



Research Paper

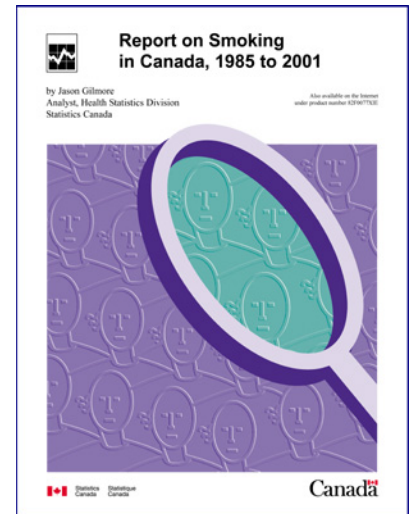
Report on Smoking in Canada 1985 to 2001

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Report on Smoking in Canada, 1985 to 2001

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Highlights

This working paper, the second in a series, analyzes the comparability of surveys conducted by Statistics Canada on smoking prevalence and daily cigarette consumption from 1985 to 2001. It also examines the statistical significance and changes in the data among these survey years.

Although some analytical highlights follow, details of statistical significance and error ranges are found in the main body of this paper.

- From 1985 to 1991, prevalence of current smoking (i.e., daily smokers and occasional smokers) declined overall, for both sexes and all age groups except those aged 15 to 24. Larger declines occurred from 1991 to 2001.
- While current smoking prevalence for youths did not significantly change from 1985 to 1994/95, there was a significant decrease of 6 percentage points from 1994/95 to 2001 (28.5% to 22.5%).
- Provincially, Newfoundland and Labrador, Nova Scotia, Quebec, Ontario, Saskatchewan, Alberta and British Columbia, experienced most of their declines in current smoking prevalence from 1994/95 onwards. All provinces experienced some level of declines over the entire 1985 to 2001 period.
- Declines in daily smoking prevalence occurred for both sexes and all age groups over the entire 17-year time span, although youth smoking did not start significantly declining until the mid-1990s.
- Overall, for daily cigarette consumption, smokers in 2001 had a significantly lower proportion of smoking 26 or more cigarettes daily compared with 1985 (14.0% to 5.8%). Most of the declines in the different sex or age groups occurred after 1991.
- At the same time, smokers in 2001 had a significantly higher proportion of smoking 1 to 10 cigarettes daily compared with 1985 (18.6% to 31.1%). Most of the decline occurred after 1991.

Further research in all aspects of smoking prevalence will lead to greater insight into patterns and can help others more thoroughly interpret these patterns. The Health Statistics Division of Statistics Canada intends to provide updates on smoking issues when new data are available to contribute to the understanding gained from this analysis.

Overview

This working paper, the second in a series, analyzes the comparability of surveys conducted by Statistics Canada on smoking prevalence and daily cigarette consumption from 1985 to 2001. It also examines the statistical significance and changes in the data among these survey years. The aim of this paper series is to clarify any confusion regarding comparability of survey estimates of smoking prevalence and daily cigarette consumption over this period as well as to provide the data that many users would like in a technical but understandable format.

This second paper highlights the methodology, sampling strategies and relevant smoking questions asked in each survey discussed in this report and explains how they affect comparability. It also includes updates from the first working paper* for smoking prevalence data on current smokers for the data years 1998/99 onwards (plus the sub-categories of daily and occasional smokers) and daily cigarette consumption (grouped as 1 to 10 cigarettes, 11 to 25, or 26+ per day) for each data year according to the following groupings:

- by total (Canada), age groups 15 to 19, 20 to 24, 25 to 44, 45 to 64 and 65 and over
- by total, male, female
- by sex for age 15 to 19 and age 20 to 24: current prevalence only
- by province, territory and region, age 15 and over: current prevalence only

Each data item provides the point estimate, error range and relevant sample size.

Definitions¹

Prevalence of smoking: The number of smokers in a specified group divided by the total population of that group. May also be referred to as "smoking rate".

Current smoking: Includes both daily and non-daily smoking.

Daily smoking: Refers to smoking at least one cigarette per day for each of the 30 days preceding the survey.

Non-daily smoking: Often referred to as occasional smoking, this more precise term describes smoking at least one cigarette during the past 30 days, but not every day. The terms "non-daily" and "occasional" are used interchangeably in this paper.

Daily cigarette consumption: The amount or range of the amount of cigarettes smoked per day as reported by daily smokers. In this paper, consumption data are grouped into ranges of 1 to 10 cigarettes, 11 to 25 cigarettes, and 26 or more cigarettes daily.

Cross-sectional: A survey that is conducted at least once, and represents a snapshot in time. If the survey is repeated, it may or may not have the same respondents (generally, such surveys do not have the same respondents).

Longitudinal: A series of surveys with the same respondents in each cycle to study transitions over time.

* In a few cases, data values or textual descriptions of the 1985 to 1999 results have changed between the first report (Report on Smoking Prevalence in Canada, 1985 to 1999, published February 2000) and what is presented in this second report. These are due to revised calculations or new information that has come to light since the first report. In those few cases, this second report is considered to be correct.

Survey Comparability: Methodology and Questions Asked

Many factors can influence the final results of a smoking prevalence survey. "Main influence factors" are the methodology (which includes the target population, sampling strategy used) and data collection and processing procedures, such as the questions asked and the impact of proxy respondents. This paper uses variance estimation, which accounts for sampling error by providing estimates of variance and standard error. Nonetheless, when comparing the final estimates of smoking data from two different surveys, it is also important to examine the main influence factors of each survey. The less similar the factors, the less reliable the comparison. For example, data from two different surveys should not be compared if the main influence factors of each survey are markedly different. Only by rigorous analysis and comparison of each influence factor can the actual degree of influence of these factors be determined.

Such analysis cannot be performed on the surveys presented in this paper, because it requires testing the same sample with the differing methodologies and/or questions asked about smoking. As a result, caution

should be used when comparing data results from two surveys that happen to ask questions of a similar nature but use different sampling strategies or collection methodologies. This paper profiles each national survey that asked about smoking from 1985 and 2001, and whether or not the surveys are comparable. A tabular overview of the comparability of national surveys conducted by Statistics Canada that asked smoking questions is found in Appendix A, which is loosely based on the textual section that follows. Excerpts from a special methodological report comparing two specific surveys is also included, in Appendix D.

General Social Survey, 1985

The target population of the 1985 GSS consisted of all persons 15 years of age and older living in the 10 provinces, except full-time residents of institutions.² Two sample selection and interview methods were used to survey this population. The population aged 15 to 64 was sampled using random-digit dialling techniques and interviewed by telephone. Those aged 65 and over were interviewed in person in order to increase the sample size over what could be economically achieved using telephone techniques.³ The data were collected between September and October 1985. Of the 11,200 people interviewed, 8,070 respondents aged 15 to 64 were contacted by telephone and 3,130 respondents aged 65 and over were questioned in person. The total sample size was large enough to allow extensive analysis at the national level, some analysis at the regional level, and limited analysis at the provincial level.⁴

The 1985 GSS asked: "At the present time, do you smoke cigarettes daily, occasionally, or not at all?" For those who answered 'daily' they were asked "About how many cigarettes do you smoke each day?". These question formats follow what was later endorsed by the Workshop on Data for Monitoring Tobacco Use in March 1994 (see Appendix B for details). Workshop participants came from a cross-section of agencies that actively produce and/or use tobacco statistics for planning and developing programs and policies.⁵ Although not everyone agreed with each nuance of the conclusions, participants committed to the terms, definitions and methods described in the report and recommended their general adoption by tobacco researchers across Canada. Most Statistics Canada surveys that have asked questions about smoking since 1985 have followed this same question format endorsed by the Workshop.

Surveys conducted by Statistics Canada from 1985 to 2001 that contained questions about smoking

General Social Survey, 1985 (GSS)
National Alcohol and Drugs Survey, 1989 (NADS, sponsored by Health Canada)
Health Promotion Survey, 1990 (HPS, sponsored by Health Canada)
General Social Survey, 1991 (GSS)
Canadian Alcohol and Drugs Survey, 1994 (CADS, sponsored by Health Canada)
Survey on Smoking in Canada, 1994/95 (SoSiC, sponsored by Health Canada)
National Population Health Survey, 1994/95 (NPHS and NPHS North)
General Social Survey, 1995 (GSS)
General Social Survey, 1996 (GSS)
National Population Health Survey, 1996/97 (NPHS and NPHS North)
National Population Health Survey, 1998/99 (NPHS)
Canadian Tobacco Use Monitoring Survey 1999, 2000 and 2001 (CTUMS, 1st and 2nd waves combined, sponsored by Health Canada)
Canadian Community Health Survey, 2000/2001 (CCHS)

CONCLUSION: Although both telephone and personal interviews were employed, similarity in basic methodology and questions about smoking prevalence and daily cigarette consumption make the survey reasonably comparable with GSS 1991 and 1996, the Survey on Smoking in Canada (SoSiC), the National Population Health Survey (NPHS), the Canadian Community Health Survey (CCHS) and the Canadian Tobacco Use Monitoring Survey (CTUMS).

National Alcohol and Drugs Survey, 1989

The target population of the 1989 NADS was the same as the 1985 GSS (people aged 15 and older in all 10 provinces excluding those in institutions). The survey was conducted in March 1989 and data were collected through telephone interviews from a sample of 11,634 Canadians.⁶

The survey asked:

- "Have you ever been a cigarette smoker?"
- If yes, "How old were you when you started smoking?"
- "At the present time do you smoke cigarettes?"
- If yes, "How many cigarettes do you usually smoke per day?" (can state that they do/did not smoke every day)

In other words, answering "Yes" to questions 1 and 3 makes you a current smoker. Assigning a value to question 4 classifies someone as a daily smoker. Stating that "they do/did not smoke every day" classifies the person as an occasional smoker.

This form of questioning is very different from 1985 GSS and also differs from what was later endorsed by the Workshop in March 1994. According to some research, first asking about *current* behaviour (GSS, SoSiC, NPHS, CCHS, CTUMS) appears to produce dramatically different estimates of current smokers compared with first asking about past behaviour (NADS 1989, HPS 1990, CADS 1994, GSS 1995); the greatest difference occurs in the sub-group of "occasional" smokers.⁷ When question 1 is asked, occasional smokers or those just beginning to experiment with smoking may misinterpret the question and have a tendency to answer no, thereby screening themselves out of all subsequent smoking questions.⁸ This has potential effects on both occasional smoker and current smoker data (since current is daily plus non-daily). Because of these observations, data collected from NADS on current and occasional smokers have been excluded from this study. NADS data about daily smokers should be compared *cautiously* with other data years in light of

the distinction made about questions involving current behaviour versus questions asked about past behaviour. Daily cigarette consumption data from NADS can also be compared with other data years, while exercising the same caution.

CONCLUSION: Although the NADS questions differed from the ones posed in the GSS surveys, the SoSiC, the NPHS cycles, CCHS and the CTUMS surveys, the data on daily smokers (prevalence and consumption) are roughly comparable. Variable-specific variance could not be estimated for the 1989 NADS. The approximate errors are therefore presented in Tables 9, 13, 15 and 17, but are not referred to in the text. Data on current and occasional smokers from the 1989 NADS are not fully comparable with the other surveys and have been removed from this analysis.

Health Promotion Survey, 1990

The target population for the 1990 Health Promotion Survey (HPS) was the same as the 1985 GSS and the 1989 NADS (people aged 15 and older, in all 10 provinces excluding those in institutions). The 13,792 people interviewed by telephone included an extra 1,500 interviews purchased by Alberta Health. The survey was conducted in June 1990.⁹

The questions about smoking asked:

- "Have you ever smoked cigarettes?"
- If yes, "At the present time, do you smoke cigarettes?"
- If yes, "Do you usually smoke cigarettes every day?"
- If yes, then daily smoker, if no, then occasional smoker.

This mode of questioning about past behaviour makes the HPS susceptible to the same weaknesses found in the 1989 NADS. The data from 1990 HPS on current and occasional smokers were therefore removed from this analysis.

CONCLUSION: Although the smoking questions asked in the 1990 HPS differed from the ones posed in the GSS surveys, the SoSiC, the NPHS cycles, CCHS and the CTUMS surveys, these data on daily smokers (prevalence and consumption) can be compared with caution. Variable-specific variance analysis could not be done. Approximate errors are presented in Tables 9, 13, 15 and 17, but are not referred to in the text or the other tables. The data on current and occasional smokers from the 1990 HPS are not fully comparable with the other surveys and have been removed from this analysis.

General Social Survey, 1991

The target population was the same as the other surveys: Canadians aged 15 and older in all 10 provinces, excluding those in institutions. The 1985 and 1986 GSSs collected data in the fall starting in September. Subsequent cycles (1988 to 1990) started mid-January and ended mid-March. Since some variables in the GSS are subject to seasonality (e.g., health), the 1991 survey conducted monthly interviews covering the whole year, with approximately 960 respondents each month.¹⁰ Telephone interviews were conducted with 11,924 respondents. The introduction of computer edits at the time of capture was expected to improve data quality over previous GSS surveys.¹¹

The question about smoking prevalence and daily cigarette consumption were consistent with the GSS 1985 and 1996, CCHS, CTUMS and with the NPHS cycles. The 1991 survey was also the first GSS cycle to accept proxy interviews (proxies accounted for 4% of the total sample), although they were only allowed where the intended respondent was in poor health or spoke limited English or French. Proxy reporting may result in an under-estimation of smoking prevalence, particularly among younger age groups.^{12,13} Since proxy rates accounted for approximately 1% of 15- to 19- year olds and 20- to 24-year olds, care should be taken when comparing 1991 youth/young adult smoking rates with the other data years. Although proxy reporting for smoking was low, any under-reporting could affect the prevalence estimate and the variable-specific variance estimation in this paper. See Appendix C for further details.

CONCLUSION: Smoking prevalence and consumption data from the 1991 GSS can be reasonably compared with the GSS 1985 and 1996, the NPHS cycles, CCHS and the CTUMS surveys, although because of proxy reporting, the values (especially among younger age groups) may be slightly under-estimated.

The Canadian Alcohol and Drugs Survey, 1994

The Canadian Alcohol and Drugs Survey (CADS) interviewed 12,155 respondents by telephone. The target population was Canadians aged 15 and older in all 10 provinces, excluding residents in institutions, and was conducted from September 7 to November 5, 1994.¹⁴ Questions on smoking were the same as the 1989 NADS and therefore suffer from the same limitations as NADS. Since both the SoSiC and the 1994/95 NPHS covered roughly the same period and asked the Workshop-endorsed questions on cigarette smoking, CADS was excluded from this analysis. Health Canada does not use this survey when examining smoking data patterns.

CONCLUSION: Overall, CADS 1994 should not be compared with other surveys because of the large difference in how the questions about smoking were asked. Since the SoSiC and NPHS 1994/95 were conducted around the same time period, 1994 data were aptly represented by these latter surveys.

The Survey on Smoking in Canada, 1994/95

The target population was Canadian adults aged 15 and older in all 10 provinces, excluding those in institutions. The survey differed from other surveys in that it was longitudinal. The SoSiC was collected in 4 cycles: April to June 1994 (Cycle 1), August to September 1994 (Cycle 2), November to December 1994 (Cycle 3), and February to March 1995 (Cycle 4).¹⁵ The respondents from the initial interview were contacted during each cycle. The survey used Computer-assisted Telephone Interviewing (CATI), and 15,804 respondents participated in Cycle 1. The response rate fell to 13,398 or 85% of Cycle 1 respondents in Cycle 2, and 12,808 people or 81% of Cycle 1 respondents answered in Cycle 3. Only 12,424 or 79% of Cycle 1 respondents participated in Cycle 4. Cycles 2 through Cycle 4 results were excluded from this analysis, because of concern over the effects of seasonality and repeated interviewing.¹⁶

The question on the prevalence of smoking is consistent with what was asked in the 1985, 1991 and 1996 GSS, what was adopted by the Workshop on Data for Monitoring Tobacco Use and what was used in the NPHS cycles, CTUMS and CCHS.

However, because variable-specific variance estimate programs were not available, the SoSiC data are presented in the odd-numbered tables from 1 to 17 but are not discussed in the other tables or in the text body of the report. While results are still comparable with other data periods, the results should be interpreted with some degree of caution.

CONCLUSION: Although its context differs from most of the other surveys presented here (see CTUMS description and Appendix C for details), smoking prevalence and consumption data from the 1994/95 SoSiC (Cycle 1) can be reasonably compared with the GSS 1985, 1991 and 1996, the NPHS cycles, CCHS and the CTUMS surveys, although there was some overlap in the collection period with the 1994/95 NPHS. Because variable-specific variance estimate programs were not available, data from Cycle 1 should be cautiously compared with other data points.

General Social Survey, 1995

Data for Cycle 10 were collected monthly between January and December 1995 by telephone interview and the sample was distributed evenly over the 12 months.¹⁷ In May of that year, Quebec sponsored an additional sample of 1,250 respondents which was spread equally over the remaining months. There were 10,749 respondents to the survey. The target population was Canadians aged 15 and older from all 10 provinces, excluding full-time residents of institutions. The questions about smoking in the 1995 GSS asked:

- "Now, I am going to ask you a few questions about your exposure to smoke from cigarettes"
- "Have you ever smoked cigarettes?"
- if yes, "At the present time, do you smoke cigarettes?"
- if yes, "Do you usually smoke cigarettes every day?"

Because the questions follow the current versus past behaviour problem discussed earlier, the 1995 GSS survey was excluded from this analysis. As with CADS, Health Canada does not use the 1995 GSS survey data when examining smoking data patterns.

CONCLUSION: The 1995 GSS should not be compared with the other surveys because of the large difference in how the questions on smoking were asked. Because there was some overlap in the collection period with the 1994/95 NPHS, data for 1995 are reasonably represented by this latter survey.

General Social Survey, 1996

The target population for the 1996 GSS was all persons 15 years of age and over residing in the 10 provinces but excluding residents of the Yukon and the Northwest Territories and full-time residents of institutions. All respondents were contacted by telephone. Data for the 1996 GSS were collected monthly from February to December 1996 inclusive.¹⁸ The sample was evenly distributed over the 11 months to represent the seasonal variation in the information gathered with two exceptions. First, an additional sample of approximately 1,250 seniors aged 65 and over (sponsored by the Senior's Directorate of Health Canada) were added, along with 700 seniors oversampled from Quebec (sponsored by the Quebec Bureau of Statistics). In addition, 25% of the regular sample was determined in a way that allowed for more reliable estimates for seniors aged 65 and over. There were 12,756 respondents to the 1996 GSS.

Questions on smoking status were consistent with the other GSS surveys, the SoSiC, the NPHS cycles, the CCHS and the CTUMS surveys. There was some degree of overlap in the collection period with the NPHS 1996/97.

CONCLUSION: The 1996 GSS can be reasonably compared with the other GSS surveys, the SoSiC, both cycles of the NPHS and the CTUMS. There was a partial overlap in the collection period between the 1996 GSS and the 1996/97 NPHS.

National Population Health Survey, 1994/95 and 1996/97 and 1998/99

The National Population Health Survey (NPHS) 1994/95 was the first cycle of a new longitudinal survey on health issues. Interviews were conducted in four quarters: June, August and November 1994, and March 1995 (subsequent survey cycles (1996/97, 1998/99) covered the similar quarterly collection schedule). The target population of the NPHS was persons aged 12 and older in all provinces and territories and residents of institutions. The 1994/95 NPHS was also integrated with the National Longitudinal Survey of Children and Youth (NLSCY), which captured data for children under the age of 12.¹⁹ Data on smoking were only collected on respondents aged 12 and older. However, for this analysis, only those aged 15 and older in all provinces were considered to remain consistent with the target populations of the other surveys.

In Cycle 1 in 1994/95, a personal interview was conducted at the respondent's dwelling, using Computer-assisted Interviewing technology. This method of interviewing (i.e., person-to-person) differs from the other surveys (except for the 1985 GSS, where respondents aged 65 and older were interviewed in person). In fact, some research indicates that person-to-person interviews about smoking provides a more reliable estimate than data collected over the telephone.²⁰ This different collection method should be considered when comparing data with the other surveys.

Only randomly selected individuals were followed up every second year for longitudinal purposes. For the 1994/95 Health component (i.e., the section where health and smoking questions were asked), there were 16,982 respondents aged 15 and older.²¹ The 1996/97 Health component consisted of 70,884 respondents aged 15 and older. About 5% of all interviews in 1996/97 were conducted in person and the remainder were collected by telephone interview. In 1998/99 (Cycle 3), there were 14,682 respondents aged 15 and

older. Efforts to locate NPHS longitudinal respondents who moved between cycles without notifying Statistics Canada have generally been successful. Only 1.7% of longitudinal respondents could not be found for Cycle 2 and 2.1% in Cycle 3.

The questions on smoking for the three NPHS cycles did allow for a small percentage of proxy reporting (see Appendix B). The questions on smoking were consistent with the GSS, SoSiC, CCHS and CTUMS surveys.

CONCLUSION: Smoking prevalence and consumption data from the NPHS cycles can be reasonably compared with the GSS 1985, 1991 and 1996, the SoSiC, CCHS and CTUMS surveys. Variable-specific variances for differences in estimates between NPHS cycles can now be determined, despite the sharing of common samples.

National Population Health Survey (Northern Component), 1994/95 and 1996/97

Statistics Canada conducted the northern component of the NPHS in conjunction with the Yukon and Northwest Territories statistical bureaus. Data were obtained through a separate survey due to the special challenges of survey taking in Canada's North.

The target population of the Yukon/NWT integrated NPHS/NLSCY survey included household residents living in private occupied dwellings located in the two territories, with the exclusion of populations on Indian Reserves, Canadian Forces Bases and in institutions. Moreover, persons living in unorganized areas in the Yukon (13% of the population) and persons living in unorganized areas, very small or extreme northern communities of the NWT (4.9% of the population) were also excluded from the target population.²²

Collection operations ran from November 1994 to March 1995 (and again from November 1996 to March 1997). Computer-assisted personal interviewing (CAPI), used for the NPHS in the provinces, was not available in the territories at the time of the survey. A paper and pencil questionnaire designed to replicate the CAPI application was used instead. Telephone interviews were conducted where available, otherwise personal interviews were done.

The selected person response rate for the NPHS 1994/95 was 94.2% at the North level (2,020 respondents). For the Yukon this rate was 94.8%, while the rate for the NWT was 93.1%. The cross-sectional response rate at the North level (both territories) for the NPHS 1996/97 was 86.2% (1,499 respondents).²³

For the Yukon, this rate was 83.9% while the rate for the NWT was 89.8%. At the time of this publication, the 1998/99 NPHS North data were not available for variable-specific variance estimation.

Through the geographic codes on the master file, it was possible to separate data on Nunavut from the Northwest Territories (including Nunavut). Thus, data included here are for the Territories (all three combined), Yukon Territory, Northwest Territories (excluding Nunavut) and Nunavut. The questions on smoking were identical to those asked in the NPHS Household component.

CONCLUSION: Smoking prevalence and consumption data from the NPHS North can be reasonably compared with the CCHS (the only other survey with territory-level data).

Canadian Tobacco Use Monitoring Survey, 1999, 2000 and 2001

The target population for the CTUMS was all persons 15 years of age and over residing in the 10 provinces, excluding residents of the Yukon and the Northwest Territories and full-time residents of institutions.²⁴ All respondents were contacted by telephone. Data have been collected for two waves each year: one from February to June and the other from July to December. This report contains the results for waves 1 and 2 combined for each year (1999 to 2001), since the sample sizes are more robust. One of the main objectives of the survey was to collect sufficient results for youths aged 15 to 24. Sample size was divided equally across all 10 provinces, and involved oversampling of youth and young adults. No proxies were accepted. There were 22,013 respondents to CTUMS 1999 (i.e., waves 1 and 2 combined), 20,415 for CTUMS 2000 and 21,788 for CTUMS 2001. Questions on smoking status were comparable with the GSS 1985, 1991 and 1996, the SoSiC, the three NPHS cycles and the CCHS.

Although CTUMS has many methodological similarities to most surveys that ask questions on smoking over the 17-year time span, a recent study has shown that a survey's context may have an impact on the results. Specifically, the study concluded that there are no major methodological differences between CTUMS 2001 and CCHS 2000/01, which cover almost the same time period, and yet sampling errors indicate many statistically significant differences in these data. It is possible that the statistical differences may be due to non-sampling error. Context is seen as a potential contributor; specifically, different results may be obtained via a survey about smoking

(CTUMS) compared with a health survey that asks some questions on smoking (CCHS). Thus, while these surveys can be reasonably compared from a methodological standpoint, it would be advisable to interpret such comparisons with caution. Please refer to Appendix D for details.

CONCLUSION: Smoking prevalence and consumption data from the 1999, 2000 and 2001 CTUMS can be reasonably compared with the GSS 1985, 1991 and 1996, the SoSiC and the cycles of the NPHS and the CCHS. Specific comparisons with the latter survey should be done with caution (see Appendix D). This report refers to the combined data for waves 1 and 2 for each data year, since the sample sizes were more robust and covered almost the entire year.

Canadian Community Health Survey, 2000/2001

The Canadian Community Health Survey (CCHS) represents Statistics Canada's largest survey outside of the Census. Over 130,000 respondents aged 12 and over were interviewed in person or by telephone, in all ten provinces and the three territories. While the sampling was based on health region geography, Canada and province-wide estimates can be created. Data presented here at the Canada level exclude the territories and are only presented for residents aged 15 and over (approximately 116,250 respondents). Territorial data are presented separately and can be compared with results from the NPHS North (no other surveys which ask questions on smoking collect data from the territories). The questions related to smoking prevalence and cigarette consumption were identical to those asked in the NPHS. Some proxy reporting was allowed in special circumstances.

CONCLUSION: Smoking prevalence and consumption data from the CCHS can be reasonably compared with the GSS surveys (1985, 1991 and 1996), the SoSiC, the three cycles of the NPHS (including the NPHS North) and the CTUMS surveys. Specific comparisons with the latter survey should be done with caution (see Appendix D). Also, some proxies were allowed, so data on youth should also be interpreted with caution.

Survey Estimates

Survey estimates are precisely that: estimates. They are based on the information from a sample of respondents, not the total population. The precision of the estimates depends on the size of the sample taken as well as the methodology used to select and process the sample.

The quality or precision of the estimates can be expressed statistically by what is called a confidence interval. This is simply the band of uncertainty surrounding an estimate. It is the explicit recognition of the accuracy of the survey. The point estimate provided by the survey is only the best statistical calculation of the true number. Statistically, one is confident only that this true value lies in a range around the point estimate. For this report, the point estimate is the mid-point of the confidence interval, which is computed from the sample, and so is itself random. If another sample was drawn, the confidence interval would generally be different from the first. The phrase "95% confidence interval" means that if one drew many samples of the same size by the same sample design and computed confidence intervals from all the samples by the same formula, then about 95% of the intervals would contain the true value, although we would not know which intervals did and which ones did not. The results would differ between two samples, because the samples are drawn from the same population using some form of randomization, so the confidence interval describes the effect that the randomization has on the estimates.

An analogy can be drawn between a game of ring-toss and a survey-based estimate of the confidence interval. The true value can be thought of as equivalent to the target pin in the game. Each time the survey is made, a confidence interval is estimated. This is analogous to tossing the ring at the pin. Sometimes, the ring is exactly centred on the pin. Other times, the pin is very close to one side or the other. And occasionally (1 time in 20), the ring does not bracket the true pin. Of course, with surveys, the problem is that we cannot observe the actual pin. We can only observe the centre of the ring. The estimate provided by the survey is only this mid-point of the confidence interval. We are only confident that the true value is also somewhere inside the ring as well.

Some statistical definitions

Confidence limit: The range around the point estimate that is considered to encompass the true value, in this report, 19 times out of 20. Calculated by multiplying the standard error of the estimate by the t-score of the level of confidence (e.g., a 95% level of confidence has a t-score of 1.96) and subtracting from (or adding it to) the estimate to give the range (lower and upper limit). Mainly referred to as the "error range" or "error" in this paper.

Standard error: The degree of sampling error associated with the variable estimate, calculated by the determining the square root of the sampling variance (i.e., the differences in the sample estimates observed in all possible samples).

Point estimate: The mid-point of the confidence interval, and the statistical approximation as to where the true value (in this case, of smoking prevalence) lies. More commonly called the "estimate".

Statistical significance: Whether the point estimate or comparison between point estimates indicate something that represents a "real" value or "real" difference (respectively). In this report, the term "significance" will refer to **statistical significance** and not to **quantitative (or numerical) significance** (i.e., the size of the estimate or the size of the difference in estimates). See Appendix C to find out how to calculate statistical significance.

Coefficient of variation tables: These are tables generally presented with survey microdata files, allowing the reader to determine the approximate coefficient of variation (CV) and, if desired, the approximate confidence interval. Their accuracy, while sufficient for simple analysis, is of a lower quality (because they are approximated) than CVs produced using variable-specific variance computer programs (which is what has been done for most of the surveys presented here). See below and Appendix C for further details on variance estimation programs.

High sampling variability: Any result with a CV over 16.5% has high sampling variability. If the CV is from 16.6% to 33.3%, the rate is published but should be interpreted with caution.

Suppression: Any result where the CV is greater than 33.3% and/or the sample size is extremely low, the result is deemed to be very poor quality and not released in this report.

Sample size: The number of **unweighted respondents** found in the relevant data cell. Not to be confused with the weighted population estimates or the total sample size.

Variable-specific variance estimation techniques

For most of the surveys referred to in this analysis (the 1985, 1991, and 1996 GSSs, the 1994/95, 1996/97 and 1998/99 NPHS, 2000/01 CCHS and the 1999, 2000 and 2001 CTUMS), Statistics Canada computed variable-specific variance estimates (referred to as Bootstrap or jackknife techniques) of the confidence limits for the various prevalence estimates. The others (1989 NADS, 1990 HPS and 1994/95 SoSiC) could only be calculated by using approximate coefficient of variation (CV) tables that were supplied with the public microdata files. As such, only crude error ranges could be derived for these surveys, so their comparison with other surveys should be done with caution. Tables 1, 3, 5, 7, 9, 11, 13, 15 and 17 show the point estimate (i.e., the mid-point of the confidence interval) of smoking prevalence, the width of the 95% confidence interval, and the sample size that the estimates are based on. Tables 2, 4, 6, 8, 10, 12, 14, 16 and 18 illustrate whether or not there was a significant difference in the prevalence result from one data year to another. Because of the shared sample of NPHS 1994/95, 1996/97 and 1998/99 (i.e., the longitudinal component), statistical significance tests of the difference in these three estimates could not be calculated in exactly the same way. See Appendix C for further information on how to analyze statistical significance in general, some details on the NPHS cycle comparisons, and basic information on Bootstrap and jackknife techniques.

Not stated responses

The results for "not stated" category were included in all analysis for this paper. In other words, the total population by smoking status is made up of four main groups: daily smokers, occasional smokers, non-smokers, and those who did not state their smoking status. As such, the point estimates may or may not differ slightly from previously published results. An explanation of why the "not stated" category is included in this analysis can be found in Appendix C.

Data gaps and interpretation

Since surveys on smoking were not conducted by Statistics Canada every year from 1985 to 2001, there are obvious data gaps. This report **only** focuses on the points for which survey data were available. For example, there were no comparable surveys on daily smoking conducted by Statistics Canada in 1986, 1987, 1988, 1992, and 1993. Because of these data gaps, if there is a statement in this report, for example, stating that there was a significant change in smoking prevalence from the data available in 1991 to the data

available in 1994, there is absolutely no intention to imply that these same or similar changes occurred in or between 1992 and 1993. Again, this report should not be used to try and interpret what happened within or between survey years where data are missing; it should only be used to analyze what changes occurred from one data period to another.

In the text to follow, the numbers presented within brackets {} represent the range of error associated with the difference between the two survey estimates. For example, a 2.0 percentage point drop {1.3% to 2.7%} essentially means that the estimate dropped 2.0% from the one data period to the other, with an error range around that estimate of 1.3% to 2.7% (i.e., 2.0% plus or minus 0.7%).

There are many personal, social and legislative factors that can affect the level of smoking prevalence from year to year (and over time). The following prevalence rates are presented without a situational analysis of how these "environmental" factors may or may not have influenced these rates in any particular year or years; that is up to the reader to determine. This is a technical report that focuses on the data. There are four primary data years referred to in the following text: 1985, 1991, 1994/95 and 2001. The year 1985 represents the first data year of the analysis herein. The year 1991 represents the next fully comparable data year available after 1985. The year 1994/95 represents the next fully comparable data year available after 1991. Finally, the year 2001 represents the last year of this analysis. Because all data and data comparisons are made available through the various data tables in this report, readers are free to create their own data point analysis for other data points not expressly written here.

Numerical vs. statistical significance

As mentioned in the statistical definitions section above, it is important to recognize the difference between quantitative (or numerical) difference and statistically significant difference. For example, an estimate of 31.5% may be numerically larger than an estimate of 25.4% (i.e., a numerical difference of 6.1 percentage points), but if both have wide confidence intervals, then it is quite possible that one cannot claim a statistically significant difference in these two values. Conversely, an estimate of 22.3% may not be numerically much larger than an estimate of 20.9% (i.e., a 1.4 percentage point difference), but if both have very small confidence intervals, then it is possible that these values are statistically different. For this analytical report, the focus is first and foremost on statistically significant differences. This report will help users understand that what is or is not a statistically significant difference may or may not necessarily also be numerically large difference.

Updated results: Current smokers, 1985 to 2001

Updated overall changes in current smoking prevalence

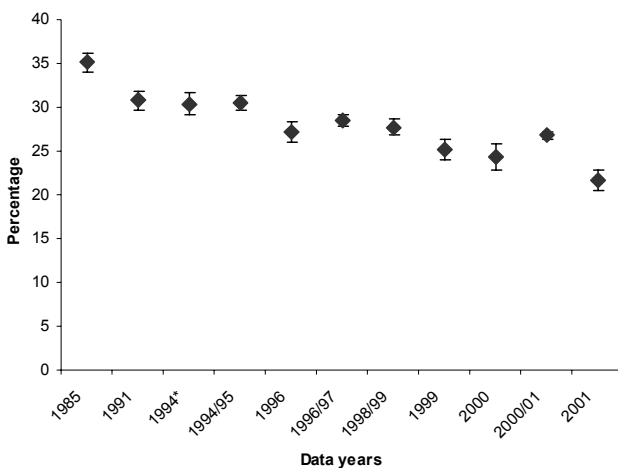
There have been **statistically significant decreases** in the current smoking prevalence of Canadian adults aged 15 and older between 1985 and 2001. Current smoking prevalence fell by 4.3 percentage points {2.6% to 5.8%} from 1985 to 1991. That is to say, the rate dropped from 35.1% in 1985 to 30.8% in 1991, representing a 4.3 percentage point drop with an error range indicating the drop was likely between 2.6 percentage points and 5.8 percentage points. While there was **no significant change** from 1991 to 1994/95, there was a **significant decrease** of 8.8 percentage points (7.3% to 10.3%) from 1994/95 to 2001. See Chart 1 for the 17-year overall data pattern, or Tables 1 and 2 for the estimates along with the error range and significance tests associated with each data point or points.

Updated changes in current smoking prevalence, by sex

Men

Between most data years from 1985 to 2001, there were **significant decreases** in the current smoking prevalence of Canadian men aged 15 and older. Current smoking prevalence for men **significantly fell** by 6.0 percentage points {3.6% to 8.4%} from 1985 to 1991, representing a much larger decrease between

Chart 1: Estimated current smoking prevalence, population aged 15 and over, Canada, 1985 to 2001 (including error margins)



* Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

those two data years than for women (see below). While there was **no significant change** from 1991 to any data point in 1994, there was a **significant decrease** of 9.0 percentage points (6.7% to 11.3%) from 1994/95 to 2001.

Women

There were **significant declines** in current smoking prevalence of women aged 15 and older between most data years from 1985 to 2001. Current smoking prevalence of women dropped by 2.5 percentage points {0.5% to 4.5%} from 1985 to 1991. There was **no significant change** in the smoking prevalence of women from 1991 to 1994/95. However, prevalence **significantly declined** by 8.7 percentage points (7.0% to 10.4%) from 1994/95 to 2001.

Although male current smoking prevalence sustained a numerically larger decrease (14.1 percentage points) from 1985 to 2001 compared with female prevalence (12.6 percentage points), male current smoking prevalence still remains significantly higher. See Chart 2 for a display of these data over the 17-year period from 1985 to 2001.

Updated changes in current smoking, by age group

Age 15 to 19

Between most data years from 1985 to 2001, there were **no significant changes** in the current smoking prevalence of Canadian youths aged 15 to 19. While there was **no significant change** in youth current smoking prevalence from 1985 to 1991, there was a **significant increase** of 5.9 percentage points (0.8% to 11.1%) from 1991 to 1994/95. However, comparing 1985 to 1994/95 reveals no significant change in youth current smoking. There was **significant decrease** of 6.0 percentage points (1.9% to 10.1%) between the rate in 1994/95 and the rate in 2001. See Chart 3 for a display of these data over the 17-year period from 1985 to 2001.

Male youths

There was **no statistically significant change** in the current smoking prevalence of male youths aged 15 to 19 from 1985 to 1991. There was a **significant increase** of 7.8 percentage points (0.8% to 14.8%) in the current smoking prevalence of male youths from 1991 to 1994/95; however, the 1994/95 rate was **not significantly different** from the 1985 rate. Male current smoking prevalence from 1994/95 onwards was **not significantly different** from any following data point except for 2001, which was 6.1 percentage

Table 1
Estimated prevalence, error range and sample size^s of current smokers, total, by sex and age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	35.1%	38.0%	32.2%	26.6%	42.7%	38.9%	35.5%	20.8%
Error +/-	1.1	1.8	1.5	3.9	3.7	1.8	2.6	1.8
Sample size	3748	1829	1919	174	472	1682	784	636
GSS 1991	30.8%	32.0%	29.7%	22.6%	39.7%	35.8%	30.1%	16.0%
Error +/-	1.1	1.6	1.4	3.7	4.1	1.7	2.2	1.5
Sample size	3503	1617	1886	166	358	1697	734	548
SoSiC Cycle 1 1994/95[†]	30.4%	31.8%	29.2%	27.4%	39.5%	35.1%	28.7%	15.9%
Error +/-	1.3	1.9	2.0	2.1	2.7	3.2	3.8	1.4
Sample size	4447	2134	2313	841	990	1321	573	722
NPHS 1994/95	30.5%	32.9%	28.3%	28.5%	35.5%	36.6%	28.6%	14.5%
Error +/-	0.9	1.4	1.2	3.6	3.5	1.5	1.7	1.5
Sample size	5417	2643	2774	378	544	2668	1352	475
GSS 1996	27.2%	28.8%	25.5%	25.2%	35.7%	32.2%	24.5%	13.5%
Error +/-	1.2	1.7	1.5	4.0	4.6	1.9	2.1	1.2
Sample size	2975	1438	1537	147	223	1166	572	867
NPHS 1996/97	28.5%	31.2%	25.9%	29.1%	35.0%	33.4%	26.4%	14.8%
Error +/-	0.7	1.1	0.9	2.9	2.9	1.0	1.4	1.3
Sample size	20204	10263	9941	1299	1800	9992	5257	1856
NPHS 1998/99	27.7%	29.1%	26.3%	27.7%	36.9%	32.6%	25.6%	13.0%
Error +/-	0.9	1.3	1.3	3.9	3.7	1.6	1.7	1.5
Sample size	4205	2063	2142	265	408	1994	1145	393
CTUMS 1999	25.2%	27.3%	23.3%	27.7%	35.4%	29.9%	21.9%	11.8%
Error +/-	1.2	1.7	1.6	1.9	2.3	2.1	2.3	2.5
Sample size	6272	3102	3170	1705	1803	1602	917	245
CTUMS 2000	24.4%	25.8%	23.1%	25.3%	32.3%	29.6%	20.6%	13.4%
Error +/-	1.5	2.2	1.9	2.0	2.3	2.5	2.3	3.2
Sample size	5632	2706	2926	1409	1595	1549	810	269
CCHS 2000/2001	26.8%	29.1%	24.5%	25.6%	34.9%	31.7%	25.7%	12.1%
Error +/-	0.4	0.5	0.5	1.2	1.6	0.6	0.6	0.6
Sample size	34347	17075	17272	2988	2879	15071	10287	3122
CTUMS 2001	21.7%	23.9%	19.6%	22.5%	32.1%	25.0%	19.7%	10.8%
Error +/-	1.2	1.8	1.3	1.9	2.9	2.0	2.3	2.3
Sample size	5612	2730	2882	1370	1657	1462	889	234

[†] **Note:** Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

[§] In tables 1, 3, 5, 7, 9, 11, 13, 15 and 17, sample size refers to the number of unweighted respondents found in the relevant data cell and should not be confused with the weighted population estimates or the total sample size.

points (0.5% to 11.7%) lower than 1994/95. However, the 2001 rate was **not significantly different** from male youth current smoking prevalence in 1985. See Chart 4 for a display of these data over the 17-year period from 1985 to 2001.

Female youths

There was **no statistically significant difference** in current smoking prevalence of female youths between most data points from 1985 to 2001. However, there

was a **statistically significant decrease** of 5.9 percentage points (0.2% to 11.6%) from 1994/95 to 2001. See Chart 5 for a display of these data over the 17-year period from 1985 to 2001.

The current smoking prevalence of female youths in 1998/99 was 8.7 percentage points (0.7% to 16.6%) higher than the current smoking prevalence of male youths in the same year. In all preceding data points going back to 1985, there were **no statistically significant differences** in the current smoking

Table 2
Statistically significant changes in current smoking prevalence, total, by sex and by age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	35.1%	38.0%	32.2%	26.6%	42.7%	38.9%	35.5%	20.8%
GSS 1991	30.8%	32.0%	29.7%	22.6%	39.7%	35.8%	30.1%	16.0%
Significant difference from 1985?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1985 to 1991	↓4.2 ± 1.6	↓6.0 ± 2.4	↓2.5 ± 2.0			↓3.1 ± 2.4	↓5.4 ± 3.4	↓4.8 ± 2.3
SoSiC Cycle 1 1994/95[†]	30.4%	31.8%	29.2%	27.4%	39.5%	35.1%	28.7%	15.9%
Significant difference from 1985? [†]	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1985 to Cycle 1	↓4.7 ± 1.8	↓6.2 ± 2.6	↓3.1 ± 2.5			↓3.9 ± 3.6	↓6.9 ± 4.6	↓4.9 ± 2.2
Significant difference from 1991? [†]	NO	NO	NO	YES	NO	NO	NO	NO
Change from 1991 to Cycle 1				↑4.8 ± 4.3				
NPHS 1994/95	30.5%	32.9%	28.3%	28.5%	35.5%	36.6%	28.6%	14.5%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1994/95	↓4.5 ± 1.5	↓5.1 ± 2.3	↓4.0 ± 1.9		↓7.2 ± 5.0	↓2.3 ± 2.3	↓6.8 ± 3.1	↓6.2 ± 2.3
Significant difference from 1991?	NO	NO	NO	YES	NO	NO	NO	NO
Change from 1991 to 1994/95				↑5.9 ± 5.2				
Significant difference from Cycle 1? [†]	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1994/95								
GSS 1996	27.2%	28.8%	25.5%	25.2%	35.7%	32.2%	24.5%	13.5%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1996	↓7.9 ± 1.7	↓9.2 ± 2.4	↓6.7 ± 2.1		↓7.0 ± 5.9	↓6.7 ± 2.6	↓11.0 ± 3.3	↓7.3 ± 2.1
Significant difference from 1991?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1991 to 1996	↓3.6 ± 1.6	↓3.2 ± 2.3	↓4.2 ± 2.0			↓3.6 ± 2.5	↓5.6 ± 3.0	↓2.5 ± 1.9
Significant difference from Cycle 1? [†]	YES	YES	YES	NO	NO	NO	NO	YES
Change from Cycle 1 to 1996	↓3.2 ± 1.8	↓3.0 ± 2.5	↓3.7 ± 2.5					↓2.4 ± 1.8
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 1996	↓3.3 ± 1.5	↓4.1 ± 2.2	↓2.8 ± 1.9			↓4.4 ± 2.4	↓4.2 ± 2.7	
NPHS 1996/97	28.5%	31.2%	25.9%	29.1%	35.0%	33.4%	26.4%	14.8%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1996/97	↓6.5 ± 1.4	↓6.7 ± 2.1	↓6.3 ± 1.8		↓7.7 ± 4.7	↓5.5 ± 2.0	↓9.1 ± 3.0	↓6.0 ± 2.2
Significant difference from 1991?	YES	NO	YES	YES	NO	YES	YES	NO
Change from 1991 to 1996/97	↓2.3 ± 1.3		↓3.8 ± 1.7	↑6.6 ± 4.7		↓2.4 ± 2.0	↓3.7 ± 2.6	
Significant difference from Cycle 1? [†]	YES	NO	YES	NO	YES	NO	NO	NO
Change from Cycle 1 to 1996/97	↓1.9 ± 1.5		↓3.2 ± 2.2		↓4.5 ± 3.9			
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 1996/97	↓2.0 ± 0.9	↓1.6 ± 1.3	↓2.3 ± 1.1			↓3.2 ± 1.4	↓2.2 ± 1.7	
Significant difference from 1996?	NO	YES	NO	NO	NO	NO	NO	NO
Change from 1996 to 1996/97		↓2.5 ± 2.0						
NPHS 1998/99	27.7%	29.1%	26.3%	27.7%	36.9%	32.6%	25.6%	13.0%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1998/99	↓7.4 ± 1.5	↓8.9 ± 2.2	↓5.9 ± 2.0		↓5.8 ± 5.2	↓6.4 ± 2.4	↓9.9 ± 3.1	↓7.7 ± 2.3
Significant difference from 1991?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1991 to 1998/99	↓3.2 ± 1.4	↓2.9 ± 2.1	↓3.4 ± 1.9			↓3.2 ± 2.3	↓4.5 ± 2.8	↓3.0 ± 2.2
Significant difference from Cycle 1? [†]	YES	YES	YES	NO	NO	NO	NO	YES
Change from Cycle 1 to 1998/99	↓2.7 ± 1.6	↓2.7 ± 2.3	↓2.8 ± 2.4					↓2.9 ± 2.1
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 1998/99	↓2.8 ± 0.9	↓3.8 ± 1.3	↓1.9 ± 1.1			↓4.0 ± 1.6	↓3.0 ± 1.8	
Significant difference from 1996?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1998/99								
Significant difference from 1996/97?	NO	YES	NO	NO	NO	NO	NO	YES
Change from 1996/97 to 1998/99		↓2.2 ± 1.3						↓1.7 ± 1.5
CTUMS 1999	25.2%	27.3%	23.3%	27.7%	35.4%	29.9%	21.9%	11.8%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1999	↓9.9 ± 1.7	↓10.7 ± 2.4	↓8.9 ± 2.2		↓7.3 ± 4.3	↓9.0 ± 2.7	↓13.6 ± 3.5	↓9.0 ± 3.0
Significant difference from 1991?	YES	YES	YES	YES	NO	YES	YES	YES
Change from 1991 to 1999	↓5.6 ± 1.6	↓4.7 ± 2.3	↓6.4 ± 2.1	↑5.1 ± 4.1		↓5.9 ± 2.7	↓8.2 ± 3.2	↓4.2 ± 2.9
Significant difference from Cycle 1? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from Cycle 1 to 1999	↓5.2 ± 1.8	↓4.5 ± 2.5	↓5.9 ± 2.6		↓4.1 ± 3.5	↓5.2 ± 3.8	↓6.8 ± 4.4	↓4.1 ± 2.9
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 1999	↓5.3 ± 1.5	↓5.6 ± 2.2	↓5.0 ± 2.0			↓6.7 ± 2.5	↓6.8 ± 2.9	
Significant difference from 1996?	YES	NO	YES	NO	NO	NO	NO	NO
Change from 1996 to 1999	↓2.0 ± 1.7		↓2.2 ± 2.2					

...Table 2 continued

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
Significant difference from 1996/97?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1996/97 to 1999	↓3.3 ± 1.4	↓4.0 ± 2.0	↓2.6 ± 1.8			↓3.5 ± 2.3	↓4.5 ± 2.7	↓3.0 ± 2.8
Significant difference from 1998/99?	YES	NO	YES	NO	NO	YES	YES	NO
Change from 1998/99 to 1999	↓2.5 ± 1.5		↓3.0 ± 2.0			↓2.7 ± 2.6	↓3.7 ± 2.9	
CTUMS 2000	24.4%	25.8%	23.1%	25.3%	32.3%	29.6%	20.6%	13.4%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 2000	↓10.7 ± 1.9	↓12.2 ± 2.9	↓9.1 ± 2.4		↓10.4 ± 4.3	↓9.3 ± 3.1	↓14.9 ± 3.4	↓7.4 ± 3.6
Significant difference from 1991?	YES	YES	YES	NO	YES	YES	YES	NO
Change from 1991 to 2000	↓6.4 ± 1.9	↓6.2 ± 2.8	↓6.6 ± 2.4		↓7.4 ± 4.7	↓6.2 ± 3.1	↓9.5 ± 3.2	
Significant difference from Cycle 1?†	YES	YES	YES	NO	YES	YES	YES	NO
Change from Cycle 1 to 2000	↓6.0 ± 2.0	↓6.0 ± 2.9	↓6.1 ± 2.8		↓7.2 ± 3.5	↓5.5 ± 4.1	↓8.1 ± 4.4	
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 2000	↓6.1 ± 1.8	↓7.1 ± 2.7	↓5.2 ± 2.2			↓7.0 ± 2.9	↓8.1 ± 2.8	
Significant difference from 1996?	YES	YES	NO	NO	NO	NO	YES	NO
Change from 1996 to 2000	↓2.8 ± 1.9	↓3.0 ± 2.8					↓3.9 ± 3.1	
Significant difference from 1996/97?	YES	YES	YES	YES	NO	YES	YES	NO
Change from 1996/97 to 2000	↓4.1 ± 1.7	↓5.5 ± 2.5	↓2.8 ± 2.1	↓3.8 ± 3.5		↓3.8 ± 2.7	↓5.8 ± 2.7	
Significant difference from 1998/99?	YES	YES	YES	NO	YES	NO	YES	NO
Change from 1998/99 to 2000	↓3.3 ± 1.8	↓3.3 ± 2.6	↓3.2 ± 2.3		↓4.6 ± 4.3		↓5.0 ± 2.9	
Significant difference from 1999?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1999 to 2000								
CCHS 2000/01	26.8%	29.1%	24.5%	25.6%	34.9%	31.7%	25.7%	12.1%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 2000/01	↓8.3 ± 1.2	↓8.9 ± 1.9	↓7.8 ± 1.6		↓7.8 ± 4.0	↓7.3 ± 1.9	↓9.8 ± 2.7	↓8.7 ± 1.9
Significant difference from 1991?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1991 to 2000/01	↓4.1 ± 1.1	↓2.9 ± 1.7	↓5.3 ± 1.5		↓4.8 ± 4.4	↓4.1 ± 1.8	↓4.4 ± 2.3	↓3.9 ± 1.7
Significant difference from Cycle 1?†	YES	YES	YES	NO	YES	YES	NO	YES
Change from Cycle 1 to 2000/01	↓3.6 ± 1.4	↓2.6 ± 1.9	↓4.7 ± 2.1		↓4.6 ± 3.1	↓3.4 ± 3.2		↓3.8 ± 1.5
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1994/95 to 2000/01	↓3.8 ± 1.0	↓3.8 ± 1.5	↓3.8 ± 1.3			↓4.9 ± 1.6	↓3.0 ± 1.8	↓2.5 ± 1.6
Significant difference from 1996?	NO	NO	NO	NO	NO	NO	NO	YES
Change from 1996 to 2000/01								↓1.4 ± 1.3
Significant difference from 1996/97?	YES	YES	YES	YES	NO	YES	NO	YES
Change from 1996/97 to 2000/01	↓1.8 ± 0.8	↓2.1 ± 1.2	↓1.5 ± 1.1	↓3.5 ± 3.1		↓1.8 ± 1.2		↓2.7 ± 1.4
Significant difference from 1998/99?	NO	NO	YES	NO	NO	NO	NO	NO
Change from 1998/99 to 2000/01			↓1.9 ± 1.4					
Significant difference from 1999?‡	YES	YES	NO	NO	NO	NO	YES	NO
Change from 1999 to 2000/01	↑1.6 ± 1.3	↑1.8 ± 1.8					↑3.8 ± 2.4	
Significant difference from 2000?‡	YES	YES	NO	NO	NO	NO	YES	NO
Change from 2000 to 2000/01	↑2.4 ± 1.6	↑3.3 ± 2.3					↑5.1 ± 2.4	
CTUMS 2001	21.7%	23.9%	19.6%	22.5%	32.1%	25.0%	19.7%	10.8%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 2001	↓13.4 ± 1.7	↓14.1 ± 2.5	↓12.6 ± 2.0		↓10.6 ± 4.7	↓13.9 ± 2.7	↓15.8 ± 3.5	↓10.0 ± 2.9
Significant difference from 1991?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1991 to 2001	↓9.1 ± 1.6	↓8.1 ± 2.4	↓10.1 ± 1.9		↓7.6 ± 5.0	↓10.8 ± 2.6	↓10.4 ± 3.2	↓5.2 ± 2.8
Significant difference from Cycle 1?†	YES	YES	YES	YES	YES	YES	YES	YES
Change from Cycle 1 to 2001	↓8.7 ± 1.8	↓7.9 ± 2.6	↓9.6 ± 2.4	↓4.9 ± 2.9	↓7.4 ± 4.0	↓10.1 ± 3.8	↓9.0 ± 4.4	↓5.1 ± 2.7
Significant difference from 1994/95?	YES	YES	YES	YES	NO	YES	YES	YES
Change from 1994/95 to 2001	↓8.8 ± 1.5	↓9.0 ± 2.3	↓8.7 ± 1.7	↓6.0 ± 4.1		↓11.6 ± 2.5	↓9.0 ± 2.9	↓3.8 ± 2.8
Significant difference from 1996?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1996 to 2001	↓5.5 ± 1.7	↓4.9 ± 2.5	↓5.9 ± 2.0			↓7.2 ± 2.8	↓4.8 ± 3.1	↓2.7 ± 2.6
Significant difference from 1996/97?	YES	YES	YES	YES	NO	YES	YES	YES
Change from 1996/97 to 2001	↓6.8 ± 1.4	↓7.4 ± 2.1	↓6.3 ± 1.6	↓6.6 ± 3.5		↓8.4 ± 2.3	↓6.7 ± 2.7	↓4.0 ± 2.6
Significant difference from 1998/99?	YES	YES	YES	YES	YES	YES	YES	NO
Change from 1998/99 to 2001	↓6.0 ± 1.5	↓5.2 ± 2.2	↓6.7 ± 1.8	↓5.2 ± 4.4	↓4.8 ± 4.7	↓7.6 ± 2.6	↓5.9 ± 2.9	
Significant difference from 1999?	YES	YES	YES	YES	NO	YES	NO	NO
Change from 1999 to 2001	↓3.5 ± 1.7	↓3.4 ± 2.5	↓3.7 ± 2.0	↓5.2 ± 2.7		↓4.9 ± 2.9		
Significant difference from 2000?	YES	NO	YES	YES	NO	YES	NO	NO
Change from 2000 to 2001	↓2.7 ± 1.9		↓3.5 ± 2.9	↓2.8 ± 2.8		↓4.6 ± 3.3		
Significant difference from 2000/01?‡	YES	YES	YES	YES	NO	YES	YES	NO
Change from 2000/01 to 2001	↓5.1 ± 1.2	↓5.2 ± 1.9	↓4.9 ± 1.4	↓3.1 ± 2.3		↓6.7 ± 2.1	↓6.0 ± 2.4	

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

‡ Interpret with caution. See Appendix D for details.

Chart 2: Estimated current smoking prevalence, by sex, population aged 15 and over, Canada, 1985 to 2001 (including error margin)

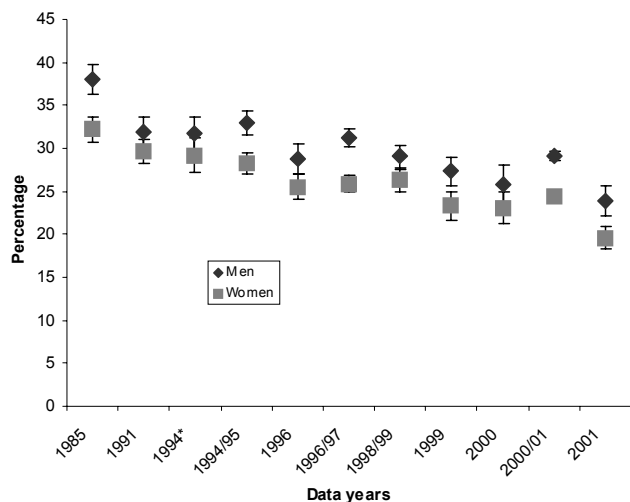


Chart 3: Estimated current smoking prevalence, population aged 15 to 19, Canada, 1985 to 2001 (including error margins)

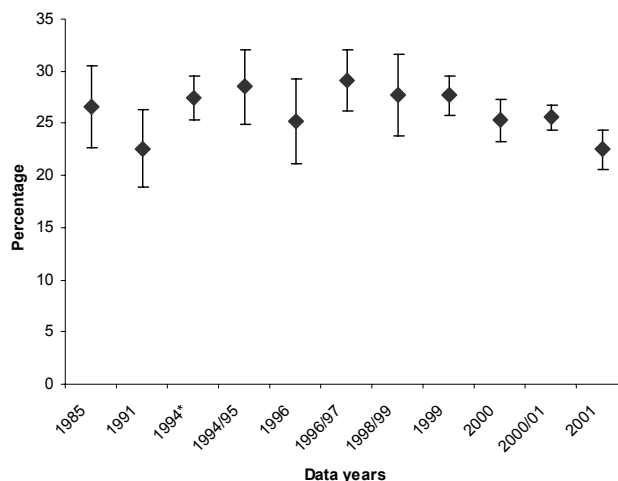


Chart 4: Estimated current smoking prevalence, men aged 15-19 and 20-24, Canada, 1985 to 2001 (including error margin)

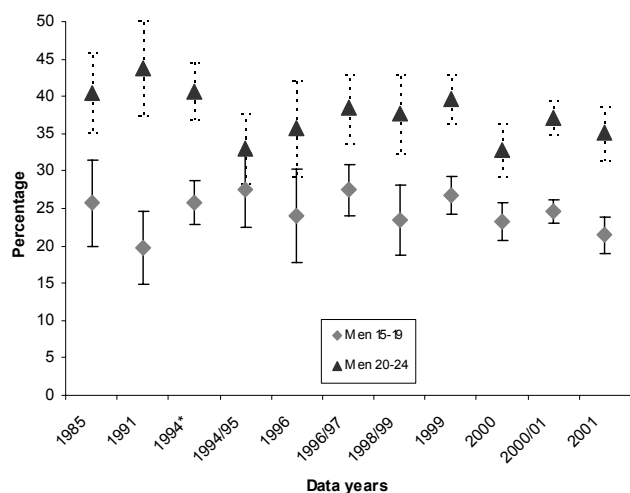
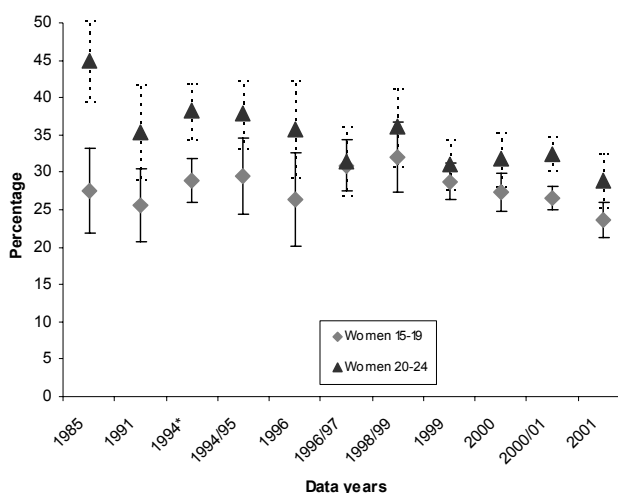


Chart 5: Estimated current smoking prevalence, women aged 15-19 and 20-24, Canada, 1985 to 2001 (including error margin)



* Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

prevalence of male and female youths. CTUMS 2000 had female youths with a current smoking rate that was **significantly higher** than male youth smokers by 4.1 percentage points (0.1% to 8.1%).

Age 20 to 24

Over the entire 17-year time span, current smoking prevalence of young adults **significantly declined**. There was a **significant decrease** of 7.2 percentage points (2.1% to 12.2%) from 1985 to 1994/95. There were **no significant changes** in young adult current smoking prevalence from 1994/95 to any later data year.

Young adult males

There was **no significant change** in the current smoking prevalence of males aged 20 to 24 from 1985 to 1991. There was a **significant decrease** of 10.8 percentage points (3.0% to 18.6%) in the current smoking prevalence of young adult men from 1991 to 1994/95. There was **no significant difference** in young adult male current smoking prevalence from 1994/95 to 2001. See Chart 4 for a display of these data over the 17-year period from 1985 to 2001.

Table 3
Estimated prevalence, error range and sample size of current smokers, by sex and age group, 1985 to 2001

	Age 15-19		Age 20-24	
	Men	Women	Men	Women
GSS 1985	25.7%	27.6%	40.5%	44.9%
Error +/-	5.7	5.5	5.4	5.0
Sample size	305	308	458	586
GSS 1991	19.7%	25.6%	43.8%	35.4%
Error +/-	4.9	5.5	6.3	5.1
Sample size	74	92	167	191
SoSiC (Cycle 1) 1994/95[†]	25.8%	28.9%	40.7%	38.2%
Error +/-	2.9	2.9	3.8	3.6
Sample size	404	437	484	506
NPHS 1994/95	27.5%	29.5%	33.0%	37.8%
Error +/-	5.0	4.8	4.6	5.0
Sample size	166	212	253	291
GSS 1996	24.0%	26.4%	35.7%	35.8%
Error +/-	6.2	5.7	6.5	6.6
Sample size	71	76	107	116
NPHS 1996/97	27.5%	30.9%	38.4%	31.5%
Error +/-	3.4	4.3	4.6	3.7
Sample size	649	650	895	905
NPHS 1998/99	23.4%	32.1%	37.7%	36.1%
Error +/-	4.7	6.4	5.2	5.1
Sample size	121	144	198	210
CTUMS 1999	26.8%	28.8%	39.6%	31.0%
Error +/-	2.5	3.0	3.3	3.7
Sample size	864	841	927	876
CTUMS 2000	23.3%	27.4%	32.8%	31.8%
Error +/-	2.5	3.1	3.6	3.5
Sample size	679	730	772	823
CCHS 2000/2001	24.6%	26.6%	37.2%	32.5%
Error +/-	1.6	1.6	2.3	2.0
Sample size	1428	1560	1348	1531
CTUMS 2001	21.4%	23.6%	35.1%	29.0%
Error +/-	2.4	3.1	3.6	3.5
Sample size	658	712	808	849

[†] **Note:** Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Young adult females

There was a **significant decrease** of 9.5 percentage points (2.4% to 16.6%) in the current smoking prevalence of females aged 20 to 24 from 1985 to 1991. There was **no significant change** in current smoking prevalence of young adult women from 1991 to 1994/95 but there was a **significant decrease** of 8.8 percentage points (2.7% to 14.9%) from 1994/95 to 2001. See Chart 5 for a display of these data over the 17-year period from 1985 to 2001.

Young adult males had rates of current smoking that were **significantly higher** than female young adult smokers in the following data years: 1991, 1996/97, 1999 and 2000/01 and 2001. For the other data years, their rates were not significantly different.

Charts 4 and 5 provide a slightly different look at these data, by presenting the current smoking prevalence from 1985 to 2001 for male youths and male young adults in one graph (Chart 4) and female youths and female young adults in the other (Chart 5).

Age 25 to 44

There have been **statistically significant decreases** in the current smoking prevalence of Canadian adults aged 25 to 44 from 1985 to 2001. Prevalence significantly declined by 3.1 percentage points (0.7% to 5.6%) from 1985 to 1991. There were **no significant changes** from 1991 to 1994/95. However, there was a **significant decrease** of 11.6 percentage points (9.1% to 14.1%) from 1994/95 to 2001.

Age 45 to 64

There were **significant declines** in current smoking prevalence among adults aged 45 to 64 between most data years from 1985 to 2001. There was a **statistically significant decrease** of 5.4 percentage points (2.0% to 8.8%) from 1985 to 1991. Although current smoking prevalence **did not change significantly** from 1991 to 1994/95, there was a **significant decrease** of 9.0 percentage points (6.1% to 11.9%) from 1994/95 to 2001.

Age 65 and older

There was a **statistically significant decrease** of 4.8 percentage points (2.4% to 7.1%) in the current smoking prevalence of seniors aged 65 and over from 1985 to 1991. There was **no significant change** from 1991 to 1994/95, but a **statistically significant decrease** of 3.8 percentage points (1.0% to 6.6%) from 1994/95 to 2001.

Changes in current smoking prevalence, age 15 and over, by province/region

The first Report on Smoking Prevalence in Canada (1985 to 1999)²⁵ provided analysis of current, daily and non-daily smoking prevalence for youths aged 15 to 19 by province/region. As mentioned in the report, the further you break down a sample, the more variable the estimate will be. Because of the small sample sizes for youth by province from these surveys on smoking conducted by Statistics Canada, many data points exhibited either high variability or were suppressed outright. Because of this high variability,

Table 4
Statistically significant changes in current smoking prevalence, by sex and by age group, 1985 to 2001

	Age 15-19		Age 20-24	
	Men	Women	Men	Women
GSS 1985	25.7%	27.6%	40.5%	44.9%
GSS 1991	19.7%	25.6%	43.8%	35.4%
Significant difference from 1985?	NO	NO	NO	YES
Change from 1985 to 1991				↓9.5 ± 7.1
SoSiC Cycle 1 1994/95[†]	25.8%	28.9%	40.7%	38.2%
Significant difference from 1985? [†]	NO	NO	NO	YES
Change from 1985 to Cycle 1				↓6.7 ± 6.1
Significant difference from 1991? [†]	YES	NO	NO	NO
Change from 1991 to Cycle 1	↑6.1 ± 5.7			
NPHS 1994/95	27.5%	29.5%	33.0%	37.8%
Significant difference from 1985?	NO	NO	YES	YES
Change from 1985 to 1994/95			↓7.5 ± 7.1	↓7.1 ± 7.1
Significant difference from 1991?	YES	NO	YES	NO
Change from 1991 to 1994/95	↑7.8 ± 7.0		↓10.8 ± 7.8	
Significant difference from Cycle 1? [†]	NO	NO	YES	NO
Change from Cycle 1 to 1994/95			7.7 ± 6.0	
GSS 1996	24.0%	26.4%	35.7%	35.8%
Significant difference from 1985?	NO	NO	NO	YES
Change from 1985 to 1996				↓9.1 ± 8.2
Significant difference from 1991?	NO	NO	NO	NO
Change from 1991 to 1996				
Significant difference from Cycle 1? [†]	NO	NO	NO	NO
Change from Cycle 1 to 1996				
Significant difference from 1994/95?	NO	NO	NO	NO
Change from 1994/95 to 1996				
NPHS 1996/97	27.5%	30.9%	38.4%	31.5%
Significant difference from 1985?	NO	NO	NO	YES
Change from 1985 to 1996/97				↓13.4 ± 6.2
Significant difference from 1991?	YES	NO	NO	NO
Change from 1991 to 1996/97	↑7.8 ± 6.0			
Significant difference from Cycle 1? [†]	NO	NO	NO	YES
Change from Cycle 1 to 1996/97				↓6.8 ± 5.1
Significant difference from 1994/95?	NO	NO	NO	YES
Change from 1994/95 to 1996/97				↓6.3 ± 5.4
Significant difference from 1996?	NO	NO	NO	NO
Change from 1996 to 1996/97				
NPHS 1998/99	23.4%	32.1%	37.7%	36.1%
Significant difference from 1985?	NO	NO	NO	YES
Change from 1985 to 1998/99				↓8.8 ± 7.1
Significant difference from 1991?	NO	NO	NO	NO
Change from 1991 to 1998/99				
Significant difference from Cycle 1? [†]	NO	NO	NO	NO
Change from Cycle 1 to 1998/99				
Significant difference from 1994/95?	NO	NO	NO	NO
Change from 1994/95 to 1998/99				
Significant difference from 1996?	NO	NO	NO	NO
Change from 1996 to 1998/99				
Significant difference from 1996/97?	NO	NO	NO	NO
Change from 1996/97 to 1998/99				
CTUMS 1999	26.8%	28.8%	39.6%	31.0%
Significant difference from 1985?	NO	NO	NO	YES
Change from 1985 to 1999				↓13.9 ± 6.2
Significant difference from 1991?	YES	NO	NO	NO
Change from 1991 to 1999	↑7.1 ± 5.5			
Significant difference from Cycle 1? [†]	NO	NO	NO	YES
Change from Cycle 1 to 1999				↓7.2 ± 5.1
Significant difference from 1994/95?	NO	NO	YES	YES
Change from 1994/95 to 1999			↑6.6 ± 5.7	↓6.8 ± 6.2
Significant difference from 1996?	NO	NO	NO	NO
Change from 1996 to 1999				

...Table 4 continued

	Age 15-19		Age 20-24	
	Men	Women	Men	Women
Significant difference from 1996/97?	NO	NO	NO	NO
Change from 1996/97 to 1999				
Significant difference from 1998/99?	NO	NO	NO	NO
Change from 1998/99 to 1999				
CTUMS 2000	23.3%	27.4%	32.8%	31.8%
Significant difference from 1985?	NO	NO	YES	YES
Change from 1985 to 2000			↓7.7 ± 6.5	↓13.1 ± 6.1
Significant difference from 1991?	NO	NO	YES	NO
Change from 1991 to 2000			↓11.0 ± 7.3	
Significant difference from Cycle 1?†	NO	NO	YES	YES
Change from Cycle 1 to 2000			↓7.9 ± 5.3	↓6.4 ± 5.0
Significant difference from 1994/95?	NO	NO	NO	NO
Change from 1994/95 to 2000				
Significant difference from 1996?	NO	NO	NO	NO
Change from 1996 to 2000				
Significant difference from 1996/97?	YES	NO	NO	NO
Change from 1996/97 to 2000	↓4.2 ± 4.2			
Significant difference from 1998/99?	NO	NO	NO	NO
Change from 1998/99 to 2000				
Significant difference from 1999?	NO	NO	YES	NO
Change from 1999 to 2000			↓6.8 ± 4.9	
CCHS 2000/01	24.6%	26.6%	37.2%	32.5%
Significant difference from 1985?	NO	NO	NO	YES
Change from 1985 to 2000/01				↓12.4 ± 5.4
Significant difference from 1991?	NO	NO	NO	NO
Change from 1991 to 2000/01				
Significant difference from Cycle 1?†	NO	NO	NO	YES
Change from Cycle 1 to 2000/01				↓5.7 ± 4.1
Significant difference from 1994/95?	NO	NO	NO	NO
Change from 1994/95 to 2000/01				
Significant difference from 1996?	NO	NO	NO	NO
Change from 1996 to 2000/01				
Significant difference from 1996/97?	NO	NO	NO	NO
Change from 1996/97 to 2000/01				
Significant difference from 1998/99?	NO	NO	NO	NO
Change from 1998/99 to 2000/01				
Significant difference from 1999?‡	NO	NO	NO	NO
Change from 1999 to 2000/01				
Significant difference from 2000?‡	NO	NO	YES	NO
Change from 2000 to 2000/01			↑4.4 ± 4.3	
CTUMS 2001	21.4%	23.6%	35.1%	29.0%
Significant difference from 1985?	NO	NO	NO	YES
Change from 1985 to 2001				↓15.9 ± 6.1
Significant difference from 1991?	NO	NO	YES	YES
Change from 1991 to 2001			↓8.7 ± 7.3	↓6.4 ± 6.2
Significant difference from Cycle 1?†	YES	YES	YES	YES
Change from Cycle 1 to 2001	↓4.4 ± 3.8	↓5.3 ± 4.2	↓5.6 ± 5.3	↓9.2 ± 5.0
Significant difference from 1994/95?	YES	YES	NO	YES
Change from 1994/95 to 2001	↓6.1 ± 5.6	↓5.9 ± 5.7		↓8.8 ± 6.1
Significant difference from 1996?	NO	NO	NO	NO
Change from 1996 to 2001				
Significant difference from 1996/97?	YES	YES	NO	NO
Change from 1996/97 to 2001	↓6.1 ± 4.1	↓7.3 ± 5.3		
Significant difference from 1998/99?	NO	YES	NO	YES
Change from 1998/99 to 2001		↓8.5 ± 7.1		↓7.1 ± 6.2
Significant difference from 1999?	YES	YES	NO	NO
Change from 1999 to 2001	↓5.4 ± 3.5	↓5.2 ± 4.3		
Significant difference from 2000?	NO	NO	NO	NO
Change from 2000 to 2001				
Significant difference from 2000/01?‡	YES	NO	NO	NO
Change from 2000/01 to 2001	↓3.2 ± 2.9			

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

‡ Interpret with caution. See Appendix D for details.

youth data on smoking by province or region as presented from surveys conducted by Statistics Canada should either be viewed with caution or not used at all. As a result, then, the focus of this second Report is to only present provincial data on smoking for all adults aged 15 and over from the surveys conducted by Statistics Canada during this 17-year time span, and only for current smokers. This new approach is meant to present data that are more robust, and not for any other reason. As with all data in this report, the analysis between two data years is restricted to years in which surveys with comparable questions on smoking conducted by Statistics Canada took place, and are not to be used to infer what has or has not happened between survey years where there were no data available.

Atlantic Region

Current smoking prevalence for people aged 15 and over who lived in the Atlantic Region (Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick combined) **significantly dropped** by 5.5 percentage points (2.4% to 8.6%) from 1985 to 1991. There was **no significant change** in current smoking prevalence in the Atlantic region from 1991 to 1994/95. However, there was a **significant decrease** of 8.3 percentage points (5.8% to 10.8%) from 1994/95 to 2001.

Newfoundland and Labrador

Current smoking prevalence for people aged 15 and over who lived in Newfoundland and Labrador **did not change significantly** from 1985 to 1991 or from 1991 to 1994/95. There was a **significant decrease** of 7.9 percentage points (3.4% to 12.4%) from 1994/95 to 2001.

Prince Edward Island

Current smoking prevalence for people aged 15 and over who lived in Prince Edward Island **significantly declined** by 13.8 percentage points (3.7% to 24.0%) from 1985 to 1991. There was **no significant change** in current smoking prevalence in Prince Edward Island from 1991 to 1994/95. There was a **significant decrease** of 7.5 percentage points (3.0% to 12.0%) in Prince Edward Island from 1994/95 to 2001.

Nova Scotia

Current smoking prevalence for people aged 15 and over who lived in Nova Scotia **did not change significantly** from 1985 to 1991 or from 1991 to 1994/95. However, prevalence **significantly declined** by 9.0 percentage points (4.4% to 13.6%) from 1994/95 to 2001.

New Brunswick

Current smoking prevalence for people aged 15 and over who lived in New Brunswick **significantly declined** by 9.0 percentage points (3.9% to 14.1%) from 1985 to 1991. Prevalence **significantly increased** by 5.9 percentage points (0.4% to 11.4%) from 1991 to 1994/95. As a result, smoking prevalence in New Brunswick in 1994/95 was **not significantly different** from the prevalence in 1985. However, there was a **significant decrease** in prevalence of 7.8 percentage points (3.1% to 11.5%) from 1994/95 to 2001.

Quebec

Current smoking prevalence for people aged 15 and over who lived in Quebec **significantly declined** by 6.5 percentage points (3.0% to 10.0%) from 1985 to 1991. There was **no significant change** in current smoking prevalence in Quebec from 1991 to 1994/95. However, there was a **significant decrease** of 11.2 percentage points (7.9% to 14.5%) from 1994/95 to 2001.

Ontario

Current smoking prevalence for people aged 15 and over who lived in Ontario **did not change significantly** from 1985 to 1991 or from 1991 to 1994/95. However, current smoking prevalence **significantly decreased** by 3.5 percentage points (1.0% to 6.1%) from 1985 to 1994/95. As well, there was a **significant decline** of 8.5 percentage points (5.7% to 11.3%) from 1994/95 to 2001.

Prairie Region

Current smoking prevalence for people aged 15 and over who lived in the Prairie Region (Manitoba, Saskatchewan and Alberta combined) **significantly decreased** by 3.6 percentage points (0.8% to 6.4%) from 1985 to 1991. There was **no significant change** from 1991 to 1994/95. There was a **significant decline** of 4.6 percentage points (2.2% to 7.0%) from 1994/95 to 2001.

Manitoba

Current smoking prevalence for people aged 15 and over who lived in Manitoba **significantly decreased** by 10.0 percentage points (4.9% to 15.1%) from 1985 to 1991. There was **no significant change** from 1991 to 1994/95 but here was a **significant decrease** of 4.2 percentage points (0.3% to 8.1%) from 1994/95 to 2001.

Table 5
Estimated prevalence, error range and sample size of current smokers, by province/region, 1985 to 2001

	ATLANTIC	NF	PEI	NS	NB	QC	ON	PRAIRIE	MB	SK	AB	BC
GSS 1985	37.7%	39.2%	43.3%	37.4%	35.9%	39.6%	31.7%	35.3%	38.0%	30.6%	36.0%	32.9%
Error +/-	2.2	4.6	8.4	3.8	3.4	2.7	2.1	2.1	3.8	3.9	3.2	3.2
Sample size	874	237	73	310	254	692	803	972	294	213	465	407
GSS 1991	32.2%	34.6%	29.5%	35.4%	26.9%	33.1%	29.2%	31.7%	28.0%	29.3%	34.2%	28.9%
Error +/-	2.2	4.2	5.8	3.9	3.8	2.2	2.0	1.9	3.4	3.4	2.8	2.6
Sample size	713	203	84	242	184	749	704	914	232	236	446	423
SoSiC Cycle 1 1994/95†	30.9%	27.1%	37.3%	29.3%	34.8%	37.6%	27.4%	30.1%	31.2%	29.8%	29.7%	25.4%
Error +/-	2.5	4.4	9.9	3.6	4.1	2.5	2.7	2.5	5.1	5.5	3.5	2.3
Sample size	1033	322	104	273	334	958	788	967	314	265	388	701
NPHS 1994/95	33.4%	33.6%	33.1%	33.9%	32.8%	35.3%	28.2%	30.0%	30.1%	31.1%	29.6%	26.6%
Error +/-	2.2	3.6	3.5	3.8	4.0	2.1	1.5	1.9	3.1	3.0	3.0	2.4
Sample size	1242	299	291	297	355	899	1497	1098	409	298	391	681
GSS 1996	28.4%	28.9%	19.1%	28.8%	29.3%	32.1%	25.0%	27.5%	23.4%	31.8%	27.6%	22.7%
Error +/-	2.2	4.8	5.2	3.6	3.8	2.6	2.2	2.0	3.9	4	2.9	2.6
Sample size	586	151	56	196	183	785	613	649	165	186	298	342
NPHS 1996/97	31.2%	31.8%	32.5%	32.5%	28.9%	33.1%	26.0%	29.1%	27.4%	30.7%	29.2%	25.0%
Error +/-	1.9	4.0	3.6	3.8	3.4	1.9	0.5	0.9	1.6	3.2	0.9	2.6
Sample size	1064	269	251	271	273	823	10370	7596	3153	262	4181	351
NPHS 1998/99	30.7%	30.2%	32.1%	31.7%	29.5%	31.2%	25.8%	29.0%	27.7%	28.7%	29.5%	23.0%
Error +/-	2.0	3.5	3.4	3.6	3.8	1.9	1.6	2.0	3.4	3.5	2.9	2.5
Sample size	1077	253	256	281	287	808	1037	931	261	268	402	352
CTUMS 1999	27.9%	28.5%	25.5%	28.9%	26.5%	30.3%	23.2%	25.3%	23.3%	25.9%	26.0%	20.0%
Error +/-	1.3	2.2	2.3	2.6	2.5	2.4	2.5	1.4	2.2	2.1	1.9	2.2
Sample size	2698	744	645	706	603	736	524	1842	561	636	645	472
CTUMS 2000	28.1%	27.7%	25.7%	29.8%	26.6%	28.2%	23.0%	24.3%	25.7%	28.1%	22.6%	19.6%
Error +/-	1.7	2.5	2.0	2.3	3.2	2.6	3.1	1.4	2.7	2.5	2.2	2.2
Sample size	2474	627	636	659	552	674	472	1593	538	534	521	419
CCHS 2000/2001	29.0%	30.2%	29.3%	29.5%	27.4%	30.2%	25.4%	28.2%	25.9%	28.6%	28.8%	21.3%
Error +/-	1.0	1.9	2.3	1.7	1.6	0.9	0.7	0.8	1.5	1.3	1.2	0.9
Sample size	4983	1121	993	1500	1369	6855	10002	8425	2123	2207	4095	4082
CTUMS 2001	25.1%	25.7%	25.6%	24.9%	25.0%	24.1%	19.7%	25.4%	25.9%	25.4%	25.1%	16.7%
Error +/-	1.3	2.6	2.7	2.5	2.5	2.5	2.3	1.4	2.4	2.5	2.0	1.8
Sample size	2333	574	594	570	595	575	489	1796	588	604	604	419

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Saskatchewan

There were **no significant changes** in current smoking prevalence in for people aged 15 and over who lived in Saskatchewan from 1985 to 1991 or 1991 to 1994/95. There was a **significant decrease** of 5.7 percentage points (1.8% to 9.6%) from 1994/95 to 2001.

Alberta

There was **no significant change** in current smoking prevalence for people aged 15 and over who lived in Alberta from 1985 to 1991. However, prevalence **significantly decreased** by 4.6 percentage points

(0.5% to 8.8%) from 1991 to 1994/95. Prevalence was **significantly lower** by 4.5 percentage points (0.9% to 8.1%) in 2001 compared with 1994/95.

British Columbia

There was **no significant change** in current smoking prevalence for people aged 15 and over who lived in British Columbia from 1985 to 1991 or from 1991 to 1994/95. However, prevalence **significantly decreased** by 6.2 percentage points (2.2% to 10.1%) from 1985 to 1994/95. There also was a **significant decrease** of 9.9 percentage points (6.9% to 12.9%) from 1994/95 to 2001.

Table 6
Statistically significant changes in current smoking prevalence, by province/region, age 15+, 1985 to 2001

	ATLANTIC	NF	PEI	NS	NB	QC	ON	PRAIRIE	MB	SK	AB	BC
GSS 1985	37.7%	39.2%	43.3%	37.4%	35.9%	39.6%	31.7%	35.3%	38.0%	30.6%	36.0%	32.9%
GSS 1991	32.2%	34.6%	29.5%	35.4%	26.9%	33.1%	29.2%	31.7%	28.0%	29.3%	34.2%	28.9%
Significant difference from 1985?	YES	NO	YES	NO	YES	YES	NO	YES	YES	NO	NO	NO
Change from 1985 to 1991	↓5.5±3.1	↓	13.8±10.2	↓	9.0±5.1	↓6.5±3.5	↓	3.6±2.8	↓10.0±5.1	↓	↓	↓
SoSiC Cycle 1 1994/95[†]	30.9%	27.1%	37.3%	29.3%	34.8%	37.6%	27.4%	30.1%	31.2%	29.8%	29.7%	25.4%
Significant difference from 1985?	YES	YES	NO	YES	NO	NO	YES	YES	YES	NO	YES	YES
Change from 1985 to Cycle 1	↓6.8±3.3	↓12.1±6.3	↓	8.1±5.2	↓	↓	4.3±3.4	↓5.2±3.2	↓6.8±6.4	↓	↓6.3±4.7	↓7.5±4.0
Significant difference from 1991?	NO	YES	NO	YES	YES	YES	NO	NO	NO	NO	YES	YES
Change from 1991 to Cycle 1	↓	7.5±6.0	↓	6.1±5.4	↑7.9±5.6	↑4.5±3.3	↓	↓	↓	↓	↓4.5±4.5	↓3.5±3.5
NPHS 1994/95	33.4%	33.6%	33.1%	33.9%	32.8%	35.3%	28.2%	30.0%	30.1%	31.1%	29.6%	26.6%
Significant difference from 1985?	YES	NO	YES	NO	NO	YES	YES	YES	YES	NO	YES	YES
Change from 1985 to 1994/95	↓4.3±3.1	↓	10.2±9.1	↓	↓	4.3±3.4	↓3.5±2.6	↓5.2±2.9	↓7.8±4.9	↓	↓6.4±4.4	↓6.2±4.0
Significant difference from 1991?	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO
Change from 1991 to 1994/95	↓	↓	↓	↓	↑5.9±5.5	↓	↓	↓	↓	↓	↓4.6±4.1	↓
Significant difference from Cycle 1?	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1994/95	↓	↑6.5±5.7	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
GSS 1996	28.4%	28.9%	19.1%	28.8%	29.3%	32.1%	25.0%	27.5%	23.4%	31.8%	27.6%	22.7%
Significant difference from 1985?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
Change from 1985 to 1996	↓9.3±3.1	↓10.3±6.7	↓24.2±9.9	↓8.6±5.2	↓6.6±5.1	↓7.5±3.8	↓6.7±3.0	↓7.8±2.9	↓14.6±5.4	↓	↓8.4±4.3	↓10.2±4.1
Significant difference from 1991?	YES	NO	YES	YES	NO	NO	YES	YES	NO	NO	YES	YES
Change from 1991 to 1996	↓3.8±3.1	↓	10.4±7.8	↓6.6±5.4	↓	↓	4.2±3.0	↓4.2±2.8	↓	↓	↓6.6±4.1	↓6.2±3.6
Significant difference from Cycle 1?	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	NO	NO
Change from Cycle 1 to 1996	↓	↓	18.2±11.2	↓	↓	5.5±3.6	↓	↓	7.8±6.5	↓	↓	↓
Significant difference from 1994/95?	YES	NO	YES	NO	NO	NO	YES	NO	YES	NO	NO	YES
Change from 1994/95 to 1996	↓5.0±3.1	↓	14.0±6.3	↓	↓	↓	3.2±2.7	↓	6.7±5.0	↓	↓	3.9±3.5
NPHS 1996/97	31.2%	31.8%	32.5%	32.5%	28.9%	33.1%	26.0%	29.1%	27.4%	30.7%	29.2%	25.0%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES	YES	NO	YES	YES
Change from 1985 to 1996/97	↓6.5±2.9	↓7.5±6.1	↓10.8±9.1	↓	7.0±4.8	↓6.4±3.3	↓5.8±2.1	↓6.2±2.3	↓10.6±4.1	↓	↓6.8±3.3	↓7.9±4.1
Significant difference from 1991?	NO	NO	NO	NO	NO	NO	YES	YES	NO	NO	YES	YES
Change from 1991 to 1996/97	↓	↓	↓	↓	↓	↓	3.3±2.1	↓2.6±2.1	↓	↓	↓5.1±3.0	↓3.9±3.7
Significant difference from Cycle 1?	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1996/97	↓	↓	↓	↓	5.9±5.3	↓4.5±3.1	↓	↓	↓	↓	↓	↓
Significant difference from 1994/95?	YES	NO	NO	NO	YES	NO	YES	NO	NO	NO	NO	NO
Change from 1994/95 to 1996/97	↓2.2±1.7	↓	↓	↓	3.9±3.4	↓	2.2±1.5	↓	↓	↓	↓	↓
Significant difference from 1996?	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1996/97	↓	↓	↑13.4±6.3	↓	↓	↓	↓	↓	↓	↓	↓	↓
NPHS 1998/99	30.7%	30.2%	32.1%	31.7%	29.5%	31.2%	25.8%	29.0%	27.7%	28.7%	29.5%	23.0%
Significant difference from 1985?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
Change from 1985 to 1998/99	↓7.0±2.9	↓9.0±5.8	↓11.2±9.1	↓5.8±5.2	↓6.4±5.1	↓8.4±3.3	↓5.9±2.6	↓6.3±2.9	↓10.2±5.1	↓	↓6.5±4.3	↓9.8±4.0
Significant difference from 1991?	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES	YES
Change from 1991 to 1998/99	↓	↓	↓	↓	↓	↓	3.4±2.6	↓	↓	↓	↓4.7±4.0	↓5.8±3.6
Significant difference from Cycle 1?	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1998/99	↓	↓	↓	↓	↓	6.4±3.1	↓	↓	↓	↓	↓	↓
Significant difference from 1994/95?	YES	YES	NO	NO	NO	YES	YES	NO	NO	NO	NO	YES
Change from 1994/95 to 1998/99	↓2.7±2.1	↓3.3±3.1	↓	↓	↓	4.1±2.1	↓2.4±1.6	↓	↓	↓	↓	3.6±2.2
Significant difference from 1996?	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1998/99	↓	↓	↑13.0±6.3	↓	↓	↓	↓	↓	↓	↓	↓	↓
Significant difference from 1996/97?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996/97 to 1998/99	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
CTUMS 1999	27.9%	28.5%	25.5%	28.9%	26.5%	30.3%	23.2%	25.3%	23.3%	25.9%	26.0%	20.0%
Significant difference from 1985?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1985 to 1999	↓9.8±2.6	↓10.7±5.1	↓17.8±8.7	↓8.5±4.6	↓9.4±4.2	↓9.3±3.6	↓8.5±3.3	↓10±2.5	↓14.7±4.4	↓4.7±4.4	↓10.0±3.7	↓12.9±3.8
Significant difference from 1991?	YES	YES	NO	YES	NO	NO	YES	YES	YES	NO	YES	YES
Change from 1991 to 1999	↓4.3±2.6	↓6.1±4.7	↓	6.5±4.7	↓	↓	6.0±3.2	↓6.4±2.3	↓4.7±4.1	↓	8.2±3.4	↓8.9±3.4
Significant difference from Cycle 1?	YES	NO	YES	NO	YES	YES	YES	YES	YES	NO	NO	YES
Change from Cycle 1 to 1999	↓3.0±2.8	↓	11.8±10.1	↓	8.3±4.8	↓7.3±3.5	↓4.2±3.7	↓4.8±2.8	↓7.9±5.6	↓	↓	5.4±3.2
Significant difference from 1994/95?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1994/95 to 1999	↓5.5±2.5	↓5.1±4.3	↓7.6±4.2	↓5.0±4.6	↓6.3±4.7	↓5.0±3.2	↓5.0±2.9	↓4.7±2.4	↓6.8±3.8	↓5.2±3.7	↓3.6±3.6	↓6.6±3.2
Significant difference from 1996?	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1999	↓	↓	↑6.4±5.7	↓	↓	↓	↓	↓	↓	↓	↓	↓
Significant difference from 1996/97?	YES	NO	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES
Change from 1996/97 to 1999	↓3.3±2.4	↓	7.0±4.2	↓	↓	↓	2.8±2.6	↓3.8±1.6	↓4.1±2.7	↓4.8±3.8	↓3.2±2.1	↓5.0±3.4
Significant difference from 1998/99?	YES	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES	NO
Change from 1998/99 to 1999	↓2.8±2.4	↓	6.6±4.1	↓	↓	↓	↓	↓	↓	↓	↓	↓

...table 6 continued

	ATLANTIC	NF	PEI	NS	NB	QC	ON	PRAIRIE	MB	SK	AB	BC
CTUMS 2000	28.1%	27.7%	25.7%	29.8%	26.6%	28.2%	23.0%	24.3%	25.7%	28.1%	22.6%	19.6%
Significant difference from 1985?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
Change from 1985 to 2000	↓9.6±2.8	↓11.5±5.2	↓17.6±8.6	7.6±4.4	↓9.3±4.7	↓11.4±3.8	↓8.7±3.8	↓11.0±2.5	↓12.3±4.7		↓13.4±3.8	↓13.3±3.9
Significant difference from 1991?	YES	YES	NO	YES	NO	YES	YES	YES	NO	NO	YES	YES
Change from 1991 to 2000	↓4.1±2.8	↓6.9±4.8		5.6±4.6		↓4.9±3.4	↓6.2±3.7	↓7.4±2.4			↓11.6±3.6	↓9.3±3.4
Significant difference from Cycle 1?†	NO	NO	YES	NO	YES	YES	YES	YES	NO	NO	YES	YES
Change from Cycle 1 to 2000		↓11.6±10.1			↓8.2±5.2	↓9.4±3.6	↓4.4±4.2	↓5.8±2.9			↓7.1±4.1	↓5.8±3.2
Significant difference from 1994/95?	YES	YES	YES	NO	YES	YES	YES	YES	YES	NO	YES	YES
Change from 1994/95 to 2000	↓5.3±2.8	↓5.9±4.4	↓7.4±4.0		↓6.2±5.1	↓7.1±3.4	↓5.2±3.5	↓5.7±2.4	↓4.4±4.1		↓7.0±3.7	↓7.0±3.2
Significant difference from 1996?	NO	NO	YES	NO	NO	YES	NO	YES	NO	NO	YES	NO
Change from 1996 to 2000			↑6.6±5.6			↓3.9±3.7		↓3.2±2.5			↓5.0±3.7	
Significant difference from 1996/97?	YES	NO	YES	NO	NO	YES	NO	YES	NO	NO	YES	YES
Change from 1996/97 to 2000	↓3.1±2.6		↓6.8±4.1			↓4.9±3.2		↓4.8±1.7			↓6.6±2.4	5.4±3.4
Significant difference from 1998/99?	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	YES
Change from 1998/99 to 2000			↓6.4±4.0					↓4.7±2.4				3.4±3.3
Significant difference from 1999?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	↓6.9±3.6	NO
Change from 1999 to 2000												
CCHS 2000/01	29.0%	30.2%	29.3%	29.5%	27.4%	30.2%	25.4%	28.2%	25.9%	28.6%	28.8%	21.3%
Significant difference from 1985?	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
Change from 1985 to 2000/01	↓8.8±2.4	↓9.1±5.0	↓14.0±8.7	7.9±4.2	↓8.5±3.7	↓9.4±2.9	↓6.3±2.2	↓7.1±3.2	↓12.0±4.1		↓7.2±3.4	↓11.5±3.3
Significant difference from 1991?	YES	NO	NO	YES	NO	YES	YES	YES	NO	NO	YES	YES
Change from 1991 to 2000/01	↓3.3±2.4			5.9±4.3		↓2.9±2.4	↓3.8±2.2	↓3.5±2.1			↓5.4±3.1	↓7.6±2.7
Significant difference from Cycle 1?†	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES
Change from Cycle 1 to 2000/01					↓7.4±4.4	↓7.4±2.7						↓4.1±2.5
Significant difference from 1994/95?	YES	NO	NO	YES	YES	YES	YES	NO	YES	NO	NO	YES
Change from 1994/95 to 2000/01	↓4.4±2.4			4.4±4.2	↓5.4±4.3	↓5.1±2.3	↓2.8±1.7		↓4.2±3.4			↓5.3±2.5
Significant difference from 1996?	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 2000/01			↑10.2±5.7									
Significant difference from 1996/97?	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES
Change from 1996/97 to 2000/01	↓2.2±2.2					↓3.0±2.1						↓3.6±2.8
Significant difference from 1998/99?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1998/99 to 2000/01												
Significant difference from 1999?‡	NO	NO	YES	NO	NO	NO	NO	YES	YES	YES	YES	NO
Change from 1999 to 2000/01			↑3.8±3.2					↑2.9±1.6	↑2.6±2.6	↑2.7±2.4	↑2.8±2.3	
Significant difference from 2000?‡	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	NO
Change from 2000 to 2000/01			↑3.6±3.0					↑3.9±1.6			↑6.2±2.5	
CTUMS 2001	25.1%	25.7%	25.6%	24.9%	25.0%	24.1%	19.7%	25.4%	25.9%	25.4%	25.1%	16.7%
Significant difference from 1985?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1985 to 2001	↓12.6±2.5	↓13.5±5.3	↓17.7±8.8	12.5±4.5	↓10.9±4.2	↓15.5±3.7	↓12.0±3.1	↓9.9±2.5	↓12.1±4.5	↓5.2±4.6	↓10.9±3.7	↓16.2±3.7
Significant difference from 1991?	YES	YES	NO	YES	NO	YES	YES	YES	NO	NO	YES	YES
Change from 1991 to 2001	↓7.1±2.6	↓8.9±4.9		10.5±4.6		↓9.0±3.3	↓9.5±3.1	↓6.3±2.3			↓9.1±3.5	↓12.2±3.2
Significant difference from Cycle 1?†	YES	NO	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES
Change from Cycle 1 to 2001	↓5.8±2.8		↓11.7±10.2	4.4±4.4	↓9.8±4.8	↓13.5±3.5	↓7.7±3.6	↓4.7±2.8			↓4.6±4.0	↓8.7±3.0
Significant difference from 1994/95?	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1994/95 to 2001	↓8.3±2.5	↓7.9±4.5	↓7.5±4.5	9.0±4.6	↓7.8±4.7	↓11.2±3.3	↓8.5±2.8	↓4.6±2.4	↓4.2±3.9	↓5.7±3.9	↓4.5±3.6	↓9.9±3.0
Significant difference from 1996?	YES	NO	YES	NO	NO	YES	YES	NO	NO	YES	NO	YES
Change from 1996 to 2001	↓3.3±2.5		↑6.5±5.9			↓8.0±3.6	↓5.3±3.1			↓6.4±4.7		↓6.0±3.2
Significant difference from 1996/97?	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES
Change from 1996/97 to 2001	↓6.1±2.3	↓6.1±4.8	↓6.9±4.5	7.6±4.5		↓9.0±3.1	↓6.3±2.3	↓3.7±1.7		↓5.3±4.0	↓4.1±2.2	↓8.3±3.2
Significant difference from 1998/99?	YES	YES	YES	YES	NO	YES	YES	YES	NO	NO	YES	YES
Change from 1998/99 to 2001	↓5.6±2.3	↓4.5±4.4	↓6.5±4.4	6.8±4.4		↓7.1±3.1	↓6.1±2.8	↓3.6±2.4			↓4.4±3.5	↓6.3±3.1
Significant difference from 1999?	YES	NO	NO	YES	NO	YES	YES	NO	NO	NO	NO	YES
Change from 1999 to 2001	↓2.8±1.8			4.0±3.6		↓6.2±3.5	↓3.5±3.4					↓3.3±2.8
Significant difference from 2000?	YES	NO	NO	YES	NO	YES	NO	NO	NO	NO	NO	YES
Change from 2000 to 2001	↓3.0±2.1			4.9±3.4		↓4.1±3.6						↓2.9±2.9
Significant difference from 2000/01?‡	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	YES
Change from 2000/01 to 2001	↓3.9±1.6	↓4.5±3.3	↓3.7±3.5	4.6±3.0		↓6.1±2.7	↓5.7±2.4	↓2.8±1.6		↓3.2±2.8	↓3.7±2.3	↓4.6±2.0

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

‡ Interpret with caution. See Appendix D for details.

Table 7
Estimated prevalence, error range and sample size of current smokers, by territory, 1994/95 to 2000/01

	Territories	Yukon	NWT	Nunavut
NPHS 1994/95	51.5%	41.2%	48.3%	69.7%
Error +/-	2.8	3.1	5.1	5.9
Sample size	166	212	253	291
NPHS 1996/97	50.8%	40.2%	49.7%	68.1%
Error +/-	3.2	3.9	5.7	6.1
Sample size	71	76	107	116
CCHS 2000/01	46.9%	35.0%	48.6%	60.4%
Error +/-	2.2	4.3	3.0	3.9
Sample size	1132	280	464	388

Territories (all three combined)

There was **no significant change** in current smoking prevalence for people aged 15 and over who lived in the Territories (all three combined) from 1994/95 to 1996/97. However, there was a **significant decrease** of 3.9 percentage points (0.0% to 7.8%) of current smokers in the territories from 1996/97 to 2000/01.

Yukon Territory

There was **no significant change** in current smoking prevalence for people who lived in the Yukon from 1994/95 to 1996/97 or 1996/97 to 2000/01. However, there was a **significant decrease** of 6.2 percentage points (1.0% to 11.5%) of current smokers in the Yukon from 1994/95 to 2000/01.

Northwest Territories (excluding Nunavut)

There was **no significant change** in current smoking prevalence for people who lived in the Northwest Territories (excluding Nunavut) from 1994/95 to 1996/97, 1994/95 to 2000/01 or 1996/97 to 2000/01.

Nunavut

There was **no significant change** in current smoking prevalence for people who lived in Nunavut from 1994/95 to 1996/97. However, there was a **significant decline** of 7.7 percentage points (0.4% to 15.0%) of current smokers in Nunavut from 1996/97 to 2000/01.

Table 8
Statistically significant changes in current smoking prevalence, by territory, 1994/95 to 2000/01

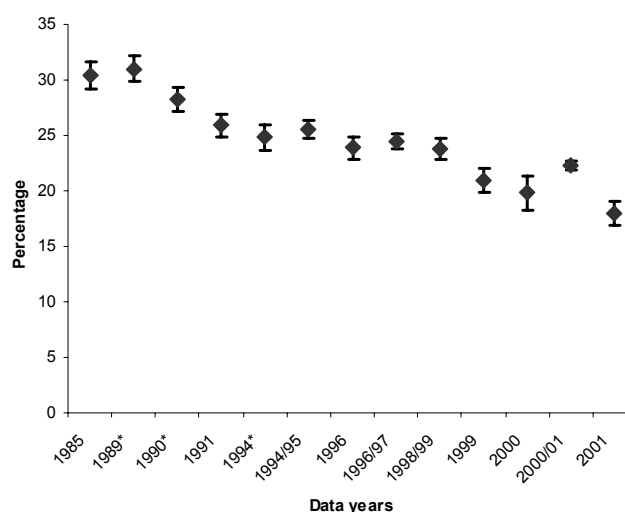
	Territories	Yukon	NWT	Nunavut
NPHS 1994/95	51.5%	41.2%	48.3%	69.7%
NPHS 1996/97	50.8%	40.2%	49.7%	68.1%
Significant difference from 1994/95?	NO	NO	NO	NO
Change from 1994/95 to 1996/97				
CCHS 2000/01	46.9%	35.0%	48.6%	60.4%
Significant difference from 1994/95?	YES	YES	NO	YES
Change from 1994/95 to 2000/01	↓4.6±3.6	↓6.2±5.3		↓9.3±7.1
Significant difference from 1996/97?	YES	NO	NO	YES
Change from 1996/97 to 2000/01	↓3.9±3.9			↓7.7±7.3

Updated results: Daily smokers, 1985 to 2001

Updated overall changes in daily smoking prevalence

There have been **statistically significant decreases** in the daily smoking prevalence of Canadian adults aged 15 and older between most data points from 1985 to 2001. The overall decrease between 1985 and 2001 was 12.4 percentage points (10.8% to 14.0%). See Chart 6 for the 17-year data graph or Tables 9 and 10 for the estimates along with the error range associated with each data year.

Chart 6: Estimated daily smoking prevalence, population aged 15 and over, Canada, 1985 to 2001 (including error margins)



* Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Table 9
Estimated prevalence, error range and sample size of daily smokers, total, by sex and age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	30.4%	33.1%	27.8%	20.2%	35.0%	34.3%	32.0%	18.2%
Error +/-	1.2	1.7	1.4	3.6	3.6	1.8	2.5	1.4
Sample size	3228	1581	1647	128	387	1460	700	553
NADS 1989†	31.0%	32.6%	29.4%	21.6%	36.9%	35.2%	31.9%	17.8%
Error +/-	1.2	1.7	1.6	3.4	3.9	1.9	2.4	2.5
Sample size	3704	1804	1900	221	414	1952	812	305
HPS 1990†	28.2%	29.8%	26.7%	19.3%	31.6%	34.0%	27.3%	15.1%
Error +/-	1.1	1.5	1.4	3.1	4.0	1.7	2.1	2.2
Sample size	4024	1930	2094	204	409	2107	927	314
GSS 1991	25.9%	26.2%	25.6%	16.2%	27.6%	31.4%	26.3%	13.3%
Error +/-	1.0	1.5	1.3	3.3	3.5	1.6	2.1	1.4
Sample size	2998	1382	1616	120	272	1480	655	471
SoSiC Cycle 1 1994/95†	24.8%	26.1%	23.4%	18.6%	29.6%	29.6%	23.5%	12.9%
Error +/-	1.2	1.8	1.7	1.9	2.7	2.7	3.2	1.3
Sample size	3516	1713	1803	575	752	1125	490	574
NPHS 1994/95	25.5%	27.4%	23.6%	19.7%	28.6%	31.0%	24.9%	12.1%
Error +/-	0.8	1.3	1.2	3.2	3.2	1.4	1.6	1.4
Sample size	4635	2273	2362	278	451	2301	1203	402
GSS 1996	23.9%	25.4%	22.4%	20.2%	30.1%	28.2%	22.6%	12.1%
Error +/-	1.0	1.5	1.4	3.6	4.4	1.8	1.9	1.1
Sample size	2629	1268	1361	123	188	1025	526	767
NPHS 1996/97	24.5%	27.0%	22.1%	22.0%	28.1%	29.1%	23.8%	12.3%
Error +/-	0.7	1.1	0.9	2.5	2.9	1.0	1.3	1.2
Sample size	17394	8863	8531	991	1435	8661	4721	1586
NPHS 1998/99	23.8%	25.4%	22.3%	21.8%	28.5%	28.2%	23.2%	11.4%
Error +/-	0.9	1.3	1.2	3.8	3.6	1.6	1.7	1.4
Sample size	3651	1816	1835	203	320	1737	1048	343
CTUMS 1999	20.9%	22.5%	19.3%	19.6%	27.4%	24.9%	19.0%	10.8%
Error +/-	1.1	1.5	1.6	1.5	2.3	1.9	2.1	2.4
Sample size	5000	2480	2520	1206	1421	1363	803	207
CTUMS 2000	19.8%	21.2%	18.4%	17.6%	24.9%	24.3%	17.3%	10.9%
Error +/-	1.5	2.0	1.8	2.1	2.0	2.4	2.2	2.7
Sample size	4608	2233	2375	1039	1271	1330	730	238
CCHS 2000/2001	22.3%	24.5%	20.1%	18.3%	26.4%	26.5%	22.6%	10.4%
Error +/-	0.4	0.5	0.5	0.9	1.5	0.6	0.6	0.6
Sample size	29145	14591	14554	2186	2279	12813	9161	2706
CTUMS 2001	18.0%	20.2%	15.9%	15.9%	24.0%	20.6%	17.6%	10.0%
Error +/-	1.1	1.5	1.3	1.8	2.1	1.9	2.1	2.3
Sample size	4485	2215	2270	985	1278	1238	779	205

† **Note:** Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Table 10
Statistically significant changes in daily smoking prevalence, total, by sex and by age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	30.4%	33.1%	27.8%	20.2%	35.0%	34.3%	32.0%	18.2%
NADS 1989[†]	31.0%	32.6%	29.4%	21.6%	36.9%	35.2%	31.9%	17.8%
Significant difference from 1985? [†]	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1985 to 1989								
HPS 1990[†]	28.2%	29.8%	26.7%	19.3%	31.6%	34.0%	27.3%	15.1%
Significant difference from 1985? [†]	YES	YES	NO	NO	NO	NO	YES	YES
Change from 1985 to 1990	↓2.2 ± 1.6	↓3.3 ± 2.3					↓4.7 ± 3.3	↓3.1 ± 2.6
Significant difference from 1989? [†]	YES	YES	YES	NO	NO	NO	YES	NO
Change from 1989 to 1990	↓2.8 ± 1.6	↓2.8 ± 2.3	↓2.7 ± 2.1				↓4.6 ± 3.2	
GSS 1991	25.9%	26.2%	25.6%	16.2%	27.6%	31.4%	26.3%	13.3%
Significant difference from 1985? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1991	↓4.5 ± 1.5	↓6.9 ± 2.3	↓2.2 ± 2.0		↓7.3 ± 5.1	↓3.0 ± 2.4	↓5.8 ± 3.3	↓4.9 ± 1.9
Significant difference from 1989? [†]	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1989 to 1991	↓5.1 ± 1.6	↓6.4 ± 2.3	↓3.8 ± 2.1	↓5.4 ± 4.7	↓9.3 ± 5.3	↓3.8 ± 2.5	↓5.6 ± 3.2	↓4.5 ± 2.9
Significant difference from 1990? [†]	YES	YES	NO	NO	NO	YES	NO	NO
Change from 1990 to 1991	↓2.3 ± 1.4	↓3.6 ± 2.1				↓2.6 ± 2.4		
SoSiC Cycle 1 1994/95[†]	24.8%	26.1%	23.4%	18.6%	29.6%	29.6%	23.5%	12.9%
Significant difference from 1985? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to Cycle 1	↓5.6 ± 1.6	↓7.0 ± 2.5	↓4.4 ± 2.2		↓5.4 ± 4.5	↓4.7 ± 3.2	↓8.5 ± 4.1	↓5.3 ± 1.9
Significant difference from 1989? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to Cycle 1	↓6.2 ± 1.7	↓6.5 ± 2.5	↓6.0 ± 2.3		↓7.3 ± 4.8	↓5.6 ± 3.3	↓8.4 ± 4.0	↓4.9 ± 2.9
Significant difference from 1990? [†]	YES	YES	YES	NO	NO	YES	NO	NO
Change from 1990 to Cycle 1	↓3.4 ± 1.6	↓3.7 ± 2.4	↓3.3 ± 2.2			↓4.4 ± 3.2		
Significant difference from 1991? [†]	NO	NO	YES	NO	NO	NO	NO	NO
Change from 1991 to Cycle 1			↓2.2 ± 2.1					
NPHS 1994/95	25.5%	27.4%	23.6%	19.7%	28.6%	31.0%	24.9%	12.1%
Significant difference from 1985? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1994/95	↓4.9 ± 1.4	↓5.7 ± 2.2	↓4.2 ± 1.9		↓6.4 ± 4.8	↓3.3 ± 2.3	↓7.1 ± 3.0	↓6.0 ± 2.0
Significant difference from 1989? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to 1994/95	↓5.5 ± 1.5	↓5.1 ± 2.2	↓5.8 ± 2.0		↓8.3 ± 5.0	↓4.2 ± 2.3	↓7.0 ± 2.9	↓5.6 ± 2.9
Significant difference from 1990? [†]	YES	YES	YES	NO	NO	YES	NO	YES
Change from 1990 to 1994/95	↓2.7 ± 1.3	↓2.3 ± 2.0	↓3.1 ± 1.8			↓3.0 ± 2.2		↓2.9 ± 2.6
Significant difference from 1991? [†]	NO	NO	YES	NO	NO	NO	NO	NO
Change from 1991 to 1994/95			↓2.0 ± 1.8					
Significant difference from Cycle 1? [†]	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1994/95								
GSS 1996	23.9%	25.4%	22.4%	20.2%	30.1%	28.2%	22.6%	12.1%
Significant difference from 1985? [†]	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1985 to 1996	↓6.5 ± 1.6	↓7.7 ± 2.3	↓5.4 ± 2.0			↓6.1 ± 2.5	↓9.4 ± 3.2	↓6.1 ± 1.8
Significant difference from 1989? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to 1996	↓7.1 ± 1.6	↓7.2 ± 2.3	↓7.0 ± 2.1		↓6.8 ± 5.9	↓7.0 ± 2.6	↓9.3 ± 3.1	↓5.7 ± 2.8
Significant difference from 1990? [†]	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1990 to 1996	↓4.3 ± 1.5	↓4.4 ± 2.2	↓4.3 ± 2.0			↓5.8 ± 2.5	↓4.7 ± 2.8	↓3.0 ± 2.5
Significant difference from 1991? [†]	YES	NO	YES	NO	NO	YES	YES	NO
Change from 1991 to 1996	↓2.0 ± 1.4		↓3.2 ± 1.9			↓3.2 ± 2.4	↓3.7 ± 2.8	
Significant difference from Cycle 1? [†]	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1996								
Significant difference from 1994/95? [†]	YES	YES	NO	NO	NO	YES	NO	NO
Change from 1994/95 to 1996	↓1.6 ± 1.3	↓2.1 ± 2.0				↓2.8 ± 2.3		
NPHS 1996/97	24.5%	27.0%	22.1%	22.0%	28.1%	29.1%	23.8%	12.3%
Significant difference from 1985? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1996/97	↓5.9 ± 1.3	↓6.1 ± 2.0	↓5.8 ± 1.7		↓6.9 ± 4.6	↓5.2 ± 2.0	↓8.3 ± 2.9	↓5.9 ± 1.8
Significant difference from 1989? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to 1996/97	↓6.5 ± 1.4	↓5.6 ± 2.0	↓7.3 ± 1.8		↓8.8 ± 4.9	↓6.1 ± 2.1	↓8.1 ± 2.8	↓5.5 ± 2.8
Significant difference from 1990? [†]	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1990 to 1996/97	↓3.7 ± 1.2	↓2.8 ± 1.9	↓4.6 ± 1.7			↓4.9 ± 2.0	↓3.5 ± 2.5	↓2.8 ± 2.5
Significant difference from 1991? [†]	YES	NO	YES	YES	NO	YES	NO	NO
Change from 1991 to 1996/97	↓1.4 ± 1.2		↓3.5 ± 1.6	↑5.8 ± 4.1		↓2.2 ± 1.9		
Significant difference from Cycle 1? [†]	NO	NO	NO	YES	NO	NO	NO	NO
Change from Cycle 1 to 1996/97				↑3.4 ± 3.1				
Significant difference from 1994/95? [†]	YES	NO	YES	NO	NO	YES	NO	NO
Change from 1994/95 to 1996/97	↓1.0 ± 0.8		↓1.5 ± 1.0			↓1.9 ± 1.4		
Significant difference from 1996? [†]	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1996/97								
NPHS 1998/99	23.8%	25.4%	22.3%	21.8%	28.5%	28.2%	23.2%	11.4%
Significant difference from 1985? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1998/99	↓6.6 ± 1.4	↓7.7 ± 2.2	↓5.5 ± 1.9		↓6.5 ± 5.1	↓6.1 ± 2.3	↓8.8 ± 3.1	↓6.8 ± 1.9
Significant difference from 1989? [†]	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to 1998/99	↓7.2 ± 1.5	↓7.2 ± 2.2	↓7.1 ± 2.0		↓8.4 ± 5.3	↓7.0 ± 2.4	↓8.7 ± 3.0	↓6.4 ± 2.9
Significant difference from 1990? [†]	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1990 to 1998/99	↓4.4 ± 1.3	↓4.4 ± 2.0	↓4.4 ± 1.9			↓5.8 ± 2.3	↓4.1 ± 2.7	↓3.7 ± 2.6
Significant difference from 1991? [†]	YES	NO	YES	YES	NO	YES	YES	NO
Change from 1991 to 1998/99	↓2.1 ± 1.3		↓3.3 ± 1.8	↑5.6 ± 5.0		↓3.2 ± 2.2	↓3.1 ± 2.7	
Significant difference from Cycle 1? [†]	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1998/99								
Significant difference from 1994/95? [†]	YES	YES	YES	NO	NO	YES	NO	NO
Change from 1994/95 to 1998/99	↓1.7 ± 0.9	↓2.0 ± 1.3	↓1.3 ± 1.1			↓2.8 ± 1.7		
Significant difference from 1996? [†]	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1998/99								
Significant difference from 1996/97? [†]	NO	YES	NO	NO	NO	NO	NO	NO
Change from 1996/97 to 1998/99		↓1.6 ± 1.3						

...Table 10 continued

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
CTUMS 1999	20.9%	22.5%	19.3%	19.6%	27.4%	24.9%	19.0%	10.8%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 1999	↓9.5 ± 1.6	↓10.6 ± 2.3	↓8.5 ± 2.2		↓7.6 ± 4.3	↓9.4 ± 2.6	↓13.0 ± 3.3	↓7.4 ± 2.7
Significant difference from 1989?†	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to 1999	↓10.1 ± 1.7	↓10.1 ± 2.3	↓10.1 ± 2.3		↓9.5 ± 4.5	↓10.3 ± 2.6	↓12.9 ± 3.2	↓7.0 ± 3.5
Significant difference from 1990?†	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1990 to 1999	↓7.3 ± 1.5	↓7.3 ± 2.2	↓7.4 ± 2.1			↓9.1 ± 2.6	↓8.3 ± 3.0	↓4.3 ± 3.3
Significant difference from 1991?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1991 to 1999	↓5.0 ± 1.5	↓3.7 ± 2.2	↓6.3 ± 2.1			↓6.5 ± 2.5	↓7.3 ± 3.0	
Significant difference from Cycle 1?‡	YES	YES	YES	NO	NO	YES	YES	NO
Change from Cycle 1 to 1999	↓3.9 ± 1.6	↓3.6 ± 2.4	↓4.1 ± 2.3			↓4.7 ± 3.3	↓4.5 ± 3.8	
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 1999	↓4.6 ± 1.4	↓5.0 ± 2.0	↓4.3 ± 2.0			↓6.1 ± 2.4	↓6.0 ± 2.7	
Significant difference from 1996?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1996 to 1999	↓3.0 ± 1.5	↓2.9 ± 2.2	↓3.1 ± 2.1			↓3.3 ± 2.6	↓3.6 ± 2.9	
Significant difference from 1996/97?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1996/97 to 1999	↓3.6 ± 1.3	↓4.5 ± 1.9	↓2.8 ± 1.8			↓4.2 ± 2.1	↓4.8 ± 2.5	
Significant difference from 1998/99?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1998/99 to 1999	↓2.9 ± 1.4	↓2.9 ± 2.0	↓3.0 ± 2.0			↓3.3 ± 2.4	↓4.2 ± 2.7	
CTUMS 2000	19.8%	21.2%	18.4%	17.6%	24.9%	24.3%	17.3%	10.9%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 2000	↓10.6 ± 1.9	↓11.9 ± 2.7	↓9.4 ± 2.3		↓10.1 ± 4.1	↓10.0 ± 3.0	↓14.7 ± 3.4	↓7.3 ± 3.0
Significant difference from 1989?†	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to 2000	↓11.2 ± 1.9	↓11.4 ± 2.7	↓11.0 ± 2.4		↓12.0 ± 4.4	↓10.9 ± 3.0	↓14.6 ± 3.3	↓6.9 ± 3.7
Significant difference from 1990?†	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1990 to 2000	↓8.4 ± 1.8	↓8.6 ± 2.5	↓8.3 ± 2.3		↓6.7 ± 4.5	↓9.7 ± 2.9	↓10.0 ± 3.0	↓4.2 ± 3.5
Significant difference from 1991?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1991 to 2000	↓6.1 ± 1.8	↓5.0 ± 2.5	↓7.2 ± 2.3			↓7.1 ± 2.9	↓9.0 ± 3.0	
Significant difference from Cycle 1?‡	YES	YES	YES	NO	YES	YES	YES	NO
Change from Cycle 1 to 2000	↓5.0 ± 1.9	↓4.9 ± 2.7	↓5.0 ± 2.5		↓4.7 ± 3.4	↓5.3 ± 3.6	↓6.2 ± 3.9	
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 2000	↓5.7 ± 1.7	↓6.3 ± 2.4	↓5.2 ± 2.2			↓6.7 ± 2.8	↓7.7 ± 2.7	
Significant difference from 1996?	YES	YES	YES	NO	YES	YES	YES	NO
Change from 1996 to 2000	↓4.1 ± 1.8	↓4.2 ± 2.5	↓4.0 ± 2.3		↓5.2 ± 4.8	↓3.9 ± 3.0	↓5.3 ± 2.9	
Significant difference from 1996/97?	YES	YES	YES	YES	NO	YES	YES	NO
Change from 1996/97 to 2000	↓4.7 ± 1.6	↓5.8 ± 2.3	↓3.7 ± 2.0	↓4.4 ± 3.3		↓4.8 ± 2.6	↓6.5 ± 2.6	
Significant difference from 1998/99?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1998/99 to 2000	↓4.0 ± 1.7	↓4.2 ± 2.4	↓3.9 ± 2.2			↓3.9 ± 2.8	↓5.9 ± 2.8	
Significant difference from 1999?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1999 to 2000								
CCHS 2000/01	22.3%	24.5%	20.1%	18.3%	26.4%	26.5%	22.6%	10.4%
Significant difference from 1985?	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1985 to 2000/01	↓8.2 ± 1.2	↓8.6 ± 1.8	↓7.7 ± 1.5		↓8.6 ± 3.9	↓7.8 ± 1.9	↓9.4 ± 2.6	↓7.8 ± 1.5
Significant difference from 1989?†	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1989 to 2000/01	↓8.7 ± 1.3	↓8.1 ± 1.8	↓9.3 ± 1.7		↓10.5 ± 4.2	↓8.7 ± 2.0	↓9.3 ± 2.5	↓7.4 ± 2.6
Significant difference from 1990?†	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1990 to 2000/01	↓5.9 ± 1.1	↓5.3 ± 1.6	↓6.2 ± 1.5		↓5.2 ± 4.3	↓7.5 ± 1.8	↓4.7 ± 2.2	↓4.7 ± 2.3
Significant difference from 1991?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1991 to 2000/01	↓3.6 ± 1.1	↓1.7 ± 1.6	↓5.5 ± 1.4			↓4.8 ± 1.7	↓3.6 ± 2.2	↓2.9 ± 1.5
Significant difference from Cycle 1?‡	YES	NO	YES	NO	YES	YES	NO	YES
Change from Cycle 1 to 2000/01	↓2.5 ± 1.2		↓3.3 ± 1.7		↓3.2 ± 3.1	↓3.1 ± 2.8		↓2.5 ± 1.4
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1994/95 to 2000/01	↓3.2 ± 0.9	↓2.9 ± 1.4	↓3.5 ± 1.2			↓4.5 ± 1.6	↓2.3 ± 1.7	↓1.8 ± 1.5
Significant difference from 1996?	YES	NO	YES	NO	NO	NO	NO	YES
Change from 1996 to 2000/01	↓1.6 ± 1.1		↓2.3 ± 1.5					↓1.7 ± 1.3
Significant difference from 1996/97?	YES	YES	YES	YES	NO	YES	NO	YES
Change from 1996/97 to 2000/01	↓2.2 ± 0.8	↓2.5 ± 1.2	↓2.0 ± 1.0	↓3.8 ± 2.7		↓2.6 ± 1.2		↓1.9 ± 1.4
Significant difference from 1998/99?	YES	NO	YES	NO	NO	YES	NO	NO
Change from 1998/99 to 2000/01	↓1.5 ± 0.9		↓2.2 ± 1.3			↓1.7 ± 1.7		
Significant difference from 1999?†	YES	YES	NO	NO	NO	NO	YES	NO
Change from 1999 to 2000/01	↑1.4 ± 1.2	↑2.0 ± 1.6					↑3.6 ± 2.2	
Significant difference from 2000?‡	YES	YES	NO	NO	NO	NO	YES	NO
Change from 2000 to 2000/01	↑2.5 ± 1.5	↑3.3 ± 2.1					↑5.3 ± 2.3	
CTUMS 2001	18.0%	20.2%	15.9%	15.9%	24.0%	20.6%	17.6%	10.0%
Significant difference from 1985?	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1985 to 2001	↓12.4 ± 1.6	↓12.9 ± 2.3	↓11.9 ± 1.9	↓4.3 ± 4.0	↓11.0 ± 4.2	↓13.7 ± 2.6	↓14.4 ± 3.3	↓8.2 ± 2.7
Significant difference from 1989?†	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1989 to 2001	↓13.0 ± 1.6	↓12.4 ± 2.3	↓13.5 ± 2.1	↓5.7 ± 3.9	↓12.9 ± 4.5	↓14.6 ± 2.6	↓14.3 ± 3.2	↓7.8 ± 3.4
Significant difference from 1990?†	YES	YES	YES	NO	YES	YES	YES	YES
Change from 1990 to 2001	↓10.2 ± 1.5	↓9.6 ± 2.2	↓10.8 ± 1.9		↓7.6 ± 4.6	↓13.4 ± 2.5	↓9.7 ± 3.0	↓5.1 ± 3.2
Significant difference from 1991?	YES	YES	YES	NO	NO	YES	YES	YES
Change from 1991 to 2001	↓7.9 ± 1.5	↓6.0 ± 2.1	↓9.7 ± 1.9			↓10.8 ± 2.5	↓8.7 ± 3.0	↓3.3 ± 2.7
Significant difference from Cycle 1?‡	YES	YES	YES	YES	YES	YES	YES	YES
Change from Cycle 1 to 2001	↓6.8 ± 1.6	↓5.9 ± 2.4	↓7.5 ± 2.1	↓2.7 ± 2.6	↓5.6 ± 3.5	↓9.0 ± 3.3	↓5.9 ± 3.8	↓2.9 ± 2.6
Significant difference from 1994/95?	YES	YES	YES	YES	YES	YES	YES	NO
Change from 1994/95 to 2001	↓7.5 ± 1.4	↓7.3 ± 2.0	↓7.7 ± 1.7	↓3.8 ± 3.6	↓4.6 ± 3.8	↓10.4 ± 2.3	↓7.4 ± 2.6	
Significant difference from 1996?	YES	YES	YES	YES	YES	YES	YES	NO
Change from 1996 to 2001	↓5.9 ± 1.5	↓5.2 ± 2.2	↓6.5 ± 1.9	↓4.3 ± 4.0	↓6.1 ± 4.9	↓7.6 ± 2.6	↓5.0 ± 2.9	
Significant difference from 1996/97?	YES	YES	YES	YES	YES	YES	YES	NO
Change from 1996/97 to 2001	↓6.5 ± 1.3	↓6.8 ± 1.9	↓6.2 ± 1.6	↓6.1 ± 3.1	↓4.1 ± 3.6	↓8.5 ± 2.1	↓6.2 ± 2.5	
Significant difference from 1998/99?	YES	YES	YES	YES	YES	YES	YES	NO
Change from 1998/99 to 2001	↓5.8 ± 1.4	↓5.2 ± 2.0	↓6.4 ± 1.8	↓5.9 ± 4.2	↓4.5 ± 4.2	↓7.6 ± 2.4	↓5.6 ± 2.7	
Significant difference from 1999?	YES	YES	YES	YES	YES	YES	NO	NO
Change from 1999 to 2001	↓2.9 ± 1.6	↓2.3 ± 2.2	↓3.4 ± 2.1	↓3.7 ± 2.3	↓3.4 ± 3.1	↓4.3 ± 2.6		
Significant difference from 2000?	NO	NO	YES	NO	NO	YES	NO	NO
Change from 2000 to 2001			↓2.5 ± 2.2			↓3.7 ± 3.0		
Significant difference from 2000/01?†	YES	YES	YES	YES	NO	YES	YES	NO
Change from 2000/01 to 2001	↓4.3 ± 1.1	↓4.3 ± 1.6	↓4.2 ± 1.4	↓2.4 ± 2.0		↓5.9 ± 2.0	↓5.0 ± 2.2	

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

‡ Interpret with caution. See Appendix D for details.

About one-third of this decline in overall prevalence occurred between 1985 and 1991, with a **significant decrease** of 4.5 percentage points (range of 3.0% to 6.0%). There was **no significant change** from 1991 to 1994/95. Smoking prevalence in the last survey observation (CTUMS 2001) was 7.5 percentage points (6.1% to 8.9%) lower than the 1994/95 estimate.

Updated changes in daily smoking prevalence, by sex

Men

Between most data years from 1985 to 2001, there were **significant decreases** in the daily smoking prevalence of Canadian men aged 15 and older. Daily smoking prevalence for men **significantly fell** by 6.9 percentage points (error range: 4.6% to 9.2%) from 1985 to 1991, representing a much larger decrease between those two data years than for women. The decrease in the daily smoking of men contributed more to the overall decline in smoking prevalence from 1985 to 1991 than the decrease in the daily smoking prevalence for women. (Although the data are not shown, this decrease in daily smoking prevalence of men from 1985 to 1991 was evident within every age group except for men aged 20 to 24.)

There was **no significant change** from 1991 to 1994/95. However, male daily smoking prevalence **significantly decreased** by 7.3 percentage points (5.3% to 9.3%) from 1994/95 to 2001.

Women

There were **significant declines** in the daily smoking prevalence of Canadian women aged 15 and older between most data years from 1985 to 2001. There was a **significant decline** of 2.2 percentage points (0.2% to 4.2%) from 1985 to 1991, and another **statistically significant decline** of 2.0 percentage points (0.2% to 3.7%) from 1991 to 1994/95. The remainder of the overall **decline** in daily smoking prevalence among women occurred between 1994/95 and 2001: a 7.7 percentage point drop (6.0% to 9.4%).

Updated changes in daily smoking prevalence, by age group

Age 15 to 19

Between most data years from 1985 to 2001, there were **no significant changes** in the daily smoking prevalence of Canadian youths. There were **no significant changes** from 1985 to 1991 or 1991 to 1994/95. However, there was a **significant decrease** of 3.8 percentage points (0.2% to 7.4%) from 1994/95

to 2001. See Chart 7 for the 17-year data graph or Tables 9 and 10 for the estimates along with the error range associated with each data year.

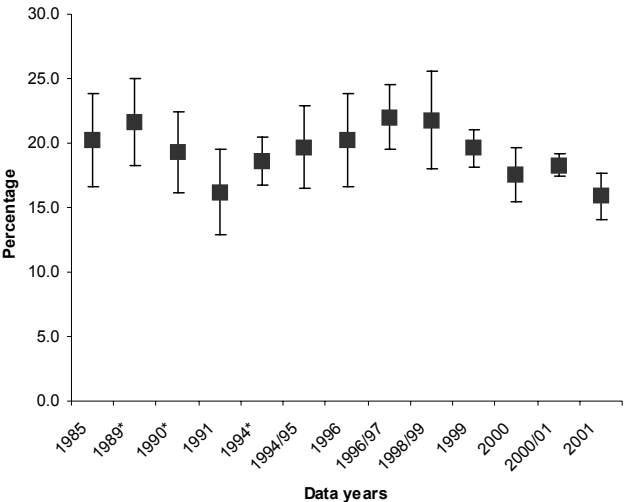
Age 20 to 24

Between most data years from 1985 to 2001, there was a **significant drop** in the daily smoking rate of young Canadian adults age 20 to 24. The largest proportion of the decrease occurred between 1985 and 1991, when the rate **significantly dropped** by 7.4 percentage points {2.3% to 12.4%}. A major contributing factor to the decrease from 1985 to 1991 was a **significant decline** in the young adult (aged 20-24) female daily smoking rate (data not shown). This rate dropped by somewhere between 3.9 to 17.5 percentage points from 1985 to 1991 (37.9% in 1985 compared with 27.2% in 1991), while the young adult male daily smoking rate **did not change significantly** during this period (data not shown). There was **no significant change** in young adult daily smoking prevalence from 1991 to 1994/95, but there was a **significant decrease** of 4.6 percentage points (0.8% to 8.4%) from 1994/95 to 2001.

Age 25 to 44

There was a **significant decrease** in the daily smoking prevalence of Canadian adults age 25 to 44 between most data years from 1985 to 2001. Daily smoking prevalence **decreased** by 2.9 percentage points {0.6% to 5.4%} from 1985 to 1991. From 1991 to 1994/95, there was **no significant change**. From 1994/95 to the latest survey observation (CTUMS 2001),

Chart 7: Estimated daily smoking prevalence, population aged 15 to 19, Canada, 1985 to 2001 (including error margins)



* Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Table 11
Estimated prevalence, error range and sample size of occasional smokers, total, by sex and age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	4.6%	4.9%	4.4%	6.4%*	7.7%	4.6%	3.5%	2.5%
Error +/-	0.5	0.8	0.6	2.1	2.0	0.7	0.9	0.8
Sample size	520	248	272	46	85	222	84	83
GSS 1991	4.9%	5.7%	4.1%	6.3%	12.0%	4.5%	3.8%	2.7%
Error +/-	0.5	0.9	0.6	2.0	3.0	0.7	1.0	0.8
Sample size	505	235	270	46	86	217	79	77
SoSiC Cycle 1 1994/95†	5.7%	5.6%	5.7%	8.8%	9.8%	5.4%	5.1%	3.0%
Error +/-	0.6	0.9	0.9	1.4	1.6	1.4	1.8	0.7
Sample size	931	421	510	266	238	196	83	148
NPHS 1994/95	5.0%	5.4%	4.7%	8.8%	6.9%	5.6%	3.7%	2.4%
Error +/-	0.5	0.7	0.6	2.1	1.9	0.8	0.7	0.7
Sample size	782	370	412	100	93	367	149	73
GSS 1996	3.3%	3.4%	3.2%	5.0%*	5.6%*	4.0%	1.9%	1.4%
Error +/-	0.5	0.6	0.6	2.0	2.0	0.7	0.6	0.4
Sample size	346	170	176	24	35	141	46	100
NPHS 1996/97	4.0%	4.2%	3.8%	7.1%	6.9%	4.3%	2.6%	2.4%
Error +/-	0.3	0.4	0.4	1.5	1.4	0.4	0.5	0.7
Sample size	2810	1400	1410	308	365	1331	536	270
NPHS 1998/99	3.9%	3.7%	4.1%	5.9%	8.3%	4.4%	2.4%	1.7%*
Error +/-	0.4	0.6	0.5	1.7	2.1	0.7	0.7	0.6
Sample size	554	247	307	62	88	257	97	50
CTUMS 1999	4.3%	4.7%	3.9%	8.1%	7.9%	5.0%	2.9%	1.0%*
Error +/-	0.5	0.8	0.6	1.2	1.1	1.0	0.9	0.5
Sample size	1272	622	650	499	382	239	114	38
CTUMS 2000	4.7%	4.6%	4.8%	7.7%	7.4%	5.3%	3.3%*	2.5%*
Error +/-	0.7	1.1	0.9	1.1	1.3	1.3	1.2	1.5
Sample size	1024	473	551	370	324	219	80	31
CCHS 2000/2001	4.5%	4.6%	4.4%	7.3%	8.5%	5.2%	3.1%	1.7%
Error +/-	0.2	0.3	0.2	0.7	0.8	0.3	0.3	0.2
Sample size	5202	2484	2718	802	600	2258	1126	416
CTUMS 2001	3.7%	3.6%	3.8%	6.6%	8.1%	4.4%	2.2%*	#
Error +/-	0.5	0.7	0.7	1.0	1.4	0.9	0.9	
Sample size	1127	515	612	385	379	224	110	29

† **Note:** Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Suppressed due to extreme variability/small sample size.

* High variability; interpret with caution.

Table 12
Statistically significant changes in occasional smoking prevalence, total, by sex and by age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	4.6%	4.9%	4.4%	6.4%	7.7%	4.6%	3.5%	2.5%
GSS 1991	4.9%	5.7%	4.1%	6.3%	12.0%	4.5%	3.8%	2.7%
Significant difference from 1985?	NO	NO	NO	NO	YES	NO	NO	NO
Change from 1985 to 1991					↑4.3 ± 3.6			
SoSiC Cycle 1 1994/95[†]	5.7%	5.6%	5.7%	8.8%	9.8%	5.4%	5.1%	3.0%
Significant difference from 1985?	YES	NO	YES	NO	NO	NO	NO	NO
Change from 1985 to Cycle 1	↑1.1 ± 0.8		↑1.3 ± 1.1					
Significant difference from 1991?	NO	NO	YES	NO	NO	NO	NO	NO
Change from 1991 to Cycle 1			↑1.6 ± 1.1					
NPHS 1994/95	5.0%	5.4%	4.7%	8.8%	6.9%	5.6%	3.7%	2.4%
Significant difference from 1985?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1985 to 1994/95								
Significant difference from 1991?	NO	NO	NO	NO	YES	YES	NO	NO
Change from 1991 to 1994/95					↓5.1 ± 3.5	↑1.2 ± 1.1		
Significant difference from Cycle 1?	NO	NO	NO	NO	YES	NO	NO	NO
Change from Cycle 1 to 1994/95					↓2.9 ± 2.5			
GSS 1996	3.3%	3.4%	3.2%	5.0%	5.6%	4.0%	1.9%	1.4%
Significant difference from 1985?	YES	YES	YES	NO	NO	NO	YES	YES
Change from 1985 to 1996	↓1.3 ± 0.7	↓1.5 ± 1.0	↓1.2 ± 0.9				↓1.6 ± 1.1	↓1.1 ± 0.9
Significant difference from 1991?	YES	YES	YES	NO	YES	NO	YES	YES
Change from 1991 to 1996	↓1.6 ± 0.7	↓2.3 ± 1.0	↓0.9 ± 0.8		↓6.4 ± 3.6		↓1.9 ± 1.2	↓1.3 ± 0.9
Significant difference from Cycle 1?	YES	YES	YES	YES	YES	NO	YES	YES
Change from Cycle 1 to 1996	↓2.4 ± 0.8	↓2.2 ± 1.1	↓2.5 ± 1.1	↓3.8 ± 2.5	↓4.2 ± 2.6		↓3.2 ± 1.9	↓1.6 ± 0.8
Significant difference from 1994/95?	YES	YES	YES	YES	NO	YES	YES	YES
Change from 1994/95 to 1996	↓1.7 ± 0.7	↓2.0 ± 0.9	↓1.5 ± 0.8	↓3.8 ± 2.9		↓1.6 ± 1.1	↓1.8 ± 1.0	↓1.0 ± 0.8
NPHS 1996/97	4.0%	4.2%	3.8%	7.1%	6.9%	4.3%	2.6%	2.4%
Significant difference from 1985?	YES	NO	NO	NO	NO	NO	NO	NO
Change from 1985 to 1996/97	↓0.6 ± 0.6							
Significant difference from 1991?	YES	YES	NO	NO	YES	NO	YES	NO
Change from 1991 to 1996/97	↓0.9 ± 0.6	↓1.5 ± 1.0			↓5.1 ± 3.3		↓1.2 ± 1.1	
Significant difference from Cycle 1?	YES	YES	YES	NO	YES	NO	YES	NO
Change from Cycle 1 to 1996/97	↓1.7 ± 0.7	↓1.4 ± 1.0	↓1.9 ± 1.0		↓2.9 ± 2.1		↓2.5 ± 1.9	
Significant difference from 1994/95?	YES	YES	YES	NO	NO	YES	YES	NO
Change from 1994/95 to 1996/97	↓1.0 ± 0.5	↓1.2 ± 0.8	↓0.8 ± 0.6			↓1.3 ± 0.8	↓1.1 ± 0.8	
Significant difference from 1996?	YES	YES	NO	NO	NO	NO	NO	YES
Change from 1996 to 1996/97	↓↑0.7 ± 0.5	↑0.8 ± 0.7						↑1.1 ± 0.8
NPHS 1998/99	3.9%	3.7%	4.1%	5.9%	8.3%	4.4%	2.4%	1.7%*
Significant difference from 1985?	YES	YES	NO	NO	NO	NO	NO	NO
Change from 1985 to 1998/99	↓0.7 ± 0.6	↓1.2 ± 1.0						
Significant difference from 1991?	YES	YES	NO	NO	YES	NO	YES	YES
Change from 1991 to 1998/99	↓1.0 ± 0.6	↓2.0 ± 1.0			↓3.7 ± 3.6		↓1.4 ± 1.2	↓1.0 ± 1.0
Significant difference from Cycle 1?	YES	YES	YES	YES	NO	NO	YES	YES
Change from Cycle 1 to 1998/99	↓1.8 ± 0.7	↓1.9 ± 1.1	↓1.6 ± 1.1	↓2.9 ± 2.2			↓2.7 ± 1.9	↓1.3 ± 0.9
Significant difference from 1994/95?	YES	YES	NO	YES	NO	YES	YES	NO
Change from 1994/95 to 1998/99	↓1.2 ± 0.6	↓1.7 ± 0.8		↓2.8 ± 2.7		↓1.2 ± 1.0	↓1.3 ± 0.9	
Significant difference from 1996?	YES	NO	YES	NO	NO	NO	NO	NO
Change from 1996 to 1998/99	↑0.6 ± 0.6		↑0.9 ± 0.8					
Significant difference from 1996/97?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996/97 to 1998/99								
CTUMS 1999	4.3%	4.7%	3.9%	8.1%	7.9%	5.0%	2.9%	1.0%*
Significant difference from 1985?	NO	NO	NO	NO	NO	NO	NO	YES
Change from 1985 to 1999								↓1.5 ± 0.9
Significant difference from 1991?	NO	NO	NO	NO	YES	NO	NO	YES
Change from 1991 to 1999					↓4.1 ± 3.2			↓1.7 ± 0.9
Significant difference from Cycle 1?	YES	NO	YES	NO	NO	NO	YES	YES
Change from Cycle 1 to 1999	↓1.4 ± 0.8		↓1.8 ± 1.1				↓2.2 ± 2.0	↓2.0 ± 0.8
Significant difference from 1994/95?	YES	NO	NO	NO	NO	NO	NO	YES
Change from 1994/95 to 1999	↓0.7 ± 0.7							↓1.4 ± 0.9
Significant difference from 1996?	YES	YES	NO	YES	NO	NO	NO	NO
Change from 1996 to 1999	↑1.0 ± 0.6	↑1.3 ± 1.0		↑3.1 ± 2.3				

...Table 12 continued

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
Significant difference from 1996/97?	NO	NO	NO	NO	NO	NO	NO	YES
Change from 1996/97 to 1999								↓1.5 ± 0.9
Significant difference from 1998/99?	NO	NO	NO	YES	NO	NO	NO	NO
Change from 1998/99 to 1999				↑2.2 ± 2.0				
CTUMS 2000	4.7%	4.6%	4.8%	7.7%	7.4%	5.3%	3.3%*	2.5%*
Significant difference from 1985?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1985 to 2000								
Significant difference from 1991?	NO	NO	NO	NO	YES	NO	NO	NO
Change from 1991 to 2000					↓4.6 ± 3.2			
Significant difference from Cycle 1?†	YES	NO	NO	NO	YES	NO	NO	NO
Change from Cycle 1 to 2000	↓1.0 ± 1.0				↓2.4 ± 2.0			
Significant difference from 1994/95?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1994/95 to 2000								
Significant difference from 1996?	YES	NO	YES	YES	NO	NO	YES	NO
Change from 1996 to 2000	↑1.4 ± 0.9		↑1.6 ± 1.1	↑2.7 ± 2.3			↑1.4 ± 1.4	
Significant difference from 1996/97?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996/97 to 2000								
Significant difference from 1998/99?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1998/99 to 2000								
Significant difference from 1999?	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1999 to 2000								
CCHS 2000/01	4.5%	4.6%	4.4%	7.3%	8.5%	5.2%	3.1%	1.7%
Significant difference from 1985?	NO	NO	NO	NO	NO	NO	NO	YES
Change from 1985 to 2000/01								↓0.9 ± 0.8
Significant difference from 1991?	NO	YES	NO	NO	YES	NO	NO	YES
Change from 1991 to 2000/01		↓1.2 ± 0.9			↓3.6 ± 3.1			↓1.1 ± 0.8
Significant difference from Cycle 1?†	YES	YES	YES	NO	NO	NO	YES	YES
Change from Cycle 1 to 2000/01	↓1.2 ± 0.6	↓1.0 ± 0.9	1.3 ± 0.9				↓2.0 ± 1.8	↓1.4 ± 0.7
Significant difference from 1994/95?	YES	YES	NO	NO	NO	NO	NO	YES
Change from 1994/95 to 2000/01	↓0.6 ± 0.5	↓0.8 ± 0.8						↓0.7 ± 0.7
Significant difference from 1996?	YES	YES	YES	YES	YES	YES	YES	NO
Change from 1996 to 2000/01	↑1.2 ± 0.5	↑1.2 ± 0.6	↑1.2 ± 0.6	↑2.3 ± 2.1	↑2.9 ± 2.2	↑1.2 ± 0.8	↑1.2 ± 0.7	
Significant difference from 1996/97?	YES	NO	YES	NO	NO	YES	NO	YES
Change from 1996/97 to 2000/01	↑0.4 ± 0.3		↑0.5 ± 0.5			↑0.8 ± 0.5		↓0.8 ± 0.7
Significant difference from 1998/99?	YES	YES	NO	NO	NO	YES	NO	NO
Change from 1998/99 to 2000/01	↑0.6 ± 0.4	↑0.9 ± 0.6				↑0.8 ± 0.7		
Significant difference from 1999?‡	NO	NO	NO	NO	NO	NO	NO	YES
Change from 1999 to 2000/01								↑0.7 ± 0.6
Significant difference from 2000?‡	NO	NO	NO	NO	NO	NO	NO	NO
Change from 2000 to 2000/01								
CTUMS 2001	3.7%	3.6%	3.8%	6.6%	8.1%	4.4%	2.2%*	#
Significant difference from 1985?	YES	YES	NO	NO	NO	NO	YES	N/A
Change from 1985 to 2001	↓0.9 ± 0.7	↓1.3 ± 1.0					↓1.3 ± 1.3	
Significant difference from 1991?	YES	YES	NO	NO	YES	NO	YES	N/A
Change from 1991 to 2001	↓1.2 ± 0.8	↓2.1 ± 1.1			↓3.9 ± 3.3		↓1.6 ± 1.4	
Significant difference from Cycle 1?†	YES	YES	YES	YES	NO	NO	YES	N/A
Change from Cycle 1 to 2001	↓2.0 ± 0.8	↓2.0 ± 1.1	1.9 ± 1.1	↓2.2 ± 1.7			↓2.9 ± 2.0	
Significant difference from 1994/95?	YES	YES	NO	NO	NO	NO	YES	N/A
Change from 1994/95 to 2001	↓1.3 ± 0.7	↓1.8 ± 1.0					↓1.5 ± 1.2	
Significant difference from 1996?	NO	NO	NO	NO	YES	NO	NO	N/A
Change from 1996 to 2001					↑2.5 ± 2.5			
Significant difference from 1996/97?	NO	NO	NO	NO	NO	NO	NO	N/A
Change from 1996/97 to 2001								
Significant difference from 1998/99?	NO	NO	NO	NO	NO	NO	NO	N/A
Change from 1998/99 to 2001								
Significant difference from 1999?	NO	YES	NO	NO	NO	NO	NO	N/A
Change from 1999 to 2001		↓1.1 ± 1.0						
Significant difference from 2000?	YES	NO	NO	NO	NO	NO	NO	N/A
Change from 2000 to 2001	↓1.0 ± 0.9							
Significant difference from 2000/01?‡	YES	YES	NO	NO	NO	NO	NO	N/A
Change from 2000/01 to 2001	↓0.8 ± 0.6	↓1.0 ± 0.7						

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

‡ Interpret with caution. See Appendix D for details.

Suppressed due to extreme variability/small sample size.

* High variability; interpret with caution.

N/A Not applicable

prevalence **significantly dropped** by 10.4 percentage points {8.1% to 12.7%}.

Age 45 to 64

There was a **significant decrease** in the daily smoking prevalence of Canadian adults age 45 to 64 between most data years from 1985 to 2001. Prevalence **significantly dropped** by 5.7 percentage points {2.5% to 9.1%} from 1985 to 1991. From 1991 to 1994/95, there was **no significant change**. Daily smoking prevalence **significantly declined** by 7.4 percentage points {4.8% to 10.0%} from 1994/95 to 2001.

Age 65 and older

Overall, there was a **significant decrease** of 8.2 percentage points (5.5% to 10.9%) in the daily smoking prevalence of persons aged 65 and over from 1985 to 2001. Daily smoking prevalence **significantly declined** by 4.9 percentage points {3.0% to 6.9%} from 1985 to 1991. From 1991 to 1994/95, there was **no significant change** in the daily smoking prevalence of seniors aged 65 and over. There was **no significant change** from 1994/95 to 2001.

Updated results: Non-daily smokers, 1985 to 2001

Updated overall changes in non-daily smoking prevalence

There was **no significant change** in non-daily smoking prevalence of Canadians aged 15 and older from 1985 to 1991 or from 1991 to 1994/95. There was a **significant decrease** of 1.3 percentage points (0.6% to 2.0%) from 1994/95 to 2001. Refer to Tables 11 and 12 for estimates, error ranges and significance tests associated with each data year or comparison of data years.

Updated changes in non-daily smoking prevalence, by sex

Men

While there were some small but statistically significant fluctuations between certain data points, there were **no significant changes** in the non-daily smoking prevalence of Canadian men aged 15 and older from 1985 to 1991, or from 1991 to 1994/95. There was a statistically **significant decrease** of 1.8 percentage points (0.8% to 2.8%) from 1994/95 to 2001.

Women

There were **no significant changes** in non-daily smoking prevalence of Canadian women aged 15 and older from 1985 to 1991, from 1991 to 1994/95 or from 1994/95 to 2001.

Updated changes in non-daily smoking prevalence, by age group

Age 15 to 19

There was **no significant change** in the non-daily smoking prevalence of Canadian youths age 15 to 19 between all data years from 1985 to 1994/95 and no significant change from data year 1994/95 to 2001.

Age 20 to 24

There was a **significant increase** of 4.3 percentage points {0.8% to 7.9%} in the occasional smoking prevalence of young adults aged 20 to 24 from 1985 to 1991. This was largely driven by a **significant increase** in the rate of occasional smoking for young adult males from 1985 to 1991, of between 1.3 and 13.5 percentage points (estimates of 8.4% in 1985 and 15.8% in 1991 - data not shown in the tables). There was **no significant change** in the occasional smoking rate of young adult women between 1985 and 1991.

There was a **significant 5.1 percentage point decrease** {1.6% to 8.6%} in occasional smoking prevalence of 20 to 24-year olds from 1991 to 1994/95. Again, this was mainly due to the change (i.e., decrease) in young adult male occasional smoking. There was **no significant difference** between young adult occasional smoking rate in 1985 and the corresponding rate in 2001. There were **no significant changes** between 1994/95 and later data years.

Age 25 to 44

There was **no significant change** in the occasional smoking prevalence of Canadians aged 25 to 44 from 1985 to 1991. There was a **significant increase** of 1.2 percentage points {0.1% to 2.3%} from 1991 to 1994/95. However, there was **no significant change** from 1994/95 to 2001.

Age 45 to 64

There were **no significant changes** in the non-daily smoking prevalence of Canadians aged 45 to 64 from 1985 to 1991 or 1991 to 1994/95. There was a **significant decrease** of 1.5 percentage points (0.3% to 2.8%) from 1994/95 to 2001.

Age 65 and older

There were **no significant changes** in the non-daily smoking prevalence of older Canadians aged 65 and over from 1985 to 1991 or 1991 to 1994/95. Data for occasional smokers aged 65 and over were suppressed in 2001 due to poor data quality, but there was a **significant decrease** of 0.7 percentage points (0.0% to 1.4%) from 1994/95 to 2000/01.

Results: Daily cigarette consumption, 1985 to 2001

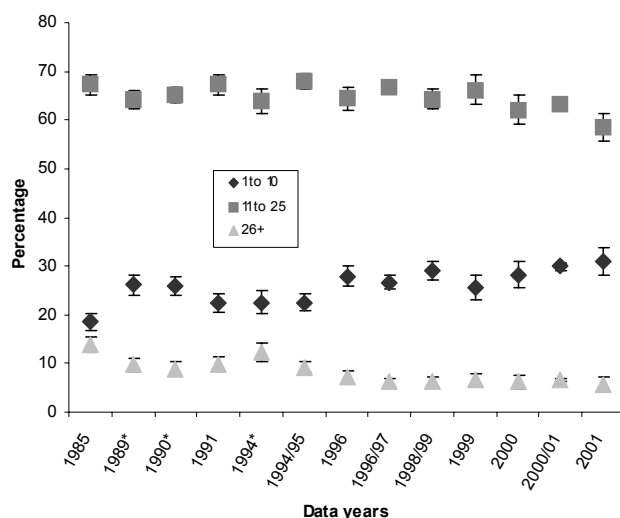
In the surveys presented in this report, daily smokers were all asked approximately how many cigarettes they smoked every day. In some cases, daily smoking respondents were essentially asked to simply give an average value of their daily smoking; for others, they were asked to recall approximately how many cigarettes they smoked on each of the last 7 days. In either case the respondents were required to recall or calculate this average daily value. Some analysis on the frequency of the response to this question reveals that most respondents report daily cigarette consumption in groups of 5 and/or by pack sizes: 10, 15, 20 and 25 were some of the most common answers, along with 12, which is essentially half of a king size package of cigarettes. Because of the tendency for responding in this fashion, it was decided that the analysis would be better presented in a range

format than as an average daily consumption value. The range chosen is also an established standard range, used by Health Canada and endorsed by the Workshop on Tobacco Use: 1 to 10, 11 to 25, and 26 or more cigarettes consumed daily.

This analysis should not be confused with any data on domestic sales of cigarettes. The data presented here only reflect the range of the number of cigarettes smoked each day as reported by daily smokers in the surveys, and may or may not coincide with monthly or annual data on cigarette sales in Canada. The data presented here should not be used as a proxy or estimation for cigarette sales.

Using ranges when making comparisons between data years also has certain limitations. First, the reader needs to keep in mind that these are cross-sectional samples, so certain patterns or notions of causality cannot be fully deduced. For example, if daily cigarette consumption between two data periods showed a 5% increase in consumption of 1 to 10 cigarettes daily and a 5% decrease in consumption of 26 or more cigarettes daily, one cannot decisively conclude that the full proportion of people who are no longer smoking more than a king size pack each day have joined the ranks of daily smokers who smoke 10 or less (because, as examples, some may have become smokers of 11 to 25 cigarettes while some of those who smoked 11 to 25 each day may now be smoking 1 to 10, etc.). Secondly, one must also keep in mind that these are not all the same group of smokers from data year to data year: only longitudinal surveys contain the same respondents between cycles. Thirdly, the other limitation (as with any analysis) is with the degree of statistical power. The more a sample is broken down into sub-groups, the less reliable the statistical power. That is to say, it becomes harder to determine whether or not the estimated value is statistically significantly different from another estimated value in another survey. For example, a comparison using variable-specific variance estimation techniques may reveal that male daily smoker cigarette consumption between two data years increased for those that smoked 10 or fewer cigarettes per day and did not change significantly for the male daily smokers that smoke 11 to 25 or 26+ cigarettes. While intuitively a decrease of one portion of a population requires a corresponding increase of one or more other portions of that population, this may not always appear when using high variance estimation techniques. To clarify further, a 4% increase may prove statistically significant for one sub-grouping, but two 2% decreases in the other sub-groupings may not prove to be statistically significant from the previous data year. This should be kept in mind when reading the results below or when performing additional analyses on the data. See tables 13 through 18 for these data, in addition to Chart 8.

Chart 8: Estimated proportion of daily cigarette consumption, by range of cigarettes smoked daily, daily smokers aged 15+, Canada, 1985 to 2001 (including error margins)



* Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Overall changes in daily cigarette consumption

When comparing the two furthest end points, 1985 and 2001, results indicate a **statistically significant increase** of 12.5 percentage points (9.2% to 15.8%) in the proportion of daily smokers who smoked from 1 to 10 cigarettes each day, a **significant decrease** of 8.8 percentage points (5.3% to 12.3%) in the proportion who smoke 11 to 25 cigarettes daily, and a **statistically significant decrease** of 8.2 percentage points (6.1% to 10.3%) in the proportion of daily smokers who smoked in excess of 25 cigarettes each day. Some fluctuations in these overall changes can be seen among interceding data points.

From 1985 to 1991, there was a **statistically significant increase** of 3.8 percentage points (1.3% to 6.3%) in the proportion of daily smokers who smoked from 1 to 10 cigarettes each day. At the same time, there was **no significant change** in the proportion of daily smokers who smoked from 11 to 25 cigarettes each day. However, there was a **statistically significant decrease** of 4.1 percentage points (2.0% to 6.2%) in the proportion of daily smokers who smoked more than 25 cigarettes daily.

From 1991 to 1994/95, there was **no significant change** in any of the consumption ranges for the daily smoking population aged 15 and over.

From 1994/95 to 2001, there was a **statistically significant increase** of 8.5 percentage points (4.8% to 12.2%) in the proportion of daily smokers who smoked 1 to 10 cigarettes each day. There was a **statistically significant decrease** in the proportion of daily smokers who smoked 11 to 25 cigarettes daily of 9.5 percentage points (6.2% to 12.8%) between 1994/95 and 2001. Comparing these same two data years, there was a **significant decrease** of 3.5 percentage points (1.7% to 5.3%) in daily consumption of 26 or more cigarettes.

See Chart 8 for these data displayed over the 17-year time period from 1985 to 2001.

Changes in daily cigarette consumption, by sex

Males

When comparing the two furthest end points, 1985 and 2001, results indicate a **statistically significant increase** of 13.9 percentage points (8.9% to 18.9%) in the proportion of men that smoke daily who smoked from 1 to 10 cigarettes each day, a **significant decrease** of 7.7 percentage points (2.6% to 12.8%) in the proportion of men who smoked 11 to 25 cigarettes daily, and a **statistically significant**

decrease of 11.0 percentage points (7.8% to 14.2%) in the proportion of daily smoking men who smoked in excess of 25 cigarettes each day. Some fluctuations in these overall changes in consumption for daily smoking men can be seen among interceding data points.

From 1985 to 1991, there was a **statistically significant increase** of 5.5 percentage points (2.1% to 9.0%) in the proportion of daily smoking men who smoked from 1 to 10 cigarettes each day. While there was **no significant change** in the proportion of daily smoking men who smoked from 11 to 25 cigarettes each day between these points in time, there was a **significant decrease** of 5.7 percentage points (2.3% to 9.0%) in the proportion of daily smoking men who smoked more than 25 cigarettes each day.

From 1991 to 1994/95, there was a **statistically significant decrease** of 3.4 percentage points (0.1% to 6.7%) in the proportion of daily smoking men who smoked from 1 to 10 cigarettes each day. There were **no significant changes** from 1991 to 1994/95 for the other two consumption ranges for daily smoking men.

From 1994/95 to 2001, there was a **statistically significant increase** of 8.5 percentage points (4.8% to 12.2%) in the proportion of daily smoking men who smoked from 1 to 10 cigarettes each day. There were **significant decreases** of 9.5 percentage points (6.2% to 12.8%) for daily consumption of 11 to 25 cigarettes and 5.7 percentage points (3.0% to 8.4%) for daily consumption of 26 or more cigarettes.

Females

When comparing the two furthest end points, 1985 and 2001, results indicate a **statistically significant increase** of 11.2 percentage points (6.7% to 15.7%) in the proportion of women that smoked daily who smoked from 1 to 10 cigarettes each day, and there was a **statistically significant decrease** of 10.2 percentage points (5.5% to 14.9%) in the proportion of daily smoking women who smoked 11 to 25 cigarettes each day. As well, there was a **significant decrease** of 5.1 percentage points (2.7% to 7.5%) in the proportion of daily smoking women who smoked in excess of 25 cigarettes each day. Some fluctuations in these overall changes in consumption for these women can be seen among interceding data points.

From 1985 to 1991, there were **no significant changes** in any of the cigarette consumption range proportions of daily smoking women.

From 1991 to 1994/95, there was a **significant increase** of 4.8 percentage points (1.2% to 8.4%) in the proportion of daily smoking women who smoked from 1 to 10 cigarettes each day. While there was **no**

Table 13

Estimated prevalence, error range and sample size of daily consumption (1-10 cigarettes), total, by sex and by age group, sex, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	18.6%	13.9%	23.9%	32.3%	19.5%	15.4%	17.4%	28.0%
Error +/-	1.7	2.2	2.6	9.4	5.1	2.3	3.4	5.4
Sample size	614	229	385	44	71	223	124	152
NADS 1989†	26.1%	21.7%	30.9%	50.8%	28.4%	22.8%	22.7%	34.3%
Error +/-	2.1	2.5	2.9	9.1	6.0	2.6	3.7	8.1
Sample size	918	352	566	104	122	418	180	94
HPS 1990†	25.9%	22.5%	29.5%	49.0%	33.3%	20.8%	24.0%	38.0%
Error +/-	2.0	2.5	3.1	9.6	6.5	2.3	3.8	8.2
Sample size	1040	404	636	91	134	467	223	125
GSS 1991	22.4%	19.4%	25.3%	38.3%	26.8%	20.8%	17.5%	32.3%
Error +/-	1.8	2.7	2.5	10.7	6.3	2.5	3.4	5.2
Sample size	705	261	444	47	74	312	120	152
SoSiC Cycle 1 1994/95†	22.6%	16.6%	29.1%	41.5%	26.6%	21.6%	15.8%*	30.1%
Error +/-	2.3	3.0	3.9	5.4	4.6	5.2	6.3	5.0
Sample size	956	359	597	253	201	224	97	181
NPHS 1994/95	22.6%	16.0%	30.1%	42.0%	32.0%	20.1%	17.3%	30.6%
Error +/-	1.6	2.0	2.6	7.6	6.4	2.3	2.9	6.2
Sample size	1025	354	671	131	138	443	188	125
GSS 1996	27.9%	23.0%	33.4%	47.7%	33.2%	25.7%	22.5%	35.0%
Error +/-	2.1	3.0	3.1	10.2	7.7	3.1	3.8	4.9
Sample size	765	287	478	57	63	255	130	260
NPHS 1996/97	26.6%	21.5%	32.6%	51.8%	37.1%	22.5%	20.9%	32.8%
Error +/-	1.4	1.7	2.2	6.3	6.2	1.8	2.3	4.7
Sample size	4512	1815	2697	482	526	2048	961	495
NPHS 1998/99	29.1%	24.6%	34.1%	46.2%	42.9%	27.3%	20.8%	34.8%
Error +/-	1.9	2.6	3.1	9.3	6.4	2.9	3.1	6.2
Sample size	1025	386	639	104	129	441	225	126
CTUMS 1999	25.7%	20.5%	31.6%	40.9%	32.9%	23.5%	20.2%	32.0%*
Error +/-	2.6	3.1	4.2	4.3	4.4	3.3	5.2	11.2
Sample size	1551	640	911	505	485	320	174	67
CTUMS 2000	28.3%	19.2%	38.5%	41.9%	38.9%	26.3%	22.8%	31.6%*
Error +/-	2.8	3.1	4.6	5.4	4.5	3.8	7.2	10.6
Sample size	1477	563	914	446	456	337	155	83
CCHS 2000/2001	29.9%	24.8%	35.9%	51.6%	42.4%	27.8%	22.6%	35.2%
Error +/-	0.8	1.1	1.2	2.9	3.2	1.2	1.3	2.7
Sample size	8046	3185	4861	1087	884	3262	1877	936
CTUMS 2001	31.1%	27.8%	35.1%	43.2%	40.3%	30.9%	23.3%	35.4%*
Error +/-	2.8	4.4	3.6	5.6	4.6	4.8	5.4	13.2
Sample size	1489	614	875	419	495	326	173	76

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

* High variability; interpret with caution.

Table 14
Statistically significant changes in daily consumption of 1-10 cigarettes, total, by sex and by age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	18.6%	13.9%	23.9%	32.3%	19.5%	15.4%	17.4%	28.0%
NADS 1989[†]	26.1%	21.7%	30.9%	50.8%	28.4%	22.8%	22.7%	34.3%
Significant difference from 1985?†	YES	YES	YES	YES	YES	YES	YES	NO
Change from 1985 to 1989	↑7.5±2.7	↑7.8±2.2	↑7.0±3.9	↑18.6±13.1	↑8.9±7.9	↑7.4±3.5	↑5.3±5.0	
HPS 1990[†]	25.9%	22.5%	29.5%	49.0%	33.3%	20.8%	24.0%	38.0%
Significant difference from 1985?†	YES	YES	YES	YES	YES	YES	YES	YES
Change from 1985 to 1990	↑7.3±2.6	↑8.6±3.3	↑5.6±4.0	↑16.7±13.5	↑13.8±8.2	↑5.4±3.3	↑6.6±5.1	↑10.0±9.8
Significant difference from 1989?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1989 to 1990								
GSS 1991	22.4%	19.4%	25.3%	38.3%	26.8%	20.8%	17.5%	32.3%
Significant difference from 1985?†	YES	YES	NO	NO	YES	YES	NO	NO
Change from 1985 to 1991	↑3.8±2.5	↑5.5±3.5			↑7.4±5.7	↑5.4±3.4		
Significant difference from 1989?†	YES	NO	YES	NO	NO	NO	YES	NO
Change from 1989 to 1991	↓3.7±2.8		↓5.6±3.9				↓5.2±4.9	
Significant difference from 1990?†	YES	NO	YES	NO	NO	NO	YES	NO
Change from 1990 to 1991	↓3.5±2.7		↓4.2±4.0				↓6.4±5.0	
SoSiC Cycle 1 1994/95[†]	22.6%	16.6%	29.1%	41.5%	26.6%	21.6%	15.8%*	30.1%
Significant difference from 1985?†	YES	NO	YES	NO	YES	YES	NO	NO
Change from 1985 to Cycle 1	4.0±2.8		↑5.2±4.7		↑7.1±6.8	↑6.2±5.7		
Significant difference from 1989?†	YES	YES	NO	NO	NO	NO	NO	NO
Change from 1989 to Cycle 1	↓3.5±3.1	↓5.1±3.0						
Significant difference from 1990?†	YES	YES	NO	NO	NO	NO	YES	NO
Change from 1990 to Cycle 1	↓3.3±3.0	↓5.9±3.9					↓8.2±7.3	
Significant difference from 1991?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1991 to Cycle 1								
NPHS 1994/95	22.6%	16.0%	30.1%	42.0%	32.0%	20.1%	17.3%	30.6%
Significant difference from 1985?†	YES	NO	YES	NO	YES	YES	NO	NO
Change from 1985 to 1994/95	↑4.1±2.3		↑6.2±3.7		↑12.5±8.2	↑4.7±3.3		
Significant difference from 1989?†	YES	YES	NO	NO	NO	NO	YES	NO
Change from 1989 to 1994/95	↑3.5±2.7	↑5.7±2.0					↑5.4±4.7	
Significant difference from 1990?†	YES	YES	NO	NO	NO	NO	YES	NO
Change from 1990 to 1994/95	↑3.2±2.6	↑6.5±3.2					↑6.7±4.7	
Significant difference from 1991?†	NO	YES	YES	NO	NO	NO	NO	NO
Change from 1991 to 1994/95		↑3.4±3.3	↑4.8±3.6					
Significant difference from Cycle 1?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1994/95								
GSS 1996	27.9%	23.0%	33.4%	47.7%	33.2%	25.7%	22.5%	35.0%
Significant difference from 1985?†	YES	YES	YES	YES	YES	YES	NO	NO
Change from 1985 to 1996	↑9.3±2.7	↑9.1±3.7	↑9.5±4.1	↑15.4±13.9	↑13.7±9.2	↑10.3±3.8		
Significant difference from 1989?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1989 to 1996								
Significant difference from 1990?†	NO	NO	NO	NO	NO	YES	NO	NO
Change from 1990 to 1996						↑4.9±3.9		
Significant difference from 1991?†	YES	NO	YES	NO	NO	YES	NO	NO
Change from 1991 to 1996	↑5.5±2.8		↑8.1±4.0			↑4.9±4.0		
Significant difference from Cycle 1?†	YES	YES	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1996	↑5.3±3.1	↑6.4±4.3						
Significant difference from 1994/95?†	YES	YES	NO	NO	NO	YES	YES	NO
Change from 1994/95 to 1996	↑5.3±2.7	↑7.0±3.6				↑5.6±3.8	↑5.2±4.8	
NPHS 1996/97	26.6%	21.5%	32.6%	51.8%	37.1%	22.5%	20.9%	32.8%
Significant difference from 1985?†	YES	YES	YES	YES	YES	YES	NO	NO
Change from 1985 to 1996/97	↑8.0±2.2	↑7.6±2.8	↑8.7±3.4	↑19.5±11.4	↑17.6±8.0	↑7.1±2.9		
Significant difference from 1989?†	NO	NO	NO	NO	YES	NO	NO	NO
Change from 1989 to 1996/97					↑8.7±8.7			
Significant difference from 1990?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1990 to 1996/97								
Significant difference from 1991?†	YES	NO	YES	YES	YES	NO	NO	NO
Change from 1991 to 1996/97	↑4.2±2.3		↑7.3±3.3	↑13.5±12.4	↑10.3±6.7			
Significant difference from Cycle 1?†	YES	YES	NO	YES	YES	NO	NO	NO
Change from Cycle 1 to 1996/97	↑4.0±2.7	↑4.9±3.5		↑10.3±8.3	↑10.5±7.7			
Significant difference from 1994/95?†	YES	YES	NO	YES	NO	NO	YES	NO
Change from 1994/95 to 1996/97	↑3.9±1.8	↑5.5±2.4		↑9.8±9.6			↑3.6±3.4	
Significant difference from 1996?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1996/97								
NPHS 1998/99	29.1%	24.6%	34.1%	46.2%	42.9%	27.3%	20.8%	34.8%
Significant difference from 1985?†	YES	YES	YES	YES	YES	YES	NO	NO
Change from 1985 to 1998/99	↑10.6±2.6	↑10.7±3.4	↑10.1±4.0	↑13.9±13.2	↑23.4±8.2	↑11.8±3.7		
Significant difference from 1989?†	YES	YES	NO	NO	YES	YES	NO	NO
Change from 1989 to 1998/99	↑3.0±2.8	↑2.9±2.7			↑14.5±8.8	↑4.5±3.9		
Significant difference from 1990?†	YES	NO	YES	NO	YES	YES	NO	NO
Change from 1990 to 1998/99	↑3.2±2.8		↑4.6±4.3		↑9.6±9.1	↑6.5±3.8		
Significant difference from 1991?†	YES	YES	YES	NO	YES	YES	NO	NO
Change from 1991 to 1998/99	↑6.7±2.7	↑5.2±3.8	↑8.8±4.0		↑16.1±6.9	↑6.4±3.9		
Significant difference from Cycle 1?†	YES	YES	NO	NO	YES	NO	NO	NO
Change from Cycle 1 to 1998/99	↑6.5±3.0	↑8.0±4.0			↑16.3±7.9			
Significant difference from 1994/95?†	YES	YES	YES	NO	YES	YES	NO	NO
Change from 1994/95 to 1998/99	↑6.5±2.2	↑8.6±3.1	↑4.0±3.2		↑10.9±9.0	↑7.2±3.1		
Significant difference from 1996?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1998/99								
Significant difference from 1996/97?†	YES	YES	NO	NO	NO	YES	NO	NO
Change from 1996/97 to 1998/99	↑2.5±2.1	↑3.1±3.1				↑4.7±3.2		

significant change for consumption in the 11 to 25 cigarette range between these two data years, there was a **significant decrease** of 2.1 percentage points (0.1% to 4.1%) in the proportion of daily smoking women who smoked 26 or more cigarettes every day.

From 1994/95 to 2001, there was a **significant increase** of 5.0 percentage points (0.5% to 9.5%) in the proportion of daily smoking women who smoked from 1 to 10 cigarettes each day, in addition to a **significant decrease** of 8.0 percentage points (3.5% to 12.5%) among this same group of women smoking 11 to 25 cigarettes daily. There was **no significant change** for daily smoker women consuming 26 or more cigarettes each day from 1994/95 to 2001.

Changes in daily cigarette consumption, by age group

Age 15 to 19

When comparing the two furthest end points, 1985 and 2001, there was a **no significant difference** in the consumption of 1 to 10 cigarettes each day among daily smoking youths. There was a **significant decrease** of 18.1 percentage points (7.1% to 29.1%) in the consumption of 11 to 25 cigarettes each day among daily smoking youths. Due to extremely high sampling variability, the data for consumption over 25 cigarettes in 1985 and 2001 had to be suppressed.

From 1985 to 1991, there were **no significant changes** in the cigarette consumption ranges of 1 to 10 cigarettes or for 11 to 25 cigarettes among daily smoking youths aged 15 to 19. Data on consumption exceeding 25 cigarettes every day among daily smoking youths in 1985 and 1991 were suppressed due to small sample size/extreme variability. The same pattern for all three consumption ranges held for comparing 1991 to 1994/95. Comparing 1994/95 to 2001, there was **no significant difference** in daily consumption of 1 to 10 cigarettes among youths. There was a **significant decrease** of 9.5 percentage points (0.2% to 18.8%) in daily consumption of 11 to 25 cigarettes. Data were suppressed in 1994/95 and 2001 for youth cigarette consumption of 26 or more cigarettes each day.

Age 20 to 24

When comparing the two furthest end points, 1985 and 2001, the analysis reveals that there was a **significant increase** of 20.8 percentage points (14.0% to 27.6%) in the proportion of daily smoking young adults who smoked 1 to 10 cigarettes each day, and a 21.7 percentage point (14.6% to 28.8%) **significant decrease** in the proportion of daily

smoking young adults who smoked 11 to 25 cigarettes each day. There was **no significant change** in the proportion of daily smoking young adults who smoked in excess of 25 cigarettes each day when comparing 1985 to 2001. Some fluctuations in these overall changes in consumption for daily smoking young adults can be seen among interceding data points.

From 1985 to 1991, there was a **statistically significant increase** of 7.4 percentage points (1.7% to 13.0%) in the proportion of daily smoking young adults (aged 20 to 24) who smoked 1 to 10 cigarettes each day. There were **no significant changes** in the proportion of daily smoking young adults who smoked either 11 to 25 cigarettes or in excess of 25 cigarettes each day.

From 1991 to 1994/95, there were **no significant changes** for any consumption ranges for young adults (consumption data of 26 or more cigarettes were suppressed for 1994/95).

Comparing 1994/95 to 2001, there was a **significant increase** of 8.3 percentage points (0.4% to 16.2%) for the consumption of 1 to 10 cigarettes daily by young adult smokers, as well as a **significant decrease** of 12.6 percentage points (5.0% to 20.2%) for daily consumption of 11 to 25 cigarettes by the same age group of daily smokers. There was **no significant difference** for consumption of more than 25 cigarettes daily when comparing data years 1994/95 and 2001 for those aged 20 to 24.

Age 25 to 44

When comparing the two furthest end points, 1985 and 2001, the analysis reveals that there was a **significant increase** of 15.5 percentage points (10.2% to 20.8%) in the proportion of daily smoking adults aged 25 to 44 who smoked 1 to 10 cigarettes each day, a **significant decrease** of 8.3 percentage points (2.3% to 14.3%) for those adults aged 25 to 44 who smoked 11 to 25 cigarettes each day, and a **significant decrease** of 11.2 percentage points (8.4% to 14.0%) for those adults who smoked in excess of 25 cigarettes each day. Some fluctuations in these overall changes in consumption for daily smoking adults aged 25 to 44 can be observed among interceding data points.

From 1985 to 1991, there was a **statistically significant increase** of 5.4 percentage points (2.0% to 8.8%) in the proportion of daily smoking adults aged 25 to 44 who smoked 1 to 10 cigarettes each day. While there was **no significant change** in the proportion of daily smoking young adults who smoked 11 to 25 cigarettes each day, there was a **statistically significant decrease** of 7.0 percentage points (4.1%

Table 15

Estimated prevalence, error range and sample size of daily consumption (11-25 cigarettes), total, by sex and by age group, sex, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	67.3%	67.6%	67.0%	65.2%	74.6%	68.5%	63.8%	60.7%
Error +/-	2.1	3.0	2.9	9.6	5.7	2.9	4.6	6.3
Sample size	2184	1074	1110	81	296	1003	453	351
NADS 1989†	64.2%	65.1%	63.2%	48.2%	65.8%	67.6%	63.2%	57.2%
Error +/-	2.0	2.8	2.8	8.6	5.8	2.9	4.0	8.3
Sample size	2449	1220	1229	112	275	1357	523	182
HPS 1990†	65.1%	66.3%	63.7%	47.8%	63.3%	69.2%	63.9%	56.8%
Error +/-	1.9	2.6	2.6	9.4	5.8	2.8	3.8	8.7
Sample size	2599	1279	1320	107	263	1483	578	168
GSS 1991	67.3%	67.5%	67.1%	58.4%	67.7%	69.9%	67.2%	54.3%
Error +/-	2.1	3.2	2.8	10.9	6.7	2.9	4.4	5.6
Sample size	1990	931	1059	71	184	1031	439	265
SoSiC Cycle 1 1994/95†	64.0%	65.9%	61.9%	51.2%	65.4%	66.5%	63.7%	56.2%
Error +/-	2.5	3.6	3.9	5.3	4.4	5.0	6.7	5.5
Sample size	2181	1112	1069	281	494	777	308	321
NPHS 1994/95	68.0%	70.9%	64.8%	56.6%	65.5%	70.8%	68.7%	59.2%
Error +/-	1.7	2.4	2.5	7.6	6.3	2.5	3.4	6.7
Sample size	3156	1590	1566	141	299	1640	835	241
GSS 1996	64.4%	66.3%	62.2%	51.7%	65.3%	66.3%	66.5%	54.5%
Error +/-	2.3	3.3	3.2	10.3	7.6	3.3	4.8	5.0
Sample size	1648	827	821	65	123	698	333	429
NPHS 1996/97	66.7%	70.0%	62.8%	47.2%	61.1%	71.3%	67.9%	60.2%
Error +/-	1.4	2.1	2.2	6.4	6.2	2.1	2.9	5.1
Sample size	11738	6238	5500	493	875	6105	3289	976
NPHS 1998/99	64.3%	65.9%	62.6%	52.6%	55.5%	67.2%	67.8%	57.4%
Error +/-	2.1	3.1	3.1	9.3	6.6	3.1	3.6	6.2
Sample size	2371	1237	1134	97	187	1181	714	192
CTUMS 1999	66.2%	70.2%	61.7%	52.7%	62.1%	68.1%	70.0%	60.9%
Error +/-	2.9	3.0	4.5	4.9	4.4	3.7	5.6	11.7
Sample size	3023	1577	1446	616	840	913	540	114
CTUMS 2000	62.0%	68.5%	54.6%	50.9%	56.8%	63.2%	67.4%	54.3%
Error +/-	3.0	3.9	4.4	5.2	4.6	4.0	7.5	11.3
Sample size	2713	1403	1310	510	735	865	477	126
CCHS 2000/01	63.2%	65.9%	60.2%	47.2%	55.3%	66.3%	66.6%	56.7%
Error +/-	0.8	1.2	1.2	2.9	3.1	1.3	1.4	2.8
Sample size	19012	9908	9104	1061	1347	8763	6263	1578
CTUMS 2001	58.5%	59.9%	56.8%	47.1%	52.9%	60.2%	63.5%	50.3%
Error +/-	2.8	4.1	3.7	5.3	4.2	5.3	6.2	11.0
Sample size	2520	1311	1209	464	684	782	493	97

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Table 16
Statistically significant changes in daily consumption (11-25 cigarettes), total, by sex and by age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	67.3%	67.6%	67.0%	65.2%	74.6%	68.5%	63.8%	60.7%
NADS 1989[†]	64.2%	65.1%	63.2%	48.2%	65.8%	67.6%	63.2%	57.2%
Significant difference from 1985?†	YES	NO	NO	YES	YES	NO	NO	NO
Change from 1985 to 1989	↓3.1±2.9			↓17.0±12.9	↓8.8±8.1			
HPS 1990[†]	65.1%	66.3%	63.7%	47.8%	63.3%	69.2%	63.9%	56.8%
Significant difference from 1985?†	NO	NO	NO	YES	YES	NO	NO	NO
Change from 1985 to 1990				↓17.3±13.4	↓11.4±8.1			
Significant difference from 1989?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1989 to 1990								
GSS 1991	67.3%	67.5%	67.1%	58.4%	67.7%	69.9%	67.2%	54.3%
Significant difference from 1985?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1985 to 1991								
Significant difference from 1989?†	YES	NO	NO	NO	NO	NO	NO	NO
Change from 1989 to 1991	↑3.1±2.9							
Significant difference from 1990?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1990 to 1991								
SoSiC Cycle 1 1994/95[†]	64.0%	65.9%	61.9%	51.2%	65.4%	66.5%	63.7%	56.2%
Significant difference from 1985?†	YES	NO	YES	YES	YES	NO	NO	NO
Change from 1985 to Cycle 1	↓3.3±3.3		↓5.1±4.8	↓14.0±11.0	↓9.2±7.2			
Significant difference from 1989?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1989 to Cycle 1								
Significant difference from 1990?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1990 to Cycle 1								
Significant difference from 1991?†	YES	NO	YES	NO	NO	NO	NO	NO
Change from 1991 to Cycle 1	↓3.3±3.3		↓5.2±4.8					
NPHS 1994/95	68.0%	70.9%	64.8%	56.6%	65.5%	70.8%	68.7%	59.2%
Significant difference from 1985?†	NO	NO	NO	NO	YES	NO	NO	NO
Change from 1985 to 1994/95					↓9.1±8.5			
Significant difference from 1989?†	YES	YES	NO	NO	NO	NO	YES	NO
Change from 1989 to 1994/95	↑3.8±2.6	↑5.8±3.7					↑5.6±5.2	
Significant difference from 1990?†	YES	YES	NO	NO	NO	NO	NO	NO
Change from 1990 to 1994/95	↑2.9±2.6	↑4.6±3.6						
Significant difference from 1991?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1991 to 1994/95								
Significant difference from Cycle 1?†	YES	YES	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1994/95	↑4.0±3.0	↑5.0±4.3						
GSS 1996	64.4%	66.3%	62.2%	51.7%	65.3%	66.3%	66.5%	54.5%
Significant difference from 1985?†	NO	NO	YES	NO	NO	NO	NO	NO
Change from 1985 to 1996			↓4.8±4.4					
Significant difference from 1989?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1989 to 1996								
Significant difference from 1990?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1990 to 1996								
Significant difference from 1991?†	NO	NO	YES	NO	NO	NO	NO	NO
Change from 1991 to 1996			↓4.9±4.4					
Significant difference from Cycle 1?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1996								
Significant difference from 1994/95?†	YES	YES	NO	NO	NO	YES	NO	NO
Change from 1994/95 to 1996	↓3.6±2.9	↓4.6±4.0				↓4.5±4.1		
NPHS 1996/97	66.7%	70.0%	62.8%	47.2%	61.1%	71.3%	67.9%	60.2%
Significant difference from 1985?†	NO	NO	YES	YES	YES	NO	NO	NO
Change from 1985 to 1996/97			↓4.2±3.6	↓17.9±11.5	↓13.5±8.4			
Significant difference from 1989?†	YES	YES	NO	NO	NO	YES	NO	NO
Change from 1989 to 1996/97	↑2.5±2.5	↑4.9±3.5				↑3.8±3.6		
Significant difference from 1990?†	NO	YES	NO	NO	NO	NO	NO	NO
Change from 1990 to 1996/97		↑3.7±3.4						
Significant difference from 1991?†	NO	NO	YES	NO	NO	NO	NO	NO
Change from 1991 to 1996/97			↓4.3±3.6					
Significant difference from Cycle 1?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from Cycle 1 to 1996/97								
Significant difference from 1994/95?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1994/95 to 1996/97								
Significant difference from 1996?†	NO	NO	NO	NO	NO	YES	NO	NO
Change from 1996 to 1996/97						↑5.0±3.9		
NPHS 1998/99	64.3%	65.9%	62.6%	52.6%	55.5%	67.2%	67.8%	57.4%
Significant difference from 1985?†	YES	NO	YES	NO	YES	NO	NO	NO
Change from 1985 to 1998/99	↓3.0±2.9		↓4.4±4.2		↓19.1±8.7			
Significant difference from 1989?†	NO	NO	NO	NO	YES	NO	NO	NO
Change from 1989 to 1998/99					↓10.3±8.8			
Significant difference from 1990?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1990 to 1998/99								
Significant difference from 1991?†	NO	NO	YES	NO	YES	NO	NO	NO
Change from 1991 to 1998/99			↓4.5±4.2		↓12.3±9.4			
Significant difference from Cycle 1?†	NO	NO	NO	NO	YES	NO	NO	NO
Change from Cycle 1 to 1998/99					9.9±7.9			
Significant difference from 1994/95?†	YES	YES	NO	NO	YES	YES	NO	NO
Change from 1994/95 to 1998/99	↓3.7±2.4	↓4.9±3.5			↓10.0±9.1	↓3.6±3.3		
Significant difference from 1996?†	NO	NO	NO	NO	NO	NO	NO	NO
Change from 1996 to 1998/99								
Significant difference from 1996/97?†	YES	YES	NO	NO	NO	YES	NO	NO
Change from 1996/97 to 1998/99	↓2.4±2.2	↓4.1±3.4				↓4.1±3.3		

to 9.9%) in the proportion of daily smoking adults aged 25 to 44 who smoked in excess of 25 cigarettes each day.

From 1991 to 1994/95, there were **no significant changes** for any consumption ranges for adults aged 25 to 44. However, from 1994/95 to 2001, there was a **significant increase** of 10.8 percentage points (5.5% to 16.2%) in daily consumption of 1 to 10 cigarettes. As well, there were **significant decreases** of 10.6 percentage points (4.8% to 16.4%) for daily consumption of 11 to 25 cigarettes and 4.2 percentage points (1.9% to 6.5%) for daily consumption of 26 or more cigarettes.

Age 45 to 64

When comparing the two furthest end points, 1985 and 2001, the analysis reveals that there were **no significant differences** in the proportion of daily smoking adults aged 45 to 64 who smoked either 1 to 10 cigarettes or 11 to 25 cigarettes each day. However, there was a **significant decrease** of 9.8 percentage points (4.9% to 14.7%) in the proportion of daily smoking adults aged 45 to 64 who smoked in excess of 25 cigarettes each day. Different fluctuations in this overall change in consumption for daily smoking adults aged 45 to 64 can be observed among interceding data points.

From 1985 to 1991, there were **no significant changes** in any of the cigarette consumption ranges among daily smokers aged 45 to 64. The same results held true when comparing 1991 to 1994/95. However, there was a **significant decrease** of 4.9 percentage points (0.3% to 9.5%) in daily consumption of 26 or more cigarettes from 1985 to 1994/95; this was followed by a **significant decline** of 5.0 percentage points (0.8% to 9.2%) from 1994/95 to 2001.

Age 65 and older

When comparing the two furthest end points, 1985 and 2000/01, there were **no significant changes** in the consumption of 1 to 10 cigarettes or 11 to 25 cigarettes each day by seniors aged 65 or older. Data on daily consumption in excess of 25 cigarettes were suppressed for seniors in 2001.

From 1985 to 1991, there were **no significant changes** in any of the cigarette consumption ranges among daily smoking seniors aged 65 and older. The same results held true when comparing 1991 to 1994/95.

Table 17

Estimated prevalence, error range and sample size of daily consumption (26+ cigarettes), total, by sex and by age group, sex, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	14.0%	18.4%	8.9%	#	5.7%*	16.0%	18.7%	10.4%*
Error +/-	1.6	2.5	1.7		3.4	2.2	3.7	3.8
Sample size	422	275	147	3	19	232	122	46
NADS 1989†	9.7%	13.3%	5.9%	#	5.7%*	9.7%	14.1%	8.5%*
Error +/-	1.5	2.1	1.4		3.0	1.9	2.9	4.6
Sample size	337	232	105	5	17	177	109	29
HPS 1990†	9.0%	11.1%	6.7%	#	#	10.0%	12.1%	#
Error +/-	1.3	1.9	1.6			1.9	3.2	
Sample size	376	244	132	5	12	220	124	15
GSS 1991	9.9%	12.8%	7.1%	#	5.1%*	9.1%	14.7%	10.3%*
Error +/-	1.4	2.2	1.7		3.2	1.8	3.5	4.0
Sample size	268	183	103	2	13	136	93	42
SoSiC Cycle 1 1994/95†	12.2%	16.5%	7.5%	#	7.4%*	10.9%*	19.5%*	9.5%*
Error +/-	1.9	3.0	2.2		2.6	3.6	6.7	3.1
Sample size	313	213	100	26	52	112	77	46
NPHS 1994/95	9.3%	13.1%	5.0%	#	#	9.0%	13.9%	10.1%*
Error +/-	1.1	1.8	1.1			1.6	2.7	4.1
Sample size	448	326	122	6	14	215	178	35
GSS 1996	7.2%	10.2%	3.8%*	#	#	7.5%	10.7%	7.9%
Error +/-	1.2	2.1	1.3			2.0	3.0	3.1
Sample size	188	141	47	0	2	67	61	58
NPHS 1996/97	6.2%	7.9%	4.2%	#	#	5.9%	10.4%	5.9%*
Error +/-	0.7	1.1	0.9			1.0	2.3	2.1
Sample size	1024	750	274	10	29	478	432	75
NPHS 1998/99	6.3%	9.0%	3.2%	#	#	5.4%	10.6%	7.4%*
Error +/-	1.0	1.7	1.0			1.2	2.5	3.7
Sample size	248	190	58	2	4	114	106	22
CTUMS 1999	6.6%	7.9%	5.0%	#	3.1%*	6.6%	9.0%	#
Error +/-	1.3	2.0	1.5		1.2	1.9	2.7	
Sample size	306	208	98	43	75	96	74	18
CTUMS 2000	6.2%	9.3%	2.8%*	1.5%*	2.4%*	6.9%*	6.7%*	#
Error +/-	1.5	2.4	1.3	0.9	1.4	2.1	2.5	
Sample size	233	165	68	28	41	81	66	17
CCHS 2000/01	6.6%	8.9%	3.8%	0.8%*	1.4%*	5.8%	10.5%	7.6%
Error +/-	0.4	0.6	0.5	0.4	0.5	0.6	0.9	1.4
Sample size	1993	1441	552	26	42	760	991	174
CTUMS 2001	5.8%	7.4%	3.8%*	#	3.8%*	4.8%*	8.9%*	#
Error +/-	1.4	2.0	1.7		1.8	1.7	3.3	
Sample size	230	158	72	26	49	69	72	14

† Note: Error range produced by approximate CV tables, not variable-specific variance estimation techniques. Interpret with caution.

Suppressed due to extreme variability/small sample size.

* High variability; interpret with caution.

Table 18
Statistically significant changes in daily consumption of 26 or more cigarettes, total, by sex and by age group, 1985 to 2001

	Sex			Age Groups				
	Total	Men	Women	15-19	20-24	25-44	45-64	65+
GSS 1985	14.0%	18.4%	8.9%	#	5.7%*	16.0%	18.7%	10.4%*
NADS 1989†	9.7%	13.3%	5.9%	#	5.7%	9.7%	14.1%	8.5%
Significant difference from 1985?†	YES	YES	YES	N/A	NO	YES	NO	NO
Change from 1985 to 1989	↓4.3 ± 2.1	↓5.1 ± 3.2	↓3.0 ± 2.3			↓6.3 ± 2.9		
HPS 1990†	9.0%	11.1%	6.7%	#	#	10.0%	12.1%	#
Significant difference from 1985?†	YES	YES	NO	N/A	N/A	YES	YES	N/A
Change from 1985 to 1990	↓5.0 ± 2.0	↓7.3 ± 3.1				↓6.0 ± 2.9	↓6.6 ± 4.9	
Significant difference from 1989?†	NO	NO	NO	N/A	N/A	NO	NO	N/A
Change from 1989 to 1990								
GSS 1991	9.9%	12.8%	7.1%	#	5.1%*	9.1%	14.7%	10.3%*
Significant difference from 1985?†	YES	YES	NO	N/A	NO	YES	NO	NO
Change from 1985 to 1991	↓4.1 ± 2.1	↓5.7 ± 3.3				↓7.0 ± 2.9		
Significant difference from 1989?†	NO	NO	NO	N/A	NO	NO	NO	NO
Change from 1989 to 1991								
Significant difference from 1990?†	NO	NO	NO	N/A	NO	NO	NO	N/A
Change from 1990 to 1991								
SoSiC Cycle 1 1994/95†	12.2%	16.5%	7.5%	#	7.4%*	10.9%*	19.5%*	9.5%*
Significant difference from 1985?†	NO	NO	NO	N/A	NO	YES	NO	NO
Change from 1985 to Cycle 1						↓5.1 ± 4.2		
Significant difference from 1989?†	YES	NO	NO	N/A	NO	NO	NO	NO
Change from 1989 to Cycle 1	↑2.5 ± 2.4							
Significant difference from 1990?†	YES	YES	NO	N/A	N/A	NO	NO	N/A
Change from 1990 to Cycle 1	↑3.2 ± 2.3	↑5.4 ± 3.6						
Significant difference from 1991?†	NO	NO	NO	N/A	NO	NO	NO	NO
Change from 1991 to Cycle 1								
NPHS 1994/95	9.3%	13.1%	5.0%	#	#	9.0%	13.9%	10.1%*
Significant difference from 1985?†	YES	YES	YES	N/A	N/A	YES	YES	NO
Change from 1985 to 1994/95	↓4.7 ± 1.9	↓5.4 ± 3.1	↓3.9 ± 2.0			↓7.0 ± 2.7	↓4.9 ± 4.6	
Significant difference from 1989?†	NO	NO	NO	N/A	NO	NO	NO	NO
Change from 1989 to 1994/95								
Significant difference from 1990?†	NO	NO	NO	N/A	N/A	NO	NO	N/A
Change from 1990 to 1994/95								
Significant difference from 1991?†	NO	NO	YES	N/A	N/A	NO	NO	NO
Change from 1991 to 1994/95			↓2.1 ± 2.0					
Significant difference from Cycle 1?†	YES	NO	YES	N/A	N/A	NO	NO	NO
Change from Cycle 1 to 1994/95	↓2.9 ± 2.2		↓2.5 ± 2.4					
GSS 1996	7.2%	10.2%	3.8%*	#	#	7.5%	10.7%	7.9%*
Significant difference from 1985?†	YES	YES	YES	N/A	N/A	YES	YES	NO
Change from 1985 to 1996	↓6.8 ± 2.0	↓8.2 ± 3.2	↓5.1 ± 2.1			↓8.5 ± 3.0	↓8.0 ± 4.8	
Significant difference from 1989?†	NO	NO	NO	N/A	NO	YES	YES	YES
Change from 1989 to 1996						↓2.5 ± 1.9	↓3.1 ± 2.9	↓2.1 ± 1.9
Significant difference from 1990?†	NO	NO	YES	N/A	N/A	NO	NO	N/A
Change from 1990 to 1996			↓2.9 ± 2.0					
Significant difference from 1991?†	YES	NO	YES	N/A	N/A	NO	NO	NO
Change from 1991 to 1996	↓2.7 ± 1.9		↓3.3 ± 2.1					
Significant difference from Cycle 1?†	YES	YES	YES	N/A	N/A	NO	YES	NO
Change from Cycle 1 to 1996	↓5.0 ± 2.3	↓6.3 ± 3.7	↓3.7 ± 2.5				↓8.8 ± 7.3	
Significant difference from 1994/95?†	YES	YES	NO	N/A	N/A	NO	NO	NO
Change from 1994/95 to 1996	↓2.1 ± 1.7	↓2.9 ± 2.8						
NPHS 1996/97	6.2%	7.9%	4.2%	#	#	5.9%	10.4%	5.9%*
Significant difference from 1985?†	YES	YES	YES	N/A	N/A	YES	YES	YES
Change from 1985 to 1996/97	↓7.8 ± 1.7	↓10.5 ± 2.7	↓4.7 ± 2.0			↓10.1 ± 2.5	↓8.4 ± 4.4	↓4.5 ± 4.3
Significant difference from 1989?†	YES	YES	NO	N/A	NO	YES	YES	NO
Change from 1989 to 1996/97	↓3.4 ± 1.6	↓5.4 ± 2.3				↓3.8 ± 2.2	↓3.7 ± 3.7	
Significant difference from 1990?†	YES	YES	YES	N/A	N/A	YES	NO	N/A
Change from 1990 to 1996/97	↓2.7 ± 1.5	↓3.2 ± 2.2	↓2.4 ± 1.8			↓4.1 ± 2.1		
Significant difference from 1991?†	YES	YES	YES	N/A	N/A	YES	YES	NO
Change from 1991 to 1996/97	↓3.6 ± 1.6	↓4.8 ± 2.5	↓2.8 ± 1.9			↓3.2 ± 2.1	↓4.4 ± 4.2	
Significant difference from Cycle 1?†	YES	YES	YES	N/A	N/A	YES	YES	NO
Change from Cycle 1 to 1996/97	↓6.0 ± 2.0	↓8.6 ± 3.2	↓3.3 ± 2.4			↓5.0 ± 3.7	↓9.1 ± 7.1	
Significant difference from 1994/95?†	YES	YES	NO	N/A	N/A	YES	YES	YES
Change from 1994/95 to 1996/97	↓3.0 ± 1.0	↓5.1 ± 1.7				↓3.1 ± 1.4	↓3.5 ± 3.2	↓4.1 ± 3.7
Significant difference from 1996?†	NO	NO	NO	N/A	N/A	NO	NO	NO
Change from 1996 to 1996/97								
NPHS 1998/99	6.3%	9.0%	3.2%	#	#	5.4%	10.6%	7.4%*
Significant difference from 1985?†	YES	YES	YES	N/A	N/A	YES	YES	NO
Change from 1985 to 1998/99	↓7.8 ± 1.8	↓9.4 ± 3.0	↓5.7 ± 2.0			↓10.6 ± 2.5	↓8.2 ± 4.5	
Significant difference from 1989?†	YES	YES	YES	N/A	NO	YES	NO	NO
Change from 1989 to 1998/99	↓3.4 ± 1.8	↓4.3 ± 2.6	↓2.7 ± 1.7			↓4.3 ± 2.3		
Significant difference from 1990?†	YES	NO	YES	N/A	N/A	YES	NO	N/A
Change from 1990 to 1998/99	↓2.7 ± 1.6		↓3.5 ± 1.9			↓4.6 ± 2.2		
Significant difference from 1991?†	YES	YES	YES	N/A	N/A	YES	NO	NO
Change from 1991 to 1998/99	↓3.6 ± 1.7	↓3.7 ± 2.8	↓3.9 ± 2.0			↓3.7 ± 2.2		
Significant difference from Cycle 1?†	YES	YES	YES	N/A	N/A	YES	YES	NO
Change from Cycle 1 to 1998/99	↓5.9 ± 2.1	↓7.5 ± 3.4	↓4.3 ± 2.4			↓5.5 ± 3.8	↓8.9 ± 7.1	
Significant difference from 1994/95?†	YES	YES	YES	N/A	N/A	YES	YES	NO
Change from 1994/95 to 1998/99	↓3.0 ± 1.2	↓4.0 ± 1.9	↓1.8 ± 1.3			↓3.6 ± 1.6	↓3.3 ± 3.2	
Significant difference from 1996?†	NO	NO	NO	N/A	N/A	NO	NO	NO
Change from 1996 to 1998/99								
Significant difference from 1996/97?†	NO	NO	NO	N/A	N/A	NO	NO	NO
Change from 1996/97 to 1998/99								

Overall conclusions

One of the greatest hurdles to measuring smoking prevalence is that it is always changing. There is always a portion of the population that is in some stage of transition.²⁶ The 21.7% of the Canadian population who were current smokers in 2001 were not all part of the 35.1% of current smokers in 1985 -- some of those smokers from 1985 have since quit or died, while some of those non-smokers in 1985 were smokers in 2001. Every person in every age group, sex, province, territory or region quit, start, refuse to start or switch between daily and occasional smoking status for one reason or another, and will continue re-assess or change their behaviour over time. Only intense and detailed investigation will reveal the main reasons why people choose or refuse to become smokers.

That being said, the analysis in this paper does shed light on a number of interesting issues. Canada in the 1990s represented a time of much smoking-related dialogue, debate, surveys, legislation, reduction strategies and price changes in tobacco. More social and legislative changes have occurred from 2000 onwards. Readers are of course free to analyze potential relationships between these factors and the data presented here. Regardless, it is important to recognize that during this entire 17-year time span analyzed in this technical report, a number of changes in smoking prevalence and consumption were taking place.

For example, while there were statistically significant declines in current smoking prevalence from 1985 to 1991 among the overall population, both sexes and all age groups except those aged 15 to 24, most of the declines for these sub-groups over the entire 17-year time period of analysis happened after 1991. Over the entire 17-year period, there was an overall decline in current smoking prevalence of Canadians, including decreases in the rates for both sexes and most age groups. The prevalence of current smoking for Canadian youths did not change significantly when comparing 1985 to 1994/95, but there was a decline of about 6 percentage points from 1994/95 to 2001.

Provincially, every province experienced significant decreases of current smoking prevalence for the population aged 15 and over when comparing 1985 to 2001. Other differences can be noted between interceding data years. For Newfoundland, Nova Scotia, Quebec, Ontario, Alberta and British Columbia, the largest numerical amount of decline for current smoking occurred after 1991. For the years that data were available for the three territories (1994/95,

1996/97 and 2000/01), only Nunavut experienced a decline in current smoking, from 1994/95 to 2000/01. However, Nunavut still had the highest smoking rate in Canada in 2000/01.

Generally speaking, the pattern over the 17-year time period for daily smoking prevalence was similar to that of current smoking prevalence: significant decreases for Canadians as a whole, both sexes and all age groups, although youth data did not show any significant declines until after the mid-1990s. There were very few statistically significant differences (totals, males and those aged 45 to 64) in occasional smoking between the two end points, 1985 and 2001.

An interesting pattern emerged from the data on daily cigarette consumption. Not only was there a smaller proportion of daily smokers in 2001 compared with 1985 for almost all groups (as noted in the relevant section in this report), the proportion smoking 26 or more cigarettes each day significantly decreased between these two data endpoints, while the proportion of smoking 10 or fewer cigarettes significantly increased. For daily consumption of 10 or fewer cigarettes, the largest increases in consumption occurred after 1991, for all groups except those aged 65 and over. For daily consumption of 26 or more cigarettes, the largest decreases in consumption occurred after 1991 for females and those aged 20 to 24 and aged 45 to 64 (data were suppressed for youths).

Further research into all aspects of smoking prevalence and daily cigarette consumption will obviously lead to greater insight into patterns and can help other researchers more thoroughly understand and interpret these patterns. When more data become available, the Health Statistics Division of Statistics Canada will work on providing technical updates on smoking matters such as what is found in this second Report.

APPENDIX A: Quick Reference of Survey (1985 to 2001) Comparability

	Collection Method	Relevant # of Respondents	Response Rate	Overall Comparability	Variance estimated by...
GSS 1985	Telephone and personal interview	11,200	83.4% (telephone) 86.5% (personal)	Can compare with GSS 1991 and 1996, SoSiC 1994, NPHS 1994/95 to 1998/99, CTUMS 1999-2001 and CCHS 2000/01	Variance estimation programs
NADS 1989	Telephone interview	11,634	78.70%	Reasonable comparisons of daily smoking prevalence and consumption. Current and non-daily rates are not comparable.	Approximate CV tables
HPS 1990	Telephone interview	13,792	78%	Reasonable comparisons of daily smoking prevalence and consumption. Current and non-daily rates are not comparable.	Approximate CV tables
GSS 1991	Telephone interview	11,924	80%	Can compare with GSS 1985 and 1996, SoSiC 1994, NPHS 1994/95 to 1998/99, CTUMS 1999 to 2001, CCHS 2000/01	Variance estimation programs
CADS 1994	Telephone interview	12,155	76.20%	Same as NADS 1989 and HPS 1990. Excluded here because 1994 better represented by SoSiC and NPHS.	N/A
SoSiC 1994/95	Telephone interview (CATI)	15,804 (Cycle 1)	83.9% (Cycle 1)	Can compare with GSS 1985, 1991 and 1996, NPHS 1994/95 to 1998/99, CTUMS 1999 to 2001 and CCHS 2000/01	Approximate CV tables
NPHS 1994/95	Personal interview (CAPI), telephone and personal pencil and paper interviews (NPHS-North)	16,982 (Health component), aged 15+ 2,020 (NPHS North)	92.4% (Health Component) 94.2% (NPHS North)	Can compare with GSS 1985, 1991, 1996, SoSiC, other NPHS cycles, CTUMS 1999 to 2001 and CCHS 2000/01	Variance estimation programs
GSS 1995	Telephone interview (CATI)	10,749	80.70%	Same as NADS 1989 and HPS 1990. Excluded because 1995 better represented by NPHS	N/A
GSS 1996	Telephone interview (CATI)	12,756	85.30%	Can compare with GSS 1985 and 1991, SoSiC, NPHS 1994/95 to 1998/99, CTUMS 1999 to 2001 and CCHS 2000/01	Variance estimation programs
NPHS 1996/97	Telephone interview (CATI) and personal interview (CAPI) Telephone and personal pencil and paper interviews (NPHS North)	70,884 (Health component), aged 15+ 1,499 (NPHS North)	79.0% (Health component) 86.2% (NPHS North)	Can compare with GSS 1985, 1991 and 1996, SoSiC, other NPHS cycles, CTUMS 1999 to 2001 and CCHS 2000/01	Variance estimation programs
NPHS 1998/99	Telephone interview (CATI), personal interview	14,688 (aged 15+) (Health component)	98.5% (Health component)	Can compare with GSS 1985, 1991 and 1996, SoSiC, other NPHS cycles, CTUMS 1999 to 2001 and CCHS 2000/01	Variance estimation programs
CTUMS 1999	Telephone interview (CATI)	22,013	82% (combined household/selected person response rate)	Can compare with GSS 1985, 1991 and 1996, SoSiC, NPHS 1994/95 to 1998/99, other CTUMS and CCHS 2000/01 (latter with caution)	Variance estimation programs
CTUMS 2000	Telephone interview (CATI)	20,415	79% (combined household/selected person rate)	Can compare with GSS 1985, 1991 and 1996, SoSiC, NPHS 1994/95 to 1998/99, other CTUMS and CCHS 2000/01 (latter with caution)	Variance estimation programs
CTUMS 2001	Telephone interview (CATI)	21,788	77.5% (combined household/selected person rate)	Can compare with GSS 1985, 1991 and 1996, SoSiC, NPHS 1994/95 to 1998/99, other CTUMS and CCHS 2000/01 (latter with caution)	Variance estimation programs
CCHS 2000/01	Personal interview (CAPI), some telephone interviews (CATI)	118,491 (aged 15+)	85%	Can compare with GSS 1985, 1991 and 1996, SoSiC, NPHS 1994/95 to 1998/99, CTUMS 1999-2001 (with caution)	Variance estimation programs

CATI: Computer-Assisted Telephone Interviewing

CAPI: Computer-Assisted Personal Interviewing

APPENDIX B: Recommended core tobacco use questions

...as determined in the Workshop on Data for Monitoring Tobacco Use (March 1994)*

1. At the present time, do you smoke cigarettes every day, occasionally, or not at all?
2. Have you smoked at least 100 cigarettes in your life?
3. Have you ever smoked a whole cigarette?
4. Have you ever smoked cigarettes daily?
5. On how many of the last 30 days did you smoke at least one cigarette?
6. On those days when you smoked, how many cigarettes did you usually smoke?
- 7a. Thinking back over the last 7 days, starting with yesterday, how many cigarettes did you smoke on (yesterday)?
- 7b-g. How many cigarettes did you smoke on ...(the day before)?
8. When did you stop smoking?
9. In what month and year did you stop smoking?
10. (if less than age 20) How old were you when you smoked your first whole cigarette?
11. (if less than age 20) How old were you when you first started smoking daily?
12. Excluding yourself, how many people smoke in your home every day or almost every day?
13. (If employed) Are you exposed to smoking in your place of work every day or almost every day?
14. Apart from your home (and place of work, if employed), are there any particular places where you are exposed to smoking every day or almost every day?

*as presented in *Chronic Diseases in Canada*, Vol. 15, No. 3, Health Canada, 1994.

APPENDIX C: Interpretation of Results

Interpretation of results (determining statistically significant differences)

To test if two parameters of interest (e.g., smoking prevalence in data years 1985 and 1991) are significantly different from each other, one must estimate the confidence interval (CI) around their estimated difference. If that CI contains zero, then we conclude that the difference is not statistically significant (i.e., we cannot rule out the possibility that the difference observed is due to chance because of the fact that we are dealing with samples). If it does not contain zero, then we conclude that the difference is statistically significant (i.e., the difference in point estimates reflects a real difference in our population(s) of interest). If we use a 95% CI, then we would be subject to erroneously inferring significance 1 time out of 20 (i.e., if we were to test for significance repeatedly, each time using different samples obtained with the same sample design). To obtain a 95% CI around the *difference* between two point estimates (A and B), we use the same formula as with CI's around other point estimates:

Upper 95% CI Limit=(A-B)+[1.96* $\sqrt{\text{variance of (A-B)}}$], and

Lower 95% CI Limit=(A-B)-[1.96* $\sqrt{\text{variance of (A-B)}}$],

Where $\sqrt{\text{variance of (A-B)}}$ = $\sqrt{\text{variance (A)+variance (B)-2 covariance (A,B)}}$ and where "variance" represents an estimate of variance.

In the special case where A and B are obtained from independent samples, then covariance (A,B)=0 and the formula reduces to

$\sqrt{\text{variance of (A-B)}}$ = $\sqrt{\text{variance (A)+ variance (B)}}$ where (A,B) are independent.

Also, if A and B are independent, then one can quickly check for statistical significance of their difference by observing the CI around each point estimate. One of three scenarios will result:

1. The CI around the point estimates A and B do not overlap. For example, with a rate of 25% {+/- 2.0} and a rate of 19% {+/- 2.6}, the lower limit of the 25% rate is 23.0%, while the upper limit of the 19% rate is 21.5%. Then it can be shown that the difference between points A and B is statistically significant.

2. One point estimate lies inside the CI of the other estimate. For example, with a rate of 25% {+/-6.3} and a rate of 19% {+/-3.3}, the lower limit of the 25% rate is 18.7%, while the upper limit of the 19% rate is 22.3%. The CI of the 25% rate overlaps the 19% estimate. Thus, the difference between points A and B is not significantly different.
3. The CI around points A and B overlap, but each point estimate falls outside of the other point's CI. For example, rate of 25% {+/-3.5}; rate of 19% {+/-2.9}. The lower limit of the 25% rate is 21.5%, while the upper limit of the 19% rate is 21.9%. This result is inconclusive (i.e., the difference may or may not be statistically significant). If this is the outcome then the formula given above must be used to estimate the CI around (A-B). If the variances of points A and B are not given directly, then it may be deduced from the CI of each point estimate, using the formula Upper 95% CI Limit= (A)+ [1.96* $\sqrt{\text{variance of A}}$]. As mentioned above, if the CI around A-B contains zero, then the difference is not statistically significant. If it does not contain zero, then the difference A-B is statistically significant.

If the point estimates A and B are not obtained from independent samples, then the covariance term is non-zero and it is not sufficient to know the variance or the CI of each point A and B to determine if their difference is statistically significant. This is the case when comparing prevalence rates from the three cycles of the NPHS. The three cross-sectional samples have a longitudinal component that overlaps, violating the assumption of independent samples. However, a methodology has been developed to allow for comparisons between NPHS cycles in spite of their shared samples. The comparisons are estimated using the Bootstrap technique.²⁷

"Bootstrapping" or "jackknife" are weighted re-sampling procedures used to calculate coefficients of variations for totals and rates and to estimate standard errors used in the calculation of confidence intervals.^{28,29} Bootstrapping was used on the cross-sectional data on smoking prevalence for 1994/95, 1996/97 and 1998/99 NPHS as well as CCHS 2000/01 and a modified bootstrap program was used for 1985, 1991 and 1996 GSS. A jackknife technique was developed for 1999-2001 CTUMS. Such re-sampling procedures could not be done for 1989 NADS and 1990 HPS and were not available for 1994/95 SoSiC at the time of writing this second report.

Proxy reporting in surveys on smoking

As mentioned earlier, studies have shown that proxy reporting may under-estimate smoking prevalence among young people aged 15 to 24. Ignorance about the tobacco use of other household members or reticence to report it are cited as two probable reasons for underestimation in general.³⁰ When parents report on smoking on behalf of their children, both ignorance and reticence are even more likely to be the case.

Surveys on smoking habits conducted by Statistics Canada during the 1960s to the early 1980s were mainly Labour Force Survey (LFS) supplements that allowed for a high level of proxy reporting. Essentially, one household member aged 15 and older was asked questions on smoking habits for themselves (non-proxy) and for everyone else who lived in the household (proxy).

Unfortunately, the coding of the survey data files during the 1960s and 1970s did not allow for anyone to determine the exact level of proxy reporting or for which age and sex groups the proxy reporting was taking place. The supplements from 1981, 1983 and 1986 allowed for the identification of proxy and non-proxy answers. Proxies comprised about 50% of responses for adults aged 15 and over in 1981 and 1983, and 26% in 1986. More importantly, male youth (age 15 to 19) proxies were 82% in 1981, 87% in 1983, and 54% in 1986; female youth proxies were 73% in 1981, 81% in 1983 and 53% in 1986. For young adults aged 20 to 24, males were 65% proxied in 1981, 70% in 1983 and 46% in 1986; females were 42% proxied in 1981, 48% in 1983 and 31% in 1986.

These LFS supplements were not only excluded from this study because of their high proxy reporting, but other reasons as well. Collection and sampling methodologies differ from some of the surveys included here; most importantly, the respondent was not selected randomly but because they were the first person age 15 and over who answered the telephone. While the sampling methodologies of these surveys are perfectly acceptable for deriving results in general, any attempt to remove proxy respondents from the estimates would leave the results based on a non-random sample. Since all the other surveys mentioned in the report are based on random sampling, comparisons could not be made with proxy-removed LFS supplements. As well, even though the question asked regarding present smoking behaviour in these supplement surveys is roughly similar to what can be found in the surveys analyzed in this report, these earlier surveys asked about past smoking behaviour first ("Have you ever smoked cigarettes, cigars, or a pipe?"). Thus, these LFS supplements also succumb to the same problem of underreporting current and

non-daily smokers as does the 1989 NADS, 1990 HPS, 1994 CADS and 1995 GSS.

Some of the major surveys on smoking conducted by Statistics Canada after 1985 allowed for proxy interviews, but the extent of this reporting and the reasons for allowing proxies were quite different from the earlier LFS supplements. For example, the 1991 GSS allowed proxy reporting only when the intended respondent had a major language difficulty or had an illness that prevented them from answering the questions. The total proxy value in the 1991 GSS that was associated with current non-smokers aged 15 to 24 was 1%. The 1994/95 NPHS allowed proxy reporting for the selected respondent only when a physical or mental illness/incapacity prevented the respondent from answering the questions. The total proxy associated with current non-smokers aged 15 to 24 was 5%. The 1996/97 and 1998/99 NPHS allowed for proxies by the same criteria as the 1994/95 NPHS. The total proxy associated with current non-smokers aged 15 to 24 was 1% in 1996/97, 1.8% in 1998/99 and 8.0% in CCHS 2000/01. There is no proxy reporting for CTUMS.

The level of proxy reporting in the three NPHS surveys was low (especially compared to the LFS supplements), and thus any underestimation of smoking among young people caused by these proxies is considered to be negligible. While some degree of caution should be taken when comparing these data on young people with other data years, the caution is not enough to warrant outright exclusion of the data for analysis or require re-working the sampling weights to exclude the proxy interviews.

Inclusion of "not stated" category in calculations

There are two ways to produce the rates when calculating survey results: you can either exclude or include respondents who did not answer the question at hand but who were classified as respondents to the overall survey. By *excluding* those that did not state an answer, you reduce the total population figure and essentially make an assumption about what those people would have stated as an answer (i.e., their smoking status is distributed in the same way as for people providing an answer). For example, if 100 people are asked whether they smoke daily, occasionally or not at all, these are possible results: 28 say daily, 10 say occasionally, 59 say not at all, and 3 do not state their smoking status. By *excluding* the "not stated" responses, you are basing your results on a sample of 97 people. Assuming equal weights for illustration, the results of this survey question would be 29% daily smokers, 10% occasional smokers and 61% who do not smoke at all. However, *including* the

“not stated” responses provides a more accurate picture about what people actually said, and does not make an assumption about what the people who did not state anything *may* have said. By including the not stated responses, the unweighted results would be 28% daily smokers, 10% occasional smokers, 59% non-smokers, and 3% not stated.

Deciding on exclusion or inclusion of the “not stated” category when calculating rates can often boil down to a matter of personal preferences. There is no rule about using one method or another. However, in this working paper, it seemed more appropriate to illustrate the real level of *stated* responses to daily and occasional smoking, rather than inferring that those who did not state an answer *may* have had the same smoking status distribution as other respondents. While the percentage of not-stated responses on smoking questions presented in this working paper amount to less than 2% of all responses, it may make a difference when examining the data at the level of detail that we have done here.

Multiple comparisons

When simply determining whether or not there was significant change between two data years, the formulae presented in “Interpretation of Results” holds. However, when one wishes to make a joint significance statement about the change between multiple comparisons, the level of confidence drops from a minimum of 95% to a minimum of 90%. For example, if there was no significant change from 1985 to 1991, but there was a significant change from 1985 to 1994/95, one can state with at least 90% confidence that *simultaneously* that (1) there was no significant change from 1985 to 1991 and (2) there was a significant change from 1985 to 1994/95. There are ways to adjust to retain the joint statement at a minimum of 95% confidence, such as the Bonferroni method.³¹

However, there are those who assert that these types of adjustments do little to solve the problems at the heart of making multiple comparisons.³² At least one author suggests that as long as it is made clear how many comparisons have been made and that all non-significant results have been reported along with the significant results, there is no need to make such adjustments. Since this report presents all comparisons and the significance of each comparison, it was decided that such adjustments were not required.

APPENDIX D: Summary of comparative analysis of CCHS and CTUMS

(Excerpts from “Methodological comparison between the Canadian Community Health Survey (CCHS) and the Canadian Tobacco Use Monitoring Survey (CTUMS): Interim report of the Working Group³³)

Statistics Canada gathers information on smoking through several surveys. One of these surveys, the Canadian Tobacco Use Monitoring Survey (CTUMS), is explicitly designed to produce estimates of the smoking rate on a semi-annual and annual basis. Other surveys, such as the National Population Health Survey (NPHS) and Cycle 1.1 of the Canadian Community Health Survey (CCHS), also produce rates of smoking but in the broader context of studying the determinants of health and life style. Although the smoking rates published by the CTUMS, on the one hand, and the NPHS and CCHS, on the other, show the same trends over time, in recent years there have been significant differences between the levels of these estimates.

In an effort to explain these differences, a comparative study of the methodologies of the CTUMS and CCHS and their results for the 2000-2001 period was undertaken.

The following are small excerpts from that report, as well as its general conclusions about comparability between CCHS and CTUMS. Some slight paraphrasing may have been done by the author of this “Report on Smoking in Canada, 1985 to 2001” to provide a better flow.

Sampling Frames

The majority (approximately 82%) of the CCHS respondents comes from the Labour Force Survey (LFS) area frame in which personal face-to-face interviews are held, with the rest coming from the telephone frames for telephone interviews. Note that CCHS used a Random Digit Dialling (RDD) frame and a list frame of phone numbers.

The CTUMS is a RDD-only survey; therefore, households without a telephone or with only a cellular telephone are not covered by the survey. These people are generally either young, mobile people or low income people — all groups have a higher rate of smoking than other groups. However, it is felt that their exclusion has only a small impact on the CTUMS smoking rate because of their low proportion.

Impact of proxy responses

The CCHS allows proxy interviews only in very specific cases: the respondent is absent during the whole of the collection period (vacation or away from the country), the respondent has a physical or mental disability, or because of a language problem. During the first six months of the collection period, there was a higher than expected rate of proxy interviews because of operational problems in the field. Although measures were taken in the field to correct the problem, 6.3% of the CCHS interviews were conducted by proxy. The impact of these responses on the smoking rate was analysed. One table compares the smoking rate of proxy respondents to that of other respondents.

The smoking rate nationally for proxy respondents is slightly lower than the smoking rate for other respondents. However, the distribution of the proxy respondents nationally is not representative of the Canadian population in terms of age, sex and province. For this reason, the smoking rate was compared by age group and sex.

Among males, the rates are similar for the 15-19 years age group where the smoking rate of proxy respondents is lower. Among females, the smoking rate of proxy respondents is lower than for other respondents, even much lower for those 15 to 24 years. It is impossible to tell if these rates are significantly different but there appears to be an underestimation of the smoking rate among proxy respondents. There may be two main reasons for these differences. The first is that quite simply proxy respondents may have a tendency to smoke less than the other respondents but this is only a hypothesis. On the other hand, it is quite likely that the differences are the result of a poor knowledge of tobacco consumption by those who responded to the survey in the place of the selected individual.

However, because the rates for CCHS are generally higher than CTUMS, it is clear that the differences observed between the CCHS and CTUMS rates are not attributable to proxy responses.

Smoking questions

The question used to obtain the smoking rate is almost identical in the two surveys. In the English

questionnaire, the CTUMS asks: *At the present time, do you smoke cigarettes every day, occasionally, or not at all?*. The only difference with the CCHS wording is that the term ‘daily’ is used instead of ‘every day’. The question is worded identically for the French questionnaires.

The order of the questions used to derive the smoking prevalence is also slightly different between the two surveys. The CCHS first asks if the respondent has smoked a total of 100 or more cigarettes in their lifetime. If the answer is negative, the respondent is then asked if he/she has ever smoked a whole cigarette. Finally, the respondent is asked the main smoking question described above.

For the CTUMS, the same three questions are asked, but in a different order. It begins with the “main” smoking question and then follows up with the “100+ cigarettes in your lifetime” and “have you ever smoked a whole cigarette” questions (with appropriate skip patterns).

Collection methods

It is appropriate to mention at this time that the CCHS interview lasts about 45 minutes. Since the majority of the interviews are done in person, it is more difficult for the respondent to deny the fact that he or she is a smoker given the context of the survey and the length of the interview. Furthermore, the module on smoking is administered 20 minutes after the interview begins. A climate of trust has been established between the respondent and the interviewer by this time.

All of the interviews with CTUMS respondents were done by telephone. There was no advance contact.

CTUMS vs. CCHS respondent matching

Microdata analysis revealed that a small group of respondents were surveyed by both CCHS and CTUMS, and even by CTUMS over its three year period of 1999 to 2001. The data for these respondents were analyzed, and the results were:

Given the small number of actual matches and this sample imbalance, it is difficult to make any overall conclusions. However, what was seen is that, among people who reported different smoking characteristics (about one-quarter of the small group of matched respondents), people were more inclined to report smoking to the CCHS than to CTUMS. This is consistent with overall estimates. People were also more likely to report smoking during the first interview (whether CTUMS or CCHS) as opposed to the second.

For CTUMS-CTUMS comparison, about one-third of small group of matched respondents reported a different detailed smoking status. Of these people, they were more likely to report smoking in their second interview compared to their first — the opposite pattern to what was noted above.

Considerations with respect to the survey context

In the late 1980s, a similar problem to that encountered by the CCHS and CTUMS was submitted to a Statistics Canada working group.³⁴ The task was to compare the estimates obtained from the 1985 General Social Survey (GSS) with those from the Canadian Health and Disability Survey (CHDS) in terms of the questions used to identify persons potentially with a disability. The working group was also mandated to explain any differences.

As an example, the percentage of individuals potentially with a disability under the CHDS was 12.6% for all ages combined, while the GSS obtained a rate of 31.7%. The working group examined the methodological differences between the two surveys, notably the questionnaire, the survey frame, the sampling design, the collection method, the estimates of the various characteristics, different fields, etc.

Nothing really conclusive could be found except, perhaps, for the following two points:

- i) A survey should not be labelled as a survey dealing with “disability”, but rather should try to identify the disability in a general context of a survey on health.
- ii) Special attention should be given to the survey’s context. It seems that a respondent will be more inclined to mention certain minor problems when he does not think he will be labelled as a person suffering from a “disability” or a “handicap”.

The differences observed between the CCHS and CTUMS might also be explained in part by the survey context. The situation is very similar to that of the GSS and the CHDS. In effect, for the CCHS, the questions on smoking are incorporated in a 45-minute questionnaire dealing with health in general. The respondent does not feel that he will be labelled a “smoker” if he admits to smoking. However, it would appear that the respondent’s perception when he is asked questions dealing only with smoking, as is the case with CTUMS, may influence the way in which he answers.

Conclusion

This study was unable, on the basis of its results, to identify the elements that cause the smoking rates obtained from the two surveys to differ. Throughout this activity, a number of working hypotheses were made and they were all rejected one by one. The only explanation that was not eliminated relates to the context of the survey. It would appear that people are more inclined to talk about smoking when this topic is inserted in a broader survey on health. Another possible hypothesis would be that the establishment of a “hotter” contact (i.e. interview in person, letters sent prior to starting the survey) may also help to obtain good cooperation from respondents.

Having said this, there is no basis to conclude which of the two smoking rates is closer to reality. The estimates of level differ between the two surveys but both surveys show the same downward trend over time (CTUMS vs. NPHS-CCHS).

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