

Monitoring Tobacco Use
A Review and Update of Core Indicators
2005

Workshop Final Report
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I. INTRODUCTION

In November 2005, Health Canada convened a workshop involving a group of experts in the field of tobacco use surveillance. The purpose was to review and update questions and measures pertaining to tobacco use in Canada, using the recommendations from Health Canada's 1994 Workshop on Data for Monitoring Tobacco Use¹ as a starting point.

Since the previous workshop took place over a decade before, the main goal of this workshop was to review and update the 1994 recommendations to determine if they were still serving to properly measure tobacco use in Canada. The key issue to resolve was whether the existing indicators for measuring tobacco use being employed in national surveys, such as the Canadian Tobacco Use Monitoring Survey (CTUMS), the National Population Health Survey (NPHS), and the Canadian Community Health Survey (CCHS), as well as in provincial, territorial, and research surveys, needed to be refined to better serve tobacco control efforts and to properly assess progress in the future.

The desired outcomes of the workshop were these:

1. To review existing questions used to measure tobacco use,
2. To identify potential new questions to measure more subtle changes in smoking behaviour, and
3. To reach a consensus on these questions.

To achieve these outcomes, discussions mainly focused on reviewing current questions being asked in national surveys such as CTUMS, the NPHS, and the CCHS, and in provincial and territorial research projects, including public opinion research. These questions corresponded with those recommended in the 1994 workshop.

¹ Mills C, Stephens T, Wilkins K. Summary report of the workshop on data for monitoring tobacco use. *Chronic Diseases in Canada* 1994;15(3):105-110.

II. OVERVIEW

There was general agreement among the 2005 workshop group that the questions identified in the 1994 workshop had served tobacco control efforts well in ensuring the comparability and compatibility of tobacco use data over the previous decade and that they remained useful. Although the group raised concerns about some of these questions and identified areas in which more detail would be useful for monitoring emerging trends in tobacco use in Canada in the future, these concerns were not felt to fundamentally invalidate the utility of the core questions. The group strongly supported Health Canada's interest in reviewing (and updating as necessary) the set of core questions that were recommended in 1994, to ensure their utility for monitoring future tobacco use.

This report reviews the surveillance questions discussed at the 2005 workshop, working through the 1994 recommendations by topic area and describing whether the group consensus was to maintain the question, modify it, or recommend removing it from the core indicators. Appendix A contains a summary of the decisions made regarding core questions.

A considerable part of the discussions focused on questions for which additional research was proposed to improve an existing question or on areas where development of an entirely new question might be required in the future. Such issues are discussed in Appendix B.

The workshop group recognized that a single set of core questions would not meet the objective of promoting commonality among all tobacco use monitoring activities in Canada and therefore recommended three levels of core question sets: *minimum*, *standard*, and *extended*. Brief definitions of these levels and the questions that could potentially be included in each level are described in Appendix A.

The minimum question set is intended to provide a small, basic set of core tobacco use questions that would collect minimum information on smoking status that would remain comparable to existing survey data (national, provincial, and territorial). The standard set of questions builds on the minimum data by adding an agreed-upon set of standard tobacco use questions designed to gather data that would be comparable to existing tobacco use data. The extended question set contains the questions used in both previous levels and is the same as what Health Canada considers core content in CTUMS. Presented with a list of these CTUMS core questions, the workshop group noted that the CTUMS core list was largely consistent with the 1994 questions and had, in fact, expanded upon them.

III. REVIEW OF 1994 RECOMMENDATIONS

The 2005 workshop discussions surrounding the 1994 recommendations are summarized below. Items are listed in the same sequence as they appeared in the 1994 workshop report.

SMOKING STATUS

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

The 1994 workshop recommended adopting this question as a standard item to quickly classify respondents' smoking status. The 2005 workshop participants generally felt this question remained useful to quickly categorize current smoking status and recommended its inclusion as a core item in the minimum question set recommended for any research that needed to capture smoking status.

The question is intended to determine whether an individual smokes daily, non-daily (in other words, less often than every day), or does not smoke at all. One concern identified at the 2005 workshop was that some respondents might not interpret the term "occasionally" as intended. Some respondents may not consider "occasional" smoking as equivalent to smoking "non-daily" or "on some days" but may instead conceptualize it to include low-frequency daily smoking, as in "smoking occasionally over the course of a day." This problem may be especially acute among youth, where smoking behaviour can be more sporadic (e.g., binge smoking on weekends). The workshop group acknowledged that low-frequency daily smokers might be a group that would benefit from some future research to better understand the makeup of the group labelled as "occasional smokers."

EARLY STAGES OF INITIATION: EXPERIMENTATION

2. *Have you smoked at least 100 cigarettes in your life?*

This question has become an accepted international standard question to use when studying smoking initiation, and it is used to classify experimental versus established smoking behaviour. It is also used to distinguish respondents who reply "not at all" to the smoking status question into former smokers (100 or more cigarettes smoked in their lifetime) and never-smokers (less than 100 lifetime cigarettes).

Although the workshop group recognized that the intention of this question was to identify anyone who had more than an experimental experience with smoking, the group acknowledged that 100 cigarettes was an arbitrary number selected in the absence of evidence about how many cigarettes were required to establish a pattern of regular smoking or to create a personal identification as a "smoker." However, because it is an accepted international standard, changing this threshold amount would preclude comparison with other surveys and would break the time series data collected to date. One recommendation for improvement of the existing question was to add the phrase "(about 4 or 5 packs)" to assist respondents in visualizing 100 cigarettes.

The consensus was that this question should remain as it was and would be part of the minimum question set.

SMOKING A WHOLE CIGARETTE/DAILY SMOKING

3. *Have you ever smoked a whole cigarette?*
4. *Have you ever smoked cigarettes daily?*

Neither question 3 nor 4 was discussed at length. The thinking of the workshop group was that the questions were necessary for capturing minimal data to track tobacco use and were not problematic; consequently, the group did not recommend changing them. These questions would be part of the minimum question set.

FREQUENCY OF CIGARETTE CONSUMPTION

5. *On how many of the last 30 days did you smoke at least one cigarette?*
6. *On those days when you smoked, how many cigarettes did you usually smoke?*
- 7a. *Thinking back over the last 7 days, starting with yesterday, how many cigarettes did you smoke on (yesterday)?*
- 7b–g. *How many cigarettes did you smoke on (the day before)?*

The 1994 recommendations encouraged asking respondents both the “usual amount smoked” in the last 30 days (questions 5 and 6) and a series of shorter-term but more detailed questions about how many cigarettes they smoked on each of the last seven days (questions 7a–g). The seven-day recall approach has been implemented in CTUMS.

The workshop group generally agreed that 30-day recall of a “usual amount smoked” worked relatively well for daily smokers because they tended to smoke similar amounts from day to day, as compared with non-daily smokers, whose cigarette consumption varied from day to day. On the other hand, it was thought that recall of the number of cigarettes smoked on each of the past seven days might not provide a long enough time period for variations in patterns of consumption among occasional smokers to be evident.

As non-daily smoking increases in terms of the proportion of all current smokers, there is increasing utility in monitoring this pattern of behaviour using a seven-day wheel type of question. Binge smokers, social smokers, and chippers (individuals with low-frequency smoking behaviour occurring on either a daily or non-daily basis) were also recognized as subgroups of interest.

Currently, questions 5 and 6 are not included in the CTUMS question set because CTUMS contains two slightly different questions to capture information on smoking in the past 30 days. There was no clear recommendation from the workshop group on whether they should be added, given that the CTUMS versions of the questions already captured information on 30-day smoking consumption. Further, the seven-day wheel is more precise than asking the average number of cigarettes smoked per day (as in question 6) and provides more information on variation in amount smoked, which is of particular interest with occasional smokers.

There was some discussion concerning respondent burden with the seven-day wheel, but it was not sufficient for the workshop group to recommend either dropping it or choosing a different approach. The group recommended keeping the seven-day recall question as it was used in CTUMS, mentioning a potential for future development and testing of questions to measure amount smoked for general research use.

STOPPING SMOKING

8. *When did you stop smoking?*

9. *In what month and year did you stop smoking?*

The 1994 workshop recommended a single compound core question for monitoring smoking cessation. The question asked “When did you stop smoking?” and provided three response options: “less than one year ago,” “1 to 5 years ago,” and “more than 5 years ago.” Individuals who had stopped smoking less than a year before were asked to provide the month and year in which they stopped smoking.

CTUMS and the CCHS have both modified the implementation of questions asking when respondents stopped smoking relative to the 1994 recommendations, but in different ways. CTUMS added the response options of “1 to 2 years” and “3 to 5 years,” asking for the month only from respondents who had stopped less than a year before. The CCHS asks about the previous three years, asking for the year in which respondents stopped if they stopped more than three years before and for the month if they stopped smoking within the previous year.

The workshop group thought that the standard 1994 question could be improved. Participants recommended that questions asking when individuals last stopped smoking identify the year in which this occurred regardless of how long ago they had stopped, with single-year resolution (by including the month). At a minimum, the group decided that the month in which smoking stopped should be asked if respondents had stopped smoking within the previous 12 months, as per the 1994 recommendations and as was done in CTUMS. The 1994 recommendations differ from CTUMS regarding questions about the length of time since respondents stopped smoking, with CTUMS currently providing finer categories of response options (as described above) and therefore, more information.

The workshop group emphasized that the process of smoking cessation should be referred to in surveys as “stopping” smoking rather than as “quitting” smoking. However, it was decided not to change any wording for the time being so as not to lose data continuity.

For quit attempts, the workshop group identified several content areas that they thought should be added, including the number of times in the past year the respondent had stopped smoking for at least 24 hours and for at least a week (current smokers). The group recommended that the CTUMS wording be adopted and these questions included in the standard and extended core question sets.

Further, for former smokers, the group recommended adding to the extended question set the CTUMS question on number of quit attempts made before finally quitting for good. (See

Appendix A for this and other CTUMS core questions recommended for inclusion in the extended question set.)

SMOKING INITIATION

10. *(If age less than 20 years) How old were you when you smoked your first whole cigarette?*
11. *(If age less than 20 years) How old were you when you first started smoking daily?*

The 1994 recommendations specified that only respondents under the age of 20 years would be asked the age at which they had smoked their first cigarette and the age they started smoking daily. Although the wording of these questions has remained essentially unchanged since the recommendations were made in 1994, both questions are asked of respondents of all ages in CTUMS.

The workshop group agreed that asking respondents of all ages was appropriate and that these questions should be considered part of the standard question set.

ENVIRONMENTAL TOBACCO SMOKE

- 12a. *Excluding yourself, how many people smoke in your home every day or almost every day?*
- 12b. *How many cigarettes are smoked in your home on a typical day?*
13. *(If employed) Are you exposed to smoking in your place of work every day or almost every day?*
14. *Apart from your home (and place of work, if employed), are there any places where you are exposed to smoking every day or almost every day?*

The workshop group expressed strong agreement that questions about environmental tobacco smoke (ETS) exposure should remain as part of the core indicators, including some new questions taken from CTUMS that would be part of the extended set. Among the reasons identified for continuing to monitor second-hand smoke exposure were these: the recognition that “passive smoking” (particularly among children living with smokers) was a public health issue; the need to better understand where people were being exposed to ETS; and the identification of unintended outcomes of tobacco control efforts (for example, the possibility that restrictions on smoking in public places could lead to increased smoking inside the home as the availability of alternative locations was reduced).

The workshop group recognized that ETS had received increasing attention in surveys since the 1994 recommendations were first put forward. While questions regarding household and workplace exposure to ETS have remained largely unchanged since 1994, recently developed questions added to CTUMS in 2005 reflect the increased interest in gathering more specific information about a wider range of locations in which people report exposure, beyond the home or work. Examples include questions asking about ETS exposure in vehicles, restaurants, schools, building entrances, or outdoors. Although the workshop group did not recommend specific question wording, participants agreed that expanding the list of exposure locations beyond work and home was useful.

IV. METHODOLOGICAL CHALLENGES

Part of the workshop discussions focused on the ongoing methodological challenges of monitoring tobacco use. The main three are listed below.

Underreporting of Smoking: As the marginalization and associated stigma of smoking intensifies, it is becoming increasingly unpopular to identify oneself as a smoker. Underreporting may be particularly relevant among pregnant women, youth, parents of small children, and young adults.

Increasing Use of Cellular Phones: The increasing use of cellular phones has wide-reaching implications for telephone-based survey methodology. Reaching those individuals who have a cellular phone but no land line presents a particular challenge, as established methods for sampling banks of phone numbers do not apply to cellular phones, and surveying on cellular phones is problematic if respondents pay for air time. The workshop group recommended further work to identify possible ways in which new technologies could be turned into a surveillance advantage, such as through the possible use of text messaging.

Sample Size Limitations: As smoking prevalence rates drop, monitoring efforts may need to focus on subgroups of smokers to evaluate specific target groups. The workshop group expressed concern about the increasing challenge of obtaining sufficient sample sizes and of justifying the larger samples necessary to obtain sufficient statistical power. For example, a targeted survey of non-daily smokers would be a difficult and expensive undertaking to obtain a sufficiently robust sample size.

V. FUTURE DIRECTIONS

Our increased understanding of the mechanisms and trajectories of smoking behaviour coupled with observed trends in smoking behaviour suggests a need for a five- to ten-year plan to sustain state-of-the-art monitoring tools. These monitoring tools will then continue to serve all aspects of tobacco control on an ongoing basis. A strategic plan is required for attempting to determine and anticipate what is needed and for developing the measures to meet those needs. There is also a need to investigate ways in which the identified methodological challenges can be addressed. See Appendix B for a detailed summary of the workshop group's discussions and recommendations on issues for future research.

VI. CONCLUSIONS

There was consensus among the workshop participants that the 1994 recommendations were continuing to meet our current tobacco use surveillance needs and would continue to do so in the future. In the discussions, it was clear that one distinct set of recommended core questions would not meet all applications. As a result, three levels of question sets were recommended for use in various surveillance and research applications, depending on the depth of information needed on tobacco use behaviours.

Appendix A: RECOMMENDED CORE QUESTION SETS

The following table compares the 1994 recommended questions with the 2005 recommendations, categorizing questions into three levels, depending on the research application. In addition, some new questions taken from the CTUMS core set were recommended by the 2005 workshop group for the extended set and are included here.

Core Question Categories

Minimum: for general research use, able to identify smokers and gather basic information on environmental tobacco smoke (ETS) exposure in the home

Standard: core research questions, able to identify smokers and gather information about smoking behaviour, tobacco consumption, and ETS exposure in the home and elsewhere

Extended: builds on the standard core question set, collecting more information about nicotine dependence, quit behaviour, tobacco use in the past 30 days, smoking during pregnancy, and smoking restrictions in the home

Item no.	Topic area	Recommended wording	2005 CTUMS core question?	Wording source	Minimum	Standard	Extended	Notes
1	Smoking status	At the present time, do you smoke cigarettes every day, occasionally, or not at all?	Yes	1994 workshop and CTUMS	•	•	•	Retain
2	Screening out experimenters	Have you smoked at least 100 cigarettes in your life?	Yes	1994 workshop and CTUMS	•	•	•	Retain
3	Screening out puffers	Have you ever smoked a whole cigarette?	Yes	1994 workshop and CTUMS	•	•	•	Retain
4	Identifying ever daily smokers	Have you ever smoked cigarettes daily?	Yes	1994 workshop and CTUMS	•	•	•	Retain
5/6	30-day consumption	In the past 30 days, did you smoke any cigarettes?	Yes	CTUMS			•	Retain, CTUMS core, no clear recommendation
5/6	30-day consumption	During the past 30 days, did you smoke every day?	Yes	CTUMS			•	Retain, CTUMS core, no clear recommendation

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Item no.	Topic area	Recommended wording	2005 CTUMS core question?	Wording source	Minimum	Standard	Extended	Notes
5	30-day consumption	On how many of the last 30 days did you smoke at least one cigarette?	No	1994 workshop				Replace with items 5/6 (above)
6	30-day consumption	On those days when you smoked, how many cigarettes did you usually smoke?	No	1994 workshop				Replace with items 5/6 (above)
7a-g	7-day smoking pattern	Some people smoke more or less depending upon the day of the week. So, thinking back over the past 7 days, starting with yesterday, how many cigarettes did you smoke yesterday? (question repeated for each of previous 7 days)	Yes	1994 workshop and CTUMS		•	•	Retain
	Nicotine dependence	How soon after you wake up do you smoke your first cigarette?	Yes	CTUMS			•	New, CTUMS core
8	Smoking cessation	When did you stop smoking?	Yes	1994 workshop and CTUMS		•	•	Retain
9	Smoking cessation	In what month did you stop smoking? (asked only if respondent stopped less than 1 year ago)	Yes	CTUMS		•	•	Retain, but recommend changing to ask year and month of quitting in every case
	Smoking cessation	What was your main reason to quit smoking?	Yes	CTUMS			•	New, CTUMS core
	Smoking cessation	Approximately, how many attempts to quit did you make before you quit smoking for good?	Yes	CTUMS			•	New, CTUMS core
	Past consumption recall	On average, how many cigarettes were you smoking per day at the time you quit?	Yes	CTUMS			•	New, CTUMS core
	Stages of change	Are you seriously considering quitting within the next 6 months?	Yes	CTUMS			•	New, CTUMS core
	Stages of change	Are you seriously considering quitting within the next 30 days?	Yes	CTUMS			•	New, CTUMS core
	Stages of change	In the past year, how many times did you stop smoking for at least 24 hours because you were trying to quit?	Yes	CTUMS		•	•	New, CTUMS core
	Stages of change	How many of these attempts lasted at least 1 week?	Yes	CTUMS		•	•	New, CTUMS core
	Relapse (most recent)	What was the main reason you began to smoke again?	Yes	CTUMS			•	New, CTUMS core

Item no.	Topic area	Recommended wording	2005 CTUMS core question?	Wording source	Minimum	Standard	Extended	Notes
10	Uptake recall (first exposure)	At what age did you smoke your first cigarette? <i>(asked of respondents of all ages)</i>	Yes	CTUMS		•	•	Retain - 1994 wording asked age when “first whole cigarette” smoked (if age <20).
11	Uptake recall (first daily smoking)	At what age did you begin to smoke cigarettes daily? <i>(asked of respondents of all ages)</i>	Yes	CTUMS		•	•	Retain - 1994 wording asked “How old were you when you first started smoking daily?” (if age <20).
	Smoking and pregnancy	Have you been pregnant in the past 5 years?	Yes	CTUMS			•	New, CTUMS core
	Smoking and pregnancy	During your most recent pregnancy, did you smoke regularly, that is, every day or almost every day?	Yes	CTUMS			•	New, CTUMS core
	Smoking and pregnancy (ETS)	During your most recent pregnancy, did your spouse or partner smoke regularly in the home, that is, every day or almost every day?	Yes	CTUMS			•	New, CTUMS core
12a	Household smoking (ETS)	How many people smoke cigarettes <u>inside</u> your home every day or almost every day? Include all family members and visitors. (household survey)	Yes	CTUMS	•	•	•	Retain - 1994 wording specifically directed respondent to exclude self.
12b	Household smoking (ETS amount)	On a typical day, how many cigarettes are smoked <u>inside</u> your home? (household survey)	Yes	1994 workshop and CTUMS	•	•	•	Retain
	Household smoking restrictions	Is smoking cigarettes allowed <u>inside</u> your home? (household survey)	Yes	CTUMS			•	New, CTUMS core
	Household smoking restrictions	Is smoking cigarettes <u>inside</u> your home restricted in any way? (household survey)	Yes	CTUMS			•	New, CTUMS core
	Household smoking restrictions	How is smoking cigarettes restricted <u>inside</u> your home? (household survey)	Yes	CTUMS			•	New, CTUMS core

Item no.	Topic area	Recommended wording	2005 CTUMS core question?	Wording source	Minimum	Standard	Extended	Notes
13	Workplace ETS exposure	At your place of work, what are/were the restrictions on smoking?	See note	CTUMS		•	•	Retain (not identified as core in CTUMS but included since 2003)
13	Workplace ETS exposure	(If employed) Are you exposed to smoking in your place of work every day or almost every day?	No	1994 workshop				Not included in 2005 recommendations
14	Other ETS exposure	(A series of questions on ETS exposure outside the home were added to CTUMS in 2005 and are being evaluated.)	See note	CTUMS		•	•	Questions added to CTUMS in 2005 are under evaluation.
14	Other ETS exposure	Apart from your home (and place of work, if employed), are there any places where you are exposed to smoking every day or almost every day?	No	1994 workshop				Not included in 2005 recommendations (replace with item 14 series above)

APPENDIX B: ISSUES FOR FUTURE RESEARCH

Parts of the workshop discussions focused on indicators that were relevant to issues in tobacco control research but were not fundamental for inclusion as core content in ongoing monitoring of tobacco use, in any of the three levels of core questions proposed by the workshop group.

Many of these indicators did not need to be further researched because the data were already available; however, the group thought that secondary analysis was required. Where applicable, this is indicated in the following table with each item.

Issue	Discussion summary	Recommended action
<i>Categorizing smokers</i>	The group agreed that a broader, more descriptive set of standard categories describing smoking status would be useful to help various targeted programming efforts.	Further work is required to build a classification scheme to describe an individual's status within a "trajectory" of smoking uptake, active smoking, and stopping. The group suggested this scheme as a starting point: 1) Onset (initiation/uptake of smoking) 2) Maintenance (as active smoker, both daily and non-daily) a) Borrower (borrows, but does not buy, cigarettes; likely a social smoker) b) Purchaser (buys own cigarettes, smokes regularly) 3) Reduction (decrease in amount smoked as a strategy to stop smoking; includes quit attempts) 4) Relapse (restarting smoking after a period of non-smoking) 5) Passive smoker (individual does not smoke, but is exposed to others' smoke) 6) Never-smoker (has never smoked cigarettes)
<i>Associated and concurrent behaviours</i>	The group thought that tobacco use could not be isolated from other addictive behaviours, particularly the use of alcohol and other drugs. Alcohol and tobacco use are very often concurrent behaviours (co-addictions). The fact that tobacco surveys typically ask few, if any, questions about other drug use was felt to be a significant shortcoming. Furthermore, surveys that ask about tobacco and other drug use rarely ask explicitly about concurrent use.	The adoption of core tobacco questions in other (non-tobacco) drug surveys would help improve our understanding of co-addictions. Alcohol and drug questions should be developed for inclusion in tobacco surveys, and the inclusion of core tobacco questions in drug and alcohol surveys should be encouraged. There was general support for developing more robust measures for frequency of marijuana use, to better assess the degree to which use of marijuana is associated with tobacco use and to identify possible substitution trends.

Issue	Discussion summary	Recommended action
<i>Sensitivity to fluctuations in smoking consumption</i>	<p>Questions asking about the number of cigarettes smoked per day “on average” or the “usual” amount smoked over a long period of time are insensitive to short-term fluctuations in consumption rate. This was recognized as a particular limitation when collecting information about cigarette consumption among non-daily smokers if a detailed daily day-to-day recall approach was not used.</p>	<p>The group recommended wider use of daily day-to-day recall approaches and the development of additional mechanisms to improve reporting of short-term fluctuations in consumption. Work is needed (particularly a potential for further research) to better understand longer period variations (e.g., seasonal variations in consumption level may correspond to the school year and vacation periods for youth).</p>
<i>Measurement approach: moving from point prevalence estimates based on cross-sectional survey methods to study of transitions and mechanisms behind them using longitudinal research designs</i>	<p>Beyond describing an individual’s current smoking status, the group strongly endorsed working to better understand the transitions in smoking behaviour over an individual’s life: when and why do people change the frequency or amount that they smoke, or start or stop smoking entirely? Improving our knowledge of these transitions could lead to better understanding of when and where intervention opportunities lie and would provide an opportunity for continuing to evaluate the processes and outcomes of tobacco control policies and programs.</p>	<p>A starting point for developing such measures may be to focus on an individual’s <i>last</i> transition and on measures that would permit description of the change, and when and why it occurred. Such changes should include increases or reductions in amount smoked, not only starting and stopping.</p>
<i>Uptake</i>	<p>Work is needed to identify meaningful markers for smoking uptake and to agree on definitions for such basic concepts as “starting smoking.” There are numerous milestone events that could be used for a “start” point (e.g., the age at which individuals had their first puff of a cigarette, smoked their first whole cigarette, started “regular”—but non-daily—smoking, started smoking every day, bought their first cigarettes, or first smoked in front of their parents). It may be useful to think about monitoring the process of smoking initiation over time as a continuum instead of as a discrete event.</p>	<p>This is an area of behaviour that is still not well understood, and further research work is needed. The group proposed the creation of a working group to discuss such issues as part of future developmental work.</p>

Issue	Discussion summary	Recommended action
<i>Stopping smoking</i>	Current questions typically ask only about the <i>most recent</i> time that an individual stopped smoking and about quit attempts in the <i>previous year</i> . The group recognized that the status of being a former smoker is not static because some individuals relapse by resuming smoking after not smoking for a long period of time.	Developing questions to delve deeper into successful and unsuccessful attempts to quit (including relapses after long periods of non-smoking) would help improve our understanding of smoking behaviour and the cessation trajectory. Measurement of “slips” remains a topic for future research.
<i>Binge smoking</i>	The group recognized the lack of adequate questions regarding short-term fluctuations in consumption levels such as binge smoking.	CTUMS already uses the seven-day wheel method, which is one approach for capturing binge smoking, but providing an amount smoked for each of seven days can be onerous for respondents. Investigating other ways to capture binge smoking that might be less of a burden for respondents was suggested.
<i>Change in smoker demographics and the social context in which smoking occurs</i>	The demographics of smokers and the social context in which smoking takes place is changing. As smoking prevalence rates decline and the patterns and social context of smoking evolve, we will need to be able to address such issues as “addicted” versus “social” smokers, increases in age of uptake, and restarting of smoking among older former smokers.	Identify and adapt measurement tools to better address changes such as the impact of shifts in social context and population demographics (i.e., immigration, inter-provincial migrations, population aging) on patterns of tobacco use in Canada.
<i>Better understanding of individuals’ self-identity as “smokers”</i>	Cessation interventions must be congruent with smokers’ self-identity in terms of their relationship with cigarettes. For example, if some individuals who smoke only a few cigarettes per day do not consider themselves as “smokers,” the concept of “quitting” will not be meaningful to them.	There is a need to better understand smokers’ self-identity and, ultimately, develop measures that address smokers’ self-definitions and self-identity as “smokers.” This need may require future research about how smokers label themselves.
<i>Policy impacts</i>	The group felt it would be useful to proactively implement question additions designed to proactively respond to anticipated policy changes, so that measurement mechanisms would be in place ahead of policy changes to provide pre- and post-measurements of the impacts of policy changes.	Develop indicators to track public response to policy initiatives, which may be attitude- or opinion-based rather than behaviourally based.

Issue	Discussion summary	Recommended action
<i>Use of administrative data and record linkages</i>	The group agreed it was important to develop a mechanism for obtaining program input information and combining it with the “outcome” data measured in monitoring surveys or with indirect measures such as health measures or absenteeism.	Take advantage of opportunities that may exist to improve data and to reduce costs of data collection through processes such as record linkage and collaboration, coordination, and synchronization of survey mechanisms within the parameters of existing federal, provincial, and territorial legislation.
<i>Environmental tobacco smoke (ETS)</i>	Do the current questions (which generally ask if the respondent either “was exposed” or “was exposed every day or almost every day” to second-hand smoke) represent the best wording for monitoring ETS exposure, since such wording does not describe well either the intensity or frequency of exposure?	Attempt to develop measures to identify “passive smokers” and “occasionally exposed” individuals. Pilot the use nationally of a Quebec Tobacco School Survey question (in which respondents are asked to rate the frequency of their exposure to second-hand smoke on a six-point scale from “every day” to “never” for each exposure location queried).
<i>Pregnancy</i>	The group identified several key questions: Do women continue to smoke during pregnancy? If women quit smoking during pregnancy, do they resume smoking after their baby is born? Does their partner (or other people in household) continue to smoke at these times? If a woman quit smoking during pregnancy, at what time during her pregnancy did she quit?	This issue presents a sample size challenge. The size would need to be quite large for a survey to provide a sufficient sample of women who have been pregnant in the previous five years.
<i>Reaching special populations (e.g., First Nations, persons with co-addictions)</i>	There is a need to reach specific special populations (e.g., Aboriginal populations, persons with mental health conditions). Target subpopulations often have high smoking prevalence and are marginalized and hard to reach for both program interventions and for monitoring.	More research is needed to determine the best way to reach each target group. The group recommended that Health Canada and Statistics Canada promote the use of tobacco surveillance indicators in other national level surveys of special populations and in special population surveys concerned with health-related behaviours (i.e., determinants of health) and use of addictive substances. Examples of such surveys include the Canadian Community Health Survey, the Canadian Alcohol and Drug Use Monitoring Survey (currently still under development), and surveys developed specifically for monitoring health issues in the Aboriginal population.

List of Participants

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