEID\_X

*[Added December 2005]*

IF !((address = " ") | (address = "")) GOTO DDEAc\_X (name/address previously provided)

IF (Q4j\_X = 01) GOTO DDEAc\_X (provided nickname/initials during previous call)

IF (DE6a\_X = 01) GOTO DDEAc\_X (provided full address at end of survey)

ELSE GOTO DEID\_X

DEID\_X

*[Added December 2005]*

Can you please provide us with something that uniquely identifies you so that when we call back we will be able to reach you? For example, just your first name, a nickname or your initials?

01 - Enter name/initials (DEIDtx\_X)

02 – Refused GOTO DDEAc\_X

DDEAc\_X

IF DE6a\_X=01 | DE6b=01 | DE6c=01 | DEacon=02 THEN GOTO DEacon\_X

IF DEacon=01 THEN GOTO DEacon2\_X

DEacon\_X

Is there an alternate number that you can also be reached at?

01 - Yes [Enter: DEAltnum (###) ### - #####]

02 – No GOTO Q.COMMENTS\_X

Young adult smoking cessation

DEAc2\_X

Last time we spoke, you told us that an alternate phone number that you can be reached at was [DEAltnum]. Is this still your alternate phone number?

01 – Yes

GOTO Q.COMMENTS\_X

02 – No [Enter: DEAltnum\_X (###) ### - #####]

GOTO Q.COMMENTS\_X

Q.COMMENTS\_X

If respondent would like to provide comments, enter them here. Interviewer - Do not ask respondent if they have any comments.

---

Q\_end

*[revised at W6 Jan '08]*

If survey != F6, or DE6e != 2 show:

Thank you very much for answering my questions and continuing your participation in this study. We will contact you again in about 6 months time.

If (Fnum=3 & DE6e\_X=2)

*[Respondents declining further participation]*

Thank you very much for answering my questions. We want to thank you again for your participation in this survey.

Show for everyone:

For more information about this project, you can contact us at our toll-free number provided in our correspondence letter.

IF NO ADDRESS ON FILE, SHOW:

For more information about this project, you can contact us at our toll-free number, 1-866-303-2822.

THANK AND TERMINATE

A7. [POSTAL CODE]

A8. [INTERVIEW COMPLETION TIME: HH:MM]

A9. [SURVEY LENGTH]

**Appendix C**  
**Survey Questions and Variable Coding: Exposure to Tobacco**  
**Industry Marketing, Exposure to Anti-Tobacco Mass Media**  
**Campaigns, and Quitting Knowledge**

Young adult smoking cessation

**Table C-1: Survey questions and variable coding for exposure to tobacco industry marketing**

<b>Question</b>	<b>BL Cohorts</b>	<b>Exposure to Tobacco Industry Marketing</b>
In the last 6 months, that is since [ANCHOR], have you noticed signs, posters or branded items in bars, pubs or clubs promoting cigarettes or tobacco products? Y, N, DK, R, N/A (valid skip: has not been to a bar/tavern in past 6 months)	C1-C4	If Y then exposure=yes; If N, DK, R, N/A then exposure=no
In the last 6 months, have you been to a club or bar event sponsored by a tobacco company, for example Definity event / extreme music series event? Y, N, DK, R, N/A (valid skip: has not been to a bar/tavern in past 6 months)	C1-C4	If Y then exposure=yes; If N, DK, R, N/A then exposure=no
In the last six months, have you been to a sporting event sponsored by a tobacco company, for example extreme sports event? Y, N, DK, R	C1-C4	If Y then exposure=yes; If N, DK, R, N/A then exposure=no
Have you seen any advertising of tobacco products in the last 30 days: in Canadian newspapers or magazines? Y, N, DK, R	C5-C6	If Y then exposure=yes; If N, DK, R, N/A then exposure=no
Have you seen any advertising of tobacco products in the last 30 days: in Canadian buses or subway stations or on outdoor billboards? Y, N, DK, R	C5-C6	If Y then exposure=yes; If N, DK, R, N/A then exposure=no
Measure: Tobacco industry marketing exposure	C1-C6	Any tobacco industry exposure: respond “yes” to any of the above exposure questions  No tobacco industry exposure: Respond “no” to all of the above exposure questions

Source: Ontario Tobacco Survey Baseline and Follow-up 1 Questionnaires (July 2005 – December 2008).

Note: C = cohort. e.g. C1 represents Cohort 1.

Young adult smoking cessation

**Table C-2: Survey questions and variable coding for exposure to anti-tobacco mass media campaigns**

Question	BL Cohorts	Question Coding
An ad about stop smoking medications like the patch or gum? Y, N, Do not watch tv/read newspaper, DK, R	C1-C6	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad about a former waitress who is dying of second-hand smoke with the message: Support a Smoke-Free Ontario? Y, N, Do not watch tv/read newspaper, DK, R	C1-C2	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad about a character named Bob who's trying to quit smoking? Y,N, Do not watch tv/read newspaper, DK, R	C1-C2	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad showing smoke-rings with the message: "Don't let your children be a target, make your home smoke free?" Y, N, Do not watch tv/read newspaper, DK, R	C1-C2	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad showing people overcoming life challenges, including throwing away a pack of cigarettes with the message: "you have it in you"? Y, N, Do not watch tv/read newspaper, DK, R	C2-C5	If missing then MMexp5= If N, DK, R, OR “do not watch” then MMexp5=No Else if Y then MMexp5=Yes
An ad showing different people seeing messages about appointments connected to quitting smoking with the message "what's your quit date"? Y, N, Do not watch tv/read newspaper, DK, R	C2-C5	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad about a former waitress talking to her former boss about how second-hand smoke has affected her health? Y, N, Do not watch tv/read newspaper, DK, R	C2-C3	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
Have you seen or heard of radio or newspaper ads providing tips and support for quitting? For example, "Quit Tip #6: Change your routine"? Y, N, Do not watch tv/read newspaper, DK, R	C2-C5	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad showing a woman smoking near a window. Her smoke travels through the house and clings to a teddy bear that is picked up by a little girl with the message: "Make you home smoke-free"? Y, N, Do not watch tv/read newspaper, DK, R	C4-C5	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
Have you seen or heard of radio or newspaper ads for the [year] Driven to Quit Challenge, sponsored by the Canadian Cancer Society? Y, N, Do not watch tv/read newspaper, DK, R	C4,C6	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad where a boy passes his dad a CD with a recorded message encouraging his dad to quit smoking? Y, N, Do not watch tv/read newspaper, DK, R	C4-C6	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
An ad where smokers talk about craving cigarettes, how hard it is to quit, and subsequent weight gain. Sick people counter each comment with statements about their tobacco-related illnesses such as the patient who needs oxygen and the cancer patient who has lost 25 pounds. Y, N, Do not watch tv/read newspaper, DK, R	C6	If Y then exposure=Yes If N, DK, R, OR “do not watch” then exposure=No
Measure: Anti-tobacco mass media exposure	C1-C6	Exposure: respond “Yes” to <i>any</i> of the above media campaigns  No exposure: respond “No” to <i>all</i> of the above media campaigns

Source: Ontario Tobacco Survey Baseline and Follow-up 1 Questionnaires (July 2005 – December 2008).

Note: C = cohort. e.g. C1 represents Cohort 1. Survey Question: “In the past 30 days, have you seen any anti-smoking advertisement or campaign taking place in Ontario with the following themes or slogans?”

**Table C-3: Survey questions and variable coding for quitting knowledge: benefits of stop smoking medications and counselling**

<b>Knowledge Domain</b>	<b>Cohorts 1 – 4 (July 2005 – June 2007)</b>	<b>Cohorts 5 – 6 (July 2007 – June 2008)</b>	<b>Variable Coding</b>
Stop smoking medications	Stop smoking medications make it easier to quit than trying to quit on your own. Do you: Strongly agree; Somewhat agree; Somewhat disagree; OR Strongly disagree?	Compared to trying to quit on your own, do you feel that stop smoking medications make it: A lot easier than trying to quit on your own; A little easier; About the same; A little harder; OR A lot harder than trying to quit on your own?	Knowledge about stop smoking medications.  Believe they make quitting <u>a lot easier</u> : C1-C4 = “strongly agree” C5-C6 = “a lot easier”  <u>Do not</u> believe they make quitting a lot easier: C1-C4 = “somewhat agree”, “somewhat disagree”, “strongly agree” or don’t know C5-C6 = “a little easier”, “about the same”, “a little harder”, “a lot harder”, or don’t know
Counselling	Counselling would make quitting smoking easier. Do you: Strongly agree; Somewhat agree; Somewhat disagree; OR Strongly disagree?	Do you feel that counselling programs would make quitting smoking: A lot easier; A little easier; Counselling would not make quitting smoking any easier than trying to quit on your own; OR Counselling would make quitting smoking harder than trying to quit on your own?	Knowledge about counselling.  Believe it would make quitting <u>a lot easier</u> : C1-C4 = “strongly agree” C5-C6 = “a lot easier”  <u>Do not</u> believe they make quitting a lot easier: C1-C4 = “somewhat agree” “somewhat disagree”, “strongly disagree”, or don’t know C5-C6 = “a little easier”, “...not...any easier”, “...make quitting harder”, or don’t know

Source: Ontario Tobacco Survey Baseline and Follow-up 1 Questionnaires (July 2005 – December 2008).

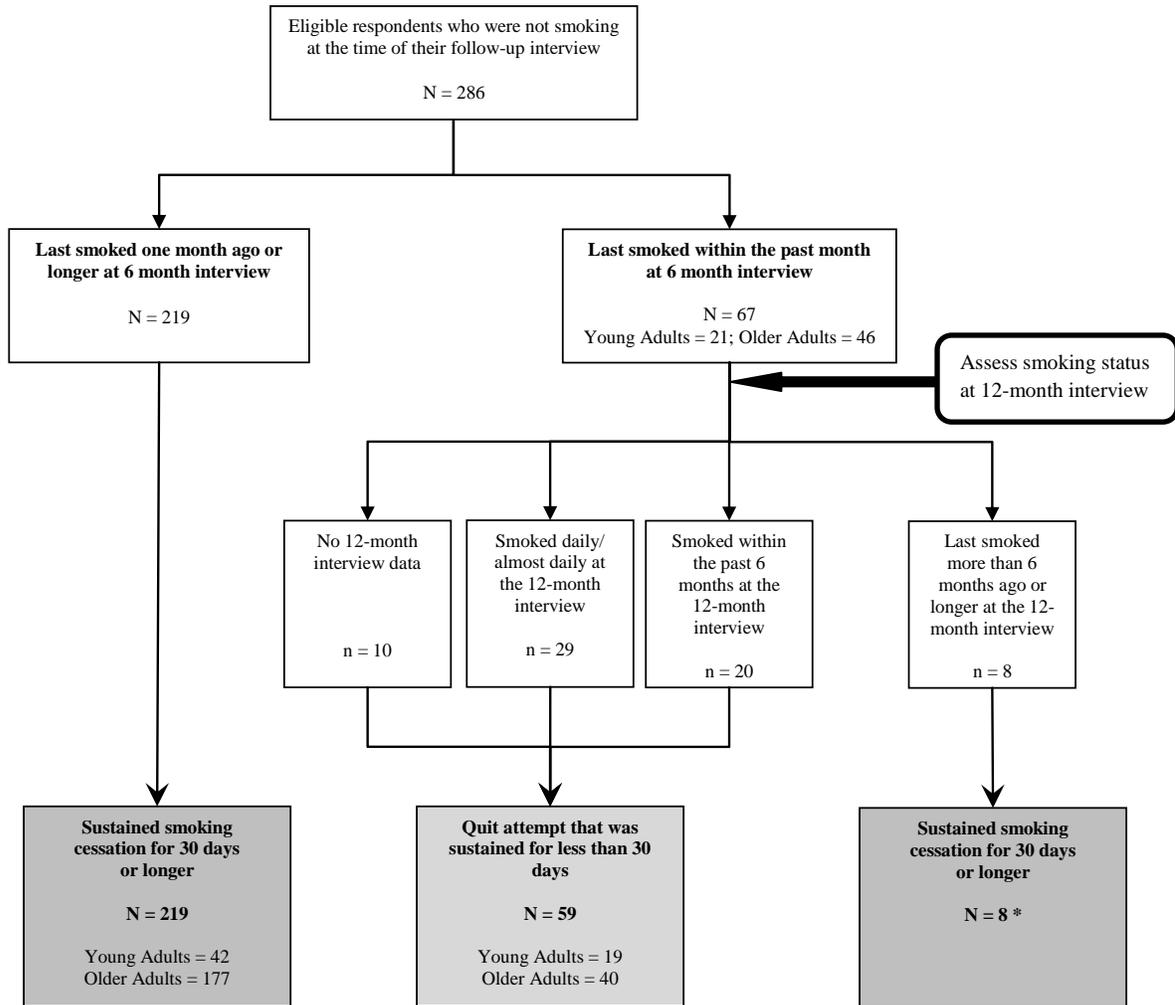
Note: Knowledge about stop smoking medications and counselling was accessed at baseline; the questions changed format in Wave 5 data collection as detailed in this table.

For stop smoking medications, beliefs that smoking medications did not make quitting a lot easier had similar estimates between the two question formats at 24% for Cohorts 1-4 and 23% for Cohorts 5 and 6; similar results were identified for the two formats of the counselling questions.

## **Appendix D**

### **Classification of Smoking Cessation Behaviours Among Young Adults Not Smoking at the Six-Month Interview**

Young adult smoking cessation



**Figure D-1: Classification for smoking cessation behaviours among respondents who were not smoking at the time of six-month follow-up interview**

Source: Ontario Tobacco Survey Baseline, Follow-up 1 and Follow-up 2 data (July 2005 – June 2009).

\* Not reported by young and older adults as cell sizes were less than five.

## **Appendix E**

### **Independent Variable Associations**

Young adult smoking cessation

**Table E- 1: Associations between independent variables**

Independent Variable	Age*	Sex	Education	Employment	Marital status	Smoking status	HSI*	Self-efficacy	Perceived health	Perceived quit benefits	Cessation aid use	Support to quit	Smoke-free homes	Someone to make quitting difficult	Tobacco industry exposure	Anti-tobacco media	Lifetime no. of quit attempts	Quit intention	Quit date	Perceived addiction	Perceived ease of quitting	Knowledge: stop smoking medications	Knowledge: counselling	
Age*																								
Sex	0.5143																							
Education	<0.0001	0.2432																						
Employment	0.1792	0.0756	0.0728																					
Marital status	<0.0001	0.001	0.9656	0.4591																				
Smoking status	0.0783	0.4382	<0.0001	0.8452	0.4911																			
HSI*	0.9095	0.1722	<0.0001	0.403	0.0783	<0.0001																		
Self efficacy	0.0228	0.0239	0.2603	0.8256	0.0622	0.0004	<0.0001																	
Perceived health	0.0174	0.6098	0.0159	0.2376	0.4669	0.0670	0.0306	0.3675																
Perceived quit benefits	0.5187	0.593	0.2033	0.287	0.2260	<0.0001	0.0002	0.0341	0.9664															
Cessation aid use	0.9565	0.0455	0.1626	0.8972	0.3724	0.2447	0.0650	0.1874	0.3773	0.0012														
Support to quit	0.2595	0.3468	0.9429	0.2505	0.9930	0.9500	0.3820	0.1484	0.7596	0.1221	0.5003													
Smoke-free homes	0.2401	0.4094	0.0003	0.7946	0.6799	0.0374	<0.0001	0.1336	0.3948	0.4181	0.3855	0.0567												
Someone to make quitting difficult	0.0002	0.8921	0.4248	0.8363	0.0204	0.0071	0.0364	0.0064	0.0269	0.4609	0.4216	0.7862	0.1792											
Tobacco industry exposure	0.0182	0.0251	0.1258	0.4549	0.1105	0.1335	0.0655	0.6988	0.7031	0.0625	0.8587	0.8435	0.4532	0.0001										
Anti-tobacco media	0.1405	0.1135	0.5628	0.0027	0.6701	0.2599	0.4750	0.0205	0.7832	0.3721	0.8220	0.6450	0.6392	0.1035	0.4025									
Lifetime no. of quit attempts	0.0007	0.6024	0.0096	0.4363	0.0418	0.0001	<0.0001	0.0024	0.5359	<0.0001	0.3193	0.0012	0.8972	0.0053	0.7036	0.6694								
Quit intention	0.8647	0.5697	0.3276	0.8397	0.2792	0.2796	0.0046	0.1134	0.7437	<0.0001	0.3295	0.4476	0.9585	0.5031	0.9563	0.2675	0.0011							
Quit date	0.5404	0.7897	0.4395	0.1484	0.7047	0.1074	0.0017	0.0050	0.7448	0.2377	0.2995	0.8584	0.3515	0.1419	0.8854	0.7393	0.6339	†						
Perceived addiction	0.0507	0.1579	<0.0001	0.5031	0.0009	<0.0001	<0.0001	<0.0001	0.1374	<0.0001	0.0012	0.0561	0.0002	0.0464	0.4336	0.7285	<0.0001	0.4623	0.4562					
Perceived ease of quitting	0.7386	0.3549	<0.0001	0.6393	0.0039	<0.0001	<0.0001	<0.0001	0.0077	<0.0001	0.0004	0.5397	0.0010	0.0001	0.7662	0.0484	<0.0001	0.8707	0.1276	<0.0001				
Knowledge: stop smoking medications	0.1969	0.5894	0.667	0.5718	0.1014	0.8769	0.7281	0.5430	0.3055	0.9679	0.0257	0.3844	0.0472	0.7837	0.1649	0.7800	0.3429	0.6624	0.7533	0.0750	0.7414			
Knowledge: counselling	0.8309	0.425	0.4466	0.5469	0.4262	0.9892	0.0800	0.0755	0.0208	0.4624	0.0817	0.4835	0.6024	0.7360	0.7154	0.0911	0.0906	0.9507	0.2867	0.2156	0.1212	0.0178		

Source: Ontario Tobacco Survey Baseline, Follow-up 1 and Follow-up 2 data (July 2005 – June 2009). Weighted data.

NOTE: p-values for design-based chi-square tests for associations between categorical variables and design-based t-tests for associations with continuous variables

\* continuous variables (age and HSI) † p-value not reported as one cell has a zero frequency (i.e., there are no YA who do not have an intention to quit but reported a quit date)

**Appendix F**  
**Summary of Backwards Elimination Procedures**

Young adult smoking cessation

**Table F-1: Summary of backwards elimination for Model 1: making a quit attempt *versus* making no attempt to quit**

Step	Effect Removed	DF	No. of Variables Remaining in Model	Wald Chi-Square	p-value
1	Someone to make quitting more difficult	1	12	0.16	0.690
2	Education	1	11	0.26	0.611
3	Perceived addiction	1	10	0.36	0.549
4	Heaviness of Smoking Index	1	9	1.03	0.310
5	Sex	1	8	0.98	0.323
6	Support to quit	1	7	1.08	0.298
7	Efficacy	1	6	2.27	0.132
8	Smoke-free homes	1	5	1.80	0.180
9	Age	1	4	1.64	0.200

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data for young adult smokers, July 2005 – December 2008. Weighted data.

Note: alpha = 0.10 for backward elimination procedures.

**Table F-2: Summary of backwards elimination for Model 2: successful smoking cessation *versus* making a quit attempt and making no attempt to quit**

Step	Effect Removed	DF	No. of Variables Remaining in Model	Wald Chi-Square	p-value
1	Lifetime number of quit attempts	2	12	0.33	0.846
2	Age	1	11	0.18	0.670
3	Someone to make quitting more difficult	1	10	0.39	0.533
4	Smoke-free homes	1	9	0.52	0.471
5	Knowledge of stop smoking medications	1	8	0.65	0.421
6	Quit intention	1	7	0.85	0.356
7	Education	1	6	0.89	0.345
8	Perceived addiction	1	5	1.25	0.263
9	Sex	1	4	1.45	0.228

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data for young adult smokers, July 2005 – December 2008. Weighted data.

Note: alpha = 0.10 for backward elimination procedures.

**Appendix G**  
**Variance Inflation Factors for the Complex Models Predicting**  
**Young Adult Attempts to Quit and Smoking Cessation Behaviours**

Young adult smoking cessation

**Table G- 1: Variance inflation factors for complex regression models predicting young adult smoking cessation behaviours**

Characteristic	VIF for Model 1: attempt to quit that lasted <30 days vs. no attempt to quit	VIF for Model 2: successful quit for >=30 days vs. quit attempt that lasted <30 days and no attempt to quit
<b>Age (years)</b>		
Continuous	1.28	1.27
<b>Sex</b>		
Women		
Men	1.05	1.04
<b>Education</b>		
High school or less		
More than high school	1.04	1.04
<b>Heaviness of Smoking Index</b>		
Continuous	1.74	1.81
<b>Self Efficacy</b>		
Less confident or uncertain confidence		
Very confident	1.29	1.30
<b>Use of cessation resources/supports<sup>a</sup></b>		
No		
Yes	1.07	1.08
<b>Support to quit</b>		
No, don't know		
Yes	1.08	1.08
<b>Smoke-free homes</b>		
People smoke indoors		
No one smokes indoors	1.25	1.27
<b>Someone to make quitting more difficult</b>		
No, DK		
Yes	1.15	1.13
<b>Lifetime number of quit attempts</b>		
None		
One	1.96	2.00
Two or more	2.08	2.13
<b>Quit intention</b>		
No (incl DK)		
Yes	1.16	1.17
<b>Perceived addiction</b>		
Not at all/somewhat addicted		
Very addicted	1.51	1.56
<b>Knowledge: smoking medications make quitting a lot easier</b>		
No		
Yes	1.02	1.03

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data for young adult smokers, July 2005 – December 2008. Weighted data.

<sup>a</sup> Use of cessation aids and resources include any use of self-help materials, pharmacotherapies, physician advice to quit smoking measured during six-month follow-up.

## **Appendix H**

### **Education by Age Group**

Young adult smoking cessation

**Table H-1: Education by age group among eligible study respondents**

	High school or less education		More than high school education		Chi-square, p-value
	n <sup>b</sup>	% <sup>c</sup>	n <sup>b</sup>	% <sup>c</sup>	
OTS Sample <sup>a</sup>	591	100	2771	100	
<b>Age Group</b>					
18-24 years	225	62.5	118	37.5	73.35,
25-29 years	122	39.5	126	60.5	<0.001
30-39 years	220	32.5	395	67.5	
40-49 years	389	41.5	556	58.5	
50-59 years	339	46.4	381	53.6	
60+ years	304	60.3	187	39.7	

Source: Ontario Tobacco Survey Baseline and Follow-up 1 data (July 2005 – December 2008).

<sup>a</sup> Eligible smokers were respondents who smoked at least 100 lifetime cigarettes and smoked every day or almost every day, or those who smoked occasionally at the time of the baseline interview but smoked in the past 30 days, and provided responses for age and smoking cessation.

<sup>b</sup> Unweighted sample size.

<sup>c</sup> Weighted estimates. Estimates may not sum to 100% due to rounding. Missing data were not used in the calculation of statistical tests or weighted estimates.