

# **Tobacco Use in Canada:**

# Patterns and Trends 2015 EDITION



University of Waterloo | Waterloo, Ontario

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# Tobacco Use in Canada: Patterns and Trends 2015 Edition

This report was prepared by Jessica Reid, MSc, and David Hammond, PhD. Data analysis was completed by Vicki Rynard, MSc, and Robin Burkhalter, MMath, using datasets made available by Statistics Canada and Health Canada.

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This report is available online on the **Tobacco Report** and **Propel websites**.

We are pleased to share with you *Tobacco Use in Canada: Patterns and Trends, 2015 Edition.* Now in its sixth year, this report builds on previous editions, and is a reference on tobacco use in Canada between 1999 and 2013, with a focus on the most current data. Data are from national surveys conducted by Health Canada and Statistics Canada.

Tobacco control continues to be a critical priority for cancer prevention, and for both the Canadian Cancer Society and the Propel Centre for Population Health Impact. Tobacco use may be even deadlier than previously thought: a new study published in the *New England Journal of Medicine* suggests that current estimates of those who die from cigarette smoking may be low given the lag time between smoking and established disease.<sup>i</sup> A strong commitment to tobacco control research, advocacy and programs is still needed as we continue efforts to minimize the damage tobacco does to the health of so many Canadians.

For the second year, we have included a special topic supplement, this time on the use of ecigarettes. With the release of the Canadian Tobacco, Alcohol and Drugs Survey, we have the first national data on e-cigarette use. Among those aged 15 and older, 9%, or 2.5 million people, said they had tried one. Rates among those aged 15 to 19 and 20 to 24 are more than twice that at 20%.<sup>ii</sup>

For more information relevant to your interests, we refer you to the annual publication *Canadian Cancer Statistics* produced by the Canadian Cancer Society in partnership with the Public Health Agency of Canada and Statistics Canada, and to the Ontario Tobacco Research Unit's Tobacco Informatics Monitoring System.

Funded by the Canadian Cancer Society, this report is prepared by the Propel Centre for Population Health Impact, with leadership from Jessica Reid and Dr. David Hammond. We trust it will be a valuable reference for your work in tobacco control.



Dr. BARBARA RILEY Executive Director Propel Centre for Population Health Impact



1 The

PAMELA FRALICK President and CEO Canadian Cancer Society

This report uses data from national surveys conducted by Health Canada and Statistics Canada to summarize the main patterns and trends in tobacco use in Canada, primarily between 1999 and 2013, with a focus on the current year. Highlights of the report are presented below.

# SECTION I: TOBACCO USE AMONG CANADIAN ADULTS (15+), 2013

#### SMOKING PREVALENCE

- 14.6% of Canadians (approximately 4.2 million) were current smokers.
- The majority of smokers reported smoking daily (10.9% daily/3.8% non-daily prevalence).
- Although smoking prevalence was at its lowest since measurement began, the observed prevalence decline appears to have slowed.
- Prevalence was higher among males (16.0%) than females (13.3%).
- Smoking prevalence was highest among young adults aged 25-34 and 20-24, at 18.5% and 17.9%, respectively.
- There were significant differences between provinces in smoking prevalence.
- Self-rated health varied by smoking status: non-smokers rated their general health and mental health higher than current smokers.

#### CIGARETTE CONSUMPTION

- Daily smokers in Canada smoked an average of 13.9 cigarettes per day.
- Average consumption has declined by more than 3 cigarettes per day since 1999.
- Male daily smokers consumed nearly 3 cigarettes more per day than females (15.2 and 12.5, respectively). Sex differences appear to have remained fairly stable since 1999.

#### USE OF OTHER TOBACCO PRODUCTS

- Cigarillos and cigars were the most popular tobacco products other than cigarettes: 3.3% of Canadians reported use in the past 30 days.
- Use of most other tobacco products (cigars, cigarillos, pipe) was more prevalent among males than females, although waterpipe use was similar for both.
- Use of cigars/cigarillos varied significantly by province.

#### EXPOSURE TO SECONDHAND SMOKE (SHS)

- Six out of ten respondents (59.1%) reported being exposed to SHS in the past month, including 12.9% who reported being exposed either every day or almost every day.
- SHS exposure was more prevalent among males, youth and young adults, and current smokers.

### **SECTION II: QUITTING SMOKING, 2013**

• The majority (64%) of Canadians who have ever been smokers have now quit.

#### PLANS TO QUIT

- Nearly two-thirds of smokers were seriously considering quitting in the next 6 months; 3 in 10 were considering quitting in the next month.
- More males than females were seriously considering quitting smoking in the next 6 months and in the next month.
- Smokers of all ages were considering quitting at similar rates.

#### QUIT ATTEMPTS AND SUCCESS (ABSTINENCE)

- Half of smokers had tried to quit in the past year. One third had tried more than once.
- More males than females had made a quit attempt.

- Quit attempts varied by age group. The percentage of smokers who had tried to quit was highest among young smokers, and appeared to decline with age.
- Among respondents who had made a quit attempt in the past year, 11% were still abstinent from smoking at the time they were surveyed.

#### CESSATION ASSISTANCE

- Approximately 6% of current and former smokers who tried to quit in the past year used a telephone quitline for assistance.
- The most recent data available for other forms of cessation assistance (from 2012) indicated that stop-smoking medications were used by nearly half (44%) of those who attempted to quit, while other forms of assistance were less popular.

#### **REASONS FOR QUITTING**

• Three-quarters of former smokers who quit in the past year cited health as their main reason for quitting smoking.

# SECTION III: TOBACCO USE AMONG CANADIAN YOUTH

Youth in grades 6-9, in 2012-13:

- 13.5% of students in grades 6-9 had ever tried a cigarette.
- 1.9% of students in grades 6-9 were current smokers overall, with grade-specific rates ranging from 0.9% for grade 7 (and grade 6 too low to report), to 4.2% for grade 9 students.
  - Smokers were fairly evenly split between daily (0.9%) and non-daily (1.0%) smoking.
  - Similar percentages of males (2.1%) and females (1.7%) were current smokers.
  - Prevalence varied by province, and was highest in Quebec, at 4.4%.
- Nearly one-third of never-smokers in grades 6-9 were classified as susceptible to smoking.
- Daily smokers in grades 7-9 smoked an average of 10.5 cigarettes per day.
- 6.6% of students in grades 6-9 had ever smoked a cigar or cigarillo.
- Most smokers in grades 6-9 usually obtained their cigarettes from social sources.
- Seven out of ten current smokers in grades 6-9 reported ever trying to quit smoking.

Youth aged 15-19, in 2013:

- One in five (20.2%) youth reported ever having smoked a whole cigarette.
- 10.7% of youth aged 15-19 were current smokers overall, with age-specific rates ranging from 4.6% among 15- and 16-year-olds to 18.5% of 19-year-olds.
  - Similar percentages of youth smoked daily (5.1%) and non-daily (5.6%).
  - Prevalence was significantly higher among males (13.2%) than females (8.1%).
  - Prevalence ranged from 8.8% in Alberta to 13.9% in Quebec.
- Daily smokers aged 15-19 smoked an average of 9.2 cigarettes per day.
- 23% of youth aged 15-19 had ever smoked a cigarillo, and 16% had ever smoked a cigar; 14% had ever used a waterpipe.
  - Gender differences were apparent: 24% of males and 8% of females had smoked a cigar, while 30% of males and 15% of females had smoked a cigarillo.
- Four in ten smokers aged 15-18 usually obtained cigarettes from retail sources, while nearly half (44%) obtained them through social sources, and 16% through "Other" sources.
- Six out of ten smokers aged 15-19 were seriously considering quitting in the next 6 months.
- More than half (57%) of smokers aged 15-19 had made a quit attempt in the past 12 months.

### **ABOUT THIS REPORT**

This report is the sixth edition in a series of annual reports on tobacco use in Canada. It was developed by the Propel Centre for Population Health Impact at the University of Waterloo. The report uses data from national surveys conducted by Health Canada and Statistics Canada to summarize the main patterns and trends in tobacco use in Canada, primarily between 1999 and 2013, with a focus on the most current data available.

The report is intended to serve as a reference on current patterns of tobacco use in Canada, for public health professionals, policy makers, researchers, and members of the tobacco control community. It may also be useful for the media and members of the public with an interest in tobacco control.

The contents of this report are available online at on the <u>Tobacco Report</u> and <u>Propel websites</u>. In addition to the main report content, the website also includes data tables for all the figures contained in this report in order to enable the extraction of more precise numbers, as well as confidence intervals for all reported estimates. Previous editions of the report may also be accessed through the website.

#### DATA SOURCES

#### Canadian Tobacco, Alcohol and Drugs Survey (CTADS); formerly Canadian Tobacco Use Monitoring Survey (CTUMS)

The Canadian Tobacco, Alcohol and Drugs Survey (CTADS) replaces CTUMS beginning in 2013. CTADS/CTUMS is conducted by Statistics Canada with the cooperation and support of Health Canada. CTUMS (1999-2012) was developed to provide Health Canada and its partners with timely, reliable, and continual data on tobacco use and related issues. Beginning in 2013, new content covering alcohol and drug use was added to CTUMS to create CTADS. Data are collected from February to December (annually for CTUMS; every 2 years for CTADS), using computer-assisted random-digit-dialed telephone interviews. The samples for CTADS/CTUMS are selected using a stratified random sampling procedure, and include the population of Canada aged 15 years and over, excluding residents of Yukon, Northwest Territories and Nunavut, as well as full-time residents of institutions and residents without telephones or with cell phones only.

See Appendix A for further details.

#### Youth Smoking Survey (YSS)

The Youth Smoking Survey (YSS) was implemented with the cooperation, support and funding of Health Canada, and conducted by a consortium of researchers across Canada and coordinated centrally by the Propel Centre for Population Health Impact at the University of Waterloo. The YSS monitored tobacco use in school-aged children (grades 6-9/10-12), collecting data on smoking behaviour, social and demographic factors, attitudes and beliefs about smoking, cigarette purchasing and other policy-relevant items, as well as experience with alcohol and drugs. Seven waves of the YSS have been conducted: 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, and 2012-13. YSS data were collected through classroom-based surveys of students in grades 6-9 (and grades 10-12 from 2006-07 onward; grade 5 was also included in waves prior to and including 2006-07). Schools were randomly sampled within each of the 10 provinces, using a stratified singlestage design. The sample excluded residents of the Yukon, Nunavut and Northwest Territories, residents of institutions, residents of First Nations reserves, and those attending special schools (e.g., schools for visually- or hearing-impaired individuals) or schools located on military bases. Participation in the 2012-13 YSS was declined by the province of Manitoba; based on the comparative analysis conducted using 2010-11 survey data, there were no statistically significant differences in national estimates with and without Manitoba. After 2012-13, the YSS continues as the Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS).

See Appendix B for further details.

IV

#### ANALYSIS

The data presented in this report are weighted estimates, generated using SAS 9.4 unless otherwise noted. Estimates are not reported where specific categories included less than 30 individuals (unweighted), except where noted as not meeting Statistics Canada's quality standards. The CTUMS/CTADS survey weights assigned by Statistics Canada in the annual datasets were used for CTUMS/CTADS analyses, and the YSS survey weights were used for YSS analyses. CTUMS/CTADS and YSS were not analysed together and there was no overlap of the survey weights between the two surveys.

Statistical comparisons between groups/years were tested using weighted regression analyses in SAS 9.4. Bootstrap weights were used to perform significance testing where available. Where statistical testing has been performed, comparisons are marked with a superscript number, which refers to a p-value that can be found in the *Index of Statistical Tests* (*page 87*). Throughout the report, the term "significant" has been reserved for instances where statistical testing has been performed, with p<0.05 as the cut-off for significance. See Appendix C for further details.

Data analysis was completed by Vicki Rynard, MSc, and Robin Burkhalter, MMath, of the Propel Centre for Population Health Impact, using datasets made available by Statistics Canada and Health Canada. We are grateful to Rashid Ahmed for statistical contributions to previous editions. Statistical guidance for previous editions was provided by K. Stephen Brown, PhD, of the Propel Centre for Population Health Impact and the Department of Statistics & Actuarial Science, University of Waterloo.

# This report and the views expressed herein do not necessarily reflect the views or opinions of Statistics Canada or Health Canada.

Please note that unless otherwise stated, all data reported in Sections I and II are for Canadians age 15 and over, from the Canadian Tobacco Use Monitoring Survey (CTUMS) and Canadian Tobacco, Alcohol and Drugs Survey (CTADS), and all data reported in Section III are for Canadian youth, grades 6-9 from the Youth Smoking Survey (YSS) and age 15-19 from CTUMS/CTADS (*p. 90*).

#### The 2015 Edition

This edition updates the previous (2014) edition with current data, including the 2013 wave of CTADS and the 2012-13 wave of the YSS. Please note that some content has changed from previous editions based on the items included in the CTADS questionnaire.

The 2015 edition also features a special supplement on the issue of electronic cigarettes.

We welcome your feedback on this report. Please send any comments to the contact below.

#### For further information or to request a print copy of the report, please contact:

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Section I: Tobacco Use Among Canadian Adults	13
Highlights	
1. Smoking in Canada	14
1.1 Historical Trends in Smoking Prevalence	14
<b>1.2 Current Smoking Prevalence</b> Demographic Patterns in Smoking Prevalence Smoking Prevalence by Sex Smoking Prevalence by Age	<i>16</i> 16
<b>1.3 Cigarette Consumption</b> Demographic Patterns in Cigarette Consumption Cigarette Consumption by Sex Cigarette Consumption by Age	<i>1</i> 8 18
<b>1.4 Smoking and Self-rated Health</b> General Health Mental Health	20
<ul> <li>2. Smoking in the Provinces</li> <li>Smoking Prevalence by Province</li> <li>Cigarette Consumption by Province</li> <li>2.1 British Columbia</li> <li>Smoking prevalence</li> </ul>	22 23 <b>24</b> <b>24</b>
Cigarette consumption <b>2.2 Alberta</b> Smoking prevalence Cigarette consumption	<b>26</b>
2.3 Saskatchewan Smoking prevalence Cigarette consumption	
2.4 Manitoba Smoking prevalence Cigarette consumption	
<b>2.5 Ontario</b> Smoking prevalence Cigarette consumption	
<b>2.6 Quebec</b> Smoking prevalence Cigarette consumption	
<b>2.7 New Brunswick</b> Smoking prevalence Cigarette consumption	
<b>2.8 Nova Scotia</b> Smoking prevalence Cigarette consumption	
2.9 Prince Edward Island Smoking prevalence Cigarette consumption	<b>40</b> 40

	2.10 Newfoundland & Labrador	
	Smoking prevalence	
	Cigarette consumption	
3.	. Cigarette Sources and Purchasing	
	Usual Sources of Cigarettes	
	Contraband and Cheaper Cigarettes Purchasing Cigarettes - Sources	
4	. Use of Other Tobacco Products in Canada Demographic Patterns in Other Tobacco Use	
	Other Tobacco Use by Sex	
	Other Tobacco Use by Age	
	Other Tobacco Use by Province	
	Flavoured Tobacco Products	
5.	. Secondhand Smoke Exposure	50
S	ection II: Quitting Smoking	51
	ighlights	
6.	. Quitting Behaviours and Outcomes	
	6.1 Quitter Percentage	
	Quitter Percentage by Sex Quitter Percentage by Age	
	6.2 Quit Intentions	
	Quit Intentions by Sex	
	Quit Intentions by Age	57
	6.3 Quit Attempts	
	Quit Attempts by Sex	
	Quit Attempts by Age	
	6.4 Quit Success (Point Abstinence)	
	Quit Success by Sex Quit Success by Age	
	6.5 Use of Cessation Assistance	
	Use of Pharmacotherapy	
	6.6 Reasons for Quitting Smoking	
	Reasons to Quit by Sex	
	Reasons to Quit by Age	66
S	ection III: Tobacco Use Among Canadian Youth	67
Н	ighlights	
7.	. Smoking Initiation	
	7.1 Ever Smoking	
	Ever smoking among students in grades 6-9	68
	Ever smoking among youth aged 15-19	

7.2 Susceptibility to Smoking	
Susceptibility to smoking by grade	
Susceptibility to smoking by province	71
8. Current Smoking among Youth	72
8.1 Smoking Prevalence	72
Smoking Prevalence by Age	73
Smoking Prevalence by Sex	
Smoking Prevalence by Province	75
8.2 Cigarette Consumption	
Cigarette Consumption by Sex	
Cigarette Consumption by Age	78
9. Sources of Cigarettes	
Sources of cigarettes for students in grades 6-9	
Sources of cigarettes for 15- to 18-year-olds	
10. Use of Other Tobacco Products	80
Flavoured Tobacco Products	
Demographic Patterns in Other Tobacco Use	
Use of Other Tobacco Products by Sex	
Use of Other Tobacco Products by Province	
11. Quitting Smoking	83
11.1 Quit Intentions	83
11.2 Quit Attempts	84
Quit attempts among students in grades 6-9	
Quit attempts among youth aged 15-19	85
Glossany	96
Glossary CTADS/CTUMS	
YSS	
Index of Statistical Tests	
References	89
Appendices	
Appendix A: Canadian Tobacco Use Monitoring Survey (CTUMS) and Canadian Tobacco,	
Alcohol and Drugs Survey (CTADS)	
Appendix B: Youth Smoking Survey (YSS)	90
Appendix C: Data Analysis	

# List of Tables

Table 2.1:	Smoking prevalence by province, 1999-2013	22
Table 2.2:	Average daily cigarette consumption by province, 1999-2013	23
Table 4.1:	Prevalence of use in past 30 days for cigars/cigarillos, by province, 1999-2013	49
Table 8.1:	Current smoking prevalence by province, grades 6-9, 1994-2013	75
Table 8.2:	Current smoking prevalence by province, age 15-19, 1999-2013	76
Table 10.1:	Percentage of youth in grades 6-9 who have ever tried various tobacco products, by province, 2012-13	82
Table 10.2:	Percentage of youth aged 15-19 who have ever tried various tobacco products, by province, 2013	82

# List of Figures

Figure 1.1:	Smoking prevalence in Canada, adults aged 15+, 1965-2013	14
Figure 1.2:	Current smoking prevalence, adults aged 15+, 2013	15
Figure 1.3:	Current smoking prevalence, adults aged 15+, 1999-2013	15
Figure 1.4:	Current smoking prevalence by sex, 2013	16
Figure 1.5:	Current smoking prevalence by sex, 1999-2013	16
Figure 1.6:	Current smoking prevalence by age group, 2013	17
Figure 1.7:	Current smoking prevalence by age group, 1999-2013	
Figure 1.8:	Average daily cigarette consumption, overall and by sex, 1999-2013	18
Figure 1.9:	Average daily cigarette consumption by age group, 2013	19
Figure 1.10:	Average daily cigarette consumption by age group, 1999-2013	19
Figure 1.11:	Self-rated general health, by smoking status, 2013	20
Figure 1.12:	Percentage of respondents reporting "excellent" or "very good" health, by age group and smoking status, 2013	20
Figure 1.13:	Self-rated mental health, by smoking status, 2013	21
Figure 1.14:	Percentage of respondents reporting "excellent" or "very good" mental health, by age group and smoking status, 2013	21
Figure 2.1:	Smoking prevalence by province, 2013	22
Figure 2.2:	Average daily cigarette consumption by province, 2013	23
Figure 2.3:	Current smoking prevalence by sex, British Columbia, 1999-2013	24
Figure 2.4:	Current smoking prevalence by age group, British Columbia, 1999-2013	25
Figure 2.5:	Average daily cigarette consumption by sex, British Columbia, 1999-2013	25
Figure 2.6:	Current smoking prevalence by sex, Alberta, 1999-2013	26
Figure 2.7:	Current smoking prevalence by age group, Alberta, 1999-2013	27
Figure 2.8:	Average daily cigarette consumption by sex, Alberta, 1999-2013	27
Figure 2.9:	Current smoking prevalence by sex, Saskatchewan, 1999-2013	28
Figure 2.10:	Current smoking prevalence by age group, Saskatchewan, 1999-2013	29
Figure 2.11:	Average daily cigarette consumption by sex, Saskatchewan, 1999-2013	29
Figure 2.12:	Current smoking prevalence by sex, Manitoba, 1999-2013	30
Figure 2.13:	Current smoking prevalence by age group, Manitoba, 1999-2013	31
Figure 2.14:	Average daily cigarette consumption by sex, Manitoba, 1999-2013	31
Figure 2 15	Current smoking prevalence by sex, Ontario, 1999-2013	32

IX

Figure 2.16:	Current smoking prevalence by age group, Ontario, 1999-2013	33
Figure 2.17:	Average daily cigarette consumption by sex, Ontario, 1999-2013	33
Figure 2.18:	Current smoking prevalence by sex, Quebec, 1999-2013	34
Figure 2.19:	Current smoking prevalence by age group, Quebec, 1999-2013	35
Figure 2.20	: Average daily cigarette consumption by sex, Quebec, 1999-2013	35
Figure 2.21:	Current smoking prevalence by sex, New Brunswick, 1999-2013	36
Figure 2.22	Current smoking prevalence by age group, New Brunswick, 1999-2013	37
Figure 2.23	: Average daily cigarette consumption by sex, New Brunswick, 1999-2013	37
Figure 2.24	: Current smoking prevalence by sex, Nova Scotia, 1999-2013	38
Figure 2.25	: Current smoking prevalence by age group, Nova Scotia, 1999-2013	39
Figure 2.26	: Average daily cigarette consumption by sex, Nova Scotia, 1999-2013	39
Figure 2.27:	Current smoking prevalence by sex, Prince Edward Island, 1999-2013	40
Figure 2.28	: Current smoking prevalence by age group, Prince Edward Island, 1999-2013	41
Figure 2.29	: Average daily cigarette consumption by sex, Prince Edward Island, 1999-2013	41
Figure 2.30	: Current smoking prevalence by sex, Newfoundland & Labrador, 1999-2013	42
Figure 2.31:	Current smoking prevalence by age group, Newfoundland & Labrador, 1999-2013	.43
Figure 2.32	: Average daily cigarette consumption by sex, Newfoundland & Labrador, 1999-2013 .	.43
Figure 3.1:	Percentage of smokers who usually get cigarettes from various sources, 2013	44
Figure 3.2:	Percentage of smokers who had purchased (any) cigarettes from various sources in the past 6 months, 2013	45
Figure 4.1:	Prevalence of use in the past 30 days for various tobacco products, 2013	46
Figure 4.2:	Prevalence of use in the past 30 days for various tobacco products, 1999-2013	46
Figure 4.3:	Prevalence of use in the past 30 days for various tobacco products, by sex, 2013	47
Figure 4.4:	Prevalence of use in the past 30 days for cigars/cigarillos, by sex, 1999-2013	47
Figure 4.5:	Prevalence of use in the past 30 days for various tobacco products, by age group, 2013	48
Figure 4.6:	Prevalence of use in the past 30 days for cigars/cigarillos, by age group, 1999-2013.	.48
Figure 5.1:	Frequency of exposure to secondhand smoke in the past month, 2013	50
Figure 5.2:	Any exposure to secondhand smoke in the past month, 2013	50
Figure 6.1:	Percentage of respondents who have ever smoked (current and former smokers), and quitter percentage, 1999-2013	52
-	Percentage of respondents who have ever smoked (current and former smokers), and quitter percentage, by sex, 2013	53
Figure 6.3:	Percentage of males who have ever smoked (current and former smokers), and quitter percentage, 1999-2013	53
Figure 6.4:	Percentage of females who have ever smoked (current and former smokers), and quitter percentage, 1999-2013	53
Figure 6.5:	Quitter percentage among ever smokers, by age group, 2013	54
Figure 6.6:	Quitter percentage among ever smokers, by age group, 1999-2013	.54
Figure 6.7:	Percentage of smokers who were seriously considering quitting in the next 6 months, and in the next 30 days, 2013	55
Figure 6.8:	Percentage of smokers who were seriously considering quitting in the next 6 months, and in the next 30 days, 1999-2013	55

Figure 6	Percentage of smokers who were seriously considering quitting in the next 6 months, and in the next 30 days, by sex, 2013
Figure 6	D: Percentage of smokers who were seriously considering quitting in the next 6 months, and in the next 30 days, by sex, 1999-2013
Figure 6	: Percentage of smokers who were seriously considering quitting in the next 6 months, and in the next 30 days, by age group, 201357
Figure 6	2: Percentage of smokers who were seriously considering quitting in the next 6 months, by age group, 1999-2013
Figure 6	3: Number of quit attempts made in the past 12 months by smokers and recent quitters, 2013
Figure 6	4: Percentage of smokers and recent quitters who attempted to quit in the past 12 months, 1999-2013
Figure 6	5: Percentage of smokers and recent quitters who attempted to quit in the past 12 months, by sex, 2013
Figure 6	5: Percentage of smokers and recent quitters who attempted to quit in the past 12 months, by sex, 1999-2013
Figure 6	7: Percentage of smokers and recent quitters who attempted to quit in the past 12 months, by age group, 201360
Figure 6	B: Percentage of smokers and recent quitters who attempted to quit in the past 12 months, by age group, 1999-201360
Figure 6	9: Percentage of current smokers and recent quitters who attempted to quit in the past 12 months and were still abstinent at the time of survey, 2004-2013
Figure 6	0:Percentage of current smokers and recent quitters who attempted to quit in the past 12 months and were abstinent at the time of survey, by sex, 2013
Figure 6	I: Percentage of current smokers and recent quitters who attempted to quit in the past 12 months and were abstinent at the time of survey, by sex, 2004-201362
Figure 6	2: Percentage of current smokers and recent quitters who attempted to quit in the past 12 months and were abstinent at the time of survey, by age group, 201363
Figure 6	<b>3</b> : Percentage of current smokers and recent quitters who attempted to quit in the past 12 months and were abstinent at the time of survey, by age group, 2004-201363
Figure 6	4: Prevalence of use of various quit methods among current and former smokers who had quit or attempted to quit smoking in the past 2 years, 2003-2013
Figure 6	5: Prevalence of use of stop-smoking medications among current and former smokers who had quit or attempted to quit smoking in the past 2 years, 2003-201265
Figure 6	6: Percentage of recent quitters whose main reason to quit was health or pregnancy/baby, overall and by sex, 201366
Figure 6	7: Percentage of recent quitters whose main reason to quit was health or pregnancy/baby, by age group, 201366
Figure 7	Smoking status of students in grades 6-9 who had ever tried smoking cigarettes, 2012-13
Figure 7	Percentage of students in grades 6-9 who have ever tried smoking a cigarette, by grade, 1994-2012-13
Figure 7	Percentage of students in grades 6-9 who had ever tried smoking a cigarette, by province, 2012-13
Figure 7	Percentage of youth aged 15-19 who have ever smoked a whole cigarette, by age, 1999-201370

Figure 7.5:	Percentage of never-smokers in grades 6-9 who were susceptible to smoking, by grade, 1994-2012-13
Figure 7.6:	Percentage of never-smokers in grades 6-9 who were susceptible to smoking, by province, 2012-13
Figure 8.1:	Current smoking prevalence, grades 6-9, 2012-13, and age 15-19, 2013
Figure 8.2:	Current smoking prevalence (daily and non-daily), grades 6-9 and age 15-19, 1994-2013
Figure 8.3:	Current smoking prevalence by grade/age, grades 7-9, 2012-13, and age 15-19, 201373
Figure 8.4:	Current smoking prevalence by grade/age, grades 7-9 and age 15-19, 1994-201373
Figure 8.5:	Current smoking prevalence by sex, grades 6-9, 2012-13, and age 15-19, 201374
Figure 8.6:	Current smoking prevalence (daily and non-daily) by sex, grades 6-9 and age 15-19, 1994-2013
Figure 8.7:	Current smoking prevalence by province, grades 6-9, 2012-1375
Figure 8.8:	Current smoking prevalence by province, age 15-19, 201376
Figure 8.9:	Average daily cigarette consumption by sex, grades 7-9, 2012-13, and age 15-19, 2013
Figure 8.10:	Average daily cigarette consumption by sex, grades 7-9 and age 15-19, 1994-2013 77
Figure 8.11:	Average daily cigarette consumption by age, grades 7-9, 2012-13, and age 15-19, 2013
Figure 8.12:	Average daily cigarette consumption by age group, grades 7-9 and age 15-19, 1994-2013
Figure 9.1:	Usual sources of cigarettes for current smokers in grades 6-9, 2012-13
Figure 9.2:	Percentage of smokers aged 15-18 who usually get cigarettes from various sources, 2013
Figure 10.1:	Percentage of youth who have ever tried various tobacco products, grades 6-9, 2012-13, and age 15-19, 201380
Figure 10.2:	Percentage of youth in grades 6-9 and age 15-19 who have ever tried various tobacco products, 1994-201380
Figure 10.3:	Percentage of youth who had used flavoured tobacco products, among last 30-day users, grades 6-9, 2012-13, and age 15-19, 2013
Figure 10.4:	Percentage of youth who have ever tried various tobacco products, by sex, grades 6-9, 2012-13, and age 15-19, 2013
Figure 11.1:	Percentage of smokers aged 15-19 seriously considering quitting in the next 6 months, and in the next 30 days, 2000-2013
Figure 11.2:	Number of quit attempts ever made by current smokers, grades 6-9, 2012-1384
Figure 11.3:	Percentage of current smokers who have ever made a quit attempt, grades 6-9, 1994-2012-13
Figure 11.4:	Number of 24-hour quit attempts made in the past 12 months by smokers and recent quitters, age 15-19, 201385
Figure 11.5:	Percentage of smokers and recent quitters who attempted to quit in the past 12 months, by age group, 1999-2013

# SECTION I: TOBACCO USE AMONG CANADIAN ADULTS



# HIGHLIGHTS

# In 2013, among Canadians age 15 and older:

14.6% of Canadians (approximately 4.2 million) were current smokers. (page 15)

The majority of smokers reported smoking daily (10.9% daily/3.8% non-daily prevalence). (p. 15)

Although smoking prevalence was at its lowest level since measurement began, the observed prevalence decline appears to have slowed. (p. 15)

Prevalence was higher among males (16.0%) than females (13.3%). (p. 16)

#### Prevalence was highest among young adults

(18.5% among those aged 25-34, and 17.9% among those aged 20-24), and generally declined with age. Prevalence was lowest among youth aged 15-19 and adults age 55+, at 10.7% and 10.8%, respectively. (p. 17)

Daily smokers in Canada smoked an average of 13.9 cigarettes per day. (p. 18)

Average consumption has declined by more than 3 cigarettes per day since 1999. (p. 18)

Male daily smokers consumed nearly 3 more cigarettes per day than females. (p. 18)

Self-rated health varied by smoking status, with non-smokers rating their general and mental health higher than smokers (p. 20-21) There were significant differences between provinces in smoking prevalence, ranging from 11% in BC to nearly 20% in New Brunswick, Nova Scotia, and Newfoundland. (p. 22)

Cigars and cigarillos were the most popular tobacco products other than cigarettes: 3.3% of Canadians reported use in the past 30 days. (p. 46)

Use of cigars/cigarillos varied by province. (p. 49)

Use of most other tobacco products (cigars, cigarillos, pipe) was more prevalent among males than females, although waterpipe use was similar. (p. 47)

Although the vast majority of smokers usually got their cigarettes from stores, approximately one in ten had purchased from a First Nations reserve. Few reported having purchased cigarettes that may have been smuggled. (p. 45)

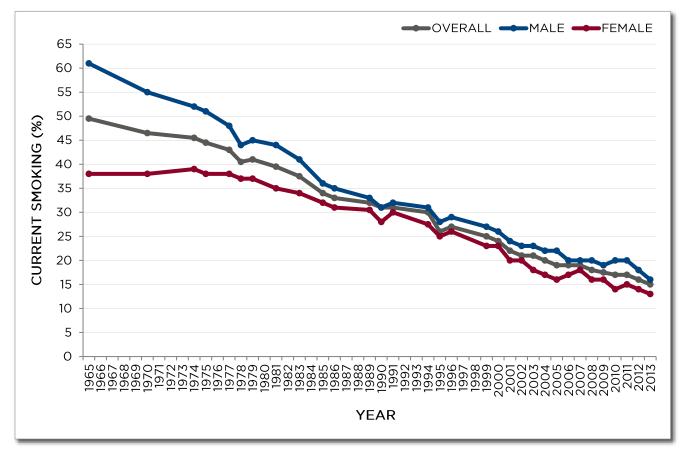
More than half of respondents (59.1%) reported being exposed to secondhand smoke in the past month, including 12.9% who were exposed daily or almost daily. Exposure was most prevalent among males, young people, and current smokers (p. 50)

# **1. SMOKING IN CANADA**

## **1.1 HISTORICAL TRENDS IN SMOKING PREVALENCE**

Over the past half-century, there has been a substantial drop in smoking in Canada: one in two Canadians smoked in 1965, compared to just over one in seven in 2013 (Figure 1.1). Although the overall smoking rate has decreased fairly steadily, and 2013 has the lowest recorded smoking rate, this decline appears to have slowed in recent years. Historically large sex differences in smoking prevalence have narrowed over time to within a few percentage points, although smoking rates have remained higher among males.

FIGURE 1.1: SMOKING PREVALENCE\* IN CANADA, ADULTS AGED 15+, 1965-2013



\*INCLUDES DAILY AND NON-DAILY SMOKERS

DATA SOURCES: DATA SOURCES: 1965-1986: A CRITICAL REVIEW OF CANADIAN SURVEY DATA ON TOBACCO USE, ATTITUDES AND KNOWLEDGE (HEALTH AND WELFARE CANADA, 1988); 1989 1989: SMOKING BEHAVIOUR OF CANADIANS: A NATIONAL ALCOHOL AND OTHER DRUGS SURVEY REPORT, 1989 (HEALTH AND WELFARE CANADA, 1992); 1990: CANADA'S HEALTH PROMOTION SURVEY 1990: TECHNICAL REPORT (HEALTH AND WELFARE CANADA, 1993); 1991: HEALTH STATUS OF CANADIANS: REPORT OF THE 1991 GENERAL SOCIAL SURVEY (STATISTICS CANADA); 1994: NATIONAL POPULATION HEALTH SURVEY (STATISTICS CANADA); 1995, 1996; GENERAL SOCIAL SURVEY (STATISTICS CANADA) [ALL AS QUOTED IN: PHYSICIANS FOR A SMOKEFREE CANADA, SMOKING IN CANADA, 2008<sup>III</sup>]; 1999-2012: CANADIAN TOBACCO USE MONITORING SURVEY (HEALTH CANADA); 2013: CANADIAN TOBACCO, ALCOHOL AND DRUGS SURVEY (HEALTH CANADA)

# **1.2 CURRENT SMOKING PREVALENCE**

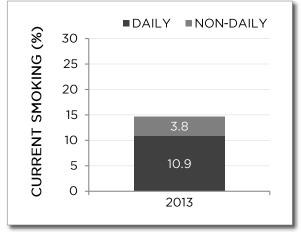
In 2013, the overall prevalence of smoking in Canada was 14.6%, equivalent to approximately 4.2 million Canadians: 10.9% (3.1 million) daily smokers and 3.8% (1.1 million) non-daily smokers (Figure 1.2). Although the lowest estimate ever recorded, this was not a significant decrease from the 2012 estimate of 16.1%.<sup>1</sup>

Similarly, although estimates of daily and non-daily smoking in 2013 were lower than the 2012 figures (11.9% and 4.3%, respectively), neither difference was statistically significant.<sup>2,3</sup>

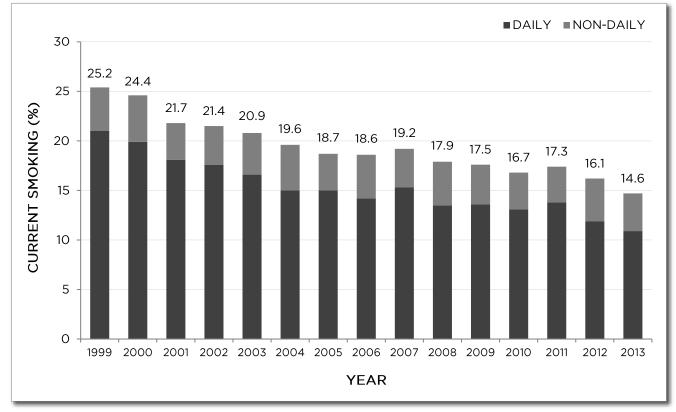
As shown in Figure 1.3, overall smoking prevalence has decreased significantly over time since 1999.<sup>4</sup> Reduction in daily smoking appears to be responsible for most of the observed decline in smoking rates, since non-daily smoking has remained relatively constant at around 4%.

From 1999 to 2013, the average annual decrease in prevalence was 3.3% of the previous year's value, so that the absolute difference between successive years is getting smaller with time.<sup>5</sup>

#### FIGURE 1.2: CURRENT SMOKING PREVALENCE, ADULTS AGED 15+, 2013



DATA SOURCE: CANADIAN TOBACCO, ALCOHOL AND DRUGS SURVEY (CTADS), 2013



#### FIGURE 1.3: CURRENT SMOKING PREVALENCE, ADULTS AGED 15+, 1999-2013

DATA SOURCE: CANADIAN TOBACCO USE MONITORING SURVEY (CTUMS), 1999-2012; CTADS, 2013

15

#### DEMOGRAPHIC PATTERNS IN SMOKING PREVALENCE

#### **Smoking Prevalence by Sex**

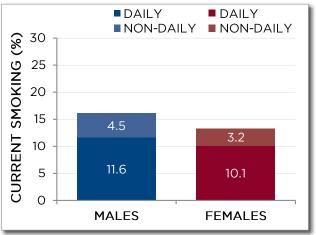
In 2013, 16.0% of males (2.3 million) and 13.3% of females (1.9 million) were current smokers (Figure 1.4). This represents a statistically significant difference<sup>6</sup> in overall prevalence between the sexes.

Non-daily smoking<sup>7</sup> was significantly more prevalent among males, while daily smoking<sup>8</sup> was not significantly different.

Between 2012 and 2013, although estimates of overall prevalence decreased among both males<sup>9</sup> and females,<sup>10</sup> neither difference was statistically significant.

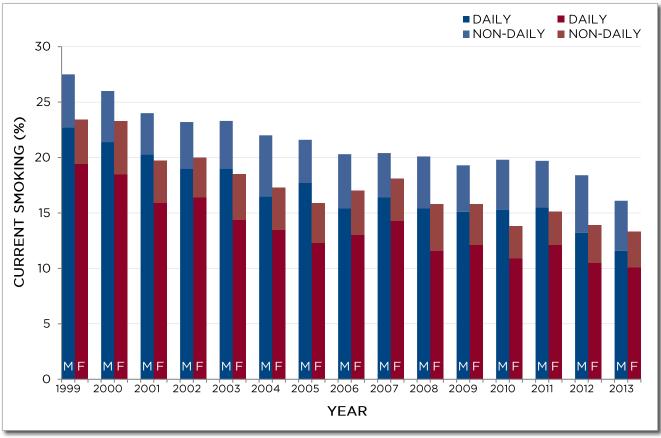
Smoking rates were higher among males than females in all years from 1999 to 2013 (Figure 1.5).

# FIGURE 1.4: CURRENT SMOKING PREVALENCE BY SEX, 2013



DATA SOURCE: CTADS, 2013

#### FIGURE 1.5: CURRENT SMOKING PREVALENCE BY SEX, 1999-2013



DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

16

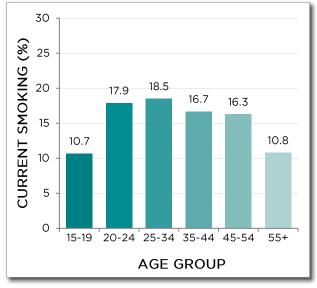
#### Smoking Prevalence by Age

In 2013, smoking varied significantly by age group:<sup>11</sup> prevalence was highest among young adults aged 25-34 and 20-24 (Figure 1.6). The lowest observed prevalence was among youth aged 15-19 and adults age 55 and older.

A general pattern of decreasing prevalence after early adulthood appears to have held for most survey years between 1999 and 2013 (Figure 1.7). Although prevalence decreased overall in all age groups during this time, the largest drop was observed in the youngest age group, 15- to 19year-olds. This decline was less marked among older age groups, and little net change has been observed in the last decade among those aged 55 and over.

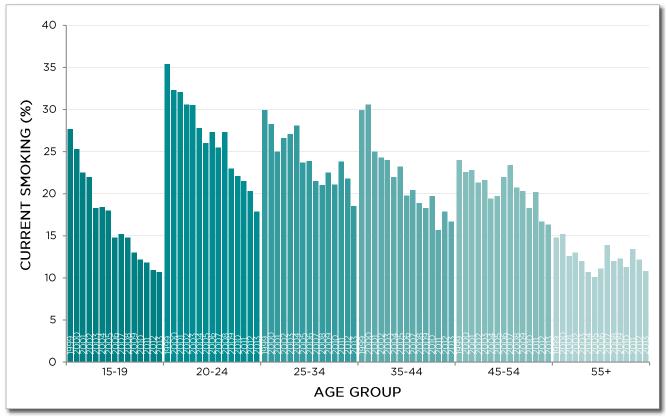
When examining differences between age groups and over time using repeat cross-sectional data such as this, consider that some of the differences between age groups could also be due to cohort effects (as well as age effects), in addition to changes over time.

# FIGURE 1.6: CURRENT SMOKING PREVALENCE BY AGE GROUP, 2013



DATA SOURCE: CTADS, 2013

#### FIGURE 1.7: CURRENT SMOKING PREVALENCE BY AGE GROUP, 1999-2013



DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

# **1.3 CIGARETTE CONSUMPTION**

In 2013, average cigarette consumption among daily smokers was 13.9 cigarettes per day (CPD), a significant drop from the 2012 rate of 15.0 CPD.<sup>12</sup> From 1999 to 2013, cigarette consumption declined significantly,<sup>13</sup> by more than 3 cigarettes per day (Figure 1.8). The average rate of decline in cigarette consumption during this time period was 1.3% per year. There is evidence that the difference between successive years is getting smaller with time.<sup>14</sup>

## DEMOGRAPHIC PATTERNS IN CIGARETTE CONSUMPTION

#### Cigarette Consumption by Sex

In 2013, average daily cigarette consumption was 15.2 for male smokers and 12.5 for female smokers, a statistically significant difference.<sup>15</sup> Between 2012 and 2013, consumption declined significantly among males,<sup>16</sup> but not females.<sup>17</sup>

During the time period from 1999 to 2013, sex differences appear to have remained relatively stable: males smoked, on average, about 3 cigarettes more per day than females, although this varied somewhat from year to year (Figure 1.8).

OVERALL → MALE → FEMALE 20 20 20 15 10 5 0 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 YEAR

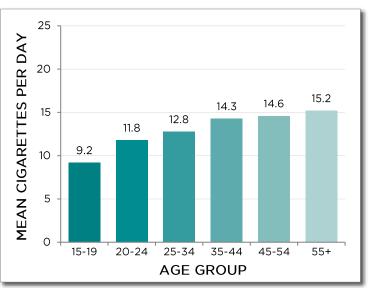
FIGURE 1.8: AVERAGE DAILY CIGARETTE CONSUMPTION\*, OVERALL AND BY SEX, 1999-2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

#### Cigarette Consumption by Age

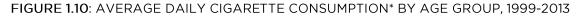
In 2013, average daily cigarette consumption varied significantly between age groups.<sup>18</sup> Consumption was lowest among the youngest smokers, at just over 9 cigarettes per day (CPD) for smokers aged 15-19, and appeared to increase with age to more than 15 CPD for smokers age 55 and older (Figure 1.9).

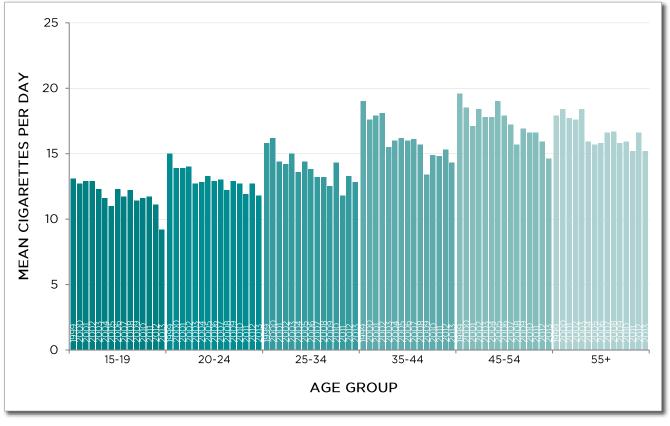
The same general pattern of increasing consumption with age (and often a slight drop after 55) held for most years between 1999 and 2013, although with some variation (Figure 1.10). Between 1999 and 20136, average daily cigarette consumption appears to have decreased overall in all age groups.



# FIGURE 1.9: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY AGE GROUP, 2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTADS, 2013





\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

19

# **1.4 SMOKING AND SELF-RATED HEALTH**

#### **GENERAL HEALTH**

CTADS respondents were asked to rate their own health. As shown in Figure 1.11 (below), self-rated health varied significantly by smoking status:<sup>19</sup> only half of current smokers reported "excellent" or "very good" health, compared to 60% of former smokers and 70% of never smokers.

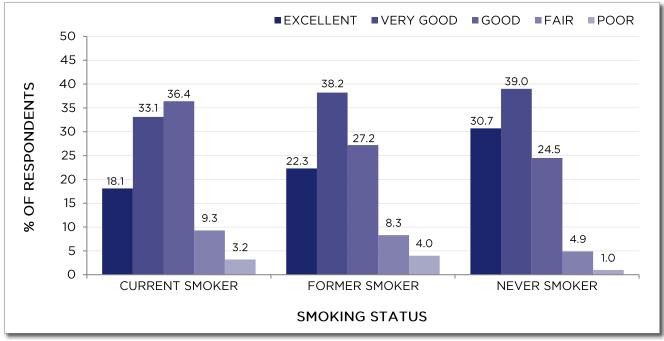


FIGURE 1.11: SELF-RATED GENERAL HEALTH, BY SMOKING STATUS, 2013

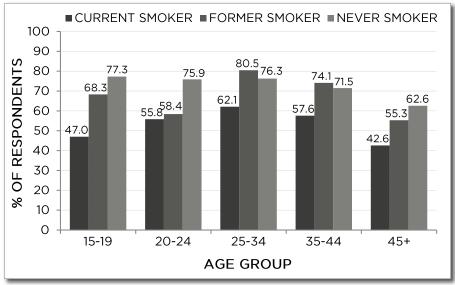
DATA SOURCE: CTADS, 2013

The same pattern was observed among both males and females, with little variation from the overall estimates shown above in Figure 1.11 (*data not shown*).

Self-rated health varied by age; however, within each age group, a significantly lower proportion of current smokers reported "excellent" or "very good" health, compared to nonsmokers.<sup>20-24</sup> (Figure 1.12).

20

FIGURE 1.12: PERCENTAGE OF RESPONDENTS REPORTING "EXCELLENT" OR "VERY GOOD" HEALTH, BY AGE GROUP AND SMOKING STATUS, 2013



DATA SOURCE: CTADS, 2013

#### MENTAL HEALTH

Studies in multiple countries have identified an association between smoking and mental health, including a recent Canadian analysis linking smoking with a number of mental health problems, such as anxiety, mood disorders and depression.<sup>iv</sup> Figure 1.13 (below) shows self-reported ratings of mental health by smoking status. While the proportion of respondents who reported "excellent" or "very good" mental health was high overall, it was significantly lower among current smokers (68.9%) than former (74.8%) or never (79.0%) smokers.<sup>25</sup>

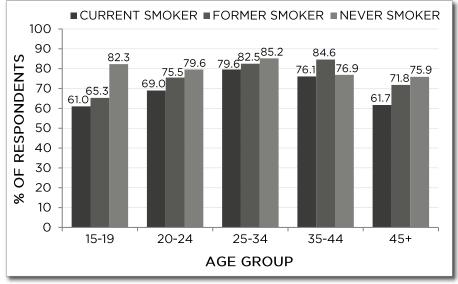


FIGURE 1.13: SELF-RATED MENTAL HEALTH, BY SMOKING STATUS, 2013

\*DATA FOR "FAIR" AND "POOR" COMBINED DUE TO LOW NUMBERS DATA SOURCE: CTADS, 2013

A similar pattern was observed among both males and females, with little variation from the overall estimates shown above in Figure 1.13 (*data not shown*).

The proportion of respondents reporting "excellent" or "very good" mental health was significantly lower among current smokers than nonsmokers within three of the five age groups:<sup>26-30</sup> youth, young adults, and older smokers (Figure 1.14). FIGURE 1.14: PERCENTAGE OF RESPONDENTS REPORTING "EXCELLENT" OR "VERY GOOD" MENTAL HEALTH, BY AGE GROUP AND SMOKING STATUS, 2013



DATA SOURCE: CTADS, 2013

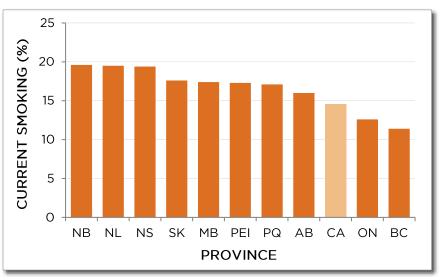
# **2. SMOKING IN THE PROVINCES**

#### SMOKING PREVALENCE BY PROVINCE

In 2013, there was significant variation in smoking prevalence by province<sup>31</sup> (Figure 2.1). Current smoking rates ranged from a low of 11.4% in British Columbia to a high of nearly 20% in New Brunswick, Newfoundland & Labrador, and Nova Scotia. All provinces except Ontario and British Columbia had smoking rates above the national average of 14.6%.

Between 1999 and 2013. smoking prevalence decreased substantially in all provinces, although not consistently (Table 2.1). There was considerable variation by province in the magnitude of this decline: from more than 13 percentage points in Quebec to around 6 in Manitoba. Throughout this time period, British Columbia consistently had the lowest smoking rate of all provinces. In the most recent years, small declines in prevalence were observed in most provinces, although estimates appeared to stagnate or increase in a few, particularly in Atlantic Canada.





\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTADS, 2013

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CANADA	25.2	24.4	21.7	21.4	20.9	19.6	18.7	18.6	19.2	17.9	17.5	16.7	17.3	16.1	14.6
BRITISH COLUMBIA	20.0	19.6	16.7	16.5	16.4	15.2	14.7	16.4	14.4	14.7	14.9	14.3	14.2	13.2	11.4
ALBERTA	26.0	22.6	25.1	22.8	20.0	20.1	20.6	21.3	21.0	20.4	18.0	18.8	17.7	17.4	16.0
SASKATCHEWAN	25.9	28.1	25.4	21.2	24.1	21.7	22.0	23.7	24.0	20.4	22.3	21.1	19.2	18.5	17.6
MANITOBA	23.3	25.7	25.9	21.1	20.9	20.6	22.3	20.1	19.9	20.8	18.9	20.5	18.7	17.9	17.4
ONTARIO	23.2	23.1	19.7	19.7	19.6	18.7	16.4	16.6	18.3	16.8	15.4	15.2	16.3	15.7	12.6
QUEBEC	30.3	28.2	24.1	25.8	24.6	22.2	22.2	20.1	21.7	19.1	20.7	17.8	19.8	17.1	17.1
NEW BRUNSWICK	26.5	26.6	25.0	21.1	24.3	24.2	21.8	22.6	21.2	19.9	21.3	19.3	18.8	17.3	19.6
NOVA SCOTIA			24.9	25.3	22.1	20.2	21.0	21.8	20.4	19.7	19.8	20.8	18.1	15.6	19.4
PRINCE EDWARD ISLAND			25.6	23.1	21.4	21.2	19.9	19.2	18.4	19.2	17.7	16.2	19.1	15.2	17.3
NEWFOUNDLAND & LABRADOR	28.5	27.7	25.7	24.1	23.0	21.8	20.6	21.7	21.2	20.2	20.7	20.0	19.0	19.7	19.5

#### TABLE 2.1: SMOKING PREVALENCE\* BY PROVINCE, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS

DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

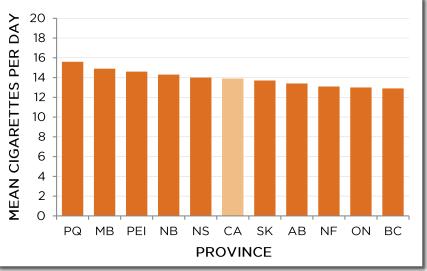
22

### CIGARETTE CONSUMPTION BY PROVINCE

In 2013, while average daily cigarette consumption estimates varied somewhat by province, ranging from 12.9 cigarettes per day (CPD) in British Columbia to 15.6 CPD in Ontario, overall variation by province was not significant<sup>32</sup> (Figure 2.2).

Between 1999 and 2013, average daily cigarette consumption appears to have decreased in all provinces, although with little to no progress in the most recent years for many provinces (Table 2.2). The magnitude of this decline varied somewhat by province, with the greatest decreases observed in Nova Scotia (from 18.1 in 1999 to 14.0 CPD in 2013), Newfoundland (from 17.2 to 13.1 CPD) and New Brunswick (from 18.3 to 14.3 CPD).





<sup>\*</sup>AMONG DAILY SMOKERS DATA SOURCE: CTADS, 2013

#### TABLE 2.2: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY PROVINCE, 1999-2013

		-					-	-	-	-	-	-	-		
YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CANADA	17.4	16.8	16.2	16.4	15.9	15.2	15.7	15.5	15.5	14.9	14.5	15.1	14.4	15.0	13.9
BRITISH COLUMBIA	16.1	14.8	14.6	16.3	15.8	14.5	15.7	15.5	14.5	14.1	13.4	15.0	14.1	12.9	12.9
ALBERTA	16.2	16.6	16.3	16.4	14.6	14.4	14.9	15.9	16.1	14.2	13.9	14.9	13.9	13.9	13.4
SASKATCHEWAN	16.0	15.3	16.1	16.1	16.0	13.9	14.1	14.6	13.9	14.8	14.4	15.4	14.8	13.8	13.7
MANITOBA	15.8	16.7	14.8	15.7	14.7	14.9	14.1	14.0	14.1	13.6	12.9	13.3	14.4	14.1	14.9
ONTARIO	16.6	16.9	15.5	15.5	15.5	15.4	15.6	15.4	15.5	15.5	14.2	15.0	13.6	15.8	13.0
QUEBEC	19.1	17.6	17.3	17.6	16.8	15.5	16.5	15.6	15.8	14.9	15.4	15.1	15.4	15.7	15.6
NEW BRUNSWICK	18.3	19.0	17.6	16.2	16.3	16.7	16.9	15.3	17.3	15.5	16.1	17.4	16.3	15.2	14.3
NOVA SCOTIA	18.1	17.7	15.3	17.4	15.1	14.9	15.5	16.4	15.2	15.5	15.1	16.7	15.3	13.8	14.0
PRINCE EDWARD ISLAND	17.2		17.5	16.8	16.4	16.1	16.1	15.3	16.5	14.7	15.2	17.1	15.5	15.6	14.6
NEWFOUNDLAND & LABRADOR	17.2	15.5	16.7	16.2	16.1	14.6	15.5	16.0	14.1	14.1	15.4	14.5	14.5	15.2	13.1

\*AMONG DAILY SMOKERS

DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

# **2.1 BRITISH COLUMBIA**

#### **SMOKING PREVALENCE**

In 2013, smoking prevalence in British Columbia was 11.4%, below the national average of 14.6%, and the lowest of all provinces.

Figure 2.3 (below) shows smoking prevalence, overall and by sex, in British Columbia from 1999-2013. Overall, prevalence declined slowly during this time, although little or no progress was made during much of the 2000s. Males had similar or greater prevalence than females in all years observed, although with year-toyear variation.

#### **BRITISH COLUMBIA IN 2013**

Smoking prevalence: 11.4% (449 000 smokers) » compared to 13.2% in 2012

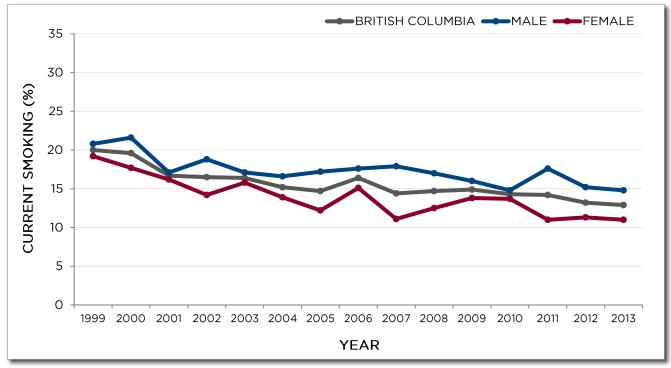
- Males: 13.5% (261 000 smokers)
- Females: 9.4% (188 000 smokers)

Average daily cigarette consumption: 12.9 CPD » compared to 12.9 CPD in 2012

- Males: 14.8 CPD
- Females: 11.0 CPD

Average price per carton<sup>v</sup> (200 cig): \$97.37

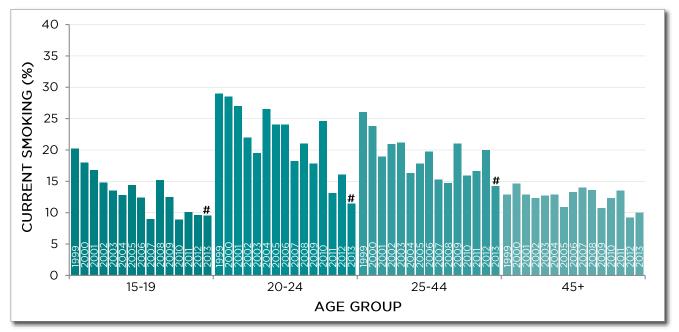
FIGURE 2.3: CURRENT SMOKING PREVALENCE\* BY SEX, BRITISH COLUMBIA, 1999-2013



\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

24

Figure 2.4 (next page) shows smoking prevalence by age group in British Columbia, from 1999-2013. During this time period, there was a net decrease in smoking prevalence (despite fluctuations) in all age groups; this decrease was largest among the youngest age groups, and smallest among those over 45. There has been little progress within most age groups in recent years.



#### FIGURE 2.4: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, BRITISH COLUMBIA, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS

# CAUTION: THESE ESTIMATES DO NOT MEET STATISTICS CANADA'S QUALITY STANDARDS. CONCLUSIONS BASED ON THESE DATA WILL BE UNRELIABLE, AND MOST LIKELY INVALID.

DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

#### **CIGARETTE CONSUMPTION**

Between 1999 and 2013, average daily cigarette consumption in British Columbia appears to have decreased overall (Figure 2.5). Cigarette consumption was higher among males than females in all years, but with considerable year-to-year variation in the size of this difference.

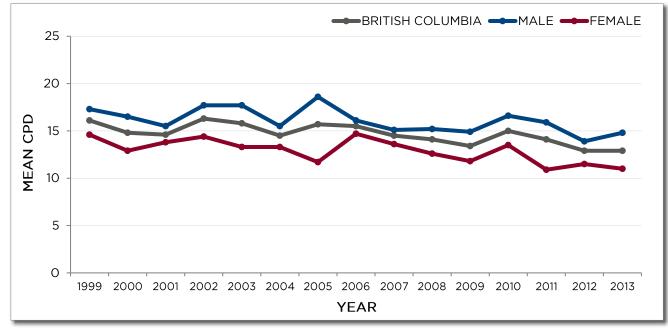


FIGURE 2.5: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, BRITISH COLUMBIA, 1999-2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

# **2.2 ALBERTA**

#### SMOKING PREVALENCE

In 2013, smoking prevalence in Alberta was 16.0%, above the national average of 14.6%.

Figure 2.6 (below) shows smoking prevalence, overall and by sex, in Alberta from 1999-2013. Prevalence has declined overall, although progress appears to have slowed. Males had similar or greater prevalence compared to females in most of the years observed.

## ALBERTA IN 2013

Smoking prevalence: 16.0% (514 000 smokers) » compared to 17.4% in 2012

- Males: 18.9% (308 000 smokers)
- Females: 13.1% (206 000 smokers)

Average daily cigarette consumption: 13.4 CPD » compared to 13.9 CPD in 2012

- Males: 14.9 CPD
- Females: 11.9 CPD

Average price per carton<sup>v</sup> (200 cig): \$88.70

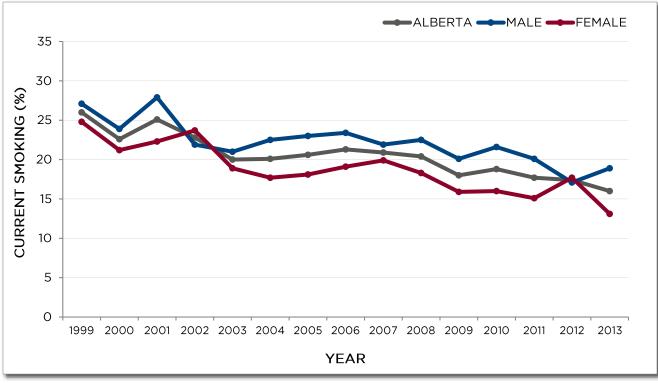
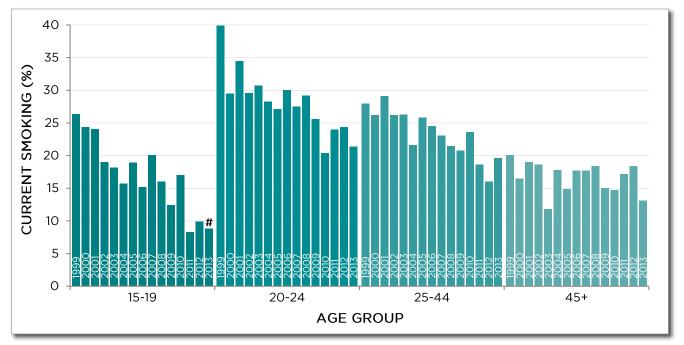


FIGURE 2.6: CURRENT SMOKING PREVALENCE\* BY SEX, ALBERTA, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

Figure 2.7 (next page) shows smoking prevalence by age group in Alberta, from 1999-2013. During this time, smoking prevalence decreased substantially in all age groups except those over 45, for whom less of a change in prevalence was observed.



#### FIGURE 2.7: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, ALBERTA, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS # CAUTION: THESE ESTIMATES DO NOT MEET STATISTICS CANADA'S QUALITY STANDARDS. CONCLUSIONS BASED ON THESE DATA WILL BE UNRELIABLE, AND MOST LIKELY INVALID. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

#### **CIGARETTE CONSUMPTION**

Between 1999 and 2013, average daily cigarette consumption in Alberta fluctuated around 15, but appears to have decreased overall (Figure 2.8). Male smokers consumed 3-4 cigarettes more per day than female smokers in most years.

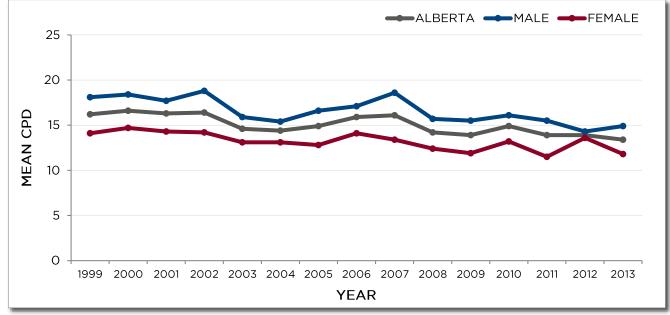


FIGURE 2.8: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, ALBERTA, 1999-2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

# **2.3 SASKATCHEWAN**

#### **SMOKING PREVALENCE**

In 2013, smoking prevalence in Saskatchewan was 17.6%, above the national average of 14.6%.

Figure 2.9 (below) shows smoking prevalence, overall and by sex, in Saskatchewan from 1999-2013. Despite considerable year-to-year variation during this time, there appears to have been a net decrease in overall prevalence and a recent downward trend. Throughout this time period, prevalence was similar or slightly greater among males, except in 2013, when females' prevalence estimate was slightly higher.

### SASKATCHEWAN IN 2013

Smoking prevalence: 17.6% (153 000 smokers) » compared to 18.5% in 2012

- Males: 16.4% (71 000 smokers)
- Females: 18.7% (81 000 smokers)

Average daily cigarette consumption: 13.7 CPD » compared to 13.8 CPD in 2012

- Males: 15.8 CPD
- Females: 11.9 CPD

Average price per carton<sup>v</sup> (200 cig): \$105.79

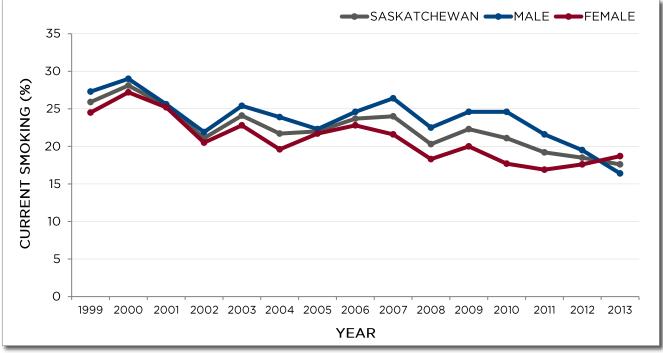
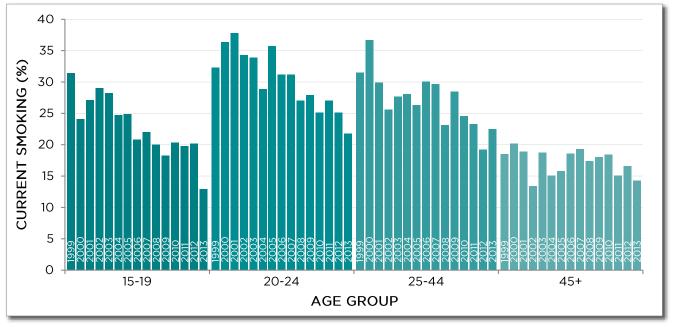


FIGURE 2.9: CURRENT SMOKING PREVALENCE\* BY SEX, SASKATCHEWAN, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

Figure 2.10 (next page) shows smoking prevalence by age group in Saskatchewan, from 1999-2013. Although smoking rates fluctuated, there was a net decrease in prevalence within all age groups, and a downward trend over time was observed in all groups under age 45.

28



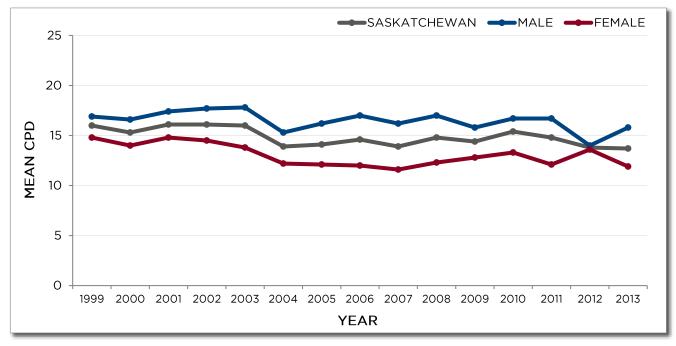
#### FIGURE 2.10: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, SASKATCHEWAN, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

#### **CIGARETTE CONSUMPTION**

Between 1999 and 2013, average daily cigarette consumption in Saskatchewan largely remained near 15, but appears to have decreased overall (Figure 2.11). Male smokers consumed considerably more cigarettes per day than females in almost all years.

FIGURE 2.11: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, SASKATCHEWAN, 1999-2013



\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

# **2.4 MANITOBA**

#### SMOKING PREVALENCE

In 2013, smoking prevalence in Manitoba was 17.4%, above the national average of 14.6%.

Figure 2.12 (below) shows smoking prevalence, overall and by sex, in Manitoba from 1999-2013. Over this time, a net decrease in prevalence was observed, although there was little decline in the 2000s. Prevalence was greater among males than females in most years, although there was variation from year to year, and a few instances where they were similar.

## MANITOBA IN 2013

Smoking prevalence: 17.4% (178 000 smokers) » compared to 17.9% in 2012

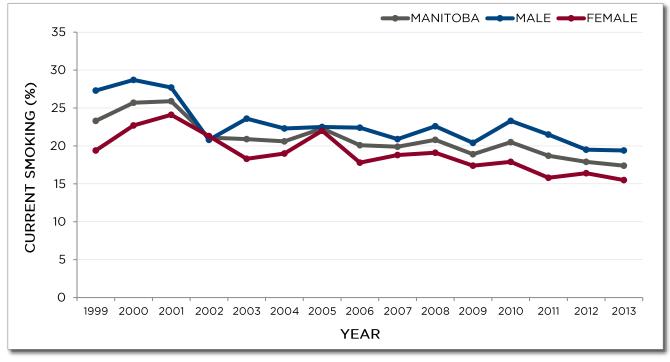
- Males: 19.4% (98 000 smokers)
- Females: 1.5.5 (80 000 smokers)

Average daily cigarette consumption: 14.9 CPD » compared to 14.1 CPD in 2012

- Males: 16.2 CPD
- Females: 13.2 CPD

Average price per carton<sup>v</sup> (200 cig): \$120.16

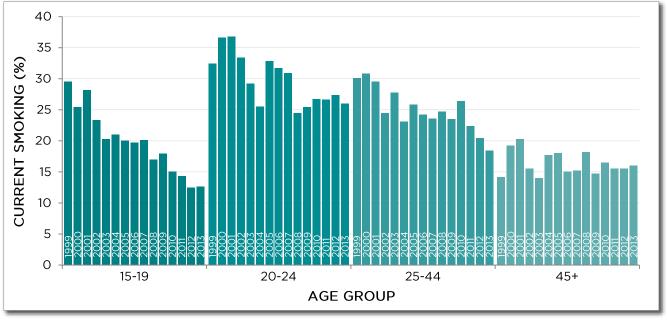
FIGURE 2.12: CURRENT SMOKING PREVALENCE\* BY SEX, MANITOBA, 1999-2013



\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

30

Figure 2.13 (next page) shows smoking prevalence by age group in Manitoba, from 1999-2013. During this time, smoking prevalence decreased in all age groups except those over 45, for whom smoking prevalence fluctuated near 15%. The largest decrease observed was among those aged 15-19 years, for whom prevalence decreased by more than half over this time period.



#### FIGURE 2.13: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, MANITOBA, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

#### **CIGARETTE CONSUMPTION**

Between 1999 and 2013, average daily cigarette consumption in Manitoba appeared to decrease slowly for the first decade before beginning to slowly increase after 2009 (Figure 2.14). Male smokers consumed more cigarettes per day than female smokers in all years, although the magnitude of sex differences varied by year and was very small in some cases.

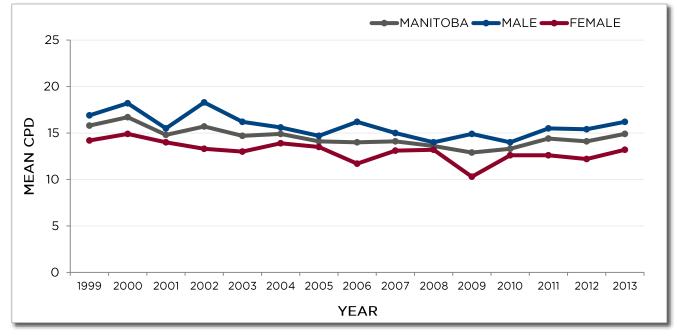


FIGURE 2.14: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, MANITOBA, 1999-2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **2.5 ONTARIO**

#### SMOKING PREVALENCE

In 2013, smoking prevalence in Ontario was 12.6%, below the national average of 14.6%.

Figure 2.15 (below) shows smoking prevalence, overall and by sex, in Ontario from 1999-2013. Overall prevalence appears to have decreased substantially during this time, although with little change in many of the years. Prevalence was greater among males than females in all years observed; however, the magnitude of this difference varied considerably from year to year, from similar rates to a difference of 10 percentage points.

## ONTARIO IN 2013

Smoking prevalence: 12.6% (1 412 000 smokers) » compared to 15.7% in 2012

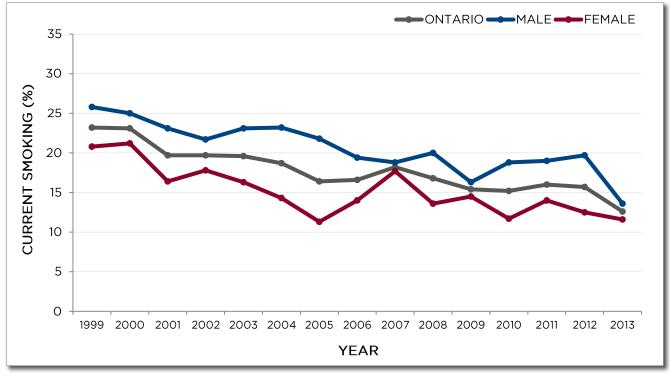
- Males: 13.6% (751 000 smokers)
- Females: 11.6% (662 000 smokers)

Average daily cigarette consumption: 13.0 CPD » compared to 15.8 CPD in 2012

- Males: 14.0 CPD
- Females: 11.9 CPD

Average price per carton<sup>v</sup> (200 cig): \$80.41

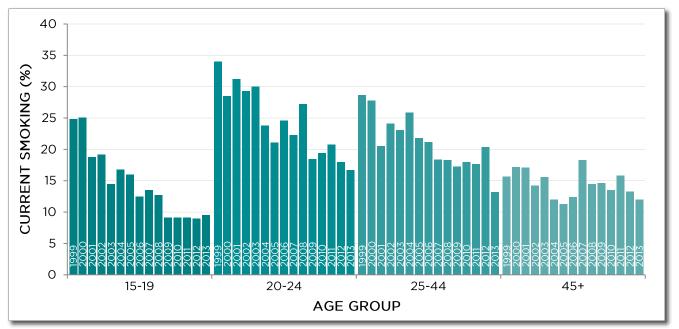
FIGURE 2.15: CURRENT SMOKING PREVALENCE\* BY SEX, ONTARIO, 1999-2013



\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

32

Figure 2.16 (next page) shows smoking prevalence by age group in Ontario, from 1999-2013. During this time period, smoking prevalence decreased substantially in all age groups except those over 45, for whom smoking prevalence fluctuated around 15%. This decrease was particularly large among those aged 15-19, for whom prevalence went from 1 in 4 to less than 1 in 10 in a decade, but has not changed in the past five years.



#### FIGURE 2.16: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, ONTARIO, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS

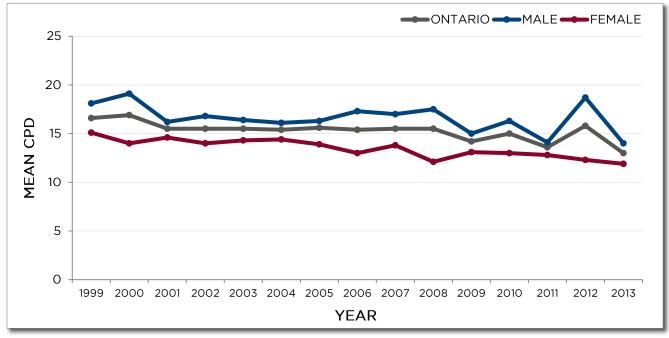
# CAUTION: THESE ESTIMATES DO NOT MEET STATISTICS CANADA'S QUALITY STANDARDS. CONCLUSIONS BASED ON THESE DATA WILL BE UNRELIABLE, AND MOST LIKELY INVALID.

DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

#### **CIGARETTE CONSUMPTION**

Between 1999 and 2013, average daily cigarette consumption in Ontario remained fairly stable and even appeared to decline slightly (Figure 2.17). Cigarette consumption was higher among males in all years, although the magnitude of this difference varied from year to year.

FIGURE 2.17: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, ONTARIO, 1999-2013



\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **2.6 QUEBEC**

#### SMOKING PREVALENCE

In 2013, smoking prevalence in Quebec was 17.1%, above the national average of 14.6%.

Figure 2.18 (below) shows smoking prevalence, overall and by sex, in Quebec from 1999-2013. During this time, prevalence appeared to decline fairly steadily, and more steeply than in other provinces, although recent years have seen less progress. Prevalence was similar among males and females in many years, although males had higher smoking rates in some instances, particularly in recent years.

## QUEBEC IN 2013

Smoking prevalence: 17.1% (1 144 000 smokers) » compared to 17.1% in 2012

- Males: 17.9% (595 000 smokers)
- Females: 16.3% (549 000 smokers)

Average daily cigarette consumption: 15.6 CPD » compared to 15.7 CPD in 2012

- Males: 16.5 CPD
- Females: 14.5 CPD

Average price per carton<sup>v</sup> (200 cig): \$76.95

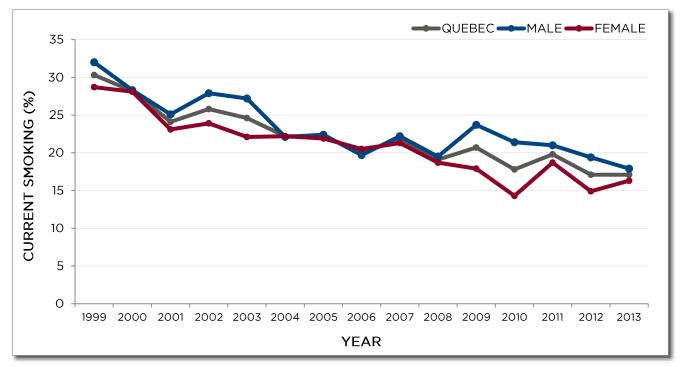
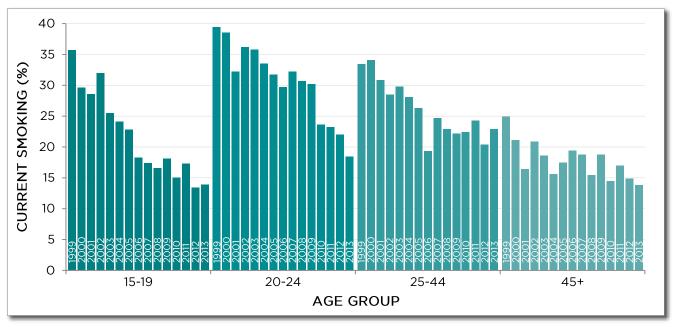


FIGURE 2.18: CURRENT SMOKING PREVALENCE\* BY SEX, QUEBEC, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

34

Figure 2.19 (next page) shows smoking prevalence by age group in Quebec, from 1999-2013. Smoking prevalence decreased in all age groups during this time; most notably, prevalence among 15- to 19-year-olds and 20- to 24-year olds decreased by more than half.



#### FIGURE 2.19: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, QUEBEC, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **CIGARETTE CONSUMPTION**

Between 1999 and 2013, average daily cigarette consumption in Quebec decreased by more than 3 cigarettes per day, although there has been little change in the past decade (Figure 2.20). During this time period, male smokers generally consumed 2-4 cigarettes more per day than female smokers.

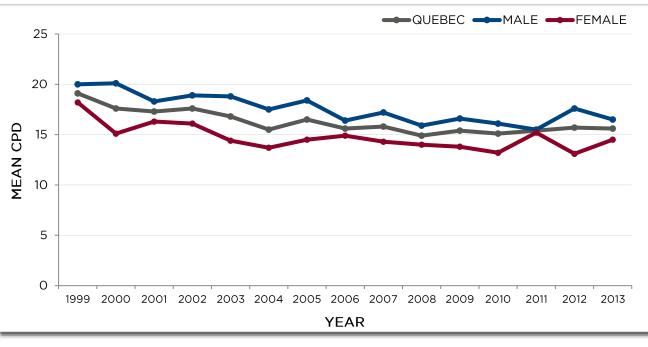


FIGURE 2.20: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, QUEBEC, 1999-2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **2.7 NEW BRUNSWICK**

## SMOKING PREVALENCE

In 2013, smoking prevalence in New Brunswick was 19.6%, well above the national average of 14.6%.

Figure 2.21 (below) shows smoking prevalence, overall and by sex, in New Brunswick from 1999-2013. During this time, although prevalence fluctuated, it appears to have decreased overall. Prevalence was greater among males than females in all years, although there was some variation from year to year in the magnitude of this difference.

## **NEW BRUNSWICK IN 2013**

Smoking prevalence: 19.6% (124 000 smokers) » compared to 17.3% in 2012

- Males: 24.1% (74 000 smokers)
- Females: 15.3% (50 000 smokers)

Average daily cigarette consumption: 14.3 CPD » compared to 15.2 CPD in 2012

- Males: 16.2 CPD
- Females: 11.3 CPD

Average price per carton<sup>v</sup> (200 cig): \$84.09

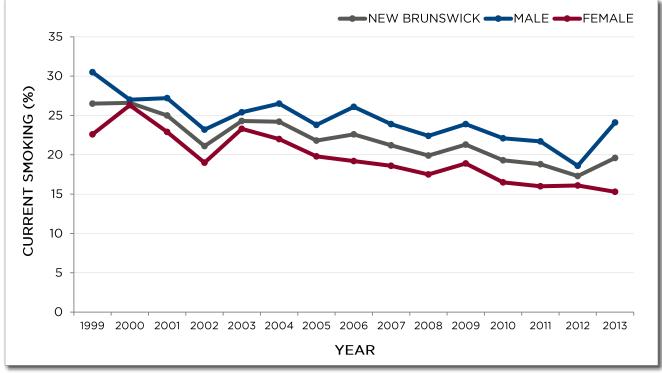
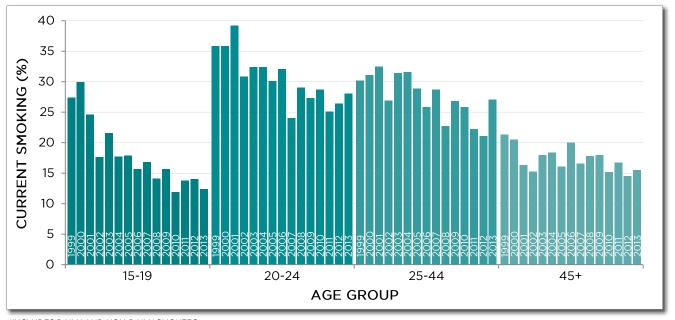


FIGURE 2.21: CURRENT SMOKING PREVALENCE\* BY SEX, NEW BRUNSWICK, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

36

Figure 2.22 (next page) shows smoking prevalence by age group in New Brunswick, from 1999-2013. During this time period, smoking prevalence decreased in all age groups; the largest decrease was among those aged 15-19, whose smoking rate was halved. Smoking estimates among all other groups appear to have increased in 2013, although it is not clear whether this is yearly fluctuation or the beginning of an upward trend.



#### FIGURE 2.22: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, NEW BRUNSWICK, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **CIGARETTE CONSUMPTION**

Average daily cigarette consumption in New Brunswick appears to have decreased between 1999 and 2006, and then fluctuated around that level since, although recent years appear to show a more consistent downward trend (Figure 2.23). Male smokers consumed considerably more cigarettes per day than female smokers in all years.

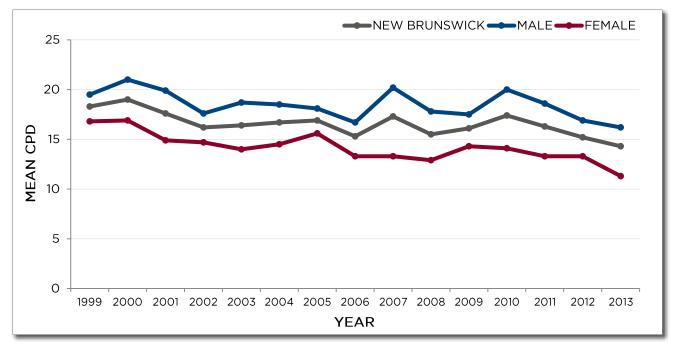


FIGURE 2.23: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, NEW BRUNSWICK, 1999-2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013 I: ADULTS SMOKING IN THE PROVINCES

## 2.8 NOVA SCOTIA

## SMOKING PREVALENCE

In 2013, smoking prevalence in Nova Scotia was 19.4%, well above the national average of 14.6%.

Figure 2.24 (below) shows smoking prevalence, overall and by sex, in Nova Scotia from 1999-2013. Prevalence decreased fairly sharply for the first five years, before reaching a plateau, and then again decreasing. However, prevalence appears to have increased in 2013. Prevalence was greater among males than females in all years observed, although only slightly in several instances.

## NOVA SCOTIA IN 2013

Smoking prevalence: 19.4% (154 000 smokers) » compared to 15.6% in 2012

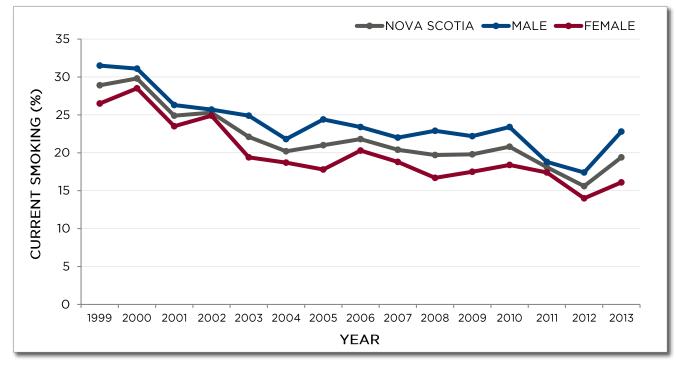
- Males: 22.8% (87 000 smokers)
- Females: 16.1% (67 000 smokers)

Average daily cigarette consumption: 14.0 CPD » compared to 13.8 CPD in 2012

- Males: 15.7 CPD
- Females: 12.0 CPD

Average price per carton<sup>v</sup> (200 cig): \$107.40

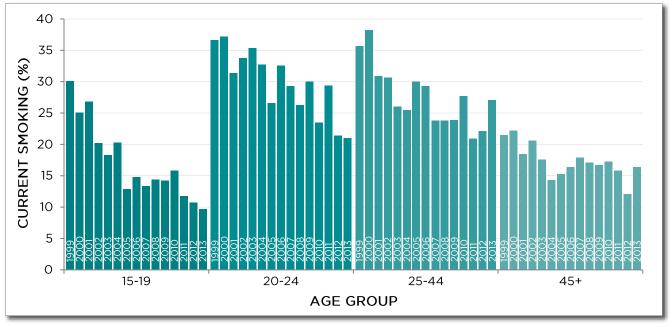




\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

38

Figure 2.25 (next page) shows smoking prevalence by age group in Nova Scotia, from 1999-2013. During this time period, smoking prevalence decreased substantially, although not steadily, in all age groups. The largest decrease observed was among those aged 15-19, for whom smoking was reduced to one third of the 1999 level. There appear to have been increases in prevalence among the older age groups in 2013.



#### FIGURE 2.25: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, NOVA SCOTIA, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **CIGARETTE CONSUMPTION**

Between 1999 and 2013, average daily cigarette consumption in Nova Scotia appears to have decreased overall, although little change has been observed over the past decade (Figure 2.26). Male smokers consumed more cigarettes per day than female smokers in all years, with some variation in magnitude.

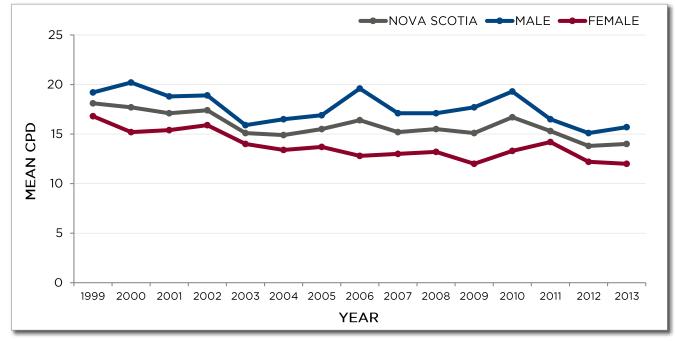


FIGURE 2.26: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, NOVA SCOTIA, 1999-2013

\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## 2.9 PRINCE EDWARD ISLAND

## SMOKING PREVALENCE

In 2013, smoking prevalence in Prince Edward Island was 17.3%, above the national average of 14.6%.

Figure 2.27 (below) shows smoking prevalence, overall and by sex, in Prince Edward Island from 1999-2013. Prevalence appeared to decrease slowly but steadily until 2010, fluctuating around that level since. Throughout this time period, prevalence was consistently higher among males than females.

## **PRINCE EDWARD ISLAND IN 2013**

Smoking prevalence: 17.3% (21 000 smokers) » compared to 15.2% in 2012

- Males: 19.0% (11 000 smokers)
- Females: 15.7% (10 000 smokers)

Average daily cigarette consumption: 14.6 CPD » compared to 15.6 CPD in 2012

- Males: 17.0 CPD
- Females: 12.1 CPD

Average price per carton<sup>v</sup> (200 cig): \$102.73

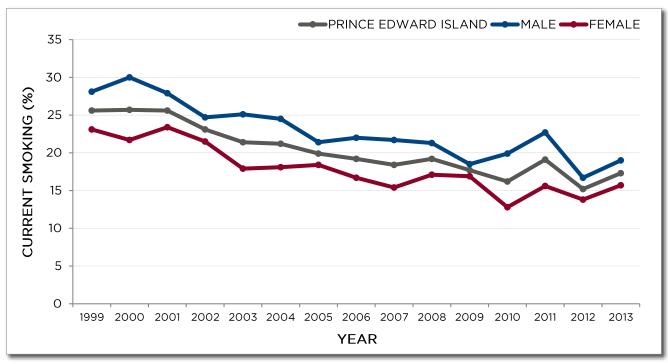


FIGURE 2.27: CURRENT SMOKING PREVALENCE\* BY SEX, PRINCE EDWARD ISLAND, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

40

Figure 2.28 (next page) shows smoking prevalence by age group in Prince Edward Island, from 1999-2013. During this time period, smoking prevalence decreased in all age groups. The largest decrease observed was among those aged 15-19, whose smoking rate dropped to less than half of the 1999 level. Prevalence estimates appeared to increase in 2013 within most age groups, but it is not clear whether this is just fluctuation or the beginning of a trend.

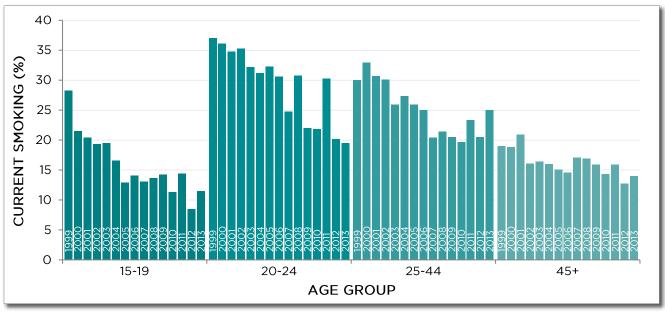


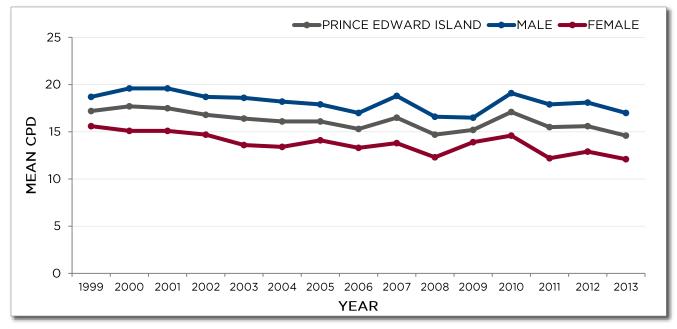
FIGURE 2.28: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, PRINCE EDWARD ISLAND, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **CIGARETTE CONSUMPTION**

Average daily cigarette consumption in Prince Edward Island appears to have decreased fairly steadily from 1999 to 2006, and fluctuated around 15 CPD since then (Figure 2.29). Male smokers consistently consumed roughly 3-5 more cigarettes per day than female smokers.

FIGURE 2.29: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, PRINCE EDWARD ISLAND, 1999-2013



\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## 2.10 NEWFOUNDLAND & LABRADOR

## SMOKING PREVALENCE

In 2013, smoking prevalence in Newfoundland & Labrador was 19.5%, well above the national average of 14.6%, and the highest among all provinces.

Figure 2.30 (below) shows smoking prevalence, overall and by sex, in Newfoundland and Labrador from 1999-2013. Overall prevalence declined fairly steeply and steadily until 2005, and has fluctuated around the 20% level since then. Prevalence was higher among males than females in most years, although the difference varied from year to year. Prevalence was similar among males and females in 2013.

## NEWFOUNDLAND & LABRADOR IN 2013

Smoking prevalence: 19.5% (84 000 smokers) » compared to 19.7% in 2012

- Males: 19.0% (40 000 smokers)
- Females: 19.9% (44 000 smokers)

Average daily cigarette consumption: 13.1 CPD » compared to 15.2 CPD in 2012

- Males: 15.1 CPD
- Females: 11.2 CPD

Average price per carton<sup>v</sup> (200 cig): \$97.07

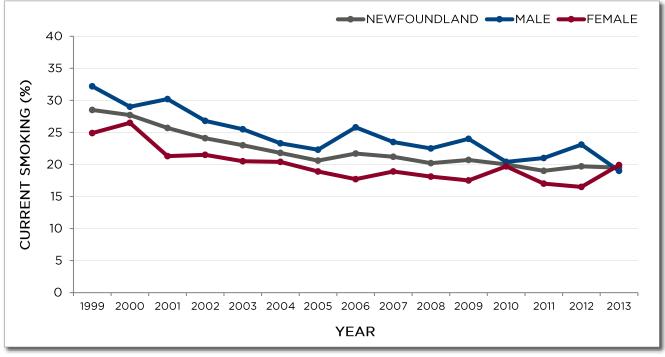


FIGURE 2.30: CURRENT SMOKING PREVALENCE\* BY SEX, NEWFOUNDLAND & LABRADOR, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

42

Figure 2.31 (next page) shows smoking prevalence by age group in Newfoundland & Labrador, from 1999-2013. During this time period, smoking prevalence decreased in all age groups, although only slightly among those over 45. The largest decrease observed was among those aged 15-19, whose smoking rate dropped by more than half.

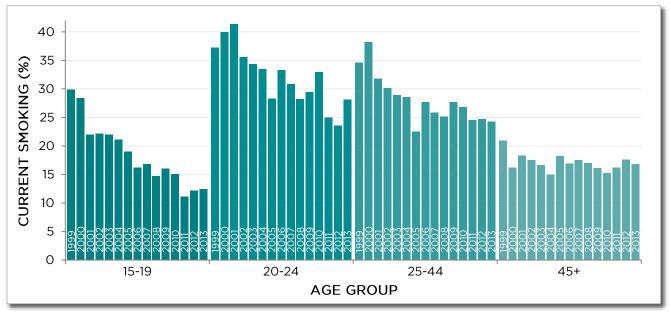


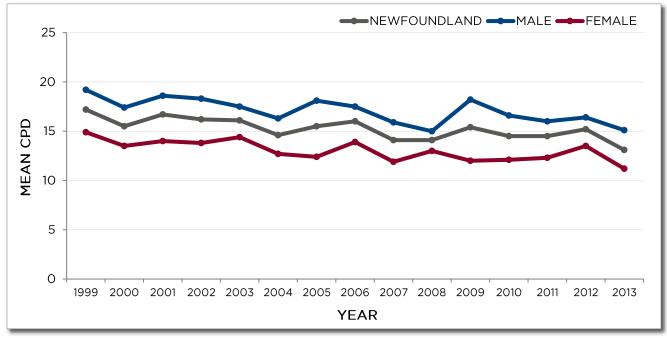
FIGURE 2.31: CURRENT SMOKING PREVALENCE\* BY AGE GROUP, NEWFOUNDLAND & LABRADOR, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **CIGARETTE CONSUMPTION**

Between 1999 and 2013, although average daily cigarette consumption in Newfoundland & Labrador appears to have decreased overall, there was little progress for much of the last decade (Figure 2.32). Male smokers consumed considerably more cigarettes per day than female smokers in all years.

FIGURE 2.32: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, NEWFOUNDLAND & LABRADOR, 1999-2013



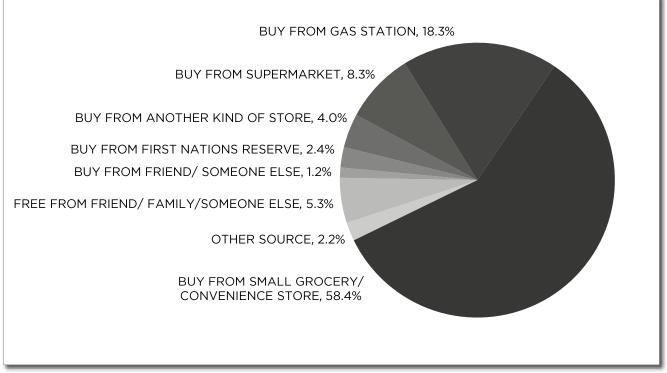
\*AMONG DAILY SMOKERS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **3. CIGARETTE SOURCES AND PURCHASING**

## **USUAL SOURCES OF CIGARETTES**

When smokers were asked where they usually got their cigarettes, nine out of ten purchased them for themselves, most often from a small grocery or convenience store or gas station (Figure 3.1). Only 2.4% of smokers stated their usual source of cigarettes as a First Nations reserve (either on-site or delivery service), and 2.2% cited "other" sources. The remaining 6.5% usually got cigarettes through social sources.

FIGURE 3.1: PERCENTAGE OF SMOKERS WHO USUALLY GOT CIGARETTES FROM VARIOUS SOURCES, 2013



DATA SOURCE: CTADS, 2013

## CONTRABAND AND CHEAPER CIGARETTES

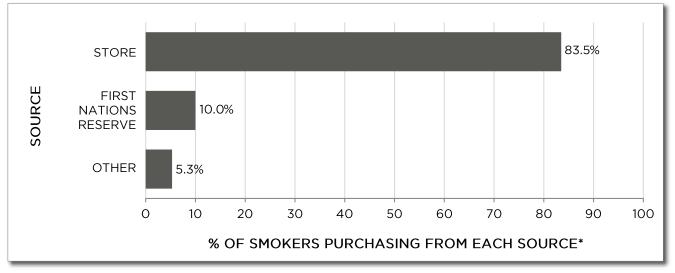
Smokers are price-sensitive, and may seek ways to purchase cheaper cigarettes, particularly as tobacco taxes increase the overall price of cigarettes. One such source is purchasing contraband cigarettes. Contraband is "any tobacco product that does not comply with the provisions of all applicable federal and provincial statutes. This includes importation, stamping, marking, manufacturing, distributing and payment of duties and taxes."<sup>vi, p.12</sup> The RCMP has identified the trade in contraband as a "serious threat to public safety and health."<sup>vi, p. 15</sup> The federal government has recently made contraband a priority issue for tobacco control in Canada, with a \$91.7-million increase in funding to the RCMP over 5 years in the 2014 budget, and the passing of Bill C-10, the *Tackling Contraband Tobacco Act*, which received Royal Assent on November 6, 2014 but has not yet been proclaimed. Provincial governments in Ontario and Quebec also included additional funding for anti-contraband measures in their budgets in 2014.<sup>vii</sup>

Some of the sources of purchase reported below may include contraband, where appropriate taxation has been evaded, while others represent the efforts of smokers to legally obtain cheaper cigarettes.

## **PURCHASING CIGARETTES – SOURCES**

Smokers were asked about various sources of purchase used in the past 6 months (Figure 3.2), and also about the proportion of their cigarettes purchased from each of the sources they had utilized.

FIGURE 3.2: PERCENTAGE OF SMOKERS WHO HAD PURCHASED (ANY) CIGARETTES FROM VARIOUS SOURCES IN THE PAST 6 MONTHS, 2013



\*NOTES: SMOKERS COULD INDICATE MULTIPLE SOURCES, SO THESE ESTIMATES SHOULD NOT BE ADDED. SMUGGLED CIGARETTES WERE ASKED AS A SEPARATE CATEGORY, BUT DATA ARE NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR. DATA SOURCE: CTADS, 2013

#### **Purchasing from Stores**

The majority of smokers reported having purchased from a store or gas station (not on a First Nations Reserve) in the past 6 months. Of those who purchased from a store, most (87.4%) purchased <u>all</u> of their cigarettes from a store.

#### **Purchasing from First Nations**

Of the 10.0% of smokers who reported purchasing on a reserve, 54.7% reported purchasing at least half of their cigarettes from a reserve, 24.1% purchasing <u>all</u> of their cigarettes there.

#### **Purchasing from Other Sources**

Of the 5.3% of smokers who reported purchasing from an "other" source, 45.2% reported purchasing at least half of their cigarettes from an other source, but relatively few purchased <u>all</u> of their cigarettes from that source.

## **Purchasing Smuggled Cigarettes**

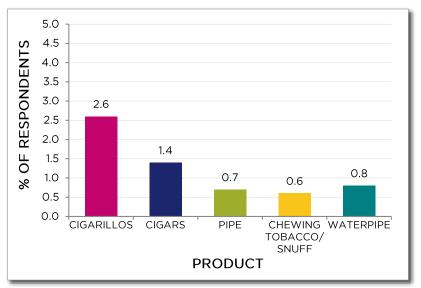
While CTADS asks about purchasing of smuggled cigarettes, defined as "purchased cigarettes that were not manufactured on a First Nations Reserve, were not manufactured in Canada, do not contain a government of Canada Health Warning message and do not carry a tax stamp. Legally imported cigarettes are not smuggled cigarettes", numbers were too low to report on their own.

## 4. USE OF OTHER TOBACCO PRODUCTS IN CANADA

Cigarillos (little cigars) were the most popular tobacco product other than cigarettes, with 2.6% of Canadians reporting use in the past 30 days (Figure 4.1). Cigar use was reported by 1.4% of respondents. Waterpipe (also called hookah or shisha) use was reported by 0.8%. Pipe and chewing tobacco/snuff were less common. used by 0.7% and 0.6% of respondents, respectively (Figure 4.1).

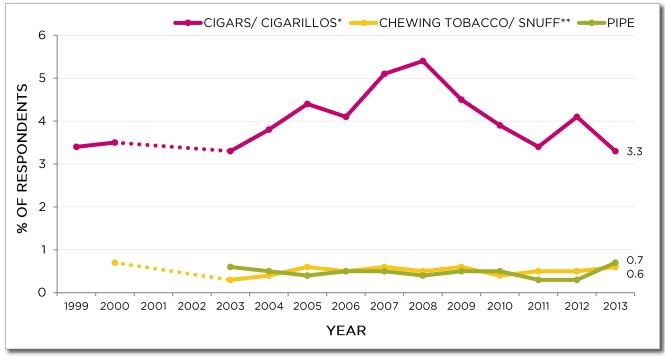
After regular increases between 1999 and 2008, use of cigars/cigarillos appears to have declined until the most recent years. Use of chewing tobacco/ snuff and smoking a pipe have both remained fairly low and stable over time (Figure 4.2).

#### FIGURE 4.1: PREVALENCE OF USE IN THE PAST 30 DAYS FOR VARIOUS TOBACCO PRODUCTS, 2013



DATA SOURCE: CTADS, 2013

#### FIGURE 4.2: PREVALENCE OF USE IN THE PAST 30 DAYS FOR VARIOUS TOBACCO PRODUCTS. 1999-2013



\*PRIOR TO 2007, CIGARS AND CIGARILLOS WERE GROUPED TOGETHER IN A SINGLE QUESTIONNAIRE ITEM; FROM 2007-2013 THEY WERE ASKED AS TWO

SEPARATE ITEMS AND COMBINED IN THE ANALYSIS \*\*IN 2000, CHEWING TOBACCO AND PINCH/SNUFF WERE ASKED AS SEPARATE QUESTIONNAIRE ITEMS AND COMBINED IN THE ANALYSIS; IN 2003-2013 THEY WERE GROUPED TOGETHER IN A SINGLE ITEM

DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## DEMOGRAPHIC PATTERNS IN OTHER TOBACCO USE

#### Other Tobacco Use by Sex

For most tobacco products, prevalence of use was significantly higher among males than females.<sup>33-36</sup> For example, in 2013, while nearly 5% of males had smoked a cigarillo in the last 30 days, just 0.6% of females had done so (Figure 4.3).

Prevalence of waterpipe use, however, was the same for males and females.<sup>37</sup>

Over time, the use of cigars/cigarillos has changed in parallel for both males and females; gender differences have persisted over time (Figure 4.4).

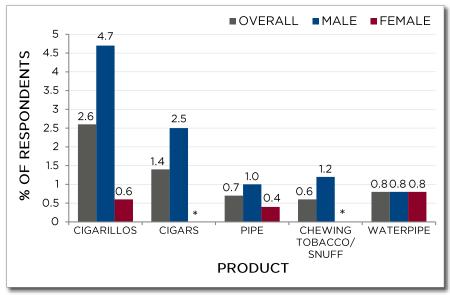


FIGURE 4.3: PREVALENCE OF USE IN THE PAST 30 DAYS FOR

VARIOUS TOBACCO PRODUCTS, BY SEX, 2013

\*DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR DATA SOURCE: CTADS, 2013

## MALE — FEMALE 14 12 **OF RESPONDENTS** 10 8 6 59 4 % 2 0.8 0 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 YEAR

FIGURE 4.4: PREVALENCE OF USE IN THE PAST 30 DAYS FOR CIGARS/CIGARILLOS\*, BY SEX, 1999-2013

\*PRIOR TO 2007, CIGARS AND CIGARILLOS WERE GROUPED TOGETHER IN A SINGLE QUESTIONNAIRE ITEM; FROM 2007-2013 THEY WERE ASKED AS TWO SEPARATE ITEMS AND COMBINED IN THE ANALYSIS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## Other Tobacco Use by Age

In 2013, use of other tobacco products varied significantly by age group $^{38-42}$  (Figure 4.5).

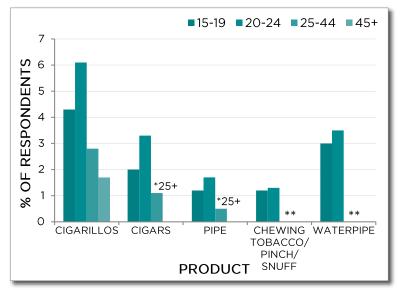
Young adults aged 20-24 reported the highest prevalence of use of other tobacco products, followed by youth aged 15-19. After young adulthood, prevalence of use appears to decrease for all products (Figure 4.5).

Between 1999 and 2013, this pattern of high use among the younger age groups, declining with increasing age, applied to cigar/cigarillo use in almost all years with available data (Figure 4.6).

In addition, the difference in prevalence between younger and older age groups appeared to grow over time, especially for the 20-24 age group, although this gap seems to have narrowed again in the most recent years. Use of cigars/cigarillos appears to have increased over time in all groups until 2008, after which rates of use decreased in some groups.

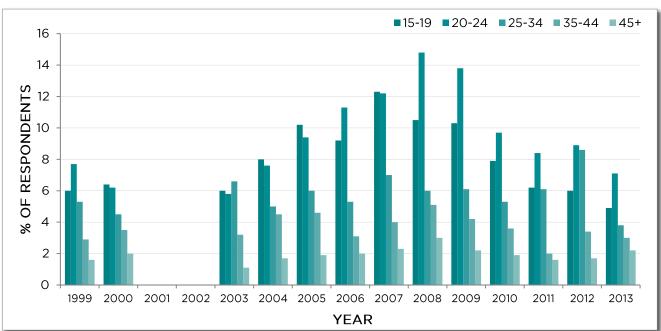
48

#### FIGURE 4.5: PREVALENCE OF USE IN THE PAST 30 DAYS FOR VARIOUS TOBACCO PRODUCTS, BY AGE GROUP, 2013



\*AGE GROUPS OVER 25 HAVE BEEN COMBINED DUE TO LOW NUMBERS \*\*DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR DATA SOURCE: CTADS, 2013

FIGURE 4.6: PREVALENCE OF USE IN THE PAST 30 DAYS FOR CIGARS/CIGARILLOS\*, BY AGE GROUP, 1999-2013



\*PRIOR TO 2007, CIGARS AND CIGARILLOS WERE GROUPED TOGETHER IN A SINGLE QUESTIONNAIRE ITEM; FROM 2007-2013, THEY WERE ASKED AS TWO SEPARATE ITEMS AND COMBINED IN THE ANALYSIS DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## Other Tobacco Use by Province

Prevalence of use of cigars/cigarillos varied significantly by province,<sup>43</sup> from 1.4% in Newfoundland to 4.6% in Alberta in 2013 (Table 4.1). While estimates of use have varied over time, increasing for a number of years before the trend reversed around 2008, prevalence of use of cigars/cigarillos in 2013 was similar to 1999 levels in many provinces.

YEAR	99	'00	ʻ01	'02	'03	'04	<b>'</b> 05	'06	2007 (cigar/ cigarillo)	2008 (cigar/ cigarillo)	<b>2009</b> (cigar/ cigarillo)	<b>2010</b> (cigar/ cigarillo)	<b>2011</b> (cigar/ cigarillo)	<b>2012</b> (cigar/ cigarillo)	<b>2013</b> (cigar/ cigarillo)
CANADA	3.4	3.5			3.3	3.9	4.4	4.1	<b>5.1</b> (2.2/4.1)	<b>5.4</b> (2.6/4.2)	<b>4.5</b> (1.6/3.7)	<b>3.9</b> (1.4/3.1)	<b>3.4</b> (1.3/2.6)	<b>4.1</b> (1.6/3.1)	<b>3.3</b> (1.4/2.6)
BC	2.9	2.5			3.4	3.9	3.6	5.4	5.4 (2.2/4.6)	4.9 (2.3/3.9)	5.6	4.5 (1.9/3.6)	3.2	3.8	3.3 (!/3.1)
AB	4.1	3.1			4.0	4.8	5.9	5.5	6.9 (3.7/5.5)	5.7 (2.1/4.6)	5.6 (2.4/4.1)	4.5 (1.8/3.5)	4.2 (1.4/3.4)	4.5 (2.2/3.3)	4.6
SK	3.2	3.0			4.1	4.1	4.5	4.6	5.6 (2.9/4.5)	6.1 (3.0/5.0)	6.2 (2.1/5.4)	4.7 (1.4/4.2)	3.8 (1.2/3.3)	5.2 (1.9/4.2)	2.9 (!/2.2)
MB	4.8	3.3			3.5	4.3	4.8	3.3	4.2 (2.2/3.1)	4.2 (2.0/3.0)	5.2 (1.9/4.0)	4.7 (1.6/3.9)	4.0 (1.6/3.5)	2.8 (0.8/2.4)	3.6 (!/3.1)
ON	3.4	3.8			2.4	3.8	3.9		3.5 (2.0/2.4)	4.8	3.1	2.6 (!/2.0)	2.5 (!/2.1)	4.5 (1.8/3.5)	2.9 (!/2.2)
PQ	3.5	3.8			4.2	3.4	5.2	4.6	6.5 (1.8/5.8)	6.5 (3.0/5.1)	5.3 (1.3/4.5)	5.0 (1.4/4.2)	4.3 (1.5/3.3)	3.5 (1.5/2.4)	3.8 (!/2.8)
NB	3.2	3.3			3.8	4.1	5.1	4.9	6.8 (2.7/5.6)	7.7 (3.5/5.8)	4.7 (1.1/4.1)	5.0 (2.0/3.6)	4.2 (2.2/2.8)	3.9 (1.8/3.0)	2.7 (!/2.2)
NS	3.5	3.0			4.2	3.9	4.5	4.7	5.8 (2.5/4.7)	5.9 (2.4/4.8)	5.3 (2.4/4.0)	4.9 (2.0/3.9)	3.2 (1.8/1.9)	3.6 (1.2/3.0)	2.3 (!/1.7)
PEI	2.4	3.1			3.0	2.4	3.8	4.1	3.9 (1.7/3.5)	4.5 (1.5/3.9)	3.8 (1.4/2.9)	3.5 (1.9/2.5)	2.2 (0.8/1.7)	2.5 (!/1.8)	2.3 (!/2.1)
NL	2.8	1.3			2.0	3.4	3.0	3.9	4.6 (1.9/3.8)	5.4 (1.7/4.3)	4.2 (!/4.0)	3.2 (!/2.7)	2.8 (!/2.1)	2.9 (!/2.4)	1.4 (!/!)

\*PRIOR TO 2007, CIGARS AND CIGARILLOS WERE GROUPED TOGETHER IN A SINGLE QUESTIONNAIRE ITEM; FROM 2007-2013 THEY WERE ASKED AS TWO SEPARATE ITEMS AND COMBINED IN THE ANALYSIS ! DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR

DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENO DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

The prevalence estimates for chewing tobacco/pinch/snuff, pipe, and waterpipe use in the past 30 days were not reportable by province.

## FLAVOURED TOBACCO PRODUCTS

In 2010, federal legislation came into effect which banned flavours (except menthol) in cigarettes, little cigars/cigarillos (containing 1.4g of tobacco or less), and blunt wraps.<sup>viii</sup> However, other flavoured tobacco products remain on the market. Users of non-cigarette tobacco products were asked if any of the products they had used in the last 30 days were flavoured. Overall, 58.0% of those who had used any non-cigarette tobacco products in the last 30 days had used a flavoured product. However, this varied by product: flavoured cigarillos were used by 64.5% of cigarillo users, flavoured cigars by 18.6% of cigar users, flavoured chewing tobacco/pinch/snuff by 64.0% of smokeless users, and flavoured waterpipe tobacco by 73.2% of waterpipe users.

## 5. SECONDHAND SMOKE EXPOSURE

## **SMOKING IN THE HOME**

One in five respondents (21.3%) reported that at least one person in their household was a cigarette smoker. However, the vast majority of respondents (93.8%) reported that no one smoked inside their home on a daily or almost daily basis; 6.2% reported that someone smoked inside their home every day or almost every day (4.1% reported one person; 1.7% reported two; 0.5% reported three or more).

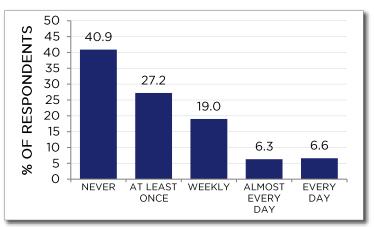
## Household smoking restrictions

In homes where no one smoked daily, 5% of respondents said that smoking was allowed inside their home. Respondents who reported smoking in the home (someone smoked daily inside their home or smoking was allowed in their home) were asked whether smoking was restricted in any way; nearly half (48.1%) said that there was some restriction on smoking inside their home. When asked what those restrictions were, 63.3% reported that smoking was allowed only in certain rooms, 55.0% reported that smoking was allowed if windows were open (or other ventilation), 35.3% said smoking was not allowed in the presence of young children, and 16.2% reported other restrictions.

## EXPOSURE TO SECONDHAND SMOKE

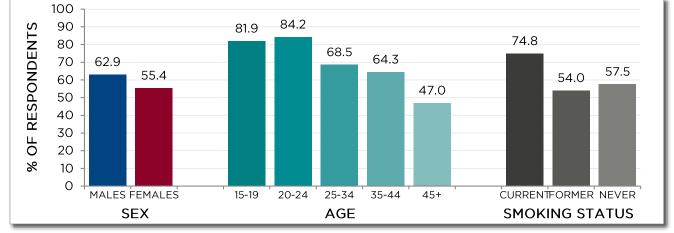
Not including their own smoking, six out of ten respondents (59.1%) reported being exposed to secondhand smoke (SHS) sometime in the past month, including 12.9% who reported being exposed either every day or almost every day (Figure 5.1).

Reporting any SHS exposure in the past month varied significantly by age,<sup>44</sup> sex,<sup>45</sup> and smoking status.<sup>46</sup> As shown in Figure 5.2, SHS exposure was more prevalent among males (compared to females), youth and young adults (compared to older age groups), and current smokers (compared to former and never smokers). FIGURE 5.1: FREQUENCY OF EXPOSURE TO SECONDHAND SMOKE IN THE PAST MONTH, 2013



DATA SOURCE: CTADS, 2013

#### FIGURE 5.2: ANY EXPOSURE TO SECONDHAND SMOKE IN THE PAST MONTH, 2013



DATA SOURCE: CTADS, 2013

# SECTION II: QUITTING SMOKING



# HIGHLIGHTS

The majority (64%) of Canadians who have ever been smokers have now quit. (page 52)

Nearly two-thirds (64%) of smokers were seriously considering quitting in the next 6 months; three in ten (31%) were considering quitting in the next month. (p. 55)

- More males than females were seriously considering quitting smoking in the next 6 months and in the next 30 days. (p. 56)
- Intentions to quit did not differ significantly by age group; the majority of smokers in all age groups were considering quitting. (p. 57)

#### Half of smokers tried to quit in the past year. One-third had tried more than once. (p. 58)

- A greater percentage of males had made a quit attempt, compared to females. (p. 59)
- Quit attempts varied by age group. The percentage of smokers who had tried to quit was highest among young smokers, and appeared to decline with age. (p. 60)

Among respondents who had made a quit attempt in the past year, 11% were still abstinent from smoking at the time they were surveyed. (p. 61)

Approximately 6% of current and former smokers who tried to quit in the past year used a telephone quitline for assistance. (p. 64)

The most recent data available for other forms of cessation assistance (from 2012) indicated that stop-smoking medications were used by nearly half (44%) of those who attempted to quit, while other forms of assistance were less popular. (p. 64)

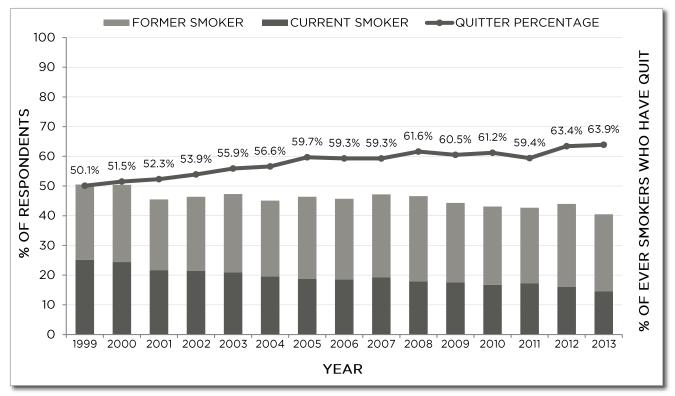
Three-quarters of recent quitters cited health as their main reason for quitting smoking. (p. 66)

## **6. QUITTING BEHAVIOURS AND OUTCOMES**

## **6.1 QUITTER PERCENTAGE**

The majority (64%) of Canadians who have ever been smokers have now quit. Figure 6.1 (below) shows the percentage of respondents who have ever smoked, including both current and former smokers, as well as quitter percentage (the percentage of ever smokers who were former smokers at the time of survey) over time. Quitter percentage increased between 1999 and 2005, and then remained around 60% for a number of years, but appears to be increasing again in the most recent years.

**FIGURE 6.1**: PERCENTAGE OF RESPONDENTS WHO HAVE EVER SMOKED (CURRENT AND FORMER SMOKERS), AND QUITTER PERCENTAGE\*, 1999-2013



\*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## 7.5 million Canadians are former smokers.

52

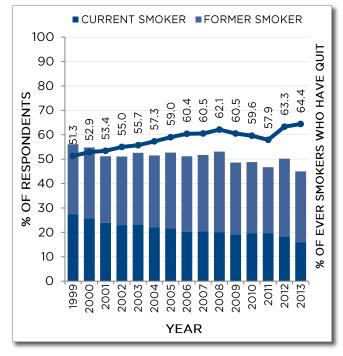
### **Quitter Percentage by Sex**

In 2013, males and females had similar quitter percentages,<sup>47</sup> at 64.4% and 63.2%, respectively. However, a greater percentage of males had ever smoked,<sup>48</sup> and were current smokers<sup>49</sup> (Figure 6.2).

Since 1999, similar patterns have been observed; while male smoking rates (both current and ever) were higher, similar percentages of both male and female ever-smokers had quit (Figure 6.3; Figure 6.4).

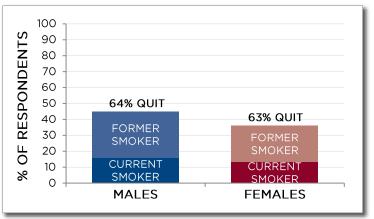
Among males, quitter percentage rose steadily until the mid-2000s, but then changed very little until the most recent couple of years, which may signal another increase (Figure 6.3). Quitter percentage among females appears to have risen fairly steadily since 1999 (Figure 6.4).

FIGURE 6.3: PERCENTAGE OF MALES WHO HAVE EVER SMOKED (CURRENT AND FORMER SMOKERS), AND QUITTER PERCENTAGE\*, 1999-2013



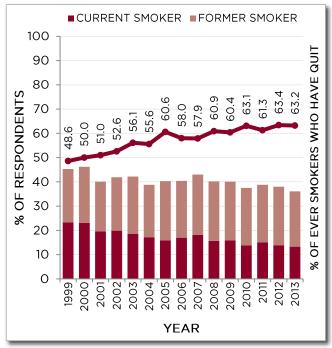
\*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

FIGURE 6.2: PERCENTAGE OF RESPONDENTS WHO HAVE EVER SMOKED (CURRENT AND FORMER SMOKERS), AND QUITTER PERCENTAGE\*, BY SEX, 2013



\*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY. DATA SOURCE: CTADS, 2013

FIGURE 6.4: PERCENTAGE OF FEMALES WHO HAVE ), EVER SMOKED (CURRENT AND FORMER SMOKERS), AND QUITTER PERCENTAGE\*, 1999-2013



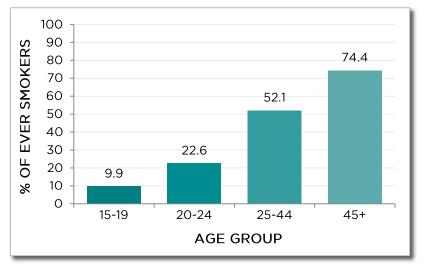
\*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## Quitter Percentage by Age

Quitter percentage varied significantly by age group,<sup>50</sup> increasing dramatically with increasing age, as expected given that older smokers have had more years to become former smokers. In 2013, while one in ten eversmokers aged 15-19 were former smokers when surveyed, threequarters of ever-smokers over age 45 had quit (Figure 6.5).

The same pattern of increasing quitter percentage with age was observed in all years since 1999 (Figure 6.6). Between 1999 and 2013, quitter percentages appear to have generally increased among smokers over age 25. Quitter percentages were lower and more variable among younger smokers.

54



## FIGURE 6.5: QUITTER PERCENTAGE AMONG EVER SMOKERS\*, BY AGE GROUP, 2013

\*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY. DATA SOURCE: CTADS, 2013

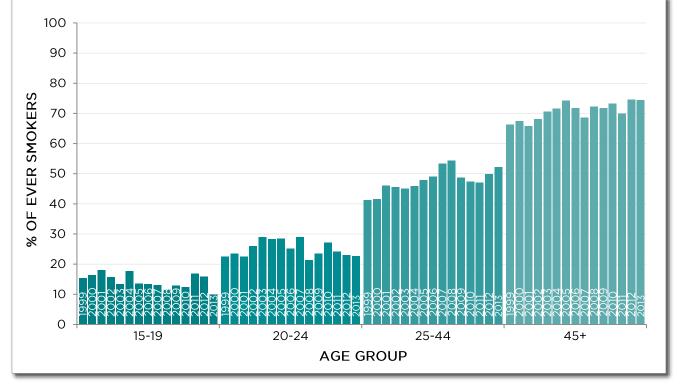


FIGURE 6.6: QUITTER PERCENTAGE AMONG EVER SMOKERS\*, BY AGE GROUP, 1999-2013

\*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

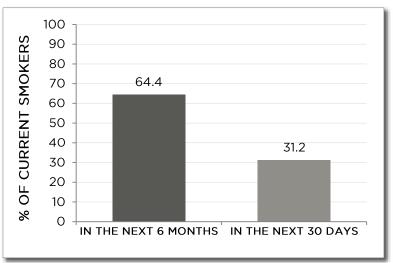
## **6.2 QUIT INTENTIONS**

In 2013, the majority (64.4%) of smokers were seriously considering quitting in the next 6 months (Figure 6.7). Of those, half (49.7%) were considering quitting within the next 30 days, which was equivalent to 31.2% of all current smokers.

Between 2012 and 2013, there was no significant change in the percentage of smokers seriously considering quitting, either in the next 6 months<sup>51</sup> or in the next 30 days.<sup>52</sup>

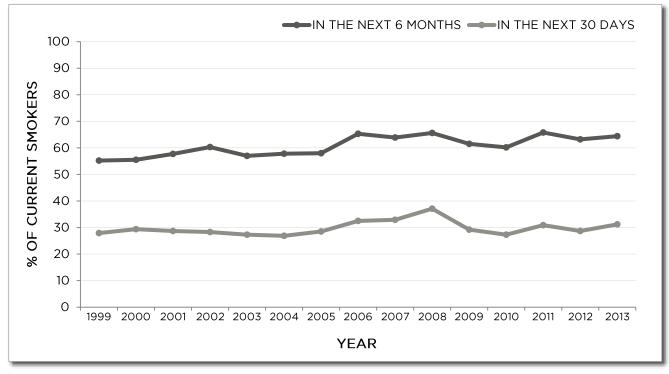
Between 1999 and 2013, the percentage of smokers seriously considering quitting in the next 6 months appears to have increased slightly. Although the pattern of variation over time was similar for the percentage seriously considering quitting in the next 30 days, there was little net change (Figure 6.8).

#### FIGURE 6.7: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, 2013



DATA SOURCE: CTADS, 2013

FIGURE 6.8: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, 1999\*-2013

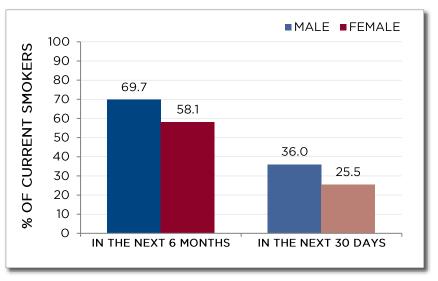


\*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## Quit Intentions by Sex

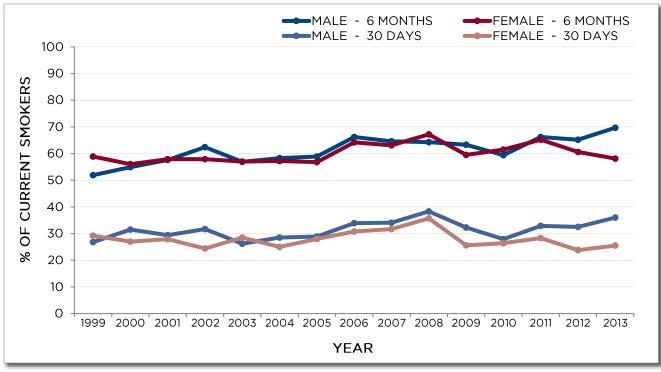
In 2013, more males than females were seriously considering quitting in the next 6 months<sup>53</sup> and in the next 30 days<sup>54</sup> (Figure 6.9).

Since 1999, the percentages of male and female smokers considering quitting have been similar in most years, although there appears to be some divergence in the most recent years, with more males considering quitting (Figure 6.10). FIGURE 6.9: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, BY SEX, 2013



DATA SOURCE: CTADS, 2013

FIGURE 6.10: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, BY SEX, 1999\*-2013



\*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

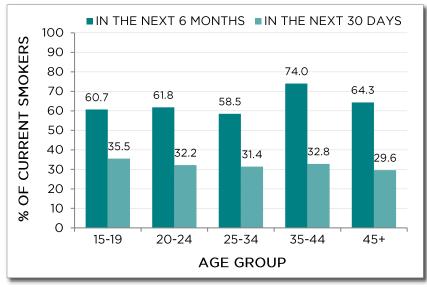
56

## Quit Intentions by Age

In 2013, the percentages of smokers considering quitting in the next 6 months and in the next 30 days did not differ significantly by age group<sup>55,56</sup> (Figure 6.11). Within each age group, roughly half of those seriously considering quitting in the next 6 months were also considering quitting in the next 30 days.

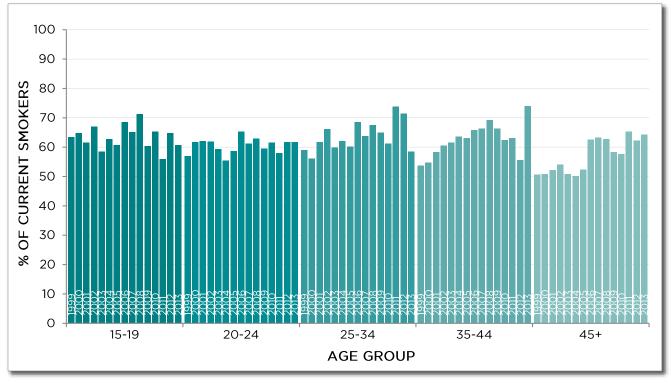
Over time, although no clear patterns emerged among younger smokers, the percentage of smokers over 25 seriously considering quitting in the next 6 months appeared to generally increase with time, particularly among the oldest age group (Figure 6.12).

#### FIGURE 6.11: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, BY AGE GROUP, 2013



DATA SOURCE: CTADS, 2013

FIGURE 6.12: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, BY AGE GROUP, 1999\*-2013



\*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

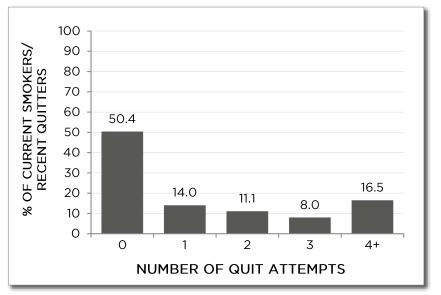
## 6.3 QUIT ATTEMPTS

In 2013, half (49.6%) of smokers and recent quitters had made at least one quit attempt in the past year, and more than one third had made multiple attempts (Figure 6.13).

There was no significant change between 2012 and 2013 in the percentage of smokers and recent quitters who had attempted to quit in the past 12 months.<sup>57</sup>

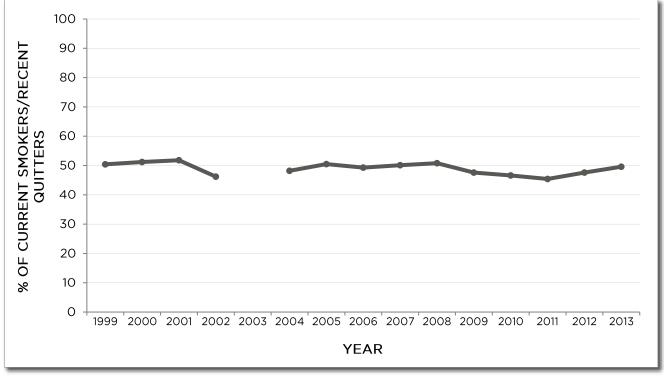
From 1999 to 2013, the percentage of smokers and recent quitters who had attempted to quit in the past 12 months appears to have remained stable, at around half (Figure 6.14).

## FIGURE 6.13: NUMBER OF QUIT ATTEMPTS MADE IN THE PAST 12 MONTHS BY SMOKERS AND RECENT QUITTERS\*, 2013



\*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS DATA SOURCE: CTADS, 2013

FIGURE 6.14: PERCENTAGE OF SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, 1999\*\*-2013

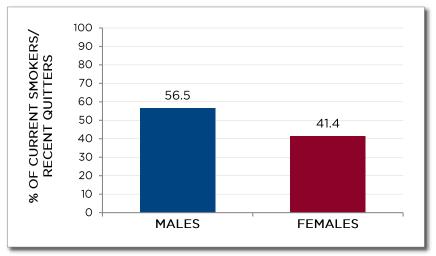


\*NOTE: IN 1999-2002, THIS QUESTION WAS ASKED OF CURRENT SMOKERS; 2003 (DATA NOT SHOWN) INCLUDED ONLY SMOKERS WHO HAD TRIED TO QUIT IN THE PAST 2 YEARS; 2004-2013 INCLUDED CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS. \*\*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

#### Quit Attempts by Sex

In 2013, a significantly greater percentage of males had made a quit attempt in the past year, compared to females<sup>58</sup> (Figure 6.15).

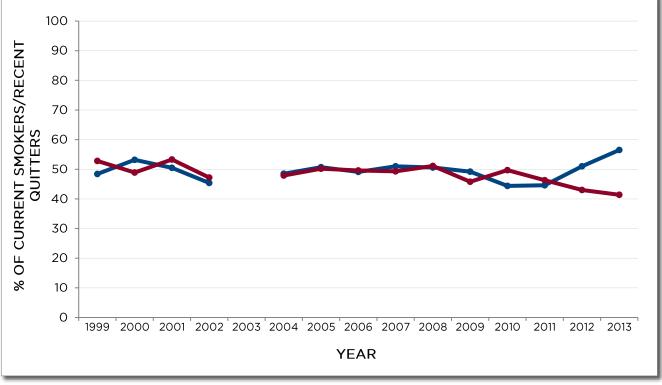
Between 1999 and 2013, the percentages of males and females who had made an attempt were similar in most years, although they appear to have diverged in the most recent years, with more males making quit attempts. (Figure 6.16).



#### FIGURE 6.15: PERCENTAGE OF SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY SEX, 2013

\*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS DATA SOURCE: CTADS, 2013

FIGURE 6.16: PERCENTAGE OF SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY SEX, 1999\*\*-2013



\*NOTE: IN 1999-2002, THIS QUESTION WAS ASKED OF CURRENT SMOKERS; 2003 (DATA NOT SHOWN) INCLUDED ONLY SMOKERS WHO HAD TRIED TO QUIT IN THE PAST 2 YEARS; 2004-2013 INCLUDED CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS. \*\*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS.

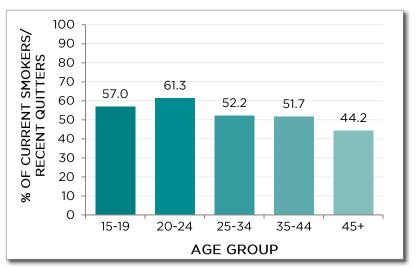
DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## Quit Attempts by Age

Quit attempts varied significantly by age group in 2013.<sup>59</sup> More young smokers had made a quit attempt in the past year, and the percentage making quit attempts appeared to decrease with age (Figure 6.17).

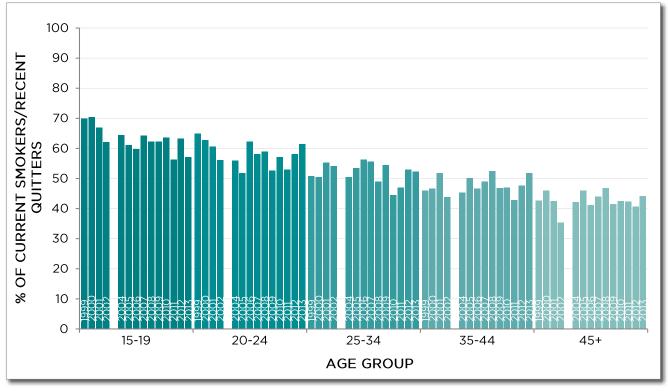
This pattern was consistent over time; more young smokers made a quit attempt in all years since 1999 (Figure 6.18). Although the percentages of each age group who made a quit attempt varied considerably from year-to-year, there were no clear patterns of change over the last decade, except for a potential decrease over time among youth.

#### FIGURE 6.17: PERCENTAGE OF SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY AGE GROUP, 2013



\*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS DATA SOURCE: CTADS, 2013

FIGURE 6.18: PERCENTAGE OF SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY AGE GROUP, 1999\*\*-2013



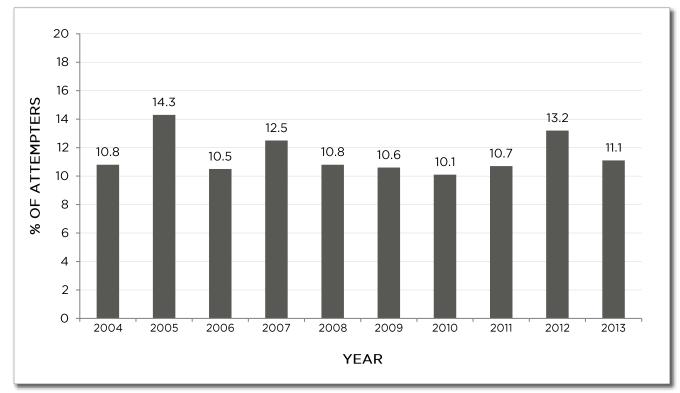
\*NOTE: IN 1999-2002, THIS QUESTION WAS ASKED OF CURRENT SMOKERS; 2003 (DATA NOT SHOWN) INCLUDED ONLY SMOKERS WHO HAD TRIED TO QUIT IN THE PAST 2 YEARS; 2004-2013 INCLUDED CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS. \*'IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS. DATA SOURCE: CTUMS 1999-2012; CTADS 2013

60

## **6.4 QUIT SUCCESS (POINT ABSTINENCE)**

In 2013, of all respondents who had tried to quit for at least 24 hours in the past year (49.6% of smokers), 11.1% were still quit at the time they were surveyed. This represents no significant change in quit success from 2012.<sup>60</sup>

While comparison from 1999 to 2013 is not possible due to changes in question coverage and availability of data,\* since 2004, quit success appears to have remained near 10-12%, with some year-by-year fluctuation (Figure 6.19).



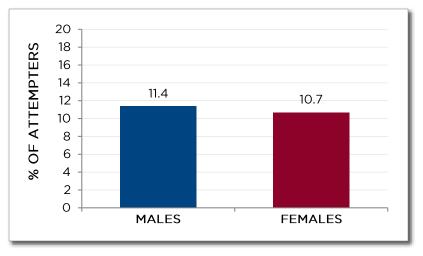
## FIGURE 6.19: PERCENTAGE OF CURRENT SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS AND WERE STILL ABSTINENT AT THE TIME OF SURVEY, 2004-2013

\*IN 1999-2002 THIS QUESTION WAS ASKED OF CURRENT SMOKERS (DATA NOT SHOWN); 2003 INCLUDED ONLY SMOKERS WHO HAD TRIED TO QUIT IN THE PAST 2 YEARS (DATA NOT SHOWN); 2004-2013 ASKED CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS. DATA SOURCE: CTUMS, 2004-2012; CTADS, 2013

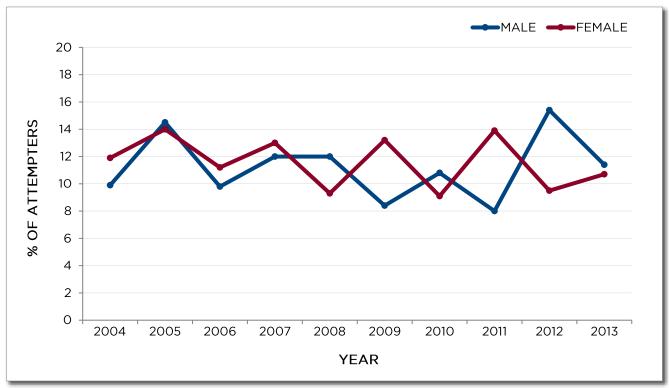
## Quit Success by Sex

In 2013, similar percentages of males and females who attempted to quit in the past 12 months were abstinent at the time of the survey<sup>61</sup> (Figure 6.20).

Since 2004, success in remaining abstinent from smoking has fluctuated among both males and females, with no clear pattern emerging (Figure 6.21). FIGURE 6.20: PERCENTAGE OF CURRENT SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS AND WERE ABSTINENT AT THE TIME OF SURVEY, BY SEX, 2013



\*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS DATA SOURCE: CTADS, 2013



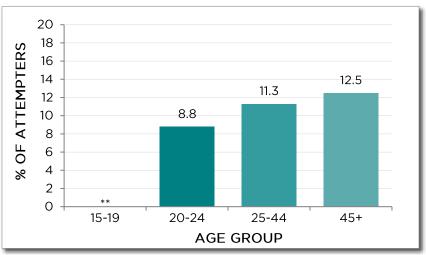
**FIGURE 6.21**: PERCENTAGE OF CURRENT SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS AND WERE ABSTINENT AT THE TIME OF SURVEY, BY SEX, 2004-2013

\*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS DATA SOURCE: CTUMS, 2004-2012; CTADS, 2013

## Quit Success by Age

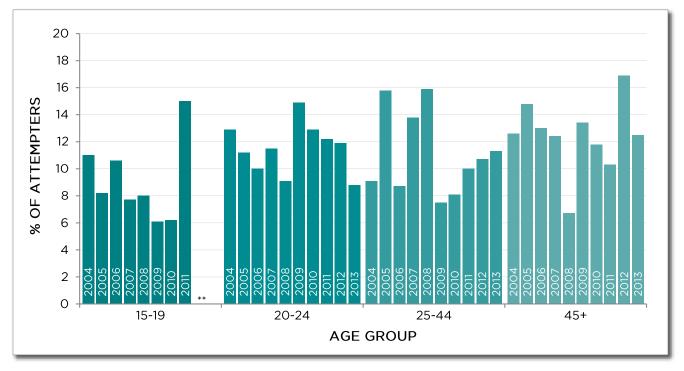
In 2013, smoking abstinence rates among those who attempted to quit in the past 12 months did not differ significantly by age group,<sup>62</sup> although abstinence rates at the time of survey appeared to increase somewhat with age (Figure 6.22).

Over time, quit success within each age group has been highly variable, and no clear patterns by age have emerged (Figure 6.23). The large increases and decreases observed in some years may reflect high variability due to smaller sample sizes for this measure, rather than real trends. FIGURE 6.22: PERCENTAGE OF CURRENT SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS AND WERE ABSTINENT AT THE TIME OF SURVEY, BY AGE GROUP, 2013



\*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS \*\*DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR DATA SOURCE: CTADS, 2013

FIGURE 6.23: PERCENTAGE OF CURRENT SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS AND WERE ABSTINENT AT THE TIME OF SURVEY, BY AGE GROUP, 2004-2013



\*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS \*\*DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR DATA SOURCE: CTUMS, 2004-2012; CTADS, 2013

## **6.5 USE OF CESSATION ASSISTANCE**

### **Cessation Methods**

The phone number for the Smoker's Helpline was added to the warning labels for cigarette packages introduced in 2012.<sup>x</sup> The 2013 CTADS collected data on use of telephone helplines for quitting smoking. In 2013, use of a telephone quitline in the past year was reported by 5.6% of current smokers who had tried to quit in the past year and former smokers who had quit in the past 2 years. Although this figure is similar to previous estimates, it should not be directly compared to previous years due to changes in question coverage (i.e., who was asked – *see note below Figure 6.24*).

For other cessation methods, the most recent data available are from the 2012 CTUMS. Estimates from the 2003 to 2012 waves of CTUMS are shown below in Figure 6.24. In these years, reducing cigarette consumption as a way to quit was popular, cited by nearly two-thirds of smokers. The most commonly used form of cessation assistance throughout this time period was stop-smoking medications (SSMs), including nicotine replacement therapy (NRT) and medications like Zyban, reported by 44.2% in 2012. Use of SSMs remained fairly stable from 2003 to 2012, at just under half of smokers. Approximately one quarter of smokers made a deal with friend or family to quit, which also remained fairly stable from 2003 to 2012. Other forms of assistance, such as workplace cessation programs, websites, and quit smoking contests, were used by relatively few people in the years with available data.

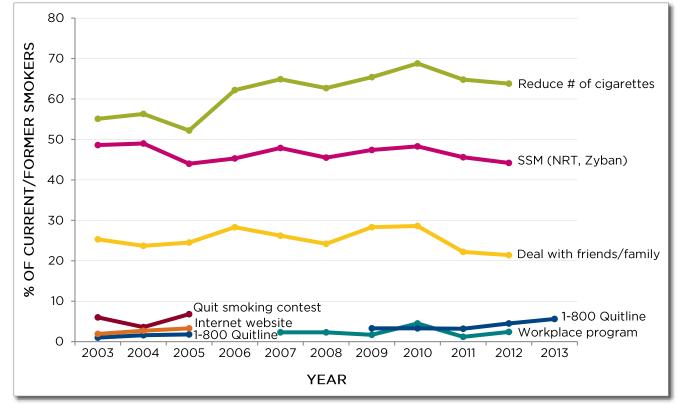


FIGURE 6.24: PREVALENCE OF USE OF VARIOUS QUIT METHODS AMONG CURRENT AND FORMER SMOKERS WHO HAD QUIT OR ATTEMPTED TO QUIT SMOKING IN THE PAST 2 YEARS\*, 2003-2013

\*IN 2013, ONLY CURRENT SMOKERS WHO HAD TRIED TO QUIT IN THE <u>LAST YEAR</u> (RATHER THAN PAST 2 YEARS) WERE INCLUDED, AS WELL AS FORMER SMOKERS WHO STOPPED SMOKING IN THE LAST 2 YEARS. **DATA SOURCE**: CTUMS, 2003-2012; CTADS, 2013 E-cigarettes have recently gained attention as a potential cessation aid. In 2013, of those current and former smokers who had made a quit attempt in the past year, 22.9% reported using an e-cigarette as a cessation aid in the past two years.

For further information on e-cigarettes, please refer to the Special Supplement: E-cigarettes in Canada.

#### Use of Pharmacotherapy

The most recent data available on the use of pharmacotherapies are from the 2012 CTUMS. Estimates of stop-smoking medication use from the 2003 to 2012 waves of CTUMS are shown below in Figure 6.25. In the most recent year with data, 2012, nearly half (44.2%) of those who attempted to quit had used some kind of stop-smoking medication (SSM). From 2003 to 2012, use of the nicotine patch, the most popular SSM, decreased somewhat (from 33% to 26%), while use of nicotine gum fluctuated around one in five (Figure 6.25). Zyban use declined substantially between 2003 and 2008, but then increased rapidly back to 2003 levels and has remained there throughout the most recent years.

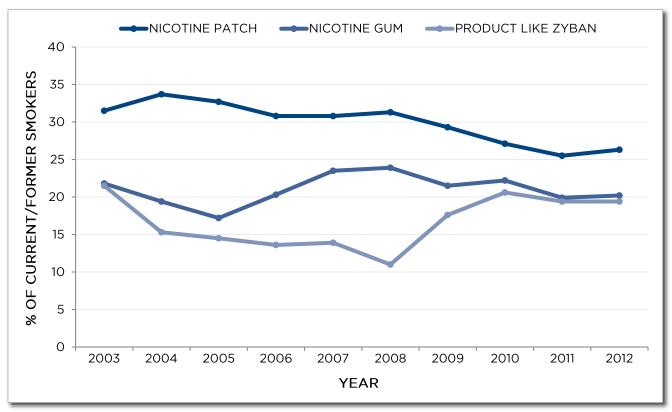


FIGURE 6.25: PREVALENCE OF USE OF STOP-SMOKING MEDICATIONS AMONG CURRENT AND FORMER SMOKERS WHO HAD QUIT OR ATTEMPTED TO QUIT SMOKING IN THE PAST 2 YEARS, 2003-2012

DATA SOURCE: CTUMS, 2003-2012

## **6.6 REASONS FOR QUITTING SMOKING**

When recent (past year) quitters were asked about their main reason for quitting smoking, three-quarters (75.7%) cited health. This figure increased to 82.9% when pregnancy or a baby in the household (i.e., health of a child) was included (Figure 6.26). Few smokers cited the cost of cigarettes as their main reason to quit, and 13.4% cited some other reason.

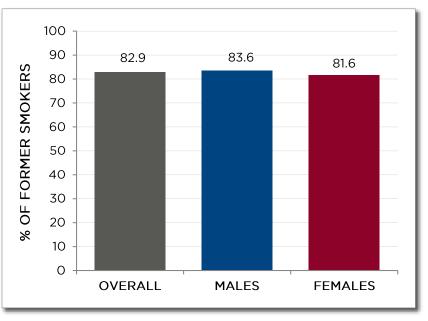
## Reasons to Quit by Sex

Health or a pregnancy or baby in the household was the main reason to quit cited by more than eight out of ten recent quitters among both males (83.6%) and females (81.6%) (Figure 6.26). Although fewer females cited health alone (64.6%) than males (82.1%), this difference was not statistically significant.<sup>63</sup>

## Reasons to Quit by Age

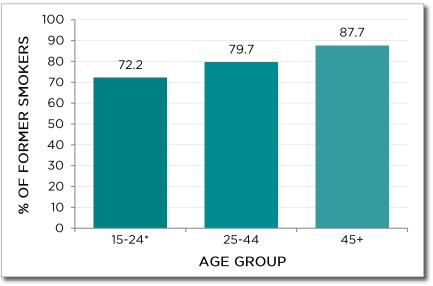
The percentage of recent quitters who cited health or pregnancy as a reason for quitting appeared to increase with age, although age group differences were not statistically significant<sup>64</sup> (Figure 6.27). Approximately seven out of ten youth and young adults cited health or pregnancy as a main reason to quit smoking, compared to nearly nine out of ten recent quitters age 45 and over.

#### FIGURE 6.26: PERCENTAGE OF RECENT QUITTERS WHOSE MAIN REASON TO QUIT WAS HEALTH OR PREGNANCY/BABY, OVERALL AND BY SEX, 2013



DATA SOURCE: CTADS, 2013

FIGURE 6.27: PERCENTAGE OF RECENT QUITTERS WHOSE MAIN REASON TO QUIT WAS HEALTH OR PREGNANCY/BABY, BY AGE GROUP, 2013



\*AGE GROUPS 15-19 AND 20-24 WERE COMBINED DUE TO LOW NUMBERS DATA SOURCE: CTADS, 2013

# SECTION III: TOBACCO USE AMONG CANADIAN YOUTH



# HIGHLIGHTS

Among youth in grades 6-9, in 2012-13:

13.5% of students in grades 6-9 overall had ever tried a cigarette, ranging from 3.4% in grade 6 to 24.0% in grade 9. (page 68-69)

Nearly one-third of never-smokers in grades 6-9 were classified as susceptible to smoking. (p. 70)

#### 1.9% of students in grades 6-9 were current smokers overall, with grade-specific rates ranging from too low to report in grade 6 and 0.9% for grade 7, to 4.2% for grade 9 students. (p. 72-73)

- Smokers were fairly evenly split between daily (0.9%) and non-daily (1.0%) smoking. (p. 72)
- Similar percentages of males (2.1%) and females (1.7%) were current smokers. (p. 74)
- Prevalence varied by province, and was highest in Quebec, at 4.4%. (p. 75)

Daily smokers in grades 7-9 smoked an average of 10.5 cigarettes per day. (p. 77)

# 6.6% of students in grades 6-9 had ever smoked a cigar or cigarillo. (p. 80)

Most smokers in grades 6-9 usually obtained their cigarettes from social sources, including buying, taking, or being given cigarettes by friends, family or others, or having others buy for them. (p. 79)

Seven out of ten current smokers in grades 6-9 reported ever trying to quit smoking. (p. 84)

## Among youth aged 15-19, in 2013:

One in five (20.2%) youth reported ever having smoked a whole cigarette, ranging from 7.7% of 15year-olds to 30% and greater among 18- and 19year-olds. (page 70)

10.7% of youth aged 15-19 were current smokers overall, with age-specific rates ranging from 4.6% among 15- and 16-year-olds to 18.5% of 19year-olds. (p. 72-73)

- Similar percentages of youth smoked daily (5.1%) and non-daily (5.6%). (p. 72)
- Prevalence was significantly higher among males (13.2%) than females (8.1%). (p. 74)
- By province, prevalence ranged from 8.8% in Alberta to 13.9% In Quebec. (p. 76)

## 23% of youth aged 15-19 had ever smoked a cigarillo; 16% had ever smoked a cigar. (p. 80)

Males were more likely to have used these products: 24% of males (vs. 8% of females) had smoked a cigar, while 30% of males (vs. 15% of females) had smoked a cigarillo. (p. 81)

Daily smokers aged 15-19 smoked an average of 9.2 cigarettes per day. (p. 77)

Four in ten smokers aged 15-18 usually obtained cigarettes from retail sources, while nearly half (44%) got them through social sources, and 16% through "other" sources. (p. 79)

Six out of ten smokers aged 15-19 were seriously considering quitting in the next 6 months. (p. 83)

More than half (57%) of smokers aged 15-19 had made a quit attempt in the past 12 months. (p. 85)

## 7. SMOKING INITIATION

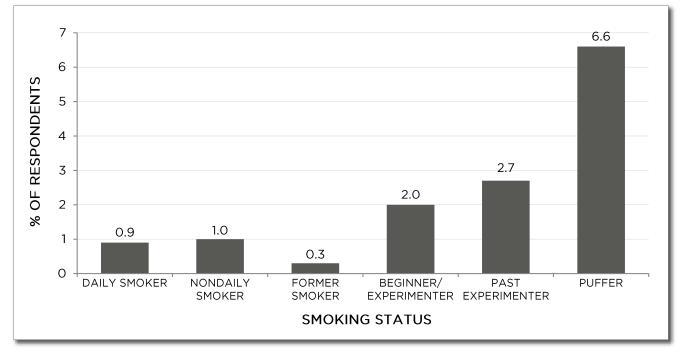
Previous research indicates that most smokers begin smoking by age 19.<sup>xi</sup> Accordingly, preventing smoking initiation is the target of many youth tobacco interventions, and youth initiation is monitored by Canada's national tobacco surveys.

## 7.1 EVER SMOKING

## Ever smoking among students in grades 6-9

In 2012-13, the majority (86.5%) of students surveyed in grades 6-9 had never tried smoking cigarettes, ranging from 96.6% in grade 6 to 76.0% in grade 9. However, 13.5% of students overall had tried smoking. Figure 7.1 (below) provides a breakdown of the smoking status of these students.

# FIGURE 7.1: SMOKING STATUS OF STUDENTS IN GRADES 6-9 WHO HAD EVER TRIED SMOKING CIGARETTES, 2012-13



CURRENT SMOKER SMOKED 100+ CIGARETTES IN LIFETIME, INCLUDING:

68

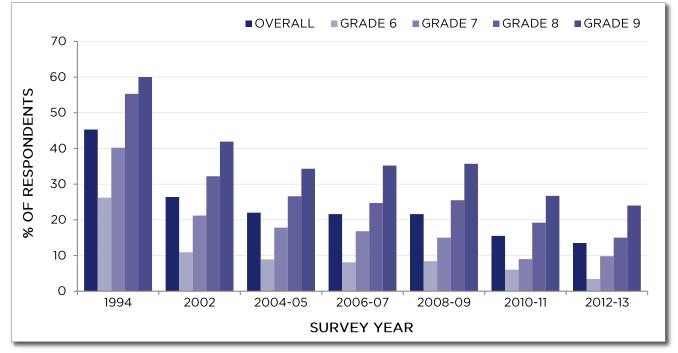
DAILY SMOKER: AT LEAST ONE CIGARETTE PER DAY FOR EACH OF THE 30 DAYS PRECEDING THE SURVEY
 NON-DAILY SMOKER: AT LEAST ONE CIGARETTE PER DAY FOR EACH OF THE 30 DAYS, BUT NOT EVERY DAY
 FORMER SMOKER: SMOKED 100+ CIGARETTES IN LIFETIME AND HAS NOT SMOKED AT ALL IN THE LAST 30 DAYS
 BEGINNER/EXPERIMENTER: SMOKED ≥1 WHOLE CIGARETTE AND HAS NOT SMOKED AT ALL IN THE LAST 30 DAYS
 PAST EXPERIMENTER: SMOKED ≥1 WHOLE CIGARETTE AND HAS NOT SMOKED AT ALL IN THE LAST 30 DAYS
 PUFFER: TRIED A FEW PUFFS, BUT NEVER SMOKED A WHOLE CIGARETTE
 DUFFS, BUT NEVER SMOKED A WHOLE CIGARETTE

In 2012-13, a higher percentage of male students (14.8%) had tried smoking cigarettes, compared to females (12.2%) in grades 6-9.<sup>65</sup>



The overall percentage of students in grades 6-9 who had ever tried smoking dropped drastically between 1994 and the early 2000s; since then, there appears to have been an overall decrease, although the difference between 2010-11 and 2012-13 was not significant<sup>66</sup> (Figure 7.2). The percentage of students who had tried smoking a cigarette increased with grade level: in 2012-13, just 3.4% of students in grade 6 had tried smoking, compared to 24.0% of grade 9 students.

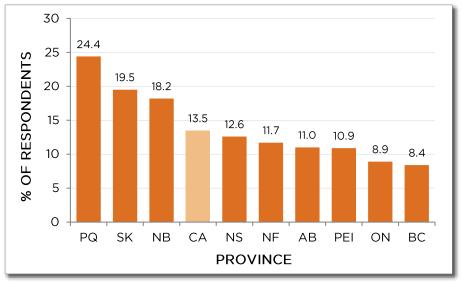




DATA SOURCE: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

The percentage of students in grades 6-9 who had ever tried smoking a cigarette varied significantly by province<sup>67</sup> (Figure 7.3). For example, just 8.4% of youth in British Columbia had tried smoking, while nearly triple that (24.4%) in Quebec had tried.

Note that there are no provincial estimates for Manitoba for the 2012-13 YSS, as the province declined participation. **FIGURE 7.3**: PERCENTAGE OF STUDENTS IN GRADES 6-9 WHO HAD EVER TRIED SMOKING A CIGARETTE, BY PROVINCE\*, 2012-13



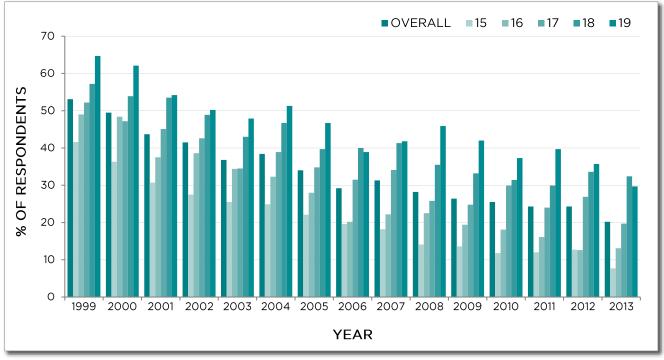
\*IN 2012-13, MANITOBA DECLINED PARTICIPATION IN THE YSS. DATA SOURCE: YSS, 2012-13

#### Ever smoking among youth aged 15-19

Among youth aged 15-19, 20.2% reported ever having smoked a whole cigarette in 2013, a significant decrease from the 2012 rate of 24.3%<sup>68</sup> (Figure 7.4). This decrease is due to an unusually low proportion of females (15.0%) that had ever smoked a whole cigarette, compared to the previous year,<sup>69</sup> as well as compared to males (25.1%).<sup>70</sup>

The percentage of students who had ever smoked a whole cigarette increased with age in most years between 1999 and 2013. This age gradient appeared to be particularly steep in the most recent years, when 18- and 19-year-olds had around triple the rate of ever smoking compared to 15-year-olds.

FIGURE 7.4: PERCENTAGE OF YOUTH AGED 15-19 WHO HAVE EVER SMOKED A WHOLE CIGARETTE, BY AGE, 1999-2013



DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

70

It appears that in addition to fewer youth starting to smoke over time, fewer youth are initiating smoking in their early teens. Rather, youth are continuing to pick up the habit throughout adolescence; in the past few years, more youth smoked their first cigarette after age 15 than earlier. In 2013, the mean age at which ever-smokers age 25 and over smoked their first cigarette was 16.2.

## 7.2 SUSCEPTIBILITY TO SMOKING

Although current smoking rates were fairly low among the youngest respondents, students may be susceptible to future smoking. Susceptibility to smoking is defined as "the absence of a firm decision not to smoke," and can predict future smoking among youth.<sup>xii</sup>

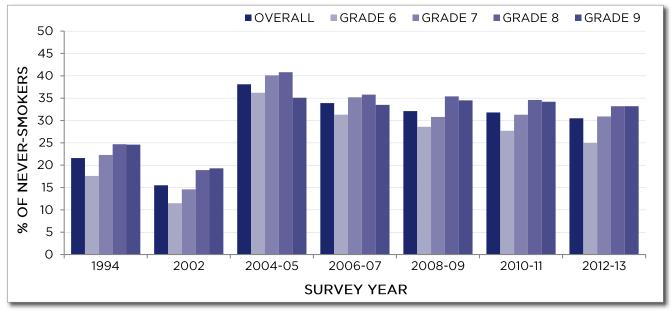
Overall, 30.5% of never-smokers in grades 6-9 were classified as susceptible to smoking\* in 2012-13, which was not significantly different from in 2010-11.<sup>71</sup> Similar percentages of males (30.5%) and females (30.6%) were susceptible to smoking.<sup>72</sup>

<sup>\*</sup> Students were classified as NOT susceptible if they responded "definitely not" to the following three items: "Do you think in the future you <u>might try</u> smoking cigarettes?", "If one of your best friends was to offer you a cigarette would you smoke it?", and "At any time during the <u>next year</u> do you think you will smoke a cigarette?"; all other students were classified as susceptible.

### Susceptibility to smoking by grade

Susceptibility to smoking among never-smoking students in grades 6-9 did not change significantly between 2010-11 and 2012-13<sup>71</sup> (**Note**: comparisons with the earliest survey years are not possible due to question changes) (Figure 7.5). The percentage of never-smokers who were susceptible to smoking increased with grade level up to grade 8: for example, in 2012-13, 25.0% of students in grade 6 were susceptible, while 33.2% of grade 8 students were susceptible. Susceptibility among grade 9 students was the same or lower than among grade 8 students in all years.

FIGURE 7.5: PERCENTAGE OF NEVER-SMOKERS IN GRADES 6-9 WHO WERE SUSCEPTIBLE TO SMOKING\*, BY GRADE, 1994-2012-13

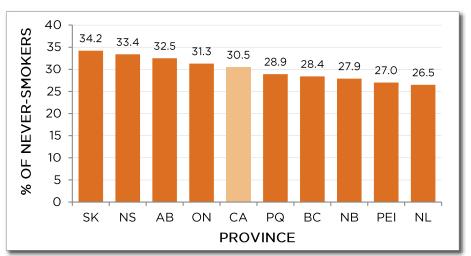


\*FROM 2004-05 TO 2012-13, SUSCEPTIBILITY WAS DEFINED AS OUTLINED ABOVE (PAGE 70). IN 1994 AND 2002, STUDENTS WERE CLASSIFIED AS NOT SUSCEPTIBLE IF THEY RESPONDED "NO" TO BOTH OF THE FOLLOWING ITEMS: "HAVE YOU EVER SERIOUSLY THOUGHT ABOUT TRYING SMOKING?" AND "DO YOU THINK YOU MIGHT TRY SMOKING WITHIN THE NEXT MONTH?", OTHERS WERE CLASSIFIED AS SUSCEPTIBLE. DATA SOURCE: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

# Susceptibility to smoking by province

The percentage of students in grades 6-9 who were susceptible to smoking varied significantly by province<sup>73</sup> (Figure 7.6). For example, just 26.5% of students in Newfoundland and Labrador were susceptible to smoking, while 34.2% of students in Saskatchewan were susceptible.

## FIGURE 7.6: PERCENTAGE OF NEVER-SMOKERS IN GRADES 6-9 WHO WERE SUSCEPTIBLE TO SMOKING, BY PROVINCE\*, 2012-13



\*IN 2012-13, MANITOBA DECLINED PARTICIPATION IN THE YSS. DATA SOURCE: YSS, 2012-13

## 8. CURRENT SMOKING AMONG YOUTH

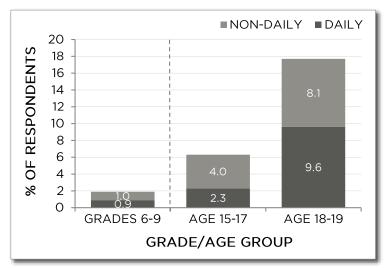
## **8.1 SMOKING PREVALENCE**

In 2012-13, the smoking rate among students in grades 6-9 was 1.9% overall, although it varied substantially by grade from too low to report to 4.2%. Among adolescents aged 15-19, 10.7% were current smokers in 2013, again with substantial variation by age, from 4.6% among 15- and 16-year-olds to 18.5% of 19year-olds. Daily smoking accounted for about half of smoking among youth, increasing with age (Figure 8.1).

Smoking prevalence among students in grades 6-9 remained fairly steady throughout the 2000's, at less than half of the 1994 rate. Prevalence did not decrease significantly between 2010-11 and 2012-13, overall<sup>74</sup> or for daily<sup>75</sup> or nondaily smoking<sup>76</sup> (Figure 8.2).

Among youth aged 15-19, smoking prevalence declined steadily from 1999 to

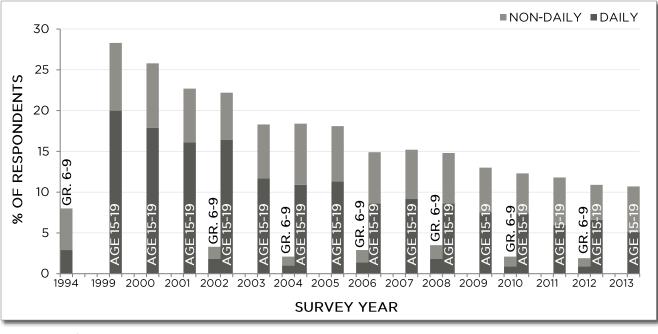
FIGURE 8.1: CURRENT SMOKING PREVALENCE, GRADES 6-9, 2012-13, AND AGE 15-19, 2013



DATA SOURCES: CTADS, 2013; YSS, 2012-13

2003, where it remained at around 18% until 2005, before dropping to around 15% for the next few years and then beginning to decline again around 2009 (Figure 8.2). Between 2012 and 2013, there was no significant change in overall,<sup>77</sup> daily,<sup>78</sup> or non-daily<sup>79</sup> smoking prevalence. In previous years, most of the decline in smoking observed among 15- to 19-year-olds appears to be due to decreasing daily smoking.





\*CURRENT DAILY/NON-DAILY SMOKER AND SMOKED IN PAST 30 DAYS DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

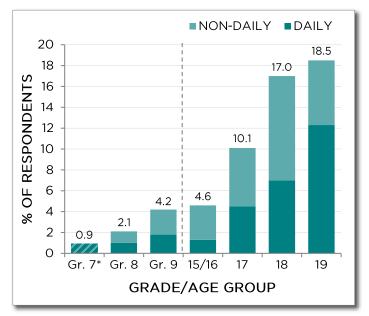
### **Smoking Prevalence by Age**

Smoking prevalence appeared to increase with age: rates were too low to report among grade 6 students, but increased fairly steadily to 18.5% of 19-year-olds (Figure 8.3).

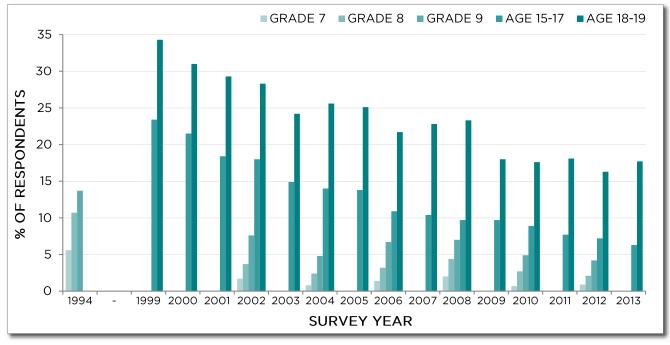
As noted, data up to grade 9 is provided by the YSS, and data from CTUMS is used for older youth (*see p. 90*). Any difference observed between grade 9 students and 15year-olds could be due to differences in survey methodologies.

Among students in grades 7-9, smoking patterns by grade were fairly consistent between 2002 and 2012-13, and prevalence was much lower in these years than in 1994 (Figure 8.4).

Over time, smoking among youth aged 15-17 declined fairly steadily. Smoking among 18and 19-year-olds has also declined, although with less consistency (slight increases in some years), and has plateaued in recent years (Figure 8.4). This has led to a greater difference in smoking rates between older and younger adolescents: in 2013, the smoking rate among 18- and 19-year-olds was nearly triple that of 15- to 17-year-olds. FIGURE 8.3: CURRENT SMOKING PREVALENCE BY GRADE/AGE, GRADES 7-9\*, 2012-13, AND AGE 15-19, 2013



\*DATA FOR GR. 6, GR. 7 'DAILY', AGE 15, AND AGE 16 'DAILY' NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR; OVERALL PREVALENCE SHOWN FOR GR. 7; AGES 15 AND 16 COMBINED DATA SOURCES: CTADS, 2013; YSS, 2012-13



#### FIGURE 8.4: CURRENT SMOKING PREVALENCE\* BY GRADE/AGE, GRADES 7-9\*\* AND AGE 15-19, 1994-2013

\*FOR GRADES 7-9: CURRENT DAILY/NON-DAILY SMOKER AND SMOKED IN PAST 30 DAYS; FOR AGE 15-19: CURRENT DAILY OR NON-DAILY SMOKER \*\*DATA FOR GRADE 6 NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

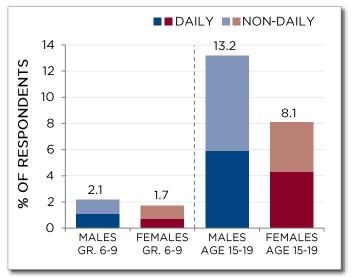
### **Smoking Prevalence by Sex**

Smoking prevalence was not significantly different between males and females among students in grades 6-9 in 2012-13.<sup>80</sup> However, among youth aged 15-19, in 2013, significantly more males than females smoked<sup>81</sup> (Figure 8.5).

Over time, among 15- to 19-year-olds, prevalence patterns have shifted from higher female smoking prevalence up until 2005, to greater percentages of males smoking in the most recent years (Figure 8.6).

Among students in grades 6-9, the same general pattern was observed, although with much smaller differences between the sexes: females had slightly higher smoking rates from 1994 to 2004-05, and then males had slightly higher rates in the following waves, largely equalizing in the most recent waves (Figure 8.6).

## FIGURE 8.5: CURRENT SMOKING PREVALENCE BY SEX, GRADES 6-9, 2012-13, AND AGE 15-19, 2013



DATA SOURCES: CTADS, 2013; YSS, 2012-13

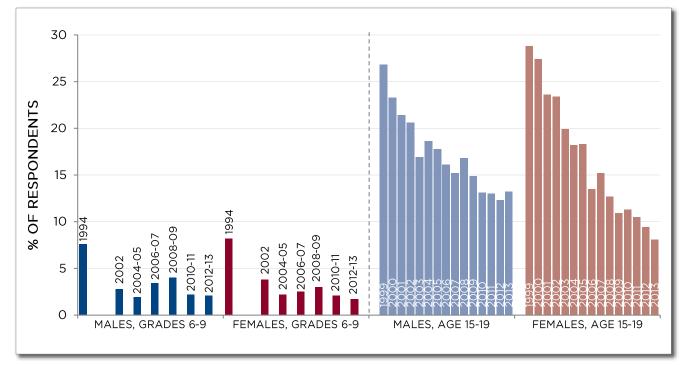


FIGURE 8.6: CURRENT SMOKING PREVALENCE (DAILY AND NON-DAILY) BY SEX, GRADES 6-9 AND AGE 15-19, 1994-2013

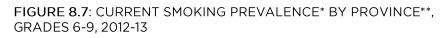
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

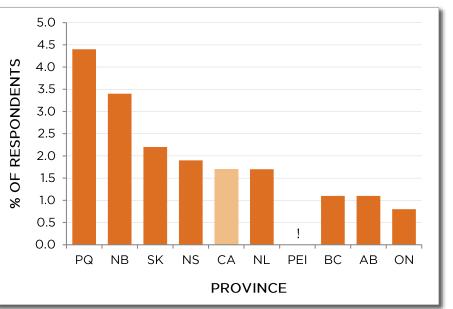
### Smoking Prevalence by Province

#### PREVALENCE AMONG STUDENTS IN GRADES 6-9

Smoking prevalence among students in grades 6-9 varied significantly by province in 2012-13<sup>82</sup> (Figure 8.7). Prevalence was highest in Quebec, at 4.4%, and lowest in Ontario, at 0.8%.

Between 1994 and 2004-05, smoking declined substantially in all provinces (Table 8.1). Although some small increases were observed in the following waves, in 2012-13, prevalence appears to have decreased to 2004-05 levels or lower in most provinces.





\*INCLUDES DAILY AND NON-DAILY SMOKERS

\*\*IN 2012-13, MANITOBA DECLINED PARTICIPATION IN THE YSS.

1 DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR DATA SOURCE: YSS, 2012-13

YEAR	1994	2002	2004-05	2006-07	2008-09	2010-11	2012-13
CANADA	7.9	3.3	2.1	3.0	3.5	2.2	1.9
BRITISH COLUMBIA	7.7	2.3	!	3.0	3.2	2.0	1.1
ALBERTA	7.5	!	!	!	!	!	1.1
SASKATCHEWAN	6.1	3.2	2.1	!	6.1	4.3	2.2
MANITOBA	6.8	4.2	2.1	3.2	2.5	1.7	***
ONTARIO	4.6	!	1.0	1.9	1.4	1.0	0.8
QUEBEC	14.1	7.6	4.3	5.2	7.6	4.3	4.4
NEW BRUNSWICK	8.0	5.1	3.3	3.3	3.8	**	3.4
NOVA SCOTIA	7.6	4.6	2.9	3.8	2.8	3.3	1.9
PRINCE EDWARD ISLAND	7.7	!	!	2.3	2.2	!	!
NFLD & LABRADOR	9.3	5.9	3.8	!	5.6	4.0	1.7

### TABLE 8.1: CURRENT SMOKING PREVALENCE\* BY PROVINCE, GRADES 6-9, 1994-2013

\*CURRENT DAILY/NON-DAILY SMOKER AND SMOKED IN PAST 30 DAYS

\*\*IN 2010-11, NEW BRUNSWICK DECLINED PARTICIPATION IN THE YSS.

\*\*\*IN 2012-13, MANITOBA DECLINED PARTICIPATION IN THE YSS.

! DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR

DATA SOURCE: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

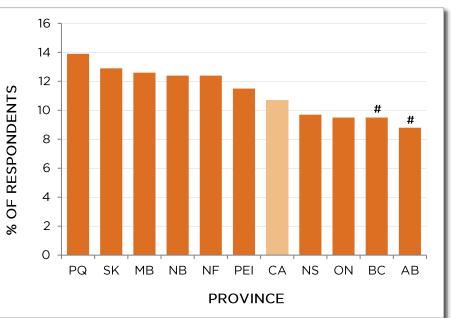
#### III: YOUTH CURRENT SMOKING

#### PREVALENCE AMONG YOUTH AGED 15-19

Among youth aged 15-19, variation in smoking prevalence by province was not significant<sup>83</sup> in 2013 (Figure 8.8). Estimates ranged from 8.8% in Alberta to 13.9% in Quebec.

Between 1999 and 2013, smoking prevalence decreased substantially in all provinces; during this time, smoking rates fell by more than half in Canada, as well as in all provinces (Figure 8.2). However, between 2012 and 2013, little to no progress was made in most provinces. While a large decrease was observed in Saskatchewan, it is unclear whether this is due to year-to-year variation in estimates, or the beginning of a trend.

## FIGURE 8.8: CURRENT SMOKING PREVALENCE\* BY PROVINCE, AGE 15-19, 2013



<sup>\*</sup>INCLUDES DAILY AND NON-DAILY SMOKERS

# CAUTION: THESE ESTIMATES DO NOT MEET STATISTICS CANADA'S QUALITY STANDARDS. CONCLUSIONS BASED ON THESE DATA WILL BE UNRELIABLE, AND MOST LIKELY INVALID. DATA SOURCE: CTADS. 2013

#### CANADA 27.7 25.3 22.5 22.0 18.3 18.4 18.1 14.9 15.2 14.8 13.0 12.2 11.8 10.9 10.7 BRITISH COLUMBIA 20.2 18.0 16.8 14.8 13.6 12.8 14.4 12.4 9.0 15.2 12.5 8.9 10.1 9.6 9.5# 18.1 8.8# ALBERTA 26.4 24.4 24.1 19.0 15.7 18.9 15.2 20.1 16.0 12.4 17.0 8.3 9.9 SASKATCHEWAN 31.4 24.1 27.1 29.0 28.2 24.7 24.9 20.8 22.0 20.0 18.3 20.3 19.8 20.2 12.9 25.4 28.2 23.3 20.3 19.7 15.0 MANITOBA 29.5 21.0 20.0 20.1 17.0 17.9 14.3 12.5 12.6 ONTARIO 24.8 25.1 18.8 19.2 14.5 16.0 12.5 13.5 12.8 9.1 9.1 9.1 9.0 9.5 16.8 35.7 29.6 28.6 32.0 25.5 24.1 22.8 18.3 17.4 16.6 18.1 15.0 17.3 13.4 13.9 QUEBEC NEW BRUNSWICK 27.4 29.9 24.6 17.6 17.7 17.9 15.7 16.8 14.2 15.7 21.6 11.9 13.8 14.0 12.4 30.1 NOVA SCOTIA 25.1 26.8 20.2 18.4 20.3 12.9 14.8 13.4 14.4 14.2 15.8 11.8 10.7 9.7 PEI 28.3 21.5 20.4 19.3 19.5 16.6 12.9 14.2 8.5 14.1 13.1 13.7 11.3 14.4 11.5 NFLD & LABRADOR 29.9 28.4 22.0 22.2 22.0 21.1 19.0 16.2 16.8 14.7 16.0 15.1 11.1 12.2 12.4

### TABLE 8.2: CURRENT SMOKING PREVALENCE\* BY PROVINCE, AGE 15-19, 1999-2013

\*INCLUDES DAILY AND NON-DAILY SMOKERS

# CAUTION: THESE ESTIMATES DO NOT MEET STATISTICS CANADA'S QUALITY STANDARDS. CONCLUSIONS BASED ON THESE DATA WILL BE UNRELIABLE, AND MOST LIKELY INVALID.

DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## **8.2 CIGARETTE CONSUMPTION**

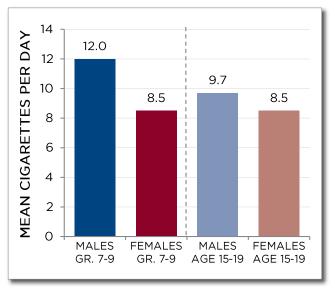
In 2012-13, average daily cigarette consumption among daily smokers in grades 7-9 was 10.5, which was not significantly different from the 2010-11 estimate of 8.7.<sup>84</sup> Among 15- to 19-year-olds, average daily cigarette consumption was 9.2 in 2013, no significant change from the 2012 estimate of 11.1.<sup>85</sup>

## **Cigarette Consumption by Sex**

Among daily smokers in grades 7-9, mean daily cigarette consumption was not significantly different between males and females in 2012-13<sup>86</sup> (Figure 8.9). In this group, consumption appears to have fluctuated over time among males, but remained stable among females (Figure 8.10).

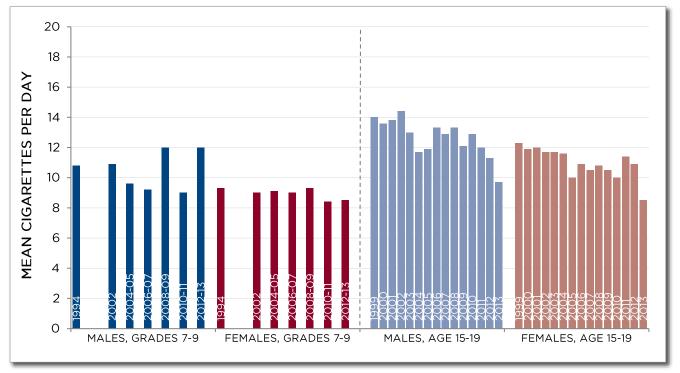
Among daily smokers aged 15-19, there was no significant difference in daily cigarette consumption between males and females in 2013<sup>87</sup> (Figure 8.9). However, males appeared to have smoked more than females in most of the preceding years (Figure 8.10).

#### FIGURE 8.9: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, GRADES 7-9, 2012-13, AND AGE 15-19, 2013



<sup>\*</sup>AMONG DAILY SMOKERS DATA SOURCES: CTADS, 2013; YSS 2012-13

FIGURE 8.10: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY SEX, GRADES 7-9 AND AGE 15-19, 1994-2013



\*AMONG DAILY SMOKERS

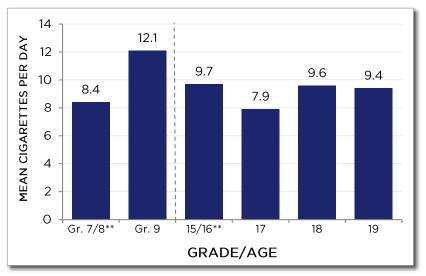
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

## **Cigarette Consumption by** Age

Among daily smokers, cigarette consumption appeared to be higher among older students in the grade 7-9 age group (in 2012-13), but similar across ages for youth aged 15-19 (in 2013) (Figure 8.11).

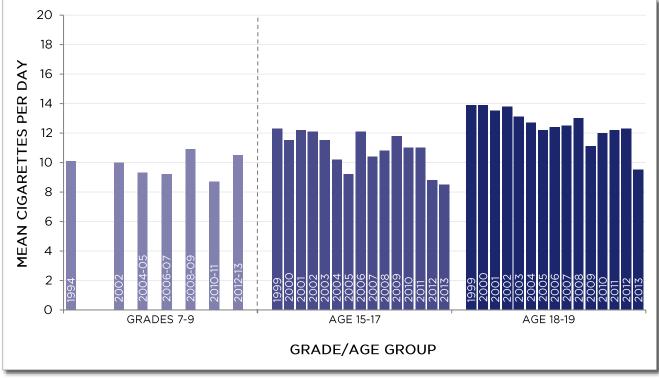
Among daily smokers aged 15-19, while average daily cigarette consumption decreased overall between 1999 and 2013, there has been considerable variation in this trend, including some periods of increase (Figure 8.12). Among smokers in grades 7-9, daily consumption has remained around 10 cigarettes (roughly between 9 and 11) since 1994.

#### FIGURE 8.11: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY AGE, GRADES 7-9, 2012-13, AND AGE 15-19, 2013



\*AMONG DAILY SMOKERS \*\*GRADES 7/8 AND AGES 15/16 COMBINED DUE TO LOW NUMBERS DATA SOURCES: CTADS, 2013; YSS 2012-13

FIGURE 8.12: AVERAGE DAILY CIGARETTE CONSUMPTION\* BY AGE GROUP, GRADES 7-9 AND AGE 15-19, 1994-2013



\*AMONG DAILY SMOKERS

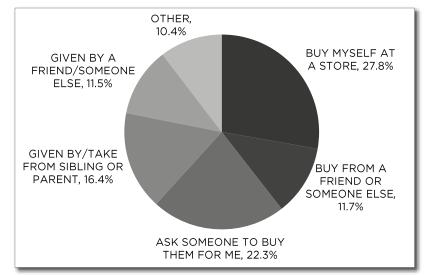
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

## 9. SOURCES OF CIGARETTES

## SOURCES OF CIGARETTES FOR STUDENTS IN GRADES 6-9

In 2012-13, when smokers in grades 6-9 were asked where they usually got their cigarettes, most reported obtaining them from social sources. One third of smokers usually asked someone to buy cigarettes for them, or bought them from a friend or someone else. Nearly as many reported being given cigarettes by a friend, family member or someone else, or taking them from a family member. Approximately one in four smokers reported usually purchasing cigarettes from a store themselves (Figure 9.1).

## FIGURE 9.1: USUAL SOURCES OF CIGARETTES FOR CURRENT SMOKERS\* IN GRADES 6-9, 2012-13



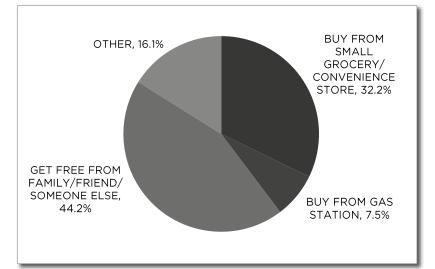
\*CURRENT SMOKER: SMOKED 100+ CIGARETTES IN LIFETIME AND SMOKED IN THE PAST 30 DAYS DATA SOURCE: YSS, 2012-13

## SOURCES OF CIGARETTES FOR 15- TO 18-YEAR-OLDS

The legal age to purchase cigarettes is 19 in most provinces, with the exception of Alberta, Saskatchewan, Manitoba, and Quebec, where the legal purchase age is 18. In the age group 15-18, most of the smokers surveyed would be underage for purchasing cigarettes.

In 2013, when smokers aged 15-18 were asked where they usually got their cigarettes, four in ten reported purchasing them from a retail source, primarily small grocery/ convenience stores and gas stations (Figure 9.2). Nearly half reported being given cigarettes or taking them from another person, including friends, family and others. A substantial percentage (16.1%) reported getting cigarettes from "other" sources, which included First Nations reserves and purchasing from friends.

#### FIGURE 9.2: PERCENTAGE OF SMOKERS AGED 15-18 WHO USUALLY GET CIGARETTES FROM VARIOUS SOURCES, 2013



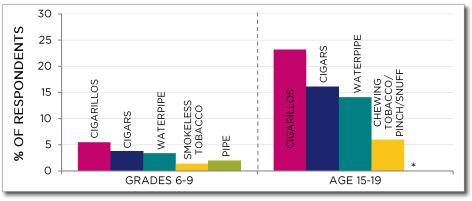
NOTE: SOME CATEGORIES HAVE BEEN COMBINED DUE TO LOW NUMBERS: "BUY FROM SMALL GROCERY/CONVENIENCE STORE" ALSO INCLUDES "SUPERMARKET" AND "ANOTHER KIND OF STORE"; "GET FREE FROM FAMILY/FRIEND/SOMEONE ELSE" INCLUDES BEING GIVEN BY FAMILY/FRIEND/SOMEONE ELSE OR TAKING FROM FAMILY; "OTHER" INCLUDES "BUY FROM A FIRST NATIONS RESERVE", "BUY FROM FRIEND", AND "OTHER". DATA SOURCE: CTADS, 2013

## **10. USE OF OTHER TOBACCO PRODUCTS**

In 2012-13, 5.5% of students in grades 6-9 reported having ever smoked a cigarillo, and 3.8% had smoked a cigar (Figure 10.1). In 2013, among youth aged 15-19, these figures were 23.2% and 16.1%, respectively. Waterpipe use was also popular, with 3.4% of grades 6-9 students and 14.1% of youth aged 15-19 reporting ever use. Far fewer youth reported having smoked a pipe, or used smokeless tobacco.

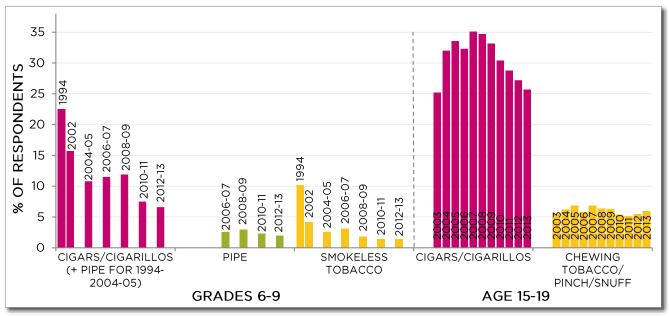
Among youth aged 15-19, ever use of cigars/cigarillos increased between 2003 and 2007, but has declined in recent years, while ever use of chewing tobacco/pinch/snuff has remained fairly stable over this time (Figure 10.2). Between 2012 and 2013, there was no significant change in use of either cigars/ cigarillos<sup>88</sup> or chewing tobacco/pinch/snuff,<sup>89</sup> in the 15-19 age group. Among students in grades 6-9, ever use of other tobacco products decreased between 1994 and 2004-05 and has remained low since. Between 2010-11 and 2012-13, there was no significant change in use of cigars/cigarillos,<sup>90</sup> pipe,<sup>91</sup> or smokeless tobacco.<sup>92</sup>

FIGURE 10.1: PERCENTAGE OF YOUTH WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, GRADES 6-9, 2012-13, AND AGE 15-19, 2013



\*EVER USE OF PIPE NOT ASKED IN CTADS DATA SOURCES: CTADS, 2013; YSS, 2012-13

## FIGURE 10.2: PERCENTAGE OF YOUTH IN GRADES 6-9 AND AGE 15-19 WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, 1994-2013

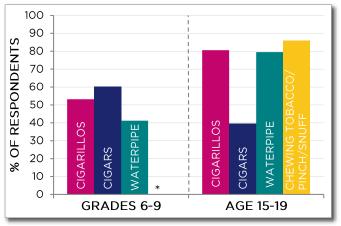


NOTE: CATEGORIES HAVE BEEN COMBINED IN SOME CASES: CTUMS ITEMS FOR CIGARS AND CIGARILLOS COMBINED IN 2007-2013; YSS ITEMS FOR CIGARS AND CIGARILLOS COMBINED FROM 2008-09 ONWARD; YSS ASKED ABOUT CIGARS, CIGARILLOS, AND PIPE AS A SINGLE ITEM PRIOR TO 2006-07; YSS ITEMS FOR CHEWING TOBACCO AND SNUFF COMBINED UNTIL 2006-07, AND ASKED AS A SINGLE ITEM ABOUT "SMOKELESS TOBACCO" FROM 2008-09 ONWARD DATA SOURCES: CTUMS, 2003-2012; CTADS, 2013; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

## FLAVOURED TOBACCO PRODUCTS

Previous research has shown that flavoured tobacco products have greater appeal among youth<sup>xiii</sup>, and recent federal legislation (*Cracking Down on Tobacco Marketing Aimed at Youth Act*<sup>viii</sup>) was enacted in an effort to limit youth access to such products. However, flavoured products remain popular among youth. Among all students in grades 6-9, 7.1% reported ever using flavoured tobacco products.

Figure 10.3 shows the percentage of youth who had used a flavoured product in the last 30 days, among those who had used each type of product in the last 30 days. Overall, 58%\* of youth in grades 6-9 and 82% of youth aged 15-19 who had used any non-cigarette tobacco products in the last 30 days had used a flavoured product, although this varied by product. Further, 31% of last-30-day smokers in grades 6-9 had used menthol cigarettes. FIGURE 10.3: PERCENTAGE OF YOUTH WHO HAD USED FLAVOURED TOBACCO PRODUCTS, AMONG LAST 30-DAY USERS, GRADES 6-9, 2012-13, AND AGE 15-19, 2013



DATA SOURCES: CTADS, 2013; YSS, 2012-13 \*FLAVOURED SMOKELESS TOBACCO NOT ASKED ON YSS

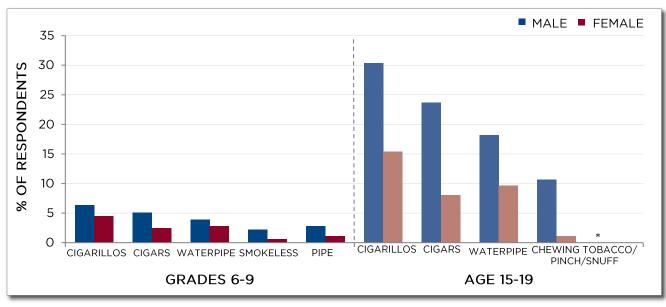
For more information, see the <u>CTADS website</u>

## DEMOGRAPHIC PATTERNS IN OTHER TOBACCO USE

### Use of Other Tobacco Products by Sex

In 2013, among youth aged 15-19, significantly more males than females had tried all other tobacco products<sup>93-96</sup> (Figure 10.4). Gender differences appeared to be particularly large for cigars and chewing tobacco/snuff. The same pattern was observed among younger students: more males than females in grades 6-9 had ever tried all tobacco products.<sup>97-100</sup>

FIGURE 10.4: PERCENTAGE OF YOUTH WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, BY SEX, GRADES 6-9, 2012-13, AND AGE 15-19, 2013



\*EVER USE OF PIPE NOT ASKED IN CTADS DATA SOURCES: CTADS, 2013; YSS, 2012-13

## Use of Other Tobacco Products by Province

Use of other tobacco products among students in grades 6-9 varied significantly by province for all tobacco products<sup>101-104</sup> (Table 10.1). Quebec had the highest percentage of youth ever trying cigarillos (11.5%), cigars (9.2%), and waterpipe (5.7%).

**TABLE 10.1**: PERCENTAGE OF YOUTH IN GRADES 6-9 WHO HAVE EVER TRIED VARIOUS TOBACCOPRODUCTS, BY PROVINCE, 2012-13

PROVINCE	Cigarillos	Cigars	Pipe	Waterpipe	Smokeless tobacco
CANADA	5.5%	3.8%	2.0%	3.4%	1.4%
BRITISH COLUMBIA	3.1	1.8	1.4	2.6	1.1
ALBERTA	3.7	2.4	1.7	3.6	2.0
SASKATCHEWAN	6.3	4.0	2.9	2.8	4.0
MANITOBA	*	*	*	*	*
ONTARIO	3.2	1.8	1.4	2.4	0.9
QUEBEC	11.5	9.2	3.2	5.7	1.6
NEW BRUNSWICK	7.1	5.3	3.6	3.1	3.4
NOVA SCOTIA	4.4	2.4	1.6	1.8	!
PRINCE EDWARD ISLAND	3.4	2.4	!	!	2.4
NFLD. & LABRADOR	3.7	2.6	1.5	1.7	!

! DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR \*IN 2012-13, MANITOBA DECLINED PARTICIPATION IN THE YSS. DATA SOURCE: YSS, 2012-13

Among youth aged 15-19, use varied significantly by province for cigarillos,<sup>105</sup> waterpipe,<sup>106</sup> and chewing tobacco/snuff,<sup>107</sup> but not for cigars<sup>108</sup> (Table 10.2). Quebec had the highest percentages of youth ever trying cigarillos, cigars, and waterpipe. Saskatchewan had the highest percentage of youth who had used chewing tobacco or snuff.

**TABLE 10.2**: PERCENTAGE OF YOUTH AGED 15-19 WHO HAVE EVER TRIED VARIOUS TOBACCOPRODUCTS, BY PROVINCE, 2013

PROVINCE	Cigarillos	Cigars	Waterpipe	Chewing tobacco/snuff
CANADA	23.2%	16.1%	14.1%	6.0%
BRITISH COLUMBIA	20.1	14.2	!	!
ALBERTA	22.1	17.1	16.3	!
SASKATCHEWAN	26.2	14.8	!	11.O
MANITOBA	21.9	10.5	!	8.4
ONTARIO	18.3	16.1	14.9	!
QUEBEC	34.6	18.5	17.1	!
NEW BRUNSWICK	22.7	14.4	8.6	!
NOVA SCOTIA	22.6	14.8	10.9	7.0
PRINCE EDWARD ISLAND	19.2	13.3	!	9.4
NFLD. & LABRADOR	21.3	12.0	!	!

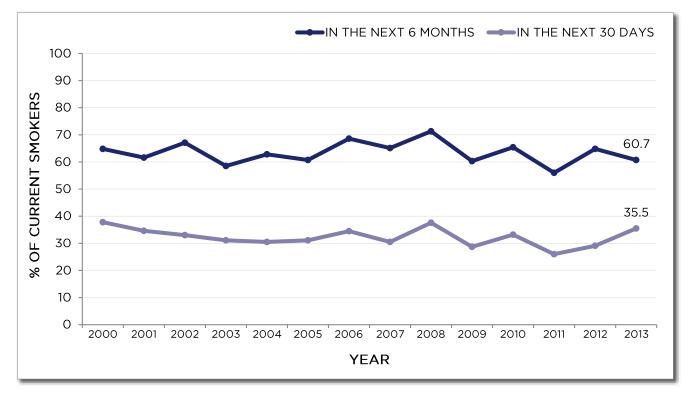
! DATA NOT REPORTABLE DUE TO LOW NUMBERS IN THE NUMERATOR AND/OR DENOMINATOR DATA SOURCE: CTADS, 2013

## **11. QUITTING SMOKING**

## **11.1 QUIT INTENTIONS**

In 2013, six in ten smokers (60.7%) aged 15 to 19 were seriously considering quitting in the next 6 months, and 59.2% of those were considering doing so in the next 30 days (Figure 11.1). Since 2000, the percentage of smokers seriously considering quitting has fluctuated around 60 to 70% (Figure 11.1).

FIGURE 11.1: PERCENTAGE OF SMOKERS AGED 15-19 SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, 2000-2013



DATA SOURCE: CTUMS, 2000-2012; CTADS, 2013

## The majority of youth smokers were interested in quitting:

- Six out of ten smokers aged 15 to 19 were seriously considering quitting
- Seven out of ten smokers in grades 6-9 and aged 15-19 had ever attempted to quit
- 57% of smokers aged 15-19 had attempted to quit in the past year

III: YOUTH QUITTING SMOKING

## **11.2 QUIT ATTEMPTS**

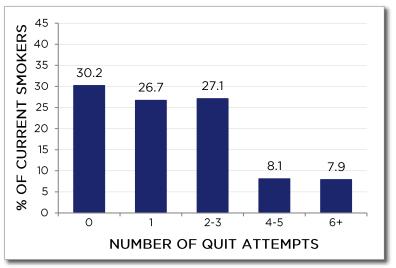
# Quit attempts among students in grades 6-9

Among current smokers in grades 6-9, seven out of ten (69.8%) had ever tried to guit smoking.

Most smokers who had ever tried to quit had made one to three attempts, with 16% having made four or more attempts (Figure 11.2).

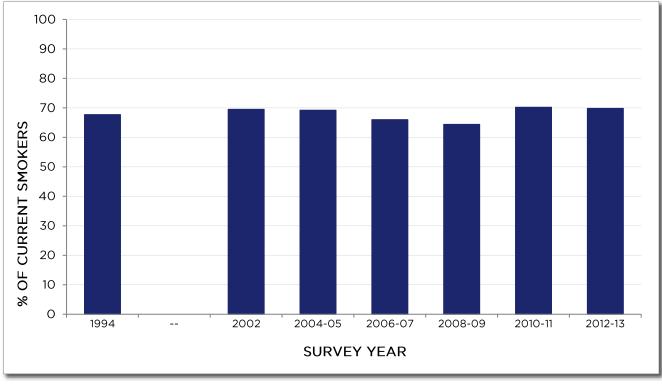
Between 2010-11 and 2012-13, there was no significant change in the percentage of smokers in grades 6-9 who had ever tried to quit smoking.<sup>109</sup>

The percentage of current smokers who had ever attempted to quit has remained fairly stable over time at around two-thirds, although there was slight variation from wave to wave (Figure 11.3). FIGURE 11.2: NUMBER OF QUIT ATTEMPTS EVER MADE BY CURRENT SMOKERS, GRADES 6-9, 2012-13



DATA SOURCE: YSS, 2012-13

FIGURE 11.3: PERCENTAGE OF CURRENT SMOKERS WHO HAVE EVER MADE A QUIT ATTEMPT, GRADES 6-9, 1994-2012-13



DATA SOURCE: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13

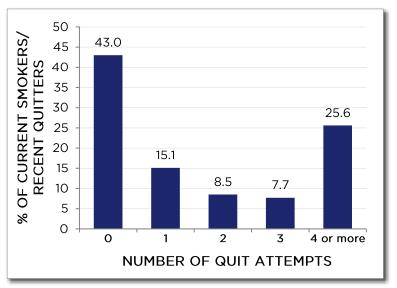
### Quit attempts among youth aged 15-19

Among current smokers aged 15-19, approximately two-thirds (68.4%) had ever made a guit attempt.

The majority (57.0%) of current smokers and recent quitters aged 15-19 had made a guit attempt lasting at least 24 hours in the past 12 months: nearly one third had made one to three attempts in the past 12 months, while a quarter had made four or more attempts (Figure 11.4).

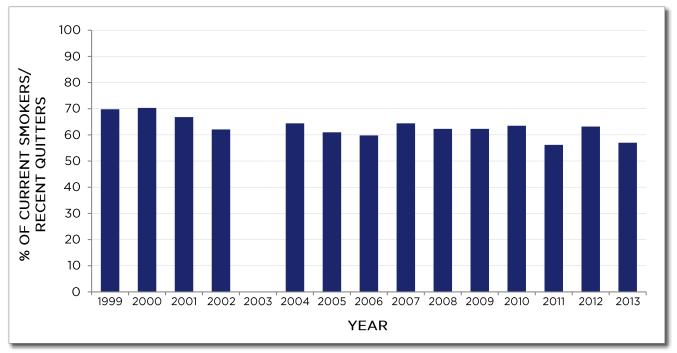
Between 2012 and 2013, there was no significant difference in the percentage of smokers aged 15-19 who had tried to guit smoking in the past 12 months.<sup>110</sup> Since 1999, the percentage of smokers and recent guitters who had attempted to guit in the past 12 months has remained approximately stable, with some year-to-year fluctuation (Figure 11.5).

FIGURE 11.4: NUMBER OF 24-HOUR QUIT ATTEMPTS MADE IN THE PAST 12 MONTHS BY SMOKERS AND RECENT QUITTERS, AGE 15-19, 2013



DATA SOURCE: CTADS, 2013

FIGURE 11.5: PERCENTAGE OF SMOKERS AND RECENT QUITTERS\* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY AGE GROUP, 1999\*\*-2013



\*NOTE: IN 1999-2002, THIS QUESTION WAS ASKED OF CURRENT SMOKERS; 2003 (DATA NOT SHOWN) INCLUDED ONLY SMOKERS WHO HAD TRIED TO QUIT IN THE PAST 2 YEARS; 2004-2013 INCLUDED CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS \*\*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS. DATA SOURCE: CTUMS, 1999-2012; CTADS, 2013

## GLOSSARY

## CTADS/CTUMS

Smoking status has been defined to be consistent with the definitions used in other national Health Canada surveys that collect data on tobacco use.

- **Smoking prevalence**: the estimated number of smokers in a specified group, divided by the total population of that group, expressed as a percentage; also referred to as the "smoking rate".
- **Cigarette consumption**: the number of cigarettes reported smoked by either daily or occasional smokers. In this report, consumption is reported only for daily smokers.
- Current smoker: includes daily and non-daily (occasional) smokers. Determined from the response to the question "At the present time do you smoke cigarettes every day, occasionally, or not at all?"
  - Current daily smoker: refers to those who respond "every day" to the question "At the present time do you smoke cigarettes every day, occasionally or not at all?"
  - Current non-daily smoker: often referred to as "occasional" smoker, refers to those who respond "Occasionally" to the question "At the present time do you smoke cigarettes every day, occasionally or not at all?"

Former smoker: was not smoking at the time of the interview, however, answered "YES" to the question "Have you smoked at least 100 cigarettes in your life?"

Ever-smokers: current and former smokers combined.

**Never-smoker**: was not smoking at the time of the interview and answered "NO" to the question "Have you smoked at least 100 cigarettes in your life?"

Non-smokers: former smokers and never-smokers combined.

Quitter percentage: the ratio of the number of former smokers in a specified group divided by the number of ever-smokers in that group.

## YSS

Current smoker: has smoked at least 100 cigarettes in his/her lifetime; includes daily and non-daily smokers.

- Current daily smoker: a current smoker who has smoked at least one cigarette per day for each of the 30 days preceding the survey.
- Current non-daily smoker: a current smoker who has smoked at least one cigarette during the past 30 days, but has not smoked every day.
- Former smoker: smoked at least 100 cigarettes in his/her lifetime and has not smoked at all during the past 30 days.
- Experimental smoker (beginner): has smoked at least one whole cigarette and has smoked in the last 30 days.
- Former experimental smoker (past experimenter): has smoked at least one whole cigarette and has not smoked at all in the past 30 days.
- Puffer: someone who has just tried a few puffs of a cigarette, but has never smoked a whole cigarette.
- Ever tried a cigarette: someone who has ever tried a cigarette, even a few puffs.

Never tried a cigarette: someone who has never tried a cigarette, not even a few puffs.

**Smoking prevalence**: the estimated number of smokers in a specified group, divided by the total population of that group, expressed as a percentage.

Cigarette consumption: the average number of cigarettes smoked per day by daily smokers.

## **INDEX OF STATISTICAL TESTS**

<sup>W</sup>Wald test used to compute the p-value (binary variables) <sup>F</sup>F test used to compute the p-value (continuous variables) <sup>R</sup>Regression of the log of the outcome variable on time

<sup>1</sup>Difference in overall smoking prevalence between 2012 and 2013: p=0.07<sup>W</sup> <sup>2</sup>Difference in daily smoking prevalence between 2012 and 2013: p=0.18<sup>w</sup> <sup>3</sup>Difference in non-daily smoking prevalence between 2012 and 2013: p=0.32<sup>w</sup> <sup>4</sup>Overall effect of time (1999-2013) on smoking prevalence: p<0.0001<sup>F</sup> <sup>5</sup>Overall annual rate of decline in prevalence, 1999-2013=3.3%; relationship of log prevalence & time: p<0.0001<sup>R</sup> <sup>6</sup>Difference in overall smoking prevalence between males and females in 2013: p=0.02<sup>w</sup> <sup>7</sup>Difference in non-daily smoking prevalence between males and females in 2013: p=0.04<sup>w</sup> <sup>8</sup>Difference in daily smoking prevalence between males and females in 2013: p=0.16<sup>w</sup> <sup>9</sup>Difference in current smoking prevalence among males between 2012 and 2013: p=0.07<sup>w</sup> <sup>10</sup>Difference in current smoking prevalence among females between 2012 and 2013: p=0.51<sup>W</sup> <sup>11</sup>Difference in current smoking prevalence between age groups in 2013: p<0.0001<sup>W</sup> <sup>12</sup>Difference in consumption between 2012 and 2013: p<0.05<sup>F</sup> <sup>13</sup>Overall effect of time (1999-2013) on consumption: p<0.0001<sup>F</sup> <sup>14</sup>Overall annual rate of decline in consumption, 1999-2013=1.3%; relationship of log CPD & time: p<0.0001<sup>R</sup> <sup>15</sup>Difference in consumption between males and females in 2013: p=0.0001<sup>F</sup> <sup>16</sup>Difference in consumption among males between 2012 and 2013: p=0.04<sup>F</sup> <sup>17</sup>Difference in consumption among females between 2012 and 2013: p=0.77<sup>F</sup> <sup>18</sup>Difference in consumption between age groups in 2013: p<0.0001<sup>F</sup> <sup>19</sup>Difference in self-rated health (excellent/very good vs. other) by smoking status in 2013: p<0.0001<sup>W</sup> <sup>20</sup>Difference in (excellent/very good) self-rated health by smoking status, age 15-19, in 2013: p<0.0001<sup>W</sup> <sup>21</sup>Difference in (excellent/very good) self-rated health by smoking status, age 20-24, in 2013: p<0.0001<sup>W</sup> <sup>22</sup>Difference in (excellent/very good) self-rated health by smoking status, age 25-34, in 2013;  $p=0.01^{W}$ <sup>23</sup>Difference in (excellent/very good) self-rated health by smoking status, age 35-44, in 2013: p=0.005<sup>w</sup> <sup>24</sup>Difference in (excellent/very good) self-rated health by smoking status, age 45+, in 2013: p<0.0001<sup>W</sup> <sup>25</sup>Difference in self-rated mental health (excellent/very good vs. other) by smoking status in 2013: p<0.0001<sup>w</sup> <sup>26</sup>Difference in (excellent/very good) self-rated mental health by smoking status, age 15-19, in 2013: p<0.0001<sup>W</sup> <sup>27</sup>Difference in (excellent/very good) self-rated mental health by smoking status, age 20-24, in 2013: p=0.006<sup>w</sup> <sup>28</sup>Difference in (excellent/very good) self-rated mental health by smoking status, age 25-34, in 2013: p=0.25<sup>W</sup> <sup>29</sup>Difference in (excellent/very good) self-rated mental health by smoking status, age 35-44, in 2013: p=0.46<sup>w</sup> <sup>30</sup>Difference in (excellent/very good) self-rated mental health by smoking status, age 45+, in 2013: p<0.0001<sup>W</sup> <sup>31</sup>Difference in smoking prevalence between provinces in 2013;  $p<0.0001^{W}$ <sup>32</sup>Difference in consumption between provinces in 2013: p=0.28<sup>F</sup> <sup>33</sup>Difference in cigar use between males and females in 2013: p<0.0001<sup>W</sup> <sup>34</sup>Difference in cigarillo use between males and females in 2013: p<0.0001<sup>w</sup> <sup>35</sup>Difference in pipe use between males and females in 2013: p=0.02<sup>w</sup> <sup>36</sup>NOTE: Difference in chewing tobacco/snuff use between males and females in 2013 was not calculated due to low number of female users <sup>37</sup>Difference in waterpipe use between males and females in 2013: p=0.84<sup>W</sup> <sup>38</sup>Difference in cigarillo use between (4) age groups in 2013: p<0.0001<sup>W</sup> <sup>39</sup>Difference in cigar use between (3) age groups in 2013: p=0.002<sup>w</sup> <sup>40</sup>Difference in pipe use between (3) age groups in 2013:  $p=0.006^{W}$ <sup>41</sup>Difference in chewing tobacco/snuff use between (2) age groups in 2013: p=0.02<sup>w</sup> <sup>42</sup>Difference in waterpipe use between (2) age groups in 2013: p<0.0001<sup>W</sup> <sup>43</sup>Difference in cigar/cigarillo use between provinces in 2013: p=0.001<sup>W</sup> <sup>44</sup>Difference in any SHS exposure in past month between males and females in 2013: p<0.0001<sup>w</sup> <sup>45</sup>Difference in any SHS exposure in past month between age groups in 2013: p<0.0001<sup>w</sup> <sup>46</sup>Difference in any SHS exposure in past month by smoking status in 2013: p<0.0001<sup>W</sup> <sup>47</sup>Difference in guitter percentage between males and females in 2013: p=0.62<sup>w</sup> <sup>48</sup>Difference in ever smoking between males and females in 2013:  $p<0.0001^{W}$ <sup>49</sup>Difference in current smoking between males and females in 2013: p=0.02<sup>W</sup> <sup>50</sup>Difference in quitter percentage between age groups in 2013: p<0.0001<sup>W</sup> <sup>51</sup>Difference in 6-month guit intentions between 2012 and 2013:  $p=0.64^{W}$ <sup>52</sup>Difference in 30-day guit intentions between 2012 and 2013; p=0.34<sup>W</sup>

87

 $^{53}$ Difference in 6-month quit intentions between males and females in 2013: p=0.006<sup>W</sup> <sup>54</sup>Difference in 30-day guit intentions between males and females in 2013: p=0.009<sup>W</sup> <sup>55</sup>Difference in 6-month guit intentions between age groups in 2013: p=0.17<sup>w</sup> <sup>56</sup>Difference in 30-day guit intentions between age groups in 2013:  $p=0.86^{W}$ <sup>57</sup>Difference in having made a quit attempt in the past year between 2012 and 2013: p=0.44<sup>w</sup> <sup>58</sup>Difference in having made a quit attempt in the past year between males and females in 2013: p=0.0003<sup>w</sup> <sup>59</sup>Difference in having made a quit attempt in the past year between age groups in 2013: p=0.008<sup>w</sup> <sup>60</sup>Difference in guit success (among past-year attempters) between 2012 and 2013: p=0.45<sup>w</sup> <sup>61</sup>Difference in quit success (among past-year attempters) between males and females in 2013: p=0.84<sup>W</sup> <sup>62</sup>Difference in quit success (among past-year attempters) between age groups in 2013: p=0.29<sup>w</sup> <sup>63</sup>Difference in citing health as the main reason for quitting between males and females in 2013: p=0.09<sup>W</sup>  $^{64}$ Difference in citing health as the main reason for quitting between age groups in 2013: p= $0.34^{W}$ <sup>65</sup>Difference in ever trying a cigarette between males and females in 2012-13, grades 6-9: p=0.0002<sup>w</sup> <sup>66</sup>Difference in ever trying a cigarette between 2010-11 and 2012-13, grades 6-9; p=0.11<sup>W</sup> <sup>67</sup>Difference in ever trying a cigarette between provinces in 2012-13, grades 6-9: p<0.0001<sup>W</sup> <sup>68</sup>Difference in ever smoking a whole cigarette between 2012 and 2013, age 15-19; p=0.008<sup>W</sup> <sup>69</sup>Difference in ever smoking a whole cigarette among females between 2012 and 2013, age 15-19: p<0.0001<sup>W</sup> <sup>70</sup>Difference in ever smoking a whole cigarette between males and females in 2013, age 15-19: p<0.0001<sup>w</sup> <sup>71</sup>Difference in susceptibility between 2010-11 and 2012-13, grades 6-9: p=0.17<sup>W</sup>  $^{72}$ Difference in susceptibility between males and females in 2012-13, grades 6-9: p=0.95 $^{
m w}$ <sup>73</sup>Difference in susceptibility between provinces in 2012-13, grades 6-9: p=0.002<sup>w</sup> <sup>74</sup>Difference in smoking prevalence between 2010-11 and 2012-13, grades 6-9: p=0.48<sup>w</sup> <sup>75</sup>Difference in daily smoking prevalence between 2010-11 and 2012-13, grades 6-9: p=0.76<sup>W</sup> <sup>76</sup>Difference in non-daily smoking prevalence between 2010-11 and 2012-13, grades 6-9; p=0.40<sup>W</sup> <sup>77</sup>Difference in smoking prevalence between 2012 and 2013, age 15-19: p=0.89<sup>w</sup> <sup>78</sup>Difference in daily smoking prevalence between 2012 and 2013, age 15-19:  $p=0.12^{W}$ <sup>79</sup>Difference in non-daily smoking prevalence between 2012 and 2013, age 15-19:  $p=0.09^{W}$ <sup>80</sup>Difference in smoking prevalence between males and females in 2012-13, grades 6-9: p=0.26<sup>W</sup> <sup>81</sup>Difference in smoking prevalence between males and females in 2013, age 15-19: p=0.003<sup>w</sup> <sup>82</sup>Difference in smoking prevalence between provinces in 2012-13, grades 6-9: p<0.0001<sup>W</sup> <sup>83</sup>Difference in smoking prevalence between provinces in 2013, age 15-19: p=0.53<sup>w</sup> <sup>84</sup>Difference in consumption between 2010-11 and 2012-13, grades 7-9: p=0.36<sup>F</sup> <sup>85</sup>Difference in consumption between 2012 and 2013, age 15-19: p=0.17<sup>F</sup> <sup>86</sup>Difference in consumption between males and females in 2012-13, grades 7-9: p=0.20<sup>F</sup> <sup>87</sup>Difference in consumption between males and females in 2013, age 15-19: p=0.44<sup>F</sup> <sup>88</sup>Difference in cigar/cigarillo use between 2012 and 2013, age 15-19: p=0.37<sup>w</sup> <sup>89</sup>Difference in chewing tobacco/snuff use between 2012 and 2013, age 15-19; p=0.53<sup>w</sup> <sup>90</sup>Difference in cigar/cigarillo use between 2010-11 and 2012-13, grades 6-9; p=0.24<sup>w</sup>  $^{91}$ Difference in pipe use between 2010-11 and 2012-13, grades 6-9: p=0.36<sup>W</sup> <sup>92</sup>Difference in smokeless tobacco use between 2010-11 and 2012-13, grades 6-9: p=0.87<sup>w</sup> <sup>93</sup>Difference in cigar use between males and females in 2013, age 15-19: p<0.0001<sup>W</sup>  $^{94}$ Difference in cigarillo use between males and females in 2013, age 15-19: p<0.0001<sup>W</sup> <sup>95</sup>Difference in chewing tobacco/snuff use between males and females in 2013, age 15-19: p<0.0001<sup>W</sup>  $^{96}$ Difference in waterpipe use between males and females in 2013, age 15-19: p=0.0002<sup>W</sup> <sup>97</sup>Difference in cigar/cigarillo use between males and females in 2012-13, grades 6-9: p<0.0001<sup>w</sup>  $^{98}$ Difference in pipe use between males and females in 2012-13, grades 6-9: p<0.0001<sup>W</sup> <sup>99</sup>Difference in smokeless tobacco use between males and females in 2012-13, grades 6-9: p<0.0001<sup>W</sup> <sup>100</sup>Difference in waterpipe use between males and females in 2012-13, grades 6-9; p=0.005<sup>w</sup> <sup>101</sup>Difference in cigar/cigarillo use between provinces in 2012-13, grades 6-9; p<0.0001<sup>W</sup> <sup>102</sup>Difference in pipe use between provinces in 2012-13, grades 6-9: p<0.0001<sup>w</sup> <sup>103</sup>Difference in smokeless tobacco use between provinces in 2012-13, grades 6-9: p<0.0001<sup>W</sup> <sup>104</sup>Difference in waterpipe use between provinces in 2012-13, grades 6-9: p<0.0001<sup>w</sup> <sup>105</sup>Difference in cigarillo use between provinces in 2013, age 15-19: p<0.0001<sup>W</sup> <sup>106</sup>Difference in waterpipe use between provinces in 2013, age 15-19: p<0.0001<sup>W</sup> <sup>107</sup>Difference in chewing tobacco/snuff use between provinces in 2013, age 15-19: p=0.004<sup>w</sup> <sup>108</sup>Difference in cigar use between provinces in 2013, age 15-19: p=0.18<sup>w</sup> <sup>109</sup>Difference in ever having made a quit attempt between 2010-11 and 2012-13, grade 6-9 smokers: p=0.95<sup>W</sup> <sup>110</sup>Difference in having made a quit attempt in the past 12 months between 2012 and 2013, smokers age 15-19: p=0.33<sup>W</sup>

88

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## APPENDIX A: Canadian Tobacco Use Monitoring Survey (CTUMS) and Canadian Tobacco, Alcohol and Drugs Survey (CTADS)

CTADS/CTUMS is conducted by Statistics Canada with the cooperation and support of Health Canada. CTUMS (1999-2012) was developed to provide Health Canada and its partners with timely, reliable, and continual data on tobacco use and related issues. Beginning in 2013, new content covering alcohol and drug use (prescription and non-prescription) was added to CTUMS to create the Canadian Tobacco, Alcohol and Drugs Survey (CTADS). CTADS/CTUMS use a repeated cross-sectional survey design. Data are collected from February to December (annually for CTUMS; biennially for CTADS), using computer-assisted random-digit-dialed telephone interviews.

The samples for CTUMS were selected using a two-phase stratified random sampling procedure. The twophase design was used in order to increase the representation in the sample of respondents belonging to the 15 to 19 and 20 to 24 age groups, which are populations that are most at risk of becoming smokers. In the first phase, households were selected using random-digit-dialing. In the second phase, one or two individuals (or none) were selected based upon household composition. This ensured the representation of individuals in the younger age groups because the random selection was implemented such that at least one person in the 15 to 19 or 20 to 24 age groups would be selected within a household, if they existed. The samples included the population of Canada aged 15 years and over, excluding residents of Yukon, Northwest Territories and Nunavut, as well as full-time residents of institutions and individuals without telephones or with cell phones only. Each year from 1999-2010, CTUMS released two semi-annual files and a yearly summary; this report uses the yearly summary data sets, except where noted. In 2011 and 2012, only annual files were released. CTADS will release data sets every two years, beginning in 2013.

CTADS datasets and documentation are available online.

CTUMS datasets and documentation are available online.

## **APPENDIX B: Youth Smoking Survey (YSS)**

The Youth Smoking Survey (YSS) was implemented with the cooperation, support and funding of Health Canada, and conducted by a consortium of researchers across Canada and coordinated centrally by the Propel Centre for Population Health Impact at the University of Waterloo. The YSS monitored tobacco use in school-aged children (grades 6-9/10-12), and collected data on the smoking behaviour of students, social and demographic factors, attitudes and beliefs about smoking, cigarette purchasing and other policy-relevant items, as well as experience with alcohol and drugs. The YSS used a repeated cross-sectional survey design. Seven waves of the YSS were conducted: 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, and 2012-13.

YSS data was collected through classroom-based surveys of students in grades 6 to 9 (and grades 10-12 from 2006-07 onward; grade 5 was also included in waves prior to and including 2006-07) attending a generalizable sample of private, public, and Catholic schools. Sampling procedures varied by survey wave.

- In 2006-07 through to 2012-13, schools were randomly sampled within each province, using a stratified single stage design. Using this sampling design, stratification was based on two classifications: 1) health region smoking rate (above or below median) or, in certain provinces depending on the cycle (*noted below*), the urban stratum; and, 2) type of school (elementary or secondary).
  - In 2008-09 and 2006-07 schools were sampled in all 10 provinces.
  - Participation in the 2012-13 YSS was declined by the province of Manitoba. Based on comparative analysis conducted using 2010-11 survey data, there were no statistically significant differences in national estimates for current or ever smoking with and without Manitoba.
  - Participation in the 2010-11 YSS was declined by the province of New Brunswick. Based on comparative analysis conducted using 2008-09 survey data, there were no statistically significant differences in national estimates for current or ever smoking with and without New Brunswick.
  - The urban stratum was added first in Ontario in 2008-09. In 2010-11, there were urban strata in both Ontario and Alberta. In 2012-13, there were urban strata in Ontario, Alberta and Quebec.
  - In 2010-11, stratification in Quebec was based on different classifications due to collaboration with another project. Please see the 2010-11 user guide for details.
- In 2004-05, the sampling of schools was conducted in two stages. At stage 1, school boards were sampled within each province using a stratified sampling design. The school boards were rank ordered based on their adult smoking rates and each board was assigned to one of the two strata (low vs. high smoking

90

rate) so that approximately half the total student enrolment in any province was assigned to each stratum. From the selected school boards, schools were then sampled. Schools were stratified into two strata, the senior stratum (senior elementary or high school grades) and the junior stratum (junior elementary grades).

- In 2002, grades within schools were sampled. The sample design featured three levels of stratification, by province, by grade and the schools were stratified by census metropolitan area (CMA) versus non-CMA. A school may be selected more than once, for different grades.
- The 1994 YSS had a sampling design similar to 2002, with the exception that there were two levels of stratification: province and grade.
- In all years, the sample excluded residents of the Yukon, Nunavut and Northwest Territories, residents of institutions, residents of First Nations reserves, and those attending special schools (e.g., schools for visually-/hearing-impaired individuals) or schools located on military bases.
- In 2004-05 through 2012-13, all students within participating schools/classrooms were invited to participate in the survey. In 1994 and 2002, one class was randomly selected in the desired grade in the selected schools and all students within each selected class were invited to participate in the survey.

Participating students completed a 30-40 minute written survey within their classroom; these surveys were scanned (in 2004-05, 2006-07, 2008-09, 2010-11 and 2012-13) or data captured (in 1994 and 2002) and cleaned to create the final data sets. In 1994, all grades 5 to 9 students responded to the same questionnaire. In 2002 and 2004-05, grade 5 and 6 students responded to a version of the questionnaire that did not include the alcohol and drug questions answered by grade 7 to 9 students. In 2006-07, grade 5 and 6 students responded to a questionnaire that did not include alcohol and drug questions, and in each class of grade 7 to 9 students (and grade 10 to 12 students), students were randomly selected to receive one of two versions of the questionnaire with alcohol and drug questions. For this reason, the YSS 2006-07 data has two survey weights (rather than one, as in other years), the use of which depends on which module(s) included the variables being analysed (this information can be found in the supplementary user guide for YSS 2006-07). From 2008-09 onward, grade 6 students responded to a version of the questionnaire that did not include the alcohol and drug questions answered by grade 7 to 9 students (be alcohol and drug questions), but was otherwise the same.

#### After 2012-13, the YSS continues as the Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS).

Additional information on the YSS and CSTADS is available at:

http://uwaterloo.ca/canadian-student-tobacco-alcohol-drugs-survey/information-researchers

YSS datasets are available from the Propel Population Health Data Repository (PHDR) at: http://uwaterloo.ca/propel/resources-and-products/population-health-data-repository

## **APPENDIX C: Data Analysis**

Data analysis was completed by Vicki Rynard, MSc, and Robin Burkhalter, MMath, of the Propel Centre for Population Health Impact, using datasets made available by Statistics Canada and Health Canada. We are grateful to Rashid Ahmed for statistical contributions to previous editions. Statistical guidance for previous editions was provided by K. Stephen Brown, PhD, of the Propel Centre for Population Health Impact and the Department of Statistics & Actuarial Science, University of Waterloo.

This report and the views expressed herein do not necessarily reflect the views or opinions of Statistics Canada or Health Canada.

#### Estimates

The data presented in this report are weighted estimates, unless otherwise noted. The CTUMS/CTADS survey weights assigned by Statistics Canada in the annual datasets were used for CTUMS/CTADS analyses, and YSS survey weights were used for YSS analyses; CTUMS/CTADS and YSS were not analysed together and there was no overlap of the survey weights between the two surveys. Estimates for categorical measures were generated using the SURVEYFREQ procedure in SAS statistical software (Version 9.4), while estimates for continuous variables (e.g., cigarettes per day) were generated using the SURVEYMEANS procedure in SAS. Estimates and confidence intervals were generated using the statistical software STATA 10.1 using the bootstrap weights where they were available (CTADS 2013, CTUMS 2001 to 2012, and YSS 2004-05 to 2012-13).

#### Reporting

Confidence intervals are available as supplementary material on the website, but are not included in this report; caution should be used when making comparisons without first checking the confidence intervals. Estimates are not reported where specific categories included less than 30 individuals (unweighted), except where noted as not meeting Statistics Canada's quality standards. In addition to this rule, Health Canada also recommends calculating the coefficient of variation to determine the quality level of the estimate (for further information, please refer to the documentation for specific surveys and waves/years). As a result, some estimates included in this report may be reported "with caution" or not reported by Health Canada in their releases.

#### Rounding

Estimates in figures and the associated data tables have been rounded to one decimal place. Provincial estimates for numbers of smokers reported in sections 2.1-2.10 have been rounded to the nearest thousand.

#### Significance Testing

Statistical comparisons between groups/years were tested using regression analysis, with p<0.05 as the cutoff for significance. Bootstrap weights were used to perform significance testing between groups or between the latest two years, where they were available (CTADS 2013, CTUMS 2001 to 2012, and YSS 2004-05 to 2012-13). The statistical comparisons were performed using the SURVEYLOGISTIC procedure in SAS statistical software (Version 9.4) for all binary response variables. For the continuous variable of cigarettes per day, comparisons were performed using the SURVEYREG procedure in SAS. Comparisons of prevalence rate and cigarettes per day (CPD) over the time period 1999-2013 (#4, #5, #13 and #14) were tested using a dataset of the prevalence rates and CPD by year. The GLM procedure in SAS was used with the yearly prevalence rate regressed on year for #4, the log of yearly prevalence rate regressed on year for #5, yearly CPD regressed on year for #13 and log of yearly CPD regressed on year for #14.

Where statistical testing has been performed, comparisons are marked with a superscript number, which refers to a p-value that can be found in the *Index of Statistical Tests* (*page 87*). Throughout the report, the term "significant" has been reserved for instances where statistical testing has been performed at the 5% of level of significance (i.e., p<0.05).

#### Data for Section III (Youth)

92

Both YSS and CTUMS/CTADS data were used for the youth analysis: YSS data were used for youth in grades 6-9, who were approximately aged 10-14, and CTUMS/CTADS was used for youth aged 15-19. Earlier waves of the YSS included students in grade 5, who are not included in this report for purposes of comparability between survey waves. The more recent waves of the YSS (from 2006-07 onward) also included students in grades 10-12, but these students were not included in the analysis due to their overlap in age with the CTUMS/CTADS sample; CTUMS/CTADS was selected as the data source for older youth since the sampling frame includes youth both in and out of school, whereas the YSS only samples youth who are attending school.

YSS and CTUMS/CTADS data have been integrated where possible. However, differences in the questions asked on each survey and the timing of the surveys does not allow for parallel reporting of all measures. The most recent wave was 2013 for CTADS, and 2012-13 for the YSS. The YSS runs on school years (data collection between September and June), while CTUMS/CTADS runs on calendar years (data collection from February to December). Data collected via the YSS (grades 6-9) are presented by grade rather than age, as the survey was school-based and sampling was done by grade. CTUMS/CTADS is not school-based, so data are presented by age.

The YSS and CTUMS/CTADS base their definition of a current smoker on different items: the YSS defines a current smoker as having smoked at least 100 cigarettes in his/her lifetime and smoked in the 30 days preceding the survey; CTUMS/CTADS defines a current smoker using their response to the question "At the present time do you smoke cigarettes every day, occasionally, or not at all?".

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