Indicators of OTS Progress

Ontario Tobacco Research Unit

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PREFACE

The main sections in report two, *Indicators of OTS Progress*, have been organized according to Ontario Tobacco Strategy (OTS) goals of prevention, cessation, and protection. Each goal has a set of short, intermediate, and long-term objectives, which have guided the topics discussed in each section. These objectives have been developed in conjunction with Strategy logic models (see Appendix 2-B for logic models).

Indicators of OTS Progress is the second of three reports in the 2004-2005 Monitoring and Evaluation Series. The full series consists of:

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

Number 2: *Indicators of OTS Progress* – a presentation of quantitative data from a variety of surveys and other sources measuring recent progress in tobacco control in Ontario; and

Number 3: OTS Progress and Implications – a discussion of the results and implications of the findings in the previous three reports.

These reports are released electronically on the Ontario Tobacco Research Unit website (http://www.otru.org) as they become available; a printed volume incorporating all three parts will be distributed to our network when all sections are completed.

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

Susan Bondy	University of Toronto
K. Stephen Brown	University of Waterloo
Roberta Ferrence	Centre for Addiction and Mental Health/University of Toronto
John Garcia	Cancer Care Ontario/University of Toronto
Paul McDonald	University of Waterloo
Peter Selby	Centre for Addiction and Mental Health/University of Toronto
Thomas Stephens	Thomas Stephens & Associates/University of Toronto

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EXECUTIVE SUMMARY

Following are selected highlights from the sections on prevention, cessation, and protection, which constitute three major goals of the Ontario Tobacco Strategy. For further details, see the full text of each section.

Prevention

Prevalence of Student Smoking

- In 2005, the prevalence of current smoking in the past 30 days ranged from <1% to 13% among grade 7 and grade 12 students, respectively.
- Daily smoking among Ontario students has declined steadily since 1999.
- From 2003 to 2005, the percentage of Ontario students who had never taken a puff of a cigarette in their lifetime increased significantly from 57% to 67%.

Initiation

- In 2005, 7% of Ontario students surveyed had smoked their first cigarette in the past 12 months.
- Among students in grade 11, the average age of smoking the first whole cigarette increased from 11.9 years in 1981 to a historic high of 13.5 years in 2005.

Tobacco Control Initiatives

- In fiscal year 2004-2005, all 34 (out of 36) Ontario public health units that responded to a province-wide survey had provided tobacco use prevention material to schools.
- 28 out of 34 had worked with school groups regarding enforcement of the Tobacco Control Act.
- 24 gave presentations to schools about tobacco use prevention.

Youth Access

- In 2004, 16% of Ontario retailers were willing to sell cigarettes to underage youth aged 15 to 17.
- Gas stations had the highest rate (20%) of sales to underage youth.
- In 2005, the majority of Ontario students who smoked obtained cigarettes from someone else.

Taxes

- With a tax of \$23.45 per carton, Ontario has the second-lowest tax level in Canada and is \$10.61 below the national simple average.
- In 2004, 43% of Ontario adults supported an increase in cigarette taxes.

Cessation

Current Smoking

- In 2004, the prevalence of smoking among Ontario adults was 21%.
- There was a higher prevalence of smoking among men (25%) than among women (18%).
- Other demographic characteristics associated with a higher prevalence of smoking were being under the age of 60, having less than high school education, living in the northern region of the province, and working in traditional trades or farming.

Daily Smoking

- In 2004, 17% of Ontario adults were daily smokers, consuming on average 15 cigarettes per day.
- Of current smokers, 77% were daily smokers.

"Light" Cigarettes

• In 2004, 69% of Ontario adult smokers smoked so-called "light" cigarettes.

Quitting Smoking

- In 2004, 57% of current smokers in Ontario intended to quit within 6 months of their interview.
- 27% of current smokers intended to quit within 30 days.
- Of all current and former smokers who tried to quit in the past two years, 30% used the nicotine patch.

Protection

Secondhand Smoke in Restaurants and Bars

- In 2003, 18% of Ontarians aged 12 and over reported past month exposure to secondhand smoke everyday or almost everyday in public places, such as bars, restaurants and shopping malls.
- As of December 2005, 34% of Ontarians were covered by smoke-free restaurant and bar bylaws not allowing DSRs.
- Public support for complete bans in restaurants and bars has steadily increased from 1998 (24% and 10%, respectively) to 2004 (57% and 34%, respectively).

Secondhand Smoke at Work

- In 2004, 21% of nonsmoking workers reported some workplace exposure.
- 88% of workers were covered by total smoking bans in the workplace.
- A higher proportion of male than female workers and trade/farm workers than professional/managerial workers reported exposure at work.
- 59% of adults supported a total ban at work, and this support was higher among never and former smokers than among current smokers.

Secondhand Smoke in Homes and Cars

- In 2004, family members or visitors smoked inside 14% of Ontario households and inside 11% of households with children aged 0-14.
- 1 in 3 nonsmoking students reported being exposed to secondhand smoke inside their homes everyday or almost everyday.
- In 2003, 10% of Ontarians aged 12 and over reported past month exposure to secondhand smoke in cars.
- In 2004, 90% of Ontario adults believed that parents spending time with small children should not smoke at all inside the house and 75% supported a legal ban on smoking in a car while children were present.

PREVENTION

This goal of the Ontario Tobacco Strategy aims to prevent smoking initiation and habitual use among Ontario's children, youth and young adults to eliminate tobacco-related illness and death among Ontarians.

Reduction in Youth Smoking

Two of the long-term objectives in the Strategy focus on reducing tobacco use prevalence and the initiation of tobacco use among children (<15 years), youth (15-19 years) and young adults (20-24 years).

Current Smoking

Similar to previous years, Ontario students in higher grades reported higher rates of smoking one or more cigarettes in the past year, ranging from 23% in grades 11 and 12 to 2% in grade 7 in 2005 (Figure 2.1). From 2003 to 2005, cigarette smoking decreased significantly only among grade 12 students (30% vs. 23%, respectively; p<.05). Overall, the prevalence of smoking more than one cigarette in the past year among students in grades 7 to 12 decreased from 19% in 2003 to 14% in 2005 (p<.05; OSDUS 2005, data not shown).



Figure 2.1: Past Year Cigarette Smoking, by Grades 7-12, Ontario, 1977-2005

? = Interpret with caution, moderate level of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%. *Source:* OSDUS 2005.

The prevalence of current smoking in the past 30 days increased as students progressed through the grades (Figure 2.2). In 2005, less than 1% of students in grades 7 and 8 were current smokers compared to 13% of students in grade 12 (p<.05). Almost all (94%) current smokers were smoking daily (OSDUS 2005, data not shown). The prevalence of current smoking in the past 30 days was unchanged from 2003 to 2005.



Figure 2.2: Current Smoking in Past 30 days, by Grades 7-12, Ontario, 2003 and 2005

? = Interpret with caution, moderate level of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%. *Note:* Vertical lines represent 95% confidence intervals. *Source:* OSDUS 2005.

The prevalence of current smoking in the past 30 days among youth aged 15 to 19 in Ontario decreased significantly from 23% in 1999 to 13% in 2004 (p<.05; Figure 2.3). Since 1999, the current smoking rates for 20 to 24 year olds have been significantly higher than the current smoking rates for 15 to 19 year olds in both Ontario and in the rest of Canada (p<.05). In 2004, current smoking rates were significantly lower among Ontario youth aged 15-19 compared to youth aged 15-19 in the rest of Canada (13% vs. 16\%, respectively; p<.05).





Note: Canada estimates exclude Ontario respondents. *Source:* CTUMS (Annual) 1999-2004.

Since 2000, the prevalence of current smoking in the past 30 days has decreased among males and females aged 15 to 24 years in Ontario and the rest of Canada (Figures 2.4a and 2.4b). In 2004, males and females aged 15 to 19 years in Ontario reported similar rates of current smoking (14% vs. 11%, respectively). There was also no difference reported in the prevalence of current smoking among 15 to 19 year old males and females in the rest of Canada (16% vs. 17%, respectively). Among youth aged 20-24, current smoking rates were essentially the same for males and females in both Ontario and the rest of Canada. The only significant difference in current smoking prevalence rates between Ontario and the rest of Canada occurred among female youth aged 20-24 in 2004 (19% in Ontario vs. 27% in the rest of Canada; p < .05).



Figure 2.4a: Current Smoking in Past 30 Days Among Youth Aged 15-19, Ontario and Rest of Canada, 2000-2004

Figure 2.4b: Current Smoking in Past 30 Days Among Youth Aged 20-24, Ontario and Rest of Canada, 2000-2004



Note: Canada estimates exclude Ontario respondents. *Source:* CTUMS (Annual) 2000-2004.

Daily Smoking

Daily smoking in the past 30 days among youth and young adults aged 15 to 24 in Ontario and the rest of Canada has declined since 1999 (Figure. 2.5). Young adults aged 20 to 24 in Ontario and the rest of Canada have consistently reported a higher prevalence of daily smoking than youth aged 15 to 19. The prevalence of daily smoking in the past 30 days was unchanged from 2003 to 2004 for both age groups in Ontario and in the rest of Canada.



Figure 2.5: Daily Smoking in Past 30 Days, by Ages 15-19 and 20-24, Ontario and Rest of Canada, 1999-2004

Note: Canada estimates exclude Ontario respondents. *Source:* CTUMS (Annual) 1999-2004.

Lifetime Abstinence

From 2003 to 2005, the percentage of students in Ontario who had never taken a puff of a cigarette in their lifetime increased significantly from 57% to 67% (p<.05; Figure 2.6). In 2005, the percentage of students who reported a lifetime abstinence from smoking significantly decreased with grade (90% in grade 7 vs. 49% in grade 12; p <.05). This increase in lifetime abstinence reflects the decrease in current smoking. The prevalence of lifetime abstinence did not vary by gender (OSDUS 2005, data not shown).

Experimental Smokers

In 2005, 12% of students smoked from a few puffs to one whole cigarette, a significant decrease from 15% in 2003 (p<.05). Similarly, the prevalence of experimental smokers (i.e., less than 100 cigarettes in their lifetime) decreased from 17% in 2003 to 13% in 2005 (p<.05). Both smoking behaviours increased with grade in 2005. The prevalence of students who took a few puffs of a cigarette ranged from 6% in grade 7 to 16% in grade 12, and the prevalence of experimental smokers ranged from 3% in grade 7 to 20% in grade 12. Neither prevalence rate varied by gender (OSDUS 2005, data not shown).



Figure 2.6: Lifetime Smoking Behaviour, by Year, 2003 and 2005, Grades 7-12, Ontario

Note: Vertical lines represent 95% confidence intervals. *Source:* OSDUS 2005.

Lifetime Smoking

About 7% of students had smoked more than 100 cigarettes in their lifetime in 2005, with 6% having smoked in the past 30 days and 1% not having smoked in the past 30 days (i.e., current smokers and former smokers, respectively).

Initiation

Seven percent of all Ontario students smoked their first cigarette in the past 12 months. There were no significant sex differences (OSDUS 2005, data not shown).

Early onset of smoking has steadily decreased since 1981. Among Ontario students in grade 7, fewer than 2% reported smoking their first whole cigarette in grade 4 or before in 2005 compared to 16% in 1981 (OSDUS 2005, data not shown).

Overall, the average age for smoking the first whole cigarette among Ontario students in grade 11 (highest grade for which trend data were available) has increased from 11.9 years in 1981 to a historic high of 13.5 years in 2005 (OSDUS 2005, data not shown).

In 2004, current smokers aged 15 to 24 in Ontario reported having smoked their first cigarette on average by age 15. In the rest of Canada, male current smokers also reported starting smoking at 15, while females started smoking around the age of 14. Among youth and young adults aged 15 to 24 in Ontario and in the rest of Canada, the average age of initiation for both males and females who were currently smoking was 15 (CTUMS 2004, data not shown).

Awareness of Risks Associated with Tobacco Use

One of the short-term objectives of the Strategy is to increase awareness of the risks associated with tobacco use. In 2005, students in Ontario were most likely to perceive smoking one or two cigarettes a day as a medium risk or a slight risk (33% and 31%, respectively). On average, female students perceived daily smoking as riskier than male students did (Figure 2.7). Perception of risk increased with age.



Figure 2.7: Risk Perception for Daily Smoking, by Sex, Grades 7-12, Ontario, 2005

Note: Vertical lines represent 95% confidence intervals. *Source:* OSDUS 2005.

On average, students in grades 7 to 12 in Ontario thought that 38% of their fellow students at school smoked cigarettes in 2005, whereas only 6% of students actually reported being a current smoker in the same year. This perception significantly differed by smoking status. Current smokers thought 51% of students smoked cigarettes whereas nonsmokers thought only 37% of students smoked cigarettes (p < .05; OSDUS 2005, data not shown).

Tobacco Control Initiatives

Another short-term objective of the Strategy is to increase the number and reach of evidence-based tobacco control initiatives in schools and communities. In 2005, 9% of all Ontario students participated in anti-smoking events or activities in their school or community. Participation in such events significantly decreased with grade (13% in grades 7 and 8 vs. 7% in grades 9 to 12; p < .05). Two-thirds (67%) of students had one class or more in which cigarettes were discussed. The percentage of students who had classes in which cigarettes were discussed varied by grade, starting at 73% in grade 7, peaking at 84% in grade 9, then decreasing to 50% by grade 12 (OSDUS 2005, data not shown).

Lungs Are For Life is an example of an Ontario tobacco control initiative in the classroom. The program offers lesson plans for teachers from kindergarten through grade 12, complete with resources and tools for classroom

use. The Lungs Are For Life program has been widely used in Ontario with over 32,000 modules sent to over 20,000 educators in the last four years, reaching approximately half of Ontario's schools to date.

Preliminary results from a province-wide survey of public health departments indicated that all public health departments that responded to the survey (n = 34 out of 36 health departments) provided tobacco use prevention resource material to schools during the 2004-2005 fiscal year (Figure 2.8). Working with school groups with respect to enforcement of the *Tobacco Control Act* and conducting presentations about tobacco use prevention issues for students and teachers were the next most commonly provided forms of assistance (28 and 24 health departments, respectively). In the community, public health departments most commonly provided information on tobacco use to elected officials, followed by providing tobacco use information to the media (29 and 28 health departments, respectively; Figure 2.9).





Source: Provincial Scan of Tobacco Use Prevention Initiatives: Health Department Survey 2005.



Figure 2.9: Tobacco-Related Assistance Provided to Communities by Public Health Departments, Ontario, 2004-2005

Source: Provincial Scan of Tobacco Use Prevention Initiatives: Health Department Survey 2005.

Thirty-two of the 34 public health departments that responded to the survey had offered school-based tobacco use prevention initiatives in the 2004-2005 fiscal year, whereas 29 public health departments had offered community-level tobacco use prevention initiatives. The most commonly reported school-based and community-level programming were Lungs Are For Life (28 public health departments), mass media campaigns (28 public health departments), SmokeFX (21 public health departments), Barb Tarbox video and discussion guide (19 public health departments), and Stupid.ca (19 public health departments) (Health Department Survey 2005, data not shown).

Increasing the tax on cigarettes to the provincial and territorial average is a short-term objective of the Strategy. In January 2005, the Ontario provincial tobacco tax on a carton of 200 cigarettes was raised by \$1.25. This increase brought the tax level to \$23.45, which is still below that of the other provinces and territories, except Quebec (Figure 2.10). For instance, taxes on a carton of 200 cigarettes in Ontario are \$18.55 lower than in the Northwest Territories, which has the highest tax rate among the provinces and territories at \$42.00.

Taxes in Ontario are \$10.61 lower than the simple average tax level of the other provinces and territories (\$34.06). Ontario also has the second lowest price of a carton of 200 cigarettes in Canada at \$70.12 (Table 2.1). Only Québec is lower at \$64.67, with the Northwest Territories having the highest price at \$93.14, which is \$23.02 higher than the price in Ontario. Ontario's price is \$10.94 lower than the simple average of the other provinces and territories (\$81.06). Partly due to the strong Canadian dollar in 2005, cigarette prices in bordering U.S. states were slightly lower than in Ontario (data not shown).

Figure 2.10: Tax Levels, by Province and Territories, July 2005



Note: Tax includes provincial or territorial tobacco tax and PST, where applicable. GST is not included, as this applies to total price based on manufacturing, wholesale and retail cost inputs.^a

Sources: Finance Canada (Tax) 2005, Ontario Tobacco Research Unit (secondary data analysis).

Jurisdiction	Price	Tax	Tax as % of Price
Simple Average ^b	\$81.06	\$34.06	42%
Northwest Territories	\$93.14	\$42.00	45%
Nunavut	\$86.00	\$31.20	36%
Manitoba	\$85.89	\$40.27	47%
Saskatchewan	\$84.89	\$40.21	47%
British Columbia	\$83.40	\$35.80	43%
Newfoundland	\$82.90	\$39.77	48%
Prince Edward Island	\$82.73	\$34.90	42%
Nova Scotia	\$81.93	\$36.74	45%
Alberta	\$78.61	\$32.00	41%
New Brunswick	\$76.58	\$28.83	38%
Yukon	\$71.94	\$26.40	37%
ONTARIO	\$70.12	\$23.45	33%
Quebec	\$64.67	\$20.60	32%

Table 2.1: Price and Tax on a Carton of 200 Cigarettes, by Provinces and Territories, July 2005.

Note: Tax includes provincial or territorial tobacco tax and PST, where applicable.

Sources: Statistics Canada (Price) 2005, Finance Canada (Tax) 2005, Ontario Tobacco Research Unit (secondary data analysis).

^a Ontario excluded from average. Jurisdictions ordered by tax.

^b Ontario excluded from average. Jurisdictions ordered by price.

Youth Access

One of the intermediate objectives of the Strategy is to decrease youth access to tobacco products.

Retailer Non-Compliance

In 2004, 16% of retailers in Ontario were willing to sell cigarettes to underage youth^c aged 15 to 17 compared to 21% of retailers in the rest of Canada, down from 2003 rates (Figure 2.11). Over the past 10 years, the rate of retailer non-compliance has gradually declined by about 50% in both Canada and Ontario. Six percent of retailers in Ontario and 13% in the rest of Canada were willing to sell to 15 year olds. A 15 year old was less likely than a 16 or 17 year old to be sold cigarettes in Ontario and in the rest of Canada (Corporate Research Group 2004, data not shown).



Figure 2.11: Retailer Non-Compliance, by Ontario and the Rest of Canada, 1995-2004

Note: Canadian average excludes Ontario. Data from 1995 to 2000 based upon AC Nielsen core cities, 2002-2004 data based upon 30 cities. Data not collected in 2001.

Source: AC Nielsen 1995-2000, 2002-2003; Corporate Research Group 2004.

Gas stations had the highest rate of non-compliance (20%) among the different types of retail outlets studied in Ontario in 2004 (Figure 2.12). Supermarkets, and independent and chain convenience stores had similar rates of non-compliance (12%, 17% and 14%, respectively). The most substantial increase in compliance over time was observed in independent convenience stores, which increased from 58% in 1995 to 83% in 2004.

In 2004, 81% of retailers in Ontario asked for age identification from underage youth. Only 3% of retailers who asked for age identification sold cigarettes to youth under the age of 19 years, compared to 71% who did not ask.

^c The legal age for purchasing cigarettes in Ontario is 19 years.

Throughout the rest of Canada, 4% of retailers who asked for age identification were likely to sell to underage youth compared to the 78% who did not ask (Corporate Research Group 2004, data not shown).





Note: Data from 1995 to 2000 based upon AC Nielsen core cities, 2002-2004 data based upon 30 cities. Data not collected in 2001. *Source:* AC Nielsen 1995-2000, 2002-2003; Corporate Research Group 2004.

Gender of the underage youth was not a factor in the rate of retailer non-compliance. In 2004, the proportion of underage females and males in Ontario who were sold cigarettes was the same (16%). Retailer non-compliance for underage female customers and male customers in the rest of Canada was 19% and 22%, respectively. The rate of retailer non-compliance in Ontario drastically decreased for underage males from 32% in 2003 to 16% in 2004. For underage females, the rate of retailer non-compliance in Ontario tratiler non-compliance in On

In 2005, 53% of Ontario students under the age of 19 years who smoke were sold cigarettes in the past 30 days when they attempted to purchase (OSDUS 2005, data not shown).

Sources of Cigarettes

In 2005, half of all Ontario students under the age of 19 were most likely to have received their last cigarette from someone other than a family member who gave it to them (47%), with 16% having bought it themselves (Table 2.2). Males were more likely to have purchased their last cigarette than were females (20% vs. 11%, respectively; p < .05; OSDUS 2005, data not shown). Among smokers, the most common source for one's last cigarette was to have purchased it (42%), whereas nonsmokers (i.e., experimental and former smokers) were most likely to have obtained their last cigarette from someone who gave it to them (54%, data not shown). Three in 10 students in grades 7 and 8 obtained their last cigarette by taking it without permission (28%) compared to 6% of students in grades 9, 10, 11, and 12.

When students bought their cigarettes, the majority (75%) of students in Ontario who are current smokers bought cigarettes from restaurants, gas stations and bars in the past 30 days in 2005. Male and female students were equally likely to report buying from restaurants, gas stations and bars (OSDUS 2005, data not shown).

In 2005, 57% of all students felt it was easy to obtain cigarettes, while only 23% of students said it was difficult or impossible. Ease of obtaining cigarettes increased dramatically with age, ranging from 19% among students in grade 7 to 84% among students in grade 12 (p<.05; OSDUS 2005, data not shown).

Table 2.2: Source of Cigarette Last Time Smoked, Grades 7-12 (Aged 18 or Less), Ontario, 2005

Source	%
Bought myself	16
Family member bought for me	3 [?]
Someone else bought for me	13
Family member gave to me	4
Someone else gave to me	47
Took them without permission	9
Don't remember	9

? = Interpret with caution, moderate levels of error associated with estimate *Source:* OSDUS 2005.

Attitudes Towards Tobacco Control Policies

In the Strategy, one of the short-term objectives focuses on increasing support for regulatory action on smoking determinants.

Youth Access

In 2004, 86% of Ontario adults believed that stores convicted of selling tobacco to youth under the age of 19 should lose their tobacco license. Furthermore, 80% felt that friends or family members who supply tobacco to underage youth should be fined. Male and female adults were equally likely to support these tobacco control policies. Current smokers were less likely to support stores losing their license for supplying tobacco to underage youth than were never smokers (75% vs. 89%, respectively; p<.05) and to support fines for family and friends who supply tobacco to underage youth (66% vs. 84%, respectively; p<.05). The rates of approval for these tobacco control policies are unchanged from 2002 (CAMH Monitor 2004, data not shown).

Tax Increase

In 2004, 43% of adults in Ontario favoured increasing taxes on cigarettes, up from 37% in 2003 (p<.05). Support was similar for men and women. As expected, nonsmokers were far more likely to favour a tax increase than were current smokers (51% vs. 13%, respectively; p<.05). Since 1998, approval rates for tobacco taxation have remained steady except in 2003 where approval rates decreased slightly (CAMH Monitor 2004, data not shown).

Regulating Tobacco Sales

In 2004, 46% of Ontario adults thought that tobacco products should be sold as they are now, whereas 30% thought they should be sold in government stores and 21% of adults thought that tobacco products should not be sold at all. Men and women shared similar opinions on the sale of tobacco products. Current smokers were more

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likely to favour selling tobacco products as they are now, whereas nonsmokers were equally likely to favour selling tobacco products as they are now and in government-owned stores (Figure 2.13). The preference for where tobacco products should be sold has remained unchanged since 1998 among current smokers. However, nonsmokers have varied between preferring tobacco products be sold as they are now and in government stores (CAMH Monitor 2004, data not shown).





Note: Vertical lines represent 95% confidence intervals. *Source:* CAMH Monitor 2004.

CESSATION

This goal of the Ontario Tobacco Strategy aims to reduce smoking in Ontario in order to eliminate tobaccorelated illness and death.

Current Smoking

A critical long-term objective of the Ontario Tobacco Strategy is to reduce the prevalence of tobacco use in the general population. In 2004, 21% of Ontario adults aged 18 and over were current smokers (i.e., smoked daily or occasionally in the past month and had smoked at least 100 cigarettes in lifetime; Figure 2.14). This represents a significant reduction since 2000, continuing a downward trend that began in 1996. As seen in most previous survey years, the prevalence of current smoking among men was significantly higher than among women (25% vs. 18%, respectively).



Figure 2.14: Current Cigarette Smoking, by Sex, Ages 18+, Ontario, 1991-2004

Source: CAMH Monitor 2004.

Region

In contrast to previous years, the prevalence of current smoking did not vary significantly by health planning region, ranging from a low of 20% in Toronto and the Central West Regions to a high of 25% in the North Region (Figure 2.15). Within each health planning region, there was no significant change in current smoking from 2003 to 2004 (CAMH Monitor 2003-2004, data not shown).

Age

In 2004, adults aged 60 and over were significantly less likely to smoke than those under 60 (Figure 2.16). Within each age category, there were no significant sex differences in current smoking prevalence.





Note: Vertical lines represent 95% confidence intervals. *Source:* CAMH Monitor 2004.

Figure 2.16: Current Cigarette Smoking, by Age, Ontario, 2004



Source: CAMH Monitor 2004.

Education

Ontario adults with a university degree were significantly less likely to be current smokers than those with less education in 2004 (Figure 2.17). However, unlike previous years, there was no significant difference between those with high school or less and those with some post secondary education but no degree.

Occupation

In 2004, professional and managerial workers were significantly less likely to be current smokers than clerical and sales workers or those employed in traditional trades or farming (16% vs. 24% and 30%, respectively, p<.05; Figure 2.17).

Pregnancy

In 2003, 12% of mothers in Ontario (aged 20-44) who gave birth in the past five years had smoked during their most recent pregnancy (CCHS 2003, data not shown). This proportion is unchanged from 2002.





Note: Vertical lines represent 95% confidence intervals. *Source:* CAMH Monitor 2004.

Daily and Occasional Smoking

In 2004, the prevalence of daily smoking in Ontario remained statistically unchanged from 2003 at 17% (Figure 2.18), 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 (19% vs. 14%).

In 2004, 77% of current smokers were daily smokers and 23% were occasional smokers (Figure 2.19). Although unchanged in recent years, this trend is in contrast to 1991, when virtually all smokers smoked daily. In 2004, among current smokers the prevalence of daily smoking between men and women did not differ.



Figure 2.18: Daily Cigarette Smoking, by Sex, Ages 18+, Ontario, 1991-2004

Source: CAMH Monitor 1991--2004.

Figure 2.19: Daily Smoking as a Proportion of Current Smoking, Ages 18+, Ontario, 1991-2004



Across Canada in 2004, the rate of daily cigarette smoking ranged from a low of 12% in British Columbia to a high of 21% in New Brunswick (Figure 2.20). Ontario had a significantly lower daily smoking rate than Saskatchewan and New Brunswick (15% vs. 19% and 21%, respectively, p < .05). Although the overall trend is downward, there were no significant changes in the rates of daily smoking in Ontario and the other provinces from 2003 to 2004.



Figure 2.20: Daily Cigarette Smoking, by Province, Ages 18+, Canada, 2003 and 2004

Note: Ordered by 2004 prevalence of daily smoking. Vertical lines represent 95% confidence intervals. *Source:* CTUMS (Annual) 2003 & 2004.

Level of Use

In addition to reducing the prevalence of smoking, an intermediate goal of the Strategy is to reduce the cigarette consumption of those who persist in smoking. In 2004, the mean number of cigarettes smoked per day by daily smokers was 15.4. This consumption level has not changed significantly since 1992 (Figure 2.21).

Men smoked significantly more cigarettes per day in 2004 than women (17.1 vs. 13.3, p < .05), a pattern consistent with previous survey years. Adult daily smokers aged 18-34 smoked fewer cigarettes per day than those aged 35-54 and 55+ (12.7 vs. 16.7 and 16.2, respectively, data not shown).

Dependence

The Heaviness of Smoking Index¹ is a scale combining time to first cigarette each morning and number of cigarettes per day. A score of 0-2 indicates low dependence, 3-4 indicates moderate dependence, and 5-6 indicates high dependence. Over half (51%) of daily smokers had a low dependence on cigarettes and 37% were moderately dependent, unchanged from previous years. There were no significant differences between the proportion of women and men at moderate and low levels of cigarette dependence. Furthermore, 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+ (67% vs. 43% and 47%, respectively; CAMH Monitor 2004, data not shown). Differences in sex and age for daily smokers with high dependence cannot be reported due to instability (high variance) of the estimates. The instability in estimates is due to small numbers of respondents. This may be indicative of low prevalence of high dependence or it may be due to random chance in sampling.





Source: CAMH Monitor 1992-2004.

Preferences for "Light" and "Mild" Cigarettes

In 2004, 69% of adult current smokers in Ontario smoked "light" or "mild" cigarettes (Figure 2.22), statistically unchanged from 2003. Women and men were not significantly different in their use of "light" or "mild" cigarettes (78% vs. 63%; CTUMS 2004, data not shown). Smokers in Ontario were significantly more likely to smoke "light" or "mild" cigarettes than smokers in Québec while differences between Ontario and other provinces were not significant.

Many Ontario adults who used "light" or "mild" cigarettes in 2004 erroneously believed these to be less harmful than regular cigarettes. For instance, 27% believed these cigarettes reduced the amount of tar inhaled, and 13%^d believed they reduced the health risk of smoking (CTUMS 2004, data not shown).

^d Interpret with caution, moderate levels of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%.



Figure 2.22: Preference for "Light" and "Mild" Cigarettes, by Province, Current Smokers, Ages 18+, Canada, 2004

Note: "Light" and "mild" cigarettes include "ultra" and "extra" brands. Vertical lines represent 95% confidence intervals. *Source:* CTUMS (Annual) 2004.

Smoking Cessation

Intentions to Quit

A second long-term objective of the Strategy is to increase cessation among adults and youth. To accomplish this, an intermediate goal is to increase the number of quit attempts among smokers, and a short-term goal is to increase the proportion of smokers intending to quit.

In 2004, over half (57%) of Ontario current smokers expressed an intention to quit smoking within six months of their interview; over one-quarter (27%) indicated a serious intention to quit within 30 days (Figure 2.23). Unlike 2003, when smokers in Prince Edward Island, Nova Scotia, New Brunswick and Newfoundland had significantly higher 6-month quit intentions than those in Ontario (CTUMS 2003), there were no significant differences among any provinces in 6-month intention to quit. However, smokers in Newfoundland, Nova Scotia, and Alberta had significantly higher 30-day quit intentions than smokers in Ontario. In Ontario, 6-month and 30-day quit intentions remained statistically unchanged from 2001 (CTUMS 2001-2004, data not shown).



Figure 2.23: Intentions to Quit Smoking Within Next 30 Days and Next 6 Months, by Province, Current Smokers, Ages 18+, Canada, 2004

Note: Ordered by prevalence of 30-day quit intentions. Vertical lines represent 95% confidence intervals. *Source:* CTUMS (Annual) 2004.

Attempts to Quit

An intermediate goal of the Strategy is to increase the number of quit attempts among current smokers. However, in 2004, the median number of quit attempts in the last 12 months among daily smokers was zero while among occasional smokers it was one. Among current smokers who had made a serious attempt to quit at least once in the past 12 months, 36% had made one quit attempt and 64% had made more than one attempt (CAMH Monitor 2004, data not shown).

Former Smokers

In 2004, just over half of all lifetime ever smokers in Ontario (55%) had quit at least one year previously (CAMH Monitor 2004, data not shown). Since 1994, the proportion of ever smokers who report being former smokers decreased significantly among those less than 55 years of age; while among those 55 years and older, the proportion of former smokers remained statistically unchanged (Figure 2.24).

Nationally, the main reason former smokers gave for quitting was for health reasons (56%); while a significantly lower proportion (18%) reported the cost of cigarettes as the reason.^e Due to insufficient data, Ontario estimates cannot be reported.

^e Interpret with caution, moderate levels of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%.



Figure 2.24: Quit Rate (Former Smokers as a Proportion of Ever Smokers), by Age, Ontario, 1994-2004

Source: CAMH Monitor 1994-2004.

Successful Quit Attempts

In 2004, approximately half (49%) of former adult smokers in Ontario reported quitting after one attempt and sustaining their abstinence for one year or more, which was not significantly different from the rest of Canada. In Ontario, there were no significant differences between the proportion of men reporting more than one quit attempt compared to women (45% vs. 54%; CTUMS 2004, data not shown).

Of former smokers in Ontario, 11% reported quitting within the last 12 months, 17% between one and five years ago, and 71% more than five years ago (CAMH Monitor 2004, data not shown).

Physician Advice

Among current smokers who had visited a doctor in the past 12 months, the percent who reported being advised to quit by their physician ranged from a high of 57% in Nova Scotia to a low of 40% in Saskatchewan (Figure 2.25). In Ontario, 53% of current smokers reported being advised to quit smoking by a physician, a rate not significantly different from previous years and similar to other Canadian provinces. Furthermore, there were no sex differences in receiving advice to quit (CTUMS 2004, data not shown).





Quit Aids

In 2004, of all current and former smokers in Ontario who attempted to quit in the past two years, 30% used the nicotine patch and 20% used nicotine gum.^f Of those using the patch, 81% report that it was helpful (CTUMS 2004, data not shown). Due to small numbers of respondents using nicotine gum, the percentage that found it helpful was not reportable.

Awareness of Cessation Programs

In 2004, awareness among the adult public of the 1-800 Quitline was not significantly different from 2003 but remained significantly higher when compared to 2002 (24%, 25%, 19%, respectively, p<.05). As in previous years, Quitline awareness was also significantly higher than awareness of local quit programs (24% vs. 19%, p<.05). Awareness of local quit programs was unchanged from 2003 (CAMH Monitor 2004, data not shown).

Current smokers were more likely to be aware of the Quitline than former or never smokers (Figure 2.26). With respect to awareness of local quit programs, current smokers were not significantly more or less likely to be aware of local programs than former smokers, but they were more likely to be aware than never smokers (22%, 18%, and 15%, respectively).

^f Interpret with caution, moderate levels of error associated with estimate—Coefficient of Variation (CV) between 16.6% and 33.3%.





Note: Vertical lines represent 95% confidence intervals. *Source:* CAMH Monitor 2004.

In 2004, the percentage of individuals who were aware of cessation programs varied among Ontario's seven health planning regions (Figure 2.27). Specifically, awareness of the telephone Quitline was highest in the North at 29%, which was significantly higher than awareness reported in each of the following health regions: Toronto (20%), South West (20%), Central West (23%), and Central East (23%; p<.05). Similarly, the range in awareness of local quit programs was highest in the North Region at 26%, and lowest in the Toronto Region at 12%. Further, the North had significantly higher awareness than Central West (13%), Central South (16%), East (19%) and the Toronto Health Region (p<.05). (Due to sample size restrictions, inter-regional comparisons of cessation program awareness among smokers was not possible.)

A short-term objective of the Strategy is to increase awareness and reach of cessation initiatives to high-risk and low socio-economic status populations. However, in 2004, awareness of the 1-800 Quitline and local quit programs did not vary by level of education (CAMH Monitor 2004, data not shown).

Views of the Tobacco Industry and Its Products

Tobacco industry denormalization, i.e., reducing societal acceptance of tobacco products and their manufacturers, is one of several strategic components aimed at reducing cigarette consumption, increasing the number of quit attempts among current smokers, and increasing both the number and quality of quit smoking policies.



Figure 2.27: Awareness of Smoking Cessation Programs, Past Month Recall, by Health Planning Region, Ages 18+, Ontario, 2004

Note: Health Planning Regions: N = North, E = East, SW = South West, CW = Central West, CE = Central East, CS = Central South, TO = Toronto. Vertical lines represent 95% confidence intervals. *Source:* CAMH Monitor 2004.

In 2004, over two-thirds (71%) of Ontario residents believed that the tobacco industry is either somewhat responsible or mostly responsible for smokers' health problems. This percentage was consistent across age and sex, and did not differ significantly from 2003. However, only 17% of Ontario residents felt that the tobacco industry was responsible for the initiation of smoking behaviour among young people, a belief that remains unchanged from 2003. Ontarians aged 55 years and older were significantly less likely to feel that the tobacco industry was responsible for the initiation of smoking behaviour among young people when compared to those aged 35-54 years and those less than 35 years of age (12% vs. 20% and 17%, respectively; CAMH Monitor 2004, data not shown).

Fully half (50%) of Ontarians somewhat agree or strongly agree that tobacco companies should not be allowed to sponsor sporting or cultural events. Never smokers and former smokers were significantly more likely to support a sponsorship ban when compared to current smokers (56% and 54% vs. 29%, p < 0.05; CAMH Monitor 2004, data not shown).

Point of Sale

Almost one-third (30%) of Ontario residents support restricting tobacco sales to government-regulated stores (comparable to the way alcohol is sold), while 21% support banning tobacco sales altogether. Over 42% of Ontarians support increasing the tax on cigarettes (CAMH Monitor 2004, data not shown).

PROTECTION

This goal of the Ontario Tobacco Strategy aims to eliminate involuntary exposure to secondhand smoke in order to reduce tobacco-related illness and death among Ontarians.

Secondhand Smoke (SHS) in Restaurants and Bars

Exposure to Secondhand Smoke

In 2003, 18% of Ontarians aged 12 and over reported past month exposure to secondhand smoke everyday or almost everyday in public places such as bars, restaurants, shopping malls, bingo halls, arenas and bowling alleys (CCHS 2003).

By the end of March 2005, the majority of Ontarians were covered by some form of smoke-free restaurant and bar bylaws, but about half of the bylaws (54%) permitted designated smoking rooms (DSRs). As of December 2005, 34% of the Ontario population was covered by smoke-free restaurants and bars without DSRs (sometimes referred to as "gold" bylaws). In spring 2005, Ontario passed legislation that bans smoking in all enclosed workplaces and public places with DSRs not permitted, effective May 31st 2006 (*Smoke-Free Ontario Act*). It is anticipated that this legislation will provide significantly improved protection from secondhand smoke in indoor public places (*Sources*: Nonsmokers Rights Association and Ontario Campaign for Action on Tobacco).

Support for Smoking Restrictions in Restaurants/Bars

One of the short-term objectives of the Strategy is to increase support for smoke-free public and workplace legislation. Since 1998, public support for complete bans in restaurants and bars has steadily increased from 24% and 10%, respectively, to 57% and 34%, respectively, in 2004 (Figure 2.28). However, regarding bars, Ontarians have consistently favoured a ban with DSR over a total ban until only very recently. In 2004, 34% supported complete bans and 39% supported bans with DSRs (Figure 2.28). For restaurants, 57% supported total bans and 30% supported bans with DSRs. In 2004, only 24% of Ontarians did not support any restrictions in bars, a significant drop from last year's 35% (CAMH Monitor 2004).



Figure 2.28: Support for Smoking Restrictions in Restaurants and Bars, Ages 18+, Ontario, 1998-2004

Note: DSR = Designated smoking rooms, which are enclosed smoking sections separately ventilated to the outdoors. *Source:* CAMH Monitor 2004.

In 2004, support for a total ban in restaurants and bars continued to be related to smoking status, with current smokers less supportive than former and never smokers. Sixty-six percent (66%) of never-smokers, 58% of former smokers and 36% of current smokers supported a total ban in restaurants (CAMH Monitor, data not shown).

Support for total bans in restaurants and bars varied greatly among the provinces, with Newfoundland showing the greatest support (71% and 45%, respectively), and Québec the least (39% and 27%, respectively; Figure 2.29). Support for bans in bars was higher in Manitoba, Prince Edward Island and Newfoundland than in Ontario (43%, 44%, and 45% vs. 37%, respectively).



Figure 2.29: Support for a Total Ban (No DSRs) on Smoking in Restaurants and Bars, by Province, Ages 15+, Canada, 2004

Note: Ordered by prevalence of support for total ban in restaurants. Vertical lines represent 95% confidence intervals. *Source:* CTUMS (Annual) 2004.

Secondhand Smoke at Work

The *Smoke-Free Ontario Act*, effective May 31, 2006, prohibits smoking in "enclosed workplaces," including vehicles used for work and places employees work in or frequent during the course of their work.

Exposure at Work

The proportion of Ontario workers covered by total smoking bans in the workplace increased from 67% in 1997 to 88% in 2004 (Figure 2.30). In 2004, 6% of Ontario workers worked in areas where indoor smoking was allowed. Despite the significant year-over-year increase in total smoking bans, 30% of all workers and 21% of nonsmoking workers reported some workplace exposure to secondhand smoke in 2004 (i.e., for five or more minutes at least once in the past five days); the reported exposures were not different from those reported last year, but had declined significantly since 2001 (CAMH Monitor 2004, data not shown).

Increased compliance with smoke-free legislation is an intermediate objective of the Strategy. Among workers who worked in places where smoking is only allowed outside or not allowed at all, 27% reported some exposure to workplace secondhand smoke (not significantly different from the 22% reported in 2003); however, some might have been exposed to tobacco smoke breathed outside during breaks with colleagues. A significantly higher proportion of male than female workers reported secondhand smoke exposure (33% and 19%, respectively) (CAMH Monitor 2004).



Figure 2.30: Total Smoking Bans and Reported Workplace Secondhand Smoke Exposure, Workers Aged 18+, Ontario, 1997-2004

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 2004.

In Ontario, smoking bans were more common in white-collar workplaces. That is, 91% of workers in professional/managerial occupations worked in places with a total smoking ban compared to 88% of clerical/sales workers and 76% of trade/farm workers. Similarly, workers in professional/managerial occupations were less likely to report exposure to workplace secondhand smoke (20%) compared to clerical/sales workers (34%) and trade/farm workers (44%) (CAMH Monitor 2004, data not shown). These occupational differences in exposure are consistent with the difference in smoking behaviour, which is highest among trade/farm workers and lowest among professionals and managers (see Figure 2.17).

In 2004, the prevalence of total smoking bans at work ranged from 62% in Alberta and Saskatchewan to 74% in Ontario (Figure 2.31). However, Saskatchewan had the highest percentage point increase in bans at work from 46% in 2003 to 62% in 2004, while the increase in Ontario was 3% (71% in 2003 and 74% in 2004).



Figure 2.31: Total Smoking Ban at Work, by Province, Workers Aged 15+, Canada, 2003 and 2004

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

Source: CTUMS (Annual) 2004.

Support for Smoking Restrictions at Work

Another short-term objective of the Strategy is to increase support for smoke-free workplace legislation. In 2004, 87% of Ontario adults supported smoke-free spaces in the workplace (either total smoking bans or DSRs), unchanged from 88% last year. In recent years, more people have supported total bans than DSRs (Figure 2.32); in 2004, 59% of adults supported total bans compared to 28% who supported DSRs.

In 2004, smoking status continued to be associated with support for smoking restrictions in the workplace. A significantly higher percentage of never and former smokers favoured a total ban compared to current smokers (64% and 63% vs. 44%, respectively) (CAMH Monitor 2004, data not shown).



Figure 2.32: Support for Smoking Restrictions in the Workplace, Ages 18+, Ontario, 1998-2004

Note: DSR = Designated smoking rooms, which are enclosed smoking sections separately ventilated to the outdoors. Vertical lines represent 95% confidence intervals. Source: CAMH Monitor 2004.

Secondhand Smoke in Homes and in Cars

Reduction of secondhand smoke exposure in homes and vehicles is a long-term objective of the Strategy.

Household Exposure

In 2004, household exposure to secondhand smoke (family members or visitors smoking inside the home everyday or almost everyday) varied by province, ranging from 10% in British Columbia to 24% in Québec (Figure 2.33). The majority of provinces saw a decrease in level of exposure compared to that reported in 2003. The decreases were statistically significant in Québec, Manitoba, Newfoundland, Nova Scotia, Prince Edward Island and New Brunswick. In Ontario, family members or visitors smoked inside 14% of households everyday or almost everyday, resulting in secondhand smoke in over 638,000 households. In 2004, 11% of Ontario households with children 0-14 years of age had family members and visitors smoking inside the home everyday or almost everyday, representing over 176,000 Ontario children exposed to secondhand smoke in their homes (CTUMS 2004).

One in three (30%) nonsmoking Ontario students in grades 7-12 (aged 12-17) reported at least one person smoking inside their homes everyday or almost everyday (OSDUS 2005).

In 2003, exposure to secondhand smoke at home varied within Ontario. Estimates ranged from 6% in the Halton Regional Health Unit to 16% in the Haliburton-Kawartha-Pine Ridge District Health Unit (Table 2.3).

	Home		Vehicle	
Public Health Unit	%	Population	%	Population
Halton	6	20,884	5 [?]	17,403
York	7	50,095	8	57,251
Lambton	7 [?]	7,753	8 [?]	8,860
Toronto	8	178,213	8	178,213
Grey-Bruce	8?	10,952	11	15,059
Waterloo	8	31,472	11	43,274
Ottawa	8	55,490	8	55,490
Middlesex-London	9	32,427	9	32,427
Huron and Perth	9	10,458	10	11,620
Kingston-Frontenac-Lennox & Addington	9	14,075	8 [?]	12,511
ONTARIO average	9	925,087	10	1,027,874
Peel	9	83,905	10	93,228
Muskoka-Parry Sound	9 [?]	6,555	10 [?]	7,283
Durham	10	45,489	10	45,489
Wellington-Dufferin-Guelph	10	21,140	13	27,482
Elgin-St Thomas	10 [?]	7,144	9 [?]	6,429
Oxford	11	9,543	9 [?]	7,808
Windsor-Essex	11	36,942	11	36,942
Thunder Bay	11	14,533	10	13,212
Northwestern	11 [?]	5,871	13 [?]	6,939
Hamilton	11	48,088	13	56,832
Niagara	11	40,439	11	40,439
Hastings and Prince Edward	11	14,793	9	12,104
Porcupine	11	8,080	19	13,957
Renfrew	12	9,694	10 [?]	8,078
Simcoe	12	40,955	14	47,781
Algoma	12	12,136	10	10,113
Brant	12	12,552	11	11,506
Peterborough	12	13,557	11	12,427
Eastern Ontario	13	21,439	11	18,141
North Bay and Timiskaming	13	14,358	14	15,462
Leeds-Grenville-Lanark	13	18,526	12	17,101
Chatham-Kent	14	12,934	16	14,781
Haldimand-Norfolk	14	12,992	10 [?]	9,280
Sudbury	15	24,784	15	24,784
Haliburton-Kawartha-Pine Ridge	16	23,536	13	19,123

Table 2.3: Reported Exposure to Secondhand Smoke at Home and in Private Vehicle (Everyday or Almost
Everyday), by Public Health Unit, Ages 12+, Ontario, 2003

? = Interpret with caution, moderate levels of error associated with estimate

Note: Ordered by percent exposure to secondhand smoke in home (lowest to highest). *Source:* Canadian Community Health Survey, 2003.

Exposure in Cars

In 2003, past month exposure to secondhand smoke in private vehicles ranged from 5% in the Halton Regional Health Unit to 16% in the Chatham-Kent Health Unit, with 10% overall exposure for Ontario (down from 11% in 2002) (Table 2.3).

Smoking Restrictions in Homes

A short-term objective of the Strategy is to increase the adoption of smoke-free homes and vehicles. In Ontario, 90% of households with no regular smokers prohibited cigarette smoking in the home (data not available for households with smokers) (CTUMS 2004).

The voluntary ban in homes was adopted by almost everyone in British Columbia (92%), but less than two-thirds in Québec (63%). In Ontario, among those households where smoking was allowed but restricted, 69% allowed it in certain rooms only, 25% restricted smoking in the presence of children, and 29% allowed smoking only if windows were open or with some other type of ventilation (CTUMS 2004).

Support for Smoking Restrictions in Homes and in Cars

Ninety percent (90%) of Ontario adults believed that parents spending time with small children should not smoke at all inside the house. Support was high across smoking status categories: 94% of never smokers, 90% of former smokers and 82% of current smokers. Support for a law prohibiting parents from smoking inside their home where children are living was unchanged from 2003, ranging from 48% of current smokers to 72% of never smokers. In 2004, 75% of Ontarians supported a legal ban on smoking in a car while children are present and 64% supported a legal ban on smoking inside the home if children are living there (CAMH Monitor 2004).

Figure 2.33: Reported Exposure to Secondhand Smoke at Home (Everyday or Almost Everyday), by Province, Households, Canada, 2003 and 2004



Note: Ordered by 2004 secondhand smoke exposure prevalence. Vertical lines represent 95% confidence intervals. *Source:* CTUMS (Household, Annual) 2004.

APPENDIX 2-A: MONITORING METHODS

Data Sources

The Corporate Research Group (CRG) Retailer Compliance Survey, 2004

This is the first year that the Corporate Research Group Ltd. has conducted the survey for Health Canada measuring retailer compliance with the sales-to-minors provisions of the laws.² The surveys conducted between 1995 and 2003 were completed by AC Nielsen. The scope and methodology of this year's work have followed the original study design developed by AC Nielsen, in both field research and data reporting methods. Each of five classes of trade (grocery supermarket banners, chain convenience stores, independent convenience outlets, gas convenience/service stations and pharmacies) has an equal chance of being selected. A total of 5,516 stores randomly selected from 30 cities across Canada were visited from July 5th, 2004 to October 4th, 2004. These are the same cities that have been studied consistently since 2002.

AC Nielsen Retailer Compliance Survey, 1995-2000, 2002-2003

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. Research teams (one minor 15-17 years of age, and one adult) were sent to 5,452 tobacco retail establishments in 30 cities across Canada. The 2002 and 2003 samples were 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 regional data are useful for understanding the national trend, but care must be taken when comparing results between regions. It was not possible to impose the same controls for age and gender of teens in all of the cities as were placed nationally.

In 2003, the survey was conducted from June to September. This is consistent with collection methods from 1995-1999 and 2002 (2000 data were 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 Tobacco Use Monitoring Survey (CTUMS)

Health Canada's Canadian Tobacco Use Monitoring Survey is an ongoing cross-sectional nationwide, tobaccospecific, random telephone survey, conducted every year since 1999.³ Annual data are based on two cycles, the first collected from February to June, and the second from July to December. 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 45,933 households (83.0% response rate) and 20,275 individuals (87.6% response rate) who participated in the 2004 survey. Sample allocation is approximately equal across the provinces, highest in Alberta and Nova Scotia (2,166 survey respondents each) and lowest in British Columbia (1,840 survey respondents). In Ontario, 1,912 individuals (the second smallest sample) participated in the survey, representing an 83.6% response rate. All survey estimates were weighted, and variance estimates were calculated based on procedures outlined in the 2004 CTUMS technical documentation.

Canadian Community Health Survey (CCHS)

The Canadian Community Health Survey is an ongoing cross-sectional population survey that collects information related to health status, health care utilization and health determinants every second year starting from 2000.⁴ It operates on a two-year collection cycle. Cycle One in the first year is a large-sample general population health survey, designed to provide reliable estimates at the health region level. Cycle Two in the second year is a smaller survey designed to provide provincial level results on specific focused health topics. The CCHS samples persons aged 12 years or older who are living in private dwellings in the ten provinces and the three territories, which covers approximately 98% of the Canadian population aged 12 or older. People living on Indian reserves or Crown lands, residents of institutions, full-time members of the Canadian Forces and residents of certain remote regions are excluded from the survey. The CCHS uses the same sampling frame as the Canadian Labour Force Survey, which is a multistage stratified cluster design, where the dwelling is the final sampling unit. In this report, the 2003 CCHS (Cycle 2.1) data were used, which were collected between January 2003 and December 2003, for 126 health regions, covering all provinces and territories. Altogether 144,836 households (87.1% response rate) and 134,072 individuals (response rate 92.6%) participated in the 2003 CCHS survey, 46,815 households (response rate 86.0%) and 42,777 individuals (response rate 91.4%) being from Ontario. All survey estimates were weighted, and variance estimates were calculated based on procedures outlined in the 2003 CCHS 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.⁵ Administered by the Institute for Social Research at York University, this ongoing monthly survey has a two-stage probability selection design. In 2004, the survey sample of 2,611 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 59%. 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 trend data are based on all of these surveys, which used similar questions and sampling methods. 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,⁶ first implemented in 1977 and conducted every two years (in the spring) by the Institute for Social Research at York University. The 2005 survey used a two-stage (school, class) cluster sample design and sampled 7,726 students from 42 public and Catholic school boards; 137 schools, and 445 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. These exclusions comprise 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 (OTRU) Monitoring and Evaluation Series

In the text, comparisons are sometimes made among 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 those previously reported. If these data are not presented in the text, it should be understood that previously reported data refer to those found in past Annual Monitoring Reports released by the Ontario Tobacco Research Unit.⁷

Strengths and Weaknesses of Surveys

Each of the surveys described has its own particular strengths, and we draw on these in the preceding presentation. For instance, because of the lengthy period over which the CAMH surveys have been conducted, since 1977 for OSDUS and since 1991 for the CAMH Monitor, trend data on provincial smoking behaviour are unsurpassed. Additionally, OSDUS and the CAMH Monitor provide sub-provincial (i.e., regional) estimates. The AC Nielsen survey previously and the current CRG survey provide estimates of compliance among various types of retailers; however, the precision of these estimates is unknown. Although CTUMS is a fairly new survey (1999), its strengths include breadth of tobacco-specific questions and the opportunity it affords to make inter-provincial comparisons. CTUMS includes information on use of cigarettes and alternative forms of tobacco, age of initiation, access to cigarettes, cessation (including reasons and incentives), use of cessation aids, readiness to quit, secondhand smoke exposure, restrictions on smoking at home, attitudes toward tobacco control policies, beliefs about "light" cigarettes and awareness of tobacco-industry sponsorship activity. Its monthly data collection allows for more precise assessment of specific changes and a larger number of data points for more powerful analyses. The CCHS includes information on type of smoker, amount smoked, cessation, age of initiation, use of other tobacco products, workplace restrictions and secondhand smoke exposure. The CCHS is an important addition to the surveillance arsenal, but what it provides in the way of consistency and robustness will probably be offset by its lack of flexibility and timeliness. The strength of CCHS is its large sample size and geographic coverage. However, the reliability of CCHS with regard to youth data in the smaller sample years will be less than that of CTUMS.8

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) as well as purpose and response rates of 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.

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 smoking 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 if samples of the same size are drawn repeatedly from a population and a confidence interval is calculated from each sample, 95% of these intervals will contain the true value of the quantity being estimated in the population. For instance, if the prevalence of current smoking among Ontario adults on Survey A is 25% and the 95% confidence interval is 22% to 28%, we are 95% confident that this interval (22% and 28%) will cover the true value in the population.

It is equally true that an estimate of 20% (±3) from Survey A is not statistically 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. Note that when comparing more than two groups (e.g., provinces or regions), comparisons of the lowest rate with the highest can be misleading if standard tests of significance are used. Multiple comparison procedures can adjust for the number of means or proportions in a set, which are being compared to provide a more formal testing procedure. Such comparisons have not been done in these reports, so caution should be exercised when looking at differences across several settings.

Formal Tests of Significance

A significant difference refers to a difference between two (or more) group estimates that is not likely due to chance. Specifically, a difference significant at the 5% level is one for 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 exercise caution in interpreting trend data (e.g., differences in yearly estimates) and comparisons between two or more estimates (e.g., men and women). When a formal significance test has been conducted, significance is indicated in the text by a probability statement, such as p<.05. Statements of significance that do not include a specified probability are based on non-overlapping confidence intervals.

In some figures we have used a question mark ('?'), meaning "interpret with caution" due to the moderate level of error associated with estimate — Coefficient of Variation (CV) between 16.6% and 33.3%.

Smoking Status Definitions

Definitions are given only for those categories of smoking status referred to in this report. CTUMS definitions have been derived by OTRU and do not necessarily reflect those used by Health Canada, especially for "current" and "daily" smoker.

Current Smoker

- CAMH Monitor Someone who currently 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). (Health Canada does not use the 100-cigarette criterion. The definition of current smoker in CTUMS is defined as a person who currently smokes cigarettes daily or occasionally.)
- 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 is a current smoker (i.e., smoked at least 100 cigarettes in his or her life and some within the last 30 days) and currently smokes daily.
- CTUMS Someone who has smoked at least 100 cigarettes in his or her life and smoked daily within the past 30 days. (Health Canada does not use the 100-cigarette criterion. The definition of daily smoker in CTUMS is defined as a person who currently smokes cigarettes everyday.)

Occasional Smoker

• CAMH Monitor - Someone who is a current smoker (i.e., smoked at least 100 cigarettes in his or her life and some within the last 30 days) and presently smokes on occasion, but not daily.

• CTUMS - Someone who is a current smoker (i.e., smoked at least 100 cigarettes in his or her life, some during the past 30 days) and currently does not smoke everyday. (Health Canada does not use the 100-cigarette criterion. The definition of occasional smoker (non-daily smoker) in CTUMS is defined as a person who currently smokes cigarettes, but not everyday.)

Experimental Smoker

• OSDUS - Someone who has smoked more than one and less than 100 cigarettes in his or her life.

Former Smoker

- CAMH Monitor Someone who has smoked at least 100 cigarettes in his or her life, but has not smoked for at least one year.
- CTUMS Someone who has smoked at least 100 cigarettes in his or her life, but has not smoked for at least one year. (Health Canada does not use the one-year nonsmoking criterion. The definition of former smoker in CTUMS is defined as a person who has smoked at least 100 cigarettes in his or her life, but currently does not smoke.)
- OSDUS Someone who has smoked at least 100 cigarettes in his or her life, but none in the last month.

Ever Smoker

- CAMH Monitor Someone who has smoked at least 100 cigarettes in his or her life (current and former smokers).
- CTUMS Someone who has smoked at least 100 cigarettes in his or her life (current and former smokers).

Nonsmoker

- CAMH Monitor Someone who has not smoked in the past 30 days (i.e., not a current smoker).
- CTUMS Someone who has not smoked in the past 30 days (i.e., not a current smoker).

Never Smoker

- CAMH Monitor Someone who has never smoked 100 cigarettes or more in his or her life.
- CTUMS Someone who has never smoked 100 cigarettes or more in his or her life.

Abstinence

• OSDUS – Someone who has never smoked cigarettes, not even one puff in his or her life.

APPENDIX 2-B: LOGIC MODELS









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