Indicators of OTS Progress

Ontario Tobacco Research Unit

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PREFACE

Indicators of OTS Progress is the third of four reports in the 2002-2003 *Monitoring and Evaluation Series*. The full series consists of:

Number 1: ***Tobacco Control Highlights: Ontario and Beyond*** – an overview of recent developments, providing context for what is happening in Ontario;

Number 2: ***OTS Project Evaluations: A Coordinated Review*** – a largely qualitative summary of accomplishments by OTS projects funded in 2002/2003;

Number 3: ***Indicators of OTS Progress*** – presentation of quantitative data from a variety of surveys and other sources measuring recent progress in tobacco control in Ontario; and

Number 4: ***OTS Progress and Implications*** – a discussion of the results and implications of the findings in the previous three reports.

ACKNOWLEDGMENTS

Lori Diemert and Shawn O'Connor prepared this report, with contributions from Tom Stephens, chair of OTRU's Monitoring and Evaluation Work Group. Rita Luk and Bo Zhang assisted with the analysis of data and Sonja Johnston capably provided production assistance.

The interpretation and opinions expressed in this report are the responsibility of the Principal Investigators of OTRU:

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AC Nielsen Tobacco Compliance Survey, 1995-2001, 2003

The *Tobacco Compliance Survey* is a federal survey of tobacco retailers in 10 provinces, focusing on youth access and retailer compliance to federal and provincial laws.[1] Research teams (one minor 15-17 years of age, and one adult) were sent to tobacco retail establishments (N=5,550) in 30 cities across Canada. The 2002 sample was larger than previous years, with five cities (Moncton, Kingston, St. Catharines, Thunder Bay, and Red Deer) added to the core 25 cities sampled in the past (St. John's, Charlottetown, Bathurst, Fredericton, Saint John, Halifax, Sydney, Chicoutimi/Jonquière, Montréal, Québec City, Sherbrooke, Ottawa, Sudbury, Toronto, Windsor, Brandon, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Medicine Hat, Kelowna, Campbell River/Courtnay, and Vancouver). The study design is intended to produce reasonable estimates of retailer compliance under specified conditions at the national level; however, core city/provincial data provide estimates of retailer compliance over time at the sub-national level.

In 2002, the survey was conducted between July 1st and Labour Day. This is consistent with collection methods from 1995-1999 (2000 data was collected November 3, 2000 through to January 16, 2001). Minors attempted to buy a name brand pack of cigarettes, with clear instructions about how to withdraw from the attempted transaction if retailers were willing to sell. Minors carried no identification and were instructed to be untruthful when asked their age. An adult researcher supervised the minors and collected data relating to posting of mandatory signs and tobacco advertising at point of sale.

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 nationwide, 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-stage 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-stage 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 15-24 years of age. 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). There were 50,906 households (90.6% response rate) and 23,341 individuals (90.3% response rate) who participated in the survey. Sample allocation is approximately equal across the provinces, however, in 2002, the Ontario sample was doubled (4,217, a 93.5% response rate) to enable more detailed analyses. All survey estimates were weighted and variance estimates were calculated based on procedures outlined in the 2002 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. In 2002, the survey sample of 2,421 represents 9,118,084 Ontario residents aged 18 and older, excluding people in prisons, hospitals, military establishments, and transient populations such as the homeless. The response rate was 58%. 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.

Ontario Student Drug Use Survey (OSDUS)

The Centre for Addiction and Mental Health's *Ontario Student Drug Use Survey* is a province-wide survey.[5] It 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 2003 survey used a two-stage (school, class) cluster sample design and sampled 6,616 students from 37 public and Catholic school boards; 126 schools, and 383 classes in elementary and secondary school grades participated (i.e., grades 7 to 12). Students enrolled in private schools, special education classes, those institutionalized for correctional or health reasons, those on Indian reserves and Canadian Forces bases, and those in the far northern regions of Ontario were not included in the target population, approximately 7% of Ontario students. The survey sample represented about 970,000 students in Ontario. The student response rate was 72%. All survey estimates were weighted, and variance estimates and statistical tests were corrected for the complex sampling design.

Ontario Tobacco Research Unit Monitoring & Evaluation Series

In the subsequent text, comparisons are sometimes made between several years of survey data. Generally, these data are reported in the text or in accompanying figures or tables. On occasion, statements are made comparing current year data with that previously reported. If these data are not presented in the text, it should be understood that previously reported data refer to that found in past Annual Monitoring Reports released by the Ontario Tobacco Research Unit.[6]

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 CAMH 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. AC Nielsen provides estimates of compliance among various types of retailers; however, the precision of these estimates is unknown.

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 A is no different from a 25% (±4) estimate from Survey B (assuming both Survey A and B ask the same question). This occurs because the upper limit on Survey A's estimate (20 + 3 = 23%) overlaps with the lower limit on Survey B's estimate (25 – 4 = 21%), albeit, a formal test of significance might 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. *When comparing two or more estimates, confidence intervals should be used.*

Formal Tests of Significance

A significant difference refers to a difference between two group estimates 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, significance 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.

Current Smoker

- CAMH Monitor - Someone who 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 - Someone who has smoked at least 100 cigarettes in his or her life and smoked within the last 30 days (a daily or occasional smoker).
- OSDUS - Someone who has smoked at least 100 cigarettes in his or her life and smoked within the last month.

Daily Smoker

- CAMH Monitor - Someone who presently smokes daily.
- CTUMS - Someone who has smoked at least 100 cigarettes in his or her life and presently smokes every day.
- OSDUS - Someone who has smoked at least 100 cigarettes in his or her life and smoked within the last month.

Occasional Smoker

- CAMH Monitor - Someone who presently smokes on occasion.
- CTUMS - Someone who has smoked at least 100 cigarettes in his or her life, and has smoked during the past 30 days but not every day.

Experimental Smoker

- OSDUS - Someone who has smoked more than one and less than 99 cigarettes in his or her life.

Former smoker

- CAMH Monitor - Someone who has smoked at least 100 cigarettes in his or her life, but none in the last month (coded as former even if respondent indicates that they presently smoke occasionally, previous conditions applying).

TOBACCO CONTROL ENVIRONMENT IN ONTARIO

Health Burden

Across Canada, smoking remains the leading cause of premature morbidity and mortality. A recent study identified 47,581[i] tobacco-related deaths in 1998, a 24% increase from the smoking related deaths reported 1989.[7] Environmental tobacco smoke (ETS) was associated with 1,100 deaths across Canada. In Ontario, smoking and ETS were responsible for 16,394 deaths (10,263 males and 6,131 females) in 1998. Exposure to ETS alone caused 425 deaths[ii] (2.6% of all deaths) in Ontario.[7]

In a joint report, the Ontario Tobacco Research Unit (OTRU) and the Ontario Medical Association have estimated that a comprehensive tobacco control program funded at $90 million would save 3,000 premature deaths in the province and would result in 140,000 fewer hospital days in the ten years following the program's inception.[8] Further, for every $1 spent on tobacco control, the government would save in excess of $3 in public health care spending.

Knowledge of Health Effects

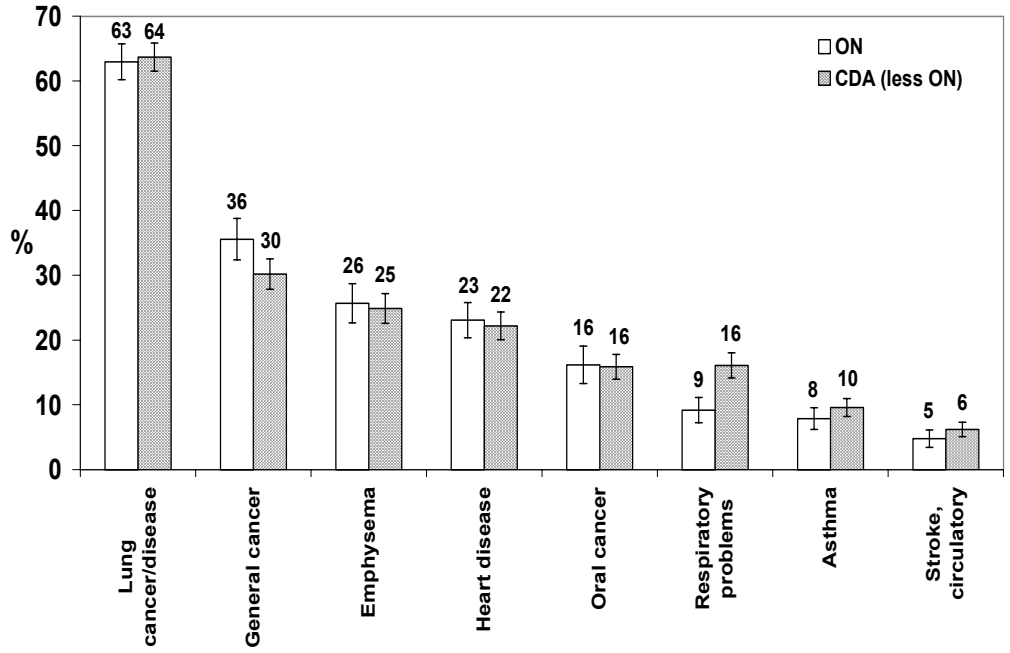
In 2002, almost two-thirds of residents in Ontario and other parts of Canada identified, without prompting, lung cancer/disease to be a direct health effect of smoking cigarettes (Figure 1). Ontario residents were significantly more likely to report cancer, in general, as a cause of smoking than other Canadians (36% vs. 30%, $p<.05$). In both populations, approximately 25% identified emphysema, and 22% identified heart disease, as smoking-related health effects. Residents in the rest of Canada were more likely to report respiratory problems than those in Ontario (16% vs. 9%, $p<.05$). Awareness of other diseases caused by smoking was relatively low.

Among the diseases identified in Figure 1, sex differences were only significant with respect to awareness of smoking causing emphysema: in Ontario and the rest of Canada, women were significantly more likely to report emphysema to be a cause of smoking than their male counterparts (CTUMS, data not shown).

[i] The estimates for smoking attributed mortality reported in OTRU's 7th Annual Monitoring Report from Luk and Single are about 71% of that reported by Illing and Kaiserman (R. Luk, personal communication, February 15, 2004). The major reason underlying the differences in these estimates are due to the use of different relative risk estimates, and to a lesser extent, the inclusion of somewhat different conditions related to smoking. The diagnoses and relative risk estimates in Illing and Kaiserman have mainly been drawn from the *Cancer Prevention Survey* (CPS) II (American Cancer Society), whereas in Luk and Single, these estimates were pooled relative risk estimates from meta-analyses. In general, relative risk estimates derived from CPS II are higher than the large-scale epidemiological studies used by Luk and Single.

[ii] The number of deaths caused by ETS is underestimated because the analysis included only non-smokers' exposure to ETS in the home, but not ETS exposure in the workplace.

Figure 1: Unprompted Awareness of the Direct Health Effects Caused by Smoking, Age 15+, Ontario and Canada, 2002



Note: The x-axis label "general cancer" is an unprompted response in which survey participants did not indicate a specific type of cancer. Vertical lines represent 95% confidence intervals.
Source: CTUMS, Cycle 1.

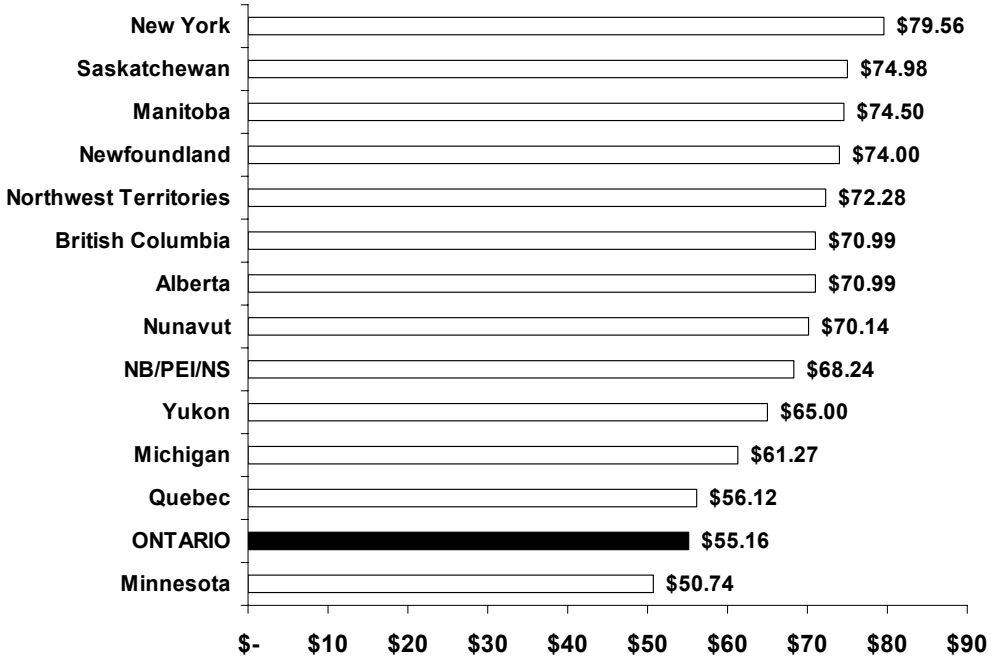
Price

The relationship between price and tobacco consumption is well documented. Higher prices encourage smokers to quit or reduce their smoking and prevent youth from starting to smoke.[9,10] Compared to other Canadian provinces, Ontario had the lowest price per carton of cigarettes at the end of the 2002-2003 fiscal year (Figure 2).[11] At this time, the province's price of $55.16 was marginally lower than in Québec ($56.12), but was almost $10.00 to $20.00 lower than the price in the other provinces and territories. Further, with the exception of the state of Minnesota, Ontario had a lower price per carton than the bordering US states.

Although outside the reporting period, the newly elected government in Ontario increased tobacco taxes by $2.50 a carton in December 2003, which brought the price of cigarettes to $57.83 per carton. Shortly thereafter, Québec matched this tax increase, raising the price to $58.80 per carton. British Columbia also hiked tobacco taxes by $3.80 a carton, to a total of $75.06 per carton of cigarettes, the highest in the country. Notwithstanding, Ontario's relative ranking among the provinces was unaffected. (Note: these tax increases exclude PST and GST.)

Increases in tobacco taxes often raise concern about cross-border smuggling of cigarettes into the province. However, this concern would be warranted only if cigarette prices in Ontario were significantly higher than in other provinces and bordering US states, which has not been the case in recent years.

Figure 2: Price per Carton of Cigarettes, by Province and US States Bordering Ontario, 2003 (April)



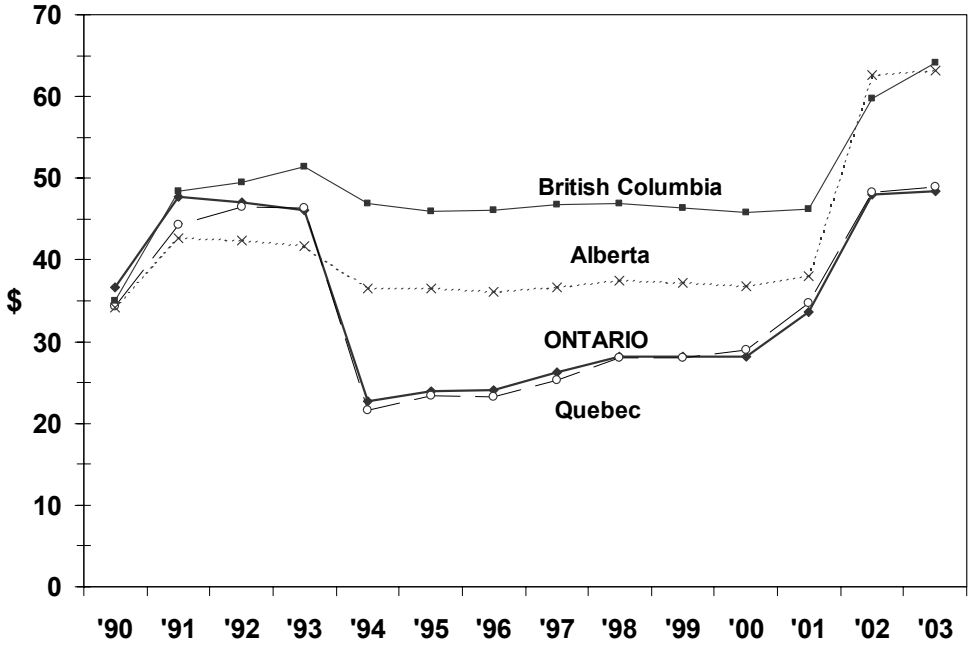
Note: US state prices do not include municipal sales and tobacco taxes, New York excepted, which includes New York City municipal tax. Prices in CDN$ (Exchange rate US$1=CDN$1.4579, April 24, 2003).
Source: Smoking and Health Action Foundation (based on estimates from Finance Canada).

In 2002 and 2003, the price of cigarettes in Ontario climbed to levels not seen since the provincial and federal governments reduced tobacco taxes in response to concerns over the smuggling of tobacco products in 1994 (taxes were also reduced in Québec and in the three Maritime provinces at that time). Nevertheless, in 2003 the price of cigarettes remained about 25% below that found in British Columbia and Alberta, two provinces that did not lower taxes in 1994 (Figure 3).

Sales

In 2002, per capita sales of domestic/imported cigarettes and cigarette equivalents (0.7 grams fine cut tobacco = 1 cigarette) decreased in all provinces compared to 2001 (Figure 4). Ontario saw an 8% decline in sales from 2001 to 2002 (1,859 to 1,711 per capita), the greatest year-over-year decline in the province since 1994. Similar trends were seen in the rest of Canada with a 12% decline in sales from 2001 to 2002 (1,769 to 1,558 per capita), with the greatest reductions in the provinces of Québec (16%) and Alberta (15%).

Figure 3: Price per Carton of 200 Cigarettes in Select Provinces, 1990-2003

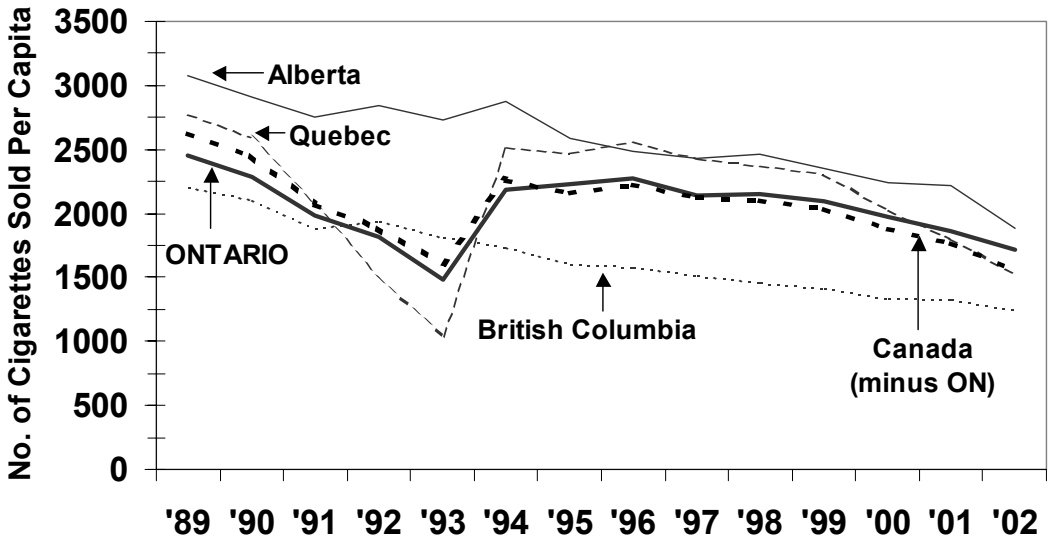


Note: Provincial prices based on city average. Data represent October of each year, 2003 excepted (August).
Source: Custom tabulations. Price Division, Statistics Canada (observational data).

Nationally, cigarette sales (excluding cigarette equivalents) dropped 12% from 2001 to a total of 1,468 cigarettes per capita in 2002, the greatest year-over-year decline since 1994 (Table 1). Québec and Alberta had the largest reductions in cigarette sales from 2001 (17% in each province), and Ontario and British Columbia had the lowest (9% and 8% respectively). In contrast, during 2002, sales of cigarette-equivalents in Canada increased 6% from 2001 to 149 cigarette-equivalents per capita. Ontario had the largest increase in sales of fine cut tobacco (33%), although fine cut tobacco was only 2% of the market share (38 of 1,711 per capita). Nationally, fine cut tobacco constituted only 10% of total sales (cigarettes and fine cut tobacco), with the market share varying considerably from a low of 2% in Ontario to a high of 43% in Newfoundland.

Among the provinces, Ontario had the fifth highest level of per capita sales of cigarettes and fine cut tobacco (Table 1), unchanged from 2001. Ontario sales were 9% lower than the province with the highest level of per capita sales (Alberta), and 27% higher than the province with the lowest sales (British Columbia).

Figure 4: Legal Sales of Cigarettes and Fine Cut Tobacco per Capita, by Selected Provinces, Age 15+, 1989-2002



Source: Sales of cigarettes and equivalents based on shipment data reported to Health Canada from all tobacco manufacturers as required under the *Tobacco Act*.

Table 1: Legal Sales of Cigarettes and Cigarette Equivalents per Capita, Age 15+, Provinces, 2002

	2002 Sales			% Change in Sales: 2001 to 2002		
Province	Cigarettes	Cigarette-Equivalents	Total	Cigarettes	Cigarette-Equivalents	Total
British Columbia	1,109	137	1,246	-7.8	13.9	-5.8
Newfoundland	867	645	1,513	-10.1	10.4	-2.4
Quebec	1,385	142	1,527	-16.5	-3.7	-15.5
Manitoba	1,253	312	1,565	-12.3	8.9	-8.7
Saskatchewan	1,302	355	1,657	-12.3	2.2	-9.5
ONTARIO	**1,673**	**38**	**1,711**	**-8.6**	**32.7**	**-8.0**
Prince Edward Island	1,403	366	1,769	-13.2	16.0	-8.4
New Brunswick	1,412	405	1,817	-13.6	24.2	-7.3
Nova Scotia	1,526	359	1,886	-12.2	11.7	-8.4
Alberta	1,626	263	1,889	-16.7	-2.7	-15.0
CANADA (less ON)	**1,341**	**217**	**1,558**	**-14.1**	**4.4**	**-11.9**
CANADA	**1,468**	**149**	**1,617**	**-11.8**	**6.4**	**-10.4**

Note: Ordered by 2002 total sales. Cigarette equivalents are fine cut tobacco expressed in units of cigarettes (0.7 grams of fine cut = 1 cigarette). Per capita sales of cigarettes and fine cut may not add to total due to rounding. Canada per capita sales include territories. Sales include domestic and imported cigarettes and fine cut tobacco.
Source: Sales of cigarettes and equivalents are based on shipment data reported to Health Canada[12] from all tobacco manufactures as required under the *Tobacco Act*.

Tobacco Control Funding

For the 2002-2003 fiscal year, tobacco control expenditures in Ontario returned to $19 million, or $1.59 per capita, from $18.2 million, or $1.53 per capita, in 2001-2002 (Table 2). Although Ontario has one of the highest funding levels in Canada, along with Québec at $20 million, per capita spending is below levels found in many other parts of Canada, and well below levels of the leading US jurisdictions. Nunavut and NWT have modest levels of funding but because of small populations, per capita spending is high. It also ranks well below the $5-$16 per capita range recommended by the US Centers for Disease Control and Prevention for large jurisdictions with populations over 7 million.[13]

Table 2: Per Capita Funding for Tobacco-Control (2002-2003) by Selected Provinces and US States

Select Jurisdictions	Population	2002-2003 Funding (CDN$)	Per Capita Spending (CDN$)
Northwest Territories	41,186	$317,815	$7.72
Nunavut[a]	28,300	$150,000	$5.30
Alberta	3,086,034	$11,700,000	$3.79
Québec[b]	7,435,504	$20,000,000	$2.69
Nova Scotia	943,756	$1,600,000	$1.70
ONTARIO[c]	**11,964,104**	**$19,000,000**	**$1.59**
British Columbia[d]	4,120,891	$4,400,000	$1.07
Prince Edward Island	139,330	$114,000	$0.72
Saskatchewan	1,014,403	$584,000	$0.58
Manitoba	1,148,181	$668,000	$0.52
Newfoundland	533,305	$250,000	$0.47
New Brunswick[e]	N/A	Unknown	Unknown
Yukon[e]	N/A	Unknown	Unknown
CANADA (less ON)[f]	18,490,890	$35,595,815	$1.93
CANADA[f]	30,454,994	$54,595,815	$1.79
Maine	1,286,670	$21,333,504	$16.58
Mississippi	2,858,029	$31,008,000	$10.85
Minnesota	4,972,294	$44,806,560	$9.01
California	34,501,130	$208,590,816	$6.05
Maryland	5,375,156	$31,085,520	$5.78
UNITED STATES (all)	284,796,887	$1,190,707,200	$4.18

[a]Nunavut received an additional $108,000 from Health Canada's Office of Mass Media and $212,000 from Health Canada's First Nations and Inuit Tobacco Control Strategy.
[b]Québec estimate does not include spending on Nicotine Replacement Therapy, which is not available.
[c]Ontario estimate does not include mandatory municipal contributions to the province's 37 public health units, which is not available.
[d]British Columbia estimate does not include amount dedicated to litigation, which is not available.
[e]Funding data not available.
[f]Reported Canadian average excludes New Brunswick, Yukon, and Health Canada spending.

Note: Ordered by per capita spending. Prices in CDN$ (Exchange rate US$1=CDN$1.5504, December 23, 2002)
Sources: Northwest territories, Alberta, Ontario, British Columbia, Saskatchewan, Newfoundland – CCTC *National Survey on Tobacco Control* (August 2003); Nunavut – Erin Levy; Manitoba – Andrew Loughead; Prince Edward Island – Lisa Shaffer; Nova Scotia – Nancy Hoddinott; Campaign for Tobacco-Free Kids – US States[14]; Statistics Canada, updated postcensal estimates, January 1, 2002[15]; US Census Bureau, population, 2001 estimate.[16]

Adult Attitudes toward Tobacco Control Policy

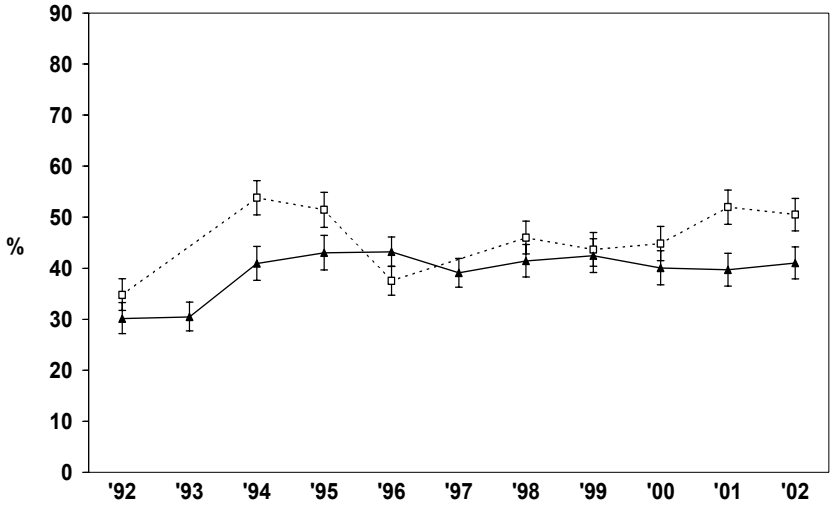
Tax Increase

In 2002, 41% of adults in Ontario favoured increasing taxes on cigarettes. This view has been relatively constant since 1994 (Figure 5) despite continued increases in cigarettes taxes over this period. Education and smoking status influenced support for increased tobacco taxes. That is, those with high school or less education were less likely to favour tax increases than those with some college or a university degree (33% vs. 43% and 51% respectively; $p<.05$). As expected, never smokers were significantly more likely to favour tax increases (57%) than former smokers (39%) or current smokers (11%).

Sponsorship Ban

Effective October 1, 2003, the federal *Tobacco Act* banned all sponsorship advertising at public events, completing a phase-in of restrictions that began several years earlier. In 2002, the majority (51%) of Ontario adults were supportive of such a ban, unchanged from 2001 (Figure 5). Women were more likely to be supportive of sponsorship bans than men (54% vs. 47%, $p<.05$). Education and smoking status also influenced level of support for sponsorship bans. Specifically, those with high school or lower education were significantly less supportive than those with some college or a university degree (43% vs. 53% and 60% respectively; p<.05); current smokers were less supportive than former or never smokers (32% vs. 53% and 59% respectively). (CAMH Monitor, data not shown)

Figure 5: Support for Selected Tobacco Control Policies, Age 18+, Ontario 1992-2002



Note: Data for sponsorship ban not available in 1993 and 1997. Vertical lines represent 95% confidence intervals.
Source: CAMH Monitor.

Regulating Tobacco Sales

With respect to the regulation of product displays, 65% of adults in Ontario believe that tobacco companies should not be allowed to put product displays on or near the counter where you pay in convenience stores, grocery stores, or gas stations (CAMH Monitor, data not shown). Support is higher among never smokers (75%) and former smokers (64%) compared to current smokers (46%).

In 2002, a majority of Ontario adults favoured increased restrictions on the sale of tobacco: 29% believed that tobacco should be sold in government stores (as alcohol is sold in LCBO stores) and 21% believed that tobacco should not be sold at all (Figure 6). In contrast, 47% believed that tobacco should be sold in a variety of outlets as it is now. Although there were no sex differences among those who believed tobacco should not be sold at all, women were significantly more likely to believe tobacco should be sold in government stores (33% vs. 25%).

Figure 6: Attitudes Towards Restricting the Sale of Tobacco Products in Ontario, 18+, 2002

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

Youth Access

In 2002, 84% of Ontario adults believed that stores convicted of selling tobacco to underage youth (i.e., less than 19 years) should lose their license to sell tobacco, unchanged from 1995 (CAMH Monitor, data not shown). Further, in 2002, 78% of Ontario adults believed that family or friends who supply tobacco to underage youth should be fined. Current and former smokers were significantly less likely than never smokers to agree in both cases. Specifically, current and former smokers were significantly less likely to support stores losing their license for selling to underage youth than never smokers (75% and 80% vs. 90%, respectively). Similarly, current and former smokers were significantly less likely to support fines for family and friends who supply tobacco to underage youth than never smokers (68% and 73% vs. 86%, respectively).

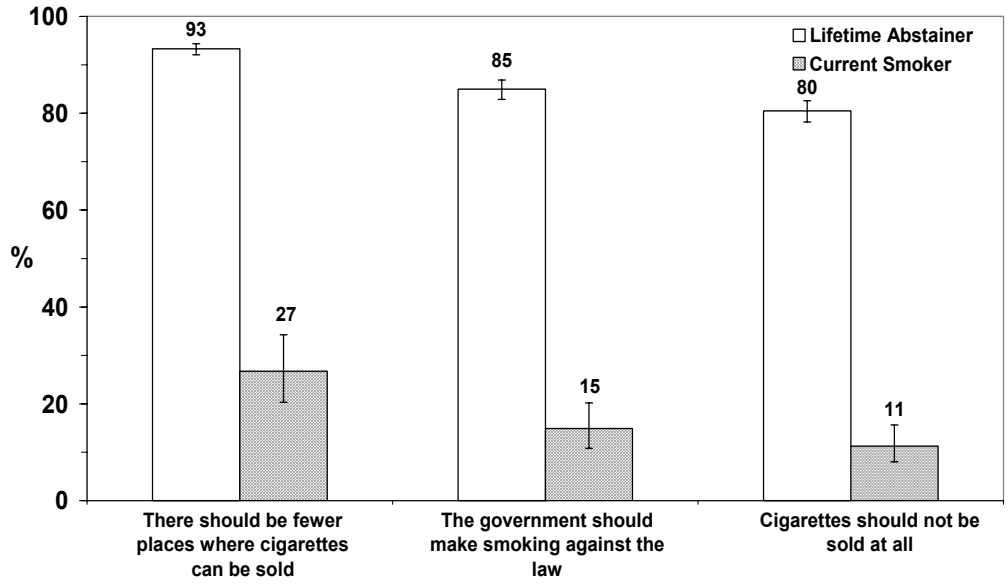
Student Attitudes toward Tobacco Control Policy and Trust in the Tobacco Industry

Overall, Ontario students are becoming more supportive of tobacco control policies. For instance, significantly more students in 2003 compared to 2001 believed there should be fewer places where cigarettes are sold (82% vs. 78%, $p<.05$). Over this period, students increased their support for a law to make smoking illegal from 59% to 70%. (OSDUS, data not shown)

Support for policies varied by smoking status, with the greatest differences occurring between lifetime abstainers and current smokers (Figure 7). Specifically, the majority of lifetime abstainers were more supportive of fewer places to sell cigarettes, a law to make smoking illegal, and believed that cigarettes should not be sold at all (93%, 85% and 80% respectively); only a small percentage of current smokers supported these policies (27%, 15% and 11%).

Support for these policies also varied by grade, with those in grades 7 and 8 significantly more likely to agree with these policies than students in grades 10, 11, and 12. Female students were more supportive of a policy that further restricted the number of places that sell cigarettes than were males (85% vs. 79%); there were no sex differences with respect to the other two policies. (OSDUS, data not shown)

Figure 7: Support for Product Regulation, by Smoking Status, Grades 7-12, Ontario 2003



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

In 2003, significantly more Ontario students believed that tobacco companies rarely or never told the truth about the effects of smoking on health than in 2001 (66% vs. 60%, OSDUS, data not shown). In 2003, mistrust of the tobacco industry increased by grade. That is, 56% of grade 7 students believed the tobacco companies were untruthful, whereas 71% of grade 12 students believed the industry rarely or never told the truth about the health effects of smoking. Not surprisingly, current smokers were least likely to believe that tobacco companies were untruthful about the health effects of smoking compared to lifetime abstainers (56% vs. 67%).

TOWARD SMOKE-FREE SPACES

ETS in Public Places

By the end of 2003, almost 8 in 10 Ontarians (79%) were covered by 100% smoke-free restaurant bylaws and 4 in 10 were covered by 100% smoke-free bar bylaws (Table 3). Of restaurants with 100% bylaws in 2003, 37% were completely smoke-free and 63% had designated smoking rooms (DSRs), which were enclosed smoking sections, separately ventilated to the outdoors. Of bars with 100% smoke-free bylaws, 70% were completely smoke-free and 30% had DSRs.

By 2006, overall coverage will increase to 90% for restaurants and 87% for bars (based on jurisdictions that have passed, but not yet enacted smoke-free bylaws). Undoubtedly, coverage will increase further as additional communities enact smoke-free bylaws in the coming year(s). Of course, a province-wide bylaw would increase coverage to 100%.

Table 3: Population Covered by Smoke-Free Restaurant and Bar Bylaws, Ontario, Annual (December)

Public Place	2002 (%)	2003 (%)	By 2006[a]
Restaurants	61	79	90
Bars	23	40	87

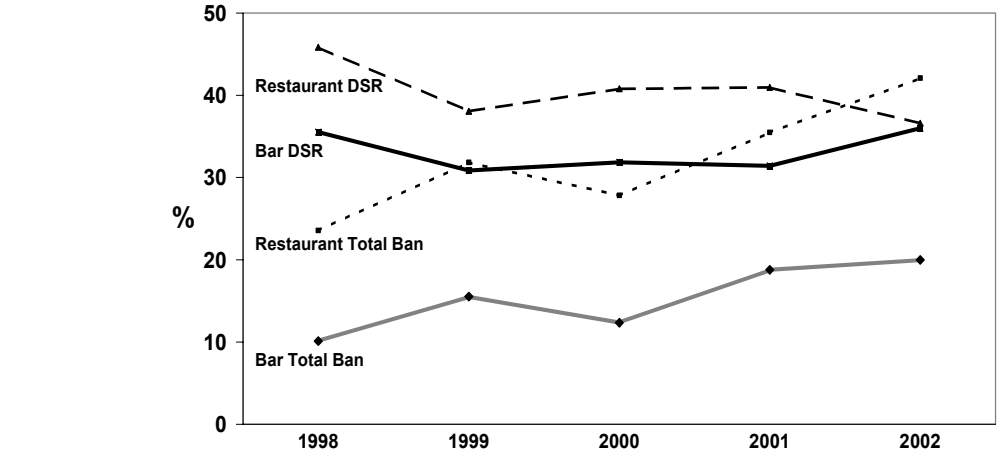
[a]Enacted but not yet passed.
Source: Ontario Campaign for Action on Tobacco, 2003 (December).[17]

Since 1998, support for complete bans in restaurants and bars has steadily increased, whereas support for bans with enclosed ventilated spaces (designated smoking rooms) has been relatively stable (Figure 8). In 2002, Ontarians were more supportive of total bans with or without enclosed ventilated spaces, in restaurants compared to bars (79% vs. 56%), a finding consistent with previous years. For the first time, support for total bans on smoking in restaurants surpassed that for enclosed ventilated spaces, 42% versus 37% ($p<.05$, Figure 8).

In 2002, smoking status predicted support for 100% smoke-free bylaws, with current smokers less supportive than either former or never smokers of a restaurant bylaw (21% vs. 41% and 53%, respectively). Support for total smoking bans in bars was significantly higher among never smokers than former smokers (28% vs. 20%, $p<.05$); low numbers of observations prevented release of support among current smokers. (CAMH Monitor, data not shown)

Among the provinces, support for total bans in restaurants and bars varies greatly, with Newfoundland being the most supportive (60% and 34%, respectively) and Québec the least (25% and 15%, respectively; Figure 9). Support in Ontario for bans in restaurants was surpassed only by British Columbia and Newfoundland (46% vs. 54% and 60%, respectively), whereas for bars only Newfoundland was significantly more supportive than Ontario (34% vs. 28%).

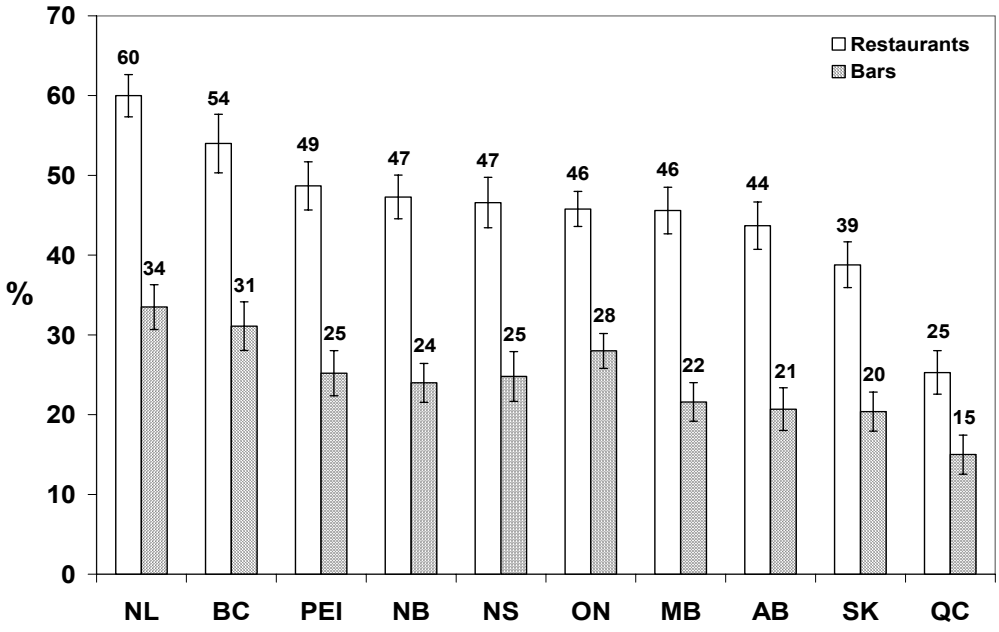
Figure 8: Opinions about Levels of Smoking Restrictions in Restaurants and Bars, Age 18+, Ontario 1998-2002



	1998	1999	2000	2001	2002
Restaurant DSR	46	38	41	41	37
Bar DSR	36	31	32	31	36
Restaurant Total Ban	24	32	28	35	42
Bar Total Ban	10	16	12	19	20

Note: DSR = Designated Smoking Rooms (enclosed smoking sections, separately ventilated to the outdoors).
Source: CAMH Monitor.

Figure 9: Support for a Total Ban on Smoking in Restaurants and Bars, Age 15+, Canada 2002



Note: Vertical lines represent 95% confidence intervals.
Source: CTUMS (Annual).

ETS at Work

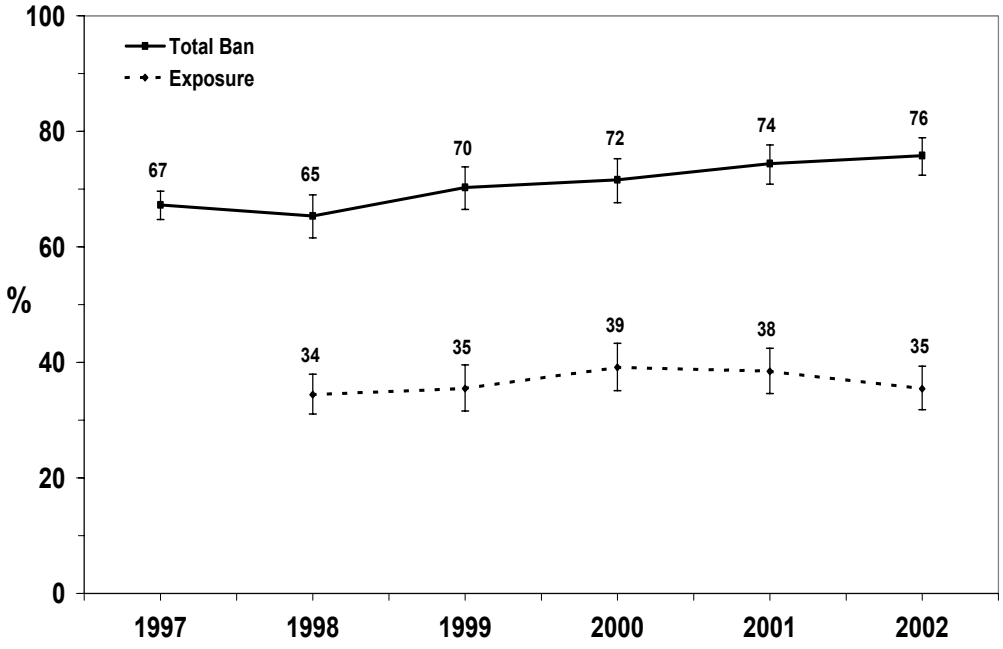
Rules and Exposure at Work

Since 1997, the proportion of Ontario workers covered by total smoking bans in the workplace increased from 67% to 76% in 2002 (Figure 10). Despite the increase in total smoking bans in 2002, 35% of all workers reported some workplace exposure (i.e. for five or more minutes at least once in the past five days); moreover, this figure has not changed significantly since 1998 when 34% of all workers reported workplace exposure (Figure 10).

Of the 76% of workers reporting a total workplace ban on smoking, 28% indicated being exposed to ETS (similar to 29% reported in 2001), albeit some might have been exposed to tobacco smoke breathed outside during breaks with colleagues. (CAMH Monitor, data not shown)

Smoking bans were more common in white-collar workplaces. In Ontario, 58% of trade and farm workers worked in environments with a complete smoking ban compared to 84% of professional/managerial and 78% of clerical/sales workers. In recent years, the prevalence of total workplace smoking bans has been relatively stable within these occupation categories.

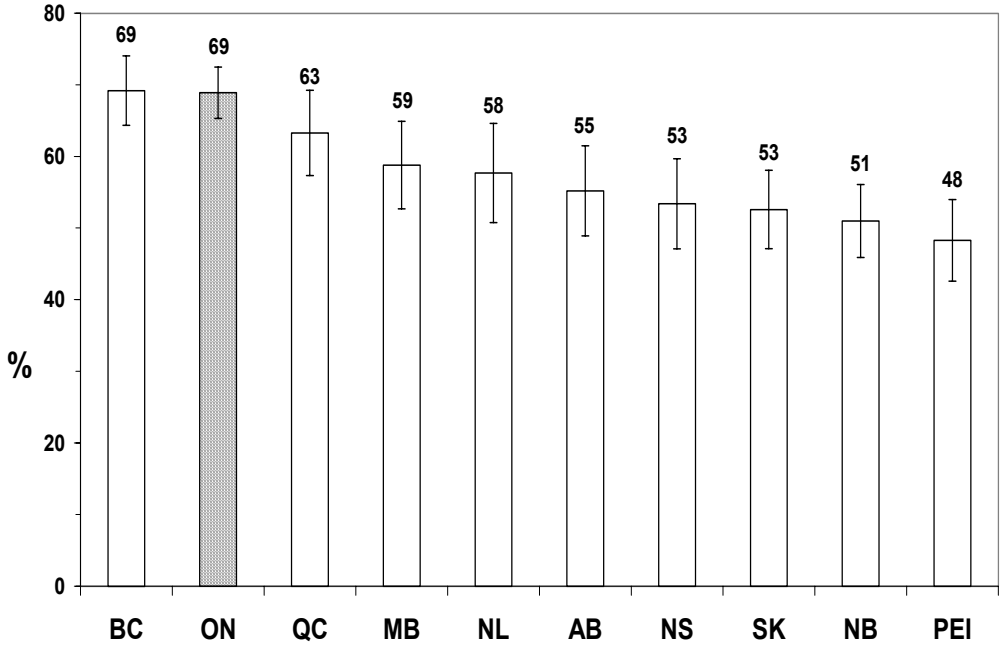
Figure 10: Total Smoking Ban Coverage and Reported Workplace ETS Exposure, Workers Age 18+, Ontario 1997-2002



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.

Compared to most other provinces, Ontario workers were more likely to be protected from ETS, with 69% of respondents indicating a total ban on smoking in their workplace (Figure 11). The prevalence of total smoking bans at work ranged from a high of 69% in British Columbia and Ontario to a low of 48% in Prince Edward Island.

Figure 11: Total Smoking Ban at Work, by Province, Workers Age 15+, Canada 2002



Note: Total smoking ban refers to "smoking restricted completely" (no designated areas). Vertical lines represent 95% confidence intervals.
Source: CTUMS (Cycle 1).

Support for Smoking Restrictions at Work

In 2002, 83% of Ontario adults supported smoke free spaces in the workplace (either total smoking bans or enclosed, separately ventilated spaces). Significantly more people supported total bans than separately ventilated areas (51% vs. 32%), unchanged from 2001. (CAMH Monitor, data not shown)

In 2002, smoking status continued to be associated with support for workplace restrictions. Significantly more former and never smokers favoured a total ban than current smokers (52% and 61% vs. 31%, respectively). Men were significantly less supportive of total smoking bans in the workplace than women (45% vs. 57%). (CAMH Monitor, data not shown)

ETS at Home and in Cars

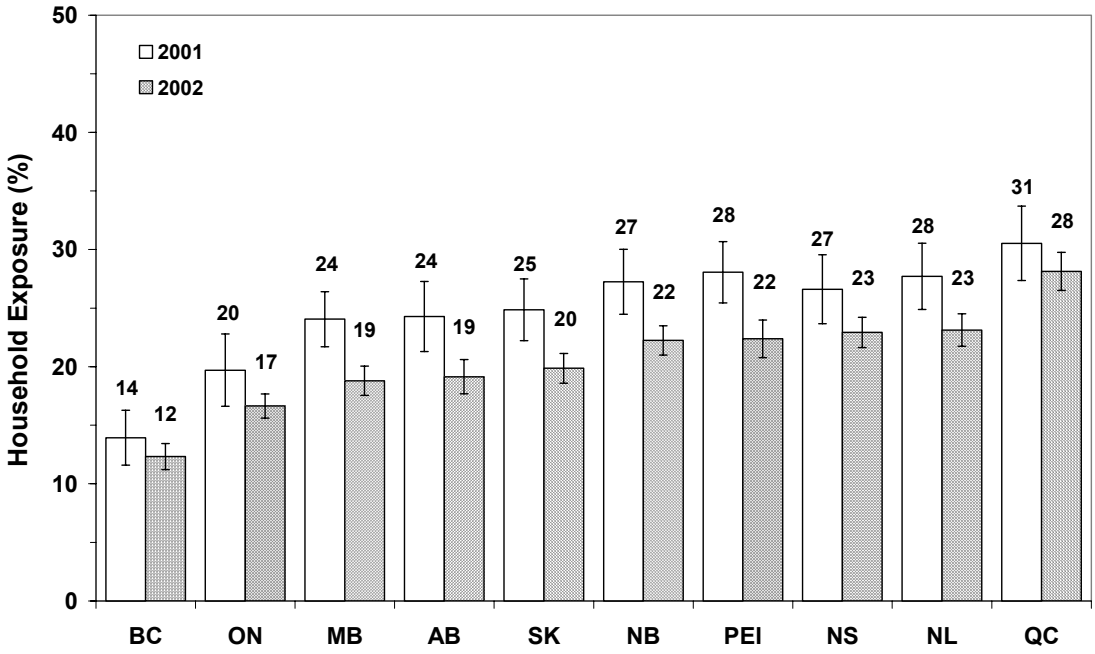
Household Exposure

In 2002, household exposure varied by province ranging from 12% in British Columbia to 28% in Québec (Figure 12). The majority of provinces saw a decrease in exposure over that reported in 2001. In 2002, 17% of Ontario households (748,437) had family members or regular visitors smoking inside the home everyday or almost everyday, exposing more than 1.8 million people to cigarette smoke. Fourteen percent of Ontario households (166,520) with children 0 to 14 years of age had someone smoking inside the home. (CTUMS, data not shown)

In Ontario, among households with no smokers, 86% prohibited cigarette smoking in the home (data are not available for households with smokers). (CTUMS, data not shown)

Among Ontario women who were pregnant in the past five years, 91% were not regularly exposed to household ETS by their partner during their latest pregnancy. (CTUMS, data not shown)

Figure 12: Reported Exposure to ETS at Home (Everyday or Almost Everyday), by Province, Household, Canada 2001 and 2002



Note: Vertical lines represent 95% confidence intervals. Ordered by 2002 reported exposure.
Source: CTUMS (Household, Annual).

Support for Smoking Restrictions in the Home and in Cars

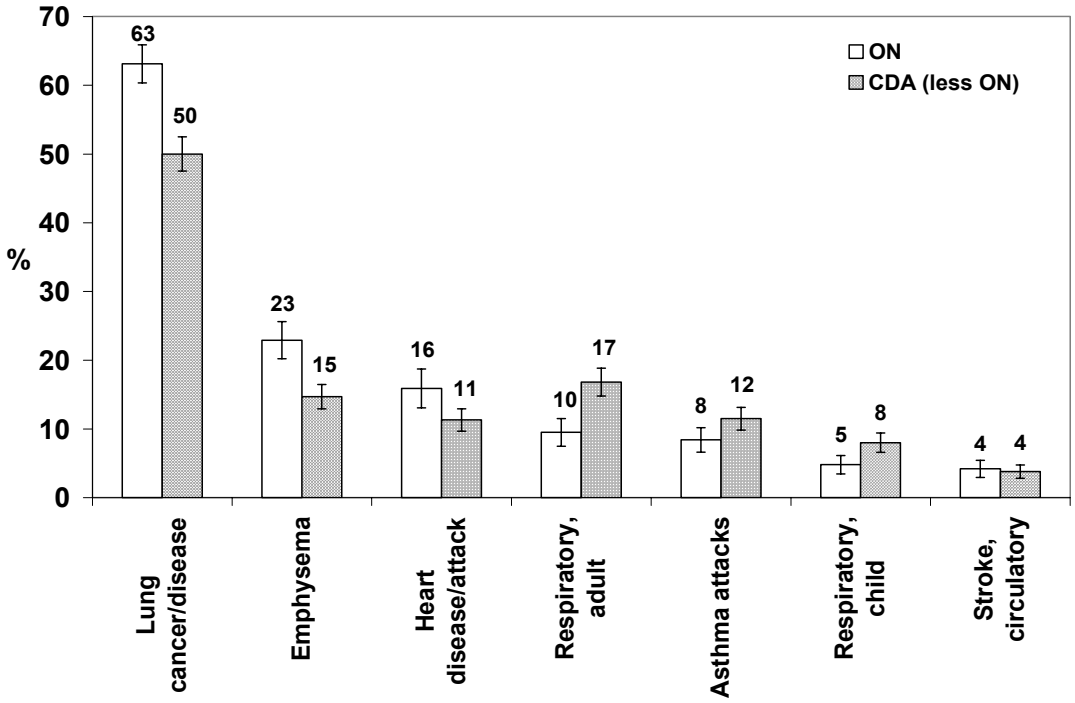
Eighty seven percent of Ontario adults believe that parents should not smoke inside the home while small children are present, with women significantly more supportive than men (90% vs. 84%). Moreover, 57% of Ontario adults believe that there should be a law that prohibits parents smoking inside the home if children are living there and 68%, including half of all smokers, would support a law prohibiting smoking inside a car when a child is present. (CAMH Monitor, data not shown)

Knowledge of Health Effects

Almost two-thirds of Ontario residents and half of Canadians recognized that second-hand smoke[iii] (SHS) caused lung cancer and lung disease (Figure 13). However, awareness of other diseases caused by SHS was low. Fewer than one in four Ontario residents reported that emphysema was caused by SHS, and only one in six recognize that it caused heart attacks and heart disease. Similarly low rates of awareness were found for other respiratory diseases in adults and children. Recognition of the link between SHS and stroke was only 4%. Compared to other Canadians, Ontario residents were significantly more likely to report that SHS caused lung cancer, emphysema, and heart disease, whereas other Canadians were more likely to report asthma and adult and childhood respiratory problems ($p<.05$; CTUMS, Cycle 1).

[iii] Although we prefer the term environmental tobacco smoke (ETS) to second-hand smoke (SHS) because ETS includes not only SHS but also side-stream smoke, we use SHS in reference to Figure 13 to parallel CTUMS question wording.

Figure 13: Awareness of Health Effects Caused in Non-Smokers by ETS, Age 15+, Ontario and Canada 2002



Note: Vertical lines represent 95% confidence intervals.
Source: CTUMS (Cycle 1).

In 2002, Ontario residents were more likely to report emphysema as a health effect of SHS in non-smokers compared to 2001 (23% vs. 15%, $p<.05$). There were no significant differences between reports of SHS causing lung cancer and heart disease/attack from 2001 to 2002 (small cell sizes precluded reporting annual changes among other health effects). (CTUMS, data not shown)

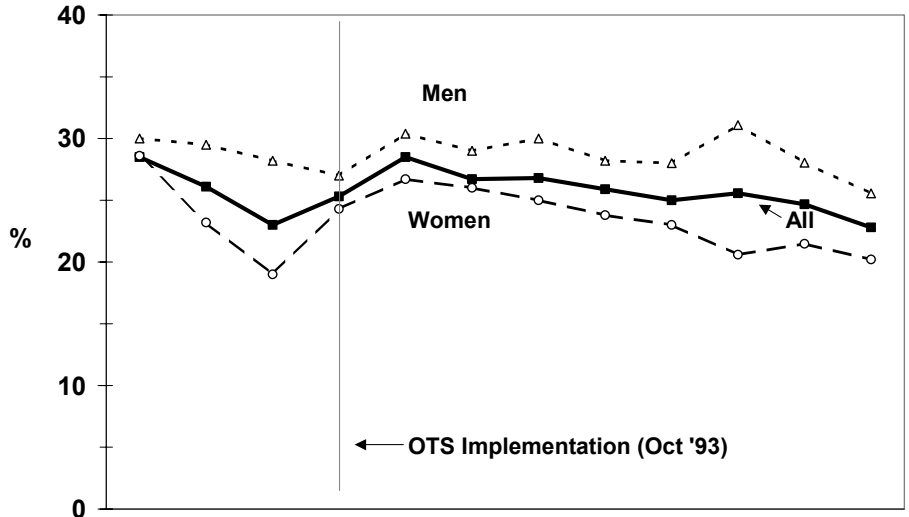
Current smokers in Ontario were less likely to report that SHS caused lung cancer in non-smokers than were former and never smokers (53% vs. 65% and 66%, respectively; $p<.05$). Former smokers were more likely to report that SHS caused emphysema than never smokers (29% vs. 21%, $p<.05$). There were no significant differences in the reporting of heart disease/attack among current, former, and never smokers (small cell sizes precluded reporting other health effects by smoking status). (CTUMS, data not shown)

TOWARD REDUCING ADULT SMOKING

Current Smoking

In 2002, 23% of Ontario adults were current smokers (i.e., smoked daily or occasionally in the past month and had smoked at least 100 cigarettes in lifetime), continuing an apparent downward trend that began in 1995 (Figure 14). Men were once again significantly more likely than women to be current smokers (26% vs. 20%, respectively, $p<.05$).

Figure 14: Current Cigarette Smoking, by Sex, Age 18+, Ontario 1991-2002



	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02
Men	30	30	28	27	30	29	30	28	28	31	28	26
All Adults	29	26	23	25	29	27	27	26	25	26	25	23
Women	29	23	19	24	27	26	25	24	23	21	21	20

Source: CAMH Monitor.

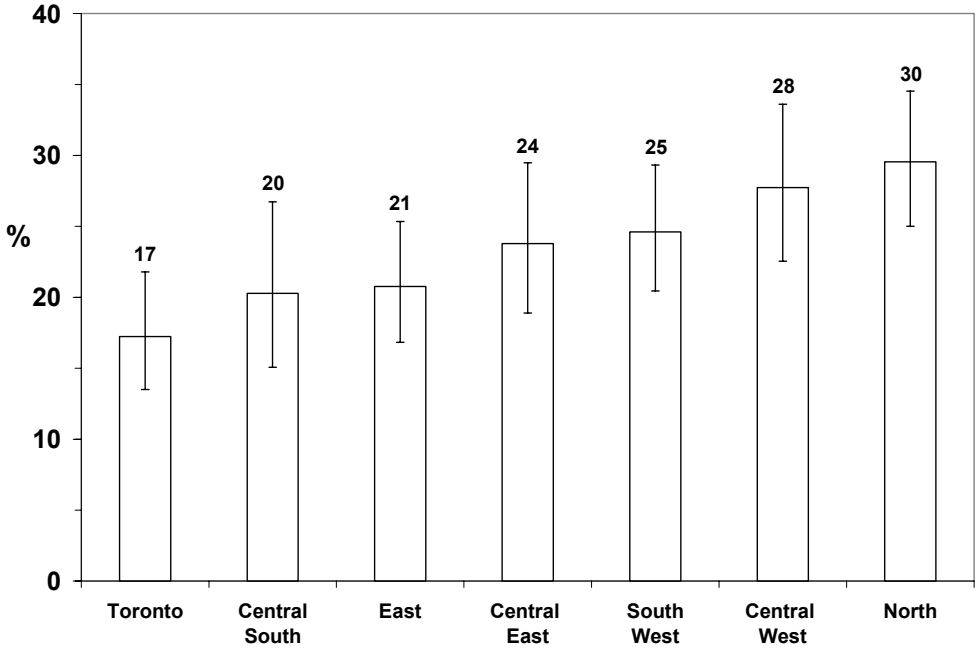
Region

In 2002, the prevalence of current smoking varied by Health Planning Region, ranging from 17% in Toronto to 30% in the North Region (Figure 15). Specifically, current smoking prevalence was significantly lower in Toronto compared to South West, Central West, and North Regions ($p<.05$). Central South and East also had a significantly lower smoking prevalence than the North Region ($p<.05$). Within each Health Planning Region, there was no significant change in current smoking from 2001 to 2002 (CAMH Monitor, data not shown).

Age

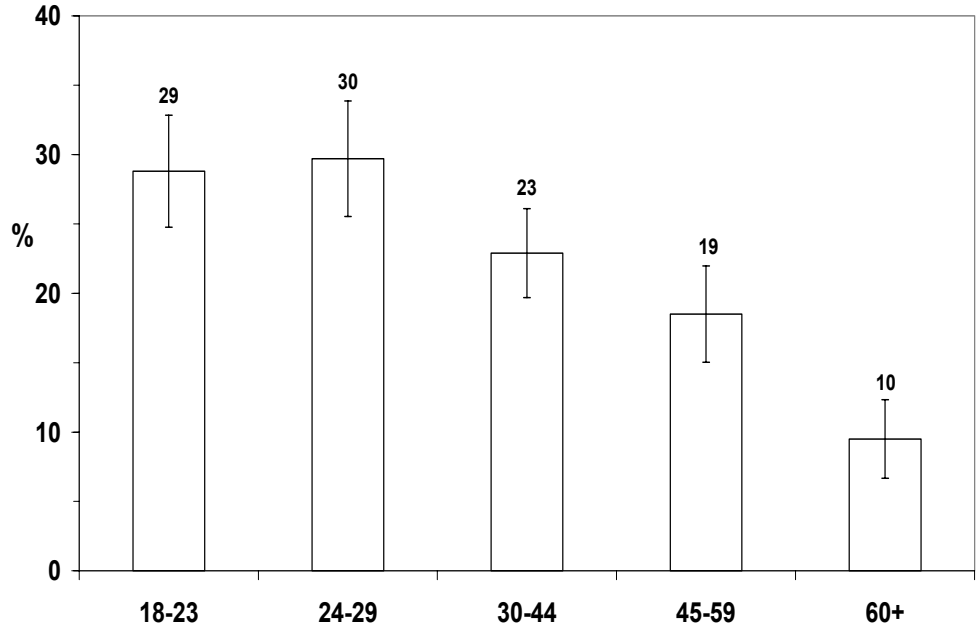
Ontario adults under 30 were more likely to smoke than adults aged 30 and over ($p<.05$; Figure 16). Adults aged 60 and over had the lowest rate of smoking of all age groups. Within each age category, there were no significant sex differences in current smoking prevalence.

Figure 15: Current Cigarette Smoking, by Health Planning Region, Age 18+, Ontario, 2002



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

Figure 16: Current Cigarette Smoking, by Age, Ontario 2002



Note: Vertical lines represent 95% confidence intervals.
Source: CTUMS (Annual).

Education

Ontario adults with less education were far more likely to be current smokers in 2002 (Figure 17). Moreover, the differences between each level of education were significant, consistent with findings reported in previous years.

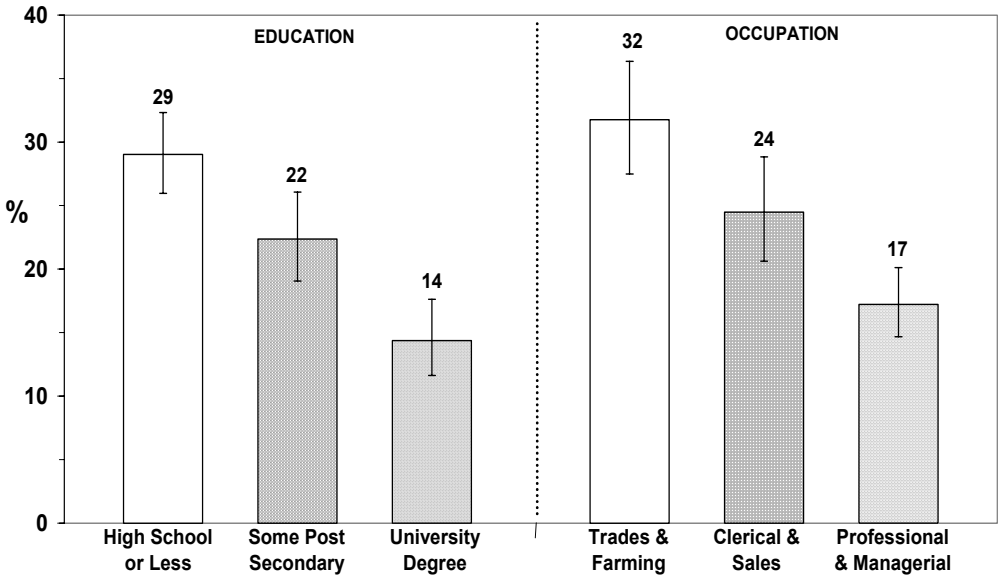
Occupation

As in past years, trade and farm workers were significantly more likely to be current smokers than either clerical and sales workers and particularly professional and managerial workers (32% vs. 24% and 17%, respectively, $p<.05$; Figure 17). Clerical and sales workers also had a significantly higher smoking prevalence than professional and managerial workers (24% vs. 17%).

Pregnancy

As reported in 2001, 14% of expectant mothers in Ontario (aged 20-44) who gave birth in the past five years smoked during their most recent pregnancy (CCHS, 2001, data not shown). This is comparable to more recent national data (CTUMS, 2002, data not shown), which found 11% of expectant mothers (aged 20-44) smoked during their most recent pregnancy.

Figure 17: Current Cigarette Smoking, by Education and by Occupation, Age 18+, Ontario 2002



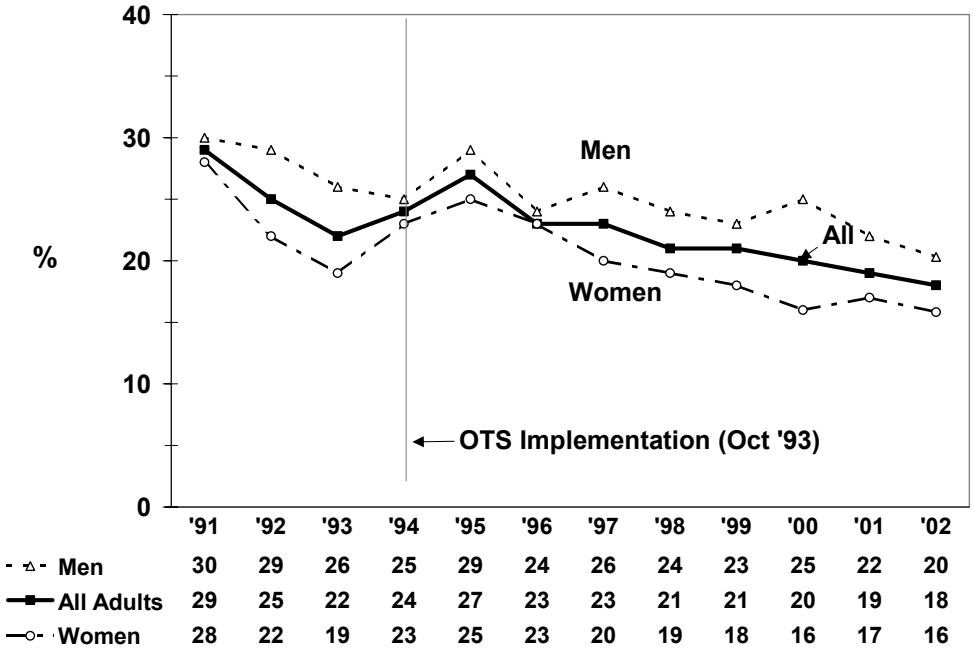
Note: Vertical lines represent 95% confidence intervals.
Source: CAMH Monitor.

Daily and Occasional Smoking

In 2002, 18% of Ontario adults were daily smokers (Figure 18), which is a significant decrease from 1991 (29%) and 1995 (27%). As in recent years, the prevalence of daily smoking in the general population was significantly higher for men than women (20% vs. 16%).

Of all current smokers in 2002, 79% were daily smokers and 21% were occasional smokers (Figure 19). Although unchanged in recent years, this trend is in contrast to 1991, when virtually all smokers smoked daily. Among current smokers, in 2002, the prevalence of daily smoking between men and women did not differ. On average, current smokers who switched from daily to occasional smoking did so at 30 years of age. The primary reason they gave for this change in smoking status was concern for their own health. (CAMH Monitor, data not shown)

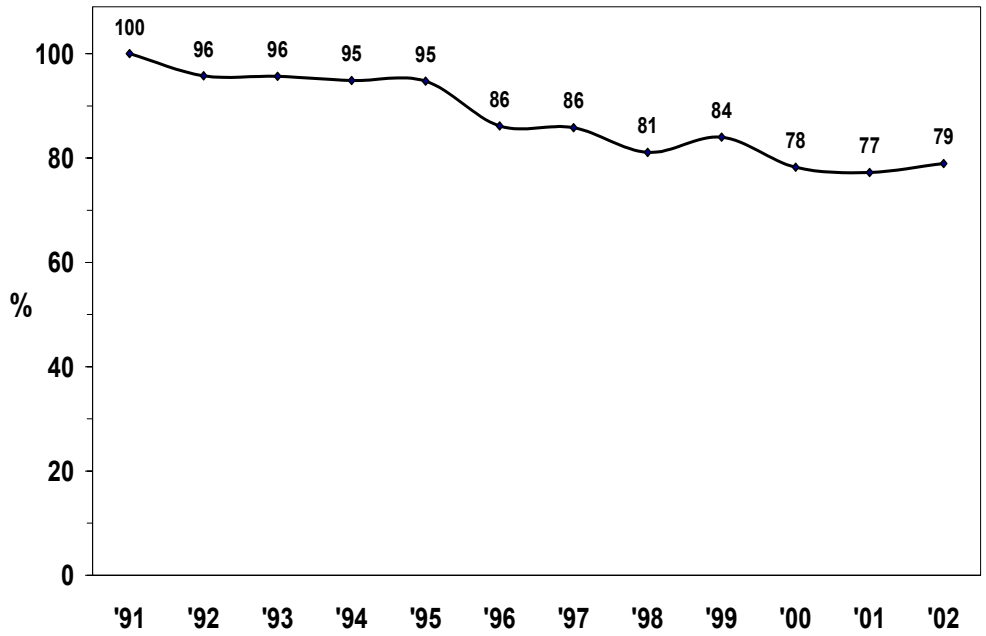
Figure 18: Daily Cigarette Smoking, by Sex, Age 18+, Ontario 1991-2002



	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02
Men	30	29	26	25	29	24	26	24	23	25	22	20
All Adults	29	25	22	24	27	23	23	21	21	20	19	18
Women	28	22	19	23	25	23	20	19	18	16	17	16

Source: CAMH Monitor.

Figure 19: Daily Smoking as a Proportion of Current Smoking, Age 18+, Ontario 1991-2002

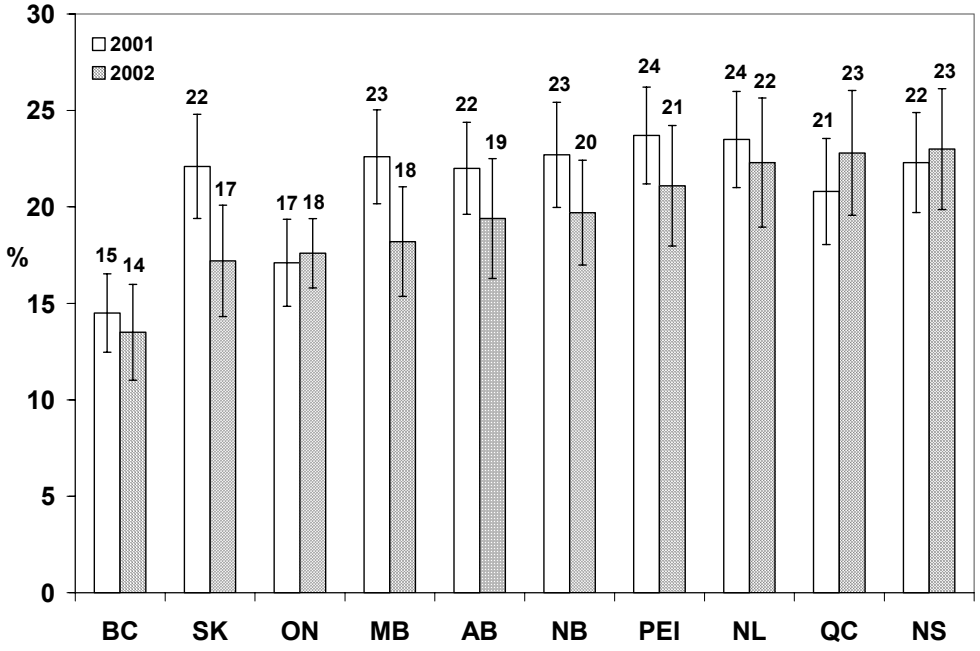


Source: CAMH Monitor.

Across Canada, the rate of daily cigarette smoking ranged from a low of 14% in British Columbia to a high of 23% in Québec and Nova Scotia (Figure 20). Only British Columbia had a significantly lower daily smoking rate than Ontario (14% vs. 18%, $p<.05$), whereas the daily smoking rates in Newfoundland, Québec, and Nova Scotia were significantly higher compared to Ontario (22%, 23%, and 23% vs. 17%, $p<.05$). Current smoking rates followed a similar pattern, about 2-4% percent higher than rates reported for daily smoking.

In 2002, the prevalence of daily smoking in Ontario (18%) was significantly lower than that in Newfoundland, Québec, and Nova Scotia (22%, 23%, and 23% respectively). From 2001 to 2002, there was no change in the rate of daily smoking in Ontario; this was also true in most other provinces (Figure 20). However, both Saskatchewan and Manitoba had significant decreases in daily smoking prevalence from 2001 to 2002 ($p<.05$).

Figure 20: Daily Cigarette Smoking, by Province, Age 18+, Canada 2001 and 2002



Note: Ordered by 2002 prevalence of daily smoking. Vertical lines represent 95% confidence intervals.
Source: CTUMS (Annual).

Level of Use

In 2002, the mean number of cigarettes smoked per day by daily smokers was 17.2, unchanged since 1992 (Figure 21). Half of all daily smokers (50%) consumed 16 or more cigarettes per day (CTUMS, data not shown).

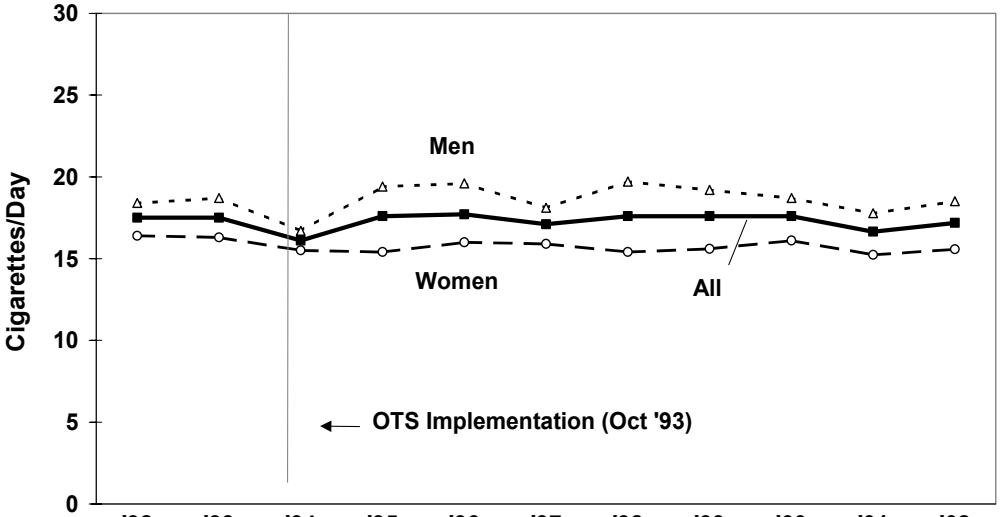
Men smoked significantly more cigarettes per day than women (18.5 vs. 15.6, $p<.05$), a pattern consistent with previous years. Adult daily smokers aged 18-34 smoked fewer per day than those aged 35-54 and 55+ (14.1 vs. 18.2 and 20.9, data not shown). Moreover, daily smokers who held a university degree smoked significantly fewer cigarettes per day than those with high school or less (14.1 vs. 17.7, respectively, $p<.05$). (CAMH Monitor, data not shown)

Dependence

The Heaviness of Smoking Index[18] is a scale combining time to first cigarette each morning and number of cigarettes per day (Figure 22). (A score of 0-2 indicates low dependence, 3-4 indicates moderate dependence, and 5-6 indicates high dependence.) Although 18% of Ontario adults were daily smokers in 2002 (Figure 18), only 14% of these smokers were highly dependent on cigarettes (CAMH Monitor, data not shown). Conversely, almost half (49%) of daily smokers had a low dependence on cigarettes and 37% were moderately dependent, unchanged from previous years.

The proportion of men and women daily smokers at each relative score on this index did not differ significantly (Figure 22). However, 18-34 year old daily smokers were significantly more likely to have a low dependence on cigarettes than daily smokers aged 35-54 and 55+ (62% vs. 40% and 47% respectively; data not shown).

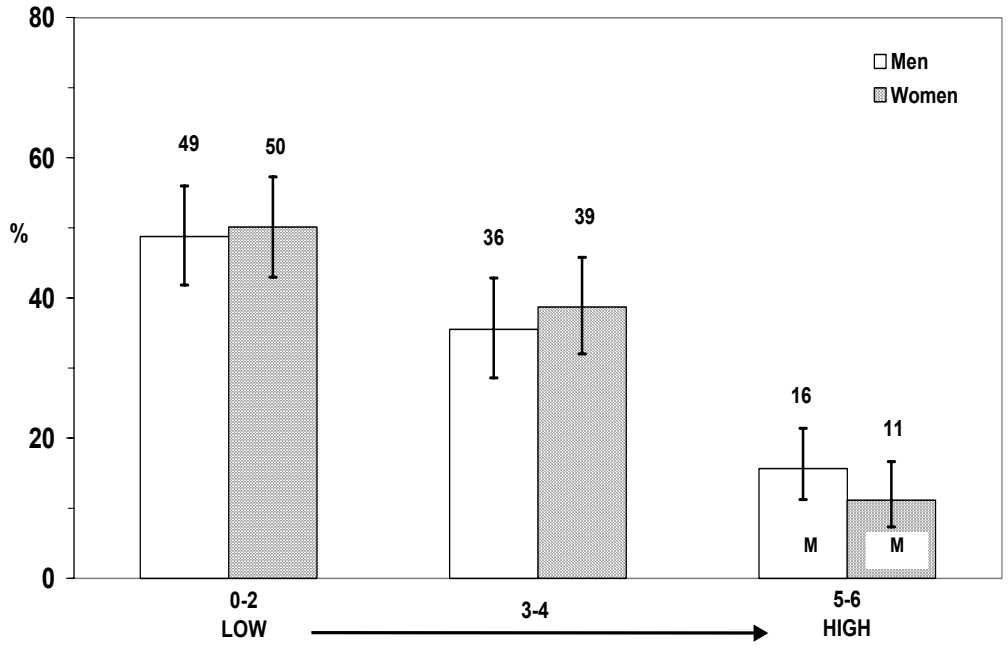
Figure 21: Mean Number of Cigarettes Smoked Daily, by Sex, Daily Smokers, Age 18+, Ontario 1992-2002



	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02
Men	18	19	17	19	20	18	20	19	19	18	19
All Adults	18	18	16	18	18	17	18	18	18	17	17
Women	16	16	16	15	16	16	15	16	16	15	16

Source: CAMH Monitor.

Figure 22: Nicotine Dependence: Heaviness of Smoking Index, by Sex, Daily Smokers, Age 18+, Ontario 2002



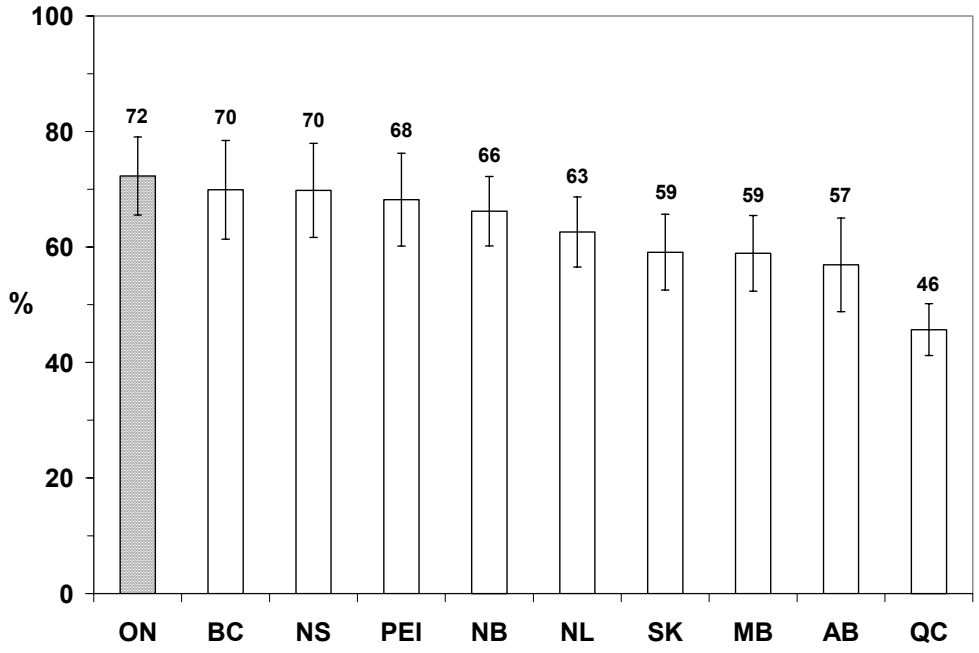
Note: M = interpret with caution, high levels of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%. Vertical lines represent 95% confidence intervals.
Source: CAMH Monitor.

Preferences for Light and Mild Cigarettes and Other Tobacco Products

In 2002, 72% of adult current smokers in Ontario smoked light or mild cigarettes (Figure 23), unchanged from 2001. Women were significantly more likely to smoke light or mild cigarettes than men (80% vs. 66%, data not shown). Ontario smokers were significantly more likely to smoke light or mild cigarettes than smokers in Saskatchewan, Manitoba, Alberta, and Québec ($p<.05$).

Many Ontario adults who used light or mild cigarettes erroneously believed these to be less harmful than regular ones. For instance, in 2002, 28% believed these cigarettes reduced the amount of tar inhaled, and 18% believed they reduced the health risk of smoking (CTUMS 2002, data not shown).

Figure 23: Preference for Light and Mild Cigarettes, by Province, Current Smokers, Age 18+, Canada 2002



Note: Light and mild cigarettes include "ultra" and "extra" brands. Vertical lines represent 95% confidence intervals.
Source: CTUMS (Annual).

In Ontario, lifetime use[iv] of chewing tobacco, pinch, or snuff among adults was 6.9%, which was not significantly different from that reported in the rest of Canada (8.8%). The lifetime use of cigars and pipes by Ontario adults (31% and 13%, respectively) was significantly lower than the use of these products in the rest of Canada (36% and 16%, respectively). Furthermore, significantly more adult men than women have ever used these tobacco products. The current prevalence of use of these tobacco products, as measured by past 30-day use, is not reportable due to Statistics Canada release criteria. (CTUMS Cycle 2, data not shown)

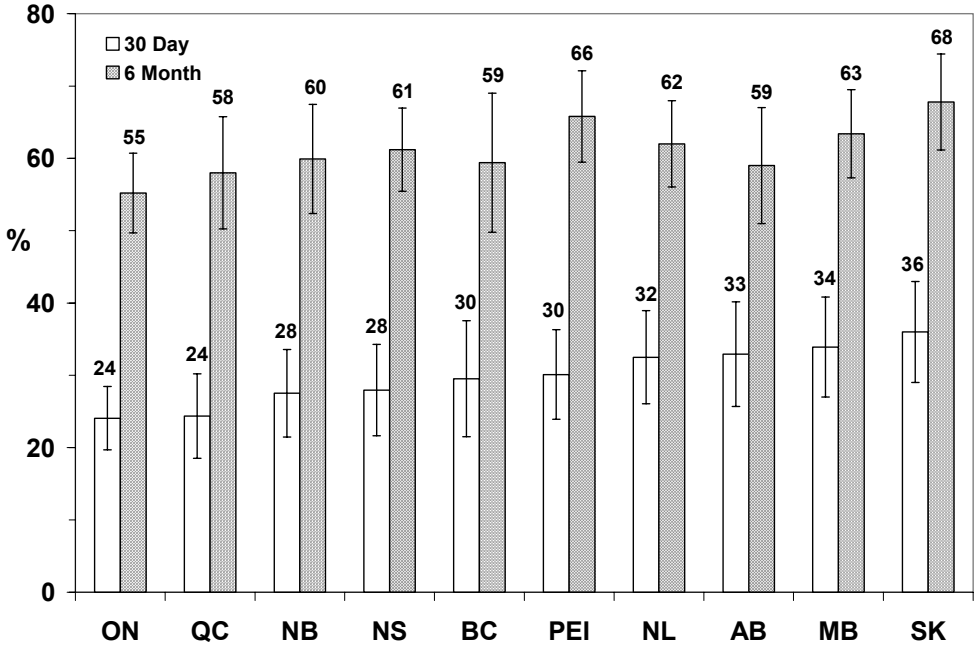
[iv] Refers to any use of tobacco products in one's lifetime, and does not reflect current prevalence.

Smoking Cessation

Intentions to Quit

In 2002, over half (55%) of Ontario current smokers expressed an intention to quit smoking within six months of their interview; one-quarter (24%) indicated a serious intention to quit within 30 days (Figure 24). Smokers in Prince Edward Island and Saskatchewan had significantly higher 6-month quit intentions than those in Ontario ($p<.05$). Further, smokers in Newfoundland, Alberta, Manitoba, and Saskatchewan had significantly higher 30-day quit intentions than smokers in Ontario ($p<.05$). In Ontario, 6-month and 30-day quit intentions remain unchanged from 2001 (CTUMS, data not shown).

Figure 24: Intentions to Quit Smoking within Next 30 Days and 6 Months, by Province, Current Smokers Age 18+, Canada 2002



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

Former Smokers

In 2002, almost half of all lifetime ever smokers (49%) were former smokers (i.e., they had not smoked for one or more years). There were 116,168 Ontario adults in 2002 that reported they had quit smoking over the past year (and had not smoked for at least the past 30 days). (CTUMS, data not shown)

Nationally, the number one reason former smokers gave for quitting was concern for their own health (25%); 17% reported current health problems as the reason they had quit. In Ontario, however, former smokers equally reported concern for their own health and current health problems as the primary reasons for quitting (27% and 25% respectively). (CTUMS 2002, data not shown)

Relapse

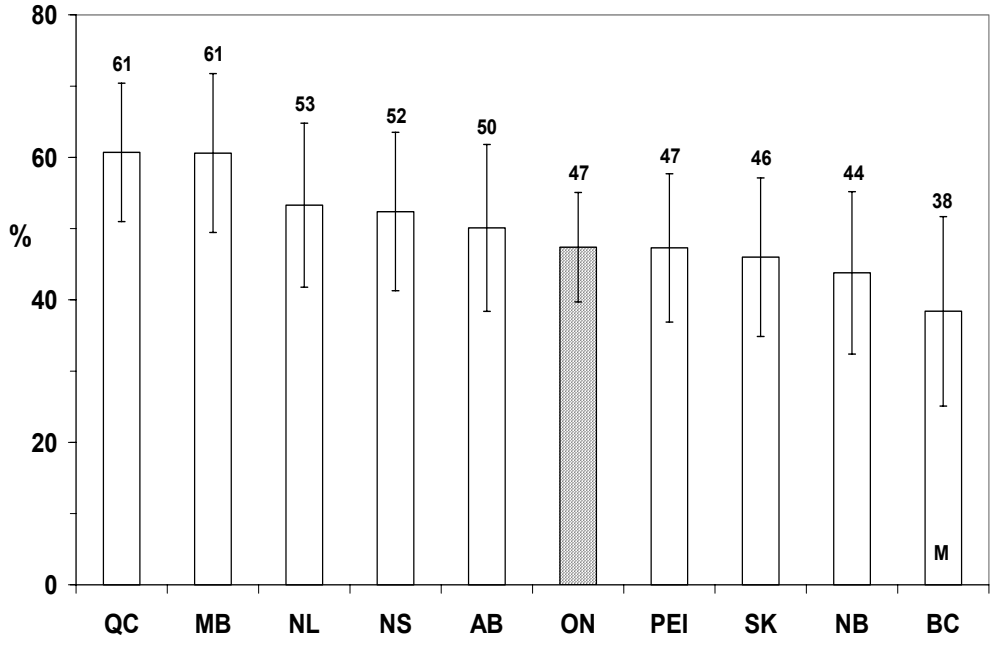
Former adult smokers in Ontario reported an average of 3.5 quit attempts before quitting for good, compared to 2.9 in the rest of Canada. In Ontario, men reported more attempts before successfully quitting than women (4.3 vs. 2.5). (CTUMS 2002, data not shown)

Given the multiple social, psychological, environmental and biological factors associated with smoking, it is not surprising that many quit attempts are unsuccessful. In 2002, current smokers in Ontario made an average of 1.7 quit attempts lasting at least 24 hours, which was consistent with the national average. Across Canada, stress was the most common reason cited for relapse among these smokers. (CTUMS 2002, data not shown)

Physician Advice

Among current smokers who had visited a doctor in the past year, physician advice to quit smoking ranged from a high of 61% in Québec and Manitoba to a low of 38% in British Columbia (Figure 25). In Ontario, 47% of current smokers reported being advised to quit smoking, unchanged from previous years. This is similar to physician advice to quit in other Canadian provinces.

Figure 25: Physician Advice to Quit Smoking, by Province, Age 18+ Visiting a Doctor in the Past 12 Months, Canada 2002



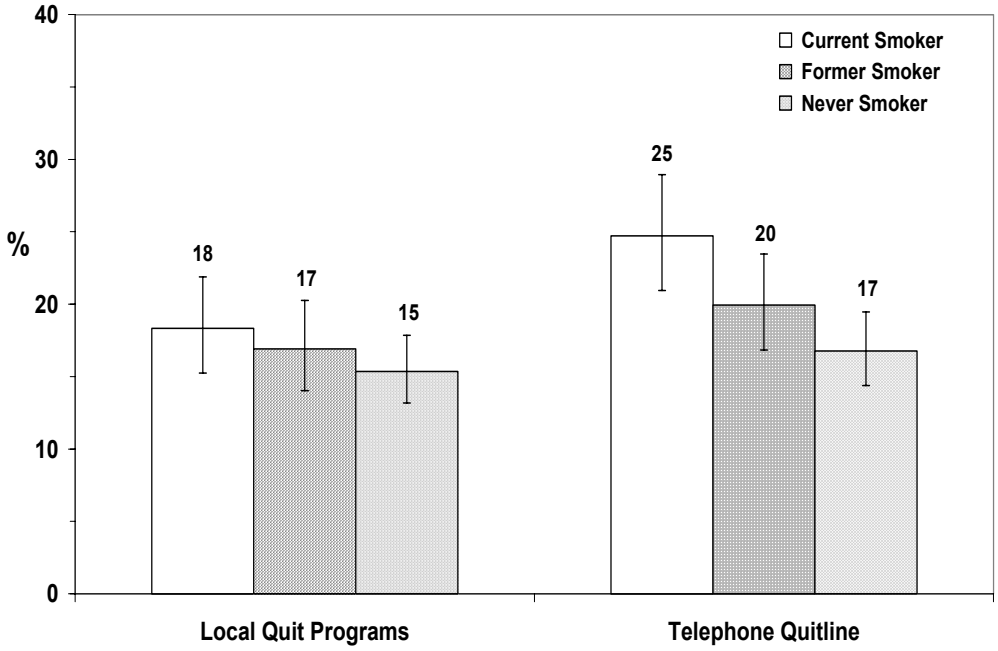
Note: M = interpret with caution, high levels of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%. Vertical lines represent 95% confidence intervals.
Source: CTUMS (Cycle 2).

Awareness of Cessation Programs

Past 30-day awareness of the 1-800 Quitline was significantly higher than awareness of local quit programs (19% vs. 16%, $p<.05$, CAMH Monitor, data not shown), with awareness for each program unchanged from 2001.

Current smokers were more likely to be aware of the Quitline than never smokers (Figure 26). With respect to awareness of local quit programs, there were no reportable differences by smoking status.

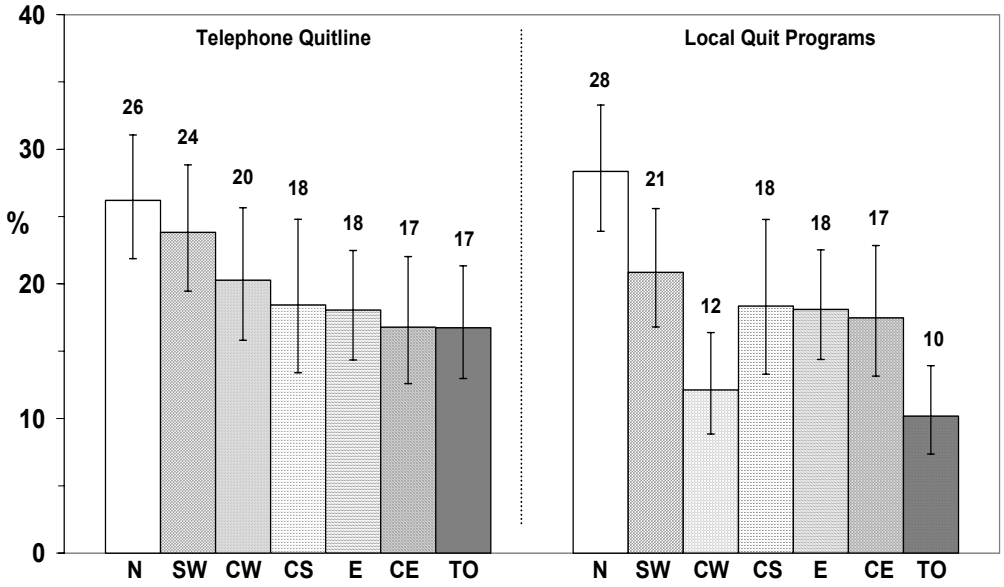
Figure 26: Awareness of Smoking Cessation Programs, Past Month Recall, by Smoking Status, Age 18+, Ontario 2002



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

In 2002, the percentage of individuals who were aware of cessation programs varied among Ontario's seven Health Planning Regions. Specifically, awareness of the telephone Quitline reached a high of 26% in the North, which was significantly higher than awareness reported in each of the following Health Regions: East (18%), Central East (17%), and Toronto (17%), ($p<.05$ respectively; Figure 27). Similarly, the range in awareness for local quit programs peaked in the North at 28%, dropping to a low of 10% in the Toronto Region. Further, the North had significantly higher awareness than any other Health Region ($p<.05$).

Figure 27: Awareness of Smoking Cessation Programs, Past Month Recall, by Health Planning Regions, Age 18+, Ontario 2002



Note: Health Planning Regions: N = North, SW = South West, CW = Central West, CS = Central South, E = East, CE = Central East, TO = Toronto. Vertical lines represent 95% confidence intervals.
Source: CAMH Monitor.

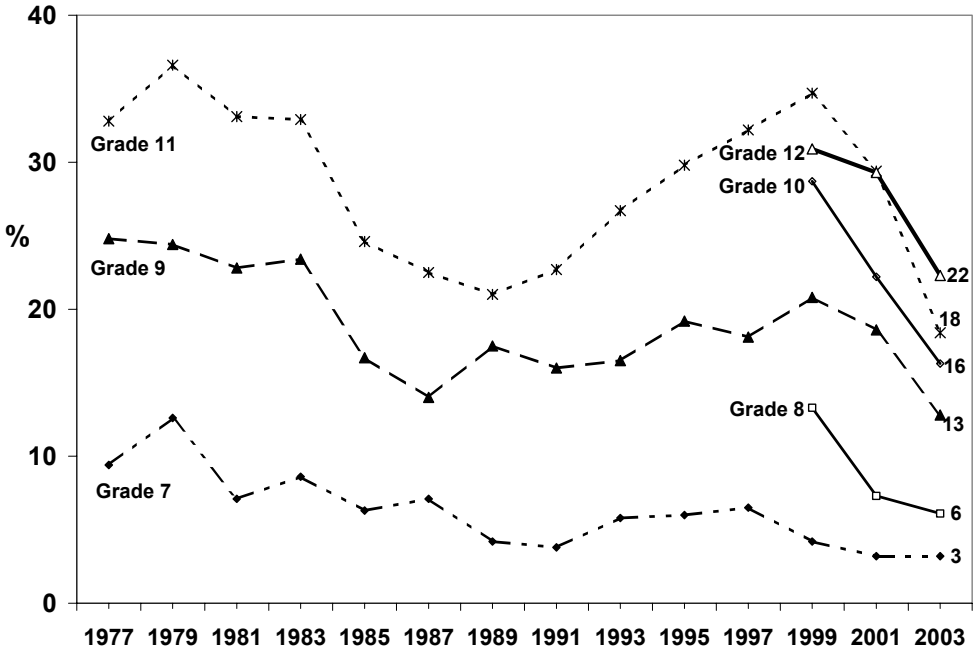
TOWARD REDUCING YOUTH SMOKING

Current Smoking

The rate of Ontario students smoking one or more cigarettes a day (every day during the past 12 months) declined, in general, from the early 1980s until about 1989 (Figure 28). These rates increased across the 1990s to peak in 1999. However, rates declined in 2001 and they continued to decline in 2003. For the first time, in 2003 prevalence decreased below historic 1989 lows.

In 2003, the prevalence of students smoking one or more cigarettes per day in the past year ranged from 3% in grade 7 to 22% in grade 12 (Figure 28). As expected, one-year smoking prevalence in grades 7 and 8 (3% and 6%, respectively) was significantly lower than that found in grades 9, 10, 11, and 12 (13%, 16%, 18%, and 22%, respectively).

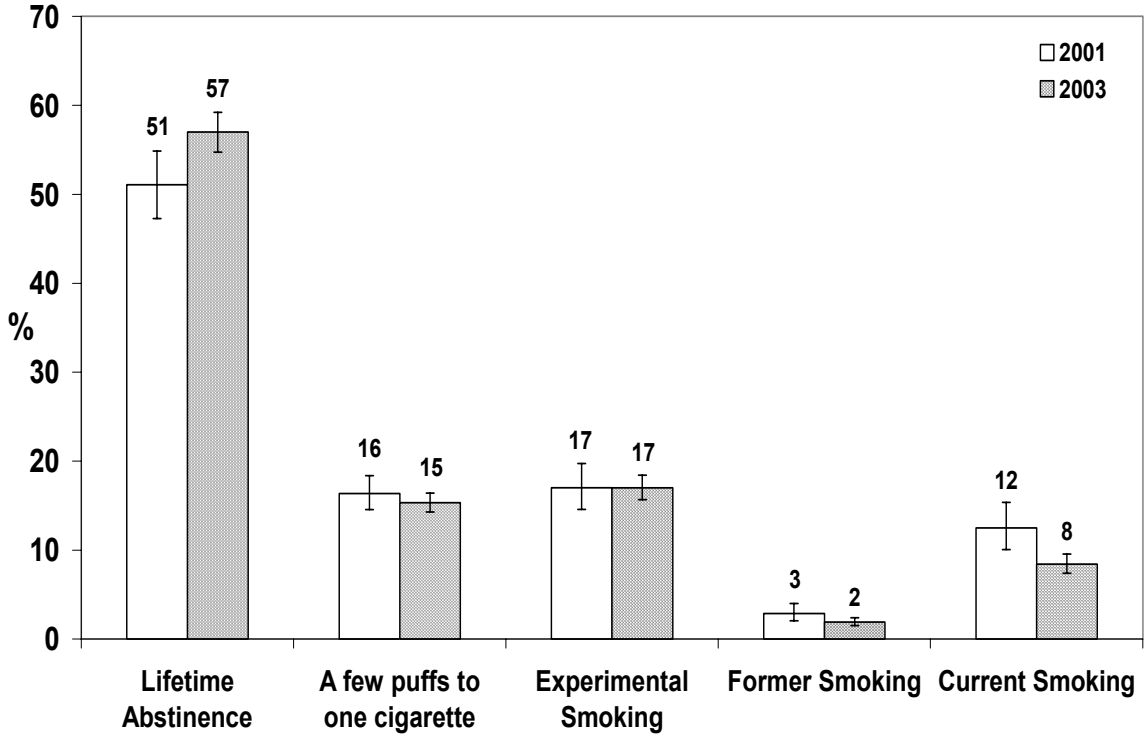
Figure 28: Percentage of Students Smoking One or More Cigarettes per day in the Past Year, by Grade (7-12), Ontario 1977-2003



Note: Students in grades 8, 10, and 12 were not surveyed prior to 1999.
Source: OSDUS.

The prevalence of current smoking (i.e., more than 100 cigarettes in their lifetime, and some in the past month) declined significantly since 2001 from 12% to 8% in 2003 (Figure 29). One in 10 Ontario students had smoked more than 100 cigarettes in their lifetime in 2003 (Figure 29), with 8% having smoked in the past 30 days (i.e. current smokers). Almost all current smokers were smoking daily (OSDUS, data not shown).

Figure 29: Lifetime Smoking Behaviour, Grades 7-12, Ontario, 2001 and 2003



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

Experimental Smoking

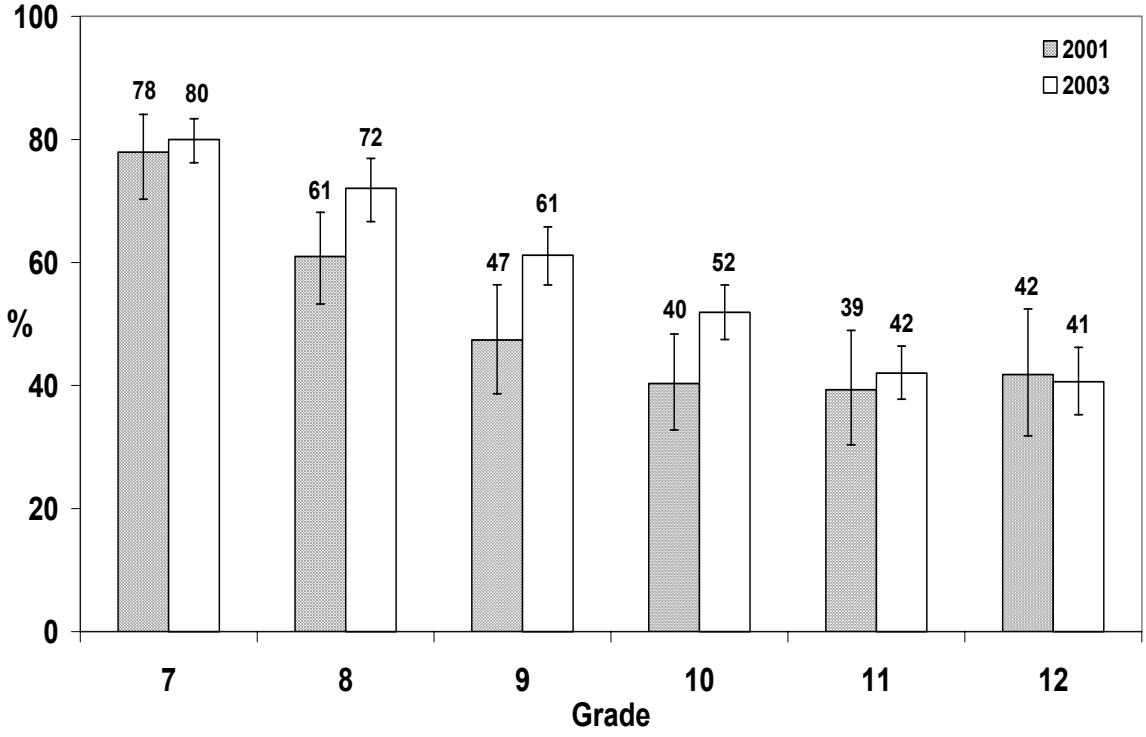
In 2003, 15% of students had a few puffs to one cigarette, unchanged from 2001. Similarly, experimental smoking (i.e., less than 100 cigarettes in their lifetime) was 17%, reflecting no change from 2001 (Figure 29). Among students who ever smoked a whole cigarette, 45% reported smoking their first cigarette in grade 7 or before, and the majority of students (67%) reported smoking their first cigarette in grade 8 or before. The most reported grades were 7, 8, and 9 (19%, 22% and 17%, respectively). (OSDUS, data not shown)

Lifetime Abstinence

From a high of 80% in Grade 7, students' lifetime abstinence significantly declined in higher grades, leveling off just over 40% in grades 11 and 12 in 2003 (Figure 30). Grade-to-grade declines were also significant ($p<.05$), with the exception of grade 11 to 12.

In 2003, Ontario students were significantly more likely to report complete abstinence (i.e., never taken a puff of a cigarette in their lifetime) compared to students in 2001 (57% vs. 51%, $p<.05$, Figure 29). Specifically, the abstinence rate of students in grades 8, 9, and 10 was significantly higher in 2003 compared to 2001 ($p<.05$, Figure 30).

Figure 30: Lifetime Abstinence, by Grade (7-12), Ontario 2001 and 2003



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

In 2003, there were no significant differences between male and female students in lifetime smoking behaviour, with the exception that females were more likely to be experimental smokers compared to males (19% vs 15% respectively, $p<.05$). (OSDUS, data not shown)

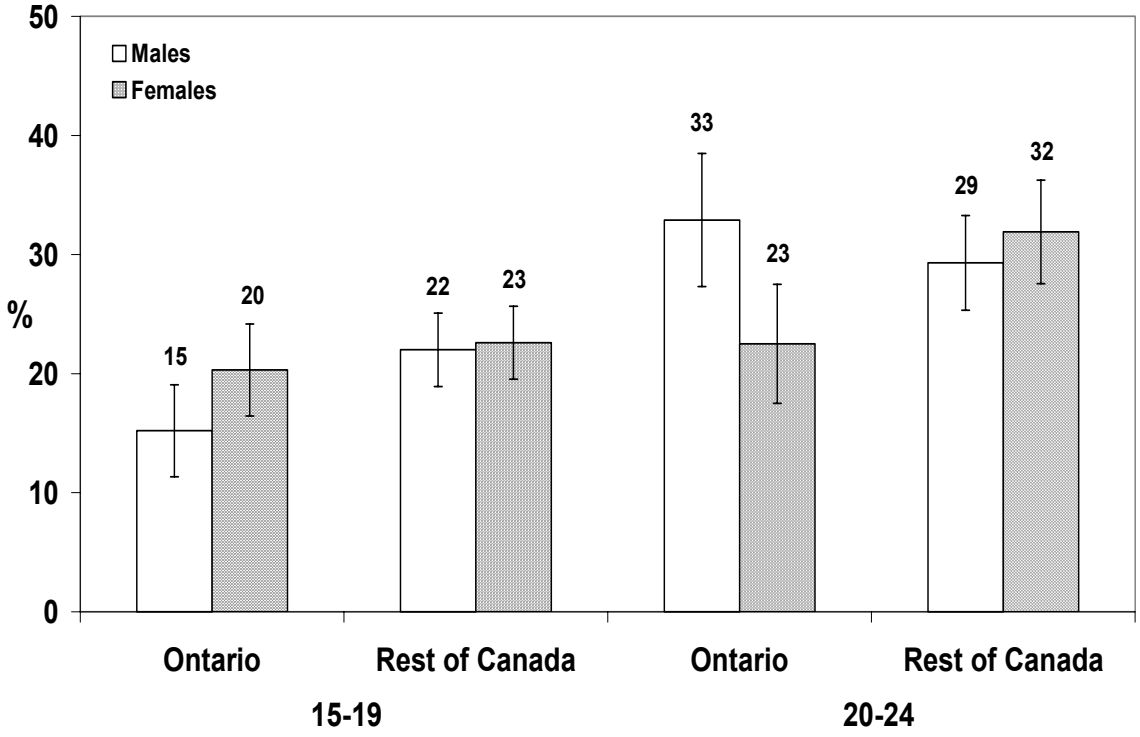
Smoking Behaviour: Age, Sex and Jurisdictional Differences

Sex and Age Differences

Among Ontario youth aged 15-19, the prevalence of current smoking did not significantly differ between males and females (Figure 31). Among 20-24 year olds, in contrast, males in Ontario were significantly more likely than females to be current smokers (33% vs. 23%, Figure 31), which appeared to be driven by the smoking prevalence among young adults aged 20-22 (35% for males and 20% for females, data not shown).

Males aged 15-19 in Ontario were significantly less likely to be current smokers than males that age in the rest of Canada (15% vs. 22%, $p<.05$), but the difference was not significant for females (20% vs. 23% respectively; Figure 31). Among 20-24 year olds, females in Ontario were significantly less likely to be current smokers than in the rest of Canada (23% vs. 32%, $p<.05$), whereas males aged 20-24 in Ontario and the rest of Canada had similar rates of smoking (33% vs. 29% respectively; Figure 31).

Figure 31: Current Smoking among Youth, by Sex, Age 15-19 and 20-24, Ontario and Rest of Canada, 2002



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

Jurisdictional Differences

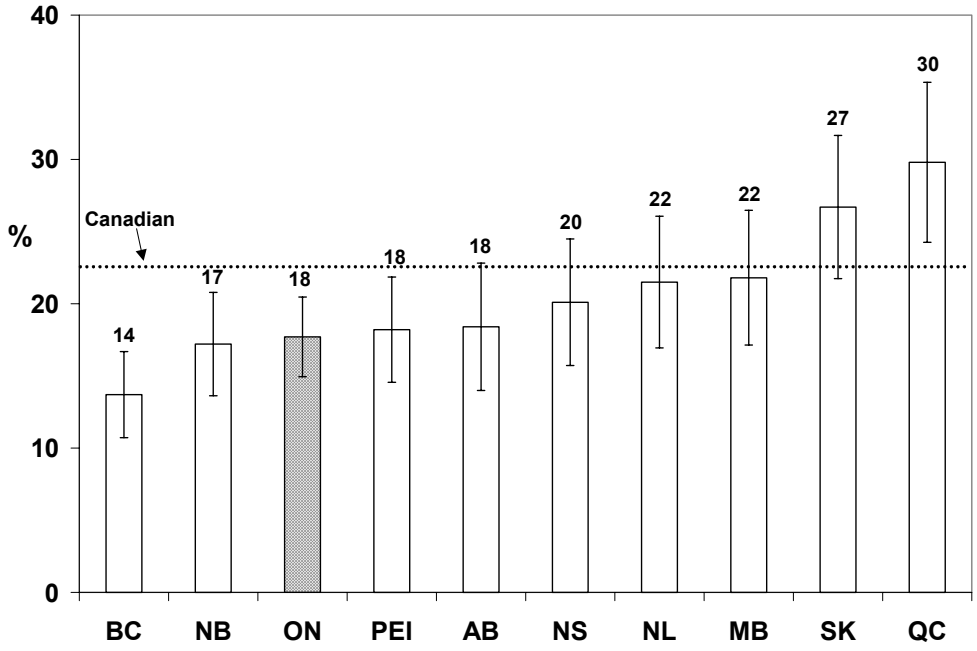
In 2002, current smoking among youth aged 15-19 ranged from 14% in British Columbia to 30% in Québec (Figure 32). Current smoking in Ontario was 18% for this age group, which is significantly less than the average of the other Canadian provinces (22%, $p<.05$, Figures 32 & 33). There were no significant year-to-year changes in Ontario (or the rest of Canada) for the period 1999 to 2002 (Figure 33). However, the findings suggest a declining trend for 15-19 year olds in Ontario, and 15-19 as well as 20-24 year olds in the rest of Canada.

In Ontario and the rest of Canada, 15-19 year olds were significantly less likely to be current smokers than 20-24 year olds (Figure 33). In 2002, the significant difference in smoking prevalence between 15-19 year olds and 20-24 year olds in Ontario appears to be driven by the higher smoking prevalence of males in this older age group (Figure 31).

In 2002, youth in Ontario aged 15-17 were significantly less likely to be current smokers than their peers in the rest of Canada (12% vs. 19%, $p<.05$). There were no other significant differences between Ontario and the rest of Canada within older youth age groups (18-19, 20-22, and 23-24). (CTUMS, data not shown)

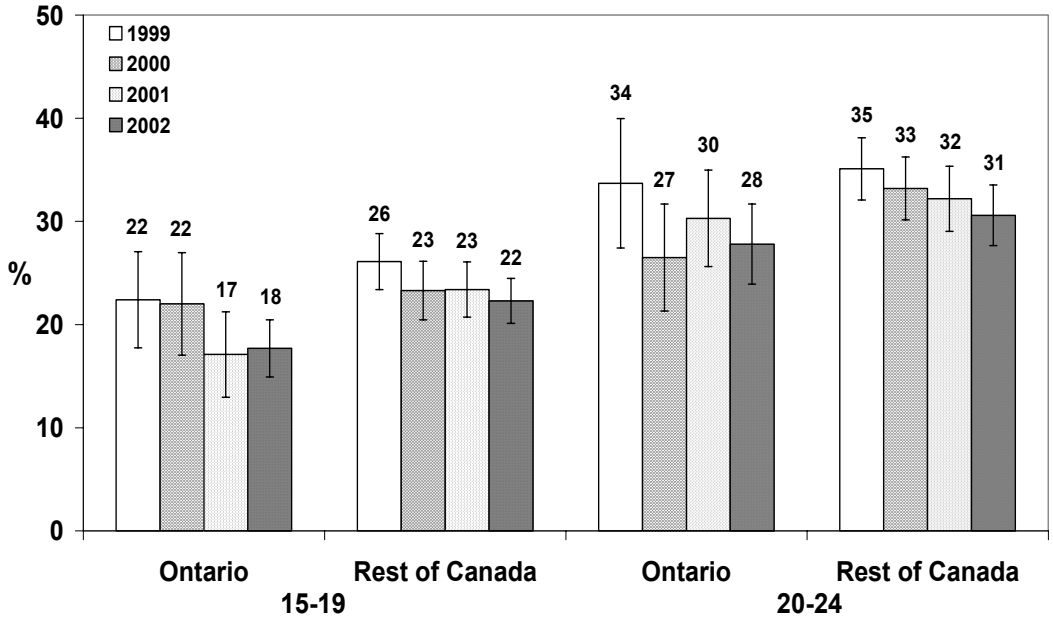
In 2003, lifetime abstinence for students in Toronto and Central West regions (63% and 61% respectively) was significantly higher than students in South West and North regions (49% and 47% respectively). (OSDUS, data not shown)

Figure 32: Current Cigarette Smoking, by Province, Age 15-19, Canada, 2002



Note: Horizontal line represents Canadian average excluding Ontario. Vertical lines represent 95% confidence intervals.
Source: CTUMS (Annual).

Figure 33: Current Cigarette Smoking among Young People, Age 15-19 and 20-24, Ontario and Rest of Canada 1999-2002



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

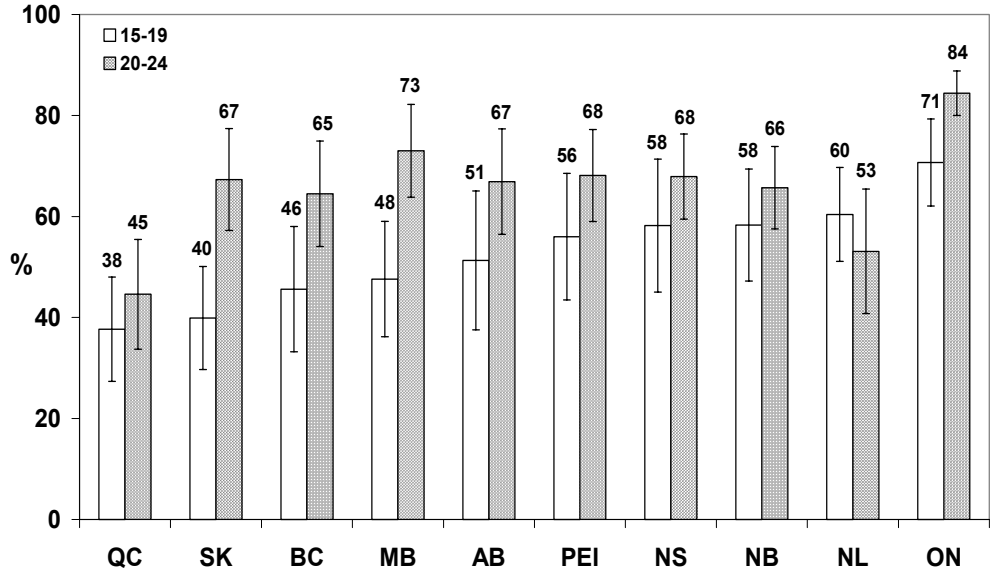
Preferences for Light and Mild Cigarettes and Perceptions of Harm

Across Canada, the preference for light and mild cigarettes for smokers aged 15-19 and 20-24 ranged from 38% and 45% in Québec to 71% and 84% in Ontario, respectively (Figure 34). In addition, smokers 20-24 years of age in Ontario, Saskatchewan, and Manitoba were more likely to smoke light and mild cigarettes than those aged 15-19. In Ontario, this pattern is in contrast to that reported in 2001, where smokers aged 15-19 and 20-24 were equally likely to smoke light and mild cigarettes. In comparison to older adults (25+), young adults aged 20-24 in Ontario were significantly more likely than older adults to smoke light and mild cigarettes (84% vs. 71%, respectively, $p<.05$). (CTUMS, data not shown)

In 2002, males and females in Ontario (15-19 and 20-24 years of age) were equally likely to prefer light and mild cigarettes, unchanged from 2001. This is in contrast to preferences of older adults (25+), where in 2002, women were significantly more likely to smoke light and mild cigarettes than men (80% vs. 63%, $p<.05$). (CTUMS, data not shown)

Nationally, 20% of smokers aged 15-24 years believed that, compared to regular cigarettes, light and mild cigarettes reduced the amount of tar inhaled and 13% believed that these products reduced their health risk.[v] In contrast, adults 25 years of age and older were significantly more likely to have misperceptions regarding light and mild cigarettes. Specifically, 27% believed that these cigarettes reduced the amount of tar inhaled and 18% believed that these products reduced their health risk (p<.05, CTUMS, data not shown).

Figure 34: Preference for Light and Mild Cigarettes among Current Smokers, by Province, Age 15-19 and 20-24, Canada 2002



Note: Light and mild cigarettes include "ultra" and "extra" brands. Ordered by preference among 15-19 year olds. Vertical lines represent 95% confidence intervals.
Source: CTUMS (Annual).

In 2003, fewer than 1 in 10 students believed that regular use of cigarettes, alcohol, or marijuana posed *no risk* (8%, 9%, and 7%, respectively). Significantly fewer students reported cigarettes as a *great risk* to harming

[v] Small cell sizes preclude the reporting of reasons for smoking light and mild cigarettes among 15-24 year olds in Ontario and the rest of Canada.

themselves compared to either alcohol or marijuana (24% vs. 31% and 55%, respectively). (OSDUS, data not shown)

In addition, significantly more grade 12 students believed that cigarettes and alcohol posed a great risk to harming themselves (29% and 37%, respectively) compared to grade 7 students (20% and 25%, respectively; $p<.05$). In contrast, significantly fewer grade 12 students perceived that marijuana posed a great risk to harming themselves compared to grade 7 students (47% vs. 69%, respectively). (OSDUS, data not shown)

Youth Access

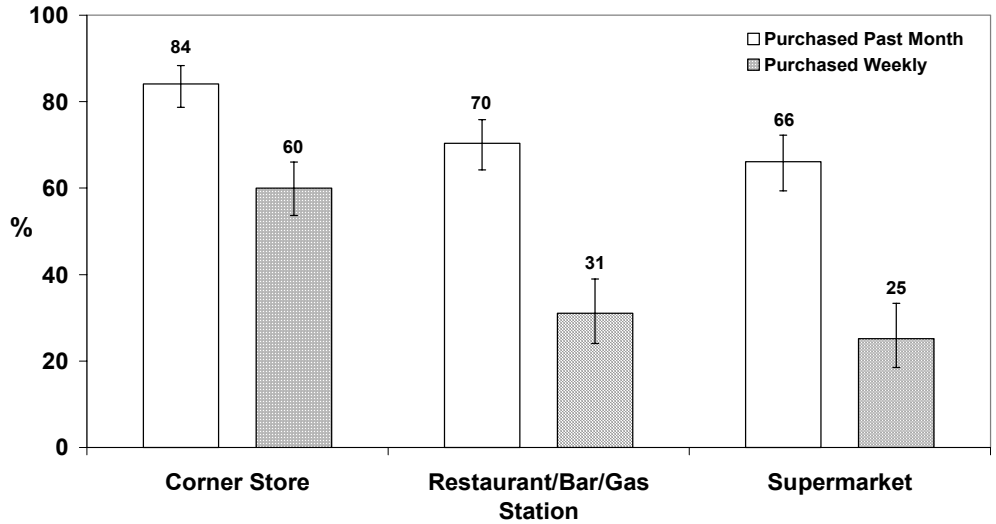
Sources of Cigarettes

In 2002, 59% of underage youth in Ontario (15-18 years) usually obtained their cigarettes from retail stores, significantly more than the 41% who obtained cigarettes from social sources (i.e., family or friends, $p<.05$) and unchanged in recent years (CTUMS, data not shown). Usual source of cigarettes (i.e., retail or social) was not significantly different for underage youth in Ontario and the rest of Canada. Similarly, there was no difference between adolescent males and females in source of cigarettes.

In 2003, among underage students who bought or attempted to buy cigarettes in the past month, 84% did so at small grocery/corner stores, which is significantly higher than the percentage of students who purchased at either (a) restaurants/bars/gas stations or (b) supermarkets (70% and 66%, respectively, Figure 35). For each type of retail store, there were no sex or grade differences (grade 9 to 12) among those who purchased cigarettes. (OSDUS, data not shown)

Moreover, among Ontario students who were underage and bought cigarettes in the past month at small grocery/corner stores, 60% made regular purchases (i.e., at least weekly), with the remaining students buying only once or twice over the four week period (Figure 35). In contrast, underage students were significantly less likely to make weekly (or more regular) purchases at (a) restaurants/bars/gas stations or (b) supermarkets (31% and 25%, respectively).

Figure 35: Underage Students who Purchased Cigarettes in Previous Month and Weekly Purchases in Past Month, by Retail Source, Ontario 2003



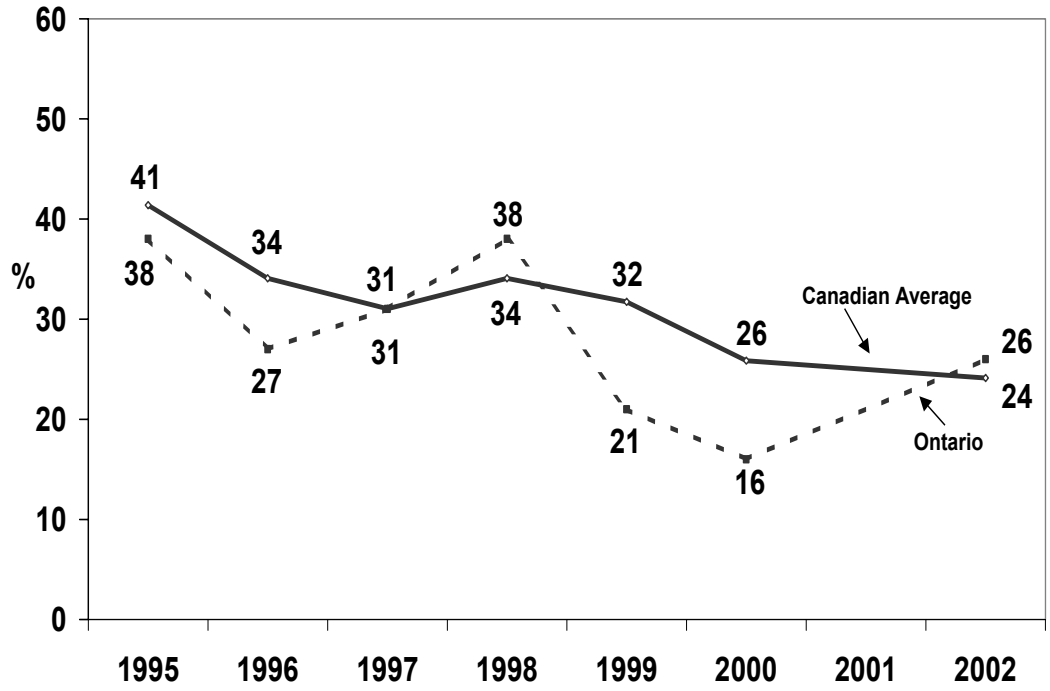
Note: Vertical lines represent 95% confidence intervals.
Source: OSDUS.

Retailer Non-Compliance

In 2003, 64% of underage students in Ontario (i.e., aged 18 or less) were never refused when attempting to purchase cigarettes in the past month, with no difference between males and females. Students in grades 11-12 were less likely to be refused cigarette sales in the past month than those in grades 9-10 (70% vs. 53%). (OSDUS, data not shown) Based on 2002 data reported by AC Nielsen, retailers asking for age identification were less likely to sell cigarettes to underage youth compared to those who did not (7% vs. 76%, respectively; data not shown).

In 2002, Ontario and the rest of Canada had similar proportions of retailers willing to sell cigarettes to underage youth (26% and 24%, respectively, AC Nielsen 2002). In Ontario, the decline in retailers willing to sell to youth from 1998 to 2000 did not hold in 2002 (Figure 36). Specifically, retailers willing to sell to youth reached a low of 16% in 2000, increasing to 26% in 2002. In contrast, the rate of retailer non-compliance in the rest of Canada maintained a gradual decline, reaching a low of 24% in 2002.

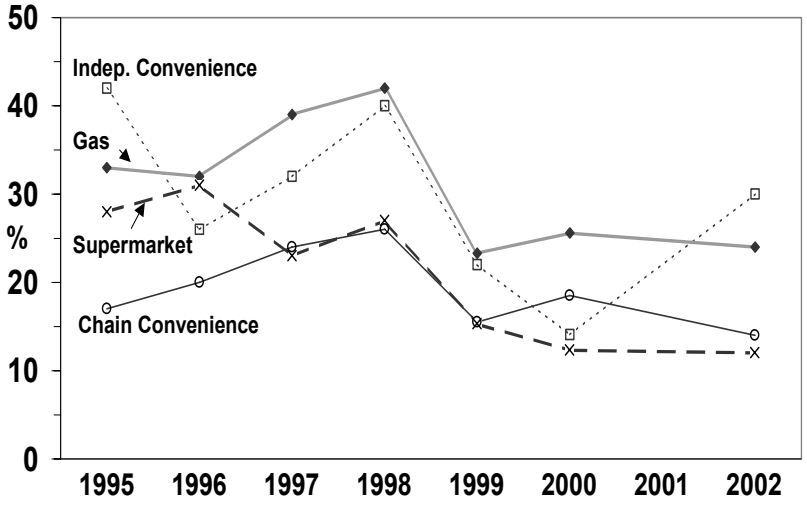
Figure 36: Retailers Selling Cigarettes to Underage Youth, Ontario, 1995-2002



Note: Canadian average excludes Ontario. All data based on AC Nielsen core cities. Data in 2001 not collected.
Source: AC Nielsen 1995-2000, 2002.

In 2002, independent convenience stores and gas stations in Ontario were more likely to sell cigarettes to underage youth (30% and 24%, respectively, Figure 37) than supermarkets and chain convenience stores, both of which had equally low rates of non-compliance (12% and 14%, respectively). In 2002, independent convenience stores doubled their rate of non-compliance from that reported in 2000 (14% to 30%); in contrast, all other retailers had consistent rates of non-compliance. Therefore, it appears the increase in retailer non-compliance in Ontario (Figure 36) is attributed to the increased rates of non-compliance among independent convenience stores (Figure 37).

Figure 37: Retailers Selling Cigarettes to Underage Youth, by Type of Retailer, Ontario, 1995-2002



	1995	1996	1997	1998	1999	2000	2001	2002
Indep. Convenience	42	26	32	40	22	14	-	30
Gas Stations	33	32	39	42	23	26	-	24
Supermarkets	28	31	23	27	15	12	-	12
Chain Convenience	17	20	24	26	16	19	-	14

Note: All data based on AC Nielsen core cities. Data in 2001 not collected.
Source: AC Nielsen 1995-2000, 2002.

The rate of retailer non-compliance was directly related to age. This relationship appeared to be much more pronounced in Ontario for younger adolescents customers than in the rest of Canada. That is, in 2002, only 2% of Ontario retailers were willing to sell cigarettes to youth aged 15 compared to 20% in the rest of Canada. Non-compliance for customers 16 and 17 years of age in Ontario was 27% and 38%, respectively compared to 22% and 27% in the rest of Canada. (AC Nielsen, data not shown)

In addition, there appeared to be sex differences associated with the rate of retailer non-compliance in 2002. In particular, underage females in Ontario were more likely to be sold cigarettes than underage males (40% vs. 15%, respectively). This contradicts the pattern in the rest of Canada where underage females were less likely to be sold cigarettes than males (11% vs. 29%). Although these patterns were apparent in 2000 (for both Ontario and Canada), the differences between males and females were much less pronounced. (AC Nielsen, data not shown)

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