Special Reports

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

# Monitoring the Ontario Tobacco Strategy

8th Annual
Monitoring Report

Part 3

## Indicators of Progress 2001/2002

November 2002

# Indicators of Progress

Ontario Tobacco Research Unit

November 2002

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# PREFACE

This report is part of a new series on monitoring and evaluation initiated by the Ontario Tobacco Research Unit (OTRU) in 2002. The series incorporates and expands upon the content of the previous seven annual monitoring reports and two evaluation reports published to date. The objective of this reorganization is to provide more analysis and to do so in a more timely fashion. *Indicators of Progress* is the third of four "modules" that will make up the annual series. The full series consists of:

**Part 1. Tobacco Control Highlights: Ontario and Beyond** – an overview of new developments, which provides a context for what is happening in Ontario (released August 2002)

**Part 2. OTS Projects Evaluations: A Coordinated Review** – a largely qualitative summary of accomplishments by OTS projects funded in 2000-2001 (released August 2002)

**Part 3. Indicators of Progress** – quantitative data from a variety of survey and other sources measuring progress in Ontario in 2001 (released November 2002)

**Part 4. Progress and Implications** – a discussion of the results and implications of the findings in the other three modules (to be released December 2002).

# ACKNOWLEDGMENTS

This report was prepared by Shawn O'Connor and Bronwen Waller, with contributions from Tom Stephens, chair of OTRU's Monitoring and Evaluation Work Group. Sonja Johnston capably provided production assistance.

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# EXECUTIVE SUMMARY

## The Tobacco Control Environment in Ontario

- Declines over time in per capita tobacco consumption in Ontario are reflected in a levelling off of tobacco-attributed deaths, at least among men.
- Until recently, Ontario was the leading spender in tobacco control in Canada. With recent increases in per capita funding in Quebec and Alberta, it is a distinction Ontario no longer holds.
- Compared to leading US jurisdictions in tobacco control, the Ontario Tobacco Strategy still falls short of a comprehensively funded program, although Ontario now has the beginnings of several recognized components (e.g., provincial media campaign, telephone quit line, community grant program, evaluation).

## Toward Smoke-free Spaces

- There has been notable progress in attitudes about ETS:
  - Ontarians are now more supportive of smoking restrictions in the home than they were in 1995.
  - Support for total bans on smoking in restaurants and bars increased significantly from 2000 to 2001.
  - Ontarians prefer total smoking bans at workplaces to partial or no bans.

- There has also been progress in protection from ETS in the province:
  - Exposure to ETS at home compares favourably to that reported in the other provinces, although it varies widely across Ontario.
  - Total smoking ban coverage at workplaces continues to rise in the province, albeit slowly. However, ETS exposure at work is not noticeably declining.
  - Although Ontario compares favourably to other provinces on several indicators of ETS exposure, progress over time has been slow.

## Toward Eliminating Adult Smoking

- Daily smoking in the province has been declining in recent years. However, current smoking is not declining because occasional smokers comprise an increasing proportion of all smokers.
- Average consumption of cigarettes by daily smokers is unchanged.
- Overall per capita consumption continues to decline because there are fewer daily smokers.
- Intentions to quit are as high or higher than they have ever been.
- Although awareness of smoking cessation programs is not particularly high, the awareness of the telephone Quitline in 2001 is encouraging.

## Toward Eliminating Youth Smoking

- There have been some declines in recent years in student smoking (Grades 8 and 10).
- Compared to the rest of Canada, Ontario has lower rates of smoking among teens aged 15-19 (but not for young adults aged 20-24).
- Fewer than half of students in grade 9 and beyond have never tried a cigarette.
- Seven years after the passage of the province's Tobacco Control Act, the proportion of students who try to buy cigarettes and are never asked for photo identification has not decreased significantly. Similarly, a majority of students are still able to purchase cigarettes at a variety of locations with apparent ease.

# MONITORING METHODS

## Data Sources

### Ontario Student Drug Use Survey (OSDUS)

The Centre for Addiction and Mental Health's *Ontario Student Drug Use Survey* is a province-wide classroom survey.[1] This survey has been running since 1977 and is currently conducted every two years (in the spring) by the Institute for Social Research at York University. The 2001 survey used a two-stage cluster design (school, class) and sampled 4,211 students from 41 public and Catholic school boards, 106 schools, and 273 classes in elementary and secondary school grades (grades 7 and 8 and grades 9 to 13, respectively). The survey sample represented about 916,200 students in Ontario. The student response rate was 71%. All survey estimates were weighted, and variance estimates and statistical tests were corrected for the complex sampling design.

### Canadian Community Health Survey (CCHS)

*The Canadian Community Health Survey* is a national, random, face-to-face (household interview) and telephone survey, which provides estimates of health determinants, health status and health system utilization for health regions across Canada.[2] Conducted over the period September 2000 to November 2001 by Statistics Canada, the multistage stratified cluster sample design sampled over 130,000 Canadians aged 12 years old or over, approximately 42,000 of whom were from Ontario. (People living on Indian Reserves, Canadian Forces Bases and in some remote areas were not included in the target population.) The Ontario response rate was 82%. All survey estimates were weighted, and variance estimates were corrected for the complex sampling design.

### Canadian Tobacco Use Monitoring Survey (CTUMS)

Health Canada's *Canadian Tobacco Use Monitoring Survey* is a nation-wide, tobacco-specific, random telephone survey.[3] (Annual data are based on two cycles, the first collected from February to June, and the second from July to December.) Directed by Statistics Canada, the sample design is a two-phase stratified random sample of telephone numbers. To ensure that the sample is representative of Canada, each province is divided into strata or geographic areas (Prince Edward Island had only one stratum). As part of the two-phase design, households are selected first and then, based on household composition, one, two, or no respondents are selected. The purpose of this design is, in part, to over-sample individuals in the 15-24 year age range. In general, CTUMS samples the Canadian population aged 15 and older (excluding residents of the Yukon, Northwest Territories, Nunavut, and full-time residents of institutions). The interview was completed by 21,788 respondents, with an approximately equal sample allocation across provinces (2,258 in Ontario). The person response rate was 89% for Ontario (91% for Canada). All survey estimates were weighted and variance estimates were calculated based on procedures outlined in the 2001 CTUMS technical documentation.

### Centre for Addiction and Mental Health Monitor (CAMH Monitor)

The Centre for Addiction and Mental Health's *CAMH Monitor* is an Ontario-wide, random telephone survey, focusing on addiction and mental health issues.[4] Administered by the Institute for Social Research at York University, this ongoing monthly survey has a two-stage probability selection design. The survey sample of 2,627 represents 9,118,084 Ontarians aged 18 and older (excluding people in prisons, hospitals, military establishments, and transient populations such as the homeless). The response rate was 61%. The CAMH Monitor replaced earlier surveys at the Centre including the *Ontario Alcohol and Other Drug Opinion Survey* (1992-1995) and the *Ontario Drug Monitor* (1996-1999). Reported annual data are based on all of these surveys. All survey estimates were weighted, and variance estimates and statistical tests were corrected for the sampling design.

### Strengths and Weaknesses of Surveys

Each of the surveys described has its own particular strengths, and we draw on these in the subsequent presentation. For instance, because of the period over which the Centre for Addiction and Mental Health surveys have been conducted (1977 for OSDUS and 1991 for the CAMH Monitor), trend data on provincial smoking behaviour is unsurpassed. Additionally, OSDUS and the CAMH Monitor provide sub-provincial (i.e., regional) estimates. Although CTUMS is a fairly new survey (1999), its strengths are its breadth of tobacco-specific questions, including knowledge, attitudes, and behaviours, and the opportunity it affords to make interprovincial comparisons. Lastly, one of the strengths of CCHS is that data are available at the level of Ontario's 37 public health units.

Direct comparison of results from different surveys may not always be appropriate because the surveys employ different methodologies (e.g., school-based vs. telephone surveys) and can have different question wording and response categories. Moreover, the population of interest (e.g., people aged 12 or over vs. people aged 15 or over), purpose of survey, and response rates of the surveys can vary. To aid the reader, figures and tables depicting survey data are accompanied by a detailed title, which typically provides information on the survey question, population of interest, age, and survey year. Figures and tables also have data sources listed in figure and table notes. *Please exercise caution when comparing results from different surveys and from different figures and tables.*

## Estimating Population Parameters

Sample surveys are designed to provide an *estimate* of the true value of a particular characteristic in the population such as the population's average tobacco-related knowledge, attitudes, and behaviours (e.g., the percentage of Ontario adults who report using cigarettes in the past month). Because not everyone in a province is surveyed, the true population value is unknown and is therefore estimated from the sample. Sampling error will be associated with this estimate. A *confidence interval* provides an interval around survey estimates and contains the true population values with a specified probability. In this report, 95% confidence intervals are used, which means that there is a 95% probability that the given confidence interval will contain the true value of the quantity being estimated. For instance, if the prevalence of current smoking among Ontario adults on Survey A is 25% and the confidence interval is 22% to 28%, there is a 95% probability that the true value in the population falls between 22% and 28% (25%±3).

It is equally true that an estimate of 20% (±3) from Survey B (assuming both Survey A and B ask the same question) is no different from the 25% estimate from Survey A. This occurs because the upper limit of the estimate on Survey B is 23% (20% + 3) and the lower limit of the estimate from Survey A is 22% (25% – 3). That is, the confidence intervals of the two estimates overlap, which indicates that the two estimates are not significantly different from one another, albeit, a formal test of significance may prove otherwise. This argument holds for comparisons of estimates from different survey years, and between groups within the same survey (e.g., prevalence of smoking between men and women). To aid the reader in making comparisons, 95% confidence intervals are provided where possible. W*hen comparing two or more estimates, confidence intervals should be used.*

## Formal Tests of Significance

A significant difference refers to a difference between two population percentages that is not likely due to chance. Specifically, a significant difference is one in which differences as extreme, or more extreme, would occur by chance alone less than 5% of the time if the *true values* in the two groups were the same.

Formal tests of statistical significance have not always been performed. One should therefore interpret trend data (e.g., differences in yearly estimates) and comparisons between two or more estimates (e.g., men and women) with caution. When a formal significance test has been conducted, it is indicated in the text by a

probability statement, $p<.05$. Statements of significance that do not include a specified probability are based on non-overlapping confidence intervals.

## Smoking Status Definitions

Definitions are given for only those categories of smoking status referred to in the subsequent presentation. Figure titles sometimes provide specific information on smoking status not covered in this section. CTUMS definitions have been derived by OTRU and do not necessarily reflect those used by Health Canada.

### Daily Smoker

*CAMH Monitor*. At the present time smokes daily.

*CTUMS*. At the present time smokes every day and has smoked at least 100 cigarettes in his or her life.

*OSDUS*. Someone who smokes 1 or more cigarettes per day

### Occasional Smoker

*CAMH Monitor*. Someone who has smoked 100 cigarettes in his or her life and has smoked in the past month

*CTUMS*. Someone who has smoked during the past 30 days but not every day, and has smoked at least 100 cigarettes in his or her life

### Current Smoker

*CAMH Monitor*. Presently smokes daily or occasionally, or has smoked at least 100 cigarettes in his or her life and smoked within the last 30 days.

*CTUMS*. Presently smokes daily or occasionally.

*OSDUS*. Someone who has smoked at least 100 cigarettes in his or her life and smoked within the last month.

### Former smoker

*CAMH Monitor*. Smoked at least one month or more ago and at least 100 cigarettes in his or her life (coded as former even if respondent indicates that they presently smoke occasionally, previous conditions applying).

### Never Smoker

*CAMH Monitor*. Someone who has not smoked at least 100 cigarettes in his or her life, including respondents who do not recall whether they smoked 100 cigarettes in his or her life.

*CTUMS*. Someone who has not smoked at least 100 cigarettes in his or her life.

### Non Smoker

CAMH Monitor. Former and never smokers combined.

*OSDUS*. Someone who has never smoked; tried only one cigarette in the past year; or has not smoked in the past year.

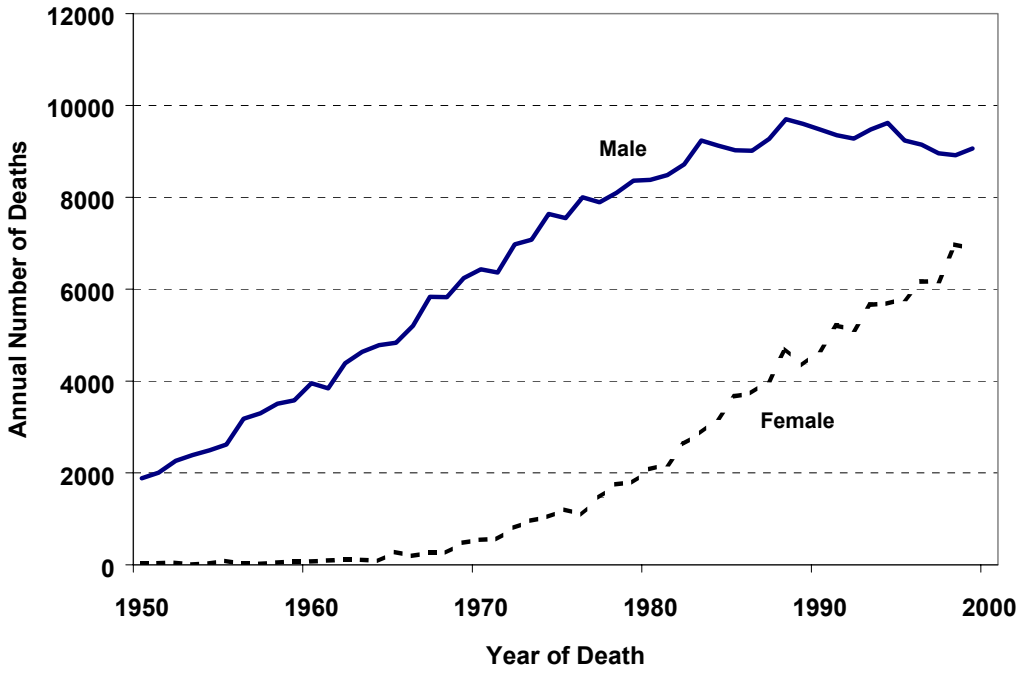
# THE TOBACCO CONTROL ENVIRONMENT IN ONTARIO

## Health Burden of Smoking

In 1999, about 16,000 Ontarians died from tobacco-attributable diseases such as lung cancer, heart disease, and stroke (9,061 males and 6,889 females).

Tobacco-related deaths among males peaked in 1987 and have subsequently levelled off (Figure 1). Deaths among females have continued to increase but are expected to level off soon, reflecting the lag between men and women in starting and giving up smoking.[5] By 2007, the annual number of deaths attributable to tobacco is expected to be about the same for men and women.[6]

Figure 1: Tobacco-Attributed Deaths in Ontario, 1950-1999



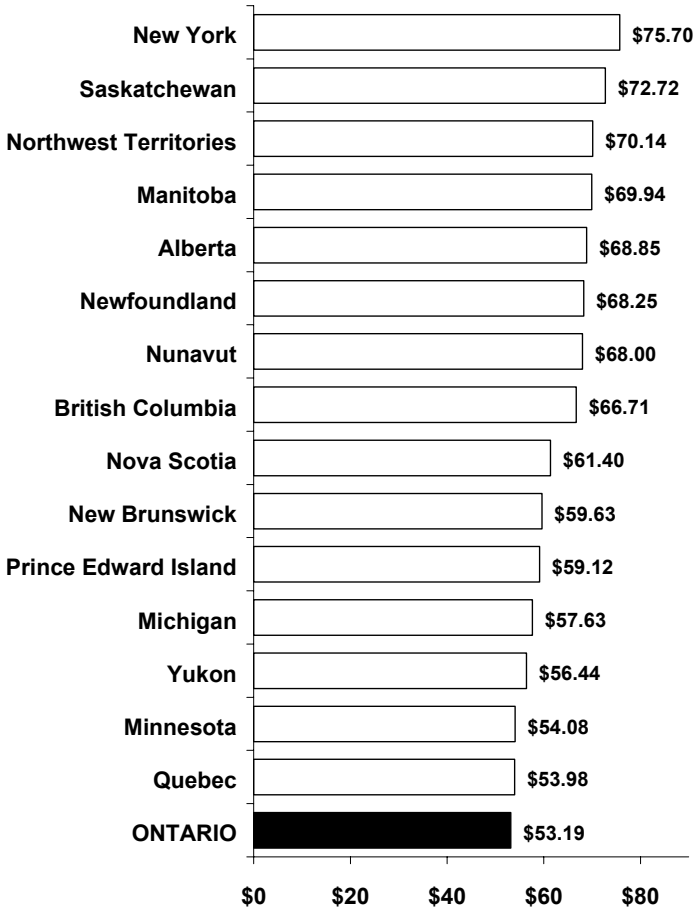

*Source:* Adapted from Holowaty et al. (2002).

## Price

There is considerable scientific evidence to indicate that higher prices encourage smokers to quit or reduce their smoking and prevent youth from starting to smoke.[7-11] Compared to the other provinces and bordering US states, Ontario held the unenviable distinction of having the lowest price for cigarettes over the reporting period (Figure 2).[12] Although the province's current $53.19 average carton price is only marginally lower than Quebec's ($53.98), it is $20.00 below the new Canadian leader, Saskatchewan, where a carton of 200 cigarettes now sells for $72.72.

Given the current geographical distribution of price, the concern about cross-border smuggling of cigarettes *into* the province is unwarranted. Indeed, taxes could be considerably higher without raising the likelihood of smuggling, given higher prices in other jurisdictions.

Figure 2: Price per Carton of Cigarettes, by Province and US States Bordering Ontario, 2002 (June)




*Note:* All figures in $CDN.
*Source:* Smoking and Health Action Foundation.

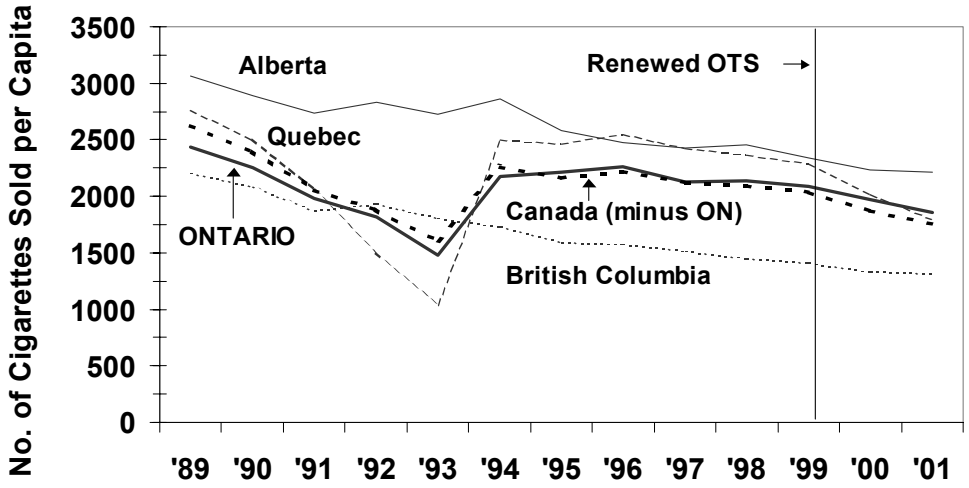
## Sales

In 2001, per capita legal sales of cigarettes in Ontario were at about the same level as in 1992 (Figure 3), down from the high reported in 1996. In 2001, sales were 11% lower than at the start of the renewed Ontario Tobacco Strategy in 1999. More than 17.8 billion cigarettes and cigarette equivalents (e.g., fine cut or roll-your-own) were sold in Ontario in 2001.

Per capita sales in Ontario over the years have closely followed the national average (Ontario sales excluded; Figure 3). Earlier in the 1990s, Ontario per capita sales were below those of the rest of Canada, but they have been higher since 1998 (1,856 vs. 1,763 in 2001).

Among the provinces, Ontario has the fifth highest level of per capita sales (Table 1). Alberta has the highest level, followed by Nova Scotia, New Brunswick, and Prince Edward Island. Per capita sales in Ontario were 41% higher than in British Columbia (1,856 vs. 1,319), the latter having the lowest level of per capita sales in the country.

Figure 3: Legal Sales of Cigarettes and Cigarette Equivalents per Capita, by Selected Provinces, Age 15+, 1989-2001




*Source:* Sales of cigarettes based on monthly shipment data to Health Canada from the three largest manufacturers of tobacco products in Canada (representing 99% of the market share).

Table 1: Legal Sales of Cigarettes and Cigarette Equivalents per Capita, Age 15+, Provinces, 2001

| Province | Sales |
|---|---|
| British Columbia | 1,319 |
| Newfoundland | 1,549 |
| Manitoba | 1,710 |
| Quebec | 1,797 |
| Saskatchewan | 1,833 |
| ONTARIO | *1,856* |
| Prince Edward Island | 1,934 |
| New Brunswick | 1,955 |
| Nova Scotia | 2,057 |
| Alberta | 2,210 |
| CANADA, Ontario excluded | 1,763 |
| CANADA | 1,799 |

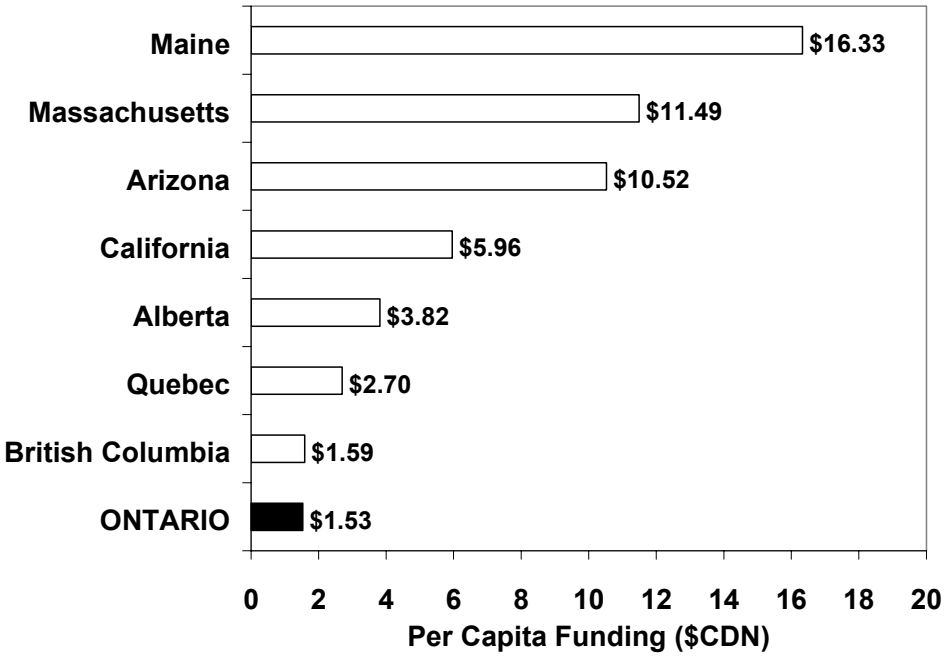
*Note:* Ordered by sales (lowest to highest).
*Source:* Sales of cigarettes based on monthly shipment data to Health Canada from the three largest manufactures of tobacco products in Canada (representing 99% of the market share).

## Tobacco Control Funding

Over the past fiscal year, Ontario Tobacco Strategy spending was $18.2 million, or $1.53 per capita, a drop from the $19 million spent in 2000/2001. This was due to the Ontario Ministry of Health and Long-Term Care not funding a request for proposal (RFP) initiative for community projects in 2001 as they had done the previous year. In the spring of 2002, however, a new RFP was announced, which will provide funds for planning, implementing, and evaluating locally based tobacco control efforts in priority areas including youth, smoke-free settings, and populations at risk.

Overall, the province's tobacco control expenditure is a significant improvement on the 36 cents per capita spent in 1999[13] but still falls below the US$5 to $16 range recommended by the US Centers for Disease Control and Prevention,[14] a standard supported by the Minister of Health's Expert Panel on the Renewal of the Ontario Tobacco Strategy.[13] Figure 4 shows per capita funding in several Canadian provinces and leading US jurisdictions with formal tobacco control programs. With recent increases in tobacco control spending in other provinces, Ontario is no longer the leading provincial spender. Alberta now leads the way at $3.82 per capita.

Figure 4: Per Capita Funding for Tobacco Control (2001/2002), by Selected Provinces and US States




*Sources*: Campaign for Tobacco-Free Kids;[15] Ontario Ministry of Health and Long-Term Care, personal communication; British Columbia Ministry of Health, personal communication; Alberta Alcohol and Drug Abuse Commission, personal communication; Santé et Services sociaux Quebec.[16]

## Adult Attitudes toward Product Regulation and the Tobacco Industry

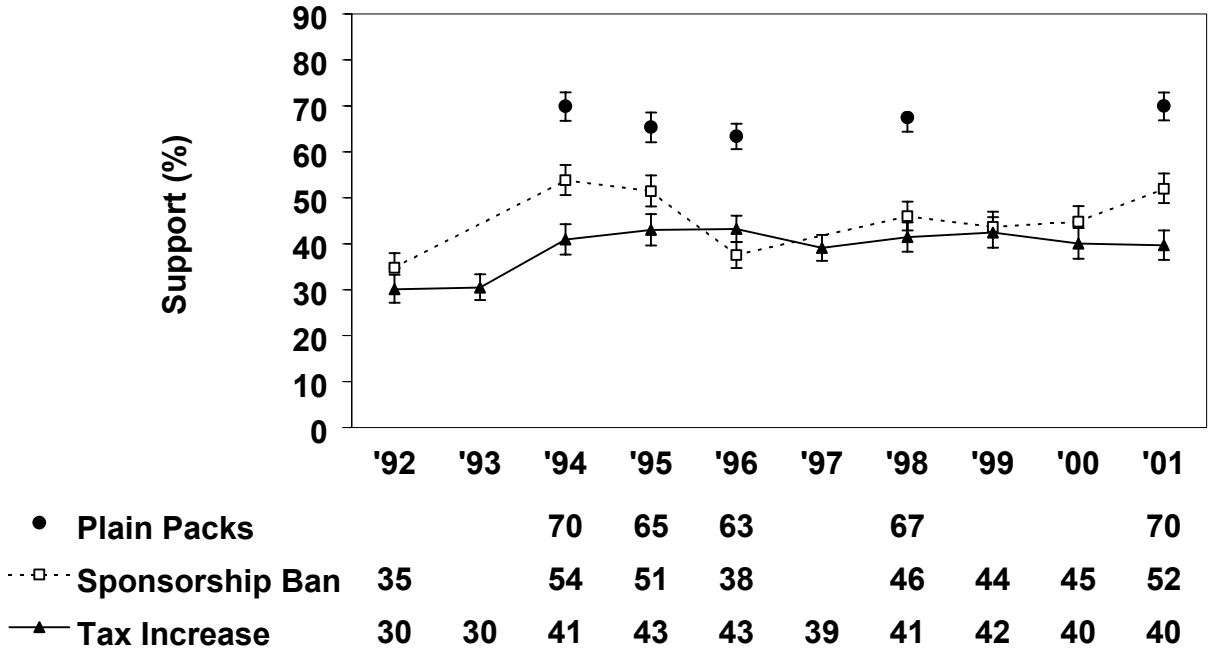
In 2001, 70% of Ontario adults supported the plain packaging of cigarettes. Fifty-two percent supported a ban on tobacco sponsorship, and 40% favoured increasing taxes on cigarettes (Figure 5). Provincial data collected

in 1998 suggest that support for increasing cigarette taxes is considerably higher when respondents believe the money will be earmarked for tobacco prevention, cessation, and protection measures (78%).[17]

Among adults, current smokers indicated significantly lower levels of support for these control measures than former and never-smokers. (CAMH Monitor, data not shown)

In general, support for these three tobacco control policies has remained relatively constant over the past seven years, with a recent increase in support for banning tobacco sponsorship. Specifically, support for a sponsorship ban significantly increased in 2001 compared to 2000 (52% vs. 45%).

Figure 5: Support for Selected Tobacco Control Policies, Age 18+, Ontario 1992-2001




| | '92 | '93 | '94 | '95 | '96 | '97 | '98 | '99 | '00 | '01 |
|---|---|---|---|---|---|---|---|---|---|---|
| Plain Packs | | | 70 | 65 | 63 | | 67 | | | 70 |
| Sponsorship Ban | 35 | | 54 | 51 | 38 | | 46 | 44 | 45 | 52 |
| Tax Increase | 30 | 30 | 41 | 43 | 43 | 39 | 41 | 42 | 40 | 40 |

*Note:* Survey question not asked in years in which the data marker is not presented. Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

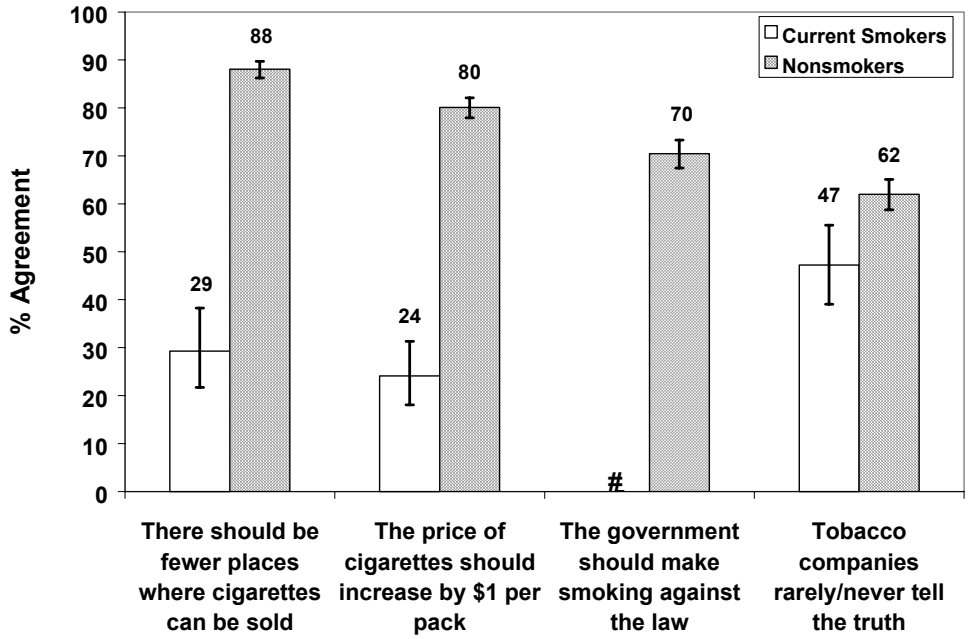
## Student Attitudes toward Product Regulation and the Tobacco Industry

Overall, Ontario students are quite supportive of tobacco control policies. In 2001, more than three-quarters (78%) supported reducing the number of places allowed to sell cigarettes, 59% supported a law making cigarettes illegal, and 71% supported a price increase of $1 per pack (OSDUS, data not shown), a level considerably higher than the 40% support for raising cigarette taxes reported by Ontario adults (Figure 5).

As with Ontario adults, support for tobacco control policies among Ontario students is significantly higher for nonsmokers as compared to current smokers. Compared to smokers, nonsmoking students in 2001 were significantly more supportive of policies to limit the number of places where cigarettes could be sold and to increase the price of cigarettes (Figure 6). Nevertheless, smokers showed some support for these measures (29% and 24%, respectively).

Seven in 10 nonsmokers believed that the government should make smoking against the law (Figure 6). Nonsmokers showed significantly less trust in the tobacco industry than current smokers (62% vs. 47%). However, almost half of all smokers (47%) believed that the tobacco industry rarely or never told the truth. Males and females did not significantly differ on support for tobacco policies or trust in the tobacco industry in 2001 (OSDUS, data not shown).

**Figure 6: Support for Product Regulation and Trust in the Tobacco Industry, by Smoking Status, Grades 7-13, Ontario 2001**




*Note:* # = data not reportable due to high sampling error. Vertical lines represent 95% confidence intervals.
*Source:* OSDUS.

## Comment

Declines over time in per capita tobacco consumption in Ontario are reflected—albeit with a long time lag—in a levelling off of tobacco-attributed deaths, at least among men.

Until recently, Ontario was the leading spender in tobacco control in Canada. With recent increases in per capita funding in Quebec and Alberta, it is a distinction Ontario no longer holds. Moreover, compared to leading US jurisdictions in tobacco control, the Ontario Tobacco Strategy falls short of a comprehensively funded program, although with renewed funding in 1999 it has the beginnings of several recognized components (e.g., provincial media campaign, telephone quit line, community grant program, evaluation).[14]

# TOWARD SMOKE-FREE SPACES

## Awareness of Health Hazards Caused by ETS

There is now a great deal of evidence documenting the health risks associated with exposure to environmental tobacco smoke (ETS). ETS is not only carcinogenic,[18] causing lung cancer in adults, but it also causes heart disease morbidity and mortality, developmental effects (low birth weight and SIDS or Sudden Infant Death Syndrome), and respiratory effects (middle ear disease in children and lower respiratory infections including bronchitis, pneumonia, and increased severity of asthma).[18-23] When asked about the health effects of ETS, a majority of Ontarians (60%) were able to report (unprompted) that ETS caused lung cancer and lung disease, with fewer people reporting it as a cause of emphysema (15%) (CTUMS, data not shown).

## ETS in Restaurants and Bars

As of December 2001, 54% of Ontarians were living in communities that had 100% smokefree bylaws in place for restaurants[i] and 12% were living in communities with 100% smokefree bar bylaws.[24]

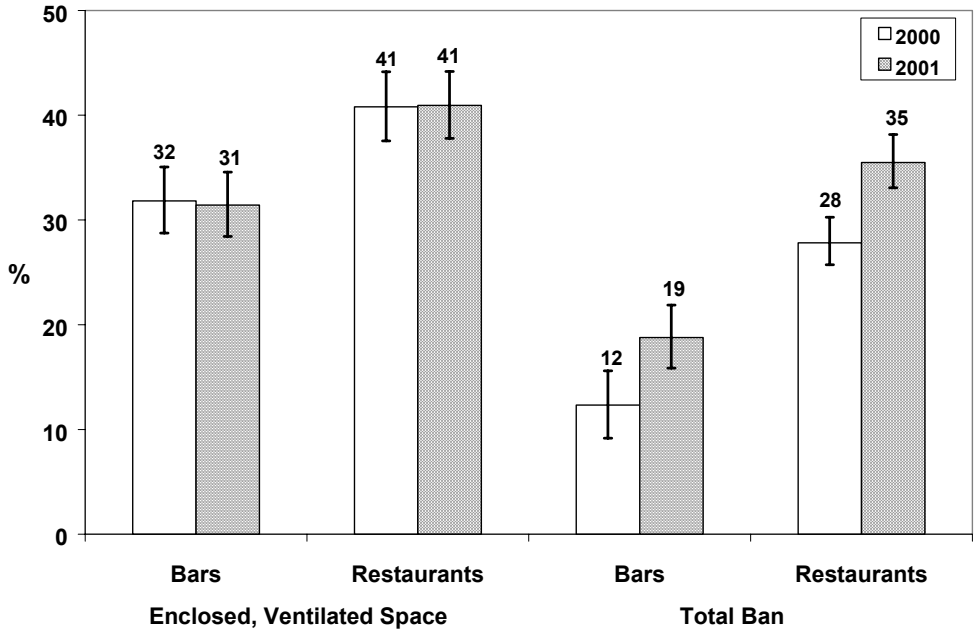
In 2001, 76% of Ontario adults preferred some level of smoking restriction for restaurants, either an enclosed ventilated space[ii] or a total ban, and 50% preferred similar restrictions on smoking in bars (Figure 7). Preference for a total ban on smoking in both restaurants and in bars increased significantly from 2000 to 2001 (Figure 7).

Smoking status continued to be a predictor of support for restrictions in 2001. Significantly more former and never smokers, compared to current smokers, favoured a total ban in restaurants (37% and 45% vs. 16%) and bars (21% and 24% vs. 6%). Similarly, significantly fewer current smokers (19%) favoured a partial ban on smoking in bars compared to former and never smokers (both 36%). (CAMH Monitor, data not shown)

Compared to people in other provinces, Ontarians' preference for a total ban on smoking in restaurants and bars in 2001 did not significantly differ (37% vs. 40% for restaurants and 24% vs. 21% for bars; CTUMS, data not shown). Newfoundland, the province with the most stringent smoking restriction policy,[25] had the highest level of support for a total ban on smoking in restaurants and bars (Figure 8).

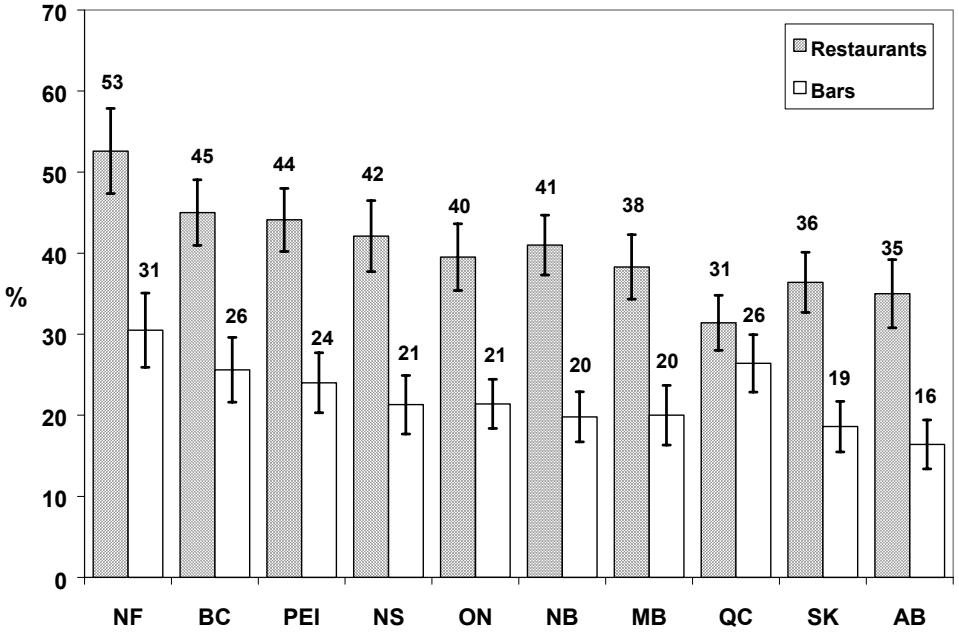
[i] Eating establishments in several jurisdictions, such as Toronto, successfully applied to reclassify their businesses as bars prior to enactment of restaurant bylaws (thereby circumventing the bylaw). Although the 54% estimate is accurate, one needs to consider the meaning of "restaurant" in the interpretation of these data (e.g., there would have been fewer restaurants in Toronto after enactment because a number of former restaurants would have been reclassified as bars).
[ii] Smoking in enclosed smoking sections, which are separately ventilated to the outdoors.

Figure 7: Preferred Level of Smoking Restrictions in Restaurants and Bars, Age 18+, Ontario 2000 and 2001




*Note:* Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

Figure 8: Support for a Total Ban on Smoking in Restaurants and Bars, Age 15+, Canada 2001



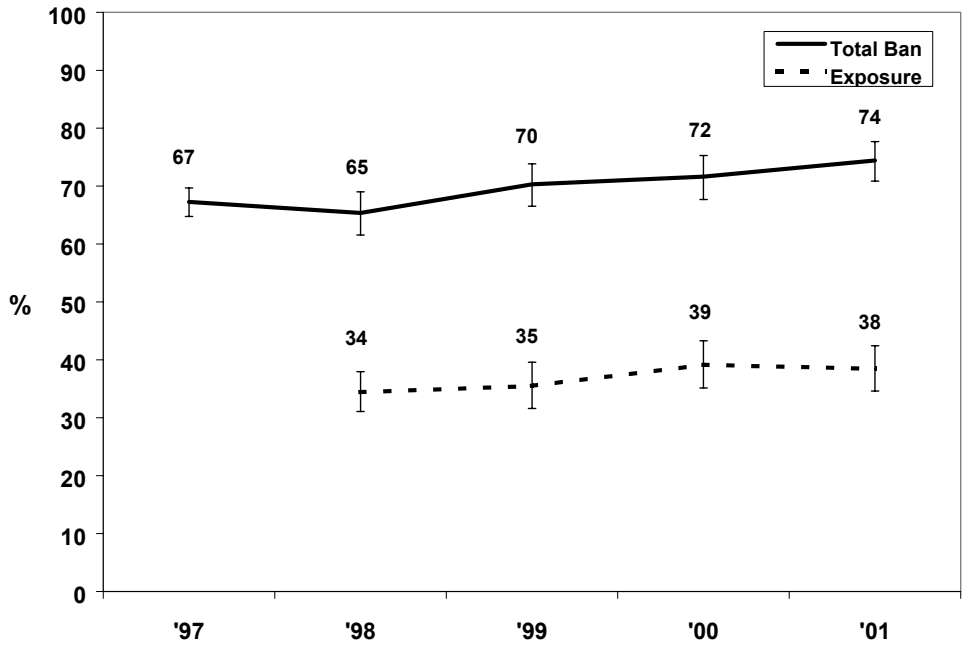

*Note:* Ordered by average level of support across restaurants and bars (highest to lowest). Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Cycle 2).

## ETS in Other Workplaces

### Exposure at Work

Although the number of people covered by total smoking bans in the workplace has increased significantly since 1997, reported exposure to smoke in the workplace (for five or more minutes at least once in the past five days) has not significantly decreased (Figure 9). Of those workers reporting a total ban on smoking in their workplaces, 29% indicated being exposed to environmental tobacco smoke, albeit some might have been exposed to tobacco smoke breathed outside during a break with colleagues.

**Figure 9: Total Smoking Ban Coverage and Workplace ETS Exposure, Workers Age 18+, Ontario 1997-2001**



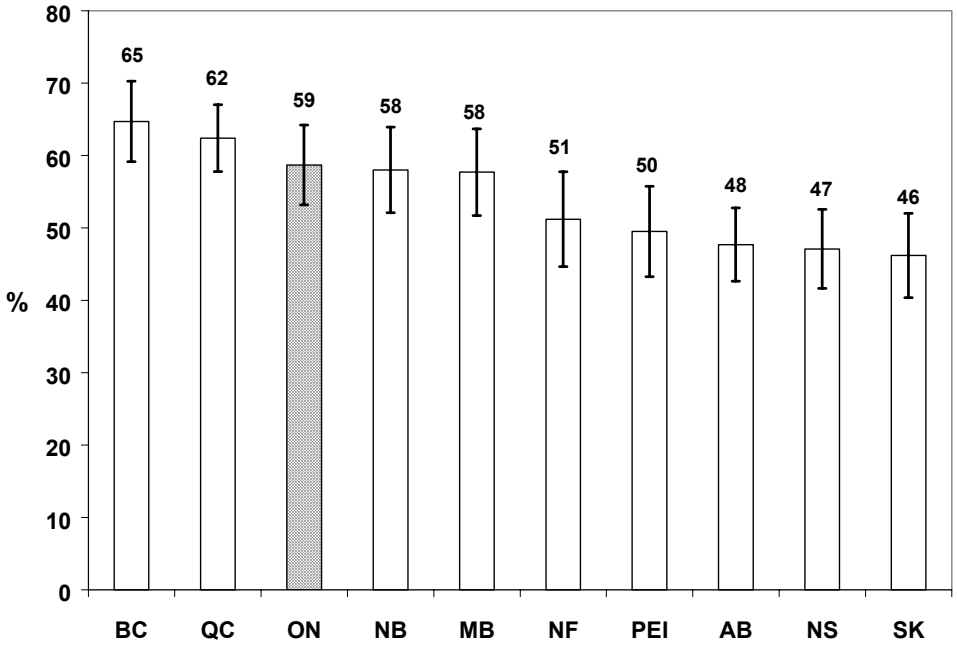

*Note:* Response categories for total ban include "smoking is only allowed outside" and "smoking is not allowed at all." Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

### Rules about Smoking at Work

The prevalence of total smoking bans at work ranged from a high of 65% in British Columbia to a low of 46% in Saskatchewan (Figure 10). Ontario falls on the high side in worker protection from environmental tobacco smoke, with 59% (±5.5) of working respondents indicating they were covered by a total ban on smoking.

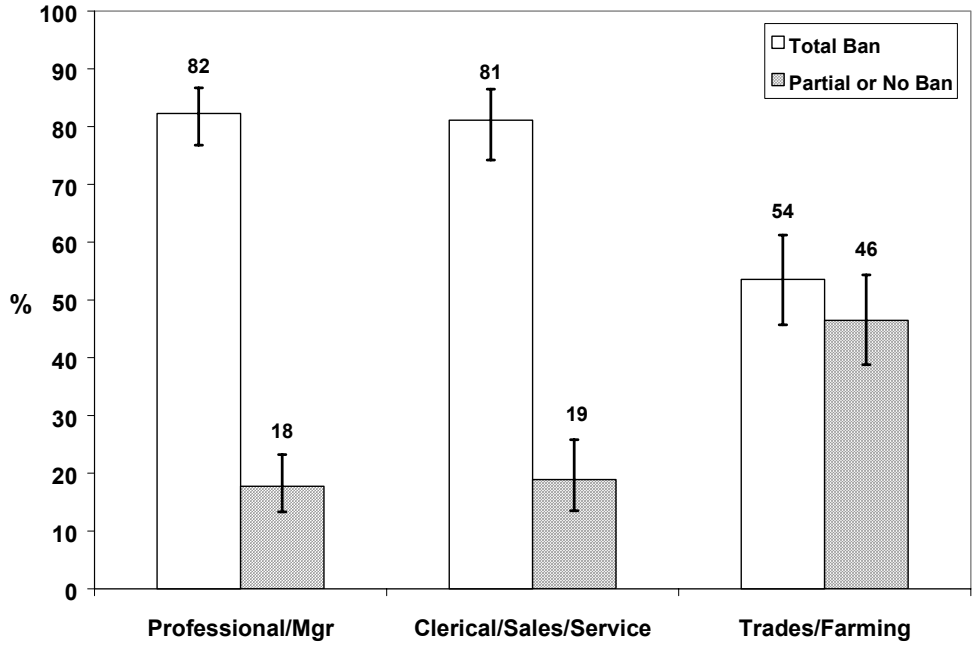
In Ontario, trade and farm workers were significantly less likely to be working in environments having a complete ban on smoking compared to professional, managerial, clerical, and sales workers (Figure 11). There was no change in total restrictions among occupation categories compared to 2000[26] (CAMH Monitor, data not shown).

Figure 10: Total Smoking Ban at Work, by Province, Workers Age 15+, Canada 2001




*Note:* Total Ban means "smoking restricted completely" (no designated areas). Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Cycle 2).

Figure 11: Smoking Restrictions at Work, by Occupation Category, Ontario 2001




*Note:* Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

### Support for Smoking Restrictions at Work

In 2001, 84% of Ontario adults supported either a total ban on smoking in the workplace or an enclosed, separately ventilated space. Likewise, 83% of working adults supported these restrictions. Significantly more people supported a total workplace ban on smoking over a separately ventilated area (52% vs. 32%). (CAMH Monitor, data not shown)

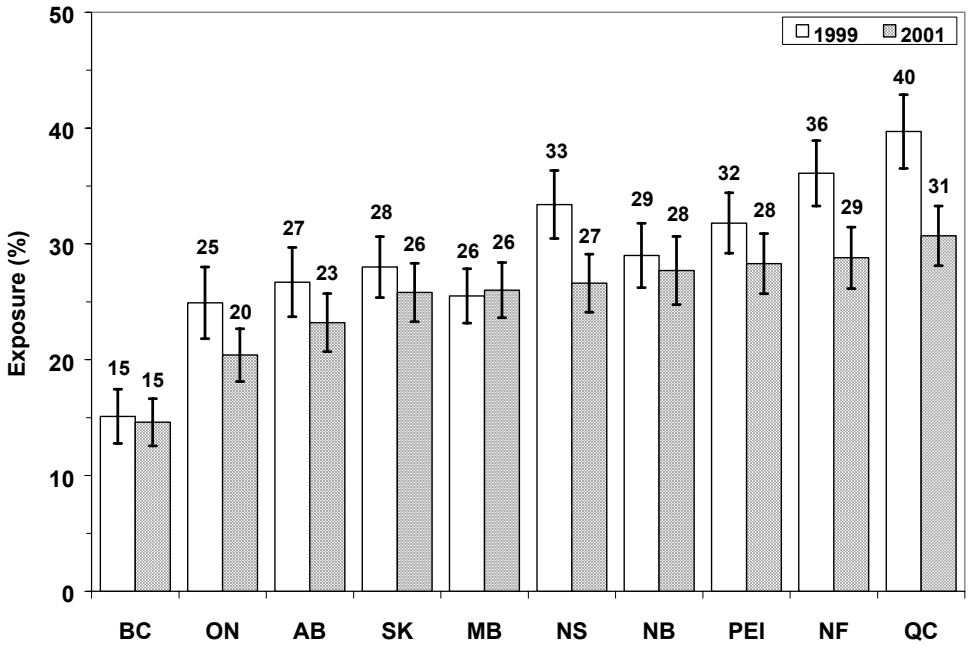
Smoking status and workplace restrictions were associated with support for restrictions. In 2001, significantly more former and never smokers favoured a total workplace ban (53% and 60%) than current smokers (35%). Significantly more smokers who were covered by a complete ban on smoking approved of 100% smoke-free bans in the workplace compared to those smokers in work sites with no ban or a partial ban (80% vs. 59%). (CAMH Monitor, data not shown)

## ETS in the Home

### ETS Exposure in the Home

In 2001, reported exposure at home varied by province, ranging from 15% in British Columbia to 31% in Quebec (Figure 12). In 2001, 20% of Ontario households had family members or regular visitors who smoked inside every day or almost every day (Figure 12). Although too high in absolute terms, this estimate compares favourably to exposure reported in other provinces, with only British Columbians reporting lower exposure. However, at least 460,000 Ontario children aged 17 or under were potentially exposed to smoking in their homes (CTUMS, data not shown).

**Figure 12: Reported Exposure to ETS at Home (Every Day or Almost Every Day), by Province, Canada 1999 and 2001**




*Note:* Ordered by 2001 exposure (lowest to highest). Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Household, Annual).

In 2001, only 10% of nonsmoking Ontario households allowed others to smoke in the home (CTUMS, data not shown). This estimate is an encouraging 11 percentage points below the Canadian average of 21%.

Within Ontario, past month exposure to environmental tobacco smoke at home varies widely, with estimates ranging from 18% in the Waterloo Region health unit area to 36% in the Porcupine health unit area, a twofold difference (Table 2). In general, exposure is lower in Southern Ontario and higher in Northern Ontario.

### Support for Smoking Restrictions in the Home

Eighty-three percent of Ontarians believed that parents spending time with small children should not smoke at all inside their homes. This figure is significantly higher than the level found in 1995 when data first became available (59%), but is unchanged from that reported at the start of the renewed Ontario Tobacco Strategy in 1999 (81%). Current smokers showed the largest increase in this belief since 1995 (36% to 65%). (CAMH Monitor, data not shown)

In 2001, just over half of Ontarians believed that there should be a law forbidding parents from smoking inside their household if children are living there (54%). (CAMH Monitor, data not shown)

## Comment

There has been notable progress in protection from ETS in the province and in attitudes about ETS. Ontarians, for instance, are now more supportive of smoking restrictions in the home than they were in 1995. Although reported exposure to ETS in the home varies widely across the province, average exposure compares favourably to exposure reported in the other provinces.

Compared to 2000, support for total bans on smoking in restaurants and bars increased significantly in 2001.

Ontarians are more supportive of total smoking bans at workplaces than partial or no bans. Total smoking ban coverage at workplaces continues to rise in the province, albeit slowly. However, ETS exposure at work is not noticeably declining.

Although Ontario compares favourably to other provinces on several indicators of ETS exposure, the few time series available (e.g., on restrictions at work) reveal that progress over time has been slow.

Table 2: Exposure to ETS at Home, by Public Health Unit, Age 12+, Ontario 2000/2001

| | Exposure to ETS at Home in the Last Month | |
|---|---|---|
| **Public Health Unit** | **%** | **People** |
| Waterloo[a] | 18 | 50,616 |
| Toronto[b] | 20 | 338,648 |
| Perth[c] | 21 | 10,035 |
| Halton[a] | 21 | 51,683 |
| Wellington-Dufferin-Guelph[a] | 22 | 33,892 |
| Bruce-Grey-Owen Sound[c] | 22 | 22,469 |
| Ottawa[d] | 23 | 118,512 |
| Peel[e] | 23 | 157,507 |
| Hamilton[a] | 24 | 73,760 |
| Peterborough[e] | 24 | 20,121 |
| York[e] | 25 | 121,908 |
| *ONTARIO average* | ***25*** | *1,860,679* |
| Middlesex-London[b] | 25 | 68,011 |
| Durham[e] | 27 | 82,787 |
| Kingston-Frontenac-Lennox & Addington[d] | 27 | 30,767 |
| Haldimand-Norfolk[a] | 27 | 18,331 |
| Oxford[b] | 27 | 17,470 |
| Hastings and Prince Edward[d] | 29 | 27,451 |
| Huron[b] | 29 | 11,583 |
| Algoma[f] | 29 | 21,441 |
| North Bay[f] | 29 | 16,539 |
| Leeds-Grenville-Lanark[d] | 29 | 28,373 |
| Muskoka-Parry Sound[e] | 30 | 15,374 |
| Thunder Bay[g] | 30 | 28,160 |
| Elgin-St Thomas[b] | 31 | 15,467 |
| Eastern Ontario[d] | 31 | 34,106 |
| Sudbury[f] | 32 | 35,395 |
| Lambton[b] | 32 | 25,171 |
| Renfrew[d] | 32 | 18,857 |
| Brant[a] | 32 | 23,767 |
| Windsor-Essex[b] | 32 | 77,101 |
| Northwestern[g] | 33 | 12,621 |
| Kent-Chatham[b] | 33 | 22,478 |
| Simcoe[e] | 34 | 75,699 |
| Niagara[a] | 34 | 91,910 |
| Haliburton-Kawartha-Pine Ridge[e] | 35 | 36,772 |
| Timiskaming[f] | 35 | 7,215 |
| Porcupine[f] | 36 | 18,682 |

*Note:* Ordered by percent exposure to ETS (lowest to highest). [a]Central West Region; [b]Toronto Region; [c]South West Region; [d]East Region; [e]Central East Region; [f]North East Region; [g]North West Region.
*Source: Canadian Community Health Survey*. Health Indicators, May 2002 Vol. 8 (1).

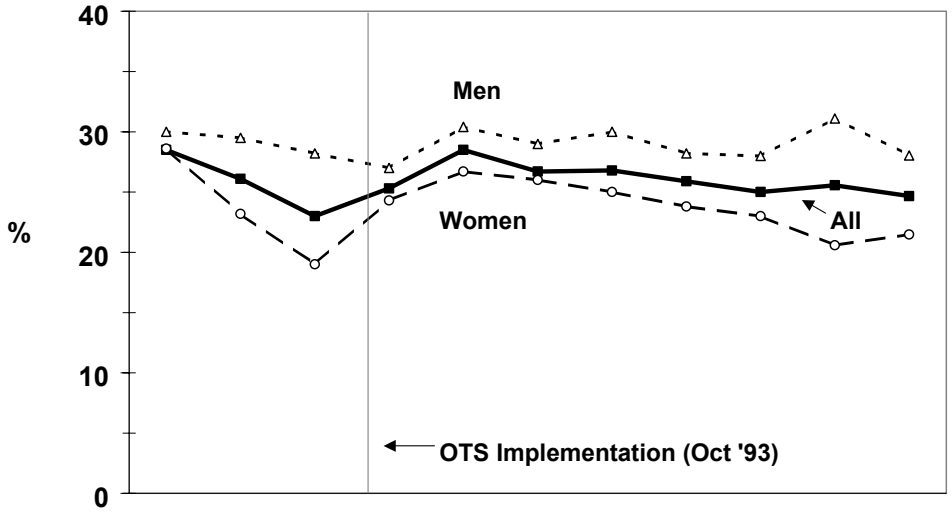
# TOWARD ELIMINATING ADULT SMOKING

## Prevalence

### Current Smoking

In 2001, one quarter of Ontario adults were current smokers (i.e., smoked daily or occasionally in the past month and had smoked 100 cigarettes in his or her life), a rate unchanged in recent years (Figure 13). Similarly, men were significantly more likely to be current smokers than women (28% for men vs. 21% for women in 2001). The prevalence of current smoking did not significantly differ among Ontario's Health Planning Regions (CAMH Monitor, data not shown).

Figure 13: Current Cigarette Smoking, by Sex, Age 18+, Ontario 1991-2001



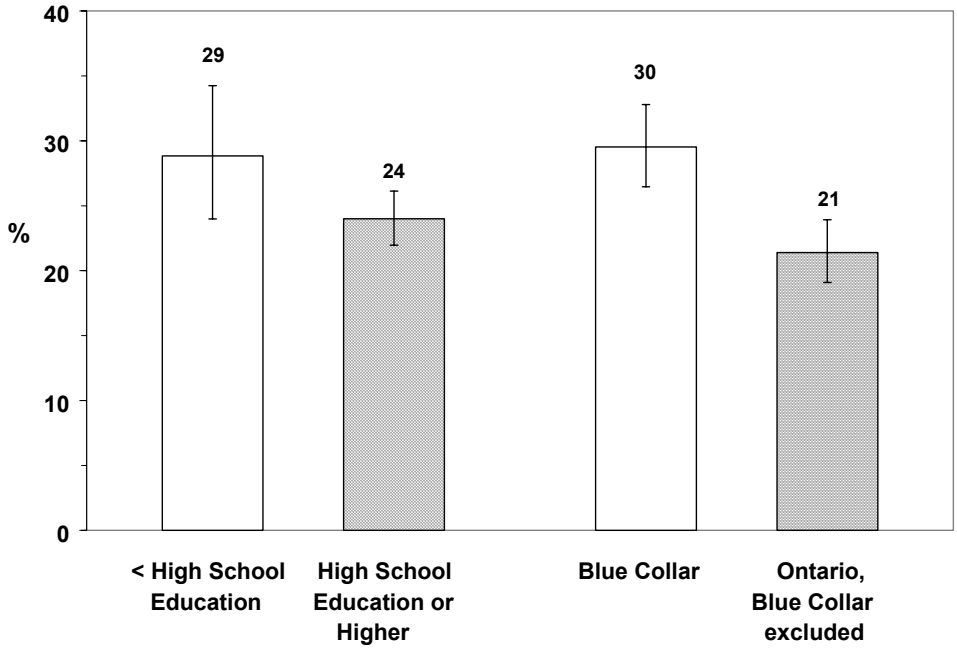

| | '91 | '92 | '93 | '94 | '95 | '96 | '97 | '98 | '99 | '00 | '01 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Men | 30 | 30 | 28 | 27 | 30 | 29 | 30 | 28 | 28 | 31 | 28 |
| All Adults | 29 | 26 | 23 | 25 | 29 | 27 | 27 | 26 | 25 | 26 | 25 |
| Women | 29 | 23 | 19 | 24 | 27 | 26 | 25 | 24 | 23 | 21 | 21 |

*Source*: CAMH Monitor.

In 2001, the prevalence of current smoking among Ontario adults with less than high school education did not differ significantly from Ontario adults with high school or more education (Figure 14). However, in 2001, blue-collar workers were more likely to be current smokers compared to other Ontarians (Figure 14), a finding consistent with other years. In general, the prevalence of current smoking for people with less than high school education and for blue-collar workers has remained relatively constant in recent years (CAMH Monitor, data not shown).

Ontario data on smoking by pregnant women is not currently available, but is expected to be available in the near future from the Canadian Community Health Survey and the Canadian Tobacco Use Monitoring Survey.

Figure 14: Current Cigarette Smoking, by Selected Groups, Age 18+, Ontario 2001



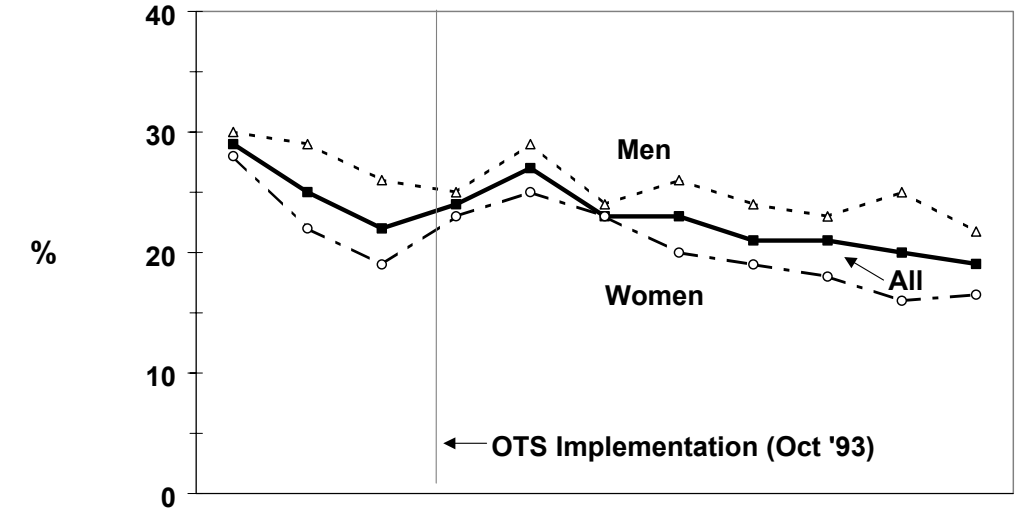

*Note:* Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

## Daily Smoking

In 2001, one fifth (19%) of Ontario adults smoked daily (Figure 15), which is a significant decrease over the prevalence of daily smoking found in 1991 (29%) and 1995 (27%). Although 2000 data suggested that the smoking prevalence of men and women was diverging, this pattern did not persist in 2001. Nevertheless, men were more likely than women to smoke daily in 2001 (22% vs. 17%).

The prevalence of daily smoking varied by region, ranging from 17% in Central West to 25% in the North (Figure 16), albeit differences were not significant.

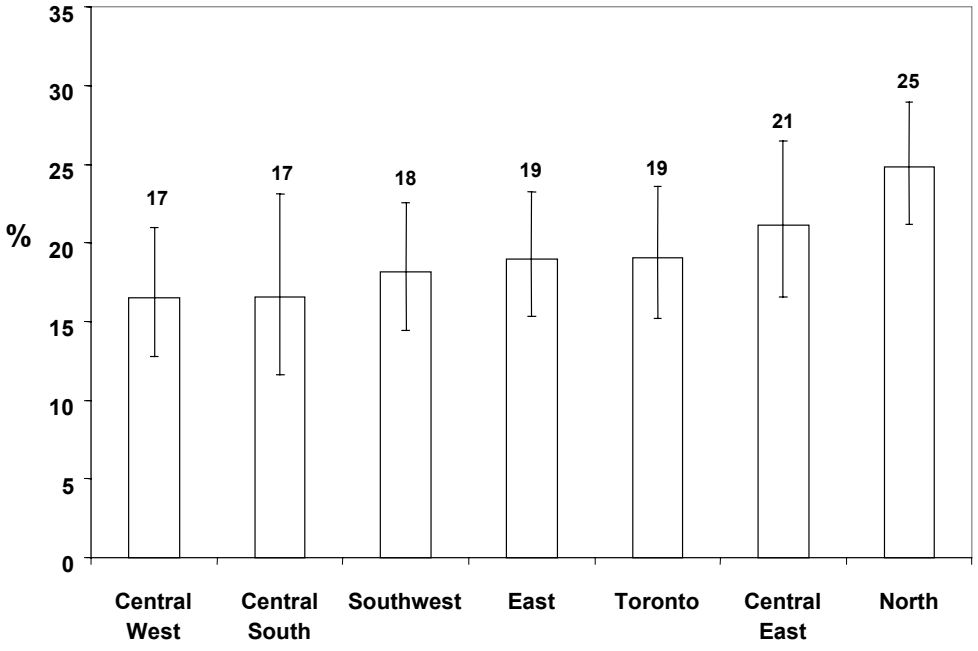
Figure 15: Daily Cigarette Smoking, by Sex, Age 18+, Ontario 1991-2001




| | '91 | '92 | '93 | '94 | '95 | '96 | '97 | '98 | '99 | '00 | '01 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Men | 30 | 29 | 26 | 25 | 29 | 24 | 26 | 24 | 23 | 25 | 22 |
| All Adults | 29 | 25 | 22 | 24 | 27 | 23 | 23 | 21 | 21 | 20 | 19 |
| Women | 28 | 22 | 19 | 23 | 25 | 23 | 20 | 19 | 18 | 16 | 17 |

*Source*: CAMH Monitor.

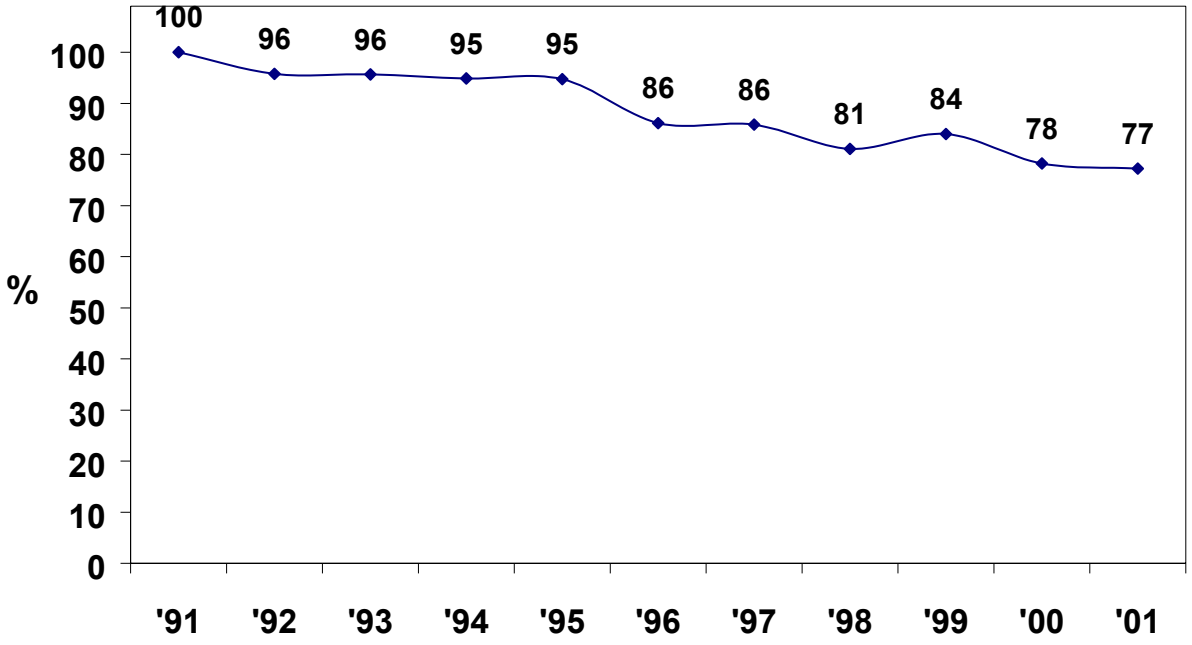
Figure 16: Daily Cigarette Smoking, by Health Planning Region, Age 18+, Ontario 2001




*Note:* Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

Of current smokers, 77% were daily smokers and 23% smoked occasionally in 2001. This is in contrast to 1991, when virtually all smokers were daily smokers (Figures 17). In 2001, men and women who smoked were equally likely to be daily smokers (CAMH Monitor, data not shown).

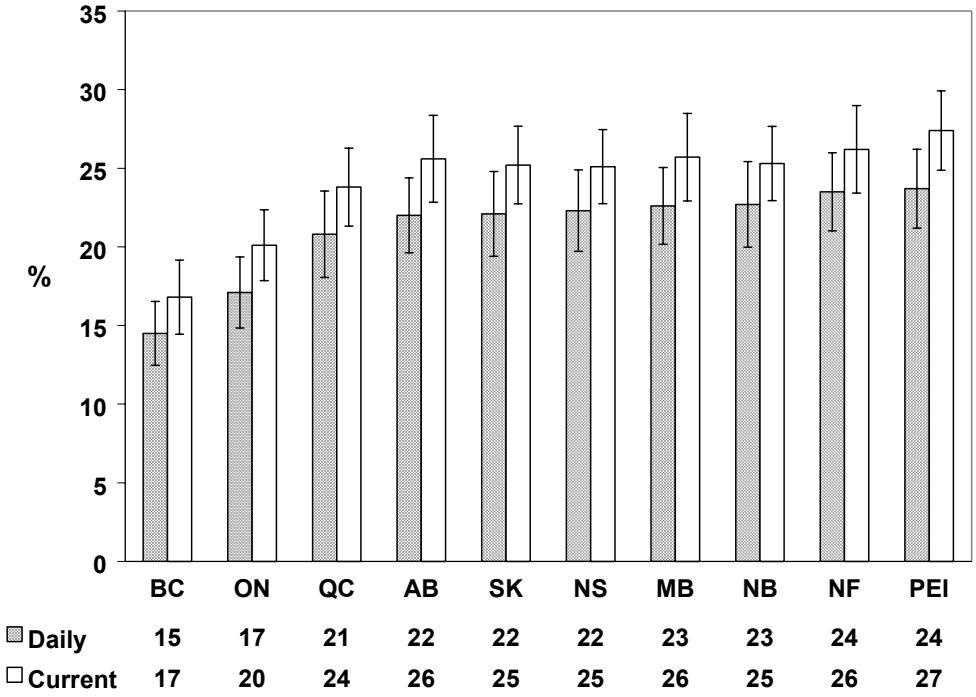
Figure 17: Daily Smoking as a Proportion of Current Smoking, Age 18+, Ontario 1991-2001




*Source:* CAMH Monitor.

In a national survey, the prevalence of daily and current smoking in Ontario in 2001 (17% and 20%, respectively) was significantly lower than that found in all provinces except British Columbia and Quebec (Figure 18).

Figure 18: Daily and Current Cigarette Smoking, by Province, Age 18+, Canada 2001




*Note:* Ordered by prevalence of daily smoking (lowest to highest). Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Annual).

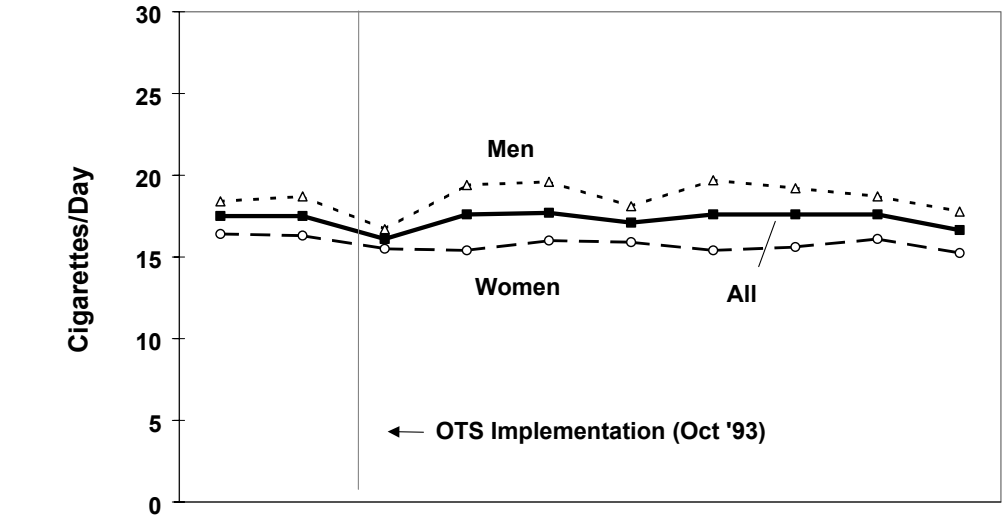
## Level of Use

In 2001, the mean number of cigarettes smoked per day by daily smokers was 16.6 (Figure 19), which is not statistically different from the number smoked in 1992. Men smoked significantly more cigarettes per day than women (17.8 vs. 15.2), a pattern consistent with previous years.

## Dependence

The Heaviness of Smoking Index[27] is a scale combining time to first cigarette each morning and the number of cigarettes per day (a score of 0-2 indicates low dependence, 3-4 indicates moderate dependence, and 5-6 indicates high dependence). The proportion of men and women daily smokers at each relative score on this index does not significantly differ (Figure 20). Taking account of prevalence as well as dependence, only 14% of Ontario adults are highly dependent on cigarettes (15% of men and 11% of women, difference not significant), a figure unchanged from 1996 estimates.[28]

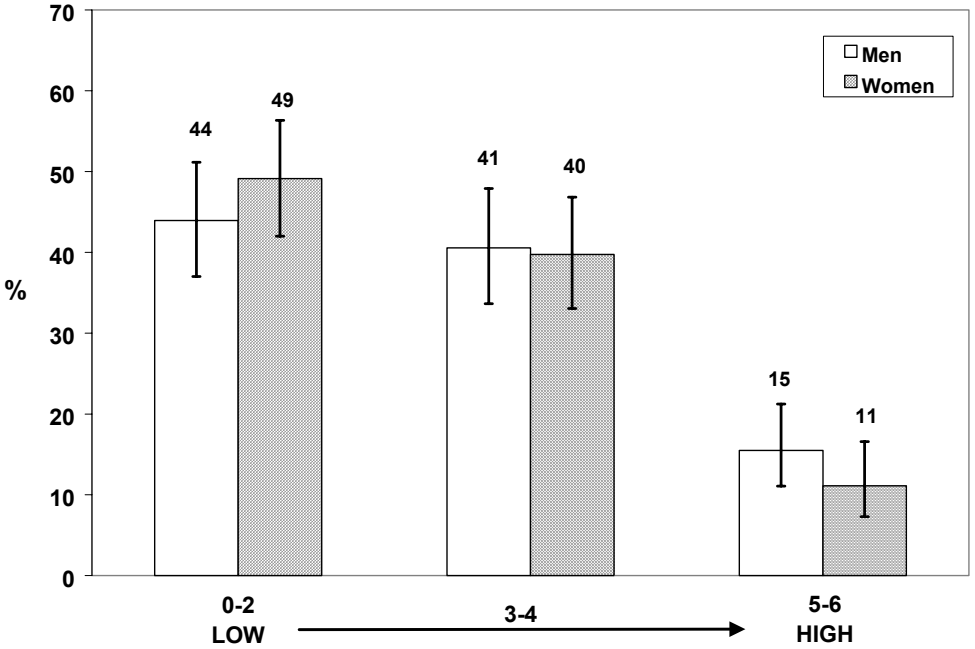
Figure 19: Mean Number of Cigarettes Smoked Daily, by Sex, Daily Smokers, Age 18+, Ontario 1992-2001




| | '92 | '93 | '94 | '95 | '96 | '97 | '98 | '99 | '00 | '01 |
|---|---|---|---|---|---|---|---|---|---|---|
| Men | 18.4 | 18.7 | 16.7 | 19.4 | 19.6 | 18.1 | 19.7 | 19.2 | 18.7 | 17.8 |
| All Adults | 17.5 | 17.5 | 16.1 | 17.6 | 17.7 | 17.1 | 17.6 | 17.6 | 17.6 | 16.6 |
| Women | 16.4 | 16.3 | 15.5 | 15.4 | 16.0 | 15.9 | 15.4 | 15.6 | 16.1 | 15.2 |

*Source:* CAMH Monitor.

Figure 20: Nicotine Dependence: Heaviness of Smoking Index, by Sex, Daily Smokers, Age 18+, Ontario 2001

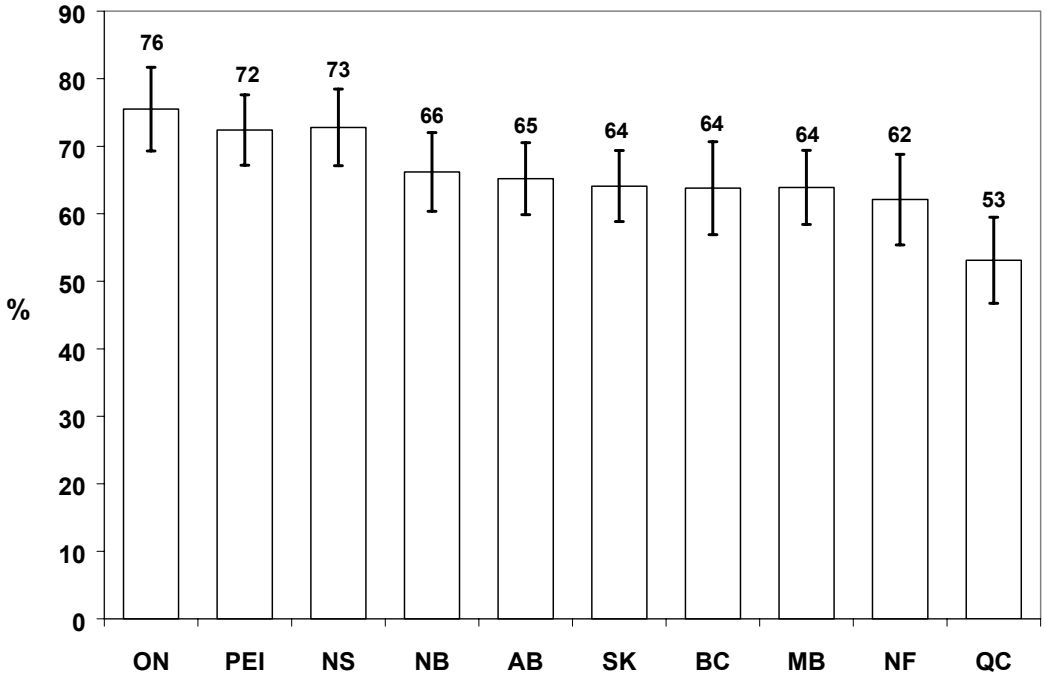



*Note:* Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

## Product Preference

In 2001, over three quarters (76%) of current smokers in Ontario smoked light or mild cigarettes (Figure 21), the highest prevalence in the country. Smokers who used light or mild cigarettes erroneously believed that they were less harmful than regular cigarettes. For instance, 27% of light or mild users in Ontario believed these cigarettes reduced the risks of smoking and 38% believed they would inhale less tar smoking light/mild cigarettes (CTUMS 2001, data not shown).

Figure 21: Preference for Light/Mild Cigarettes, by Province, Current Smokers, Age 18+, Canada 2001




*Note:* Light/mild cigarettes include "ultra" and "extra" brands. Ordered by prevalence (highest to lowest). Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Annual).

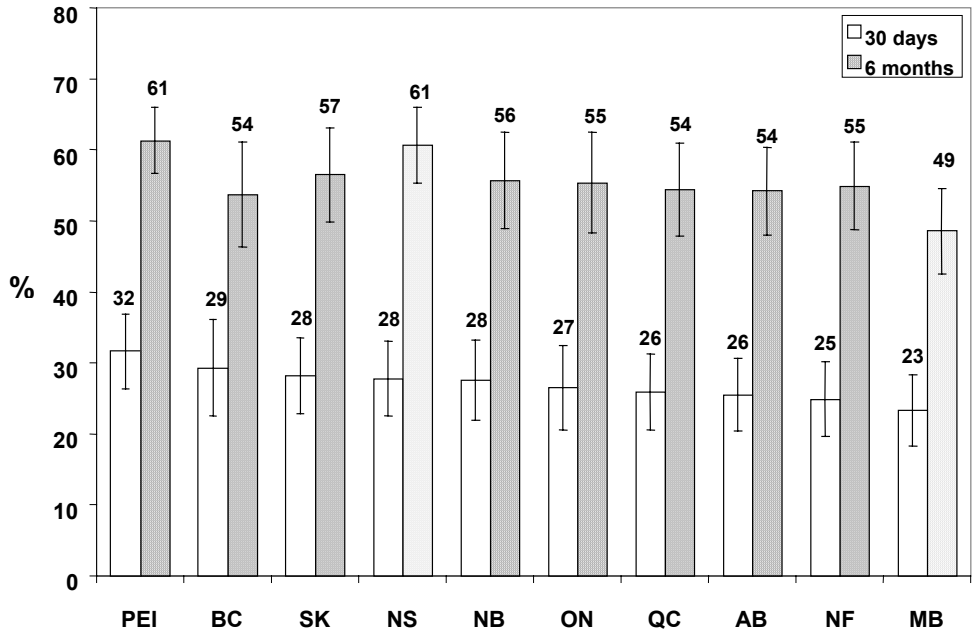
## Smoking Cessation

### Intentions to Quit

Over half (55%) of Ontario smokers expressed an intention to quit within six months of their interview (Figure 22). Almost three in ten (27%) smokers were considering quitting within 30 days. Both six month and 30 day quit intentions remained unchanged from 2000.[26]

In 2001, half of all current smokers (49%) who had visited a doctor in the past year reported being advised to quit smoking, unchanged from 2000 (49%) (CAMH Monitor, data not shown).

Figure 22: Intentions to Quit Smoking within Next 30 Days and 6 Months, by Province, Age 18+, Canada 2001

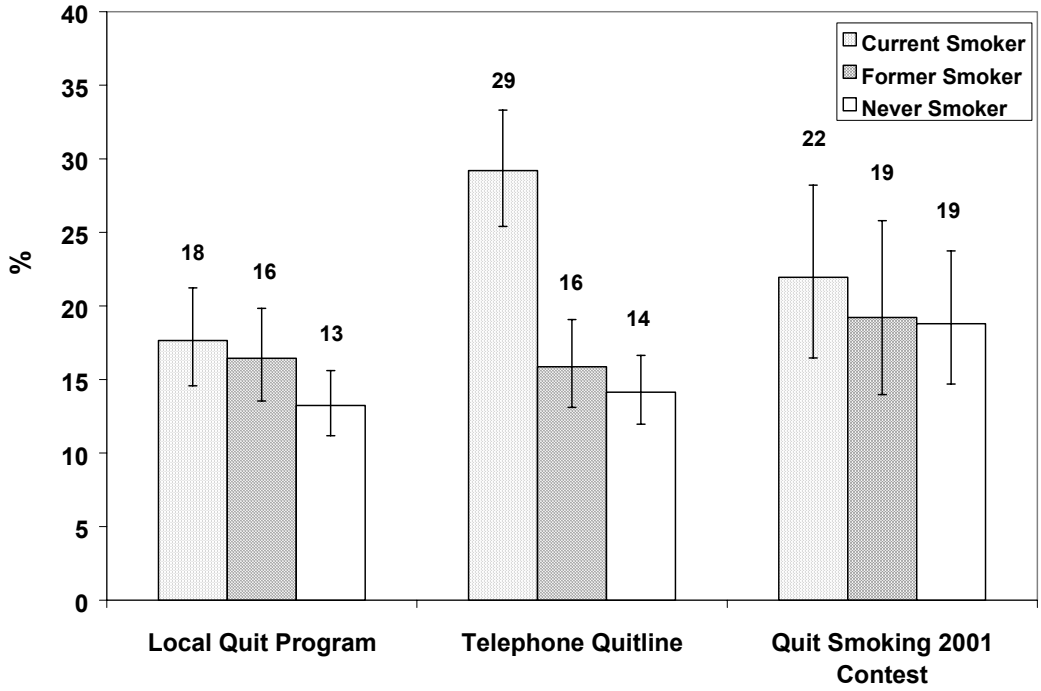



*Note:* Ordered by prevalence of highest 30-day quit plans. Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Annual).

## Awareness of Smoking Cessation Programs

In 2001, the majority of smokers (and nonsmokers) had not heard of programs offered to help smokers (Figure 23). However, awareness of the 1-800 telephone Quitline among current smokers was significantly higher in 2001 than 2000 (29% vs. 17%).[26] When asked about their awareness in the last 30 days, current smokers were significantly more likely to be aware of the telephone Quitline than a local quit program (29% vs. 18%, Figure 23). Moreover, current smokers were more likely to have been aware of the 1-800 Quitline compared to either former or never smokers (29% vs. 16% and 14%, respectively). There was no significant difference in awareness between the Quitline and the Quit Smoking 2001 Contest (Figure 23).

Figure 23: Awareness of Smoking Cessation Programs, Past Month Recall, by Smoking Status, Age 18+, Ontario 2001




*Note:* For the Quit Smoking Contest, estimates based on January to April data, reflecting the period around which the campaign ran. Vertical lines represent 95% confidence intervals.
*Source:* CAMH Monitor.

### Relapse

Given the multiple social, psychological, environmental and biological factors associated with smoking, it is not surprising that many quit attempts are unsuccessful. Of those Canadians who reported quitting for at least 24 hours during the last year before relapsing, the most common reason cited for their relapse was the need to relax or calm down (CTUMS Cycle 2, data not shown).

## Comment

Daily smoking in the province has been declining in recent years. However, current smoking is not declining because occasional smokers comprise an increasing proportion of all smokers. Although average consumption of cigarettes by daily smokers is unchanged, overall per capita consumption continues to decline because there are fewer daily smokers.

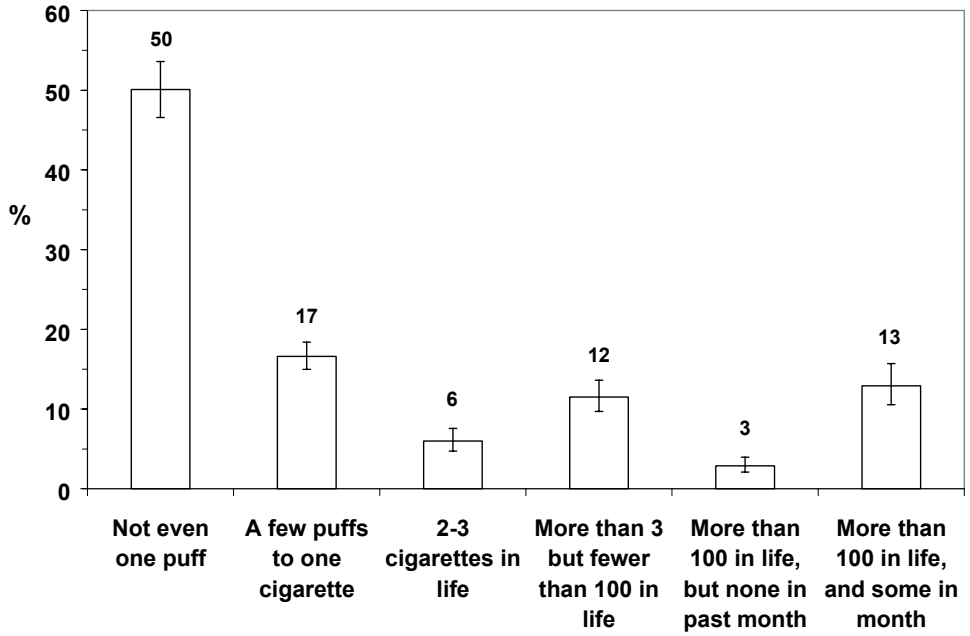
Intentions to quit are as high or higher than they have ever been. Although awareness of smoking cessation programs is not particularly high, the awareness of the telephone Quitline in 2001 is encouraging.

# TOWARD ELIMINATING YOUTH SMOKING

## Lifetime Abstinence

Two-thirds (67%) of Ontario students in 2001 had never smoked more than one cigarette in his or her life, including 50% who had never taken one puff (Figure 24). Thirteen percent of Ontario students were current smokers (smoked in the previous month, and more than 100 cigarettes in his or her life). There were no significant differences in the prevalence of lifetime abstinence from tobacco among Metro Toronto, West, East, and North Regions (OSDUS, data not shown).

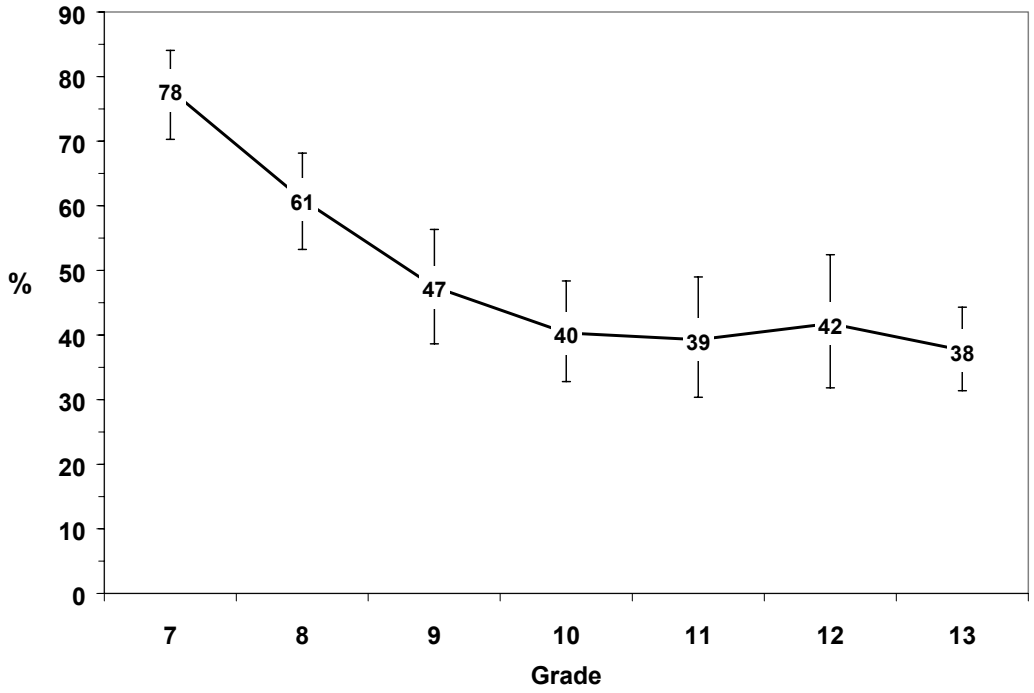
Figure 24: Smoking Behaviour, Grades 7-13, Ontario 2001




*Note:* Vertical lines represent 95% confidence intervals.
*Source:* OSDUS.

From a high of 78% in Grade 7, lifetime abstinence significantly declined for students in higher grades, levelling off to about 40% for student in Grade 10 and onwards (Figure 25). This juncture corresponds with the age that many adults retrospectively report initiation into smoking, which is at age 16.0 (CTUMS, data not shown). Average age of initiation in the other provinces is similar, ranging from 14.9 to 15.6 years (differences not significant; CTUMS, data not shown).

Figure 25: Lifetime Abstinence, by Grade (7-13), Ontario 2001




*Note*: Vertical lines represent 95% confidence intervals.
*Source:* OSDUS.

## Prevalence

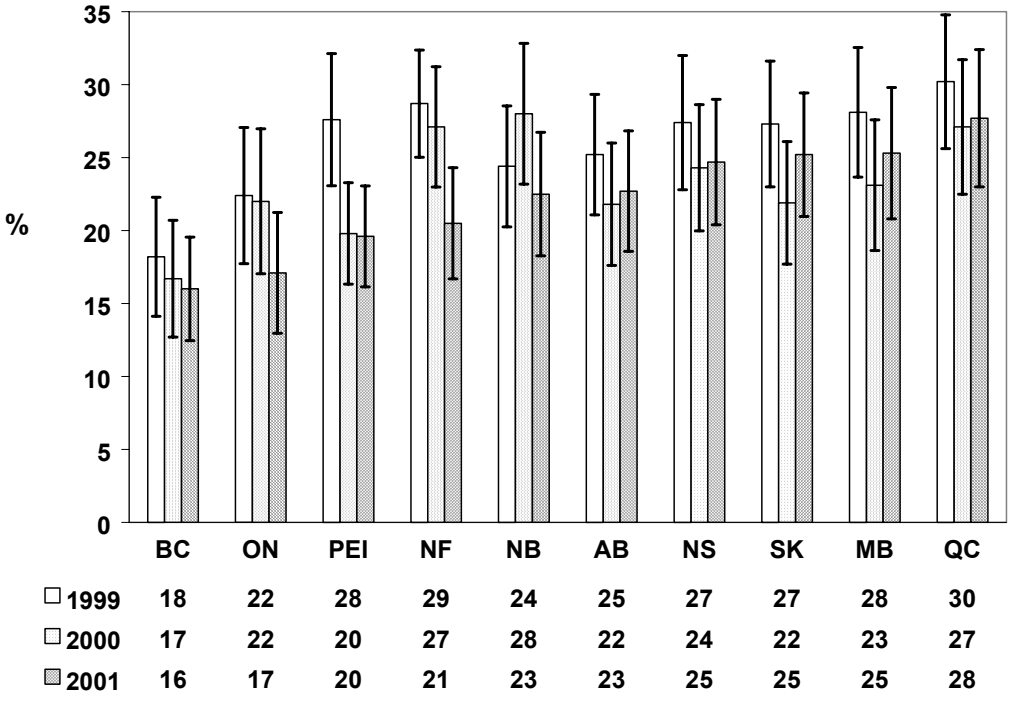
In 2001, 17% of Ontario teens aged 15-19 were current smokers. Quebec was the only province with a significantly higher prevalence of current smoking (28%, Figure 26); all other provinces had a similar rate of teen smoking. For Ontario youth aged 15-19, there was no statistically significant decline in smoking prevalence over the period 1999-2001 (Figure 26), a finding that held for the other provinces as well.

In 2001, the prevalence of smoking more than one cigarette in the past year was significantly lower in Grades 8 and 10 compared to 1999 (Figure 27). Consistent with Figure 25, Figure 27 suggests that prevalence of smoking is lower in Grades 7 and 8 compared to higher Grades.

### Age Differences

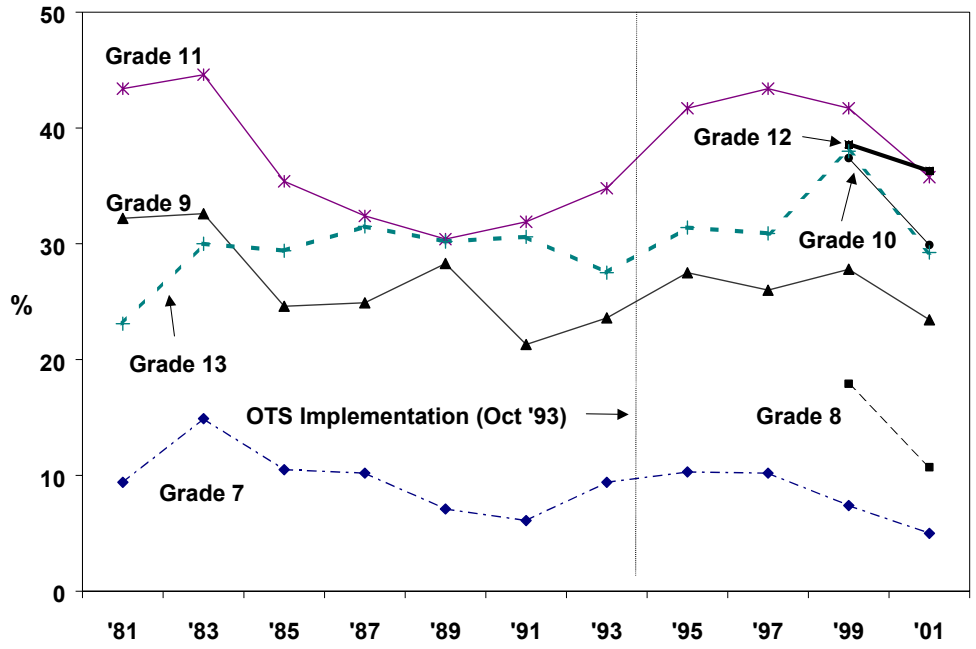
In 2001, young adults aged 20-24 in Ontario were significantly more likely to be current smokers than teens aged 15-19 (30% vs. 17%; Figure 28), a pattern which held for the rest of Canada. Compared to the rest of Canada, Ontario teens aged 15-19 were significantly less likely to be current smokers in 2001 (23% vs. 17%, $p<.05$, Figure 28). There were no significant differences in smoking prevalence between young adults aged 20-24 in Ontario and young adults of the same age in the rest of Canada, nor was there a significant decline in smoking over the three-year period examined within any age group.

Figure 26: Current Cigarette Smoking, by Province, Age 15-19, Canada 1999-2001



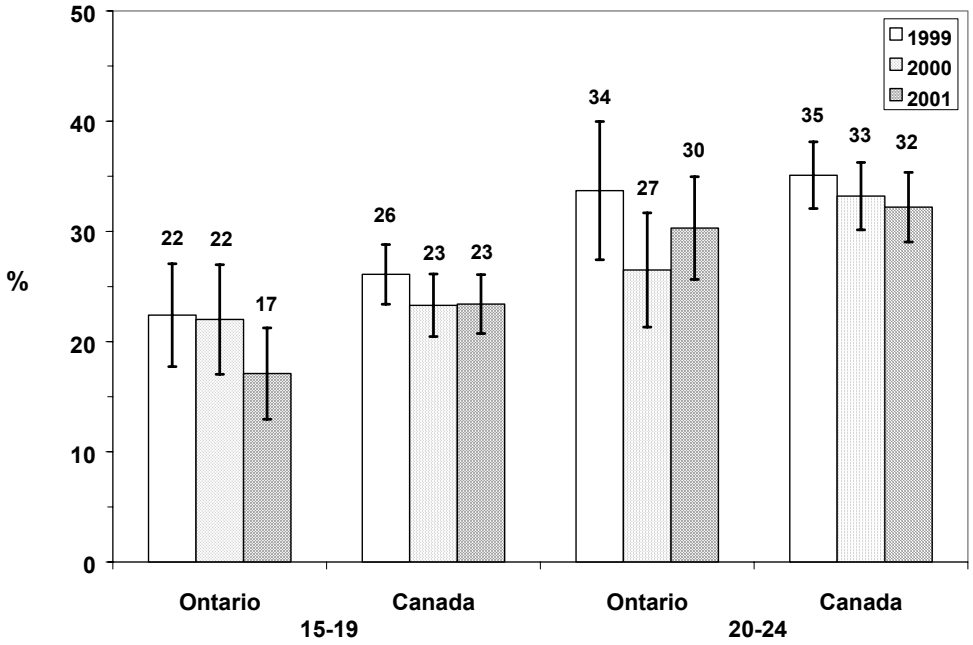

*Note:* Vertical lines represent 95% confidence intervals. Ordered by 2001 smoking prevalence. Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Annual).

Figure 27: Students Smoking more than One Cigarette in the Past Year, by Grade (7-13), Ontario 1981-2001




*Source:* OSDUS.

Figure 28: Current Cigarette Smoking among Young People, Age 15-19 and 20-24, Ontario and Canada 1999-2001



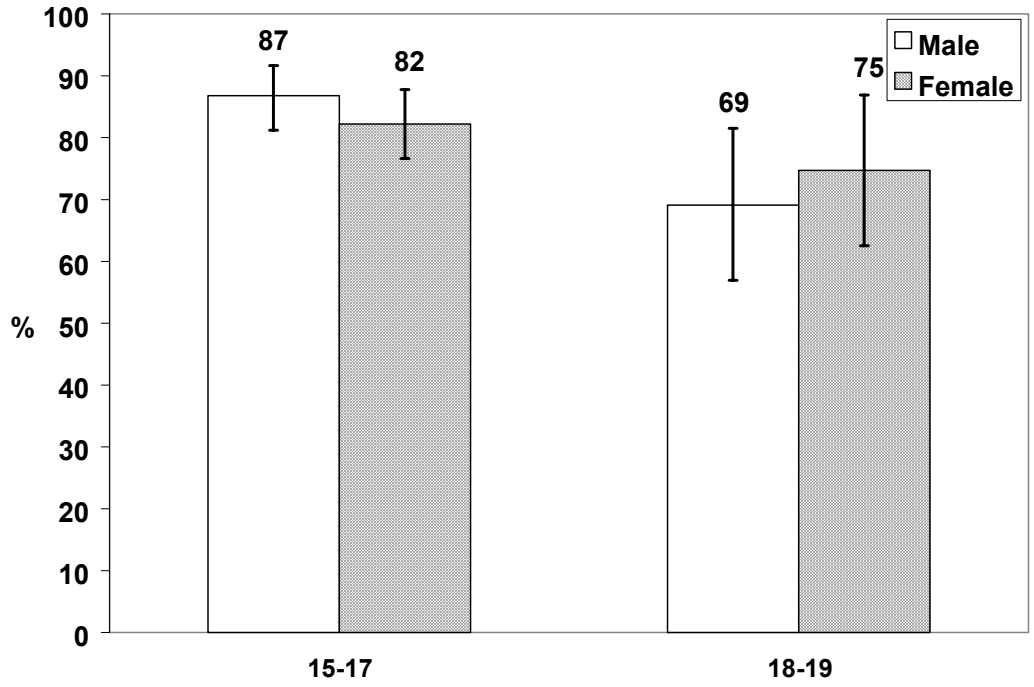

*Note:* Canadian estimates exclude Ontario respondents. Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Annual).

## Sex Differences

In 2001, the prevalence of never smoking among male and female youth was similar (Figure 29). Never smoking among young adults aged 18-19 did not significantly differ from youth aged 15-17.

Male and female daily smokers each used an average of 7.2 cigarettes per day in 2001, a figure that has remained relatively constant over the last two decades (OSDUS 2001, data not shown). A significant difference was found between age groups 11-15 and 16-18; with the former using 6.7 cigarettes per day whereas the latter smoked 8.4 cigarettes per day (OSDUS 2001, data not shown).

Figure 29: Never Smoking[a] among Youth, by Sex, Age 15-17 and 18-19, Ontario 2001

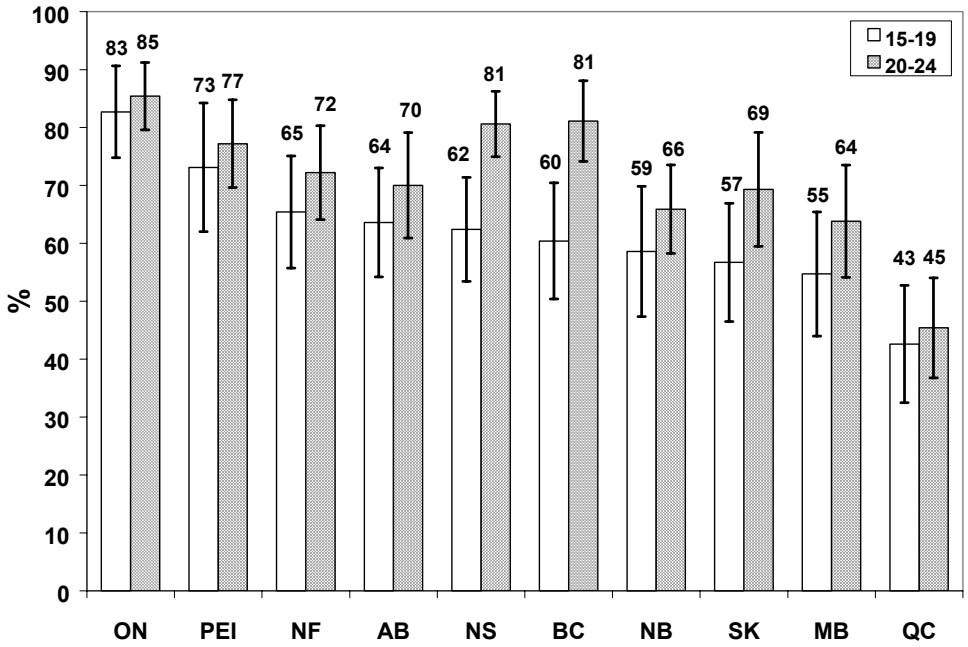



*Note:* [a]Never smoking: smoked fewer than 100 cigarettes in life (which is different from lifetime abstinence). Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Annual).

## Product Preference

In 2001, 80% of Ontario teens aged 15-19 smoked light or mild cigarettes (Figure 29); 84% of smokers aged 20-24 preferred this type of cigarette. Males and females were just as likely to smoke light or mild cigarettes (data not shown). These findings correspond to the preferences of older adults in the province, 76% of who prefer light or mild cigarettes (difference not significant, Adult Section, Figure 21). Although small sample sizes preclude reporting the reasons why Ontario youth prefer light or mild cigarettes, adult data indicate a modest level of erroneous belief that such cigarettes are less harmful, as discussed previously (see Adult Section).

Figure 30: Preference for Light/Mild Cigarettes, by Province, Smokers, Age 15-19 and 20-24, Canada 2001




*Note:* Light/mild cigarettes include "ultra" and "extra" brands. Ordered by prevalence of 15-19 age group. Vertical lines represent 95% confidence intervals.
*Source:* CTUMS (Annual).

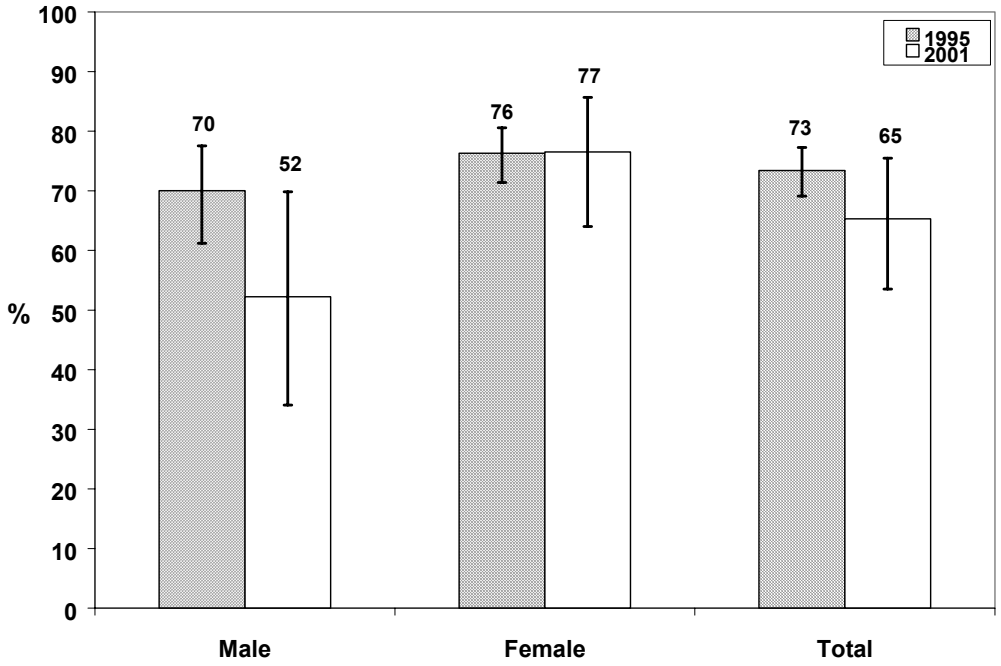
## Youth Access

In 2001, 65% of underage Ontario students trying to buy cigarettes in the past month reported not being asked to show photo identification, a figure unchanged from 1995 (Figure 31). (Ontario's *Tobacco Control Act*,[29] which prohibits the selling and supplying of cigarettes to anyone under 19 years of age, was passed in 1994. OSDUS data first became available in 1995). There was no statistically significant difference in the self-reported proportion of male and female smokers asked for photo identification in 2001, consistent with earlier findings (Figure 31).

In 2001, 7 in 10 underage students (71%) who were current smokers reported purchasing cigarettes at a small grocery or corner store one or more times in the past month, 35% purchased cigarettes at a supermarket, and 55% purchased cigarettes at a restaurant, bar, or gas station (Figure 32). Purchasing behaviour at these three locations in 2001 did not significantly differ from 1995 estimates.

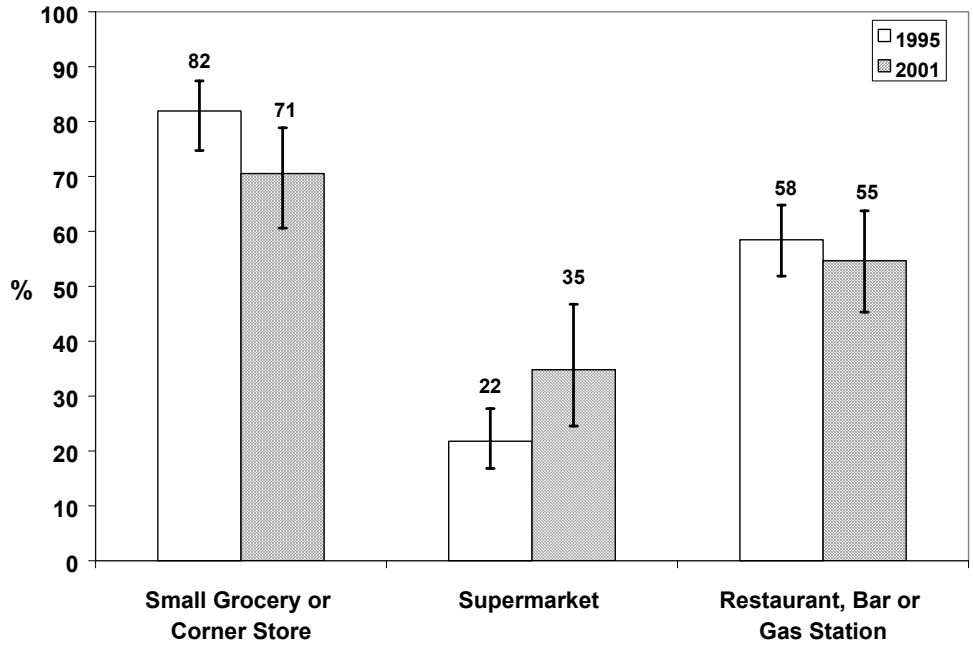
A national survey of retailer compliance in 2000 suggested that retailer noncompliance is highest in gas stations (26%) and chain convenience stores (19%) and has changed little since 1995 (33% and 17%, respectively).[26, 30] (Compliance data was not collected by AC Nielsen in 2001, however, data collection is expected to resume in 2002.) In contrast, 2000 non-compliance rates for supermarkets (12%) and independent convenience stores (14%) dropped substantially from 1995 levels (28% and 42%, respectively).

Figure 31: Underage Students Not Asked for Photo ID When Trying to Buy Cigarettes in the Past Month, by Sex, Grades 7- 9-11-13, Ontario 1995 and 2001




*Note*: Vertical lines represent 95% confidence intervals.
*Source:* OSDUS.

Figure 32: Underage Students' Self-Reported Purchase Attempts, by Type of Vendor, Ontario 1995 and 2001




*Note:* Vertical lines represent 95% confidence intervals.
*Source:* OSDUS.

## Comment

There have been some declines in recent years in student smoking (Grades 8 and 10). Compared to the rest of Canada, Ontario has lower rates of smoking among teens aged 15-19 (but not for young adults aged 20-24).

An examination of lifetime abstinence from smoking suggests that fewer than half of students in grade 9 and beyond have never tried a cigarette.

Seven years after the passage of the province's *Tobacco Control Act*, the proportion of students who try to buy cigarettes and are never asked for photo identification has not decreased significantly. Similarly, a majority of students are still able to purchase cigarettes at a variety of locations with apparent ease.

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