



Special Surveys Division
Division des enquêtes spéciales
Ottawa, Ontario, Canada K1A 0T6

Microdata User's Guide
Survey on Smoking in Canada

Cycle 1 - May 1994
Cycle 2 - August 1994
Cycle 3 - November 1994
Cycle 4 - February 1995

June 1995

Table of Contents

	<u>Page</u>
1. INTRODUCTION	1
2. BACKGROUND	3
3. OBJECTIVES	5
4. CONCEPTS AND DEFINITIONS	7
5. SURVEY METHODOLOGY	9
5.1 Population Coverage	9
5.2 Stratification	9
5.3 Sample Design and Allocation	9
5.4 Sample Selection	10
5.5 Subsequent Cycles	11
6. DATA COLLECTION	13
6.1 Question Design	13
6.2 Supervision and Control	14
6.3 Data Collection Methodology	14
6.4 Collection Period	14
7. DATA PROCESSING	15
7.1 Data Capture	15
7.2 Editing	15
7.3 Creation of Derived Variables	15
7.4 Weighting	15
7.5 Suppression of Confidential Information	17
8. DATA QUALITY	19
8.1 Response Rates - Cycle 1	19
8.2 Response Rates - Cycle 2	20
8.3 Response Rates - Cycle 3	20
8.4 Response Rates - Cycle 4	21
8.5 Survey Errors	21
8.5.1 Total Non-Response	22
8.5.2 Partial Non-Response	22
8.5.3 Coverage	22
8.5.4 Measures of Sampling Error	22

Table of Contents - Concluded

	<u>Page</u>
9. GUIDELINES FOR TABULATION, ANALYSIS AND RELEASE	25
9.1 Rounding Guidelines	25
9.2 Sample Weighting Guidelines for Tabulation	26
9.2.1 Definitions of Types of Estimates: Categorical vs. Quantitative	26
9.2.2 Tabulation of Categorical Estimates	27
9.2.3 Tabulation of Quantitative Estimates	27
9.3 Guidelines for Statistical Analysis	27
9.4 C.V. Release Guidelines	28
10. APPROXIMATE SAMPLING VARIABILITY TABLES	31
10.1 How to Use the C.V. Tables for Categorical Estimates	33
10.2 Examples of Using the C.V. Tables for Categorical Estimates	35
10.3 How to Use the C.V. Tables to Obtain Confidence Limits	38
10.4 Example of Using the C.V. Tables to Obtain Confidence Limits	39
10.5 How to Use the C.V. Tables to do a T-Test	39
10.6 Example of Using the C.V. Tables to do a T-Test	40
10.7 Coefficients of Variation for Quantitative Estimates	40
10.8 Release Cut-Offs for the Survey on Smoking in Canada	40
10.9 C.V. Tables	42
11. WEIGHTING	73
11.1 Cycle 1 Weighting	73
11.2 Cycle 2 Weighting	76
11.3 Cycle 3 Weighting	77
11.4 Cycle 4 Weighting	77
11.5 Longitudinal Weighting	77
12. QUESTIONNAIRE	79
13. RECORD LAYOUT AND UNIVARIATES	119
APPENDIX 1 - Specification of Derived Variables	273

1. INTRODUCTION

The first cycle of the Survey on Smoking in Canada was conducted by Statistics Canada between April 20 and June 1, 1994. This was the first of four quarterly surveys on cigarette smoking, and was done with the cooperation and support of Health Canada. The three remaining cycles took place in August and November 1994 and February 1995. The respondents from the first cycle were re-contacted for cycles 2-4. The core set of questions about current smoking behaviour were repeated in each cycle; but each cycle also had a new set of questions focussing on a particular area of interest about smoking.

This manual has been produced to facilitate the manipulation of the microdata file of the survey results. Any questions about the data set or its use should be directed to:

Statistics Canada

Lecily Hunter
Special Surveys Division, Statistics Canada
5th floor, Jean Talon Building
Tunney's Pasture
Ottawa, Ontario K1A 0T6
(613) 951-0597

Health Canada

J.A. (Hank) Schriel
Information Access and Coordination Division
Policy and Consultation Branch, Health Canada
Room 1606, Jeanne Mance Building
Tunney's Pasture
Ottawa, Ontario K1A 0K9
(613) 957-3051

IT IS IMPORTANT FOR USERS TO BECOME FAMILIAR WITH THE CONTENTS OF THIS DOCUMENT BEFORE PUBLISHING OR OTHERWISE RELEASING ANY ESTIMATES DERIVED FROM THE MICRODATA FILE OF THE SURVEY ON SMOKING IN CANADA.

2. BACKGROUND

Statistics Canada was approached by Health Canada in February 1994 to do a survey which would monitor smoking patterns of Canadians over a 12-month period. The objective was to get into the field as quickly as possible and be able to measure any changes in smoking resulting from the decrease in taxes on cigarettes which took place in early February in some provinces.

This survey was conducted to fulfil the short-term information needs of Health Canada's Tobacco Monitoring Strategy. The medium- and long-term information needs will be filled by the Youth Smoking Survey and the National Population Health Survey and its supplements.

3. OBJECTIVES

Health Canada required that data collection begin as soon as possible. To accommodate this, it was decided that the survey would focus on cigarette smoking alone rather than the broader topic of tobacco use. The major objectives of the survey are: (1) to measure prevalence of cigarette smoking and amount smoked, (2) to measure changes in prevalence and changes in amount smoked, (3) to measure the effect of price on prevalence and on amount smoked, and (4) to measure these items in ways that are consistent with past surveys and planned future surveys. The secondary objectives are to gain some insight into attitudes toward cigarette smoking and behaviours related to smoking.

The major groups of interest are the younger and older age groups, since it is expected that most of the changes in smoking patterns between February 1994 and February 1995 will be seen in these groups. Reliable measures of change are required for four age groups (15-19, 20-24, 25-64 and 65+) in each of five geographic regions (Atlantic provinces, Quebec, Ontario, Prairie provinces and British Columbia).

4. CONCEPTS AND DEFINITIONS

Since the Survey on Smoking in Canada was conducted over the telephone, easy to understand terminology was used throughout the questionnaire to avoid long explanations. Some standard concepts and definitions should be used in the analysis and interpretation of this data. The survey questions were designed with these definitions in mind.

Current Smoking Status

1. Daily smoker: A person who currently smokes cigarettes every day.
2. Non-daily smoker: A person who currently smokes cigarettes, but not every day.
3. Non-smoker: A person who currently does not smoke cigarettes.
4. Current smoker: A person who currently smokes cigarettes daily or occasionally.

Smoking History

1. Former smoker: A person who has smoked at least 100 cigarettes in his life, but currently does not smoke.
2. Experimental smoker: A person who has smoked at least one cigarette, but less than 100 cigarettes, and currently does not smoke cigarettes.
3. Lifetime abstainer: A person who has never smoked cigarettes at all.
4. Ever smoker: A person who is a current smoker or a former smoker.
5. Never smoker: A person who was an experimental smoker or who is a lifetime abstainer.

Smoking Prevalence

Proportion of population which smokes cigarettes at the current time.

5. SURVEY METHODOLOGY

The first cycle of the Survey on Smoking in Canada was administered between April 20 and June 1, 1994 as a random digit dialling (RDD) survey, a technique whereby telephone numbers are generated randomly by computer.

5.1 Population Coverage

The target population for the Survey on Smoking in Canada was all persons 15 years of age and over living in Canada with the following two exceptions:

1. Residents of the Yukon and Northwest Territories; and
2. Full-time residents of institutions.

Because the survey was conducted using a sample of telephone numbers, households (and thus persons living in households) that do not have telephones were excluded from the sample population. People without telephones account for less than 3% of the target population. However, the survey estimates have been weighted to include persons without telephones.

5.2 Stratification

In order to ensure that people from all parts of Canada are represented in the sample, each of the ten provinces was divided into strata or geographic areas. Generally, for each province, one stratum represented the Census Metropolitan Areas (CMAs) of the province and a second stratum represented the non-CMAs. In Ontario and Quebec, the CMAs of Toronto and Montreal represented a third stratum. CMAs are areas defined by the Census and correspond roughly to cities with populations of 100,000 or more.

5.3 Sample Design and Allocation

The desired sample size was 1,000 respondents in each combination of region (Atlantic, Quebec, Ontario, Prairies, B.C.) and age group (15-19, 20-24, 25-64, 65+). The initial sample sizes took into account the expected RDD hit rate (proportion of telephone numbers belonging to households) and the expected response rate. In addition, the sample sizes were also adjusted to account for the distribution of the age groups of interest at the household level. To achieve the required sample sizes, two adjustments to the standard RDD methodology were introduced. First, the probabilities of selection within a household were unequal: people aged 15-24 or 65+ had 50 times the chance of being selected over people aged 25-64. Second, households with only 25-64 year-olds present were sub-sampled.

5.4 Sample Selection

The sample for the Survey on Smoking in Canada was generated using a refinement of RDD sampling called the Elimination of Non-Working Banks (ENWB) method. Using ENWB, the first stage in selecting the sample was to attempt to identify all working banks (i.e. all banks with at least one residential telephone number). This set of working banks became the frame for the survey. A bank is defined as the first 8 digits of the 10-digit telephone number (including area code). Thus, all banks with only unassigned, non-working, or business telephone numbers are excluded from the survey frame. The information needed to assemble the frame came from various telephone companies across Canada.

Each working bank was assigned to the proper province-stratum combination. Next, a systematic sample of banks was selected within each stratum. For each selected bank, a two digit number between 00 and 99 was generated at random. The random number was added to the bank to form a complete telephone number. This method allowed listed and unlisted residential numbers, as well as business and non-working phone numbers, to have a chance of being in the sample. At the same time it gave a much higher chance of reaching a residence than would be obtained if the last four digits of the number were randomly generated.

Each telephone number in the sample was dialled to determine whether or not it reached a household. For each household reached, an attempt was made to list all eligible household members and to sample one of these at random.

The random selection was set up such that people aged 15-24 or 65+ had a 50 times greater chance of being selected than someone aged 25-64. The reason for this is that about 53% of all households in Canada are made up of only people in the 25-64 age group; another 27% consist of people aged 25-64 living with people in either the 15-24 or 65+ age group; and only 20% of households contain no one aged 25-64. If all ages were selected with equal probability, the 25-64 age group would be over-represented in the sample and a much larger sample would be needed to get the required number of respondents in the younger and older age groups.

Because the majority of households have 25-64 year-olds who are not living with anyone in the 15-24 or 65+ age groups, we would get more 25-64 year-olds in the sample than were needed. To reduce collection costs, households of this type were sub-sampled such that a maximum of 1,000 per region would be screened-in for the main part of the survey.

5.5 Subsequent Cycles

For the second and subsequent cycles, the respondents from the first cycle were re-contacted. In cycle 2, an attempt was made to reach all 15,804 original respondents. For those who had changed telephone numbers, attempts were made to reach the person at a work telephone number (if given) or to reach the "contact person" to ask for the respondent's current phone number. In cycles 3 and 4 , interviewers attempted to contact 14,453 of the original respondents; the exclusions being those people who could not be located in cycle 2 or who refused the cycle 2 interview.

6. DATA COLLECTION

Data collection for the Survey on Smoking in Canada used Computer-Assisted Telephone Interviewing (CATI). The survey questions and response categories are programmed in a CATI application. The interviewer reads the question to the respondent and enters the respondent's answer. Thus, data collection and data capture occur simultaneously. The application is programmed to ensure that only valid answers can be entered, the proper flow between questions is automatic, and discrepancies between answers to related questions are passed through an edit and, if necessary, the respondent is asked to verify or correct the response(s) in error.

6.1 Question Design

The survey was divided into three main sections: initial contact, smoking questions, and follow-up. The first section contained questions used to determine: (a) if the telephone number belonged to a household, (b) the probability of that household being selected for the survey (i.e. number of other phone numbers belonging to the same household), (c) list the age, sex and marital status of each household member, and (d) randomly select one of the household members to complete the smoking questions.

The smoking questions themselves were mostly taken from other Statistics Canada surveys such as the Smoking Habits Survey, the test of the Youth Smoking Survey, and the National Population Health Survey and its supplement. The questions also reflect concepts and definitions agreed upon in a March 1994 workshop on measuring tobacco use¹. This workshop was attended by members of Health Canada and Statistics Canada as well as independent and university researchers and analysts specializing in the field of tobacco use.

In follow-up questions, we explained to respondents that we would like to re-contact them for a follow-up interview. To make it easier to reach them in case they moved or changed telephone numbers, respondents were asked to provide their name and address as well as the name and telephone number of a contact person who would be likely to know their new phone number. This information is not available on the public file and is only to be used in re-contacting the respondent in the subsequent collection periods.

¹ "Report of the Workshop on Data for Monitoring Tobacco Use", by Christina Mills, Thomas Stephens, and Kathryn Wilkins, *Journal of Chronic Diseases in Canada*, Summer 1994.

6.2 Supervision and Control

All CATI interviewers are under the supervision of senior interviewers who are responsible for ensuring that interviewers are familiar with the concepts and procedures of the survey, and also for periodically monitoring their interviewers. Monitoring of the interviewers consisted of the supervisor listening to the telephone interview and watching the responses being entered into the CATI application. Any errors or problems were noted and immediately brought to the attention of the interviewer.

6.3 Data Collection Methodology

The "initial contact" section of the CATI application was used each time a different telephone number was dialled by the interviewer. In the first cycle, if the telephone number belonged to a household, the household members were listed in order of age, from oldest to youngest. One household member aged 15 or more was selected at random by the computer. In the second and subsequent cycles, the interviewer asked to speak to the selected person. If necessary, the person would be traced using information provided in a previous interview.

The Survey on Smoking in Canada was then conducted with the selected person. If this selected person was not available to be interviewed at that time, an attempt was made to determine a convenient time to phone back to complete the interview. Because questions on current smoking status and amount smoked are known to be of questionable quality when collected by a proxy respondent, all interviews had to be conducted with the selected respondent only; no proxy reporting was accepted.

6.4 Collection Period

Interviews were conducted from Statistics Canada's head office (Operations and Integration Division). All interviews took place between 8:30AM and 10:00 PM local time on weekdays and between 12:00 noon and 7:00PM on Sundays. The collection dates were as follows:

Cycle 1:	April 20, 1994 to June 1, 1994
Cycle 2:	August 16, 1994 to September 16, 1994
Cycle 3:	November 14, 1994 to December 16, 1994
Cycle 4:	February 15, 1995 to March 16, 1995.

7. DATA PROCESSING

The main output of the Survey on Smoking in Canada is a "clean" microdata file. This section presents a brief summary of the processing steps involved in producing this file.

7.1 Data Capture

No separate data capture step was needed for this survey. Computer-Assisted interviewing means that the data collection and capture are combined into a single process.

7.2 Editing

In cycle 1, raw data was collected for 15,833 selected respondents; 29 were dropped because of insufficient data. To accommodate most statistical packages, all blank fields were converted to a numeric value. Questions that were skipped because of a flow pattern in the questionnaire were assigned a code to indicate a "valid skip". Responses of "don't know" or "refused" were also assigned specific codes. Any question that was skipped because of a flow pattern associated with an earlier response of "don't know" or "refused" was assigned a value of "not stated", because it is uncertain whether or not the question would have applied to the person.

7.3 Creation of Derived Variables

After all numerical verification was completed, derived variables were created to accommodate user needs. These include average number of cigarettes smoked per day, smoking status (current, former, experimental, etc.) and age group for starting to smoke. The specifications used to create the derived variables are given on the microdata record layout with the exception of the income adequacy variable (C1INCAD) and smoking status in January 1994 (C1SJAN94). Specifications for C1INCAD and C1SJAN94 are given in Appendix 1 (Specifications for Derived Variables).

7.4 Weighting

The principle behind estimation in a probability sample such as the Survey on Smoking in Canada is that each person in the sample "represents", besides himself or herself, several other persons not in the sample. For example, in a simple random 2% sample of the population, each person in the sample represents 50 persons in the population.

The weighting phase is a step which calculates this number for each record. This weight must be used to derive estimates from the microdata file. For example, if the number of people in Canada who smoke every day is to be estimated, it is done by selecting the records referring to people with that characteristic (C1Q01=1) and summing the weights of those records. A separate weight was calculated for each cycle. Every record has a weight for

cycle 1 (C1FINWT). Each respondent record in cycle 2 has a value in the cycle 2 weight field (C2FINWT); for non-respondents, C2FINWT is zero. Similarly, respondents to cycles 3 and 4 have a non-zero value in C3FINWT and C4FINWT respectively, while non-respondents have C3FINWT=0 and C4FINWT=0 respectively. In addition to the cycle weights, a longitudinal weight was calculated for those people who responded to all four cycles of the survey. The table below summarizes which weight should be used to analyze different combinations of variables.

If your analysis involves:				Then:	
Cycle 1 Variables	Cycle 2 Variables	Cycle 3 Variables	Cycle 4 Variables	Select Records With:	Use Weight:
Yes	No	No	No	Select all records	C1FINWT
No	Yes	No	No	C2RESPFL=1	C2FINWT
No	No	Yes	No	C3RESPFL=1	C3FINWT
No	No	No	Yes	C4RESPFL=1	C4FINWT
Yes	Yes	No	No	C2RESPFL=1	C2FINWT
Yes	No	Yes	No	C3RESPFL=1	C3FINWT
Yes	No	No	Yes	C4RESPFL=1	C4FINWT
No	Yes	Yes	No	LONGRESP=1	LONGWT
No	No	Yes	Yes	LONGRESP=1	LONGWT
Yes	Yes	Yes	No	LONGRESP=1	LONGWT
Yes	Yes	No	Yes	LONGRESP=1	LONGWT
Yes	No	Yes	Yes	LONGRESP=1	LONGWT
No	Yes	Yes	Yes	LONGRESP=1	LONGWT
Yes	Yes	Yes	Yes	LONGRESP=1	LONGWT

Details of the method used to calculate these weights are presented in Section 11.

7.5 Suppression of Confidential Information

It should be noted that the 'Public Use' microdata files described above differ in a number of important respects from the survey 'master' files held by Statistics Canada. These differences are the result of actions taken to protect the anonymity of individual survey respondents. Users requiring access to information excluded from the microdata files may purchase custom tabulations. Estimates generated will be released to the user, subject to meeting the guidelines for analysis and release outlined in Section 9 of this document.

Geographic Identifiers: The survey master data file includes explicit geographic identifiers for province, and stratum (CMA, non-CMA, Toronto, Montreal). It also contains the respondent's postal code. The survey public use microdata file does contain the geographic identifiers for province and stratum, but does not contain geographic identifiers (i.e. postal code) below the stratum level. Where possible, the postal code can be linked to other geographic identifiers and the data can be tabulated to this new geographic level; the link and tabulations would be performed at a cost-recovery rate.

Age: The survey master file contains single years of age; the public use microdata file contains age groupings only.

8. DATA QUALITY

8.1 Response Rates - Cycle 1

For the Survey on Smoking in Canada, 86,782 telephone numbers were called. 29,149 of these were determined to belong to households and 6,728 to non-households. Another 50,905 telephone numbers were never contacted by the end of the survey period; 40,053 of these had only been called once. 3,551 (12.2%) of the households were non-responding because either they refused or they could not be reached during the survey collection period. Of the 25,598 responding households, a further 6,769 households were dropped from the sample because the selected person was in the age group 25-64 and the sample targets for that age group had already been reached. For the 18,829 households where an interview with the selected person was attempted, 2,996 selected persons refused to complete the survey and an additional 29 records were dropped during processing because of partial non-response (non-response to C1Q01, or missing age or sex); this gives a total of 3,025 (16.1%) selected person non-respondents.

The table below shows the number of respondents by region and age group. The target sample size for each region by age group combination was 1,000 respondents. The main reason for the lower sample sizes in the younger age groups was that the interview took longer than expected, so we were not able to contact the expected number of households before the end of the survey period. The level of non-response did not show any differences by age group.

Region	Age Group			
	15-19	20-24	25-64	65+
Atlantic	784	615	1,200	1,017
Quebec	597	474	1,066	778
Ontario	548	500	1,009	882
Prairies	604	474	1,432	937
British Columbia	526	448	1,007	906
Canada	3,059	2,511	5,714	4,520

8.2 Response Rates - Cycle 2

The table below shows the number of respondents in cycle 2, by region and age group. The overall response rate for cycle 2 was $\{13,398/15,804\} = 84.8\%$.

Region	Age Group			
	15-19	20-24	25-64	65+
Atlantic	679	503	1,074	875
Quebec	517	377	904	657
Ontario	479	390	874	752
Prairies	497	388	1,220	801
British Columbia	434	331	845	801
Canada	2,606	1,989	4,917	3,886

8.3 Response Rates - Cycle 3

The table below shows the number of respondents in cycle 3, by region and age group. The overall response rate for cycle 3 was $\{12,808/15,804\} = 81.0\%$.

Region	Age Group			
	15-19	20-24	25-64	65+
Atlantic	675	498	1,036	828
Quebec	528	382	864	563
Ontario	477	378	837	676
Prairies	509	376	1,187	722
British Columbia	422	323	815	712
Canada	2,611	1,957	4,739	3,501

8.4 Response Rates - Cycle 4

The table below shows the number of respondents in cycle 4, by region and age group. The overall response rate for cycle 4, relative to cycle 1, was $\{12,424/15,804\} = 78.6\%$.

Region	Age Group			
	15-19	20-24	25-64	65+
Atlantic	672	495	1,036	791
Quebec	520	370	837	514
Ontario	468	380	806	623
Prairies	491	371	1,176	681
British Columbia	411	317	787	678
Canada	2,562	1,933	4,642	3,287

8.5 Survey Errors

The survey produces estimates based on information collected from and about a sample of individuals. Somewhat different estimates might have been obtained if a complete census had been taken using the same questionnaire, interviewers, supervisors, processing methods, etc. as those actually used in the survey. The difference between the estimates obtained from the sample and those resulting from a complete count taken under similar conditions is called the sampling error of the estimate.

Errors which are not related to sampling may occur at almost every phase of a survey operation. Interviewers may misunderstand instructions, respondents may make errors in answering questions, the answers may be incorrectly entered on the computer and errors may be introduced in the processing and tabulation of the data. These are all examples of non-sampling errors.

Over a large number of observations, randomly occurring errors will have little effect on estimates derived from the survey. However, errors occurring systematically will contribute to biases in the survey estimates. Considerable time and effort was made to reduce non-sampling errors in the survey. Quality assurance measures were implemented at each step of the data collection and processing cycle to monitor the quality of the data. These measures included extensive training of interviewers with respect to the survey procedures and CATI application; monitoring of interviewers to detect problems of questionnaire design

or misunderstanding of instructions; and testing of the CATI application to ensure that range checks, edits and question flow were all programmed correctly.

8.5.1 Total Non-Response

Total non-response can be a major source of non-sampling error in many surveys, depending on the degree to which respondents and non-respondents differ with respect to the characteristics of interest. Total non-response occurred when the selected person could not be contacted or refused to participate in the survey. Total non-response was handled by adjusting the weight of individuals who responded to the survey to compensate for those who did not respond.

8.5.2 Partial Non-Response

Partial non-response to the survey occurred when the respondent refused to answer a question, or could not recall the requested information. Partial non-response is indicated by codes on the microdata file.

8.5.3 Coverage

As mentioned in Section 5.1 (Population Coverage), less than 3% of households in Canada do not have telephones. Individuals living in non-telephone households may have unique characteristics which will not be reflected in the survey estimates. Users should be cautious when analyzing subgroups of the population which have characteristics that may be correlated with non-telephone ownership.

8.5.4 Measures of Sampling Error

Since it is an unavoidable fact that estimates from a sample survey are subject to sampling error, sound statistical practice calls for researchers to provide users with some indication of the magnitude of this sampling error. The basis for measuring the potential size of sampling errors is the standard error of the estimates derived from survey results. However, because of the large variety of estimates that can be produced from a survey, the standard error of an estimate is usually expressed relative to the estimate to which it pertains. This resulting measure, known as the coefficient of variation (C.V.) of an estimate, is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percentage of the estimate.

For example, suppose that, based upon the survey results, one estimates that 31% of Canadians are currently cigarette smokers, and this estimate is found to have standard error of .0056. Then the coefficient of variation of the estimate is calculated as:

$$\left(\frac{.0056}{.31} \right) \times 100\% = 1.8\%$$

9. GUIDELINES FOR TABULATION, ANALYSIS AND RELEASE

This section of the documentation outlines the guidelines to be adhered to by users tabulating, analysing, publishing or otherwise releasing any data derived from the survey microdata tapes. With the aid of these guidelines, users of microdata should be able to produce the same figures as those produced by Statistics Canada and, at the same time, will be able to develop currently unpublished figures in a manner consistent with these established guidelines.

9.1 Rounding Guidelines

In order that estimates for publication or other release derived from these microdata tapes correspond to those produced by Statistics Canada, users are urged to adhere to the following guidelines regarding the rounding of such estimates:

- a) Estimates in the main body of a statistical table are to be rounded to the nearest hundred units using the normal rounding technique. In normal rounding, if the first or only digit to be dropped is 0 to 4, the last digit to be retained is not changed. If the first or only digit to be dropped is 5 to 9, the last digit to be retained is raised by one. For example, in normal rounding to the nearest 100, if the last two digits are between 00 and 49, they are changed to 00 and the preceding digit (the hundreds digit) is left unchanged. If the last digits are between 50 and 99 they are changed to 00 and the preceding digit is incremented by 1.
- b) Marginal sub-totals and totals in statistical tables are to be derived from their corresponding unrounded components and then are to be rounded themselves to the nearest 100 units using normal rounding.
- c) Averages, proportions, rates and percentages are to be computed from unrounded components (i.e. numerators and/or denominators) and then are to be rounded themselves to one decimal using normal rounding. In normal rounding to a single digit, if the final or only digit to be dropped is 0 to 4, the last digit to be retained is not changed. If the first or only digit to be dropped is 5 to 9, the last digit to be retained is increased by 1.
- d) Sums and differences of aggregates (or ratios) are to be derived from their corresponding unrounded components and then are to be rounded themselves to the nearest 100 units (or the nearest one decimal) using normal rounding.
- e) In instances where, due to technical or other limitations, a rounding technique other than normal rounding is used resulting in estimates to be published or otherwise released which differ from corresponding estimates published by Statistics Canada,

users are urged to note the reason for such differences in the publication or release document(s).

- f) Under no circumstances are unrounded estimates to be published or otherwise released by users. Unrounded estimates imply greater precision than actually exists.

9.2 Sample Weighting Guidelines for Tabulation

The sample design used for the Survey on Smoking in Canada was not self-weighting. When producing simple estimates, including the production of ordinary statistical tables, users must apply the proper sampling weight.

If proper weights are not used, the estimates derived from the microdata tapes cannot be considered to be representative of the survey population, and will not correspond to those produced by Statistics Canada.

Users should also note that some software packages may not allow the generation of estimates that exactly match those available from Statistics Canada, because of their treatment of the weight field.

9.2.1 Definitions of Types of Estimates: Categorical vs. Quantitative

Before discussing how the Survey on Smoking in Canada data can be tabulated and analysed, it is useful to describe the two main types of point estimates of population characteristics which can be generated.

Categorical Estimates

Categorical estimates are estimates of the number, or percentage of the surveyed population possessing certain characteristics or falling into some defined category. The number of people who currently smoke cigarettes, and the proportion of daily smokers who have attempted to quit smoking are examples of such estimates. An estimate of the number of persons possessing a certain characteristic may also be referred to as an estimate of an aggregate.

Quantitative Estimates

An example of a quantitative estimate is the average number of cigarettes smoked on Saturday. The numerator is an estimate of the total number of cigarettes smoked on Saturdays, and its denominator is the number of persons who reported smoking on Saturdays.

9.2.2 Tabulation of Categorical Estimates

Estimates of the number of people with a certain characteristic can be obtained from the microdata file by summing the final weights of all records possessing the characteristic(s) of interest. Proportions and ratios of the form X/Y are obtained by:

- (a) summing the final weights of records having the characteristic of interest for the numerator (X),
- (b) summing the final weights of records having the characteristic of interest for the denominator (Y), then
- (c) dividing the numerator estimate by the denominator estimate.

9.2.3 Tabulation of Quantitative Estimates

Estimates of quantities can be obtained from the microdata file by multiplying the value of the variable of interest by the final weight for each record, then summing this quantity over all records of interest. For example, to obtain an estimate of total number of cigarettes smoked on Saturdays, multiply the value reported in C1SSAT (number of cigarettes smoked on Saturdays) by the final weight for the record, then sum this value over all records with C1SSAT<96 (all respondents who reported a valid value for this field).

9.3 Guidelines for Statistical Analysis

The Survey on Smoking in Canada is based upon a complex design, with stratification and multiple stages of selection, and unequal probabilities of selection of respondents. Using data from such complex surveys presents problems to analysts because the survey design and the selection probabilities affect the estimation and variance calculation procedures that should be used.

While many analysis procedures found in statistical packages allow weights to be used, the meaning or definition of the weight in these procedures differ from that which is appropriate in a sample survey framework, with the result that while in many cases the estimates produced by the packages are correct, the variances that are calculated are almost meaningless.

For many analysis techniques (for example linear regression, logistic regression, analysis of variance), a method exists which can make the application of standard packages more meaningful. If the weights on the records are rescaled so that the average weight is one (1), then the results produced by the standard packages will be more reasonable; they still will not take into account the stratification and clustering of the sample's design, but they will take into account the unequal probabilities of selection. The rescaling can be accomplished by dividing each weight by the overall average weight before the analysis is conducted.

In order to provide a means of assessing the quality of tabulated estimates, Statistics Canada has produced a set of Approximate Sampling Variability Tables (commonly referred to as "C.V. Tables") for the Survey on Smoking in Canada. These tables can be used to obtain approximate coefficients of variation for categorical-type estimates and proportions. See Section 10 for more details.

9.4 C.V. Release Guidelines

Before releasing and/or publishing any estimate from these microdata tapes, users should first determine the number of respondents who contribute to the calculation of the estimate. If this number is less than 30, the weighted estimate should not be released regardless of the value of the coefficient of variation for this estimate. For weighted estimates based on sample sizes of 30 or more, users should determine the coefficient of variation of the **rounded** estimate and follow the guidelines below.

Sampling Variability Guidelines

Type of Estimate	C.V. (in %)	Guidelines
1. Unqualified	0.0 - 16.5	Estimates can be considered for general unrestricted release. Requires no special notation.
2. Qualified	16.6 - 25.0	Estimates can be considered for general unrestricted release but should be accompanied by a warning cautioning subsequent users of the high sampling variability associated with the estimates. Such estimates should be identified by the letter Q (or in some other similar fashion).
3. Restricted	25.1 - 33.3	Estimates can be considered for general unrestricted release only when sampling variabilities are obtained using an exact variance calculation procedure. Unless exact variances are obtained, such estimates should be deleted and replaced by dashes (---) in statistical tables.
4. Not for Release	33.4 or greater	Estimates cannot be released in any form under any release OR circumstances. In statistical tables, such estimates should be deleted and replaced by dashes (--).

10. APPROXIMATE SAMPLING VARIABILITY TABLES

In order to supply coefficients of variation which would be applicable to a wide variety of categorical estimates produced from this microdata file and which could be readily accessed by the user, a set of Approximate Sampling Variability Tables has been produced. These "look-up" tables allow the user to obtain an approximate coefficient of variation based on the size of the estimate calculated from the survey data.

The coefficients of variation (C.V.) are derived using the variance formula for simple random sampling and incorporating a factor which reflects the multi-stage, clustered nature of the sample design. This factor, known as the design effect, was determined by first calculating design effects for a wide range of characteristics and then choosing from among these a conservative value to be used in the look-up tables which would then apply to the entire set of characteristics.

The table on the next page shows the design effects, sample sizes and population counts by province which were used to produce the Approximate Sampling Variability Tables. The design effects and sample sizes from cycle 2 were used to represent the "average" of the four cycles, and to avoid having separate C.V. tables for each cycle. The population numbers are the revised demographic estimates based on the 1991 Census, including non-permanent residents; these Census counts are projected forward using data on births, deaths and migration. The population counts in the table are the demography projections for May 1994, the reference month for the survey weights.

Table of Design Effects

Region	Age Group	Design Effect	Sample Size	Population
Atlantic	All	2.0	3,131	1,902,242
	15-19	1.3	679	179,395
	20-24	1.2	503	189,494
	25-64	2.0	1,074	1,262,298
	65+	1.2	875	271,056
Quebec	All	2.0	2,045	5,779,144
	15-19	1.1	517	488,887
	20-24	1.1	377	476,397
	25-64	2.0	904	4,028,370
	65+	1.1	657	785,490
Ontario	All	2.0	2,495	8,626,850
	15-19	1.1	479	706,553
	20-24	1.1	390	782,894
	25-64	2.0	874	5,912,658
	65+	1.1	752	1,224,745
Prairies	All	2.0	2,906	3,702,870
	15-19	1.3	497	342,123
	20-24	2.0	388	347,755
	25-64	1.3	1,220	2,496,526
	65+	1.3	801	516,466
British Columbia	All	2.0	2,411	2,905,336
	15-19	1.1	434	234,309
	20-24	1.2	331	257,324
	25-64	2.0	845	1,977,288
	65+	1.1	801	436,415
Canada	All	3.0	13,398	22,916,443
	15-19	1.5	2,606	1,951,267
	20-24	1.5	1,989	2,053,864
	25-64	3.0	4,917	15,677,140
	65+	1.5	3,886	3,234,172

All coefficients of variation in the Approximate Sampling Variability Tables are approximate and, therefore, unofficial. Estimates of actual variance for specific variables may be obtained

from Statistics Canada on a cost-recovery basis. The use of actual variance estimates would allow users to release otherwise unreleaseable estimates, i.e. estimates with coefficients of variation in the 'confidential' range.

Remember: If the number of observations on which an estimate is based is less than 30, the weighted estimate should not be released regardless of the value of the coefficient of variation for this estimate. This is because the formulas used for estimating the variance do not hold true for small sample sizes.

10.1 How to Use the C.V. Tables for Categorical Estimates

The following rules should enable the user to determine the approximate coefficients of variation from the Sampling Variability Tables for estimates of the number, proportion or percentage of the surveyed population possessing a certain characteristic and for ratios and differences between such estimates.

Rule 1: Estimates of Numbers Possessing a Characteristic (Aggregates)

The coefficient of variation depends only on the size of the estimate itself. On the Sampling Variability Table for the appropriate geographic area, locate the estimated number in the left-most column of the table (headed "Numerator of Percentage") and follow the asterisks (if any) across to the first figure encountered. This figure is the approximate coefficient of variation.

Rule 2: Estimates of Proportions or Percentages Possessing a Characteristic

The coefficient of variation of an estimated proportion or percentage depends on both the size of the proportion or percentage and the size of the numerator of the proportion or percentage. Estimated proportions or percentages are relatively more reliable than the corresponding estimates of the numerator of the proportion or percentage, when the proportion or percentage is based upon a sub-group of the population. For example, the proportion of 15-19 year-old daily smokers in Canada more reliable than the estimated number of 15-19 year-old daily smokers in Canada. (Note that in the tables the coefficients of variation decline in value reading from left to right.)

When the proportion or percentage is based upon the total population of the geographic area covered by the table (i.e. if the denominator is equal to the total population), the coefficient of variation of the proportion or percentage is the same as the coefficient of variation of the numerator of the proportion or percentage. In this case, Rule 1 can be used.

When the proportion or percentage is based upon a subset of the total population (e.g. those in a particular sex or age group), reference should be made to the proportion or percentage (across the top of the table) and to the numerator of the proportion or percentage (down the

left side of the table). The intersection of the appropriate row and column gives the coefficient of variation.

Rule 3: Estimates of Differences Between Aggregates or Percentages

The standard error of a difference between two estimates is approximately equal to the square root of the sum of squares of each standard error considered separately. That is, the standard error of a difference ($\hat{d} = \hat{X}_1 - \hat{X}_2$) is:

$$\sigma_{\hat{d}} = \sqrt{(\hat{X}_1 \alpha_1)^2 + (\hat{X}_2 \alpha_2)^2}$$

where \hat{X}_1 is estimate 1, \hat{X}_2 is estimate 2, and α_1 and α_2 are the coefficients of variation of \hat{X}_1 and \hat{X}_2 respectively. The coefficient of variation of \hat{d} is given by $\sigma_{\hat{d}}/\hat{d}$. This formula is accurate for the difference between separate and uncorrelated characteristics, but is only approximate otherwise.

Rule 4: Estimates of Ratios

A ratio is an estimate taking the form $R = \hat{X}_1/\hat{X}_2$ where \hat{X}_1 and \hat{X}_2 are both quantities estimated from the survey. In the case where the numerator (\hat{X}_1) is a subset of the denominator (\hat{X}_2), the ratio should be converted to a percentage and Rule 2 applied. This would apply, for example, to the case where the denominator is the number of daily smokers and the numerator is the number of daily smokers who smoke more now than in January 1994.

The ratio of the number of female occasional smokers as compared to the number of male occasional smokers is an example where the numerator is not a subset of the denominator. In this case, the standard deviation of the ratio of the estimates is approximately equal to the square root of the sum of squares of each coefficient of variation considered separately multiplied by R. That is, the standard error of a ratio ($R = \hat{X}_1/\hat{X}_2$) is:

$$\sigma_{\hat{R}} = \hat{R} \sqrt{\alpha_1^2 + \alpha_2^2}$$

where α_1 and α_2 are the coefficients of variation of \hat{X}_1 and \hat{X}_2 respectively.

The coefficient of variation of R is given by $\sigma_{\hat{R}}/R$. The formula will tend to overstate the error, if \hat{X}_1 and \hat{X}_2 are positively correlated and understate the error if \hat{X}_1 and \hat{X}_2 are negatively correlated.

Rule 5: Estimates of Differences of Ratios

In this case, Rules 3 and 4 are combined. The coefficients of variation for the two ratios are first determined using Rule 4, and then the coefficient of variation of their difference is found using Rule 3.

10.2 Examples of Using the C.V. Tables for Categorical Estimates

The following 'real life' examples from cycle 2 are included to assist users in applying the foregoing rules.

Example 1: Estimates of Numbers Possessing a Characteristic (Aggregates)

Suppose that a user estimates that during the reference period 6,836,000 persons were current smokers in Canada. How does the user determine the coefficient of variation of this estimate?

- (1) Refer to the c.v. table for CANADA.
- (2) The estimated aggregate (6,836,000) does not appear in the left-hand column (the 'Numerator of Percentage' column), so it is necessary to use the figure closest to it, namely 7,000,000.
- (3) The coefficient of variation for an estimated aggregate is found by referring to the first non-asterisk entry on that row, namely, 2.2%.
- (4) So the approximate coefficient of variation of the estimate is 2.2%.

The finding that there were 6,836,000 current smokers in the reference period is publishable with no qualifications.

Example 2: Estimates of Proportions or Percentages Possessing a Characteristic

Suppose that the user estimates that $780,002/6,836,000 = 11.4\%$ of current smokers in the reference period are in the age group 20-24. How does the user determine the coefficient of variation of this estimate?

- (1) Refer to the c.v. table for CANADA (CANADA level tables should be used because the denominator 6,836,000 is the total of current smokers from all ages).
- (2) Because the estimate is a percentage which is based on a subset of the total population (current smokers in 20-24 age group), it is necessary to use both the

percentage (11.4%) and the numerator portion of the percentage (780,002) in determining the coefficient of variation.

- (3) The numerator, 780,002 does not appear in the left-hand column (the 'Numerator of Percentage' column) so it is necessary to use the figure closest to it, namely 750,000. Similarly, the percentage estimate does not appear as any of the column headings, so it is necessary to use the figure closest to it, 10.0%.
- (4) The figure at the intersection of the row and column used, namely 7.8% is the coefficient of variation to be used.
- (5) So the approximate coefficient of variation of the estimate is 7.8%.

The finding that 11.4% of current smokers are in the age group 20-24 can be published with no qualifications.

Example 3: Estimates of Differences Between Aggregates or Percentages

Suppose that a user estimates that $370,103/3,356,052 = 11.0\%$ of females smokers are in the 20-24 age group, while $410,006/3,480,103 = 11.8\%$ of male smokers in the 20-24 age group. How does the user determine the coefficient of variation of the difference between these two estimates?

- (1) Using the c.v. table for CANADA in the same manner as described in Example 2 gives the c.v. of the estimate for females as 11.5%, and the c.v. of the estimate for males as 10.7%.
- (2) Using Rule 3, the standard error of a difference ($\hat{d} = X_1 - X_2$) is:

$$\sigma_{\hat{d}} = \sqrt{(\hat{X}_1 \alpha_1)^2 + (\hat{X}_2 \alpha_2)^2}$$

where X_1 is estimate 1, X_2 is estimate 2, and α_1 and α_2 are the coefficients of variation of X_1 and X_2 respectively.

That is, the standard error of the difference $\hat{d} = (.118 - .110) = .008$ is:

$$\begin{aligned} \sigma_{\hat{d}} &= \sqrt{[(.11)(.115)]^2 + [(.118)(.107)]^2} \\ &= \sqrt{(.00016) + (.00016)} \\ &= .018 \end{aligned}$$

- (3) The coefficient of variation of \hat{d} is given by $\sigma_{\hat{d}}/\hat{d} = .018/.008 = 2.25$.
- (4) So the approximate coefficient of variation of the difference between the estimates is 2.25%. This estimate can not be released under any circumstances and should be deleted and replaced by dashes.

Example 4: Estimates of Ratios

Suppose that the user estimates that there are 370,103 female current smokers in the age group 20-24, while 410,113 male current smokers in the age group 20-24. The user is interested in comparing the estimate of females versus that of males in the form of a ratio. How does the user determine the coefficient of variation of this estimate?

- (1) First of all, this estimate is a ratio estimate, where the numerator of the estimate ($=X_1$) is the number of female current smokers in the age group 20-24. The denominator of the estimate ($=X_2$) is the number of male current smokers in the age group 20-24.
- (2) Refer to the c.v. table for CANADA.
- (3) The numerator of this ratio estimate is 370,103. The figure closest to it is 350,000. The coefficient of variation for this estimate is found by referring to the first non-asterisk entry on that row, namely, 12%.
- (4) The denominator of this ratio estimate is 410,006. The figure closest to it is 400,000. The coefficient of variation for this estimate is found by referring to the first non-asterisk entry on that row, namely, 11.2%.
- (5) So the approximate coefficient of variation of the ratio estimate is given by Rule 4, which is,

$$\alpha_{\hat{R}} = \sqrt{\alpha_1^2 + \alpha_2^2}$$

where α_1 and α_2 are the coefficients of variation of X_1 and X_2 respectively.

That is,

$$\begin{aligned} \alpha_{\hat{R}} &= \sqrt{(.12)^2 + (.112)^2} \\ &= 0.164 \end{aligned}$$

The obtained ratio of female current smokers in the age group 20-24 versus male current smokers in the age group 20-24 is 370,103/410,006 which is .9:1. The

coefficient of variation of this estimate is 16.4%, which is releasable with no qualifications.

10.3 How to Use the C.V. Tables to Obtain Confidence Limits

Although coefficients of variation are widely used, a more intuitively meaningful measure of sampling error is the confidence interval of an estimate. A confidence interval constitutes a statement on the level of confidence that the true value for the population lies within a specified range of values. For example a 95% confidence interval can be described as follows:

If sampling of the population is repeated indefinitely, each sample leading to a new confidence interval for an estimate, then in 95% of the samples the interval will cover the true population value.

Using the standard error of an estimate, confidence intervals for estimates may be obtained under the assumption that under repeated sampling of the population, the various estimates obtained for a population characteristic are normally distributed about the true population value. Under this assumption, the chances are about 68 out of 100 that the difference between a sample estimate and the true population value would be less than one standard error, about 95 out of 100 that the difference would be less than two standard errors, and about 99 out 100 that the differences would be less than three standard errors. These different degrees of confidence are referred to as the confidence levels.

Confidence intervals for an estimate, \hat{X} , are generally expressed as two numbers, one below the estimate and one above the estimate, as $(\hat{X}-k, \hat{X}+k)$ where k is determined depending upon the level of confidence desired and the sampling error of the estimate.

Confidence intervals for an estimate can be calculated directly from the Approximate Sampling Variability Tables by first determining from the appropriate table the coefficient of variation of the estimate \hat{X} , and then using the following formula to convert to a confidence interval CI:

$$CI_X = [\hat{X} - t\hat{X}\alpha_{\hat{X}}, \hat{X} + t\hat{X}\alpha_{\hat{X}}]$$

where

$\alpha_{\hat{X}}$	is the determined coefficient of variation of \hat{X} , and
t = 1	if a 68% confidence interval is desired
t = 1.6	if a 90% confidence interval is desired
t = 2	if a 95% confidence interval is desired
t = 3	if a 99% confidence interval is desired.

Note: Release guidelines which apply to the estimate also apply to the confidence interval. For example, if the estimate is not releasable, then the confidence interval is not releasable either.

10.4 Example of Using the C.V. Tables to Obtain Confidence Limits

A 95% confidence interval for the estimated proportion of current smokers in the age group of 20-24 (from Example 2) would be calculated as follows.

$$\hat{X} = 11.4\% \text{ (or expressed as a proportion} = .114)$$

$$t = 2$$

$\alpha_X = 7.8\%$ (.078 expressed as a proportion) is the coefficient of variation of this estimate as determined from the tables.

$$CI_X = \{ .114 - (2) (.114) (.078), .114 + (2) (.114) (.078) \}$$

$$CI_X = \{ .114 - .018, .114 + .018 \}$$

$$CI_X = \{ .096, .132 \}$$

With 95% confidence it can be said that between 9.6% and 13.2% of current smokers are in the age group 20-24.

10.5 How to Use the C.V. Tables to do a T-Test

Standard errors may also be used to perform hypothesis testing, a procedure for distinguishing between population parameters using sample estimates. The sample estimates can be numbers, averages, percentages, ratios, etc. Tests may be performed at various levels of significance, where a level of significance is the probability of concluding that the characteristics are different when, in fact, they are identical.

Let X_1 and X_2 be sample estimates for 2 characteristics of interest. Let the standard error on the difference $X_1 - X_2$ be σ_d .

If $t = \frac{\hat{X}_1 - \hat{X}_2}{\sigma_d}$ is between -2 and 2, then no conclusion about the difference between the

characteristics is justified at the 5% level of significance. If however, this ratio is smaller than -2 or larger than +2, the observed difference is significant at the 0.05 level. That is to say that the characteristics are significant.

10.6 Example of Using the C.V. Tables to do a T-Test

Let us suppose we wish to test, at 5% level of significance, the hypothesis that there is a difference between the proportion of female current smokers in the age group 20-24 and the proportion of male current smokers in the age group 20-24. From Example 3, the standard error of the difference between these two estimates was found to be =.18. Hence,

$$t = \frac{\hat{X}_1 - \hat{X}_2}{\sigma_d} = \frac{.110 - .118}{.18} = \frac{-.008}{.18} = -0.04$$

Since $t = -0.04$ is not less than -2 , it must be concluded that there is no significant difference between the two estimates at the 0.05 level of significance.

10.7 Coefficients of Variation for Quantitative Estimates

For quantitative estimates, special tables would have to be produced to determine their sampling error. Since most of the variables for the Survey on Smoking in Canada are primarily categorical in nature, this has not been done.

As a general rule, however, the coefficient of variation of a quantitative total will be larger than the coefficient of variation of the corresponding category estimate (i.e., the estimate of the number of persons contributing to the quantitative estimate). If the corresponding category estimate is not releasable, the quantitative estimate will not be either.

Coefficients of variation of such estimates can be derived as required for a specific estimate using a technique known as pseudo replication. This involves dividing the records on the microdata files into subgroups (or replicates) and determining the variation in the estimate from replicate to replicate. Users wishing to derive coefficients of variation for quantitative estimates may contact Statistics Canada for advice on the allocation of records to appropriate replicates and the formulae to be used in these calculations.

10.8 Release Cut-Offs for the Survey on Smoking in Canada

The minimum size of the estimate at the provincial, regional and Canada levels are specified in the table below. Estimates smaller than the minimum size given in the "Not Releasable" column may not be released under any circumstances.

Table of Release Cut-Offs

Region	Age Group	Unqualified	Qualified	Restricted	Not Releasable
Atlantic	All	42,000 &+	18,500-41,500	10,500-18,000	under 10,500
	15-19	11,500 &+	5,000-11,000	3,000-4,500	under 3,000
	20-24	14,500 &+	6,500-14,000	4,000-6,000	under 4,000
	25-64	78,000 &+	35,000-77,500	20,000-34,500	under 20,000
	65+	12,500 &+	5,500-12,000	3,000-5,000	under 3,000
Quebec	All	161,000 &+	71,000-160,500	40,500-70,500	under 40,500
	15-19	34,000 &+	15,500-33,500	9,000-15,000	under 9,000
	20-24	43,000 &+	20,000-42,500	11,500-19,500	under 11,500
	25-64	291,000 &+	132,500-290,500	75,500-132,000	under 75,500
	65+	43,500 &+	19,500-43,000	11,000-19,000	under 11,000
Ontario	All	233,000 &+	103,000-323,500	58,500-102,500	under 58,500
	15-19	51,000 &+	23,500-50,500	13,500-23,000	under 13,500
	20-24	68,000 &+	31,000-67,500	18,000-30,500	under 18,000
	25-64	433,500 &+	197,500-433,000	113,000-197,000	under 113,000
	65+	60,000 &+	27,000-59,500	15,500-26,500	under 15,500
Prairies	All	85,500 &+	38,000-85,000	21,500-37,500	under 21,500
	15-19	28,000 &+	12,000-27,500	7,500-11,500	under 7,500
	20-24	36,000 &+	16,500-35,500	9,500-16,000	under 9,500
	25-64	134,000 &+	60,500-133,500	34,500-60,000	under 34,500
	65+	27,500 &+	12,500-27,000	7,000-12,000	under 7,000
British Columbia	All	80,000 &+	35,500-79,500	20,000-35,000	under 20,000
	15-19	18,500 &+	8,500-18,000	5,000-8,000	under 5,000
	20-24	27,500 &+	12,500-27,000	7,500-12,000	under 7,500
	25-64	147,500 &+	67,000-147,000	38,500-66,500	under 38,500
	65+	20,000 &+	9,000-19,500	5,000-8,500	under 5,000
Canada	All	177,500 &+	77,500-177,000	44,000-77,000	under 44,000
	15-19	38,000 &+	16,500-37,500	9,500-16,000	under 9,500
	20-24	51,500 &+	22,500-51,000	13,000-22,000	under 13,000
	25-64	326,000 &+	144,000-325,500	81,500-143,500	under 81,500
	65+	43,500 &+	19,000-43,000	11,000-18,500	under 11,000

10.9 C.V. Tables

The C.V. tables to be used for the analysis of data from the Survey on Smoking in Canada are given on the following pages.

11. WEIGHTING

For the microdata file, statistical weights were placed on each record to represent the number of sampled persons that the record represents. A separate weight was calculated for each cycle. Every record has a weight for cycle 1 (C1FINWT). Each respondent in subsequent cycles has a non-zero value in the weight field corresponding to that cycle; for non-respondents the weight is set to zero. For more information on which weight to use in analysis, please refer to section 7.4 (Weighting).

11.1 Cycle 1 Weighting

The weighting for the first cycle of the Survey on Smoking in Canada consisted of several steps: calculation of a basic weight, an adjustment for non-response, an adjustment for sub-sampling households, an adjustment for selecting one person in the household, and finally an adjustment for post-stratification to Province-Sex-Age Group totals.

Basic Weight

With the Elimination of Non-Working Banks method of RDD, each telephone number within a Province-Stratum has an equal probability of selection. This probability is equal to T_s/T_p , where T_s = number of telephone numbers sampled in the Province-Stratum, and T_p = number of possible telephone numbers in the Province-Stratum. Note that the number of possible telephone numbers for a Province-Stratum is equal to the number of working banks for that Province-Stratum multiplied by 100. Each telephone number in the sample was assigned a basic weight equal to the inverse of its probability of selection. That is, for a telephone number in Province-Stratum j , the basic weight $W1$ is defined as:

$$W1(j) = \frac{T_p(j)}{T_s(j)}$$

Non-Response Adjustment

After calculating the basic weight, all telephone numbers corresponding to non-households were dropped from the sample. For the remaining telephone numbers, the basic weights of households which responded were adjusted to represent non-responding households. Note that telephone numbers which were not resolved (i.e. not determined if they belonged to a household or not) were assumed to be non-responding households in the weighting. A household was considered as responding if the selected person responded to the interview, or if the selected person was aged 25-64 and was subsequently screened out in the sub-sampling process. The non-response adjustment factor for a household in Province-Stratum j was calculated as $H(j)/RH(j)$, where $H(j) = \{\text{sum of the basic weights of all households in } j\}$, and $RH(j) = \{\text{sum of the basic weights of the responding households in } j\}$. The non-

response adjusted weight W2 was calculated by multiplying the basic weight for the responding households by the non-response adjustment factor:

$$W2(j) = W1(j) * \frac{H(j)}{RH(j)}$$

Non-responding households were then dropped from further weighting procedures.

Sub-Selection of Households

Because the majority of households contain persons aged 25-64, the number of people in our sample in this age group would be much higher than needed. To reduce costs, we sub-sampled households which contained only persons in this age group (i.e. not living with anyone aged 15-24 or 65+). For households with only persons 25-64 in Province-Stratum j, the adjustment factor was $H_{2564}(j)/HS_{2564}(j)$ where $H_{2564}(j) = \{\text{sum of weights } W2(j) \text{ over all households with only 25-64 year-olds in Province-Stratum } j\}$, and $HS_{2564}(j) = \{\text{sum of weights } W2(j) \text{ over households with only 25-64 year-olds in Province-Stratum } j \text{ which were selected in the sub-sample}\}$. For these households, the adjusted weight W3 was calculated by multiplying W2 by the sub-sampling adjustment factor. For the rest of the households in the sample, W3 was set equal to W2. The households which were dropped from the sample were then dropped from further weighting procedures.

Multiple Telephone Adjustment

Weights for households with more than one telephone number were adjusted downwards to account for the fact that such households have a higher probability of being selected. The weight for each household was divided by the number of distinct residential telephone numbers that serviced the household (NTel). That is, $W4 = W3/NTel$.

Selected Person Weight

A person weight was then calculated for each person who responded to the survey. Each person in a household was assigned a weight (PWT) according to his/her age; this weight was 50 for persons aged 15-24 or 65+, and 1 for persons aged 25-64. These PWTs were summed over all persons in the household (TOTWT). The probability of an individual i being selected in a given household was $PWT_i/TOTWT$. The sample was divided into three groups according to the age composition of the households. Type 1 households were those where the selected person was aged 15-24 or 65+. Type 2 households were those containing only 25-64 year-olds (and therefore the selected person was aged 25-64). Type 3 households were those containing 25-64 year-olds living with persons aged 15-24 or 65+ and where the selected person was aged 25-64. In type 1 and 2 households, the inverse of the probability of selection was used as the selected person adjustment factor. But in the case of type 3

households, the probability of selection for the 25-64 year-old was small and so his/her adjustment factor would be very large. To avoid extreme values in the weights, the adjustment factors for type 3 households were averaged over all such households in a Province-Stratum. That is, for type 3 households in Province-Stratum j , the selected person adjustment factor was $TW_{H3}(j)/PW_{H3}(j)$, where $TW_{H3}(j) = \{\text{sum of all TOTWTs for type 3 households in } j\}$, and $PW_{H3}(j) = \{\text{sum of all PWTs selected persons in type 3 households in } j\}$. The initial person weight (W5) was obtained by multiplying W4 by the selected person adjustment factor.

Adjustment to External Stratum Totals

An adjustment was made to the person weights on records within each Province-Stratum in order to make population estimates consistent with Census projected population counts for persons 15 and older. The adjustment factor for Province-Stratum j was defined as C_j/S_j where $C_j = \{\text{Census population projection for ages 15+ in Province-Stratum } j\}$, and $S_j = \{\text{sum of the weights W5 for persons in the sample in Province-Stratum } j\}$. The adjusted weight W6 was calculated as W5 multiplied by the adjustment factor.

Province-Sex-Age Group Adjustments

The next weighting step was to adjust the weights to agree with Census projected Province-Sex-Age Group distributions. Counts were obtained for May 1994 for the following age groups: 15-19, 20-24, 25-34, 35-44, 45-54, 55-64, 65-69, 70+. The adjustment factor for Province-Sex-Age Group k was defined as C_k/S_k , where $C_k = \{\text{Census population projection for PSA } k\}$, and $S_k = \{\text{sum of weights W6 for persons in the sample in PSA } k\}$. The adjusted weight W7 was calculated as W6 multiplied by the adjustment factor.

It should be noted that persons living in households without telephone service are included in these projections even though such persons were not sampled.

Raking Ratio Adjustments

The weights for each respondent were adjusted several times using a raking ratio procedure. This procedure ensured that estimates produced for a Province-Stratum and for a Province-Sex-Age Group would agree. This adjustment was made by repeating the last two steps of the weighting procedure, each time using the weight obtained from the previous step, until the two sets of estimates both agreed with the Census projections. The final statistical weight can be found in the "C1FINWT" field on the microdata file.

11.2 Cycle 2 Weighting

Weighting for cycle 2 began with the Person Weight (W5) from cycle 1. This weight was adjusted to account for non-response between cycles 1 and 2, and was then adjusted to agree with the population control totals.

Non-Response Adjustment

A non-response adjustment was made to the person weights within categories of {smoker/non-smoker in cycle 1} x {region} x {age group (15-19, 20-24, 25-64, 65+)}. Within each category i , the adjustment factor was defined as $S_i^{(1)}/S_i^{(2)}$, where $S_i^{(1)} = \{\text{sum of weights W5 for all persons in category } i\}$, and $S_i^{(2)} = \{\text{sum of weights W5 for persons in category } i \text{ who responded in cycle 2}\}$. The non-response adjusted weight $W1^{(2)}$ was calculated as W5 multiplied by the adjustment factor.

Adjustment to External Stratum Totals

An adjustment was made to the person weights on records within each Province-Stratum in order to make population estimates consistent with Census projected population counts for persons 15 and older. The adjustment factor for Province-Stratum j was defined as C_j/S_j where $C_j = \{\text{Census population projection for ages 15+ in Province-Stratum } j\}$, and $S_j = \{\text{sum of the weights } W1^{(2)} \text{ for persons in the sample in Province-Stratum } j\}$. The adjusted weight $W2^{(2)}$ was calculated as $W1^{(2)}$ multiplied by the adjustment factor.

Province-Sex-Age Group Adjustments

The next weighting step was to adjust the weights to agree with Census projected Province-Sex-Age Group distributions. Counts were obtained for May 1994 for the following age groups: 15-19, 20-24, 25-34, 35-44, 45-54, 55-64, 65-69, 70+. The adjustment factor for Province-Sex-Age Group k was defined as C_k/S_k , where $C_k = \{\text{Census population projection for PSA } k\}$, and $S_k = \{\text{sum of weights } W2^{(2)} \text{ for persons in the sample in PSA } k\}$. The adjusted weight $W3^{(2)}$ was calculated as $W2^{(2)}$ multiplied by the adjustment factor.

It should be noted that persons living in households without telephone service are included in these projections even though such persons were not sampled.

Raking Ratio Adjustments

The weights for each respondent were adjusted several times using a raking ratio procedure. This procedure ensured that estimates produced for a Province-Stratum and for a Province-Sex-Age Group would agree. This adjustment was made by repeating the last two steps of the weighting procedure, each time using the weight obtained from the previous step, until

the two sets of estimates both agreed with the Census projections. The final statistical weight can be found in the "C2FINWT" field on the microdata file.

11.3 Cycle 3 Weighting

Weighting for cycle 3 began with the Person Weight (W5) from cycle 1. This weight was adjusted to account for non-response between cycles 1 and 3, and was then adjusted to agree with the population control totals. Each of the steps described in "Cycle 2 Weighting" was used in weighting for cycle 3, the only difference being that the weights were calculated for those persons who responded in cycle 3. The final statistical weight can be found in the "C3FINWT" field on the microdata file.

11.4 Cycle 4 Weighting

Weighting for cycle 4 began with the Person Weight (W5) from cycle 1. This weight was adjusted to account for non-response between cycles 1 and 4, and was then adjusted to agree with the population control totals. Each of the steps described in "Cycle 2 Weighting" was used in weighting for cycle 4, the only difference being that the weights were calculated for those persons who responded in cycle 4. The final statistical weight can be found in the "C4FINWT" field on the microdata file.

11.5 Longitudinal Weighting

Weighting for the longitudinal respondents (i.e. those people who responded in all four cycles) began with the Person Weight (W5) from cycle 1. This weight was adjusted to account for non-response in any of the cycles 2-4, and was then adjusted to agree with the population control totals. Each of the steps described in "Cycle 2 Weighting" was used in weighting the longitudinal respondents, the only difference being that the weights were calculated for those persons who responded to all four cycles. The final statistical weight can be found in the "LONGWT" field on the microdata file.

12. QUESTIONNAIRE

Since the survey was conducted using Computer-Assisted interviewing, there is no actual questionnaire form. However, the survey questions and the flow patterns are reproduced below.

Survey on Smoking in Canada

Cycle 1 Questions

INTRO-5 (Introduction to first question)

I am going to start with some questions about cigarette smoking. For the purpose of this survey, the term "cigarette" refers to both cigarettes that are bought ready-made as well as cigarettes that you roll yourself. Please do not include cigars, cigarillos or pipes when you think about your answers.

C1Q01 At the present time do you smoke cigarettes every day, occasionally, or not at all?

<1>	Every day	(Go to C1Q02)
<2>	Occasionally	(Go to C1Q02)
<3>	Not at all	(Go to C1Q02)
<8>	Refused	(Go to Q_END)
<9>	Don't know	(Go to Q_END)

C1Q02 Have you smoked at least 100 cigarettes in your life?

<1>	Yes	(Go to C1Q04)
<2>	No	(If C1Q01=3, go to C1Q03; otherwise go to C1Q04)
<8>	Refused	(Go to Q_END)
<9>	Don't know	(Go to Q_END)

C1Q03 Have you ever smoked a whole cigarette?

<1>	Yes	(Go to C1Q04)
<2>	No	(Go to C1C20)
<8>	Refused	(Go to Q_END)
<9>	Don't know	(Go to Q_END)

C1Q04 How old were you when you smoked your first whole cigarette?

____ Years (min:04; max:current age)

(If current age-age started<2, go to C1Q05; else if C1Q01=1, go to C1Q09; otherwise go to C1Q06)

<98>	Refused	(Go to C1C20)
<99>	Don't know	(If C1Q01=1, go to C1Q09; otherwise go to C1Q06)

C1Q05 In what month and year did you smoke your first whole cigarette?

__ (MM) __ (YY)		(If C1Q01=1, go to C1Q09; otherwise go to C1Q06)
<98>	Refused	(Go to C1C20)
<99>	Don't know	(If C1Q01=1, go to C1Q09; otherwise go to C1Q06)

C1Q06 Have you ever smoked cigarettes daily?

<1>	Yes	(If C1Q01=2, go to C1Q09; otherwise go to C1Q07)
<2>	No	(If C1Q01=2, go to C1Q09; otherwise go to C1Q07)
<8>	Refused	(Go to C1C20)
<9>	Don't know	(If C1Q01=2, go to C1Q09; otherwise go to C1Q07)

C1Q07 Did you stop smoking less than one year ago, 1 to 5 years ago, or more than 5 years ago?

<1>	Less than one year ago	(Go to C1Q08)
<2>	1 to 5 years ago	(Go to C1C20)
<3>	More than 5 years ago	(Go to C1C20)
<8>	Refused	(Go to C1C20)
<9>	Don't know	(Go to C1C20)

C1Q08 In what month and year did you stop smoking?

__ (MM) __ (YY)		(Go to C1C20)
<98>	Refused	(Go to C1C20)
<99>	Don't know	(Go to C1C20)

C1Q09 Did you smoke any cigarettes in the past 7 days?

<1>	Yes	(Go to C1C10)
<2>	No	(Go to C1Q11)
<8>	Refused	(Go to C1C20)
<9>	Don't know	(Go to C1Q12)

C1C10 Create variables to fill day of week in C1Q10A-C1Q10G: for example, if today is Monday, then %day-1%=Sunday, %day-2%=Saturday, %day-3%=Friday, etc. Create similar variables in French: %jour-1%, etc.

C1Q10A Thinking back over the past 7 days, starting with yesterday, how many cigarettes did you smoke on %day-1%?

___	(00-95)	(Go to C1Q10B)
<98>	Refused	(Go to C1Q12)
<99>	Don't know	(Go to C1Q12)

C1Q10B	... on %day-2%?		
	_ _	(00-95)	(Go to C1Q10C)
	<98>	Refused	(Go to C1Q12)
	<99>	Don't know	(Go to C1Q12)
C1Q10C	... on %day-3%?		
	_ _	(00-95)	(Go to C1Q10D)
	<98>	Refused	(Go to C1Q12)
	<99>	Don't know	(Go to C1Q12)
C1Q10D	... on %day-4%?		
	_ _	(00-95)	(Go to C1QE)
	<98>	Refused	(Go to C1Q12)
	<99>	Don't know	(Go to C1Q12)
C1Q10E	... on %day-5%?		
	_ _	(00-95)	(Go to C1Q10F)
	<98>	Refused	(Go to C1Q12)
	<99>	Don't know	(Go to C1Q12)
C1Q10F	... on %day-6%?		
	_ _	(00-95)	(Go to C1Q10G)
	<98>	Refused	(Go to C1Q12)
	<99>	Don't know	(Go to C1Q12)
C1Q10G	... on %day-7%?		
	_ _	(00-95)	(Go to C1Q12)
	<98>	Refused	(Go to C1Q12)
	<99>	Don't know	(Go to C1Q12)
C1Q11	How many cigarettes have you smoked in the past 30 days?		
	_ _ _	(000-995)	(Go to C1Q12)
	<998>	Refused	(Go to C1C20)
	<999>	Don't know	(Go to C1Q12)
C1Q12	I want to ask you about your smoking <u>now</u> compared to <u>January 1994</u> (four months ago). Would you say you are now smoking more, less or about the same amount?		
	<1>	More	(Go to C1Q13)
	<2>	Less	(Go to C1Q16)
	<3>	About the same	(Go to C1Q14)
	<8>	Refused	(Go to C1C20)
	<9>	Don't know	(Go to C1Q14)

- C1Q13_1 Why are you smoking more now?
(DO NOT READ LIST. MARK ALL THAT APPLY.)
- | | | |
|-----|---------------|---------------|
| <1> | LOWER PRICES | (Go to C1Q16) |
| <2> | OTHER REASONS | (Go to C1Q16) |
| <8> | Refused | (Go to C1Q16) |
| <9> | Don't know | (Go to C1Q16) |
- C1Q13_2 Compared to two years ago, would you say you are now smoking more, less or about the same amount?
- | | | |
|-----|----------------|---------------|
| <1> | More | (Go to C1Q15) |
| <2> | Less | (Go to C1Q16) |
| <3> | About the same | (Go to C1Q16) |
| <8> | Refused | (Go to C1C20) |
| <9> | Don't know | (Go to C1Q16) |
- C1Q15_1 Why are you smoking more now?
(DO NOT READ LIST. MARK ALL THAT APPLY.)
- | | | |
|-----|---------------|---------------|
| <1> | LOWER PRICES | (Go to C1Q16) |
| <2> | OTHER REASONS | (Go to C1Q16) |
| <8> | Refused | (Go to C1Q16) |
| <9> | Don't know | (Go to C1Q16) |
- C1Q16 Have you ever quit smoking for more than one week?
- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C1Q17) |
| <2> | No | (Go to C1C20) |
| <8> | Refused | (Go to C1C20) |
| <9> | Don't know | (Go to C1C20) |
- C1Q17 In what month and year did you last quit smoking?
- | | |
|------------------|--------------------------|
| _ (MM) _ (YY) | (Go to C1Q18) |
| <98> | Refused (Go to C1C20) |
| <99> | Don't know (Go to C1Q18) |
- C1Q18 In what month and year did you start smoking again?
- | | |
|------------------|--------------------------|
| _ (MM) _ (YY) | (Go to C1Q19) |
| <98> | Refused (Go to C1C20) |
| <99> | Don't know (Go to C1Q19) |

C1Q19 Why did you begin smoking again?
(DO NOT READ LIST. MARK ALL THAT APPLY.)

<1>	To control body weight	(Go to C1C20)
<2>	To relax or calm down	(Go to C1C20)
<3>	To combat boredom	(Go to C1C20)
<4>	Lower prices	(Go to C1C20)
<5>	Increased availability	(Go to C1C20)
<6>	Family or friends smoke	(Go to C1C20)
<7>	Other (specify in notes)	(Go to C1C20)
<8>	Refused	(Go to C1C20)
<9>	Don't know	(Go to C1C20)

C1C20 CHECK: If household size>1 go to C1Q20; otherwise go to C1Q21.

C1Q20 How many of the other people living in your household smoke cigarettes (excluding yourself)?

□□□	(00:15)	(Go to C1Q21)
<98>	Refused	(Go to C1Q21)
<99>	Don't know	(Go to C1Q21)

C1Q21 What is your best estimate of your total household income for 1993 before taxes and deductions?
(Include income from all household members, from all sources.) Was it ...

<0>	No income
<1>	Less than \$20,000
<2>	\$20,000 - \$29,999
<3>	\$30,000 - \$39,999
<4>	\$40,000 - \$59,999
<5>	\$60,000 - \$79,999
<6>	\$80,000 or more
<8>	Refused
<9>	Don't know

Q_END END OF SURVEY QUESTIONS

Survey on Smoking in Canada

Cycle 2 Questions

- C2-START** C1STATUS=value of C1Q01 from first quarter (i.e. =1, 2 or 3);
C1FORMER=value of C1Q02 from first quarter (i.e. 1-9).
If C1STATUS=1, set %C1ESMOK%="smoked every day" and set %C1FSMOK%="fumiez tous les jours". If C1STATUS=2, set %C1ESMOK%="smoked occasionally" and set %C1FSMOK%="fumiez à l'occasion". If C1STATUS=3, set %C1ESMOK%="didn't smoke at all" and set %C1FSMOK%="ne fumiez jamais".
If SURMONTH=04, set %C1EDATE%="April" and set %C1FDATE%="avril". If SURMONTH=05, set %C1EDATE%="May" and set %C1FDATE%="mai". If SURMONTH=06, set %C1EDATE%="June" and set %C1FDATE%="juin".
Note to programmer: C1STATUS , C1FORMER, and SURMONTH will be on input file.
- C2Q01** At the present time do you smoke cigarettes every day, occasionally, or not at all?
- | | | |
|-----|--------------|---------------|
| <1> | Every day | (Go to C2C02) |
| <2> | Occasionally | (Go to C2C02) |
| <3> | Not at all | (Go to C2C02) |
| <8> | Refused | (Go to Q_END) |
| <9> | Don't know | (Go to Q_END) |
- C2C02** If C1STATUS=C2Q01 go to C2C03; else go to C2Q02
- C2Q02** When we talked to you in %C1EDATE%, you said you %C1ESMOK%. Is that correct?
- | | | |
|-----|------------|---|
| <1> | Yes | (Go to C2C03) |
| <2> | No | (If C2Q01=3, go to C2Q19; else go to C2Q12) |
| <8> | Refused | (If C2Q01=3, go to C2Q19; else go to C2Q12) |
| <9> | Don't know | (If C2Q01=3, go to C2Q19; else go to C2Q12) |
- C2C03** CHECK: If C1STATUS=1 or 2 and C2Q01=3, go to C2Q05;
else if C1STATUS=1 and C2Q01=2, go to C2Q03;
else if C1STATUS=3 and C2Q01=1 or 2, go to C2Q10;
else if C1STATUS=2 and C2Q01=1, go to C2Q08;
else if C1STATUS=3 and C2Q01=3, go to C2Q19;
else go to C2Q12.

C2Q03 What were the main reasons you changed from smoking daily to smoking occasionally?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
(PROMPT: Was there any other reason you changed?)

- | | | |
|------|-------------------------------------|---------------|
| <01> | Concern about future health effects | (Go to C2C04) |
| <02> | Physician advice | (Go to C2C04) |
| <03> | Affecting present health | (Go to C2C04) |
| <04> | Pregnancy | (Go to C2C04) |
| <05> | Social/family pressures | (Go to C2C04) |
| <06> | Cost | (Go to C2C04) |
| <07> | Restrictions on where you can smoke | (Go to C2C04) |
| <08> | Other (specify) | (Go to C2C04) |
| <98> | Refused | (Go to C2Q12) |
| <99> | Don't know | (Go to C2Q12) |

C2C04 If <06> is chosen in C2Q03, go to C2Q12; else go to C2Q04.

C2Q04 Did the price of cigarettes affect your decision to change to smoking occasionally?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C2Q12) |
| <2> | No | (Go to C2Q12) |
| <8> | Refused | (Go to C2Q12) |
| <9> | Don't know | (Go to C2Q12) |

C2Q05 What were the main reasons you stopped smoking?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
(PROMPT: Was there any other reason you stopped smoking?)

- | | | |
|------|-------------------------------------|---------------|
| <01> | Concern about future health effects | (Go to C2C05) |
| <02> | Physician advice | (Go to C2C06) |
| <03> | Affecting present health | (Go to C2C06) |
| <04> | Pregnancy | (Go to C2C06) |
| <05> | Social/family pressures | (Go to C2C06) |
| <06> | Cost | (Go to C2C06) |
| <07> | Restrictions on where you can smoke | (Go to C2C06) |
| <08> | Other (specify) | (Go to C2C06) |
| <98> | Refused | (Go to C2C07) |
| <99> | Don't know | (Go to C2C07) |

C2C06 If <06> is chosen in C2Q05, go to C2Q19; else go to C2Q06.

C2Q06 Did the price of cigarettes affect your decision to stop smoking?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C2C07) |
| <2> | No | (Go to C2C07) |
| <8> | Refused | (Go to C2C07) |
| <9> | Don't know | (Go to C2C07) |

C2C07 If C1FORMER=1, go to C2Q19; otherwise, go to C2Q07.

- C2Q07 Have you smoked at least 100 cigarettes in your life?
- <1> Yes (Go to C2Q19)
 <2> No (Go to C2Q19)
 <8> Don't know (Go to C2Q19)
 <9> Refused (Go to C2Q19)
- C2Q08 What were the main reasons you changed from smoking occasionally to smoking daily?
 (DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
 (PROMPT: Was there any other reason you changed?)
- <1> To control body weight (Go to C2C09)
 <2> To relax or calm down (Go to C2C09)
 <3> To combat boredom (Go to C2C09)
 <4> Lower prices (Go to C2C09)
 <5> Increased availability (Go to C2C09)
 <6> Family or friends smoke (Go to C2C09)
 <7> Other (specify) (Go to C2C09)
 <8> Refused (Go to C2Q12)
 <9> Don't know (Go to C2Q12)
- C2C09 If <4> chosen in C2Q08, go to C2Q12; otherwise go to C2Q09.
- C2Q09 Did the price of cigarettes affect your decision to change to smoking daily?
- <1> Yes (Go to C2Q12)
 <2> No (Go to C2Q12)
 <8> Refused (Go to C2Q12)
 <9> Don't know (Go to C2Q12)
- C2Q10 What were the main reasons you started smoking?
 (DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
 (PROMPT: Was there any other reason you started smoking?)
- <1> To control body weight (Go to C2C11)
 <2> To relax or calm down (Go to C2C11)
 <3> To combat boredom (Go to C2C11)
 <4> Lower prices (Go to C2C11)
 <5> Increased availability (Go to C2C11)
 <6> Family or friends smoke (Go to C2C11)
 <7> Other (specify) (Go to C2C11)
 <8> Refused (Go to C2Q12)
 <9> Don't know (Go to C2Q12)
- C2C11 If <4> chosen in C2Q10, go to C2Q12; otherwise go to C2Q11.

C2Q11	Did the price of cigarettes affect your decision to start smoking?		
	<1>	Yes	(Go to C2Q12)
	<2>	No	(Go to C2Q12)
	<8>	Refused	(Go to C2Q12)
	<9>	Don't know	(Go to C2Q12)
C2Q12	Thinking back over the past 7 days, starting with yesterday, did you smoke any cigarettes?		
	<1>	Yes	(Go to C2C13)
	<2>	No	(Go to C2Q14)
	<8>	Refused	(Go to C2Q15)
	<9>	Don't know	(Go to C2Q15)
C2C13	Create variables to fill day of week in C2Q13A-C2Q13G: for example, if today is Monday, then %day-1%=Sunday, %day-2%=Saturday, %day-3%=Friday, etc.		
C2Q13A	How many cigarettes did you smoke on %day-1%?		
	_ _	(00-95)	(Go to C2Q13B)
	<98>	Refused	(Go to C2Q15)
	<99>	Don't know	(Go to C2Q15)
C2Q13B	... on %day-2%?		
	_ _	(00-95)	(Go to C2Q13C)
	<98>	Refused	(Go to C2Q15)
	<99>	Don't know	(Go to C2Q15)
C2Q13C	... on %day-3%?		
	_ _	(00-95)	(Go to C2Q13D)
	<98>	Refused	(Go to C2Q15)
	<99>	Don't know	(Go to C2Q15)
C2Q13D	... on %day-4%?		
	_ _	(00-95)	(Go to C2Q13E)
	<98>	Refused	(Go to C2Q15)
	<99>	Don't know	(Go to C2Q15)
C2Q13E	... on %day-5%?		
	_ _	(00-95)	(Go to C2Q13F)
	<98>	Refused	(Go to C2Q15)
	<99>	Don't know	(Go to C2Q15)

C2Q13F ... on %day-6%?

	(00-95)	(Go to C2Q13G)
<98>	Refused	(Go to C2Q15)
<99>	Don't know	(Go to C2Q15)

C2Q13G ... on %day-7%?

	(00-95)	(Go to C2Q15)
<98>	Refused	(Go to C2Q15)
<99>	Don't know	(Go to C2Q15)

C2Q14 How many cigarettes have you smoked in the past 30 days?

	(000-995)
<998>	Refused
<999>	Don't know

C2Q15 In the past 3 months, how many times have you stopped smoking for more than one week?

	(00-17)
<98>	Refused
<99>	Don't know

C2Q16 Where do you normally buy your cigarettes?
 (DO NOT READ LIST. MARK ONE ONLY.)
 (PROMPT: or loose tobacco to roll your own cigarettes)

<1>	Convenience store
<2>	Supermarket
<3>	Drugstore
<4>	Smoke shop
<5>	Discount store/department store
<6>	Gas/service station
<7>	Other
<8>	Refused
<9>	Don't know

C2Q17 Do you normally smoke manufactured cigarettes or do you roll your own?

<1>	Smoke manufactured cigarettes
<2>	Roll your own
<3>	Both
<8>	Refused
<9>	Don't know

- C2Q18 Do you smoke cigarettes inside your home every day or almost every day?
- <1> Yes
 <2> No
 <8> Refused
 <9> Don't know
- C2Q19 Excluding yourself, how many people smoke inside your home every day or almost every day?
 (PROMPT: Also include non-household members such as babysitters, relatives, etc.)
- (00:20)
 <98> Refused
 <99> Don't know
- C2Q20 Which of the following best describes your main activity during the past 12 months?
 Were you mainly...
- <1> Working at a job or business? (Go to C2Q21)
 <2> Looking for work? (Go to C2Q23A)
 <3> A student? (Go to C2Q23A)
 <4> Retired? (Go to C2Q23A)
 <5> Keeping house? (Go to C2Q23A)
 <6> Unable to work (due to illness, injury, etc.)? (Go to C2Q23A)
 <7> Or some other activity? (Go to C2Q23A)
 <8> Refused (Go to C2Q23A)
 <9> Don't know (Go to C2Q23A)
- C2Q21 Were you mainly working full-time or part-time?
 (Note: full-time = 30 or more hours per week; part-time = less than 30 hours per week.)
- <1> Full-time
 <2> Part-time
 <8> Refused
 <9> Don't know
- C2Q22 At your place of work, is smoking restricted completely, allowed only in designated areas, restricted only in certain places, or not restricted at all?
- <1> Restricted completely
 <2> Allowed only in designated areas
 <3> Restricted only in certain places
 <4> Not restricted at all
 <8> Refused
 <9> Don't know

C2Q23A At the present time, do you use any of the following tobacco products:
A pipe?

<1> Yes
<2> No
<8> Refused
<9> Don't know

C2Q23B Cigars or cigarillos?

<1> Yes
<2> No
<8> Refused
<9> Don't know

C2Q23C Chewing tobacco, pinch or snuff?

<1> Yes
<2> No
<8> Refused
<9> Don't know

C2Q24 Our last question is about your education. What is the highest grade or level of education you have ever completed?

<01> No schooling
<02> Some elementary
<03> Completed elementary
<04> Some secondary
<05> Completed secondary
<06> Some community college, technical college, CEGEP or nurse's training
<07> Completed community college, technical 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
<98> Refused
<99> Don't know

Q_END END OF SURVEY

Survey on Smoking in Canada

Cycle 3 Questions

- C3-START
1. LSTAT=value of C2Q01 (ie. =1, 2 or 3), if answered; otherwise, value of C1Q01.
SMK100=value of DVSMK100 (ie. =1 if smoked 100+ cigarettes; =2, 7, 8 or 9 otherwise).
SURMONTH = date last interviewed
 2. If LSTAT=1, set %SMOK%="smoked every day/fumiez tous les jours". If LSTAT=2, set %SMOK%="smoked occasionally/fumiez à l'occasion". If LSTAT=3, set %SMOK%="didn't smoke at all/ne fumiez jamais".
 3. If SURMONTH=04, set %DATE%="April/avril". If SURMONTH=05, set %DATE%="May/mai". If SURMONTH=06, set %DATE%="June/juin". If SURMONTH=08, set %DATE%="August/août". If SURMONTH=09, set %DATE%="September/septembre".
 4. SEX=1 if male, 2 if female (sex of respondent).
 5. AGE=15-99 (age of respondent).
- Note to programmer: LSTAT , SMK100, SURMONTH, SEX and AGE will be on input file.

- C3Q01
- At the present time do you smoke cigarettes every day, occasionally, or not at all?
- | | | |
|-----|--------------|---------------|
| <1> | Every day | (Go to C3C02) |
| <2> | Occasionally | (Go to C3C02) |
| <3> | Not at all | (Go to C3C02) |
| <8> | Refused | (Go to Q_END) |
| <9> | Don't know | (Go to Q_END) |
- Population: Everyone*

- C3C02
- If LSTAT=C3Q01 go to C3C03; else go to C3Q02

- C3Q02
- When we talked to you in %SURMONTH%, you said you %SMOK%. Is that correct?
- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C3C03) |
| <2> | No | (Go to C3C11) |
| <8> | Refused | (Go to C3C11) |
| <9> | Don't know | (Go to C3C11) |
- Population: Changed smoking status between C2 and C3 (C2Q01 .ne. C3Q01)*

- C3C03
- CHECK: If LSTAT=1 or 2 and C3Q01=3, go to C3Q05;
else if LSTAT=1 and C3Q01=2, go to C3Q03;
else if LSTAT=3 and C3Q01=1 or 2, go to C3Q09;
else if LSTAT=2 and C3Q01=1, go to C3Q07;
else if LSTAT=3 and C3Q01=3, go to C3C19;
else go to C3C11.

C3Q03 What were the main reasons you changed from smoking daily to smoking occasionally?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
(PROMPT: Was there any other reason you changed?)

- | | | |
|------|-------------------------------------|---------------|
| <01> | Concern about future health effects | (Go to C3C04) |
| <02> | Affecting current health | (Go to C3C04) |
| <03> | Trying/want to quit | (Go to C3C04) |
| <04> | Pregnancy/had a baby | (Go to C3C04) |
| <05> | Social/family pressures | (Go to C3C04) |
| <06> | Cost | (Go to C3C04) |
| <07> | Don't like it anymore | (Go to C3C04) |
| <08> | No reason | (Go to C3C04) |
| <09> | Other (specify) | (Go to C3C04) |
| <98> | Refused | (Go to C3C11) |
| <99> | Don't know | (Go to C3C11) |

Population: Changed smoking status between C2 and C3.

Sub-population: Changed from daily smoker to occasional smoker.

C3C04 If <06> is chosen in C3Q03, go to C3C11; else go to C3Q04.

C3Q04 Did the price of cigarettes affect your decision to change to smoking occasionally?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C3C11) |
| <2> | No | (Go to C3C11) |
| <8> | Refused | (Go to C3C11) |
| <9> | Don't know | (Go to C3C11) |

Population: Changed smoking status between C2 and C3.

Sub-population: Changed from daily smoker to occasional smoker and "price" not already given as reason for change.

C3Q05 What were the main reasons you stopped smoking?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
(PROMPT: Was there any other reason you stopped smoking?)

- | | | |
|------|--|---------------|
| <01> | Concern about future health effects | (Go to C3C06) |
| <02> | Affecting current health | (Go to C3C06) |
| <03> | Concern about health of family member/friend | (Go to C3C06) |
| <04> | Pregnancy/had a baby | (Go to C3C06) |
| <05> | Social/family pressures | (Go to C3C06) |
| <06> | Cost | (Go to C3C06) |
| <07> | Don't like taste/smell/habit | (Go to C3C06) |
| <08> | No reason/just quit | (Go to C3C06) |
| <09> | Other (specify) | (Go to C3C06) |
| <98> | Refused | (Go to C3C11) |
| <99> | Don't know | (Go to C3C11) |

Population: Changed smoking status between C2 and C3.

Sub-population: Changed from smoker to non-smoker.

C3C06 If <06> is chosen in C3Q05, go to C3C11; else go to C3Q06.

C3Q06 Did the price of cigarettes affect your decision to stop smoking?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C3C11) |
| <2> | No | (Go to C3C11) |
| <8> | Refused | (Go to C3C11) |
| <9> | Don't know | (Go to C3C11) |

Population: Changed smoking status between C2 and C3.

Sub-population: Changed from smoker to non-smoker and "price" not already identified as reason for change.

C3Q07 What were the main reasons you changed from smoking occasionally to smoking daily?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
(PROMPT: Was there any other reason you changed?)

- | | | |
|------|-------------------------------|---------------|
| <01> | Going out more (bars/parties) | (Go to C3C08) |
| <02> | Stress/nerves/to relax | (Go to C3C08) |
| <03> | To combat boredom | (Go to C3C08) |
| <04> | Lower prices | (Go to C3C08) |
| <05> | Habit | (Go to C3C08) |
| <06> | Addiction | (Go to C3C08) |
| <07> | Family or friends smoke | (Go to C3C08) |
| <08> | No reason/felt like it | (Go to C3C08) |
| <09> | Other (specify) | (Go to C3C08) |
| <98> | Refused | (Go to C3C11) |
| <99> | Don't know | (Go to C3C11) |

Population: Changed smoking status between C2 and C3.

Sub-population: Changed from occasional smoker to daily smoker.

C3C08 If <4> chosen in C3Q07, go to C3C11; otherwise go to C3Q08.

C3Q08 Did the price of cigarettes affect your decision to change to smoking daily?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C3C11) |
| <2> | No | (Go to C3C11) |
| <8> | Refused | (Go to C3C11) |
| <9> | Don't know | (Go to C3C11) |

Population: Changed smoking status between C2 and C3.

Sub-population: Changed from occasional smoker to daily smoker and "price" not already given as reason for change.

- C3Q09 What were the main reasons you started smoking?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max: 2)
(PROMPT: Was there any other reason you started smoking?)
- | | | |
|------|---------------------------|---------------|
| <01> | Going out to bars/parties | (Go to C3C10) |
| <02> | Stress/nerves/to relax | (Go to C3C10) |
| <03> | To combat boredom | (Go to C3C10) |
| <04> | Lower prices | (Go to C3C10) |
| <05> | Habit | (Go to C3C10) |
| <06> | Family or friends smoke | (Go to C3C10) |
| <07> | Curiosity | (Go to C3C10) |
| <08> | No reason/felt like it | (Go to C3C10) |
| <09> | Other (specify) | (Go to C3C10) |
| <98> | Refused | (Go to C3C11) |
| <99> | Don't know | (Go to C3C11) |
- Population: Changed smoking status between C2 and C3.*
Sub-population: Changed from non-smoker to smoker.
- C3C10 If <4> chosen in C3Q09, go to C3C11; otherwise go to C3Q10.
- C3Q10 Did the price of cigarettes affect your decision to start smoking ?
- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C3C11) |
| <2> | No | (Go to C3C11) |
| <8> | Refused | (Go to C3C11) |
| <9> | Don't know | (Go to C3C11) |
- Population: Changed smoking status between C2 and C3.*
Sub-population: Changed from non-smoker to smoker and "price" not already given as reason for change.
- C3C11 If SMK100=1 & C3Q01<3 then go to C3Q12 (*current smoker who has smoked 100+ cigarettes*); if SMK100=1 & C3Q01=3 then go to C3C19 (*current non-smoker who has smoked 100+ cigarettes*); otherwise, go to C3Q11 (*current or past smoker who had not smoked 100+ cigarettes when last asked*).
- C3Q11 Have you smoked at least 100 cigarettes in your life?
- | | | |
|-----|------------|----------------|
| <1> | Yes | (Go to C3C11A) |
| <2> | No | (Go to C3C11A) |
| <8> | Don't know | (Go to C3C11A) |
| <9> | Refused | (Go to C3C11A) |
- Population: Current smoker or Changed smoking status from smoker in C2 to non-smoker in C3.*
Sub-population: Reported smoking <100 cigarettes in lifetime (or R or DK) in previous cycles.
- C3C11A If C3Q01=3 then go to C3C19 (*current non-smoker*); otherwise go to C3Q12 (*current smoker*).

- C3Q12 Thinking back over the past 7 days, starting with yesterday, did you smoke any cigarettes?
- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C3C13) |
| <2> | No | (Go to C3Q14) |
| <8> | Refused | (Go to C3Q15) |
| <9> | Don't know | (Go to C3Q15) |
- Population: Current smokers.*
- C3C13 Create variables to fill day of week in C3Q13A-C3Q13G: for example, if today is Monday, then %day-1%=Sunday, %day-2%=Saturday, %day-3%=Friday, etc.
- C3Q13A How many cigarettes did you smoke on %day-1%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C3Q13B) |
| <98> | Refused | (Go to C3Q15) |
| <99> | Don't know | (Go to C3Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.
- C3Q13B ... on %day-2%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C3Q13C) |
| <98> | Refused | (Go to C3Q15) |
| <99> | Don't know | (Go to C3Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.
- C3Q13C ... on %day-3%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C3Q13D) |
| <98> | Refused | (Go to C3Q15) |
| <99> | Don't know | (Go to C3Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.
- C3Q13D ... on %day-4%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C3Q13E) |
| <98> | Refused | (Go to C3Q15) |
| <99> | Don't know | (Go to C3Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.
- C3Q13E ... on %day-5%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C3Q13F) |
| <98> | Refused | (Go to C3Q15) |
| <99> | Don't know | (Go to C3Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.

C3Q13F ... on %day-6%?

_ _	(00-95)	(Go to C3Q13G)
<98>	Refused	(Go to C3Q15)
<99>	Don't know	(Go to C3Q15)

Population: Current smokers.
Sub-population: Smoked in last 7 days.

C3Q13G ... on %day-7%?

_ _	(00-95)	(Go to C3Q15)
<98>	Refused	(Go to C3Q15)
<99>	Don't know	(Go to C3Q15)

Population: Current smokers.
Sub-population: Smoked in last 7 days.

C3Q14 How many cigarettes have you smoked in the past 30 days?

_ _ _	(000-995)	
<998>	Refused	
<999>	Don't know	

Population: Current smokers.
Sub-population: Not smoked in last 7 days.

C3Q15 In the past year, how many times have you quit smoking for at least 24 hours?

_ _ _	(000 - 365)	
<998>	Refused	
<999>	Don't know	

Population: Current smokers.

C3Q16 Are you seriously considering quitting within the next six months?

<1>	Yes	(Go to C3Q17)
<2>	No	(Go to C3Q18)
<8>	Refused	(Go to C3Q18)
<9>	Don't know	(Go to C3Q18)

Population: Current smokers.

C3Q17 Are you planning to quit in the next 30 days?

<1>	Yes	(Go to C3Q18)
<2>	No	(Go to C3Q18)
<8>	Refused	(Go to C3Q18)
<9>	Don't know	(Go to C3Q18)

Population: Current smokers.
Sub-population: Considering quitting in next 6 months.

C3Q18 What would it take for you to quit smoking?
(PROMPT: What, if anything, would have to happen in your life to make you quit smoking?)
(PROMPT: Anything else?)
DO NOT READ LIST. MARK ALL THAT APPLY. (max: 4)

- <01> Nothing could make me quit/own death
- <02> Get smoking-related illness/get fatal disease
- <03> Smoking-related illness/death of family member/friend
- <04> Pressure to quit from family/friends
- <05> Better support and help from family/friends
- <06> Effective stop-smoking program/cigarette substitute
- <07> Increased cost/difficulty affording cigarettes
- <08> More restrictions on where allowed to smoke
- <09> Change of lifestyle (different job, less stress)
- <10> Get pregnant/have children
- <11> More willpower
- <12> Other (specify)
- <98> Refused
- <99> Don't know

(All responses: go to C3C22)

Population: Current smokers.

C3C19 If (SMK100=1 or C3Q11=1) & LSTAT=3 then go to C3Q19 (*former smokers who have not changed smoking status*); else if (SMK100=1 or C3Q11=1) & LSTAT<3 (*former smokers who have changed smoking status*) then go to C3Q21; otherwise go to C3C22 (*never smokers*).

C3Q19 In an earlier interview you reported that you used to smoke. Why did you decide to quit?

- <01> Concern about future health effects (Go to C3Q20)
- <02> Affecting current health (Go to C3Q20)
- <03> Concern about health of family member/friend (Go to C3Q20)
- <04> Pregnancy/had a baby (Go to C3Q20)
- <05> Social/family pressures (Go to C3Q20)
- <06> Cost (Go to C3Q20)
- <07> Don't like taste/smell/habit (Go to C3Q20)
- <08> No reason/just quit (Go to C3Q20)
- <09> Other (specify) (Go to C3Q20)
- <98> Refused (Go to C3C20)
- <99> Don't know (Go to C3C20)

Population: Former smokers.

Sub-population: Non-smokers in last cycle.

C3Q20 On average, how many cigarettes did you smoke per day before you quit?

- |_|_| (01:97)
- <98> Refused
- <99> Don't know

Population: Former smokers.

Sub-population: Non-smokers in last cycle.

C3Q21 What was the main method you used to quit smoking?
(...Was there any other method?)
DO NOT READ LIST. MARK ALL THAT APPLY. (max: 3)

- <01> Cold turkey
- <02> Self-help program (video, cassette, book)
- <03> Nicotine patch
- <04> Addiction counselling
- <05> Group stop-smoking program
- <06> Nicorette chewing gum
- <07> Acupuncture
- <08> Hypnosis
- <09> Other (specify)
- <98> Refused
- <99> Don't know

Population: Former smokers.

C3C22 If SEX=2 & 20<=AGE<=44 then go to C3Q22; otherwise go to C3Q25.

C3Q22 Have you been pregnant in the last five years (ie. since November 1989)?

- <1> Yes (Go to C3C23)
- <2> No (Go to C3Q25)
- <8> Refused (Go to C3Q25)
- <9> Don't know (Go to C3Q25)

Population: Women, aged 20-44.

C3C23 If SMK100=1 or C3Q11=1 then go to C3Q23; otherwise go to C3Q24.

C3Q23 During your most recent pregnancy, did you smoke regularly (that is, every day or almost every day)?

- <1> Yes
- <2> No
- <8> Refused
- <9> Don't know

Population: Women, aged 20-44.

Sub-population: Pregnant in last 5 years & current or former smoker.

C3Q24 (During your most recent pregnancy,) did your spouse/partner smoke regularly in your presence (that is, every day or almost every day)?

- <1> Yes
- <2> No
- <3> Not applicable (no spouse)
- <8> Refused
- <9> Don't know

Population: Women, aged 20-44.

Sub-population: Pregnant in last 5 years.

C3Q25 Our next questions are about the relationship between smoking and health. Do you believe that smoke from cigarettes could cause health problems in a non-smoker?

- <1> Yes (Go to C3Q26)
- <2> No (Go to C3Q27)
- <8> Refused (Go to C3Q27)
- <9> Don't know (Go to C3Q27)

Population: Everyone.

C3Q26 What health problems or illnesses could be caused?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max:4)

- <01> Lung cancer
- <02> Other cancer
- <03> Heart disease/heart problems
- <04> Stroke
- <05> Bronchitis, Emphysema, Asthma
- <06> Other respiratory diseases
- <07> Babies - Low birth weight/fetal health problems
- <08> Other (specify)
- <98> Refused
- <99> Don't know

Population: Everyone.

Sub-population: Answered "yes" in C3Q25.

C3Q27 Do you believe that smoking cigarettes could cause health problems in a smoker?

- <1> Yes (Go to C3Q28)
- <2> No (Go to C3C29)
- <8> Refused (Go to C3C29)
- <9> Don't know (Go to C3C29)

Population: Everyone.

C3Q28 What health problems or illnesses could be caused?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max:4)

- <01> Lung cancer
- <02> Other cancer
- <03> Heart disease/heart problems
- <04> Stroke
- <05> Bronchitis, Emphysema, Asthma
- <06> Other respiratory diseases
- <07> Babies - Low birth weight/fetal health problems
- <08> Other (specify)
- <98> Refused
- <99> Don't know

Population: Everyone.

Sub-population: Answered "yes" in C3Q27.

C3C29 If C3Q01=1 then go to C3Q31; otherwise go to C3Q29.

C3Q29 The next question is about exposure to cigarette smoke. By "exposed" I mean: spending at least 10 minutes in the presence of someone smoking or in a room where people are smoking. Are you exposed to smoke from cigarettes ...
(NOTE: For smokers, include own smoke as well as other people's smoke.)

- <1> Every day
- <2> Almost every day (5-6 days per week)
- <3> At least once a week (1-4 days per week)
- <4> At least once a month (12-51 times per year)
- <5> Less than once a month (less than 12 times per year)
- <8> Refused
- <9> Don't know

Population: Current non-smokers and current occasional smokers.

C3Q30 Are you bothered by smoke from cigarettes?
(NOTE to interviewer: includes physical reactions such as headaches, allergies, irritations, as well as "just don't like cigarette smoke".)

- <1> Yes
- <2> No
- <8> Refused
- <9> Don't know

Population: Current non-smokers and current occasional smokers.

C3Q31 Does smoke from cigarettes cause you any physical irritation? (For example, irritation to your eyes, your breathing or your throat.)

- <1> Yes
- <2> No
- <8> Refused
- <9> Don't know

Population: Everyone.

C3Q32A I'm going to read a list of health problems. For each one, please tell me if you think that smoking cigarettes for many years is very likely, somewhat likely or not at all likely to cause the health problem.
... EMPHYSEMA?

- <1> Very likely
- <2> Somewhat likely
- <3> Not at all likely
- <8> Refused
- <9> Don't know

Population: Everyone.

C3Q32B ... MULTIPLE SCLEROSIS?
<1> Very likely
<2> Somewhat likely
<3> Not at all likely
<8> Refused
<9> Don't know
Population: Everyone.

C3Q32C ... LUNG CANCER?
<1> Very likely
<2> Somewhat likely
<3> Not at all likely
<8> Refused
<9> Don't know
Population: Everyone.

C3Q32D ... BLADDER CANCER?
<1> Very likely
<2> Somewhat likely
<3> Not at all likely
<8> Refused
<9> Don't know
Population: Everyone.

C3Q32E ... A STROKE?
<1> Very likely
<2> Somewhat likely
<3> Not at all likely
<8> Refused
<9> Don't know
Population: Everyone.

C3Q32F ... ATHSMA?
<1> Very likely
<2> Somewhat likely
<3> Not at all likely
<8> Refused
<9> Don't know
Population: Everyone.

Q_END END OF SURVEY

Survey on Smoking in Canada

Cycle 4 Questions

C4-START

1. LSTAT=value of C4Q01 (ie. =1, 2 or 3), if answered; otherwise, value of C3Q01, C2Q01 or C1Q01, whichever is most recent.
SMK100=value of DVSMK100 (ie. =1 if smoked 100+ cigarettes; =2, 7, 8 or 9 otherwise).
SURMONTH = date last interviewed
2. If LSTAT=1, set %SMOK%="smoked every day".
If LSTAT=2, set %SMOK%="smoked occasionally".
If LSTAT=3, set %SMOK%="didn't smoke at all".
3. If SURMONTH=04, set %DATE%="April".
If SURMONTH=05, set %DATE%="May".
If SURMONTH=06, set %DATE%="June".
If SURMONTH=08, set %DATE%="August".
If SURMONTH=09, set %DATE%="September".
If SURMONTH=11, set %DATE%="November".
If SURMONTH=12, set %DATE%="December".
4. AGE=15-99 (age of respondent).
5. SJAN=1 if smoker in Jan94; =2, 9 otherwise.
6. EVSMK=1 if smoker in cycle 1, 2 or 3; =2, 9 otherwise.

Note to programmer: LSTAT , SMK100, SURMONTH, AGE, SJAN, and EVSMK will be on input file.

C4Q01 At the present time do you smoke cigarettes every day, occasionally, or not at all?

- | | | |
|-----|--------------|---------------|
| <1> | Every day | (Go to C4C02) |
| <2> | Occasionally | (Go to C4C02) |
| <3> | Not at all | (Go to C4C02) |
| <8> | Refused | (Go to Q_END) |
| <9> | Don't know | (Go to Q_END) |

Population: Everyone

C4C02 If LSTAT=C4Q01 go to C4C03; else go to C4Q02

C4Q02 When we talked to you in %SURMONTH%, you said you %SMOK%. Is that correct?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C4C03) |
| <2> | No | (Go to C4C11) |
| <8> | Refused | (Go to C4C11) |
| <9> | Don't know | (Go to C4C11) |

Population: Changed smoking status between C3 and C4 (C3Q01 .ne. C4Q01)

C4C03 CHECK: If LSTAT=1 or 2 and C4Q01=3, go to C4Q05;
else if LSTAT=1 and C4Q01=2, go to C4Q03;
else if LSTAT=3 and C4Q01=1 or 2, go to C4Q09;
else if LSTAT=2 and C4Q01=1, go to C4Q07;
else if LSTAT=3 and C4Q01=3, go to C4Q16A;
else go to C4Q10A.

C4Q03 What were the main reasons you changed from smoking daily to smoking occasionally?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max:2)
(PROMPT: Was there any other reason you changed?)

- | | | |
|------|-------------------------------------|---------------|
| <01> | Concern about future health effects | (Go to C4C04) |
| <02> | Affecting current health | (Go to C4C04) |
| <03> | Trying/want to quit | (Go to C4C04) |
| <04> | Pregnancy/had a baby | (Go to C4C04) |
| <05> | Social/family pressures | (Go to C4C04) |
| <06> | Cost | (Go to C4C04) |
| <07> | Don't like it anymore | (Go to C4C04) |
| <08> | No reason | (Go to C4C04) |
| <09> | Other (specify) | (Go to C4C04) |
| <98> | Refused | (Go to C4C11) |
| <99> | Don't know | (Go to C4C11) |

Population: Changed smoking status between C3 and C4.

Sub-population: Changed from daily smoker to occasional smoker.

C4C04 If <06> is chosen in C4Q03, go to C4C11; else go to C4Q04.

C4Q04 Did the price of cigarettes affect your decision to change to smoking occasionally?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C4C11) |
| <2> | No | (Go to C4C11) |
| <8> | Refused | (Go to C4C11) |
| <9> | Don't know | (Go to C4C11) |

Population: Changed smoking status between C3 and C4.

Sub-population: Changed from daily smoker to occasional smoker and "price" not already given as reason for change.

C4Q05 What were the main reasons you stopped smoking?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max:2)
(PROMPT: Was there any other reason you stopped smoking?)

- | | | |
|------|--|---------------|
| <01> | Concern about future health effects | (Go to C4C06) |
| <02> | Affecting current health | (Go to C4C06) |
| <03> | Concern about health of family member/friend | (Go to C4C06) |
| <04> | Pregnancy/had a baby | (Go to C4C06) |
| <05> | Social/family pressures | (Go to C4C06) |
| <06> | Cost | (Go to C4C06) |
| <07> | Don't like taste/smell/habit | (Go to C4C06) |
| <08> | No reason/just quit | (Go to C4C06) |
| <09> | Other (specify) | (Go to C4C06) |
| <98> | Refused | (Go to C4C11) |
| <99> | Don't know | (Go to C4C11) |

Population: Changed smoking status between C3 and C4.

Sub-population: Changed from smoker to non-smoker.

C4C06 If <06> is chosen in C4Q05, go to C4C11; else go to C4Q06.

C4Q06 Did the price of cigarettes affect your decision to stop smoking?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C4C11) |
| <2> | No | (Go to C4C11) |
| <8> | Refused | (Go to C4C11) |
| <9> | Don't know | (Go to C4C11) |

Population: Changed smoking status between C3 and C4.

Sub-population: Changed from smoker to non-smoker and "price" not already identified as reason for change.

C4Q07 What were the main reasons you changed from smoking occasionally to smoking daily?
(DO NOT READ LIST. MARK ALL THAT APPLY.)(max:2)
(PROMPT: Was there any other reason you changed?)

- | | | |
|------|----------------------------------|---------------|
| <01> | Going out more to (bars/parties) | (Go to C4C08) |
| <02> | Stress/nerves/to relax | (Go to C4C08) |
| <03> | To combat boredom | (Go to C4C08) |
| <04> | Lower prices | (Go to C4C08) |
| <05> | Habit | (Go to C4C08) |
| <06> | Addiction | (Go to C4C08) |
| <07> | Family or friends smoke | (Go to C4C08) |
| <08> | No reason/felt like it | (Go to C4C08) |
| <09> | Other (specify) | (Go to C4C08) |
| <98> | Refused | (Go to C4C11) |
| <99> | Don't know | (Go to C4C11) |

Population: Changed smoking status between C3 and C4.

Sub-population: Changed from occasional smoker to daily smoker.

C4C08 If <04> chosen in C4Q07, go to C4C11; otherwise go to C4Q08.

C4Q08 Did the price of cigarettes affect your decision to change to smoking daily?

- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C4C11) |
| <2> | No | (Go to C4C11) |
| <8> | Refused | (Go to C4C11) |
| <9> | Don't know | (Go to C4C11) |

Population: Changed smoking status between C3 and C4.

Sub-population: Changed from occasional smoker to daily smoker and "price" not already given as reason for change.

- C4Q09 What were the main reasons you started smoking?
(DO NOT READ LIST. MARK ALL THAT APPLY.) (max:2)
(PROMPT: Was there any other reason you started smoking?)
- | | | |
|------|---------------------------|---------------|
| <01> | Going out to bars/parties | (Go to C4C10) |
| <02> | Stress/nerves/to relax | (Go to C4C10) |
| <03> | To combat boredom | (Go to C4C10) |
| <04> | Lower prices | (Go to C4C10) |
| <05> | Habit | (Go to C4C10) |
| <06> | Family or friends smoke | (Go to C4C10) |
| <07> | Curiosity | (Go to C4C10) |
| <08> | No reason/felt like it | (Go to C4C10) |
| <09> | Other (specify) | (Go to C4C10) |
| <98> | Refused | (Go to C4C11) |
| <99> | Don't know | (Go to C4C11) |
- Population: Changed smoking status between C3 and C4.*
Sub-population: Changed from non-smoker to smoker.
- C4C10 If <04> chosen in C4Q09, go to C4C11; otherwise go to C4Q10.
- C4Q10 Did the price of cigarettes affect your decision to start smoking?
- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C4C11) |
| <2> | No | (Go to C4C11) |
| <8> | Refused | (Go to C4C11) |
| <9> | Don't know | (Go to C4C11) |
- Population: Changed smoking status between C3 and C4.*
Sub-population: Changed from non-smoker to smoker and "price" not already given as reason for change.
- C4Q10A What are the main reasons you smoke? (DO NOT READ LIST. MARK ALL THAT APPLY.)
(max:2)
- | | | |
|------|----------------------------------|---------------|
| <01> | Going out more to (bars/parties) | (Go to C4C11) |
| <02> | Stress/nerves/to relax | (Go to C4C11) |
| <03> | To combat boredom | (Go to C4C11) |
| <04> | Lower prices | (Go to C4C11) |
| <05> | Habit | (Go to C4C11) |
| <06> | Addiction | (Go to C4C11) |
| <07> | Family or friends smoke | (Go to C4C11) |
| <08> | Weight control/stay slim | (Go to C4C11) |
| <09> | Like it | (Go to C4C11) |
| <10> | Other (specify) | (Go to C4C11) |
| <98> | Refused | (Go to C4C11) |
| <99> | Don't know | (Go to C4C11) |
- Population: Current smokers who have not changed status since cycle 3.*
- C4C11 If SMK100=1 & C4Q01<3 (*current smoker who has smoked 100+ cigarettes*) then go to C4Q12;
if SMK100=1 & C4Q01=3 (*current non-smoker who has smoked 100+ cigarettes*) then go to
C4Q16A; otherwise (*current or past smoker who had not smoked 100+ cigarettes when last asked*),
go to C4Q11.

- C4Q11 Have you smoked at least 100 cigarettes in your life?
- | | | |
|-----|------------|----------------|
| <1> | Yes | (Go to C4C11A) |
| <2> | No | (Go to C4C11A) |
| <8> | Don't know | (Go to C4C11A) |
| <9> | Refuse | (Go to C4C11A) |
- Population: Current smoker or Changed smoking status from smoker in C3 to non-smoker in C4.*
Sub-population: Reported smoking <100 cigarettes in lifetime (or R or DK) in previous cycles.
- C4C11A If C4Q01=3 (*current non-smoker*) then go to C4Q16A; otherwise (*current smoker*) go to C4Q12.
- C4Q12 Thinking back over the past 7 days, starting with yesterday, did you smoke any cigarettes?
- | | | |
|-----|------------|---------------|
| <1> | Yes | (Go to C4C13) |
| <2> | No | (Go to C4Q14) |
| <8> | Refused | (Go to C4Q15) |
| <9> | Don't know | (Go to C4Q15) |
- Population: Current smokers.*
- C4C13 Create variables to fill day of week in C4Q13A-C4Q13G: for example, if today is Monday, then %day-1%=Sunday, %day-2%=Saturday, %day-3%=Friday, etc.
- C4Q13A How many cigarettes did you smoke on %day-1%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C4Q13B) |
| <98> | Refused | (Go to C4Q15) |
| <99> | Don't know | (Go to C4Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.
- C4Q13B ... on %day-2%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C4Q13C) |
| <98> | Refused | (Go to C4Q15) |
| <99> | Don't know | (Go to C4Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.
- C4Q13C ... on %day-3%?
- | | | |
|------|------------|----------------|
| _ _ | (00-95) | (Go to C4Q13D) |
| <98> | Refused | (Go to C4Q15) |
| <99> | Don't know | (Go to C4Q15) |
- Population: Current smokers.*
Sub-population: Smoked in last 7 days.

C4Q13D ... on %day-4%?

_ _	(00-95)	(Go to C4Q13E)
<98>	Refused	(Go to C4Q15)
<99>	Don't know	(Go to C4Q15)

Population: Current smokers.
Sub-population: Smoked in last 7 days.

C4Q13E ... on %day-5%?

_ _	(00-95)	(Go to C4Q13F)
<98>	Refused	(Go to C4Q15)
<99>	Don't know	(Go to C4Q15)

Population: Current smokers.
Sub-population: Smoked in last 7 days.

C4Q13F ... on %day-6%?

_ _	(00-95)	(Go to C4Q13G)
<98>	Refused	(Go to C4Q15)
<99>	Don't know	(Go to C4Q15)

Population: Current smokers.
Sub-population: Smoked in last 7 days.

C4Q13G ... on %day-7%?

_ _	(00-95)	(Go to C4Q15)
<98>	Refused	(Go to C4Q15)
<99>	Don't know	(Go to C4Q15)

Population: Current smokers.
Sub-population: Smoked in last 7 days.

C4Q14 How many cigarettes have you smoked in the past 30 days?

_ _ _	(000-995)	
<998>	Refused	
<999>	Don't know	

Population: Current smokers.
Sub-population: Not smoked in last 7 days.

C4Q15 In the past 3 months, how many times have you stopped smoking for more than one week?

_ _	(00-17)	
<98>	Refused	
<99>	Do not know	

Population: Current smokers.

C4Q16A We'd like to know what you think about some of the things that have been said about cigarette smoking. Do you think people have to smoke for many years before it will damage their health?

- <1> Yes
- <2> No
- <8> Refused
- <9> Don't know

Population: Everyone.

C4Q16B Do you think smoking an occasional cigarette can damage people's health?

- <1> Yes
- <2> No
- <8> Refused
- <9> Do not know

Population: Everyone.

C4Q16C Do you think smoking helps people to relax?

- <1> Yes
- <2> No
- <8> Refused
- <9> Do not know

Population: Everyone.

C4Q16D Do you think quitting can improve people's health, even after they have smoked for many years?

- <1> Yes
- <2> No
- <8> Refused
- <9> Do not know

Population: Everyone.

C4Q16E Do you think people can become addicted to cigarettes?

- <1> Yes
- <2> No
- <8> Refused
- <9> Do not know

Population: Everyone.

C4Q16F Do you think smokers can quit anytime they want?

- <1> Yes
- <2> No
- <8> Refused
- <9> Do not know

Population: Everyone.

C4C17 If C4Q01=3 and SMK100=2 and C4Q11 ≠ 1(*never smokers*) then go to C4Q17a. Else if C4Q01=3 then go to C4Q18. Else if C4Q01=1 (*daily smokers*) then go to C4Q19. Otherwise (*occasional smokers*) go to C4Q20.

C4Q17A We are interested in why people never start smoking at various stages of their lives. As a teenager, what was the main reason you never started smoking cigarettes? (NOTE: "teenager" includes up to age 19.)

- | | | |
|------|---|----------------|
| <01> | Filthy/bad habit | (Go to C4Q17B) |
| <02> | Friends didn't smoke | (Go to C4Q17B) |
| <03> | Parents didn't smoke | (Go to C4Q17B) |
| <04> | Harmful to health/concern for health | (Go to C4Q17B) |
| <05> | Didn't like cigarette smoke/taste/smell | (Go to C4Q17B) |
| <06> | Involved in athletics/fitness | (Go to C4Q17B) |
| <07> | Addictive | (Go to C4Q17B) |
| <08> | Couldn't afford it | (Go to C4Q17B) |
| <09> | Wasn't allowed (by parents) | (Go to C4Q17B) |
| <10> | Illegal to buy cigarettes | (Go to C4Q17B) |
| <11> | Not interested/didn't want to | (Go to C4Q17B) |
| <12> | Other (specify) | (Go to C4Q17B) |
| <98> | Refused | (Go to C4Q18) |
| <99> | Don't know | (Go to C4Q18) |

Population: Never smokers.

C4C17B If AGE<20 then go to C4Q18. Otherwise go to C4Q17B.

C4Q17B As a young adult, what was the main reason you never started smoking? (NOTE: "young adult" includes ages 20-24.)

- | | | |
|------|--|----------------|
| <01> | Filthy/bad habit | (Go to C4Q17C) |
| <02> | Friends didn't smoke | (Go to C4Q17C) |
| <03> | Parents didn't smoke | (Go to C4Q17C) |
| <04> | Concern for (own) health | (Go to C4Q17C) |
| <05> | Didn't like cigarette smoke/taste/smell | (Go to C4Q17C) |
| <06> | Involved in athletics/fitness | (Go to C4Q17C) |
| <07> | Addictive | (Go to C4Q17C) |
| <08> | Couldn't afford it | (Go to C4Q17C) |
| <09> | Wasn't allowed (by parents) | (Go to C4Q17C) |
| <10> | Concern for other's health | (Go to C4Q17C) |
| <11> | Not interested/didn't want to | (Go to C4Q18) |
| <12> | Already decided/didn't start as teenager | (Go to C4Q18) |
| <13> | Other (specify) | (Go to C4Q17C) |
| <98> | Refused | (Go to C4Q18) |
| <99> | Don't know | (Go to C4Q18) |

Population: Never smokers.

C4C17C If AGE<25, go to C4Q18. Otherwise go to C4Q17C.

C4Q17C As an adult, what was the main reason you never started smoking?
(NOTE: "adult" includes ages 25+.)

- <01> Filthy/bad habit
- <02> Friends didn't smoke
- <03> Parents didn't smoke
- <04> Concern for (own) health
- <05> Didn't like cigarette smoke/taste/smell
- <06> Involved in athletics/fitness
- <07> Addictive
- <08> Couldn't afford it
- <09> Concern for other's health
- <10> Not interested/didn't want to
- <11> Already decided/didn't start as teenager
- <12> Other (specify)
- <98> Refused
- <99> Don't know

Population: Never smokers.

C4Q18 What do you think are the main reasons smokers continue to smoke?
(DO NOT READ LIST. MARK ALL THAT APPLY. (max:2)

- <01> Going out to (bars/parties) (Go to C4Q20)
- <02> Stress/nerves/to relax (Go to C4Q20)
- <03> To combat boredom (Go to C4Q20)
- <04> Lower prices (Go to C4Q20)
- <05> Habit (Go to C4Q20)
- <06> Addiction (Go to C4Q20)
- <07> Family or friends smoke (Go to C4Q20)
- <08> Weight control/stay slim (Go to C4Q20)
- <09> Like it (Go to C4Q20)
- <10> Other (specify) (Go to C4Q20)
- <98> Refused (Go to C4Q20)
- <99> Don't know (Go to C4Q20)

Population: Current non-smokers.

C4Q19 How soon after you wake up do you smoke your first cigarette?

- <1> Within 5 minutes
- <2> 6 to 30 minutes after waking
- <3> 31 to 60 minutes after waking
- <4> More than 60 minutes after waking
- <8> Refused
- <9> Don't know

Population: Daily smokers.

C4Q20 What do you think is meant by the term "light" or "mild" on cigarette packs? (NOTE TO INTERVIEWER: "Light" also includes "ultra-light" and "extra-light".) MARK ALL THAT APPLY. (max:2)

- <01> Less tar
- <02> Less nicotine
- <03> Less harmful/safer/healthier
- <04> Milder taste (flavour, aroma, etc.)
- <05> Lighter weight
- <06> Less addictive
- <07> Doesn't mean anything
- <08> Other (specify)
- <98> Refused
- <99> Don't know

Population: Everyone.

C4C21 If C4Q01=1 or 2 (*current smokers*), then go to C4Q21.
Else if C4Q01=3 and EVSMK=1 (*recent quitters*), then go to C4Q27A. Otherwise go to C4Q28.

C4Q21 Do you usually smoke "light" cigarettes or regular cigarettes? (NOTE TO INTERVIEWER: "Light" also includes "mild", "ultra-light" and "extra-light".)

- <1> Light
- <2> Regular
- <3> No usual type
- <8> Refused
- <9> Don't know

Population: Current Smokers.

C4Q22 When you first started smoking, did you usually smoke "light" cigarettes or regular cigarettes?

- <1> Light
- <2> Regular
- <3> No usual type
- <8> Refused
- <9> Don't know

Population: Current Smokers.

C4C23 If C4Q21=1 and C4Q22=2, go to C4Q23A. Else if C4Q21=2 and C4Q22=1, then go to C4Q23B. Otherwise go to C4C24.

C4Q23A How long ago did you switch from regular to "light" cigarettes?
(NOTE: most recent switch)

- <1> Less than one year ago (Go to C4Q24)
- <2> 1-5 years ago (Go to C4Q24)
- <3> More than 5 years ago (Go to C4Q24)
- <8> Refused (Go to C4Q24)
- <9> Don't know (Go to C4Q24)

Population: Current Smokers who switched from regular to light cigarettes.

- C4Q23B How long ago did you switch from "light" to regular cigarettes?
(NOTE: most recent switch)
- <1> Less than one year ago (Go to C4Q24)
 <2> 1-5 years ago (Go to C4Q24)
 <3> More than 5 years ago (Go to C4Q24)
 <8> Refused (Go to C4Q24)
 <9> Don't know (Go to C4Q24)
Population: Current Smokers who switched from light to regular cigarettes.
- C4C24 If SJAN=1 (*smoked in Jan94*), go to C4Q24. Otherwise, go to C4Q27a.
- C4Q24 Compared to January 1994, would you say you are currently smoking more, less, or about the same amount?
- <1> More (Go to C4Q24A)
 <2> Less (Go to C4Q24B)
 <3> About the same (Go to C4Q25)
 <8> Refused (Go to C4Q25)
 <9> Don't know (Go to C4Q25)
Population: Current smokers who also smoked in Jan 94.
- C4Q24A Why are you smoking more now?
(DO NOT READ. MARK ALL THAT APPLY.) (max:2)
- <01> Going out to (bars/parties) (Go to C4Q25)
 <02> Stress/nerves/to relax (Go to C4Q25)
 <03> To combat boredom (Go to C4Q25)
 <04> Lower prices (Go to C4Q25)
 <05> Habit (Go to C4Q25)
 <06> Addiction (Go to C4Q25)
 <07> Family or friends smoke (Go to C4Q25)
 <08> No reason/felt like it (Go to C4Q25)
 <09> Other (specify) (Go to C4Q25)
 <98> Refused (Go to C4Q25)
 <99> Don't know (Go to C4Q25)
Population: Current smokers who smoked in Jan94, and answered "more" in C4Q24.

C4Q24B

Why are you smoking less now?
(DO NOT READ. MARK ALL THAT APPLY.)(max:2)

- | | | |
|------|-------------------------------------|---------------|
| <01> | Concern about future health effects | (Go to C4Q25) |
| <02> | Affecting current health | (Go to C4Q25) |
| <03> | Trying/want to quit | (Go to C4Q25) |
| <04> | Pregnancy/had a baby | (Go to C4Q25) |
| <05> | Social/family pressures | (Go to C4Q25) |
| <06> | Cost | (Go to C4Q25) |
| <07> | Don't like it anymore | (Go to C4Q25) |
| <08> | No reason | (Go to C4Q25) |
| <09> | Other (specify) | (Go to C4Q25) |
| <98> | Refused | (Go to C4Q25) |
| <99> | Don't know | (Go to C4Q25) |

Population: Current smokers who smoked in Jan 94, and answered "less" in C4Q24.

C4Q25

Before the price of cigarettes was reduced last year, did you regularly buy cigarettes in the U.S. or cigarettes that may have been smuggled?

- | | |
|-----|------------|
| <1> | Yes |
| <2> | No |
| <8> | Refused |
| <9> | Don't know |

Population: Current smokers.

C4Q26

After the price of cigarettes was reduced last year, did you regularly buy cigarettes in the U.S. or cigarettes that may have been smuggled?

- | | |
|-----|------------|
| <1> | Yes |
| <2> | No |
| <8> | Refused |
| <9> | Don't know |

Population: Current smokers.

C4Q27A

Now I'd like to ask about your contacts with doctors and dentists during the past 12 months. Have you seen a DOCTOR in the past 12 months? (NOTE: "doctor" includes general practitioners, family doctors, and specialists)

- | | | |
|-----|------------|----------------|
| <1> | Yes | (Go to C4Q27B) |
| <2> | No | (Go to C4Q27C) |
| <8> | Refused | (Go to C4Q27C) |
| <9> | Don't know | (Go to C4Q27C) |

Population: Current smokers and recent quitters.

C4Q27B Did the doctor advise you to stop smoking? (NOTE: on any visit to doctor in past 12 months)

- <1> Yes
- <2> No
- <3> Not applicable (already stopped smoking)
- <8> Refused
- <9> Don't know

Population: Current smokers and recent quitters who have seen a doctor in past 12 months.

C4Q27C Have you seen a DENTIST in the past 12 months?

- <1> Yes (Go to C4Q27D)
- <2> No (Go to C4Q28)
- <8> Refused (Go to C4Q28)
- <9> Don't know (Go to C4Q28)

Population: Current smokers and recent quitters.

C4Q27D Did the dentist advise you to stop smoking? (NOTE: on any visit to dentist in past 12 months)

- <1> Yes
- <2> No
- <3> Not applicable (already stopped smoking)
- <8> Refused
- <9> Don't know

Population: Current smokers and recent quitters who have seen a dentist in past 12 months.

C4Q28 What language do you speak most often at home?

- <1> English
- <2> French
- <3> Both English and French equally
- <4> Other
- <8> Refused
- <9> Don't know

Population: Everyone.

C4_END END OF SURVEY

13. RECORD LAYOUT AND UNIVARIATES

APPENDIX 1 - Specification of Derived Variables

Specifications for most of the derived variables are given on the microdata record layout. The two exceptions are C1INCAD (income adequacy) and C1SJAN94 (smoking status in Jan94). Specifications for these two variables are given below.

C1INCAD

The table below gives the combination of household size and reported household income for each level of the income adequacy derived variable.

Household Size	Income Adequacy			
	Lower	Lower Middle	Upper Middle	Upper
1	<20,000	20,000-29,999	30,000-59,999	60,000+
2	<20,000	20,000-39,999	40,000-59,999	60,000+
3	<30,000	30,000-39,999	40,000-79,999	80,000+
4	<30,000	30,000-59,999	60,000-79,999	80,000+
5	<30,000	30,000-59,999	60,000-79,999	80,000+
6+	<40,000	40,000-59,999	60,000-79,999	80,000+

C1SJAN94

Note: C1SJAN94=1 if the person smoked in January 1994
 C1SJAN94=2 if the person did not smoke in January 1994
 C1SJAN94=9 if it is not possible to determine if the person smoked or not in January 1994

(1) If C1Q01<3 and (C1Q12=2 or 3) then C1SJAN94=1
 else go to (2)

{If the person is currently a smoker and reported smoking less now than in Jan94, or reported smoking about the same now as in Jan94, then the person smoked in Jan94.}

- (2) If C1Q03 =2 then C1SJAN94=2
=1 or 6 then go to (3)
>6 then C1SJAN94=9

{If the person has never smoked one cigarette, then the person did not smoke in Jan94. If we don't know if the person ever smoked even one cigarette, then assign a value of not stated to the derived variable. Everyone advancing to (3) has smoked at least one cigarette.}

- (3) If C1Q04 <96 then go to (4)
>96 then go to (7)

{If the person reported a valid age, go to (4). If the person responded as don't know or refused to age started smoking, then assume that he/she started smoking more than one year ago and go to (7).}

- (4) If SPAGE - C1Q04 <1 then go to (5)
≥1 then go to (7)

{Check if the person started smoking within the past year. If so, go to (5) to see if person started after Jan94; otherwise go to (7). Everyone advancing to (5) has started smoking within the past year.}

- (5) If C1Q05YY <94 then go to (7)
=94 then go to (6)
>96 then C1SJAN94=9

{If person started smoking before 1994, go to (7) to check for stop dates. If person started smoking in 1994, go to (6) to check for month started. If person didn't know or refused year started smoking, assign not stated value to the derived variable.}

- (6) If C1Q05MM =01 then C1SJAN94=1
=02-06 then C1SJAN94=2
>96 then C1SJAN94=9

{If person first started smoking in Jan94, then assign value of 1 to derived variable. If person first started smoking after Jan94, then assign value of 2 to derived variable. If person didn't know or refused month first started smoking, assign not stated value to the derived variable.}

- (7) {Note: everyone reaching this point started smoking for the first time before Jan94.}
 If C1Q07 =6 then go to (9)
 =1 then go to (8)
 =2 or 3 then C1SJAN94=2
 >6 then C1SJAN94=9
{If person skipped this question, then he/she is currently a smoker so date stopped smoking doesn't apply; these people advance to (9) to check for temporary stops. If person stopped smoking within the past year, go to (8) to check for year stopped. If person stopped smoking more than one year ago, assign a value of 2 to the derived variable. If person didn't know or refused when he/she stopped smoking, assign not stated value to the derived variable.}
- (8) If C1Q08YY <94 then C1SJAN94=2
 =94 then C1SJAN94=1
 >96 then C1SJAN94=9
{If person quit smoking before 1994, then assign a value of 2 to the derived variable. If person quit smoking in 1994, then he/she must have been still smoking in Jan94. If person didn't know when he/she quit smoking, assign a not stated value to the derived variable.}
- (9) {Note: everyone reaching this point is currently a smoker and started smoking before Jan94. The following steps check for any temporary periods of stopping smoking.}
 If C1Q16 =2 then C1SJAN94=1
 =1 then go to (10)
 >6 then C1SJAN94=9
{If person has never attempted to quit smoking then assign a value of 1 to the derived variable. If person has attempted to quit smoking, then go to (10) to check dates. If person answered don't know or refused, then assign a not stated value to the derived variable.}
- (10) If C1Q17YY <94 then go to (12)
 =94 then go to (11)
 >96 then go to (12)
{If person had a temporary quit starting before 1994, go to (12) to check when the quit attempt ended. If person started quit attempt in 1994, go to (11) to check month. If person didn't know or refused when quit attempt started, assume quit attempt started before 1994 and go to (12) to check date quit attempt ended.}
- (11) If C1Q17MM =01 then go to (12)
 =02-06 then C1SJAN94=1
 >96 then C1SJAN94=9
{If person's quit attempt started in Jan94, then go to (12) to check when it ended. If quit attempt started after Jan94, then he/she was smoking during the month of January. If person didn't know or refused month, then assign a not stated value to the derived variable.}

- (12) If C1Q18YY =94 then go to (13)
<94 then C1SJAN94=1
>96 then C1SJAN94=9

{If person's quit attempt ended in 1994, then go to (13) to check month. If quit attempt ended before 1994, then assign 1 to derived variable. If person didn't know or refused when quit attempt ended, then assign a not stated value to the derived variable.}

- (13) *{Note: everyone reaching this point is currently a smoker, but quit temporarily starting sometime before 1994, and resumed smoking sometime in 1994.}*

If C1Q18MM =01 then C1SJAN94=1
=02-06 then C1SJAN94=2
>96 then C1SJAN94=9

{If person's quit attempt ended in Jan94, then he/she smoked sometime in Jan94. If quit attempt ended after Jan94, then he/she was temporarily a non-smoker during the month of January. If person didn't know or refused month, then assign a not stated value to the derived variable.}