



Tobacco Use in Canada: Patterns and Trends 2017 EDITION



PROPEL
CENTRE FOR
POPULATION
HEALTH IMPACT

University of Waterloo | Waterloo, Ontario

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Tobacco Use in Canada: Patterns and Trends 2017 Edition

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

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We are pleased to share with you *Tobacco Use in Canada: Patterns and Trends, 2017 Edition*. Now in its seventh edition, this report builds on previous publications, and is a reference on tobacco use in Canada, with a focus on the most current data, as well as trend data between 1999 and 2015. We have built this report using data from national surveys conducted by Health Canada and Statistics Canada.

Tobacco control continues to be a critical priority for cancer prevention, for both the Canadian Cancer Society and the Propel Centre for Population Health Impact. We are making great strides: 13% of the Canadian population reported smoking tobacco in 2015, the lowest estimate ever. Compare this to just over 50 years ago, in 1965, when approximately half of the Canadian population smoked. However, our work is still not done. 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 and well-being of so many Canadians.

For the third year, we have included a special topic supplement, this time on the use of cannabis (marijuana), with a focus on Canadian youth. The 2015 Canadian Tobacco, Alcohol and Drugs Survey (CTADS) indicates that use of cannabis was most prevalent among young people, with past-year use at 21% among youth aged 15 to 19 and 30% among young adults aged 20 to 24, compared to 10% among adults aged 25 or older.¹ The supplement focuses on cannabis use among youth, using data from the 2014-15 Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) of students in grades 7-12. Findings indicate that cannabis use and tobacco use share a strong association: more than 90% of grade 7-12 students who were current smokers also reported ever trying cannabis. As the federal government aims to legalize marijuana in Canada by July 1, 2018, it will be important to consider implications for programming aimed at youth substance use and public health more broadly.

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



LYNNE HUDSON
President & 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 2015, with a focus on the most recent data available. Highlights of the report are presented below.

SECTION I: TOBACCO USE AMONG CANADIAN ADULTS (15+), 2015

SMOKING PREVALENCE

- 13.0% of Canadians (approximately 3.9 million) were current smokers: the lowest prevalence estimate since monitoring began.
- The majority of smokers reported smoking daily (9.4% daily/3.7% non-daily prevalence).
- Prevalence was higher among males (15.6%) than females (10.4%).
- Smoking prevalence was highest among young adults aged 20-24 (18.5%), and generally declined with age. Prevalence was lowest among youth aged 15-19 (9.7%) and adults age 55+ (10.6%).
- There were significant differences between provinces in smoking prevalence.
- Self-rated health varied by smoking status, with non-smokers rating their general health and mental health better than smokers.

CIGARETTE CONSUMPTION

- Daily smokers in Canada smoked an average of 13.8 cigarettes per day.
- Average consumption has declined by more than 3 cigarettes per day since 1999.
- Male daily smokers consumed over 3 cigarettes more per day than females (15.2 and 11.9, respectively).

USE OF OTHER TOBACCO PRODUCTS

- Cigarillos and cigars were the most popular tobacco products other than cigarettes: 2.5% of Canadians reported use in the past 30 days.
- Use of other tobacco products (cigars, cigarillos, pipe, chewing tobacco/snuff, waterpipe) was more prevalent among males, and among young adults.
- Use of cigars/cigarillos varied significantly by province.

EXPOSURE TO SECONDHAND SMOKE (SHS)

- More than half of respondents (57.7%) reported being exposed to SHS in the past month, including 13.4% who reported being exposed either every day or almost every day.
- SHS exposure was more prevalent among males, young people, and current smokers.

SECTION II: QUITTING SMOKING, 2015

- Two-thirds (67.7%) of Canadians who have ever been smokers have now quit.

PLANS TO QUIT

- Two-thirds of smokers (65.8%) were seriously considering quitting in the next 6 months; 3 in 10 (31.1%) were considering quitting in the next month.
- Similar proportions of males and females were seriously considering quitting smoking in the next 6 months and in the next month.
- The majority of smokers in all age groups were considering quitting in the next 6 months.

QUIT ATTEMPTS AND SUCCESS (ABSTINENCE)

- More than half of smokers had tried to quit in the past year; one-third tried more than once.
- Similar percentages of males and females had made a quit attempt in the past year.
- Quit attempts varied by age group. The percentage of smokers who had tried to quit was highest among young smokers, and declined with age.
- Among respondents who had made a quit attempt in the past year, 13.3% were still abstinent from smoking at the time they were surveyed.

CESSATION ASSISTANCE

- 6.9% of current and former smokers who tried to quit in the past year used a telephone quitline for assistance.

REASONS FOR QUITTING

- Two-thirds of former smokers who quit in the past year cited health as their main reason.

SECTION III: TOBACCO USE AMONG CANADIAN YOUTH

Youth in grades 6-9, in 2014-15:

- 8.1% of students in grades 6-9 had ever tried a cigarette.
- Less than 2% of students in grades 6-9 were current smokers overall, although the exact estimate cannot be reported.
 - Smoking prevalence was similar among male and female students in grades 6-9.
- Three out of ten never-smokers in grades 6-9 were classified as susceptible to smoking.
- Daily smokers in grades 7-9 smoked an average of 8.8 cigarettes per day.
- 4.9% 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.
- Nearly seven out of ten current smokers in grades 6-9 reported ever trying to quit smoking.

Youth aged 15-19, in 2015:

- Less than one in five (18.2%) youth reported ever having smoked a whole cigarette.
- One in ten youth (9.7%) were current smokers overall, with age-specific rates ranging from 5.0% among 15- and 16-year-olds to 17.7% of 19-year-olds.
 - Daily smoking (4.3%) accounted for less than half of youth prevalence (5.4% non-daily).
 - Prevalence did not differ significantly between males (11.0%) and females (8.3%).
- Daily smokers aged 15-19 smoked an average of 11.6 cigarettes per day.
- 21.9% of youth aged 15-19 had ever smoked a cigarillo, and 12.8% had ever smoked a cigar; 12.3% had ever used a waterpipe.
 - Sex differences were apparent: 18.4% of males and 6.9% of females had smoked a cigar, while 27.1% of males and 16.4% of females had smoked a cigarillo.
- Nearly half (46.6%) of smokers aged 15-18 usually bought cigarettes from stores, while 37.7% were given cigarettes by social sources, and 15.8% obtained them through “Other” sources.
- The majority of smokers aged 15-19 were seriously considering quitting in the next 6 months.
- Two-thirds (65.0%) of smokers aged 15-19 had made a quit attempt in the past 12 months.

SECTION IV: E-CIGARETTE USE AMONG CANADIANS (15+), 2015

- A substantial number of Canadians had tried e-cigarettes, but few reported regular use: 13.2% of Canadians (3.9 million) reported having ever tried an e-cigarette; 3.2% had used one in the past 30 days, and 1.0% reported daily use.
- Use of e-cigarettes increased significantly between 2013 and 2015.
- E-cigarette use was most prevalent among young people: one in four youth (aged 15-19) and three in ten young adults (aged 20-24) reported ever trying an e-cigarette.
- Prevalence of e-cigarette use was much greater among smokers: 51.0% of current smokers had ever used e-cigarettes, compared to 7.6% of non-smokers; past 30-day use was 15.5% among current smokers and 1.4% among non-smokers.
- Nearly half (47.8%) of users reported that the last e-cigarette they used contained nicotine.
- Among all ever users, nearly one-quarter (22.8%) reported using e-cigarettes to help them quit smoking within the past two years.
- One in ten Canadian students in grades 6-9 reported having ever tried an e-cigarette in 2014-15; 3.2% had used an e-cigarette in the past 30 days.

ABOUT THIS REPORT

This report is the seventh edition in a series on tobacco use in Canada, 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 2015, with a focus on the most recent 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 www.uwaterloo.ca/tobacco-use-canada/ or www.tobaccoreport.ca. 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) replaced 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 via telephone interviews, conducted from February to December in each survey year (annually for CTUMS; every 2 years for CTADS). 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, prior to 2015).

See Appendix A for further details.

Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS); formerly Youth Smoking Survey (YSS)

The Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS; called the Youth Smoking Survey (YSS) prior to 2014-15) is an important surveillance tool that provides Health Canada, its partners and stakeholders, as well as the Canadian public, with timely and reliable data on tobacco, alcohol and drug use, and related issues among Canadian students. CSTADS/YSS is funded by Health Canada and has been implemented biennially since 2004-05 by the Propel Centre for Population Health Impact at the University of Waterloo, in collaboration with researchers across Canada. The YSS was also implemented by Health Canada in 1994 and 2002. In each survey cycle, schools are randomly sampled within each of the 10 provinces, using a stratified single-stage design, to ensure a provincially and nationally generalizable sample. Within each participating school, all students in grade 6-12 classrooms (including grade 5 and excluding grades 10-12 prior to 2006-07) are invited to complete the CSTADS questionnaire. The sample excluded residents of the Yukon, Nunavut and Northwest Territories, residents of institutions, and those attending schools on First Nations reserves, special needs schools (e.g., schools for visually- or hearing-impaired individuals) or schools located on military bases; schools that did not have at least 20 students enrolled in at least one eligible grade were also excluded. The provinces of New Brunswick and Manitoba did not participate in CSTADS in 2010-11 and 2012-13, respectively. The 2014-15 CSTADS did not achieve a generalizable sample of students in New Brunswick; therefore, provincial estimates for NB are not reported, although NB is included in the national estimates.

See Appendix B for further details.

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 include less than 30 individuals (unweighted), except where noted as not meeting Statistics Canada's quality standards. The CTADS/CTUMS survey weights assigned by Statistics Canada in the annual datasets were used for CTADS/CTUMS analyses, and the CSTADS/YSS survey weights were used for CSTADS/YSS analyses. CTUMS/CTADS and CSTADS/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 or Stata 14.2. Bootstrap weights were used to perform significance testing where available. The change in the specification of the bootstrap weights from CTADS 2013 to CTADS 2015 necessitated using the variances (each calculated using their own set of bootstrap weights) to perform a z-test when testing the differences in estimates between CTADS 2013 and CTADS 2015. 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 101)*. 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, Cheryl Madill, MSc, and Robin Burkhalter, MMath, of the Propel Centre for Population Health Impact, using datasets made available by Statistics Canada and Health Canada. Statistical guidance was provided by K. Stephen Brown, PhD, of the Department of Statistics & Actuarial Science, University of Waterloo. We are grateful to Rashid Ahmed for statistical contributions to previous editions.

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, II and IV are for Canadians age 15 and over, from the Canadian Tobacco, Alcohol and Drugs Survey (CTADS)/Canadian Tobacco Use Monitoring Survey (CTUMS), and data reported in Section III are for Canadian youth, grades 6-9 from the Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS)/Youth Smoking Survey (YSS), and age 15-19 from CTADS/CTUMS (p. 106).

The 2017 Edition

This report updates the previous (2015) edition with current data, including the 2015 wave of CTADS and the 2014-15 Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS).

This edition also features a special supplement on the issue of cannabis (marijuana) use.

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

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SECTION I: TOBACCO USE AMONG CANADIAN ADULTS



HIGHLIGHTS

In 2015, among Canadians age 15 and older:

13.0% of Canadians (approximately 3.9 million) were current smokers: the lowest prevalence estimate since monitoring began. (page 15)

The majority of smokers reported smoking daily (9.4% daily/3.7% non-daily prevalence). (p. 15)

Prevalence was higher among males (15.6%) than females (10.4%). (p. 16)

Prevalence was highest among young adults (18.5% among those aged 20-24), and generally declined with age. Prevalence was lowest among youth aged 15-19 and adults age 55+, at 9.7% and 10.6%, respectively. (p. 17)

Canadians purchased over 29 billion cigarettes, down from over 42 billion in 2001. (p. 44)

Daily smokers in Canada smoked an average of 13.8 cigarettes per day. (p. 18)

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

Male daily smokers consumed over 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 better than smokers (p. 20-21)

There were significant differences between provinces in smoking prevalence, ranging from 10.2% in BC to over 18.5% in Newfoundland. (p. 22)

Cigars and cigarillos were the most popular tobacco products other than cigarettes: 2.5% of Canadians reported use in the past 30 days. (p. 47)

Use of cigars/cigarillos varied by province. (p. 50)

Use of other tobacco products (cigars, cigarillos, pipe, chewing tobacco/snuff, waterpipe) was more prevalent among males, and among young adults. (p. 48)

Although the vast majority of smokers usually obtained their cigarettes from stores, more than **one in ten had purchased from a First Nations reserve** in the last 6 months. Few reported having purchased cigarettes that may have been smuggled. (p. 46)

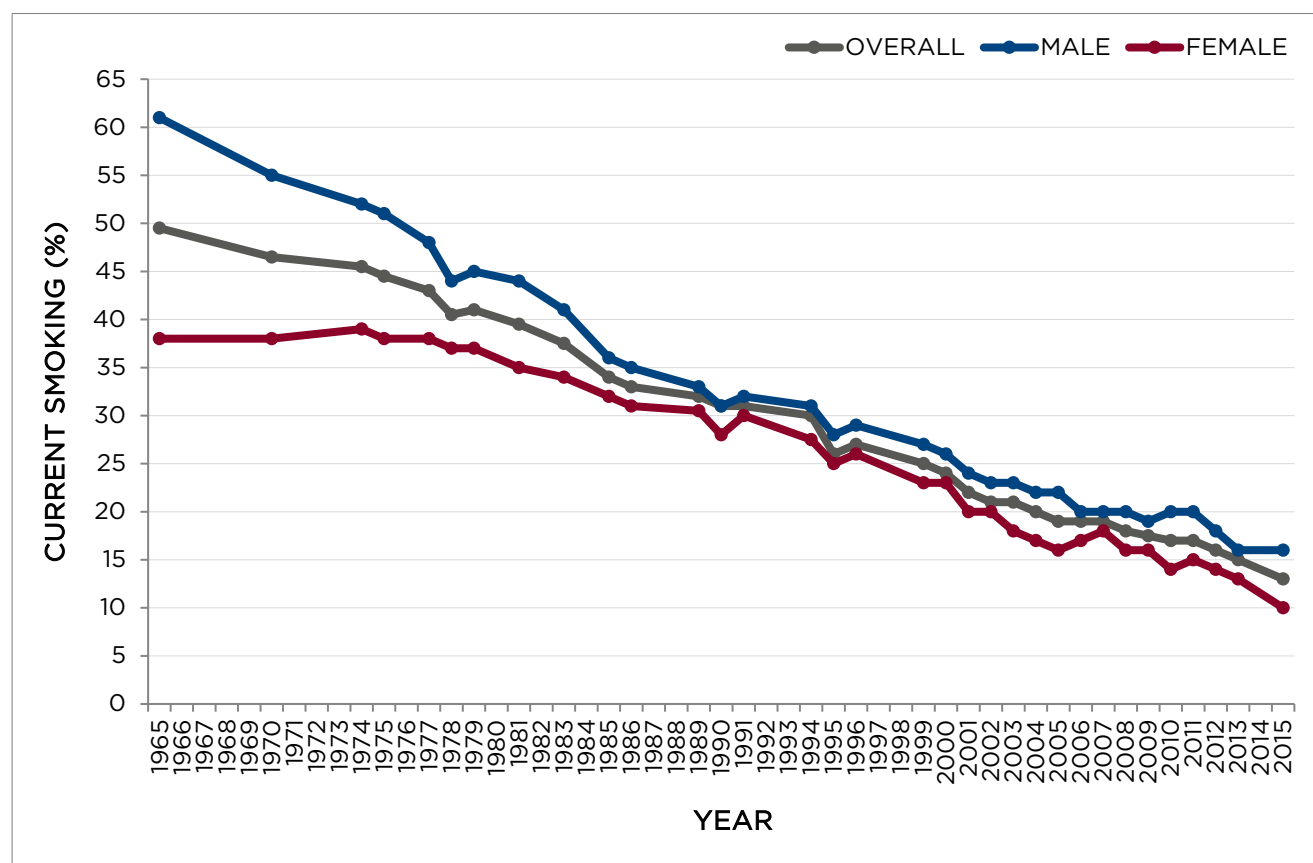
More than half of respondents (57.7%) reported being exposed to secondhand smoke in the past month, including 13.4% who were exposed daily or almost daily. Exposure was most prevalent among males, young people, and current smokers (p. 51)

1. SMOKING IN CANADA

1.1 HISTORICAL TRENDS IN SMOKING PREVALENCE

Over the past five decades, there has been a remarkable reduction in smoking in Canada: approximately half Canadians smoked in 1965, compared to just 13% in 2015—the lowest recorded smoking rate (Figure 1.1). Overall smoking prevalence has decreased fairly steadily over this time period. Historically large sex differences in smoking prevalence have narrowed over time to within a few percentage points, although smoking has remained more prevalent among males.

FIGURE 1.1: SMOKING PREVALENCE* IN CANADA, ADULTS AGED 15+, 1965-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS

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]; 1999-2012: CANADIAN TOBACCO USE MONITORING SURVEY (HEALTH CANADA); 2013, 2015: CANADIAN TOBACCO, ALCOHOL AND DRUGS SURVEY (HEALTH CANADA)

1.2 CURRENT SMOKING PREVALENCE

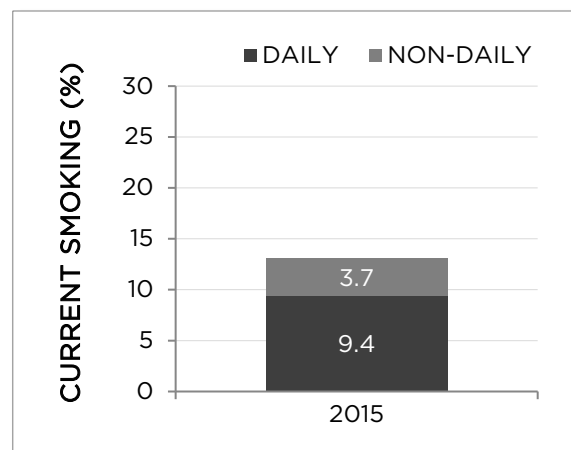
In 2015, the overall prevalence of smoking in Canada was 13.0%, equivalent to approximately 3.9 million Canadians: 9.4% (2.8 million) daily smokers and 3.7% (1.1 million) non-daily smokers (Figure 1.2). This represents a significant decrease from the 2013 estimate of 14.6%.¹

Daily smoking decreased significantly from 10.9% in 2013.² However, there was no significant change in non-daily smoking from the 2013 estimate of 3.8%.³

As shown in Figure 1.3, overall smoking prevalence has decreased significantly over time since 1999.⁴ 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%.

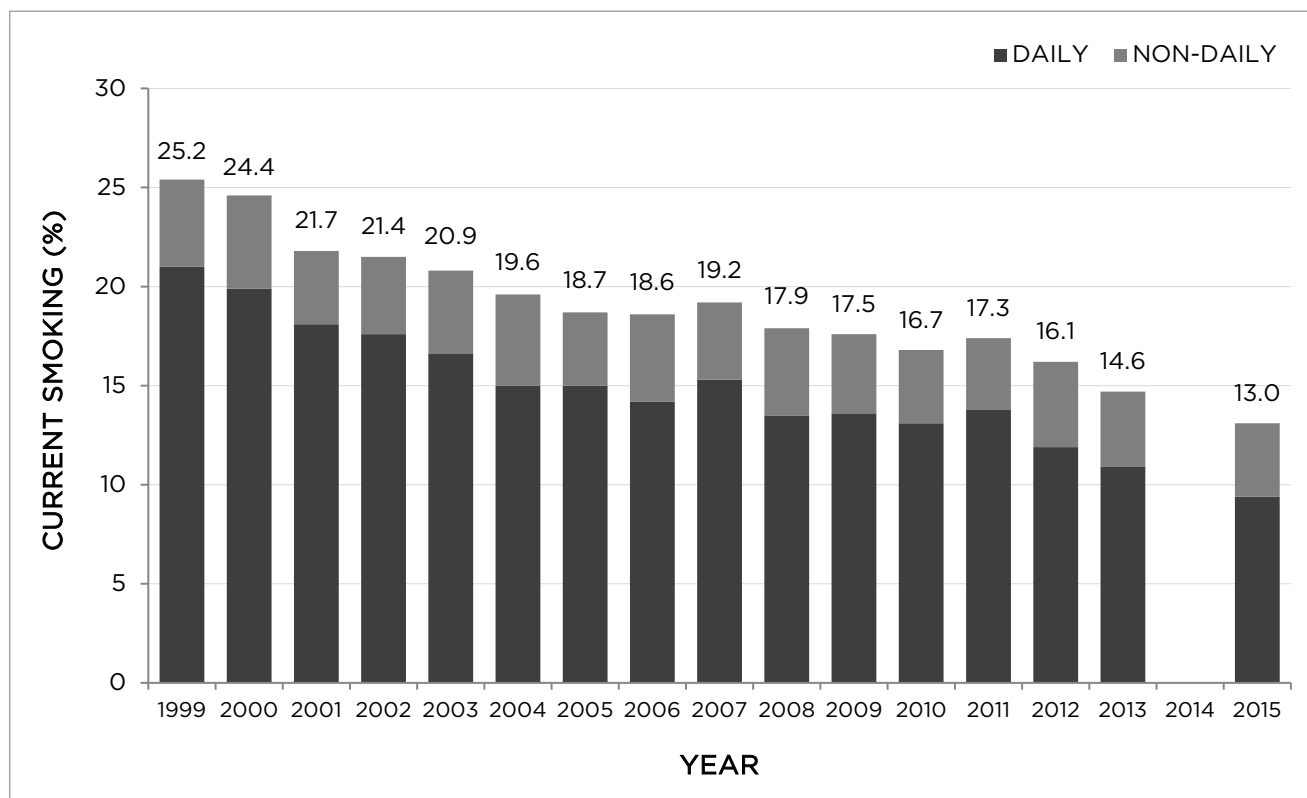
From 1999 to 2015, the average annual decrease in prevalence was 3.5% of the previous year's value.⁵

FIGURE 1.2: CURRENT SMOKING PREVALENCE, ADULTS AGED 15+, 2015



DATA SOURCE: CANADIAN TOBACCO, ALCOHOL AND DRUGS SURVEY (CTADS), 2015

FIGURE 1.3: CURRENT SMOKING PREVALENCE, ADULTS AGED 15+, 1999-2015



DATA SOURCES: CANADIAN TOBACCO USE MONITORING SURVEY (CTUMS), 1999-2012; CTADS, 2013, 2015

DEMOGRAPHIC PATTERNS IN SMOKING PREVALENCE

Smoking Prevalence by Sex

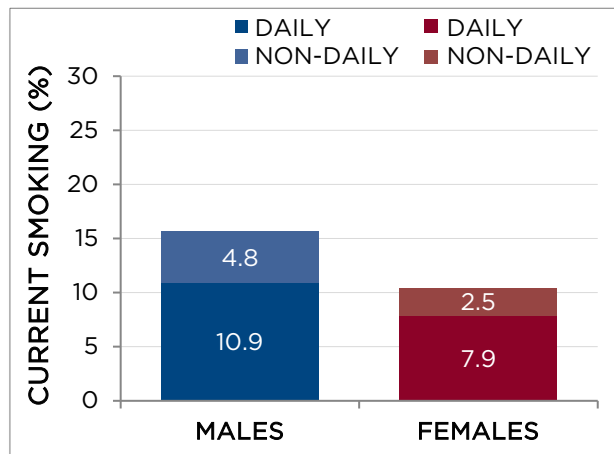
In 2015, 15.6% of males (2.3 million) and 10.4% of females (1.6 million) were current smokers (Figure 1.4).

Overall prevalence, as well as both daily and non-daily smoking, were significantly more prevalent among males than females.^{6,7,8}

Between 2013 and 2015, smoking prevalence among females decreased significantly,⁹ from 13.3% to 10.4%; however, among males there was no significant change from the 2013 estimate of 16.0%.¹⁰

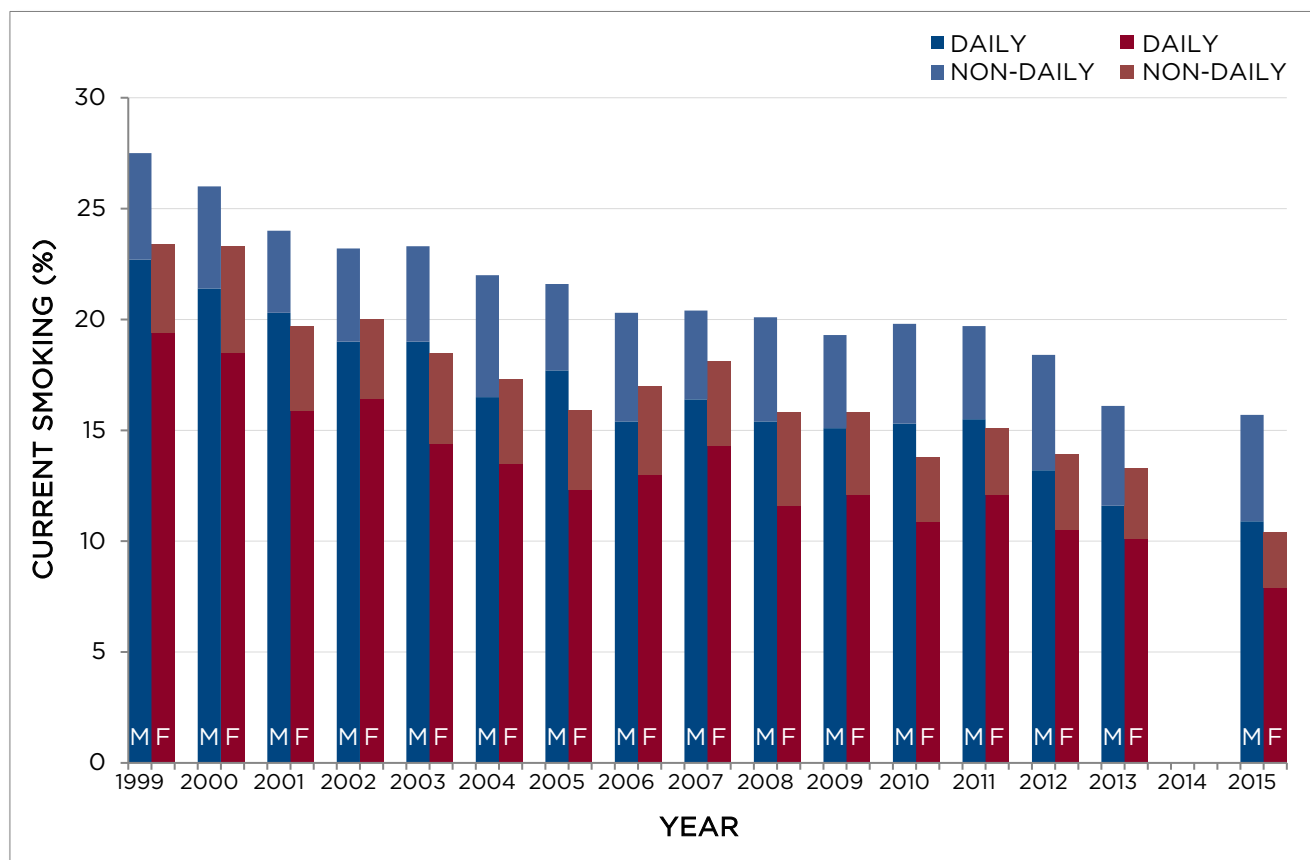
Smoking prevalence estimates were higher among males than females in all survey years from 1999 to 2015, although the magnitude of this difference varied (Figure 1.5).

FIGURE 1.4: CURRENT SMOKING PREVALENCE BY SEX, 2015



DATA SOURCE: CTADS, 2015

FIGURE 1.5: CURRENT SMOKING PREVALENCE BY SEX, 1999-2015



DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

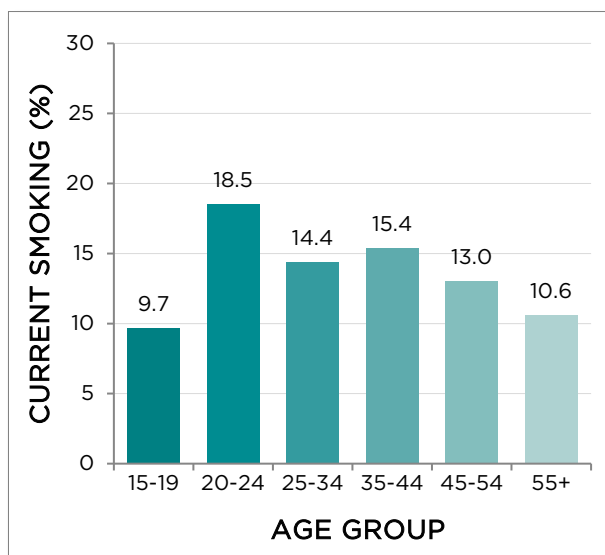
Smoking Prevalence by Age

In 2015, smoking varied significantly by age group:¹¹ prevalence was highest among young adults aged 20-24 and lowest among youth aged 15-19 (Figure 1.6).

A general pattern of decreasing prevalence after early adulthood appears to have held for most survey years between 1999 and 2015 (Figure 1.7). During this time, prevalence decreased overall in every age group, although the steepest decline was observed in the youngest group, 15- to 19-year-olds. Declines were less marked among older age groups, and there has been little net change observed in the last decade among those aged 55 and older.

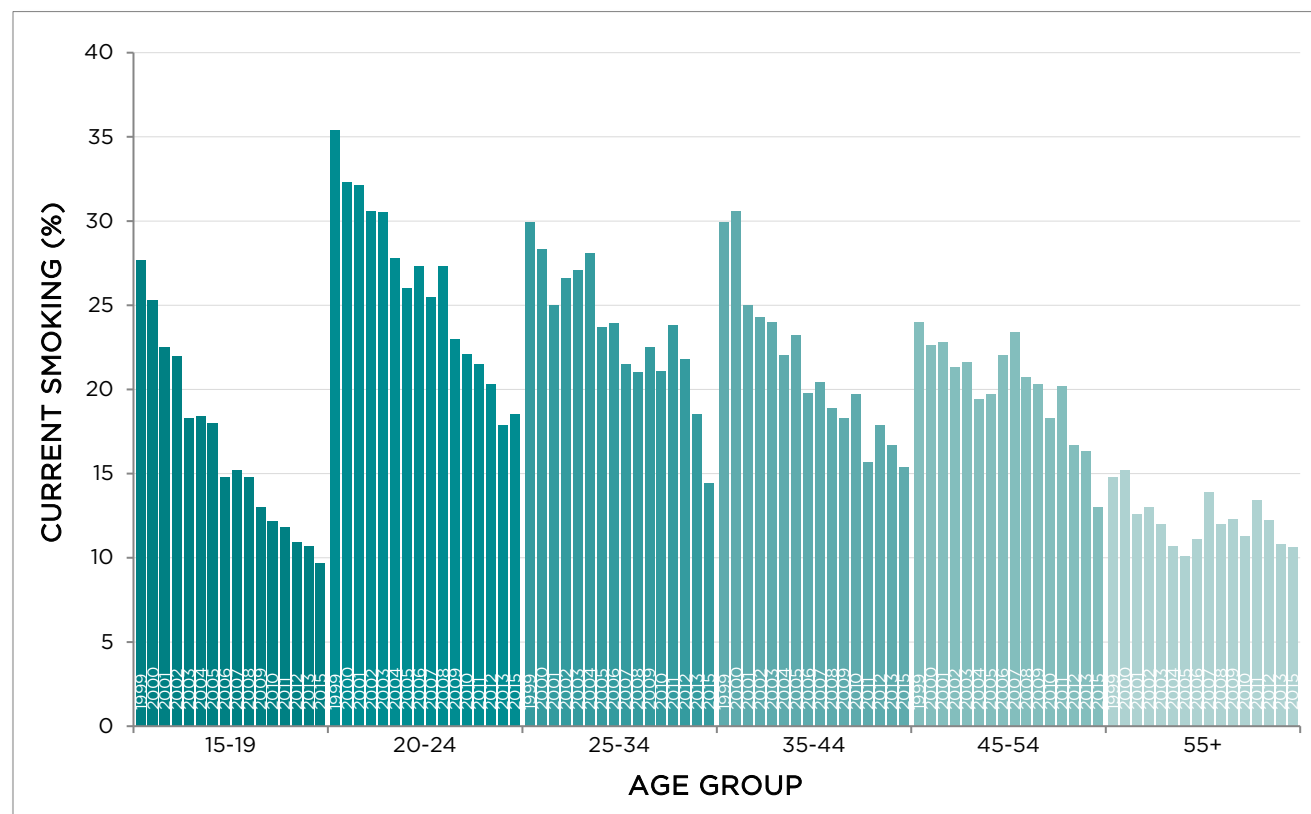
When examining differences between age groups and over time using repeat cross-sectional data such as this, consider that some of the differences between age groups could also be due to cohort effects (as well as age effects), in addition to changes over time.

FIGURE 1.6: CURRENT SMOKING PREVALENCE BY AGE GROUP, 2015



DATA SOURCE: CTADS, 2015

FIGURE 1.7: CURRENT SMOKING PREVALENCE BY AGE GROUP, 1999-2015



DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

1.3 CIGARETTE CONSUMPTION

Average cigarette consumption among daily smokers was 13.8 cigarettes per day (CPD) in 2015, unchanged from the 2013 rate of 13.9 CPD.¹² From 1999 to 2015, cigarette consumption declined significantly,¹³ 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.¹⁴

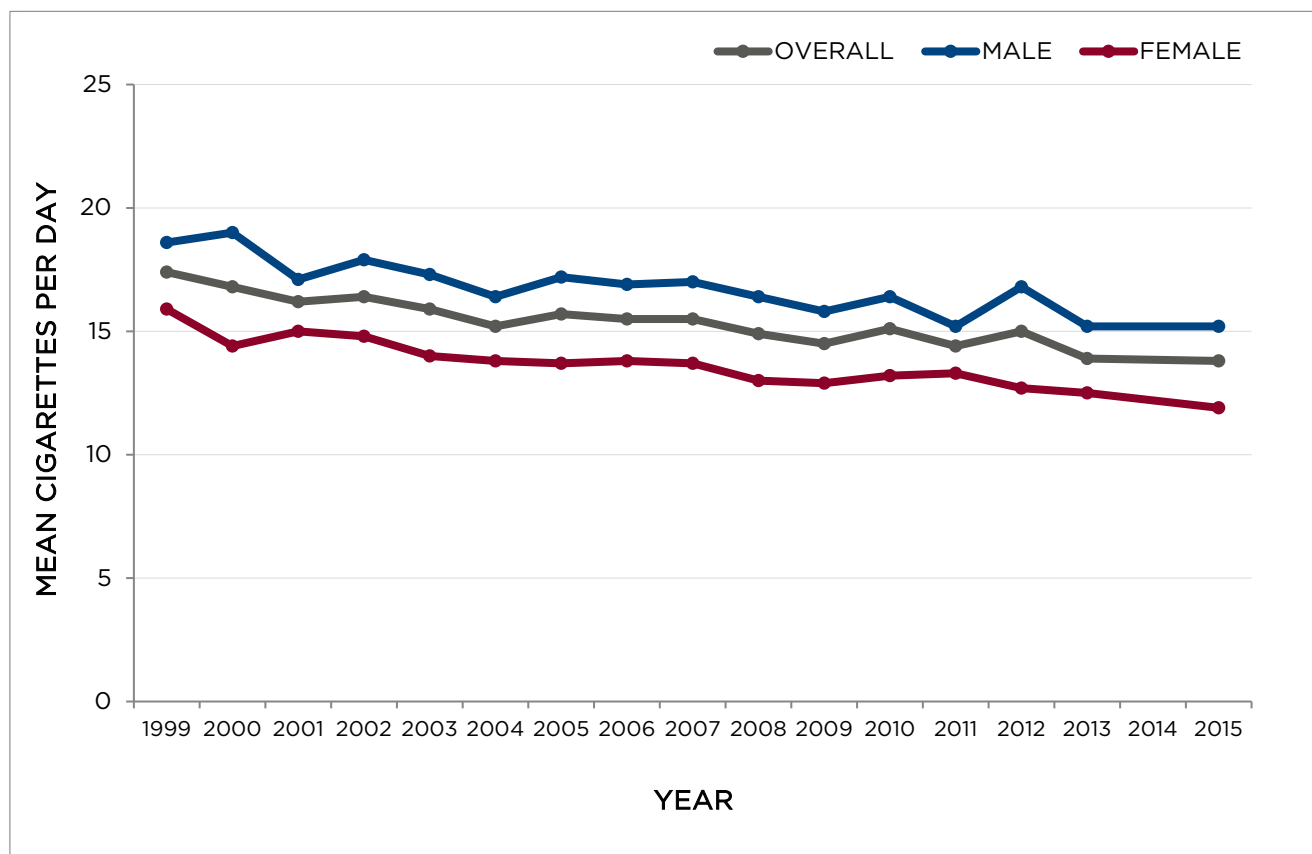
DEMOGRAPHIC PATTERNS IN CIGARETTE CONSUMPTION

Cigarette Consumption by Sex

In 2015, average daily cigarette consumption was significantly higher among male smokers, at 15.2, than among female smokers, at 11.9.¹⁵ Between 2013 and 2015, consumption did not change significantly among either male¹⁶ or female¹⁷ smokers (from 2013 estimates of 15.2 and 12.5, respectively).

During the time period from 1999 to 2015, 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).

FIGURE 1.8: AVERAGE DAILY CIGARETTE CONSUMPTION*, OVERALL AND BY SEX, 1999-2015



*AMONG DAILY SMOKERS

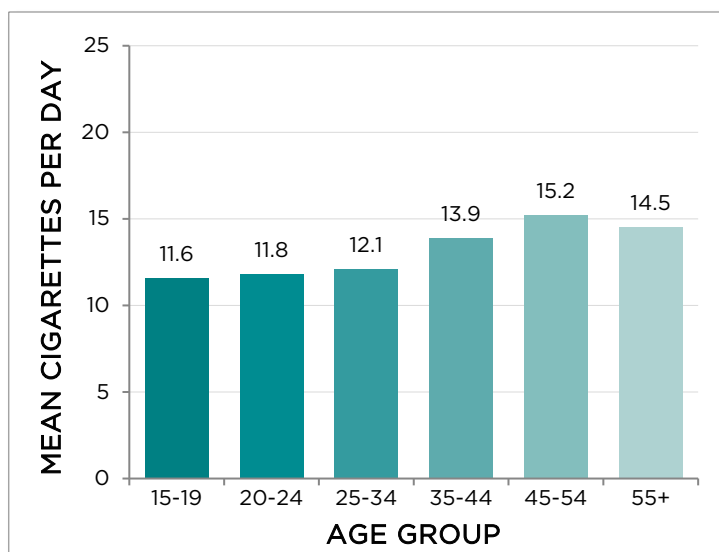
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Cigarette Consumption by Age

In 2015, average daily cigarette consumption varied significantly between age groups.¹⁸ Consumption was lowest among the youngest smokers, at fewer than 12 cigarettes per day (CPD) for smokers aged 15-19 and 20-24, and appeared to increase with age to around 15 CPD for smokers aged 45 and older (Figure 1.9).

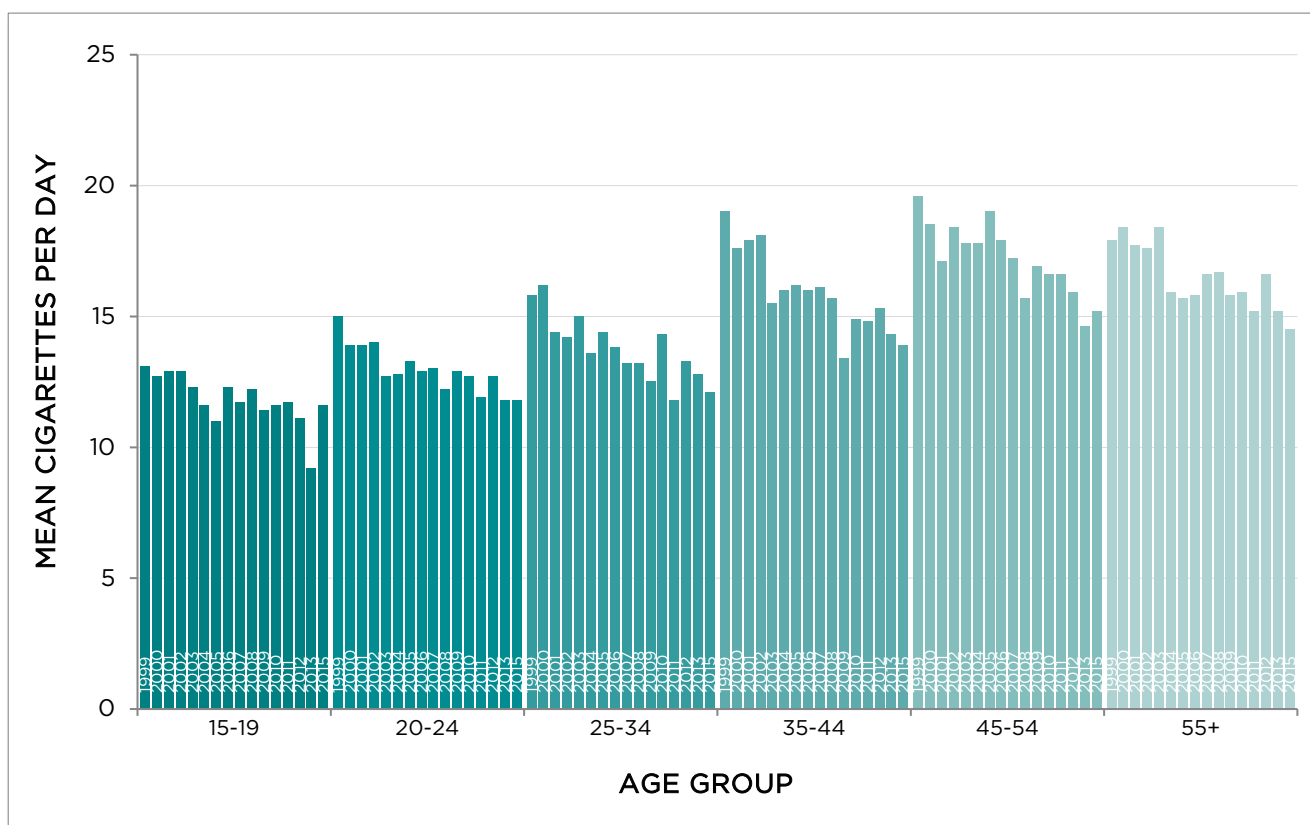
The same general pattern of increasing consumption with age (and often a slight drop after 55) held for most years between 1999 and 2015, although with some variation (Figure 1.10). Between 1999 and 2015, average daily cigarette consumption appears to have decreased overall in all age groups.

FIGURE 1.9: AVERAGE DAILY CIGARETTE CONSUMPTION* BY AGE GROUP, 2015



*AMONG DAILY SMOKERS
DATA SOURCE: CTADS, 2015

FIGURE 1.10: AVERAGE DAILY CIGARETTE CONSUMPTION* BY AGE GROUP, 1999-2015



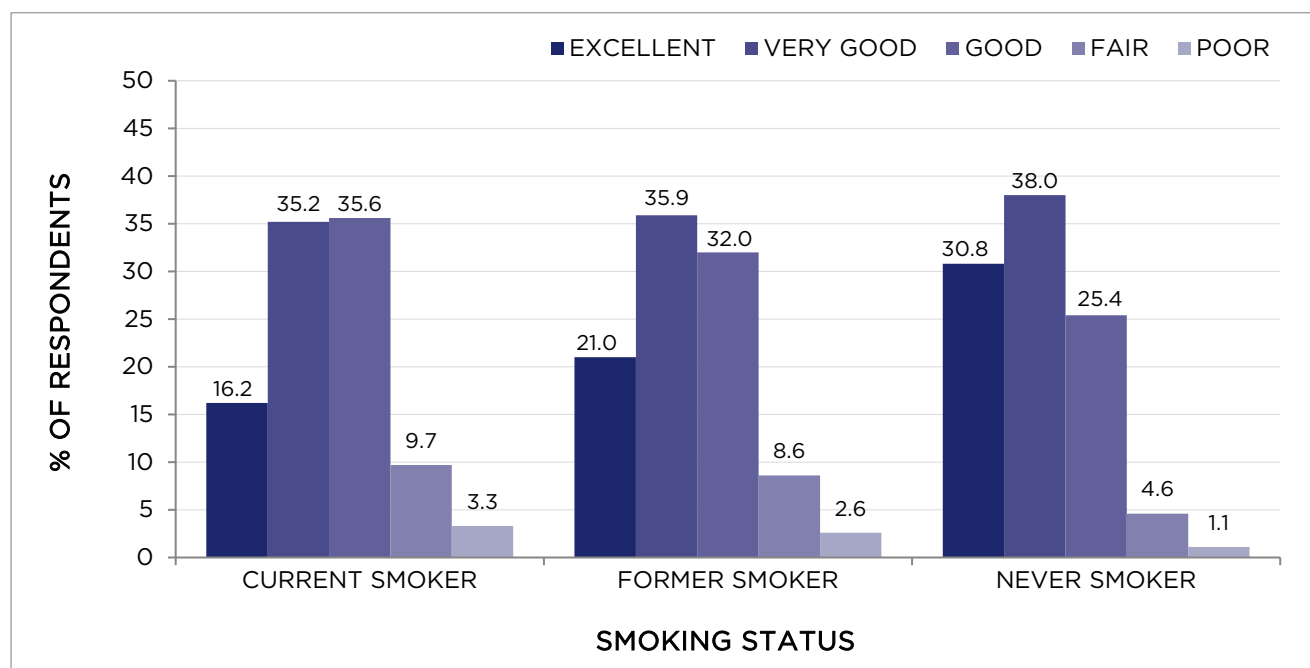
*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

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:¹⁹ only around half (51%) of current smokers reported “excellent” or “very good” health, compared to 57% of former smokers and 69% of never smokers.

FIGURE 1.11: SELF-RATED GENERAL HEALTH, BY SMOKING STATUS, 2015

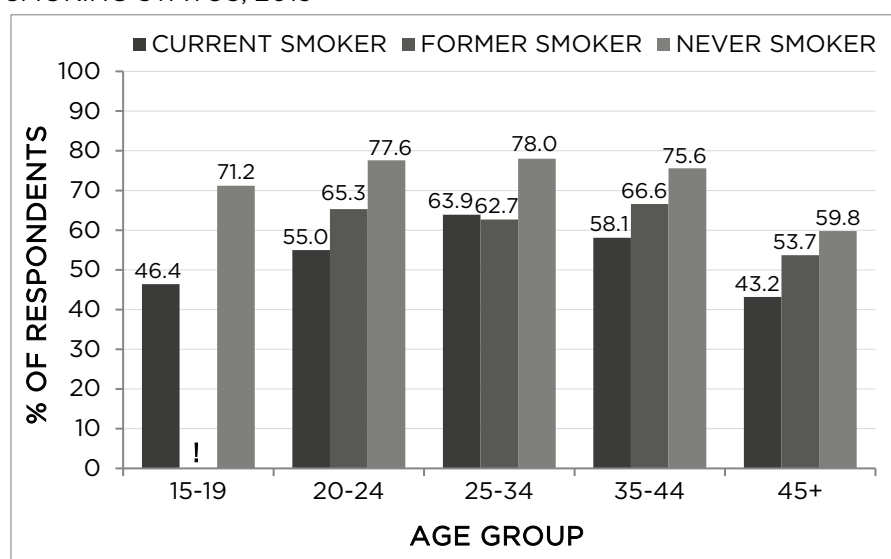


DATA SOURCE: CTADS, 2015

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 non-smokers.²⁰⁻²⁴ (Figure 1.12).

FIGURE 1.12: PERCENTAGE OF RESPONDENTS REPORTING “EXCELLENT” OR “VERY GOOD” HEALTH, BY AGE GROUP AND SMOKING STATUS, 2015



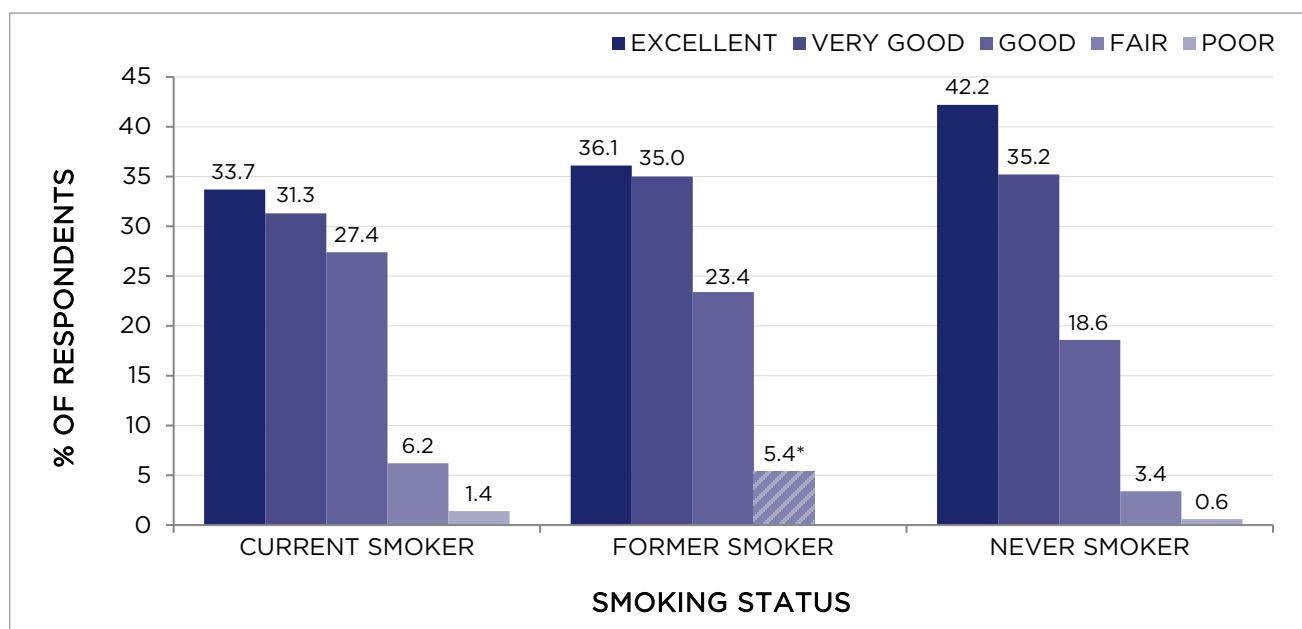
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

DATA SOURCE: CTADS, 2015

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.ⁱⁱⁱ 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 (65%) than former (71%) or never (77%) smokers.²⁵

FIGURE 1.13: SELF-RATED MENTAL HEALTH, BY SMOKING STATUS, 2015

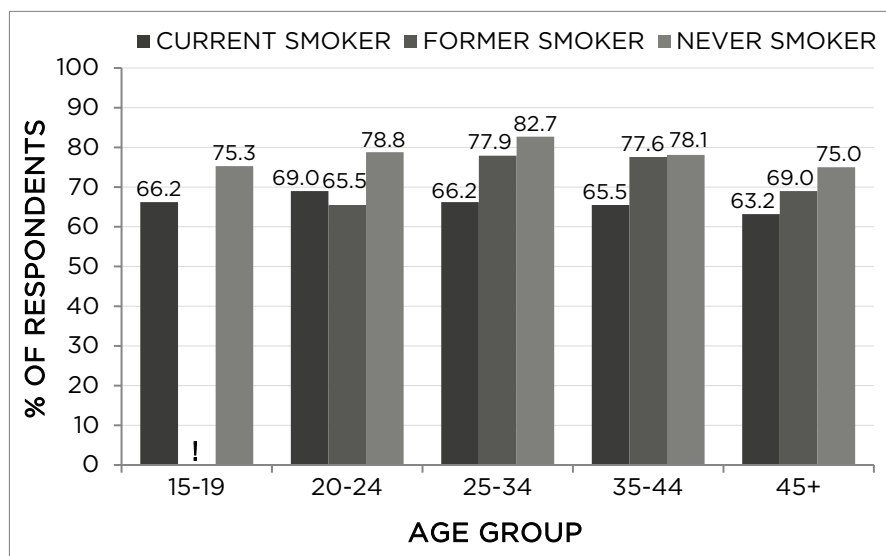


*DATA FOR “FAIR” AND “POOR” COMBINED DUE TO LOW NUMBERS
DATA SOURCE: CTADS, 2015

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*).

Within each age group, the proportion of respondents reporting “excellent” or “very good” mental health was significantly lower among current smokers than non-smokers²⁶⁻³⁰ (Figure 1.14).

FIGURE 1.14: PERCENTAGE OF RESPONDENTS REPORTING “EXCELLENT” OR “VERY GOOD” MENTAL HEALTH, BY AGE GROUP AND SMOKING STATUS, 2015



! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCE: CTADS, 2015

2. SMOKING IN THE PROVINCES

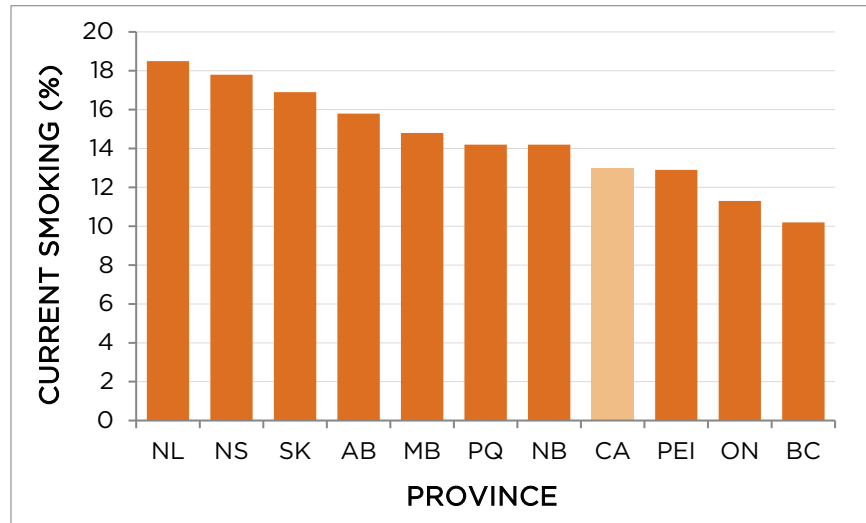
SMOKING PREVALENCE BY PROVINCE

In 2015, there was significant variation in smoking prevalence by province³¹ (Figure 2.1). Current smoking rates ranged from a low of 10.2% in British Columbia to a high of 18.5% in Newfoundland & Labrador. All provinces except British Columbia, Ontario, and Prince Edward Island had smoking rates above the national average of 13.0%.

Between 1999 and 2015, 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 16 percentage points in Quebec to around 9 in Manitoba and Saskatchewan.

Throughout this time period, British Columbia consistently had the lowest smoking rate of all provinces. In the most recent years, small declines in prevalence estimates were observed in all provinces.

FIGURE 2.1: SMOKING PREVALENCE* BY PROVINCE, 2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCE: CTADS, 2015

TABLE 2.1: SMOKING PREVALENCE* BY PROVINCE, 1999-2015

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015
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	13.0
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	10.2
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	15.8
SASK.	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	16.9
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	14.8
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	11.3
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	14.2
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	14.2
NOVA SCOTIA	28.9	29.8	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	17.8
PEI	25.6	25.7	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	12.9
NFLD & 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	18.5

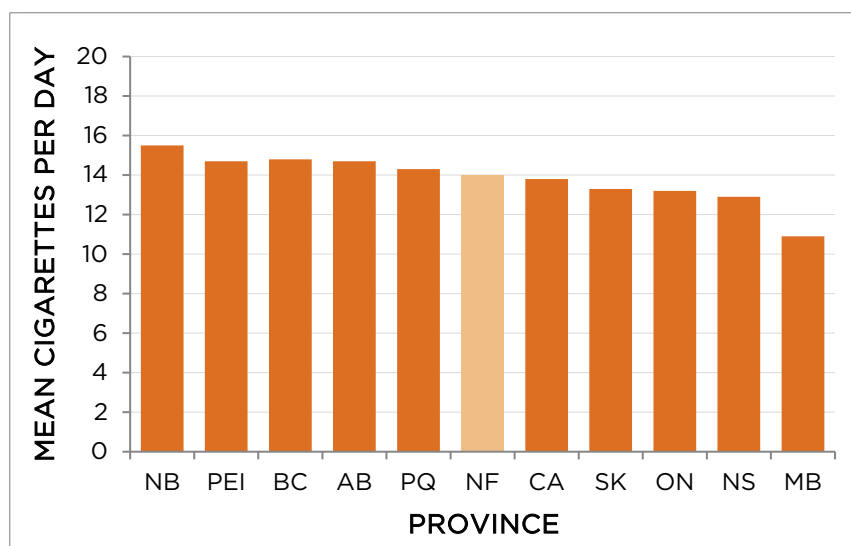
*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION BY PROVINCE

In 2015, average daily cigarette consumption varied significantly by province³², ranging from 10.9 cigarettes per day (CPD) in Manitoba to 15.5 CPD in New Brunswick, (Figure 2.2).

Between 1999 and 2015, average daily cigarette consumption appears to have decreased in all provinces, although with little to no progress (and even some increases) in the most recent years for many provinces (Table 2.2). The magnitude of this decline varied by province, with the greatest decreases observed in Nova Scotia (from 18.1 in 1999 to 12.9 CPD in 2013), Manitoba (from 15.8 to 10.9 CPD) and Quebec (from 19.1 to 14.3 CPD).

FIGURE 2.2: AVERAGE DAILY CIGARETTE CONSUMPTION* BY PROVINCE, 2015



*AMONG DAILY SMOKERS
DATA SOURCE: CTADS, 2015

TABLE 2.2: AVERAGE DAILY CIGARETTE CONSUMPTION* BY PROVINCE, 1999-2015

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015
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	13.8
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	14.8
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	14.7
SASK.	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	13.3
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	10.9
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	13.2
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	14.3
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	15.5
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	12.9
PEI	17.2	17.7	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	14.7
NFLD & 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	14.0

*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.1 BRITISH COLUMBIA

SMOKING PREVALENCE

In 2015, smoking prevalence in British Columbia was 10.2%, below the national average of 13.0%, and the lowest of all provinces.

Figure 2.3 (below) shows smoking prevalence, overall and by sex, in British Columbia from 1999-2015. Overall, prevalence appeared to slowly decline during this time, although little progress was made throughout much of the 2000s. Males had similar or greater prevalence than females in all years observed, although with year-to-year variation.

BRITISH COLUMBIA IN 2015

Smoking prevalence: 10.2% (399 000 smokers)
» compared to 11.4% in 2013

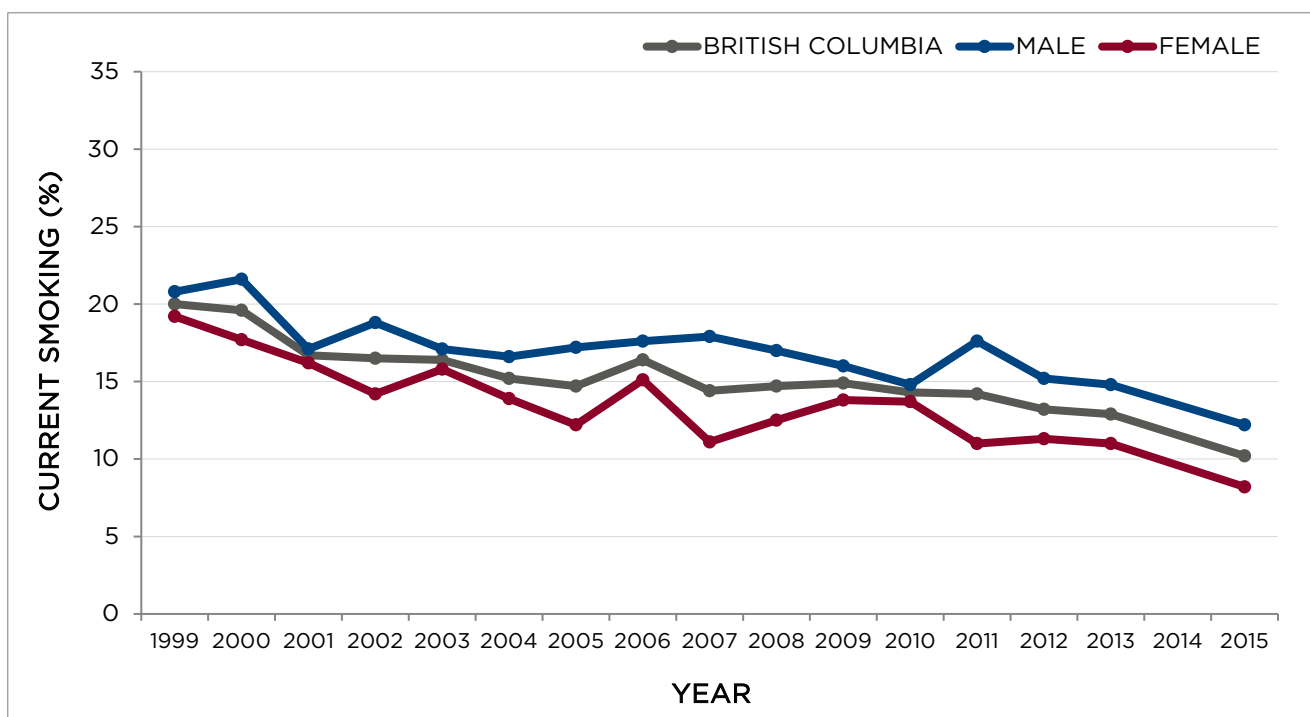
- Males: 12.2% (236 000 smokers)
- Females: 8.2% (163 000 smokers)

Average daily cigarette consumption: 14.8 CPD
» compared to 12.9 CPD in 2013

- Males: 16.7 CPD
- Females: 12.0 CPD

Average price per carton^{iv} (200 cig): \$104.96

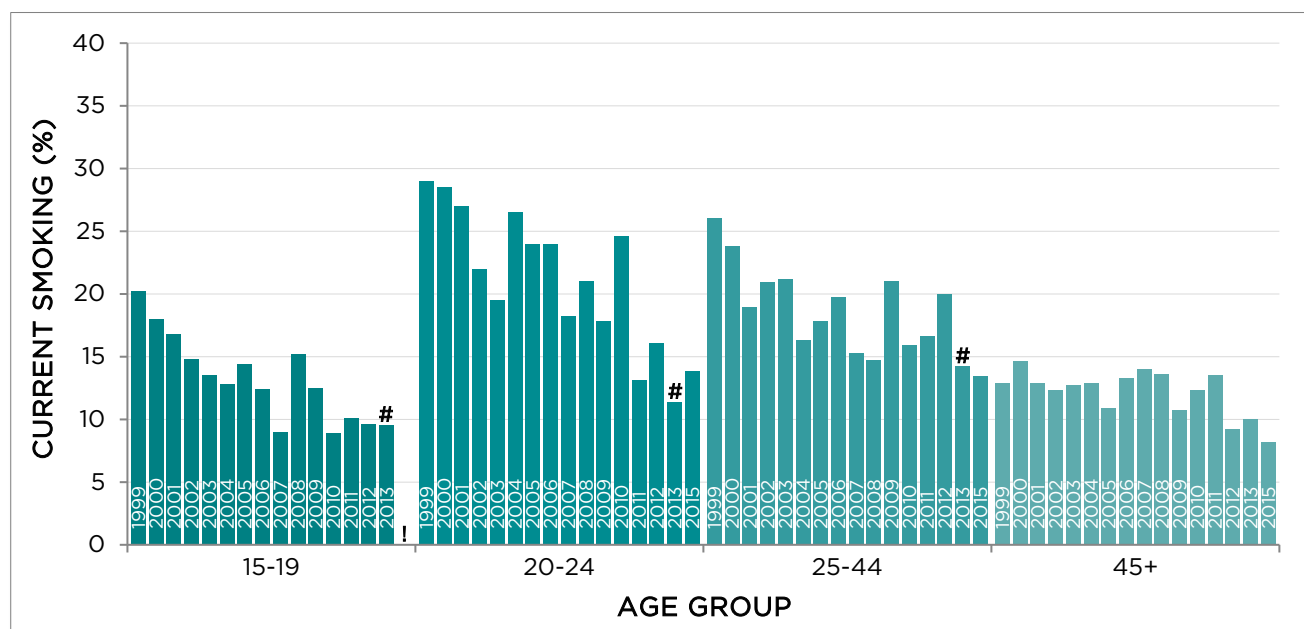
FIGURE 2.3: CURRENT SMOKING PREVALENCE* BY SEX, BRITISH COLUMBIA, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.4 (next page) shows smoking prevalence by age group in British Columbia, from 1999-2015. During this time period, there was a net decrease in smoking prevalence in all age groups, despite fluctuations; this decrease was largest among the younger age groups, and smallest among those over 45. Declines have slowed in most age groups in the most recent years.

FIGURE 2.4: CURRENT SMOKING PREVALENCE* BY AGE GROUP, BRITISH COLUMBIA, 1999-2015



*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.

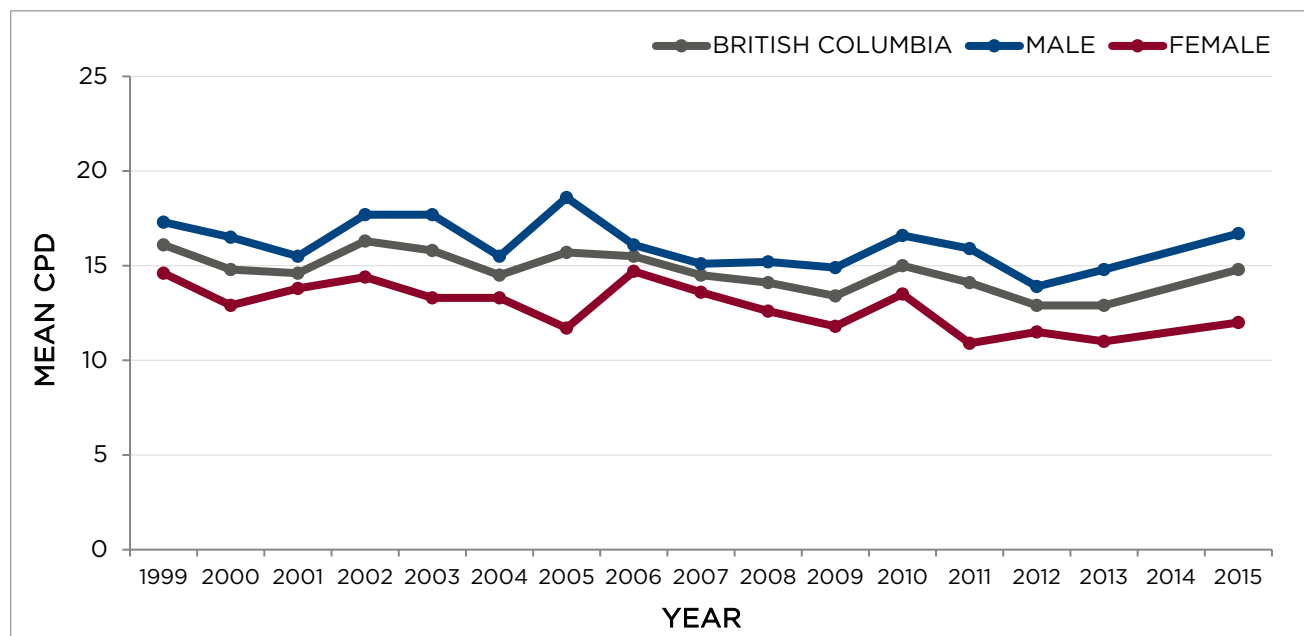
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, average daily cigarette consumption in British Columbia appears to have slightly decreased overall (Figure 2.5). Cigarette consumption was higher among males than females in all years, but with some year-to-year variation in the size of this difference.

FIGURE 2.5: AVERAGE DAILY CIGARETTE CONSUMPTION* BY SEX, BRITISH COLUMBIA, 1999-2015



*AMONG DAILY SMOKERS

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.2 ALBERTA

SMOKING PREVALENCE

In 2015, smoking prevalence in Alberta was 15.8%, above the national average of 13.0%.

Figure 2.6 (below) shows smoking prevalence, overall and by sex, in Alberta from 1999-2015. Prevalence has declined substantially overall, although little progress was made for several years around the mid-2000s. Males had similar or greater prevalence compared to females in most of the years observed.

ALBERTA IN 2015

Smoking prevalence: 15.8% (535 000 smokers)
» compared to 16.0% in 2013

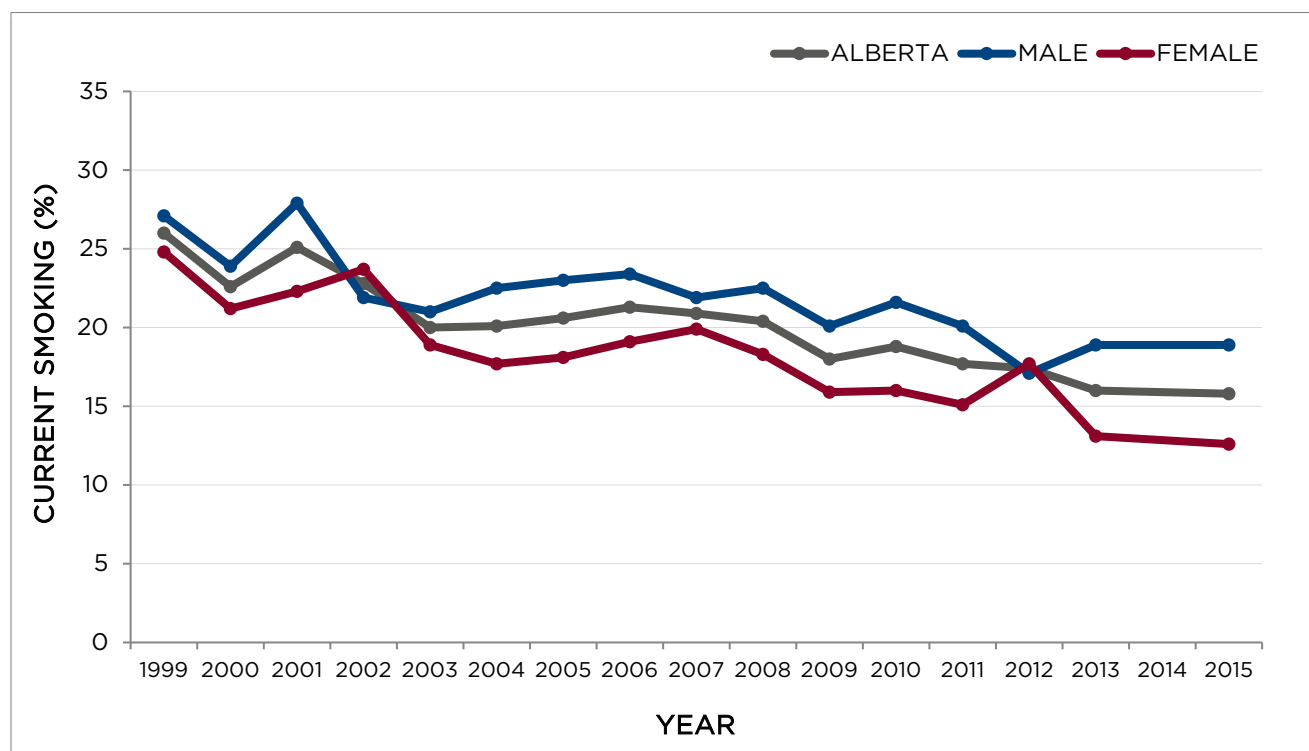
- Males: 18.9% (325 000 smokers)
- Females: 12.6% (209 000 smokers)

Average daily cigarette consumption: 14.7 CPD
» compared to 13.4 CPD in 2013

- Males: 15.3 CPD
- Females: 13.7 CPD

Average price per carton^{iv} (200 cig): \$98.19

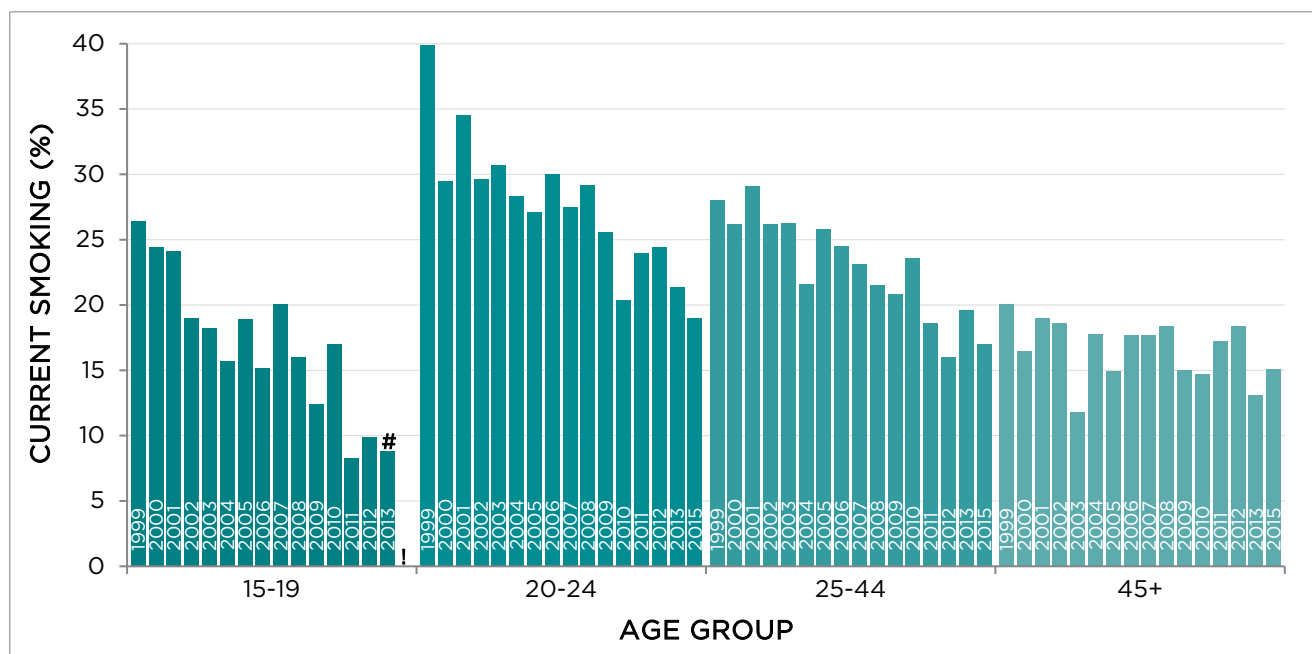
FIGURE 2.6: CURRENT SMOKING PREVALENCE* BY SEX, ALBERTA, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.7 (next page) shows smoking prevalence by age group in Alberta, from 1999-2015. During this time, smoking prevalence decreased substantially in all age groups except those over 45, for whom less change in prevalence was observed. Declines in smoking were particularly steep among young people.

FIGURE 2.7: CURRENT SMOKING PREVALENCE* BY AGE GROUP, ALBERTA, 1999-2015



*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.

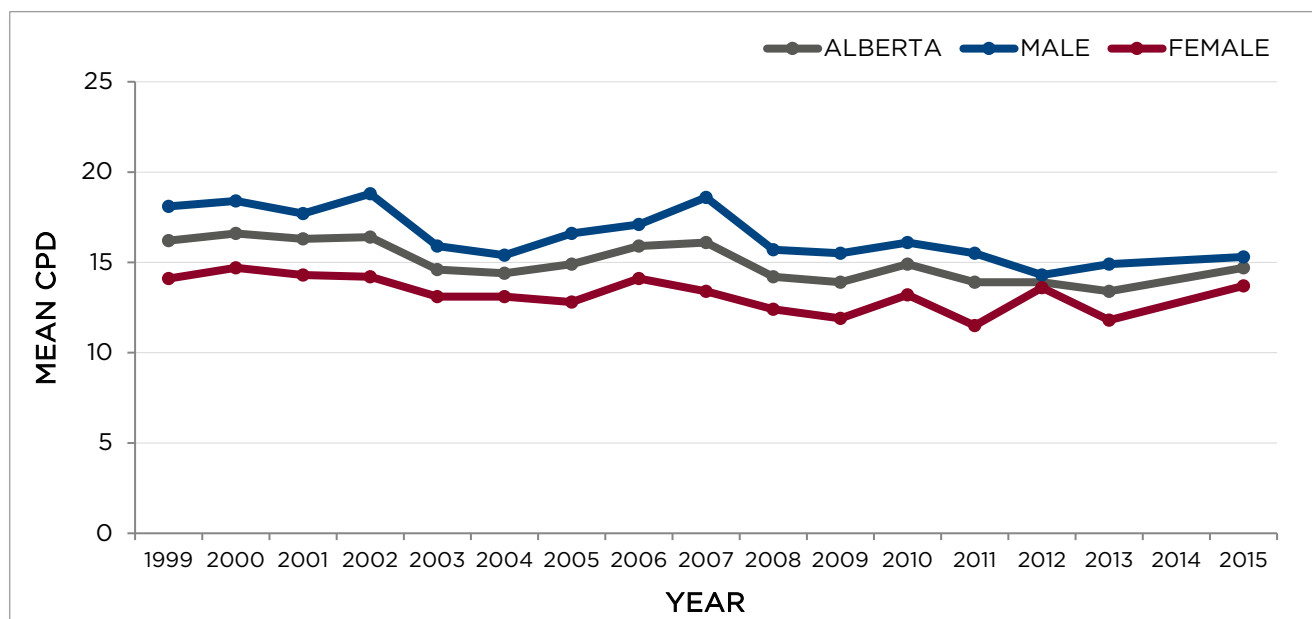
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, average daily cigarette consumption in Alberta fluctuated around 15, but appears to have decreased slightly 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, 1999-2015



*AMONG DAILY SMOKERS

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.3 SASKATCHEWAN

SMOKING PREVALENCE

In 2015, smoking prevalence in Saskatchewan was 16.9%, above the national average of 13.0%.

Figure 2.9 (below) shows smoking prevalence, overall and by sex, in Saskatchewan from 1999-2015. Despite considerable year-to-year variation, there appears to have been a net decrease in overall prevalence during this time, and a steady downward trend in recent years. Throughout this time period, prevalence was similar or slightly greater among males in most years, although sex differences varied appreciably by year.

SASKATCHEWAN IN 2015

Smoking prevalence: 16.9% (152 000 smokers)
» compared to 17.6% in 2013

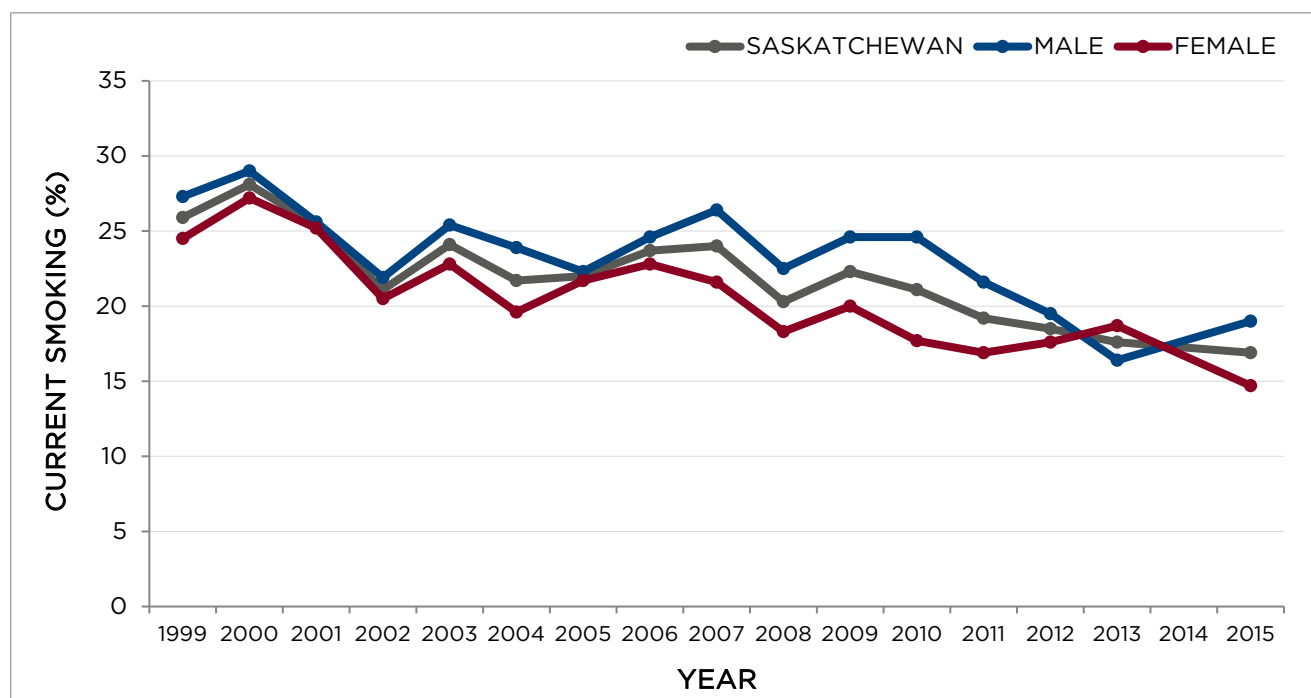
- Males: 19.0% (86 000 smokers)
- Females: 14.7% (66 000 smokers)

Average daily cigarette consumption: 13.3 CPD
» compared to 13.7 CPD in 2013

- Males: 15.0 CPD
- Females: 11.4 CPD

Average price per carton^{iv} (200 cig): \$110.22

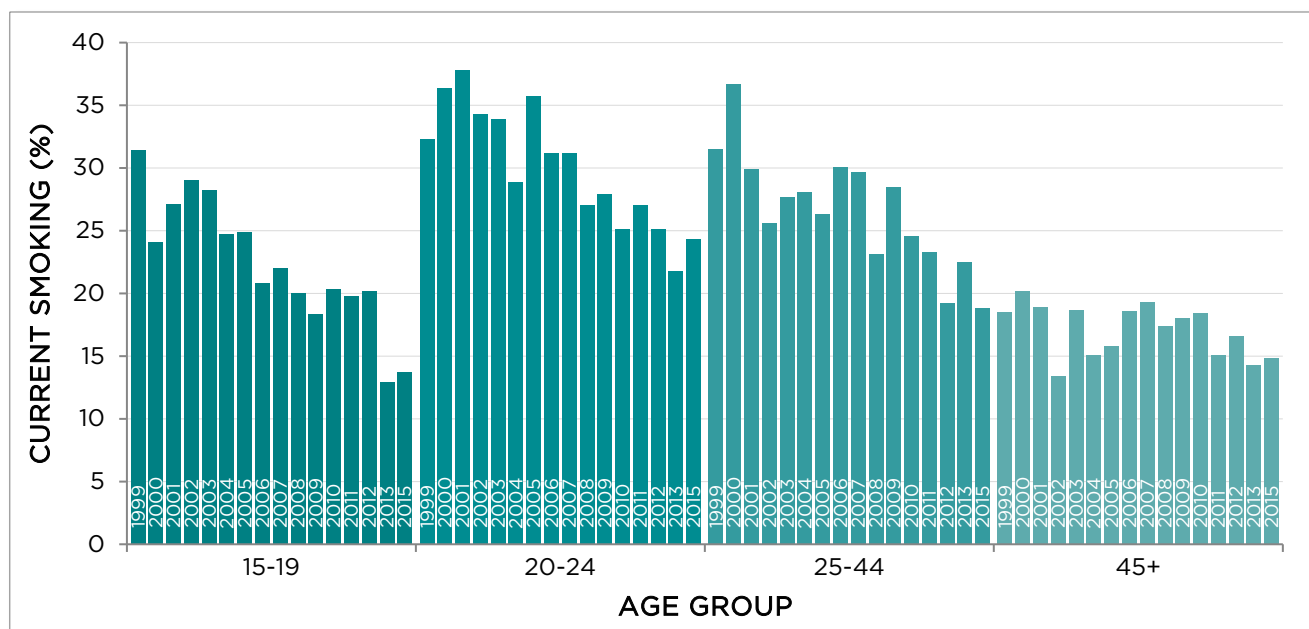
FIGURE 2.9: CURRENT SMOKING PREVALENCE* BY SEX, SASKATCHEWAN, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.10 (next page) shows smoking prevalence by age group in Saskatchewan, from 1999-2015. 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.

FIGURE 2.10: CURRENT SMOKING PREVALENCE* BY AGE GROUP, SASKATCHEWAN, 1999-2015

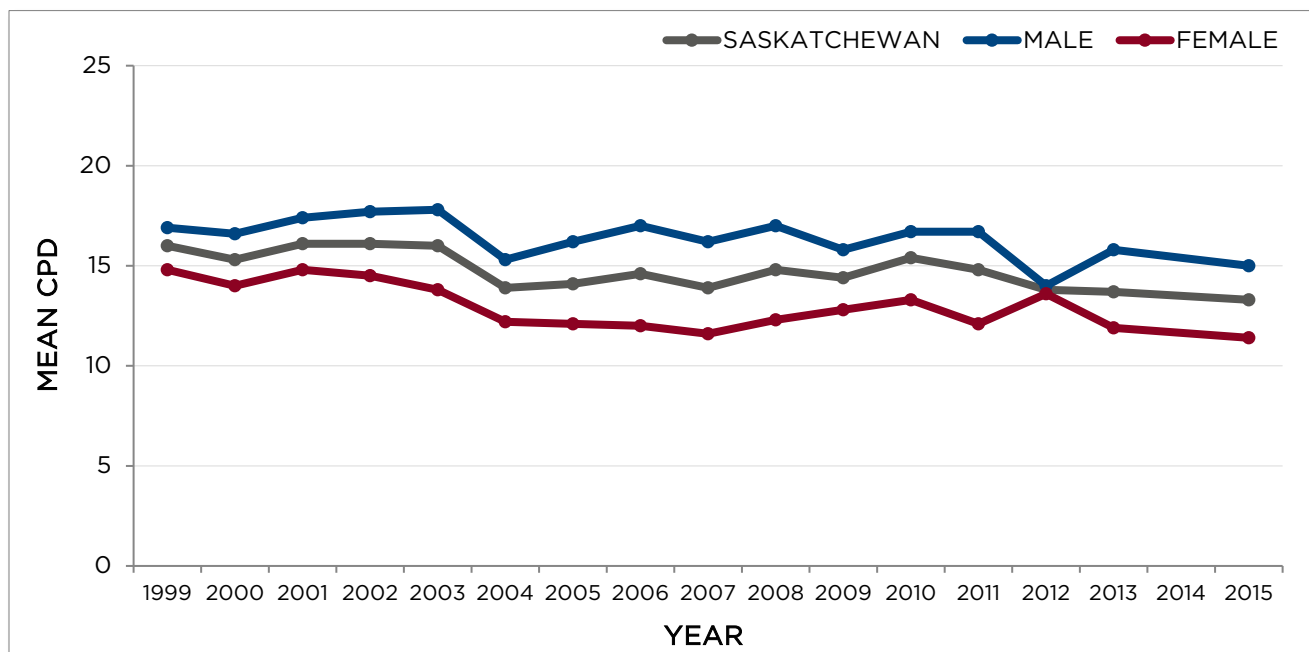


*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, average daily cigarette consumption in Saskatchewan remained near 15 for many years, but appears to have decreased overall (Figure 2.11). Male smokers consumed considerably more cigarettes per day than females in nearly all years.

FIGURE 2.11: AVERAGE DAILY CIGARETTE CONSUMPTION* BY SEX, SASKATCHEWAN, 1999-2015



*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.4 MANITOBA

SMOKING PREVALENCE

In 2015, smoking prevalence in Manitoba was 14.8%, somewhat above the national average of 13.0%.

Figure 2.12 (below) shows smoking prevalence, overall and by sex, in Manitoba from 1999-2015. Over this time, prevalence decreased overall, but there was little decline through most of the 2000s. Prevalence was greater among males than females in most years, although similar in a few instances, and sex differences varied from year to year.

MANITOBA IN 2015

Smoking prevalence: 14.8% (153 000 smokers)
» compared to 17.4% in 2013

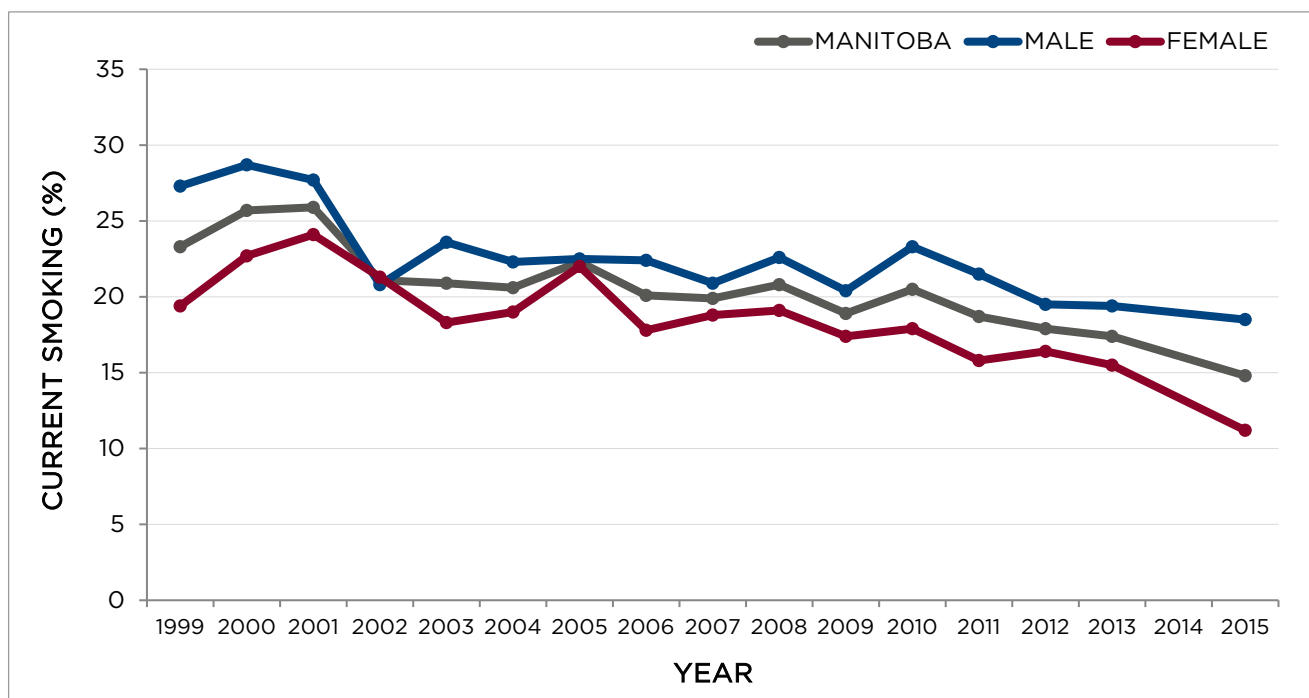
- Males: 18.5% (95 000 smokers)
- Females: 11.2% (59 000 smokers)

Average daily cigarette consumption: 10.9 CPD
» compared to 14.9 CPD in 2013

- Males: 11.6 CPD
- Females: 9.7 CPD

Average price per carton^{iv} (200 cig): \$125.80

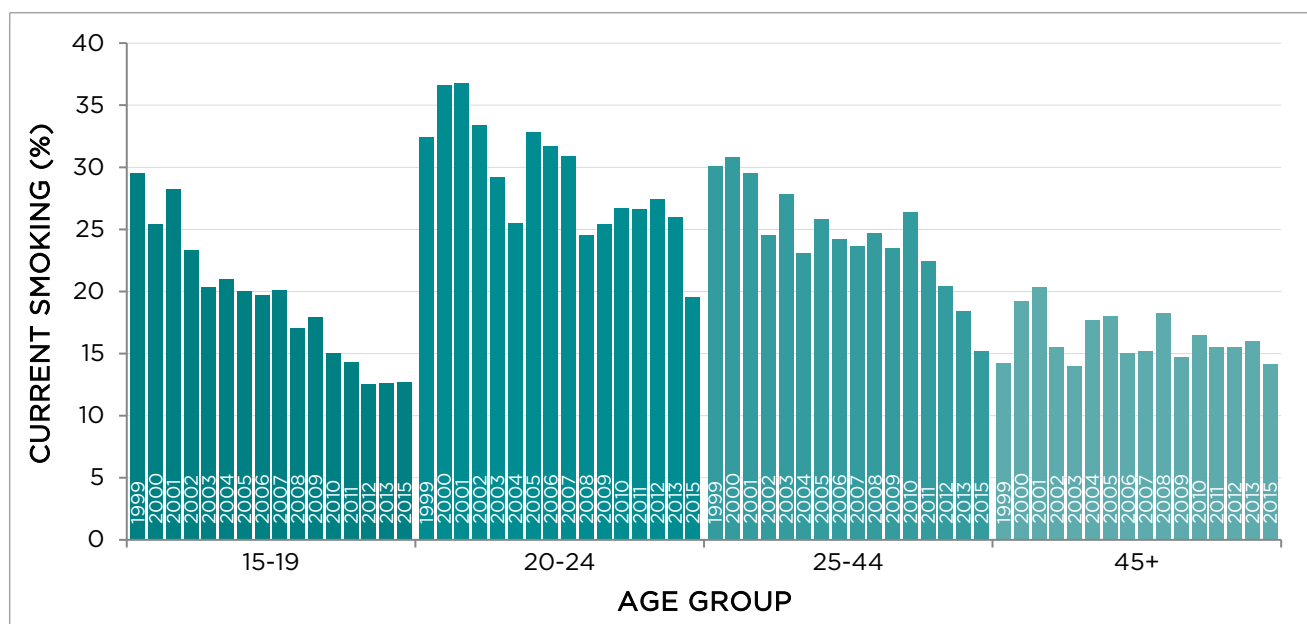
FIGURE 2.12: CURRENT SMOKING PREVALENCE* BY SEX, MANITOBA, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.13 (next page) shows smoking prevalence by age group in Manitoba, from 1999-2015. Over 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, for whom prevalence decreased by more than half during this time period. In the most recent years, prevalence appears to have decreased steadily among those aged 25-44, while remaining fairly stable in other age groups.

FIGURE 2.13: CURRENT SMOKING PREVALENCE* BY AGE GROUP, MANITOBA, 1999-2015

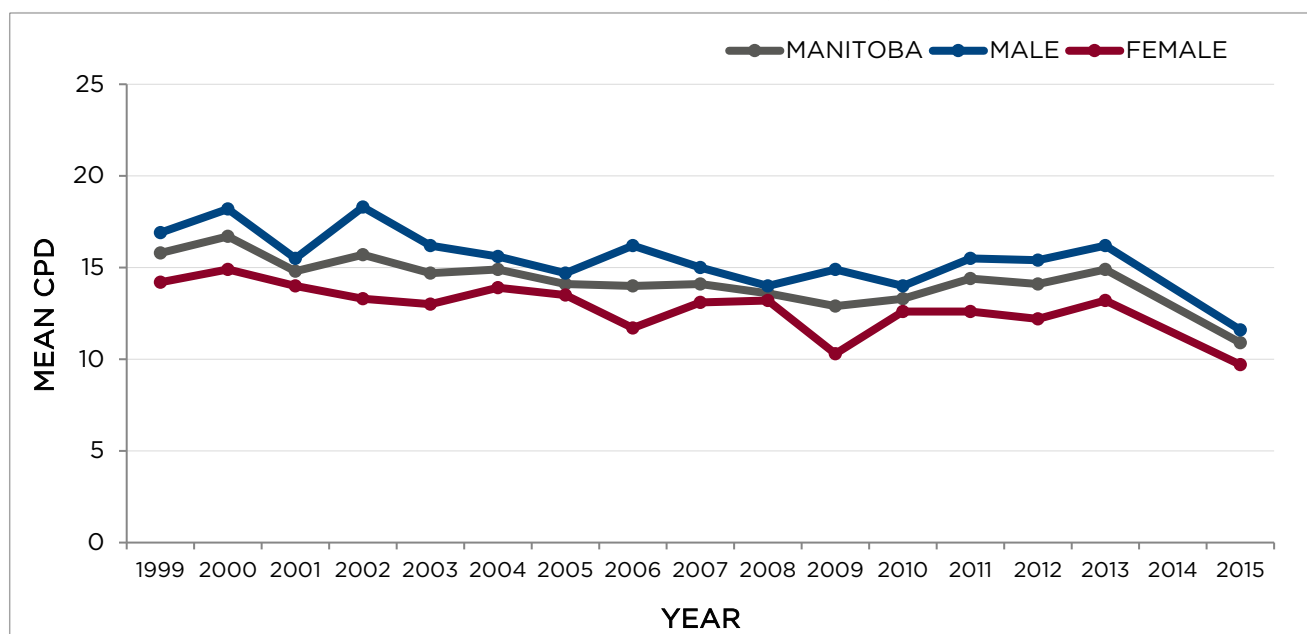


*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, average daily cigarette consumption in Manitoba appeared to decrease slowly for the first decade; however, increases were observed for a few years after 2009, although consumption once again decreased in the most recent wave (Figure 2.14). Male smokers consumed more cigarettes per day than female smokers in all years, although the magnitude of this difference varied by year and was very small in some cases.

FIGURE 2.14: AVERAGE DAILY CIGARETTE CONSUMPTION* BY SEX, MANITOBA, 1999-2015



*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.5 ONTARIO

SMOKING PREVALENCE

In 2015, smoking prevalence in Ontario was 11.3%, below the national average of 13.0%.

Figure 2.15 (below) shows smoking prevalence, overall and by sex, in Ontario from 1999-2015. During this time, overall prevalence decreased by half, although there were several periods of little change. Prevalence was greater among males than females in all years observed; however, the magnitude of this difference varied widely from year to year, from similar rates to a difference of 10 percentage points.

ONTARIO IN 2015

Smoking prevalence: 11.3% (1 303 000 smokers)
» compared to 12.6% in 2013

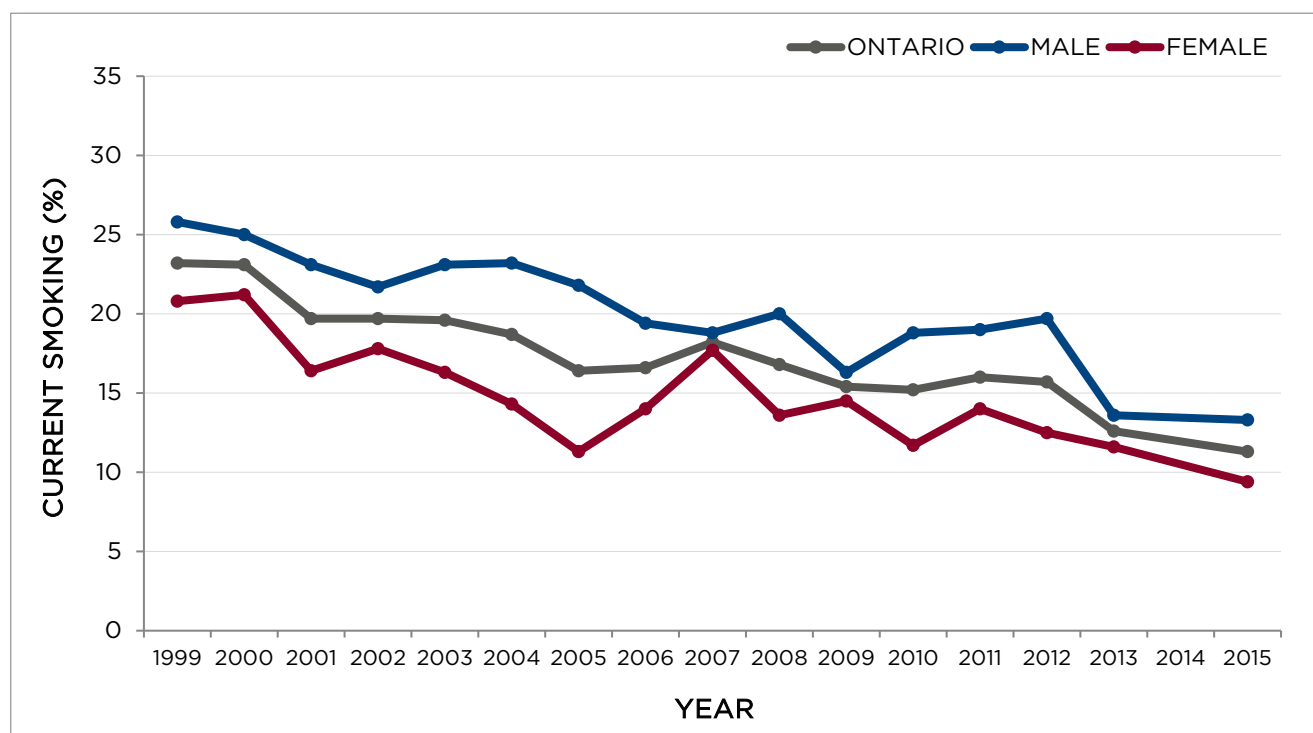
- Males: 13.3% (748 000 smokers)
- Females: 9.4% (555 000 smokers)

Average daily cigarette consumption: 13.2 CPD
» compared to 13.0 CPD in 2013

- Males: 15.7 CPD
- Females: 10.5 CPD

Average price per carton^{iv} (200 cig): \$88.64

FIGURE 2.15: CURRENT SMOKING PREVALENCE* BY SEX, ONTARIO, 1999-2015

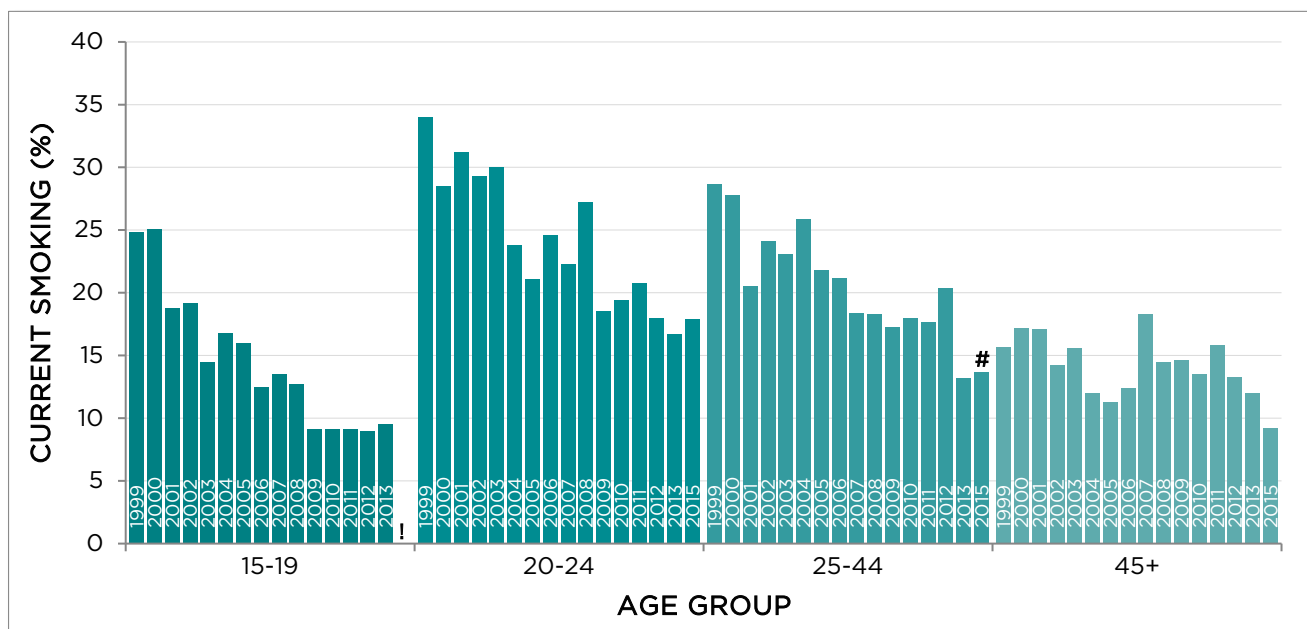


*INCLUDES DAILY AND NON-DAILY SMOKERS

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.16 (next page) shows smoking prevalence by age group in Ontario, from 1999-2015. During this time period, smoking prevalence decreased substantially in all age groups, although less consistently among those over 45. This decrease was particularly large among youth aged 15-19, for whom prevalence dropped from 1 in 4 to less than 1 in 10 in a decade, but has not changed in the past five years. In addition, since 1999, prevalence has nearly halved among young adults aged 20-24.

FIGURE 2.16: CURRENT SMOKING PREVALENCE* BY AGE GROUP, ONTARIO, 1999-2015

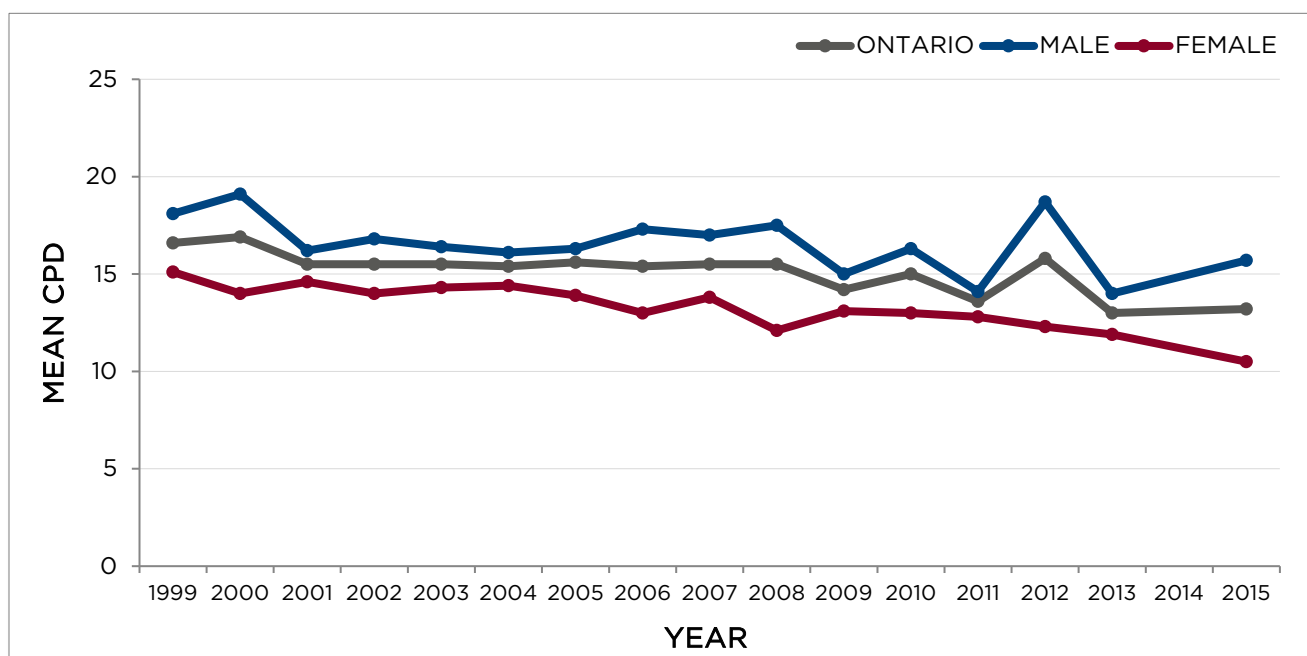


*INCLUDES DAILY AND NON-DAILY SMOKERS
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, average daily cigarette consumption in Ontario remained fairly stable and even appeared to decline slightly in recent years (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, 1999-2015



*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.6 QUEBEC

SMOKING PREVALENCE

In 2015, smoking prevalence in Quebec was 14.2%, slightly above the national average of 13.0%.

Figure 2.18 (below) shows smoking prevalence, overall and by sex, in Quebec from 1999-2015. During this time, prevalence appeared to decline fairly steadily, and more steeply than in other provinces. 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 2015

Smoking prevalence: 14.2% (975 000 smokers)
» compared to 17.1% in 2013

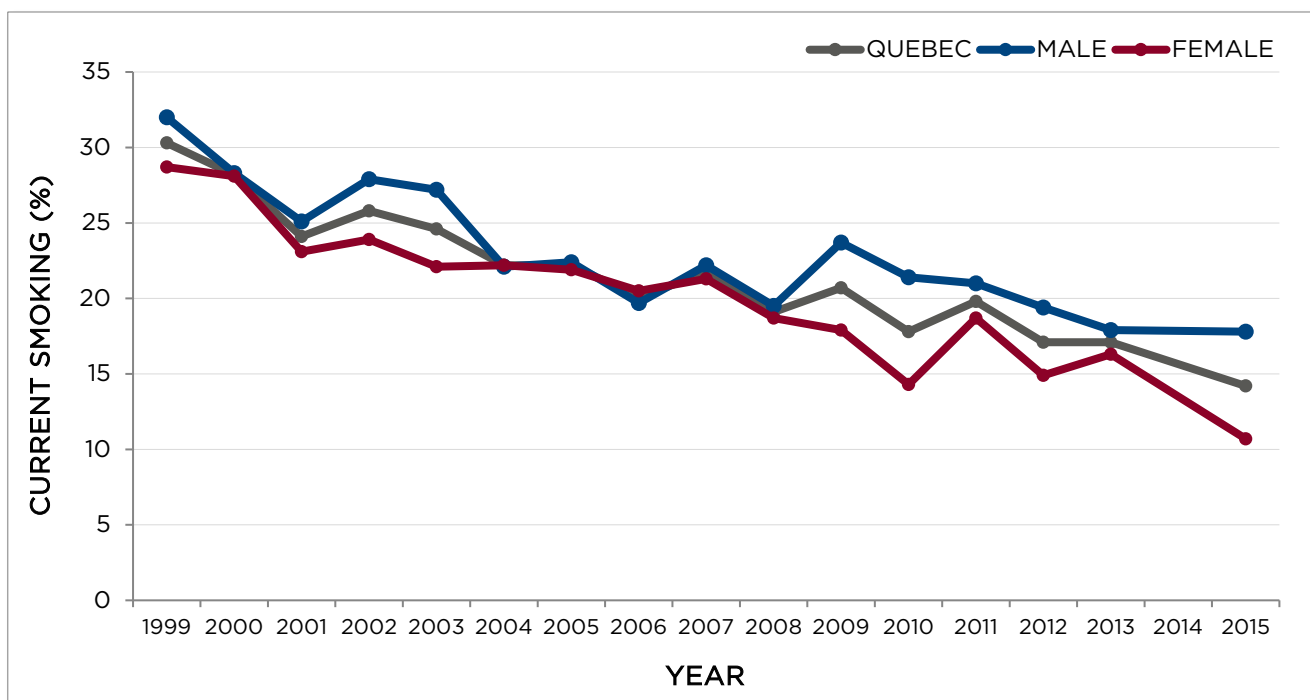
- Males: 17.8% (607 000 smokers)
- Females: 10.7% (368 000 smokers)

Average daily cigarette consumption: 14.3 CPD
» compared to 15.6 CPD in 2013

- Males: 14.7 CPD
- Females: 13.4 CPD

Average price per carton^{iv} (200 cig): \$85.39

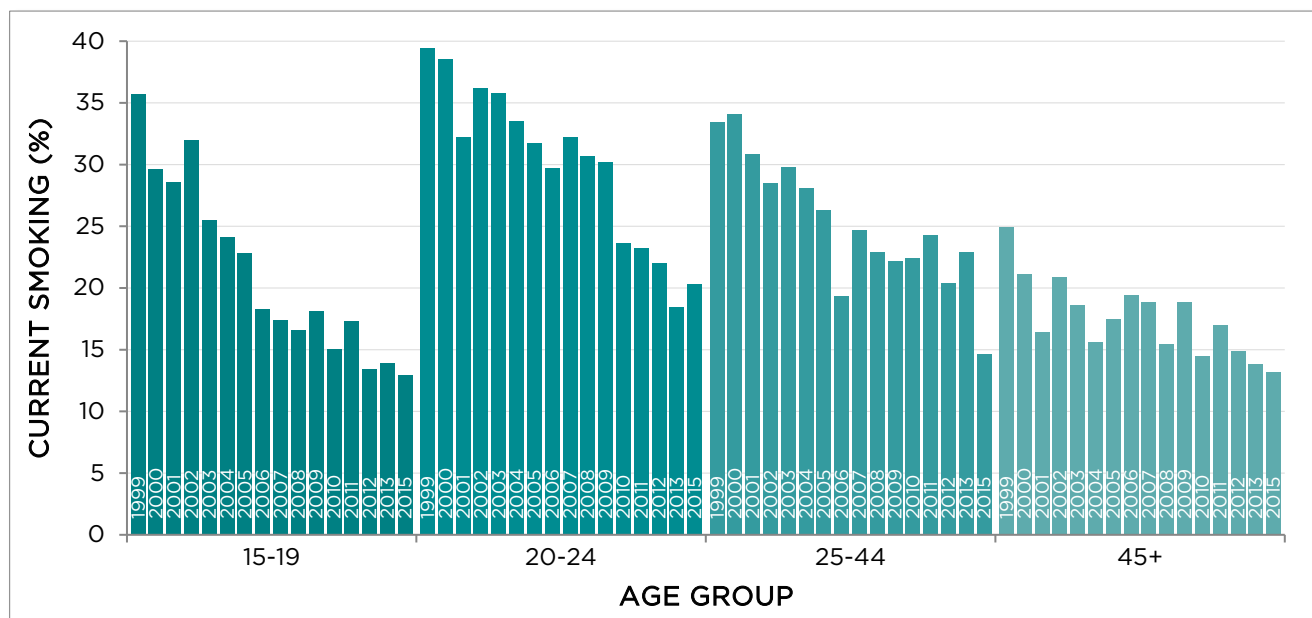
FIGURE 2.18: CURRENT SMOKING PREVALENCE* BY SEX, QUEBEC, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.19 (next page) shows smoking prevalence by age group in Quebec, from 1999-2015. Smoking prevalence decreased by approximately half among all adult age groups during this time; most notably, in 2015, prevalence among youth aged 15-19 had dropped to around one-third of the 1999 estimate.

FIGURE 2.19: CURRENT SMOKING PREVALENCE* BY AGE GROUP, QUEBEC, 1999-2015

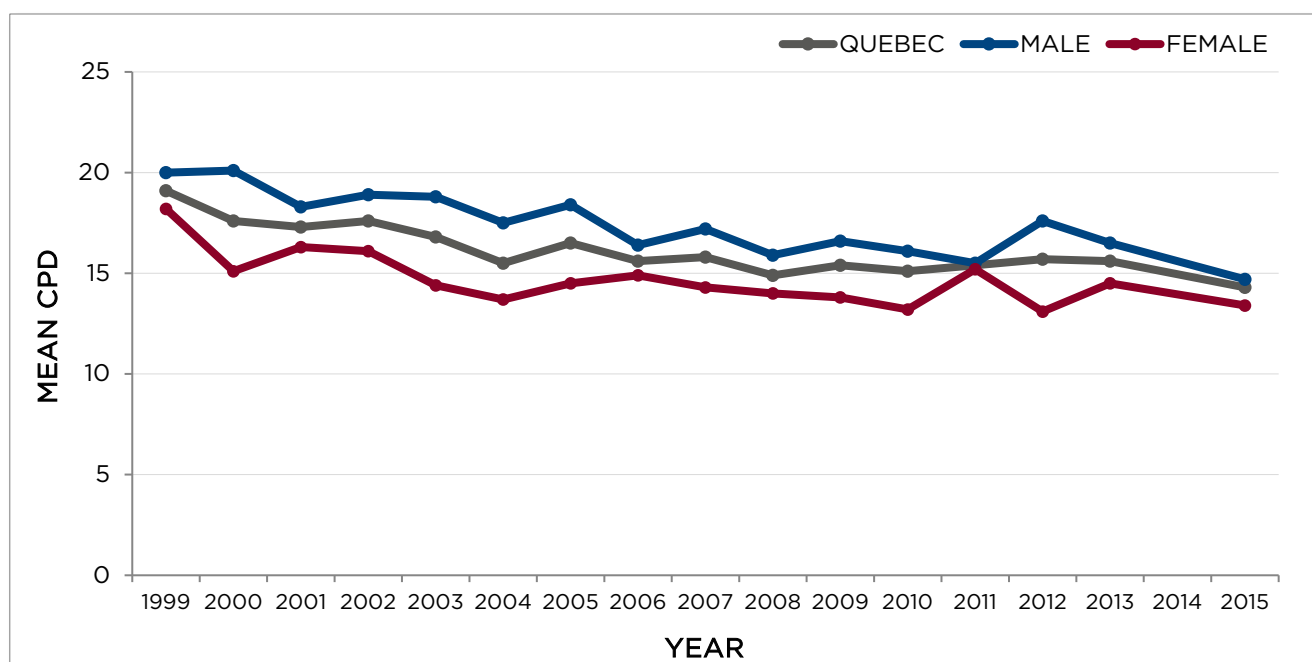


*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, average daily cigarette consumption in Quebec decreased by more than 4 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, 1999-2015



*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.7 NEW BRUNSWICK

SMOKING PREVALENCE

In 2015, smoking prevalence in New Brunswick was 14.2%, slightly above the national average of 13.0%.

Figure 2.21 (below) shows smoking prevalence, overall and by sex, in New Brunswick from 1999-2015. During this time, prevalence appears to have decreased overall, although with some fluctuations. 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 2015

Smoking prevalence: 14.2% (89 000 smokers)
» compared to 19.6% in 2013

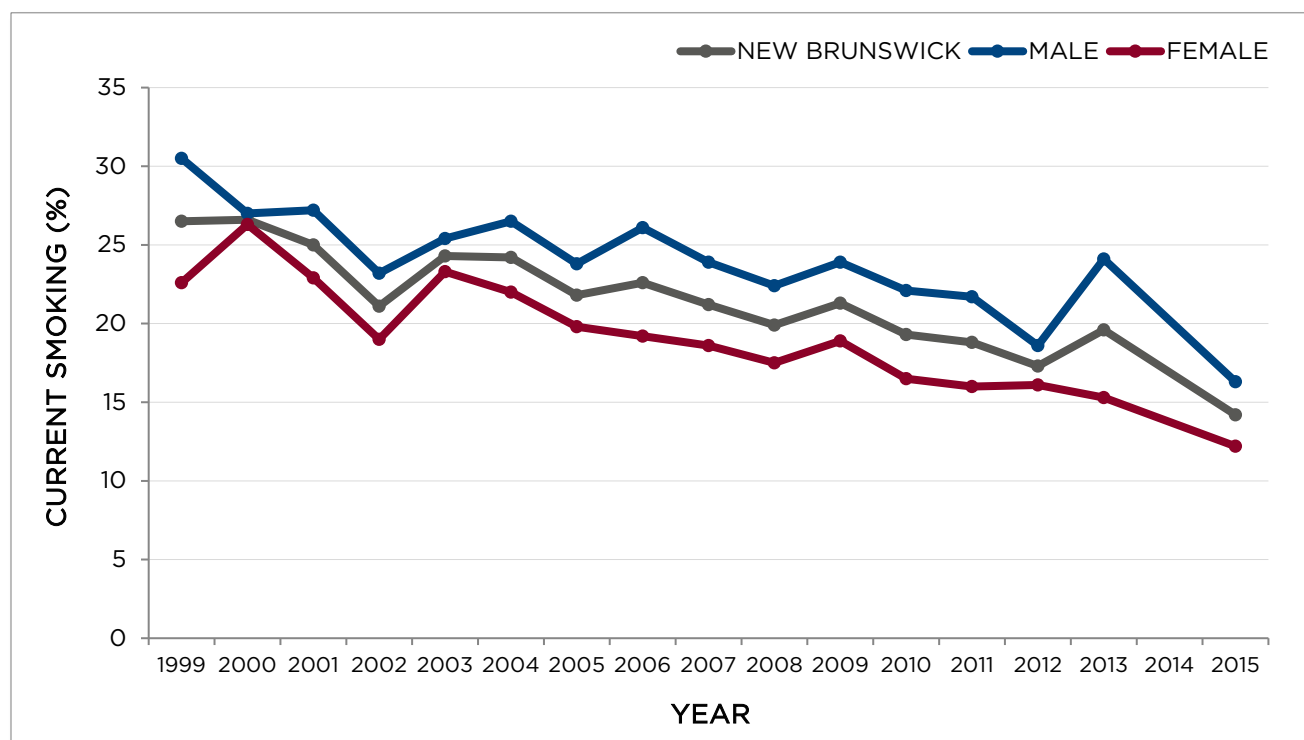
- Males: 16.3% (51 000 smokers)
- Females: 12.2% (38 000 smokers)

Average daily cigarette consumption: 15.5 CPD
» compared to 14.3 CPD in 2013

- Males: 16.0 CPD
- Females: 14.8 CPD

Average price per carton^{iv} (200 cig): \$88.65

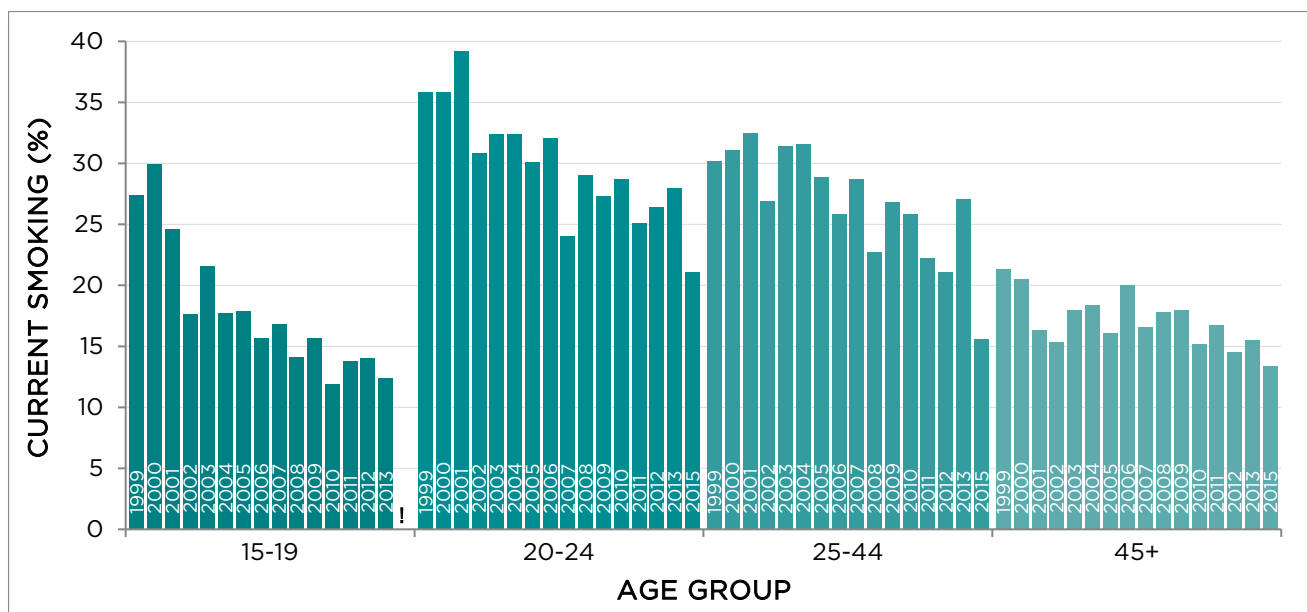
FIGURE 2.21: CURRENT SMOKING PREVALENCE* BY SEX, NEW BRUNSWICK, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.22 (next page) shows smoking prevalence by age group in New Brunswick, from 1999-2015. During this time period, smoking prevalence decreased in all age groups; the largest decrease was among youth aged 15-19, whose smoking rate was halved.

FIGURE 2.22: CURRENT SMOKING PREVALENCE* BY AGE GROUP, NEW BRUNSWICK, 1999-2015

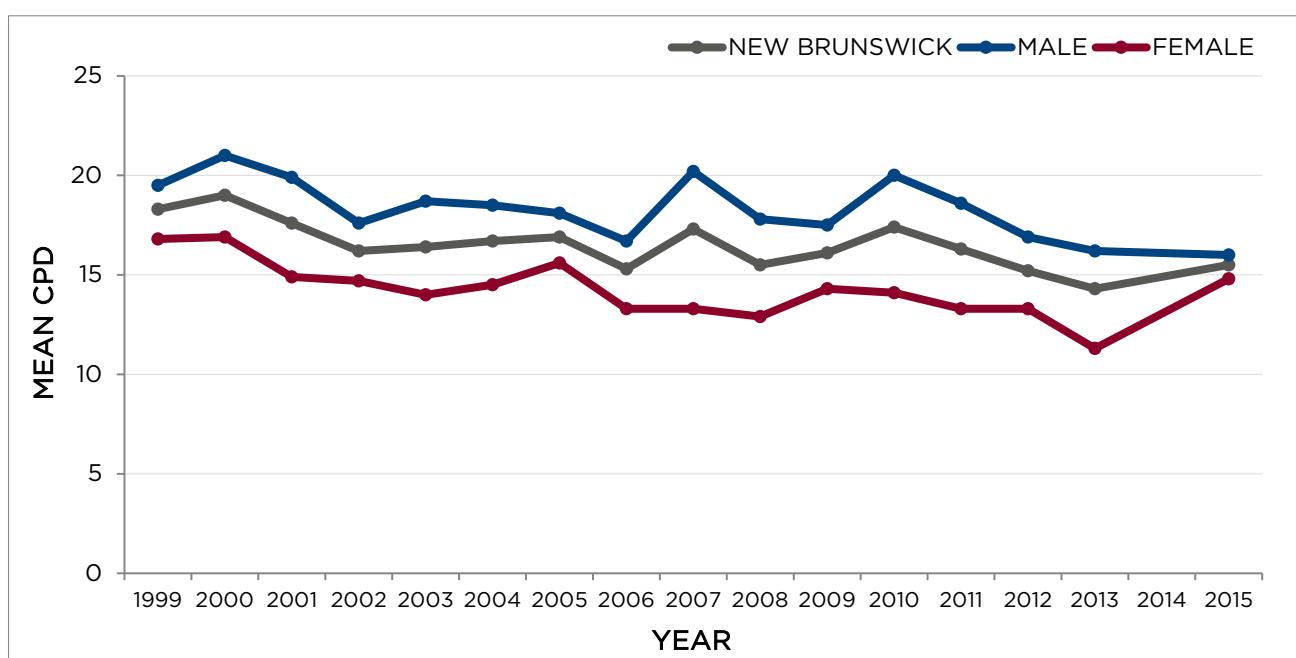


*INCLUDES DAILY AND NON-DAILY SMOKERS
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Average daily cigarette consumption in New Brunswick appears to have decreased during the early 2000s, and then fluctuated around that level since 2006 (Figure 2.23). Male smokers consumed considerably more cigarettes per day than female smokers in most years, although consumption was more similar in the most recent survey year.

FIGURE 2.23: AVERAGE DAILY CIGARETTE CONSUMPTION* BY SEX, NEW BRUNSWICK, 1999-2015



*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.8 NOVA SCOTIA

SMOKING PREVALENCE

In 2015, smoking prevalence in Nova Scotia was 17.8%, well above the national average of 13.0%.

Figure 2.24 (below) shows smoking prevalence, overall and by sex, in Nova Scotia from 1999-2015. Prevalence decreased fairly steeply for the first five years, before reaching a plateau around 20%, and then fluctuating more in the most recent years. Prevalence was greater among males than females in all years observed, although only slightly in several instances.

NOVA SCOTIA IN 2015

Smoking prevalence: 17.8% (143 000 smokers)
» compared to 19.4% in 2013

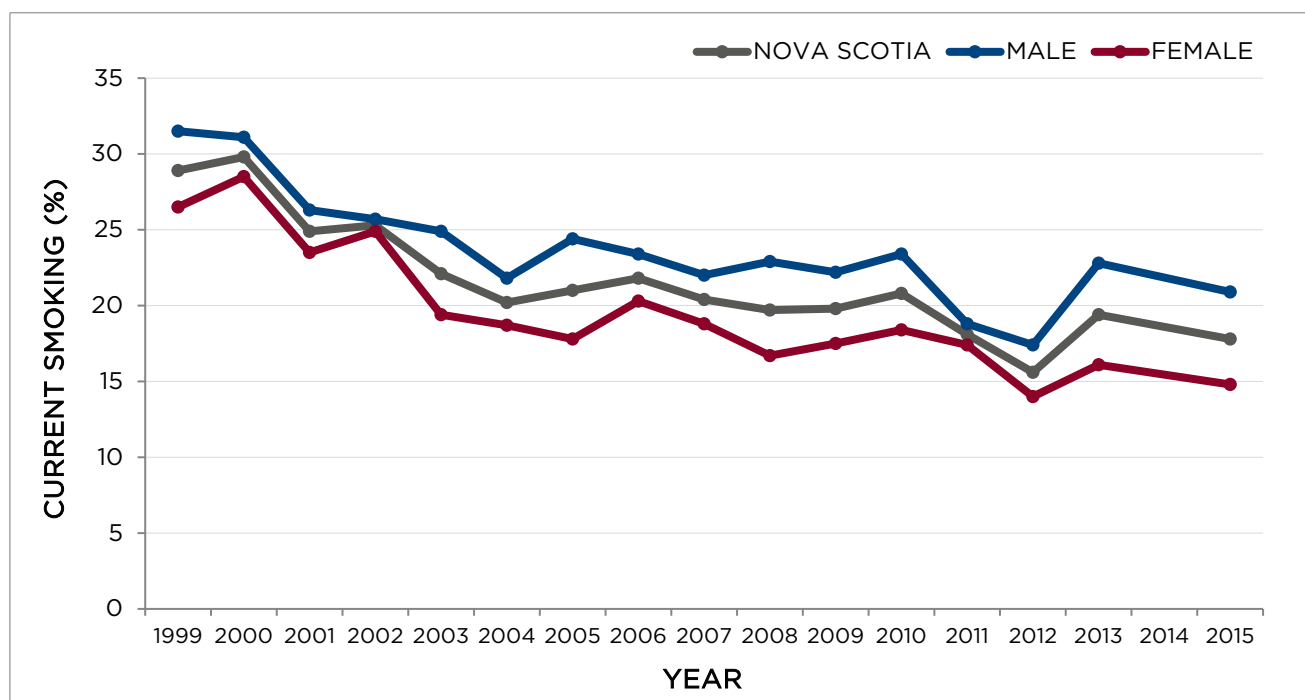
- Males: 20.9% (83 000 smokers)
- Females: 14.8% (61 000 smokers)

Average daily cigarette consumption: 12.9 CPD
» compared to 14.0 CPD in 2013

- Males: 13.3 CPD
- Females: 12.4 CPD

Average price per carton^{iv} (200 cig): \$116.63

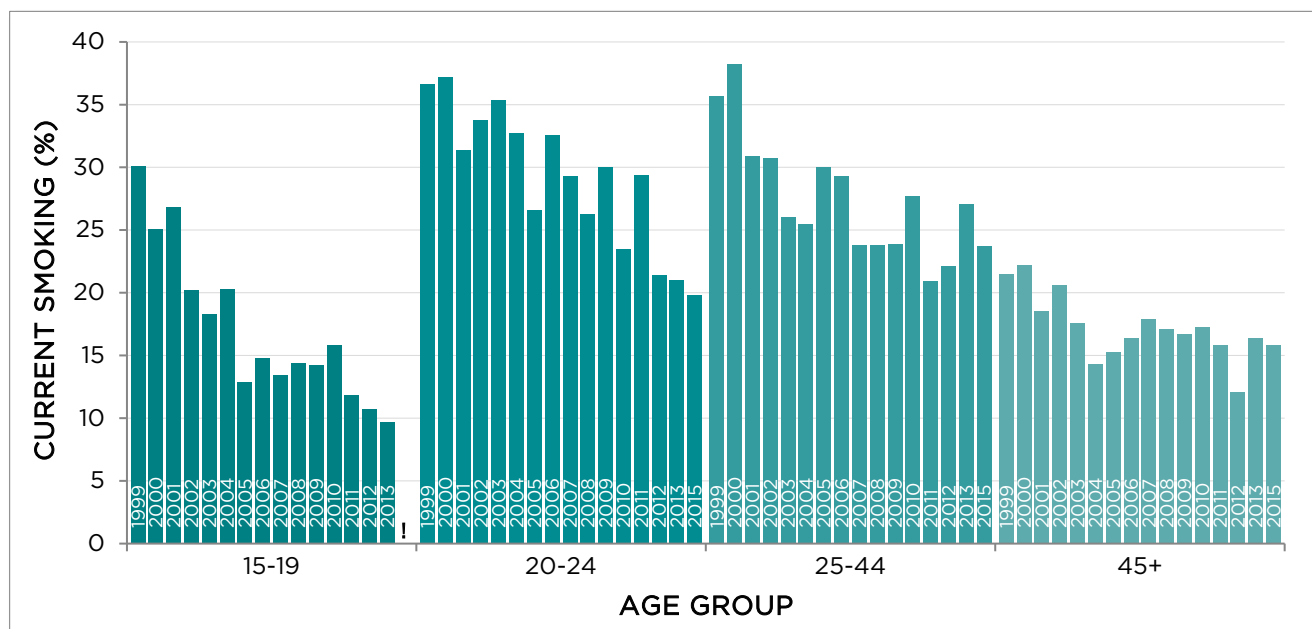
FIGURE 2.24: CURRENT SMOKING PREVALENCE* BY SEX, NOVA SCOTIA, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.25 (next page) shows smoking prevalence by age group in Nova Scotia, from 1999-2015. 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. Prevalence appeared to decrease among young adults aged 20-24 in the most recent years.

FIGURE 2.25: CURRENT SMOKING PREVALENCE* BY AGE GROUP, NOVA SCOTIA, 1999-2015

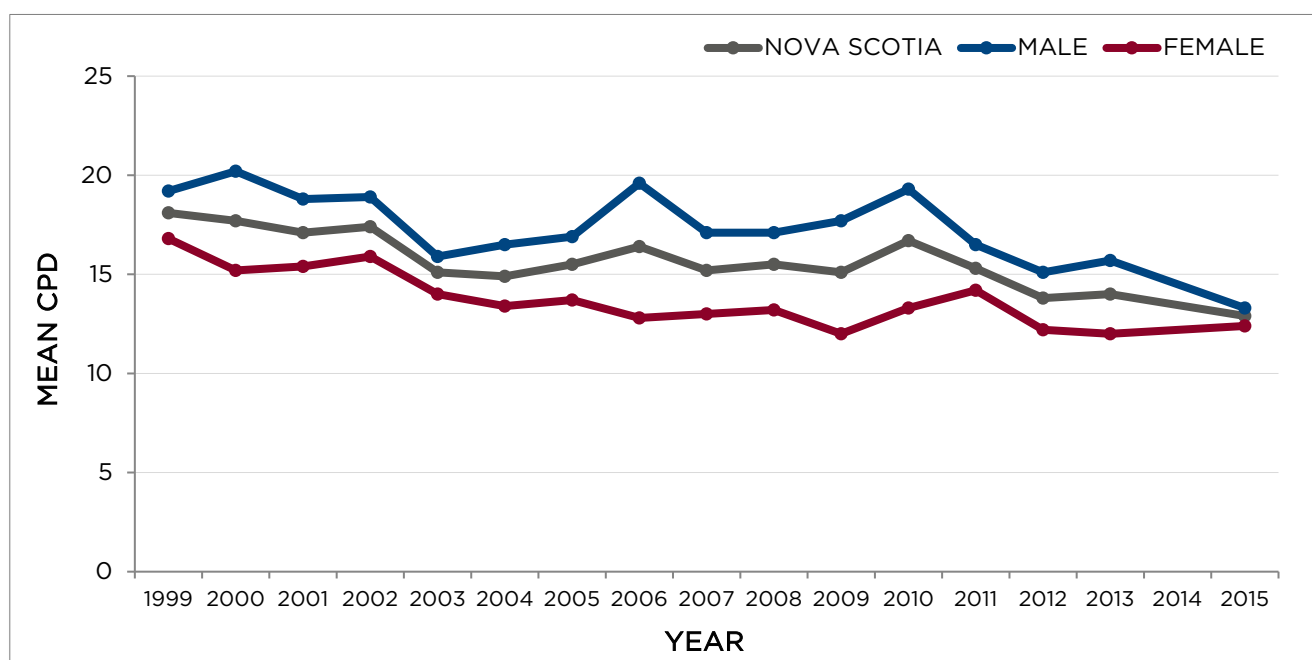


*INCLUDES DAILY AND NON-DAILY SMOKERS
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, average daily cigarette consumption in Nova Scotia appears to have decreased overall (Figure 2.26). Male smokers consumed more cigarettes per day than female smokers in all years, with some variation in magnitude and only a small difference in the most recent year.

FIGURE 2.26: AVERAGE DAILY CIGARETTE CONSUMPTION* BY SEX, NOVA SCOTIA, 1999-2015



*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.9 PRINCE EDWARD ISLAND

SMOKING PREVALENCE

In 2015, smoking prevalence in Prince Edward Island was 12.9%, comparable with the national average of 13.0%.

Figure 2.27 (below) shows smoking prevalence, overall and by sex, in Prince Edward Island from 1999-2015. Prevalence appeared to decrease slowly but fairly steadily, although with some fluctuation in recent years. Throughout this time period, prevalence was consistently higher among males than females.

PRINCE EDWARD ISLAND IN 2015

Smoking prevalence: 12.9% (15 000 smokers)
» compared to 17.3% in 2013

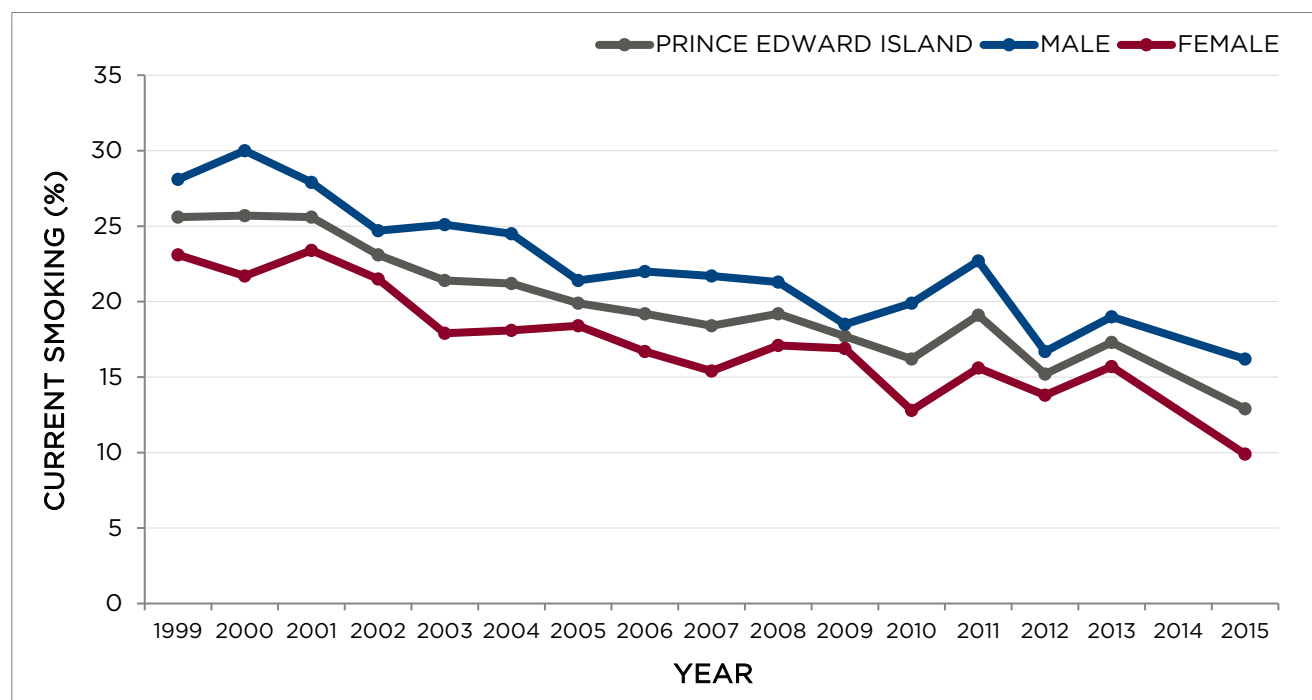
- Males: 16.2% (9 000 smokers)
- Females: 9.9% (6 000 smokers)

Average daily cigarette consumption: 14.7 CPD
» compared to 14.6 CPD in 2013

- Males: 17.3 CPD
- Females: 11.1 CPD

Average price per carton^{iv} (200 cig): \$107.32

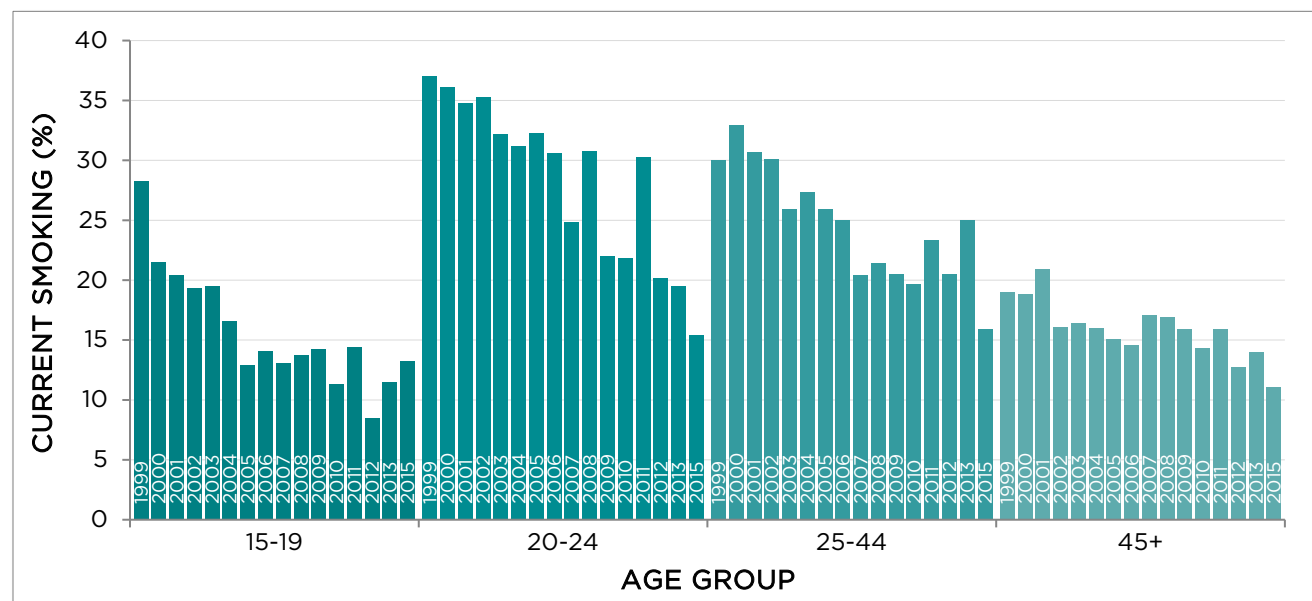
FIGURE 2.27: CURRENT SMOKING PREVALENCE* BY SEX, PRINCE EDWARD ISLAND, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.28 (next page) shows smoking prevalence by age group in Prince Edward Island, from 1999-2015. During this time period, smoking prevalence decreased in all age groups. The largest decreases observed were among youth aged 15-19 and young adults aged 20-24, whose smoking rate dropped to less than half of the 1999 level; however, it appears that youth smoking has increased since the lowest point in 2012, while young adult smoking has continued to decline in recent years.

FIGURE 2.28: CURRENT SMOKING PREVALENCE* BY AGE GROUP, PRINCE EDWARD ISLAND, 1999-2015



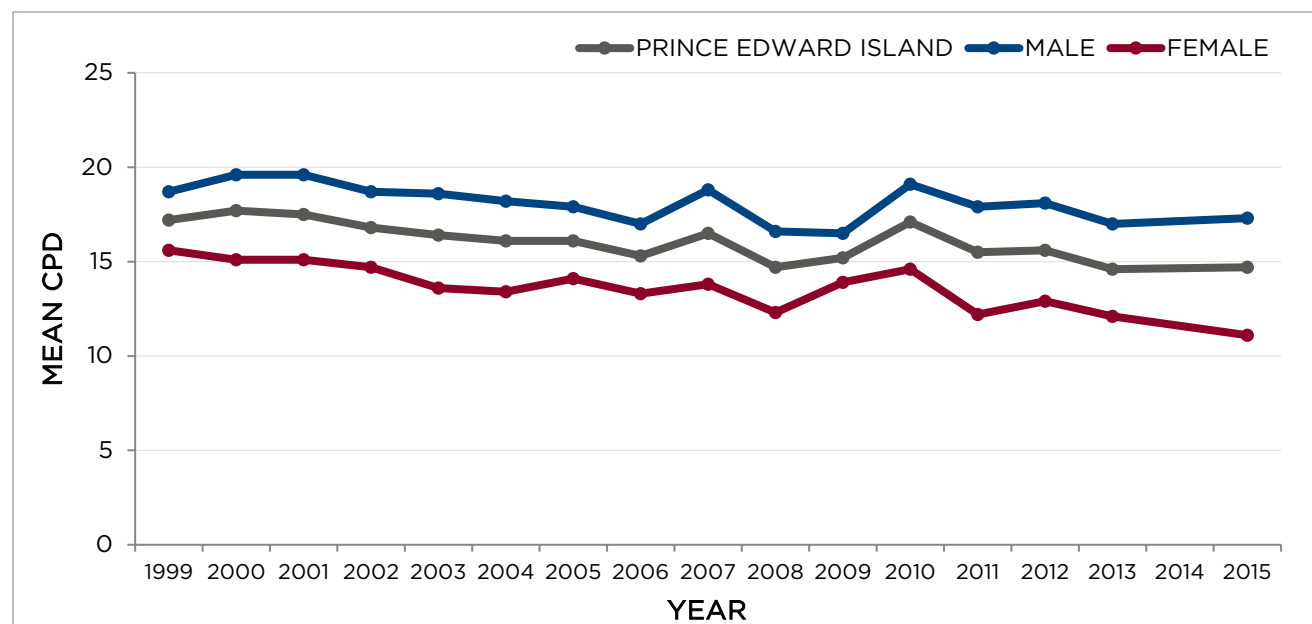
*INCLUDES DAILY AND NON-DAILY SMOKERS

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

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, 1999-2015



*AMONG DAILY SMOKERS

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

2.10 NEWFOUNDLAND & LABRADOR

SMOKING PREVALENCE

In 2015, smoking prevalence in Newfoundland & Labrador was 18.5%, well above the national average of 13.0%, and the highest among all provinces.

Figure 2.30 (below) shows smoking prevalence, overall and by sex, in Newfoundland and Labrador from 1999-2015. Overall prevalence decreased fairly steeply and steadily until 2005; since then, prevalence has levelled off, with little decline. Prevalence was higher among males than females in most years, although the difference varied from year to year, with similar estimates in a couple of instances.

NEWFOUNDLAND & LABRADOR IN 2015

Smoking prevalence: 18.5% (81 000 smokers)
» compared to 19.5% in 2013

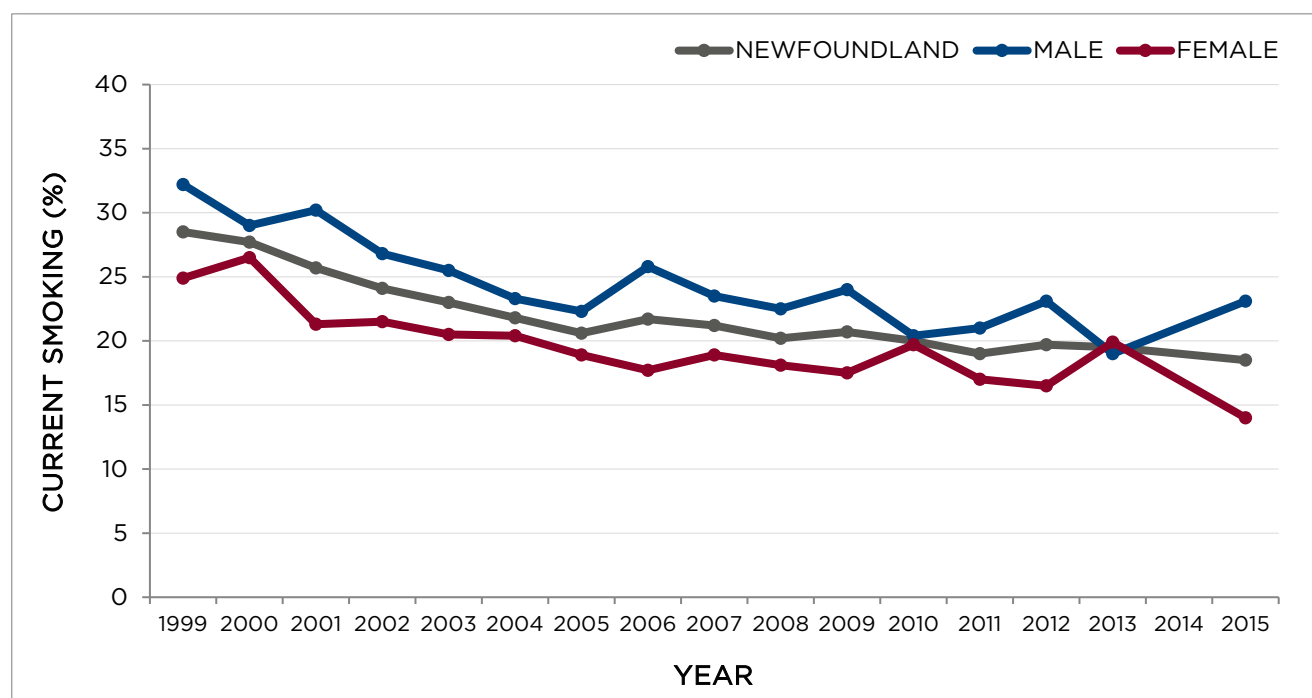
- Males: 23.1% (50 000 smokers)
- Females: 14.0% (31 000 smokers)

Average daily cigarette consumption: 14.0 CPD
» compared to 13.1 CPD in 2013

- Males: 16.0 CPD
- Females: 10.7 CPD

Average price per carton^{iv} (200 cig): \$108.40

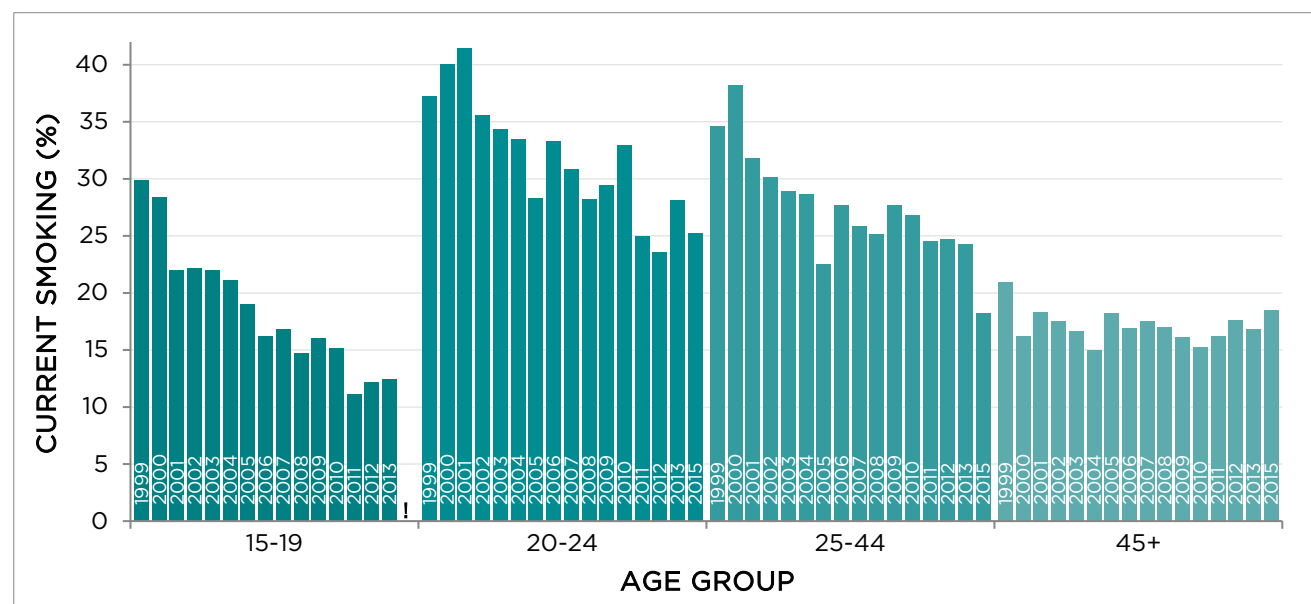
FIGURE 2.30: CURRENT SMOKING PREVALENCE* BY SEX, NEWFOUNDLAND & LABRADOR, 1999-2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Figure 2.31 (next page) shows smoking prevalence by age group in Newfoundland & Labrador, from 1999-2015. 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, 1999-2015

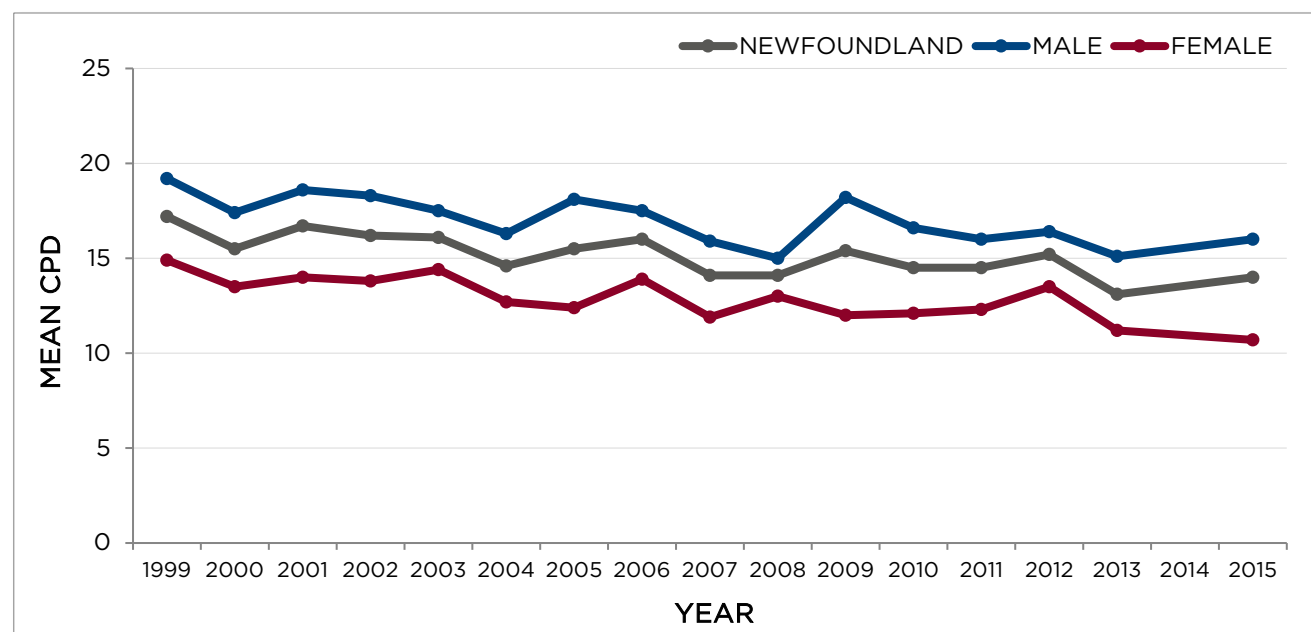


*INCLUDES DAILY AND NON-DAILY SMOKERS
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

CIGARETTE CONSUMPTION

Between 1999 and 2015, 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, 1999-2015



*AMONG DAILY SMOKERS
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

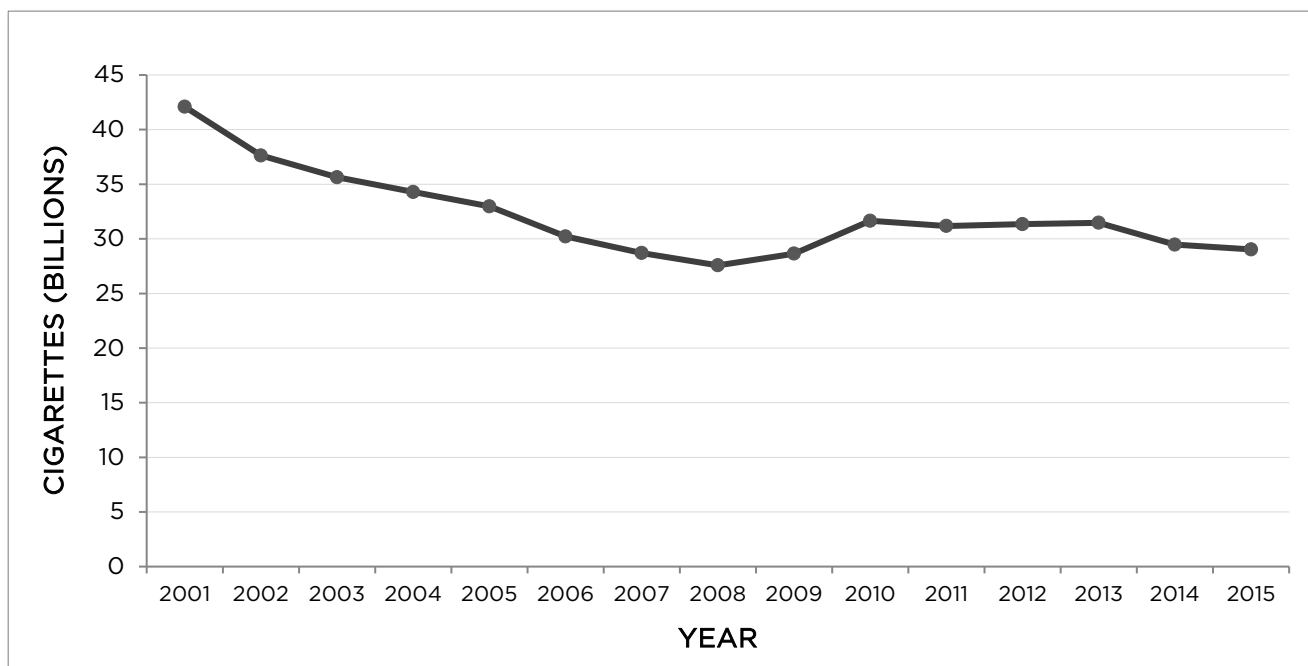
3. CIGARETTE SALES AND SOURCES

CIGARETTE SALES

Since 2001, tobacco companies have been required by the *Tobacco Reporting Regulations* to provide Health Canada with reports on sales of tobacco products. Health Canada has released this sales data, which represent “shipments from tobacco companies in a province or territory, but do not include estimates of illicit tobacco sales.” These data are outlined below, and available in full at: <http://www.healthycanadians.gc.ca/publications/healthy-living-vie-saine/wholesale-sales-2015-tobacco-tabac-ventes-en-gros/index-eng.php>.

In 2015, cigarette sales in Canada totaled over 29 billion sticks (29,032,568,898), down from over 42 billion in 2001. Figure 3.1 shows total cigarette sales for Canada, from 2001-2015. Total sales generally declined until 2008, when there appeared to be a slight increase for a couple of years before leveling off. These overall sales figures do not take into account population size; on a per capita basis, sales have continued to decline over this time, as population grew from approximately 31 million in 2001^v to nearly 36 million in 2015.^{vi}

FIGURE 3.1: CIGARETTE SALES, CANADA, 2001-2015



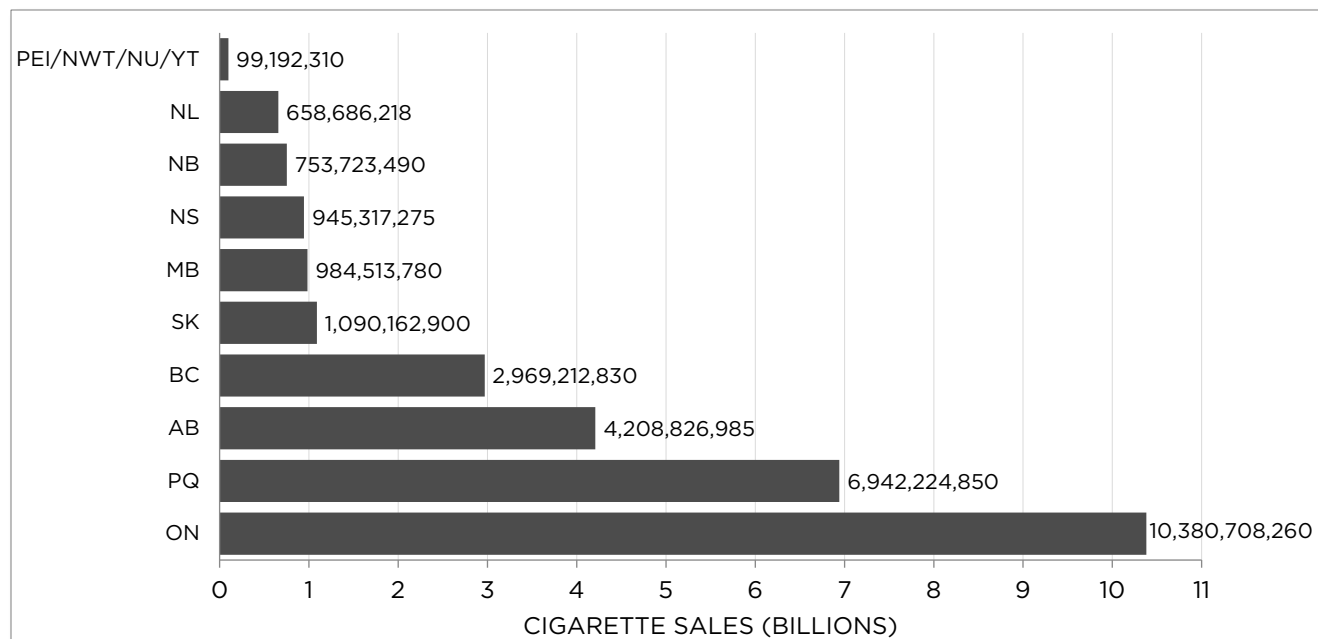
DATA SOURCE: HEALTH CANADA, 2017 (AS REPORTED BY TOBACCO COMPANIES UNDER TOBACCO REPORTING REGULATIONS)

NOTES: TOTAL SALES NOT ADJUSTED FOR POPULATION SIZE (I.E., NOT “PER CAPITA”)

THESE DATA ARE SUBJECT TO ONGOING REVISION DUE TO RE-SUBMISSIONS BY TOBACCO COMPANIES AND/OR AUDITS BY HEALTH CANADA.

Figure 3.2 (next page) shows sales data for 2015 by province/territory. Again, this does not adjust for population size, but represents the size of the cigarette market in each province/territory. Ontario has the highest cigarette sales, at over 10 billion cigarettes, followed by Quebec with nearly 7 billion, and Alberta with over 4 billion.

FIGURE 3.2: CIGARETTE SALES, BY PROVINCE/TERRITORY, 2015



DATA SOURCE: HEALTH CANADA, 2017 (AS REPORTED BY TOBACCO COMPANIES UNDER TOBACCO REPORTING REGULATIONS)

NOTES: TOTAL SALES NOT ADJUSTED FOR POPULATION SIZE (I.E., NOT "PER CAPITA")

HEALTH CANADA ADVISES THAT THERE ARE THREE IMPORTANT FACTORS TO CONSIDER WHEN USING THESE DATA:

1. THE DATA ARE SUBJECT TO ONGOING REVISION DUE TO RE-SUBMISSIONS BY TOBACCO COMPANIES AND/OR AUDITS BY HEALTH CANADA.
2. SALES REPRESENT SHIPMENTS TO WHOLESALERS OR RETAILERS IN A PROVINCE/TERRITORY. SALES TOTALS MAY NOT BE REPRESENTATIVE OF TOBACCO CONSUMPTION FOR THAT PROVINCE/TERRITORY.
3. IN CERTAIN CASES, PROVINCIAL/TERRITORIAL SALES WERE NOT REPORTABLE DUE TO A LIMITED NUMBER OF COMPANIES ACTIVE IN THAT MARKET. IN THESE CASES, THE DATA WERE MERGED INTO A LARGER GEOGRAPHICAL GROUPING.

Table 3.1 shows yearly cigarette sales by province/territory from 2001 to 2015. Overall, sales have decreased in all provinces/territories during this time.

TABLE 3.1: CIGARETTE SALES (IN THOUSANDS*), BY PROVINCE/TERRITORY, 2001-2015

	British Columbia	Alberta	Sask.	Manitoba	Ontario	Quebec	New Brunswick	Nova Scotia	Nfld. & Labrador	PEI, NWT, NU, YT*
2001	4,057,170	4,745,250	1,190,410	1,301,011	17,598,139	10,180,595	1,017,629	1,346,776	427,879	222,469
2002	3,795,268	4,044,044	1,042,594	1,146,699	16,372,785	8,565,927	884,047	1,191,665	384,712	199,750
2003	3,522,864	3,847,954	1,036,957	1,084,611	15,795,141	8,249,669	715,066	1,038,097	354,939	172,634
2004	3,562,729	4,062,084	1,030,252	1,062,012	14,508,332	7,969,737	748,695	1,044,086	407,128	183,793
2005	3,567,616	4,311,643	997,806	1,116,191	13,286,772	7,354,136	711,015	1,014,867	449,804	160,772
2006	3,538,955	4,546,343	1,023,064	1,098,602	11,387,545	6,435,127	671,296	946,005	468,729	101,729
2007	3,537,912	4,532,738	1,083,647	1,107,092	10,257,094	6,013,405	659,033	894,816	496,381	122,597
2008	3,468,953	4,372,352	1,132,170	1,114,324	9,346,912	5,869,091	679,915	902,373	537,011	136,282
2009	3,362,479	4,162,222	1,151,533	1,164,247	9,740,694	6,504,503	825,729	968,276	613,037	134,789
2010	3,396,768	4,314,295	1,161,728	1,203,314	11,214,816	7,620,380	938,298	988,014	659,717	156,286
2011	3,242,047	4,301,236	1,129,774	1,179,195	10,939,627	7,719,872	862,581	988,047	675,907	139,727
2012	3,156,286	4,303,815	1,138,477	1,149,939	11,143,879	7,870,831	821,481	992,170	692,618	129,648
2013	3,149,434	4,528,238	1,116,975	1,091,066	11,290,403	7,667,500	807,412	993,265	691,037	127,225
2014	2,985,439	4,471,426	1,079,758	1,016,992	10,361,513	7,084,335	749,719	954,240	659,079	115,734
2015	2,969,213	4,208,827	1,090,163	984,514	10,380,708	6,942,225	753,723	945,317	658,686	99,192

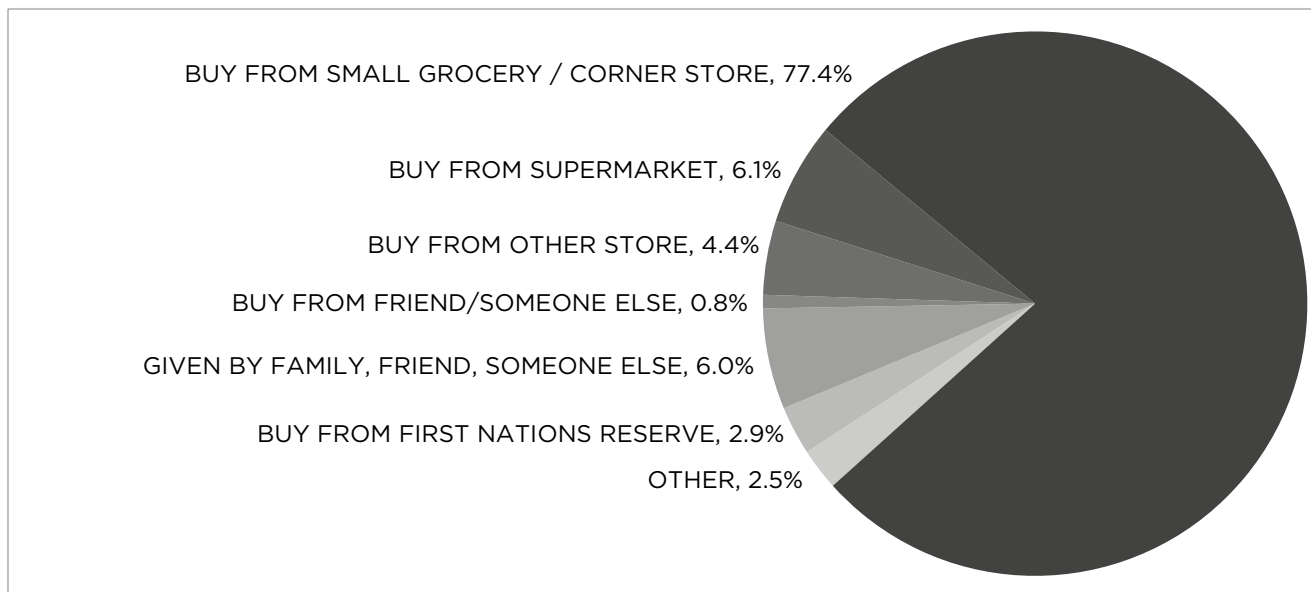
DATA SOURCE: HEALTH CANADA, 2017 (AS REPORTED BY TOBACCO COMPANIES UNDER TOBACCO REPORTING REGULATIONS); SEE NOTES ABOVE

*ROUNDED TO NEAREST THOUSAND. EXACT FIGURES MAY BE FOUND IN ORIGINAL SOURCE

USUAL SOURCES OF CIGARETTES

When smokers were asked where they usually got their cigarettes, nearly nine out of ten purchased them for themselves from a retail source, most often from a small grocery or corner store (Figure 3.3). Only 2.9% of smokers stated their usual source of cigarettes as a First Nations reserve (either on-site or delivery service), and 2.5% cited “other” sources. The remaining 6.8% usually got cigarettes through social sources, most being given them a family member, friend, or someone else.

FIGURE 3.3: PERCENTAGE OF SMOKERS WHO USUALLY GOT CIGARETTES FROM VARIOUS SOURCES, 2015



DATA SOURCE: CTADS, 2015

CHEAPER CIGARETTES AND CONTRABAND

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.”^{vii, p.12} The RCMP has identified the trade in contraband as a “serious threat to public safety and health.”^{vii, p. 15} To help identify duty-paid and legally-manufactured cigarettes, a federal excise stamp is required on “all cigarettes, tobacco sticks and fine-cut tobacco products for sale in the Canadian duty-paid market” as of July 1, 2012.^{viii} The federal government has introduced other measures and funded initiatives to reduce contraband tobacco.^x Bill C-10, the *Tackling Contraband Tobacco Act*, which came into force on April 10, 2015, amends the Criminal Code to add the offence of trafficking contraband tobacco.^{ix}

Purchasing Cheaper Cigarettes

Smokers were asked about various sources of cigarettes, some of which may have included contraband, where appropriate taxation has been evaded.

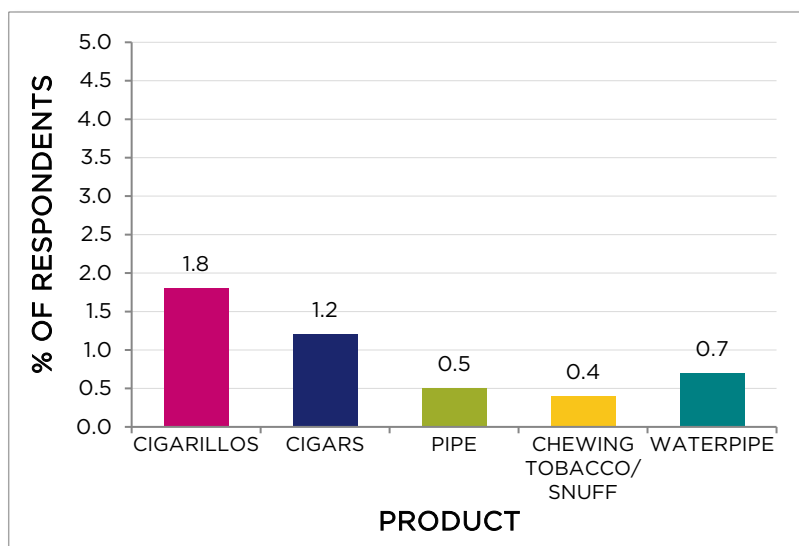
Overall, 11.5% of smokers reported having purchased cigarettes on a First Nations Reserve in the past 6 months, defined for respondents as “a tract of land that has been set apart for the use and benefit of a First Nations band”. Smokers were also asked about purchasing cigarettes that they believed may have been smuggled, defined as “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”. However, it is not possible to reliably report the estimate, as too few survey respondents reported purchasing smuggled cigarettes.

4. USE OF OTHER TOBACCO PRODUCTS IN CANADA

Cigarillos (little cigars) were the most popular tobacco product other than cigarettes, with 1.8% of Canadians reporting use in the past 30 days (Figure 4.1). Cigar use was reported by 1.2% of respondents. Waterpipe (also called hookah or shisha) use was reported by 0.7%. Pipe and chewing tobacco/snuff were less common, used by 0.5% and 0.4% of respondents, respectively (Figure 4.1).

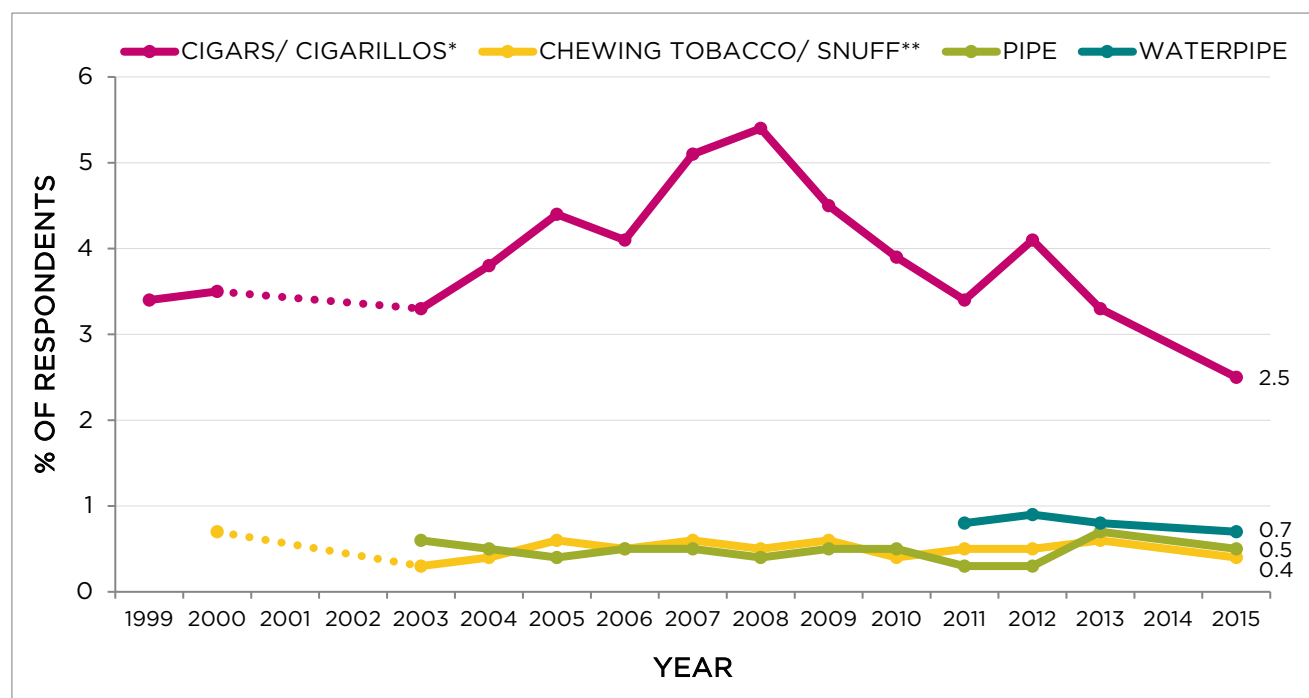
Use of cigars/cigarillos appears to have increased through the 2000s until a peak around 2008, after which prevalence has generally declined. Use of chewing tobacco/snuff and pipe smoking have both remained fairly low and stable over time; waterpipe use was also fairly low and stable, although measured only recently (Figure 4.2).

FIGURE 4.1: PREVALENCE OF USE IN THE PAST 30 DAYS FOR VARIOUS TOBACCO PRODUCTS, 2015



DATA SOURCE: CTADS, 2015

FIGURE 4.2: PREVALENCE OF USE IN THE PAST 30 DAYS FOR VARIOUS TOBACCO PRODUCTS, 1999-2015



*PRIOR TO 2007, CIGARS AND CIGARILLOS WERE GROUPED TOGETHER IN A SINGLE QUESTIONNAIRE ITEM; FROM 2007-2015 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 2003-2015 THEY WERE GROUPED TOGETHER IN A SINGLE ITEM

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

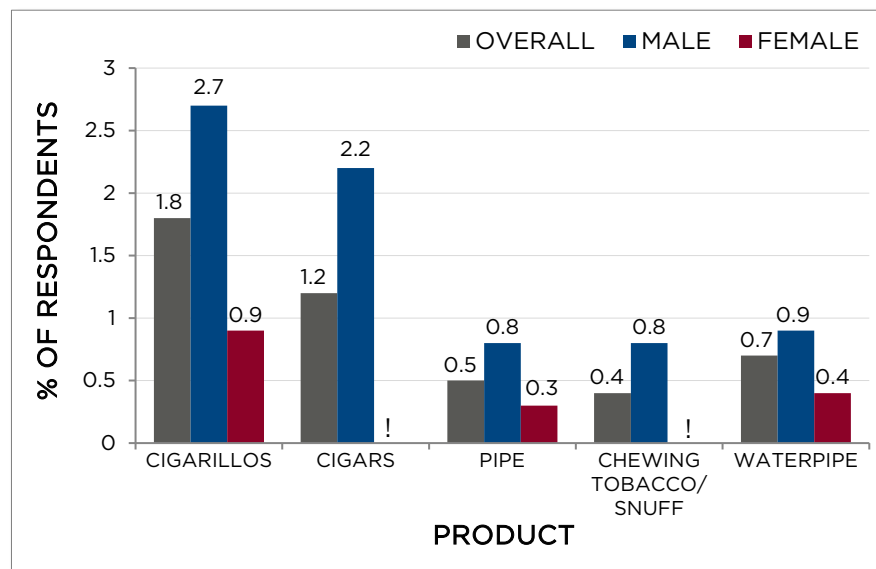
DEMOGRAPHIC PATTERNS IN OTHER TOBACCO USE

Other Tobacco Use by Sex

For each tobacco product shown in Figure 4.3, prevalence of use was significantly higher among males than females.³³⁻³⁷ For example, in 2015, while nearly 3% of males had smoked a cigarillo in the last 30 days, less than 1% of females had done so (Figure 4.3).

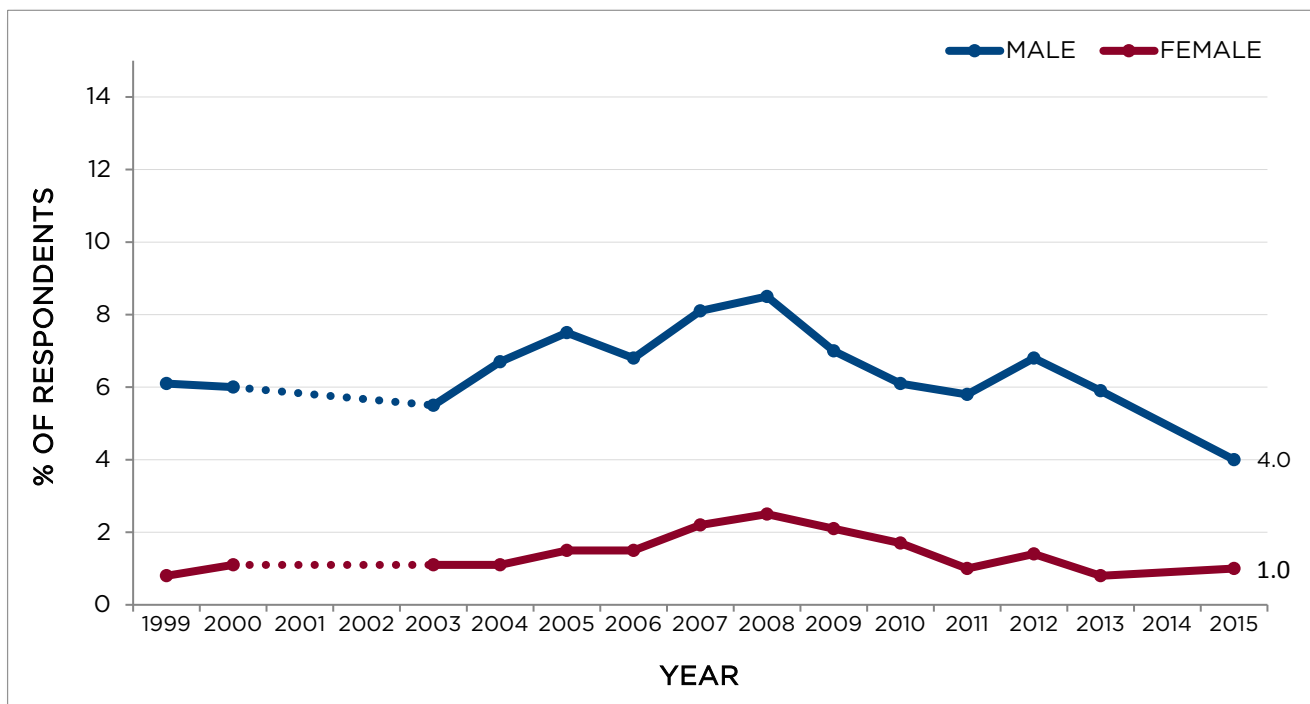
Over time, the use of cigars/cigarillos has changed in parallel for both males and females; sex differences have persisted over time (Figure 4.4).

FIGURE 4.3: PREVALENCE OF USE IN THE PAST 30 DAYS FOR VARIOUS TOBACCO PRODUCTS, BY SEX, 2015



! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCE: CTADS, 2015

FIGURE 4.4: PREVALENCE OF USE IN THE PAST 30 DAYS FOR CIGARS/CIGARILLOS*, BY SEX, 1999-2015



*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 SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Other Tobacco Use by Age

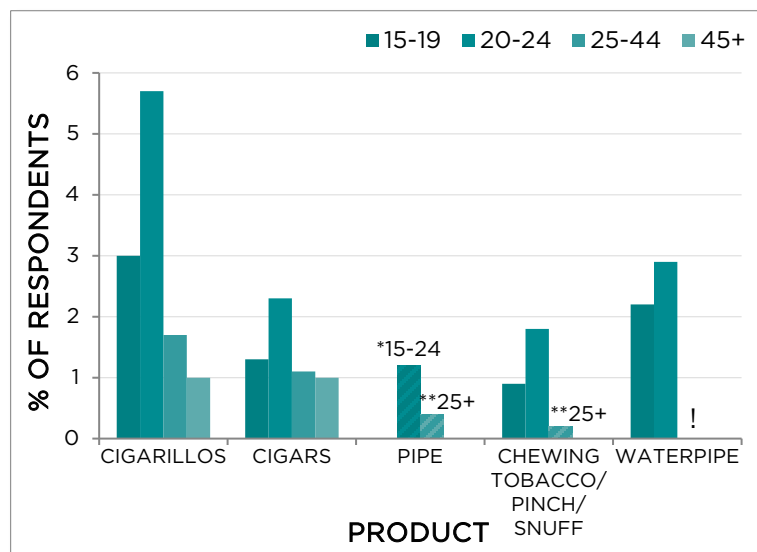
In 2015, use varied significantly by age group for most tobacco products,³⁸⁻⁴¹ although not cigars⁴² (Figure 4.5).

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 2015, this pattern of high use among the younger age groups (especially age 20-24), declining with increasing age, applied to cigar/cigarillo use in almost all years with available data (Figure 4.6).

Use of cigars/cigarillos appears to have increased over time in all groups until around 2008, after which rates generally decreased. This pattern was particularly pronounced among young people: cigars/cigarillo use among youth aged 15-19 has declined steeply and steadily; among young adults aged 20-24, after an initial large drop, progress has been slower.

FIGURE 4.5: PREVALENCE OF USE IN THE PAST 30 DAYS FOR VARIOUS TOBACCO PRODUCTS, BY AGE GROUP, 2015



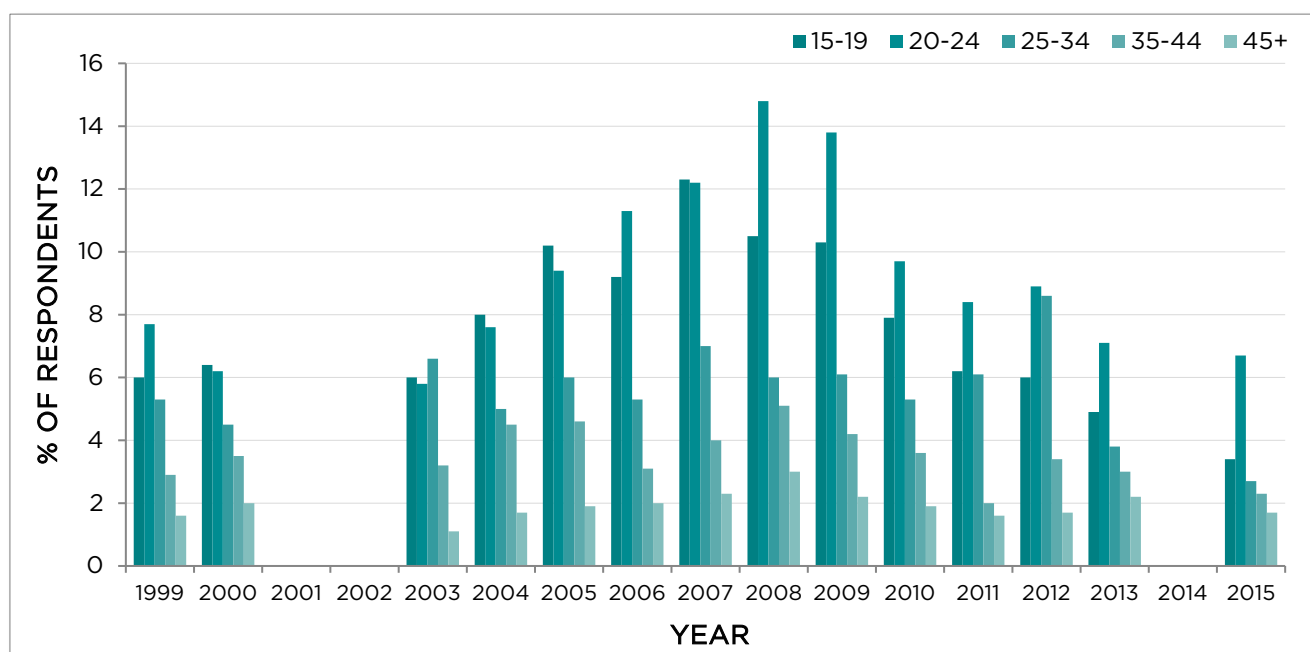
*AGE GROUPS 15-19 AND 20-24 COMBINED DUE TO LOW NUMBERS

**AGE GROUPS OVER 25 COMBINED DUE TO LOW NUMBERS

! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

DATA SOURCE: CTADS, 2015

FIGURE 4.6: PREVALENCE OF USE IN THE PAST 30 DAYS FOR CIGARS/CIGARILLOS*, BY AGE GROUP, 1999-2015



*PRIOR TO 2007, CIGARS AND CIGARILLOS WERE GROUPED TOGETHER IN A SINGLE QUESTIONNAIRE ITEM; FROM 2007-2015, THEY WERE ASKED AS TWO SEPARATE ITEMS AND COMBINED IN THE ANALYSIS

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Other Tobacco Use by Province

Prevalence of use of cigars/cigarillos varied significantly by province in 2015,⁴³ and was highest in Saskatchewan, at 4.2% (Table 4.1). While estimates varied over time and by province, prevalence of cigar/cigarillo use generally increased for a number of years until around 2008, after which it declined; by 2015, in most provinces, prevalence had returned to 1999 levels, and dropped even lower.

TABLE 4.1: PREVALENCE OF USE IN PAST 30 DAYS FOR CIGARS/CIGARILLOS*, BY PROVINCE, 1999-2015

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015
CANADA	3.4	3.5	--	--	3.3	3.9	4.4	4.1	5.1	5.4	4.5	3.9	3.4	4.1	3.3	2.5
BC	2.9	2.5	--	--	3.4	3.9	3.6	5.4	5.4	4.9	5.6	4.5	3.2	3.8	3.3	3.1
AB	4.1	3.1	--	--	4.0	4.8	5.9	5.5	6.9	5.7	5.6	4.5	4.2	4.5	4.6	2.6
SK	3.2	3.0	--	--	4.1	4.1	4.5	4.6	5.6	6.1	6.2	4.7	3.8	5.2	2.9	4.2
MB	4.8	3.3	--	--	3.5	4.3	4.8	3.3	4.2	4.2	5.2	4.7	4.0	2.8	3.6	3.7
ON	3.4	3.8	--	--	2.4	3.8	3.9	3.0	3.5	4.8	3.1	2.6	2.5	4.5	2.9	2.1
PQ	3.5	3.8	--	--	4.2	3.4	5.2	4.6	6.5	6.5	5.3	5.0	4.3	3.5	3.8	2.5
NB	3.2	3.3	--	--	3.8	4.1	5.1	4.9	6.8	7.7	4.7	5.0	4.2	3.9	2.7	2.4
NS	3.5	3.0	--	--	4.2	3.9	4.5	4.7	5.8	5.9	5.3	4.9	3.2	3.6	2.3	2.4
PEI	2.4	3.1	--	--	3.0	2.4	3.8	4.1	3.9	4.5	3.8	3.5	2.2	2.5	2.3	2.1
NL	2.8	1.3	--	--	2.0	3.4	3.0	3.9	4.6	5.4	4.2	3.2	2.8	2.9	1.4	2.1

*PRIOR TO 2007, CIGARS AND CIGARILLOS WERE GROUPED TOGETHER IN A SINGLE QUESTIONNAIRE ITEM; FROM 2007-2015 THEY WERE ASKED AS TWO SEPARATE ITEMS AND COMBINED IN THE ANALYSIS

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

The 2015 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 ($\leq 1.4g$), and blunt wraps;* further amendments that came into force in December 2015 extended this to other types of cigars ($>1.4g$ to $\leq 6g$, with tipping paper, or with non-spiral wrapper), although with an exception for “traditional alcohol flavours” (port, wine, rum and whisky).^{xi} In April 2017, the federal government further amended the *Tobacco Act* to remove the exception for menthol additives, thus prohibiting their use in cigarettes, blunt wraps, cigarillos, and the types of cigars noted above, effective October 2, 2017.^{xii} To date, seven provinces have also adopted legislation to ban flavours, including menthol, in most tobacco products, six of which are already implemented (Nova Scotia, New Brunswick, Alberta, Quebec, Ontario, PEI), with another (Newfoundland & Labrador) to be implemented later in 2017—see the *Policy Supplement* for further details. Despite these restrictions, some flavoured tobacco products remain on the market in Canada.

Users of non-cigarette tobacco products were asked if any of the products they had used in the last 30 days were flavoured. Overall, 60.4% 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 68.8% of cigarillo users, flavoured cigars by 20.1% of cigar users, flavoured chewing tobacco/pinch/snuff by 57.4% of smokeless users, and flavoured waterpipe tobacco by 85.7% of waterpipe users.

Menthol Cigarettes

Among Canadians age 15 and older, more than one-third (35.3%) of all respondents said they had ever smoked a menthol cigarette; 1.6% of all respondents had smoked one in the past 30 days.

Among those who had smoked in the past 30 days, 12.0% had smoked a menthol cigarette in that time. The proportions of past 30-day smokers who had smoked a menthol cigarette in that time were greatest among youth aged 15-19 (15.1%) and young adults aged 20-24 (19.5%), compared to older smokers (9.5%, 9.4%, and 11.7% for ages 25-34, 35-44, and 45+, respectively).

5. SECONDHAND SMOKE EXPOSURE

SMOKING IN THE HOME

One in five respondents (20.1%) reported that at least one person in their household was a cigarette smoker. However, the vast majority of respondents (94.0%) reported that no one smoked inside their home on a daily or almost daily basis; 6.0% reported that someone smoked inside their home every day or almost every day (4.3% reported one person; 1.5% reported two; 0.2% reported three or more).

Household smoking restrictions

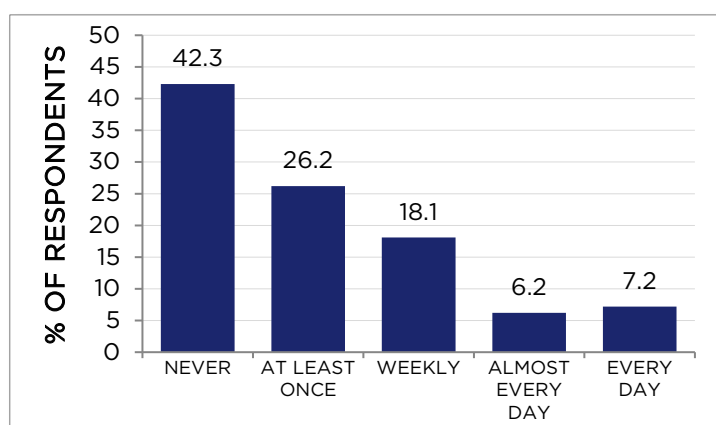
In homes where no one smoked daily, 5.3% of respondents said that smoking was allowed inside their home. Respondents who reported smoking in the home (someone smoked daily inside their home or smoking was allowed in their home) were asked whether smoking was restricted in any way; 42.9% said that there was some restriction on smoking inside their home.

EXPOSURE TO SECONDHAND SMOKE

Not including their own smoking, six out of ten respondents (57.7%) reported being exposed to secondhand smoke (SHS) sometime in the past month, including 13.4% who reported being exposed either every day or almost every day (Figure 5.1).

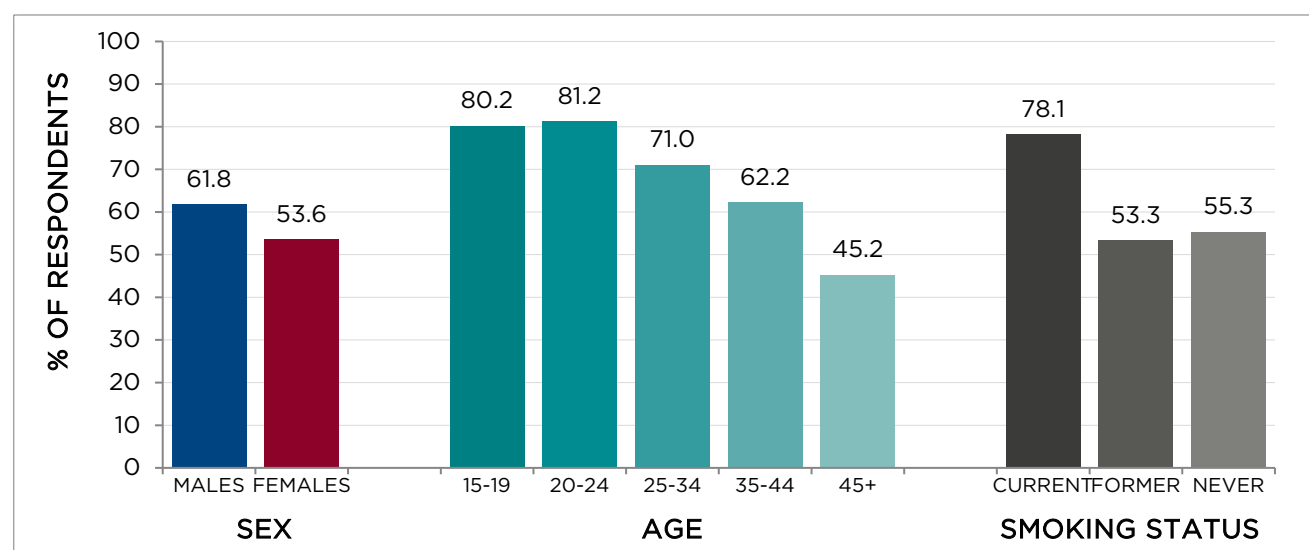
Reporting any SHS exposure in the past month varied significantly by age,⁴⁴ sex,⁴⁵ and smoking status.⁴⁶ As shown in Figure 5.2, SHS exposure was more prevalent among males (compared to females), youth and young adults (compared to older age groups), and current smokers (compared to former and never smokers).

FIGURE 5.1: FREQUENCY OF EXPOSURE TO SECONDHAND SMOKE IN THE PAST MONTH, 2015



DATA SOURCE: CTADS, 2015

FIGURE 5.2: ANY EXPOSURE TO SECONDHAND SMOKE IN THE PAST MONTH, 2015



DATA SOURCE: CTADS, 2015

SECTION II: QUITTING SMOKING



HIGHLIGHTS

Two-thirds (67.7%) of Canadians who have ever been smokers have now quit. (page 53)

Two-thirds (65.8%) of current smokers were seriously considering quitting in the next 6 months; three in ten (31.1%) were considering quitting in the next month. (p. 56)

- Similar proportions of males and females were seriously considering quitting smoking in the next 6 months and in the next 30 days. (p. 57)
- The percentage of smokers considering quitting in the next 30 days varied significantly by age group, decreasing with age. However, intentions to quit in the next 6 months did not vary by age group; the majority of smokers in all age groups were considering quitting. (p. 58)

More than half (52.3%) of smokers tried to quit in the past year. Over one-third had tried more than once. (p. 59)

- The percentages of males and females who had made a quit attempt in the past year did not differ significantly. (p. 60)
- Quit attempts varied by age group. The percentage of smokers who had tried to quit was highest among young smokers, and declined with age. (p. 61)

Among respondents who had made a quit attempt in the past year, 13.3% were still abstinent from smoking at the time they were surveyed. (p. 62)

- More females than males who attempted to quit in the past 12 months were abstinent at the time of the survey. (p. 63)
- Smoking abstinence rates among those who attempted to quit in the past 12 months did not differ significantly by age group. (p. 64)

Most current smokers (83.9%) reported awareness of telephone quitlines for smoking cessation. Approximately 7% of current and former smokers who tried to quit in the past year used a telephone quitline for assistance. (p. 65)

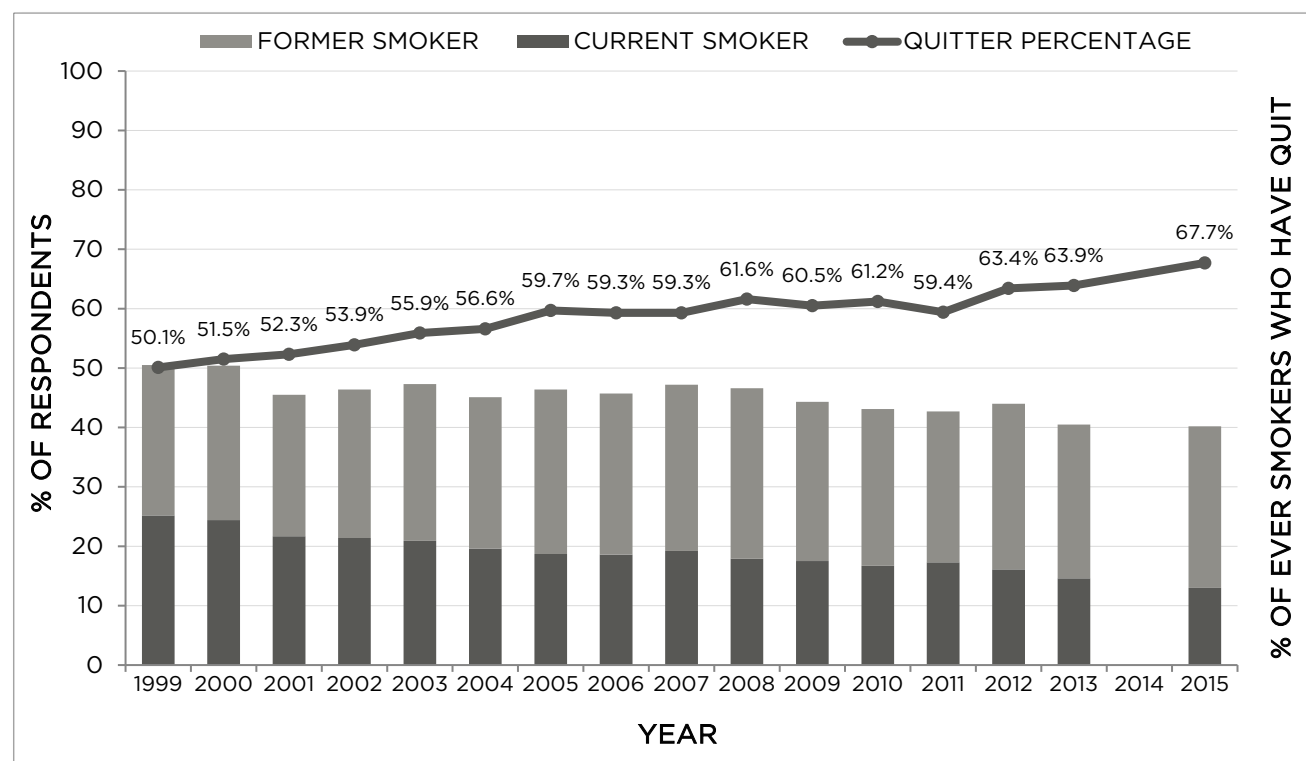
Two-thirds of recent quitters cited health as their main reason for quitting smoking. (p. 66)

6. QUITTING BEHAVIOURS AND OUTCOMES

6.1 QUITTER PERCENTAGE

Two-thirds (67.7%) 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*, 1999-2015



*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY.
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

More than 8 million Canadians are former smokers.

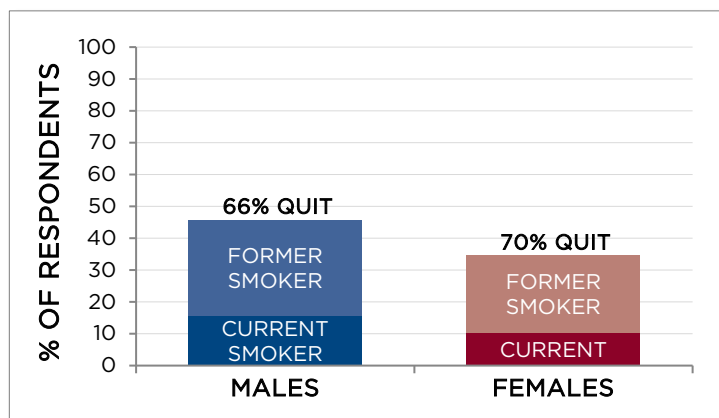
Quitter Percentage by Sex

In 2015, quitter percentages among males (65.8%) and females (70.1%) did not differ significantly.⁴⁷ However, a greater percentage of males had ever smoked,⁴⁸ and were current smokers⁴⁹ (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).

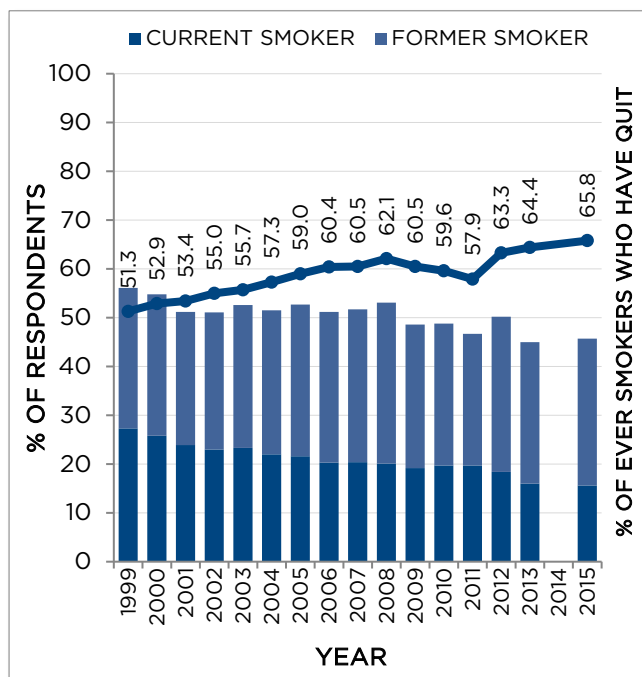
Among males, quitter percentage rose steadily until the mid-2000s, but then changed very little until again increasing the most recent few years (Figure 6.3). Quitter percentage among females appears to have risen fairly steadily since 1999 (Figure 6.4).

FIGURE 6.2: PERCENTAGE OF RESPONDENTS WHO HAVE EVER SMOKED (CURRENT AND FORMER SMOKERS), AND QUITTER PERCENTAGE*, BY SEX, 2015



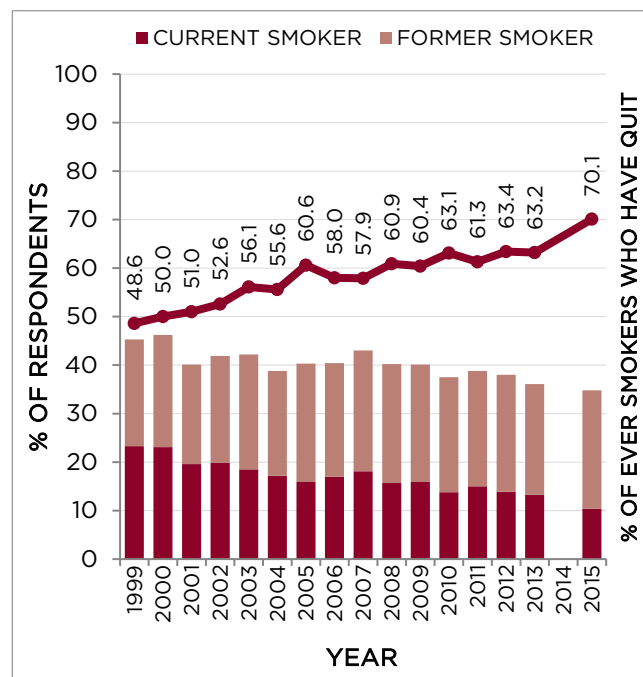
*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY.
DATA SOURCE: CTADS, 2015

FIGURE 6.3: PERCENTAGE OF MALES WHO HAVE EVER SMOKED (CURRENT AND FORMER SMOKERS), AND QUITTER PERCENTAGE*, 1999-2015



*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY.
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

FIGURE 6.4: PERCENTAGE OF FEMALES WHO HAVE EVER SMOKED (CURRENT AND FORMER SMOKERS), AND QUITTER PERCENTAGE*, 1999-2015



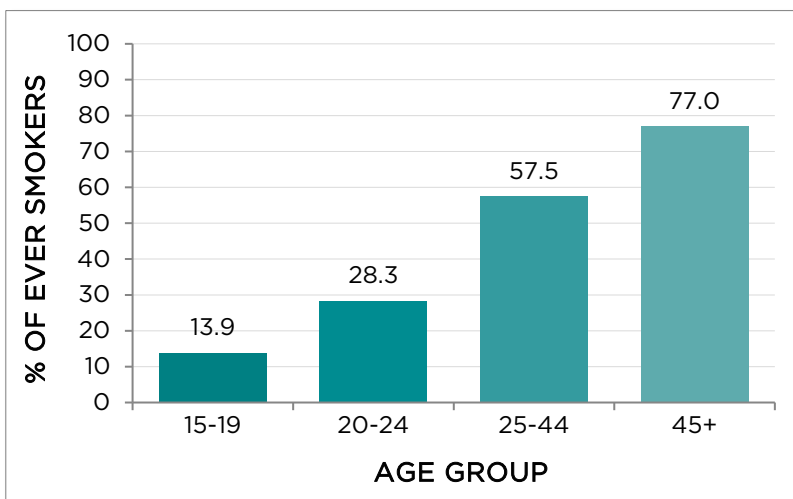
*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY.
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Quitter Percentage by Age

Quitter percentage varied significantly by age group,⁵⁰ increasing dramatically with increasing age, as expected given that older smokers have had more years to become former smokers. In 2015, while one in seven ever-smokers aged 15-19 were former smokers when surveyed, more than three-quarters of ever-smokers aged 45 and older had quit (Figure 6.5).

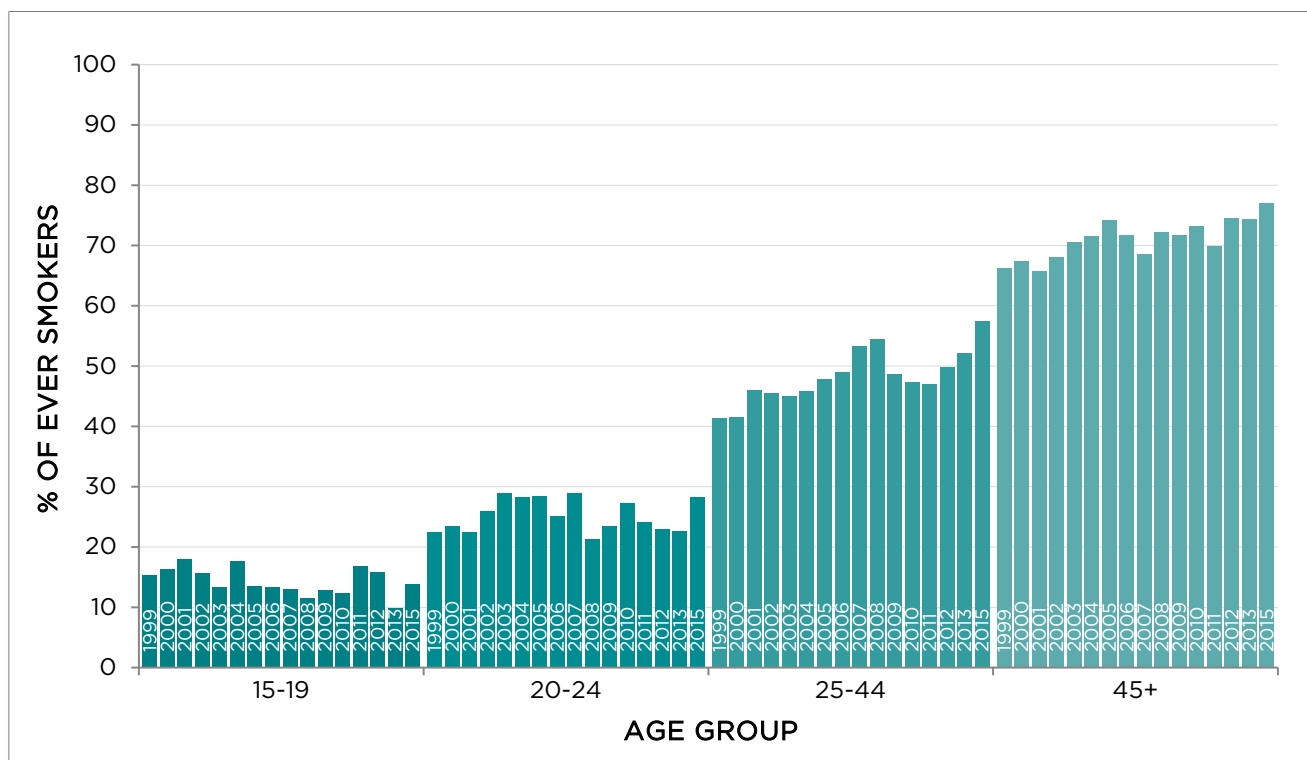
The same pattern of increasing quitter percentage with age was observed in all years since 1999 (Figure 6.6). Between 1999 and 2015, quitter percentages appear to have generally increased among smokers over age 25. Quitter percentages were lower and more variable among younger smokers.

FIGURE 6.5: QUITTER PERCENTAGE AMONG EVER SMOKERS*, BY AGE GROUP, 2015



*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY.
DATA SOURCE: CTADS, 2015

FIGURE 6.6: QUITTER PERCENTAGE AMONG EVER SMOKERS*, BY AGE GROUP, 1999-2015



*QUITTER PERCENTAGE IS CALCULATED AS THE PERCENTAGE OF EVER SMOKERS WHO WERE FORMER SMOKERS AT TIME OF SURVEY.
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

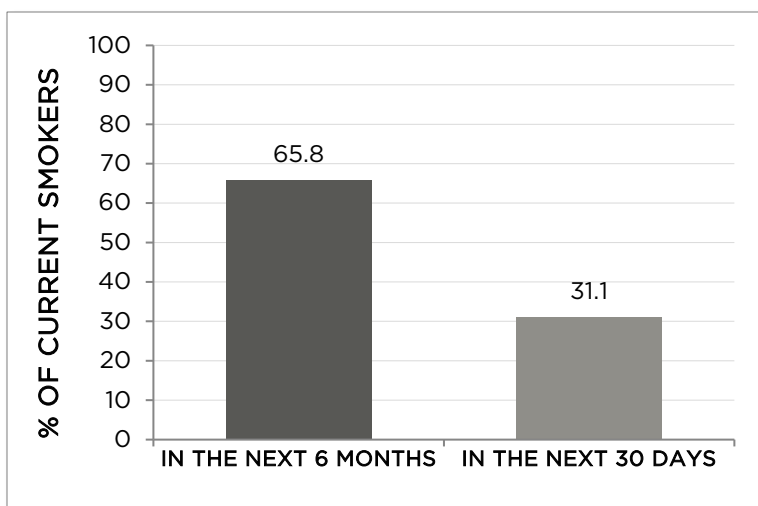
6.2 QUIT INTENTIONS

In 2015, nearly two-thirds (65.8%) of smokers were seriously considering quitting in the next 6 months (Figure 6.7). Of those, about half (48.2%) were considering quitting within the next 30 days, which was equivalent to 31.1% of all current smokers.

Between 2013 and 2015, there was no significant change in the percentage of smokers seriously considering quitting, either in the next 6 months⁵¹ or in the next 30 days.⁵²

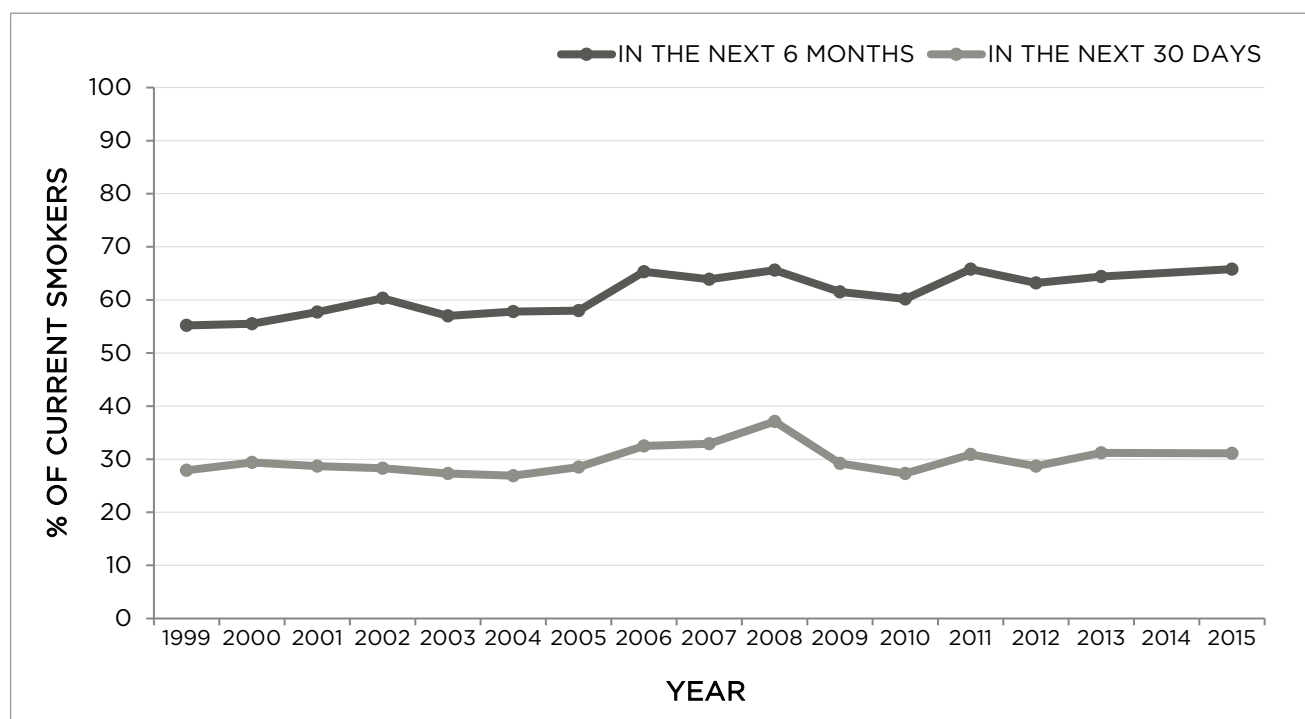
Between 1999 and 2015, the percentage of smokers seriously considering quitting in the next 6 months appears to have increased slightly. Although the pattern of variation over time was similar for the percentage seriously considering quitting in the next 30 days, there was little net change (Figure 6.8).

FIGURE 6.7: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, 2015



DATA SOURCE: CTADS, 2015

FIGURE 6.8: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, 1999*-2015



*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS.

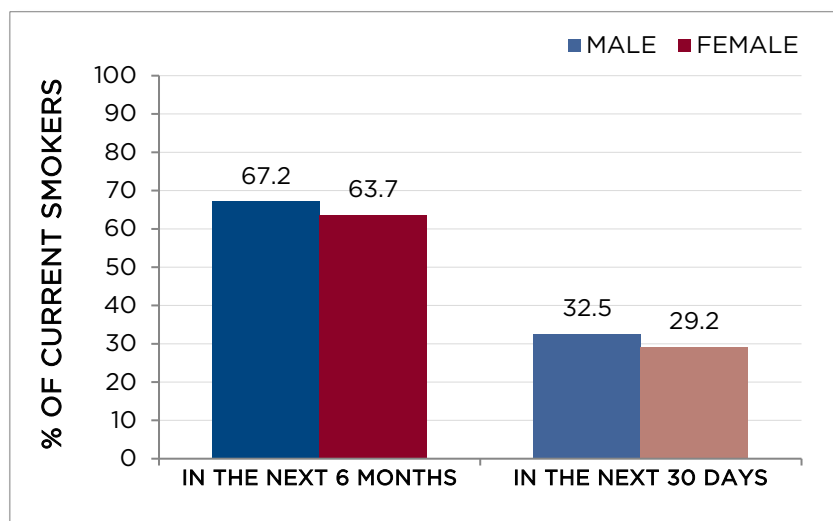
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Quit Intentions by Sex

In 2015, similar proportions of males and females were seriously considering quitting in the next 6 months⁵³ and in the next 30 days⁵⁴ (Figure 6.9).

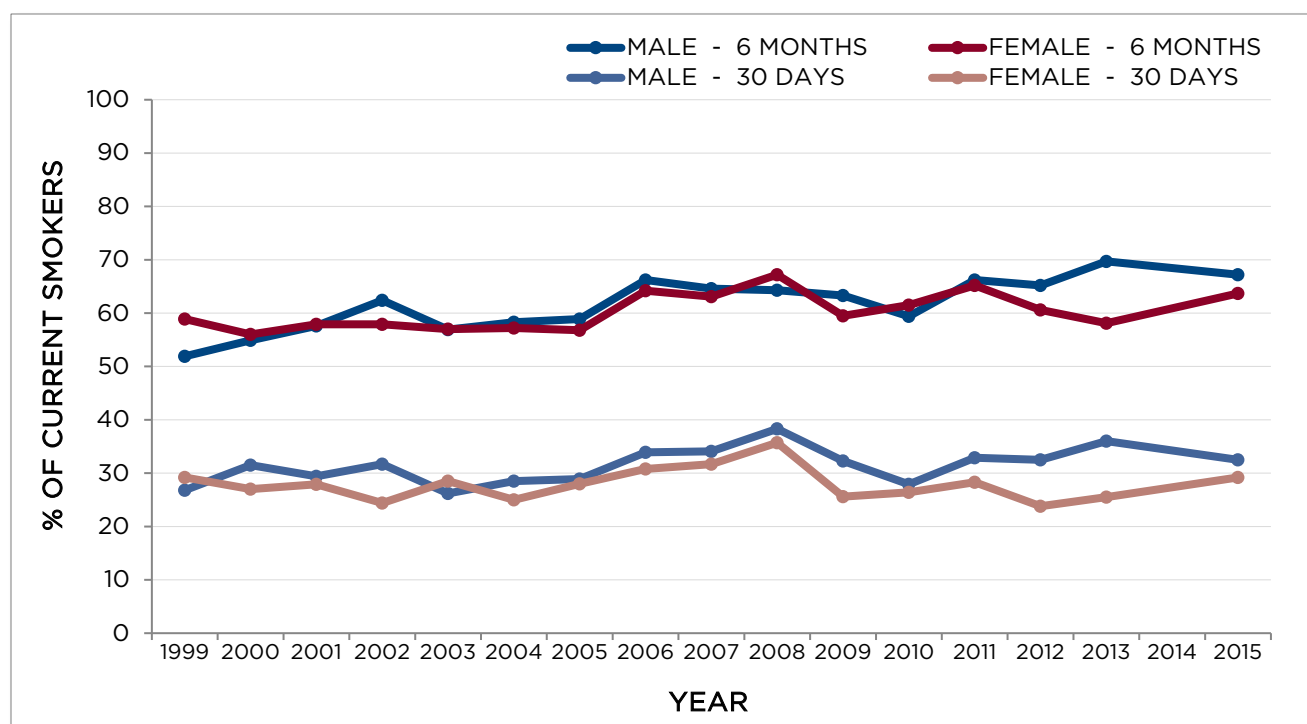
Since 1999, the percentages of male and female smokers considering quitting have been similar in most years, although there appears to be some divergence in the most recent years, with slightly more males considering quitting (Figure 6.10).

FIGURE 6.9: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, AND IN THE NEXT 30 DAYS, BY SEX, 2015



DATA SOURCE: CTADS, 2015

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*-2015



*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS.

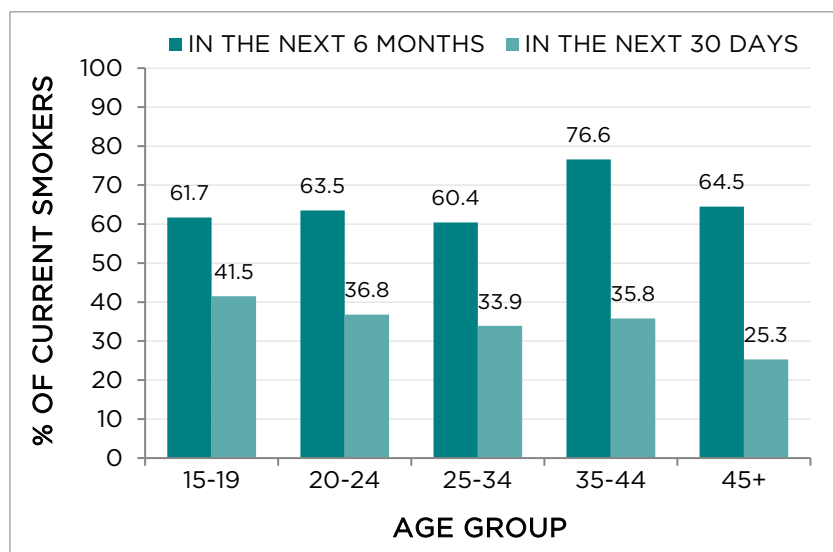
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Quit Intentions by Age

In 2015, there was significant variation by age group in the percentage of smokers considering quitting in the next 30 days,⁵⁵ but not in the next 6 months⁵⁶ (Figure 6.11). Of those seriously considering quitting in the next 6 months, roughly half were also considering quitting in the next 30 days: this decreased with age from two-thirds of youth to 40% in the oldest age group.

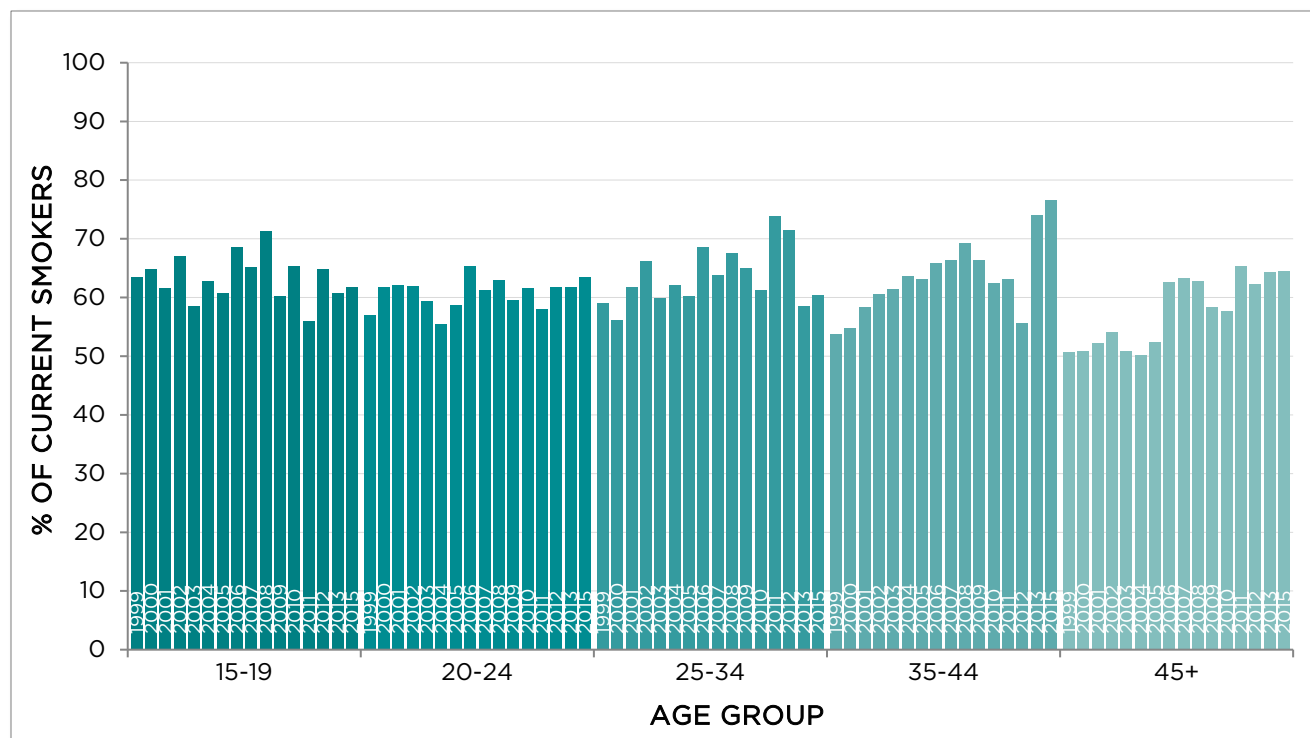
Over time, although no clear patterns emerged among younger smokers, the percentage of smokers over 35 seriously considering quitting in the next 6 months appeared to increase with time, particularly among the oldest age group (Figure 6.12).

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, 2015



DATA SOURCE: CTADS, 2015

FIGURE 6.12: PERCENTAGE OF SMOKERS WHO WERE SERIOUSLY CONSIDERING QUITTING IN THE NEXT 6 MONTHS, BY AGE GROUP, 1999*-2015



*IN 1999, ONLY CYCLE 2 WAS ASKED THE RELEVANT SURVEY ITEMS.
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

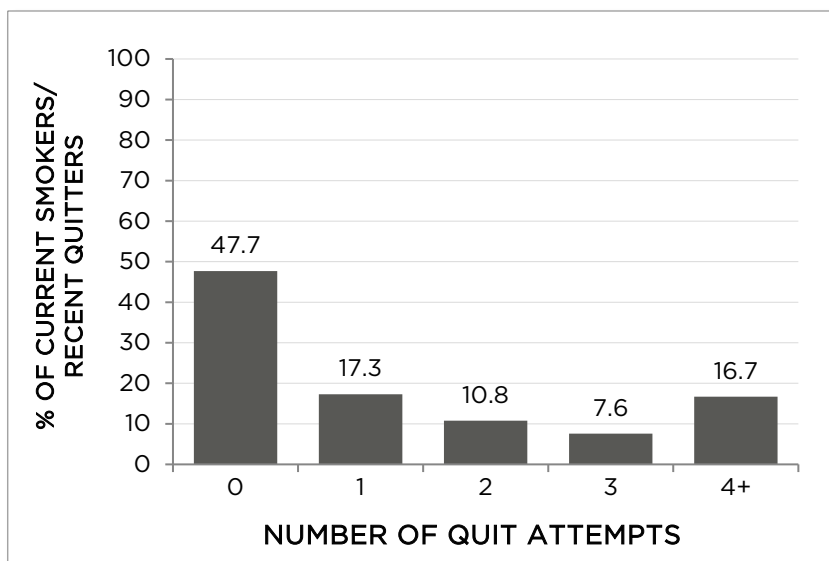
6.3 QUIT ATTEMPTS

In 2015, over half (52.3%) of smokers and recent quitters reported having 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 2013 and 2015 in the percentage of smokers and recent quitters who had attempted to quit in the past 12 months.⁵⁷

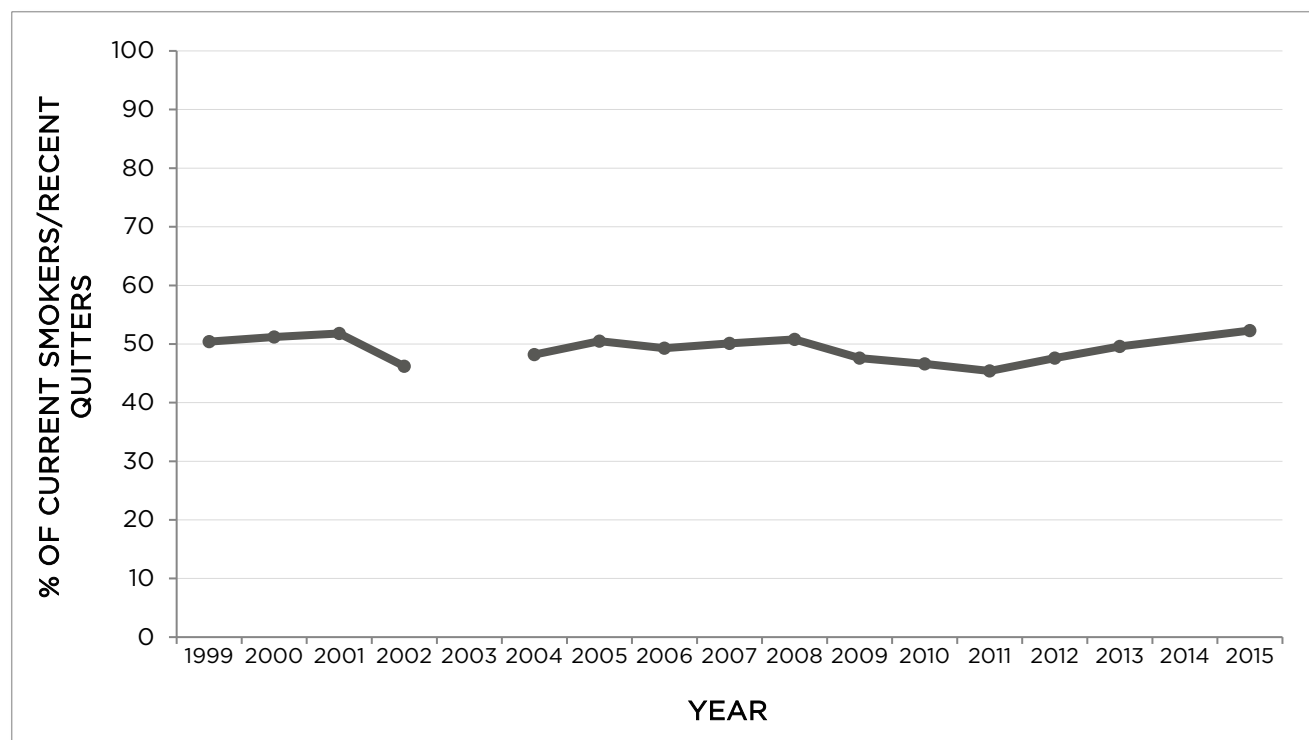
From 1999 to 2015, the percentage of smokers and recent quitters who had attempted to quit in the past 12 months appears to have remained fairly stable, at around half (Figure 6.14).

FIGURE 6.13: NUMBER OF QUIT ATTEMPTS MADE IN THE PAST 12 MONTHS BY SMOKERS AND RECENT QUITTERS*, 2015



*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS
DATA SOURCE: CTADS, 2015

FIGURE 6.14: PERCENTAGE OF SMOKERS AND RECENT QUITTERS* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, 1999-2015**



*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; 2004-2015 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.

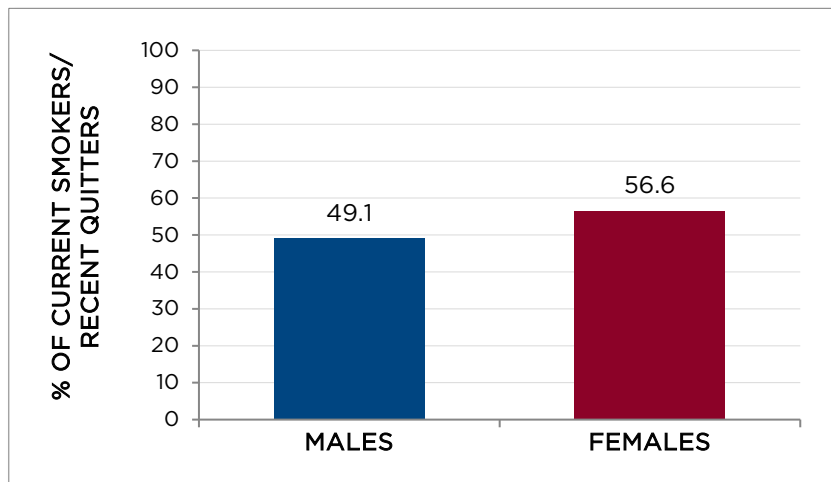
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Quit Attempts by Sex

In 2015, the percentages of males and females who had made a quit attempt in the past year did not differ significantly⁵⁸ (Figure 6.15).

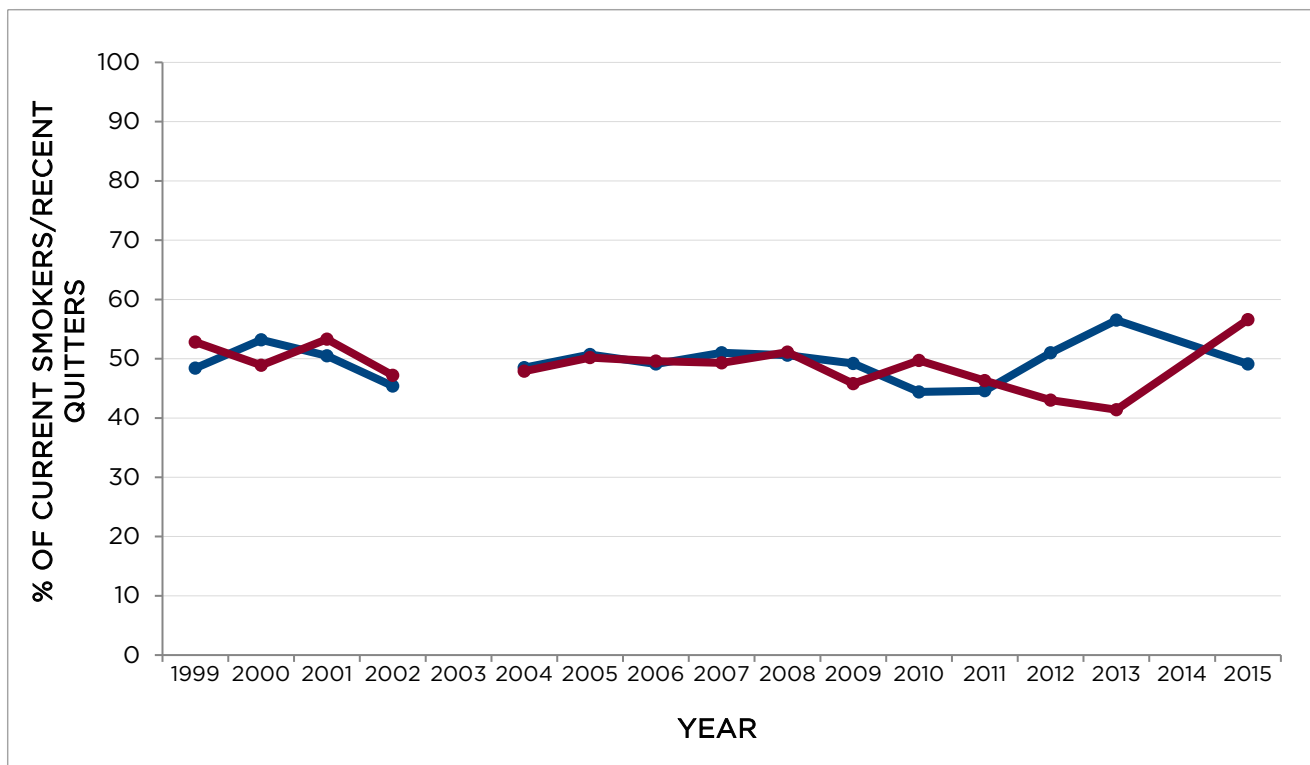
Between 1999 and 2015, the percentages of males and females who had made an attempt were similar in most years, despite some divergence in recent years. (Figure 6.16).

FIGURE 6.15: PERCENTAGE OF SMOKERS AND RECENT QUITTERS* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY SEX, 2015



*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS
DATA SOURCE: CTADS, 2015

FIGURE 6.16: PERCENTAGE OF SMOKERS AND RECENT QUITTERS* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY SEX, 1999**-2015



*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; 2004-2015 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.

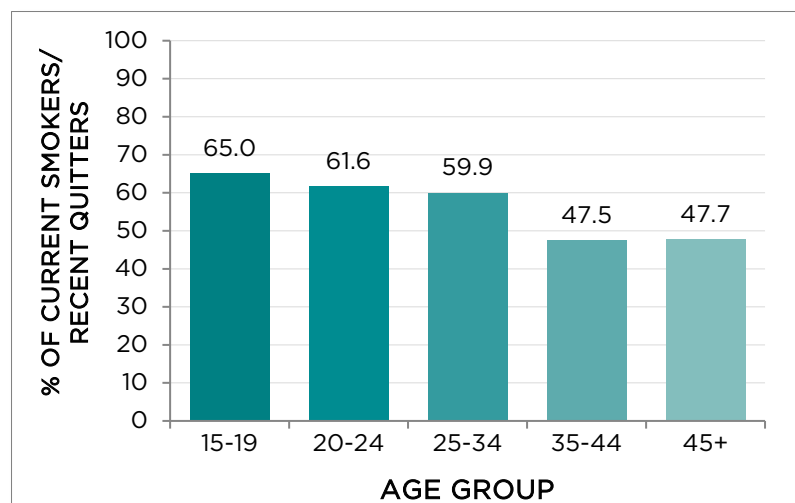
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

Quit Attempts by Age

Quit attempts varied significantly by age group in 2015.⁵⁹ 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).

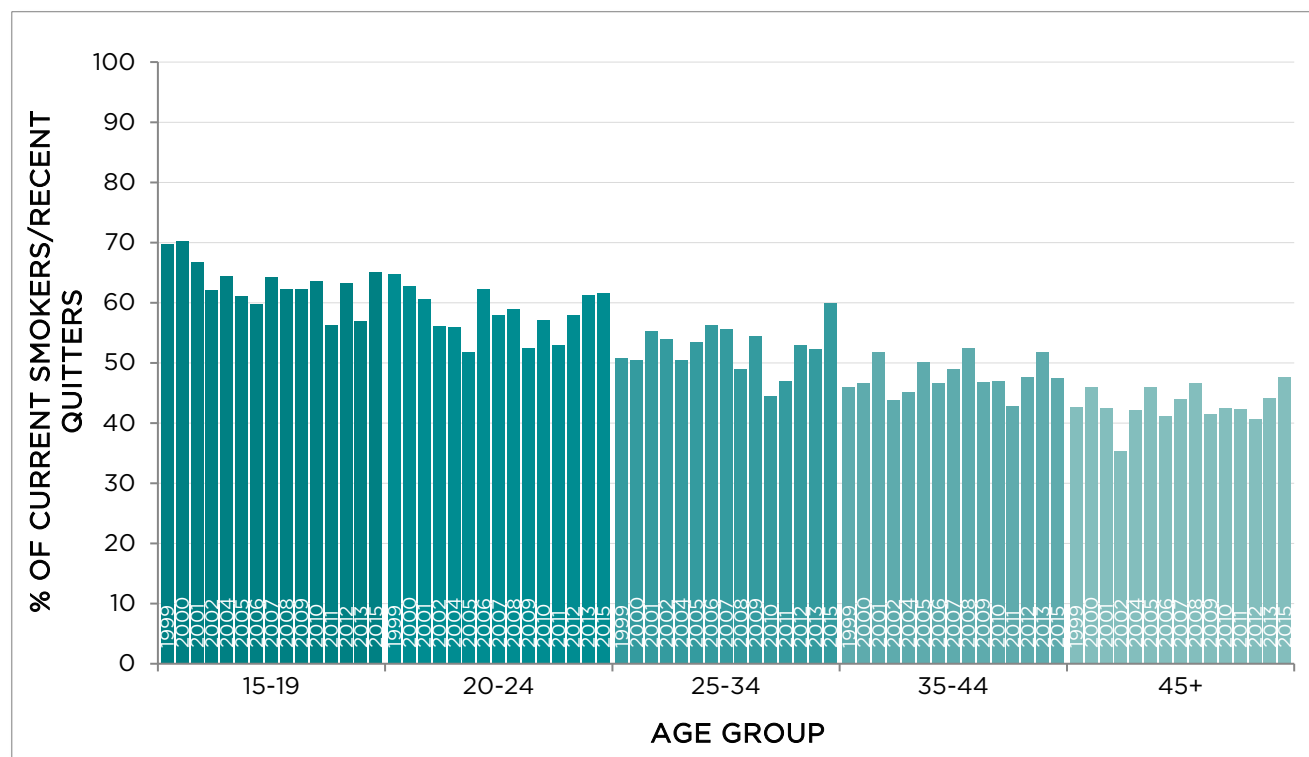
This pattern was consistent over time; more young smokers made a quit attempt in all years since 1999 (Figure 6.18). Although the percentages of each age group who made a quit attempt varied considerably from year-to-year, there were no clear patterns of change over the last decade.

FIGURE 6.17: PERCENTAGE OF SMOKERS AND RECENT QUITTERS* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY AGE GROUP, 2015



*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS
DATA SOURCE: CTADS, 2015

FIGURE 6.18: PERCENTAGE OF SMOKERS AND RECENT QUITTERS* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY AGE GROUP, 1999-2015**



*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; 2004-2015 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.

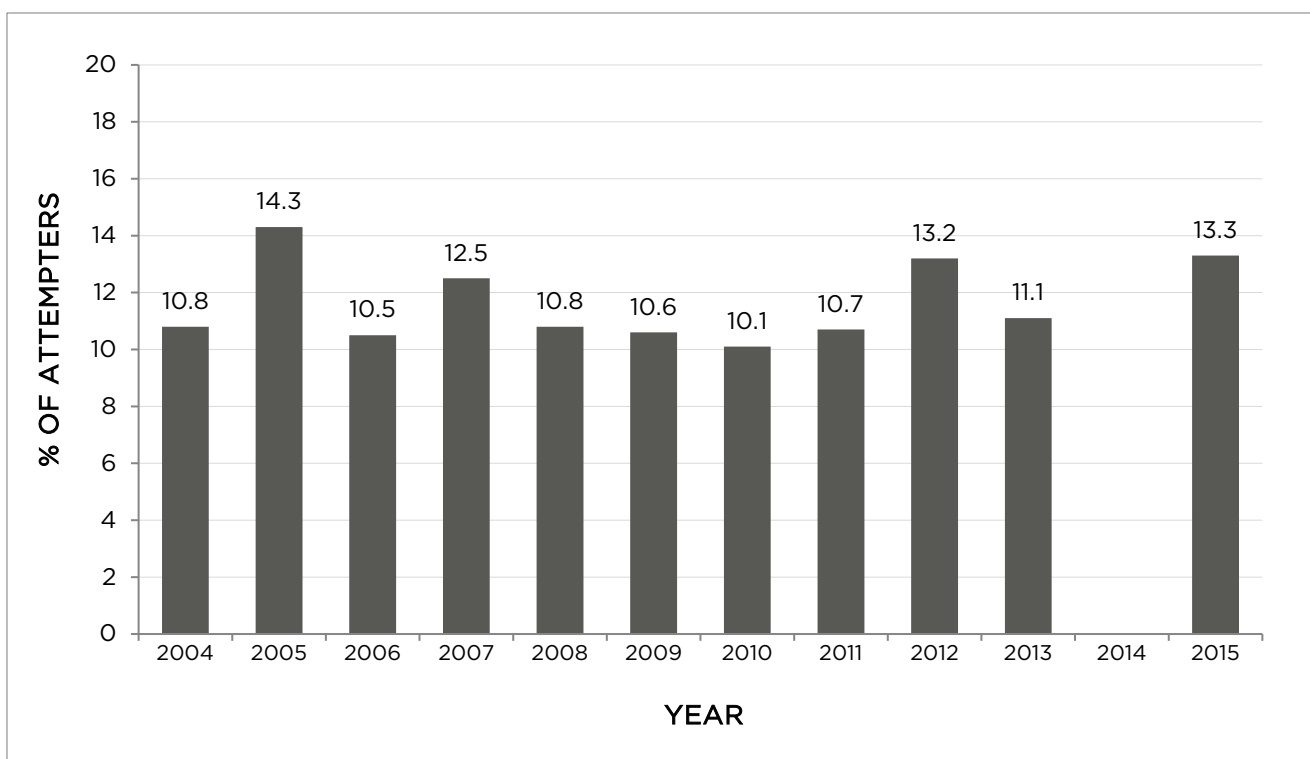
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

6.4 QUIT SUCCESS (POINT ABSTINENCE)

In 2015, of all respondents who had tried to quit for at least 24 hours in the past year (i.e., 52.3% of smokers and recent quitters), 13.3% were still quit at the time they were surveyed. This represents no significant change in quit success from 2013.⁶⁰

While comparison from 1999 to 2015 is not possible due to changes in question coverage and availability of data,* since 2004, quit success appears to have remained around 10-13%, 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, 2004-2015



*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); 2004-2015 ASKED CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS.

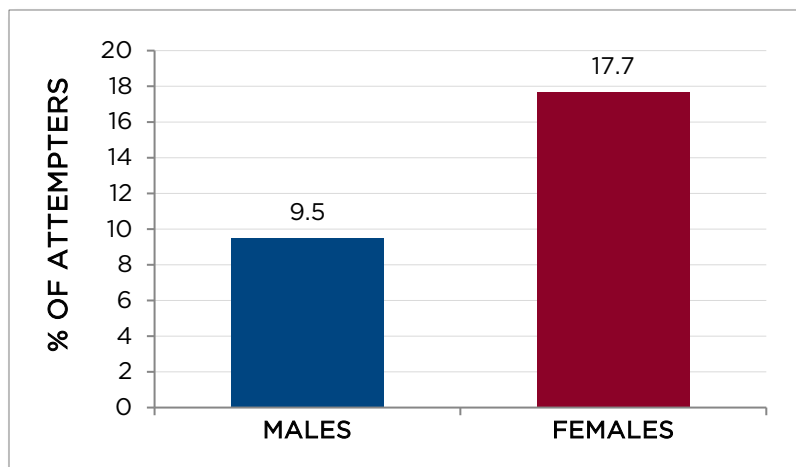
DATA SOURCES: CTUMS, 2004-2012; CTADS, 2013, 2015

Quit Success by Sex

In 2015, significantly more females than males who attempted to quit in the past 12 months were abstinent at the time of the survey⁶¹ (Figure 6.20).

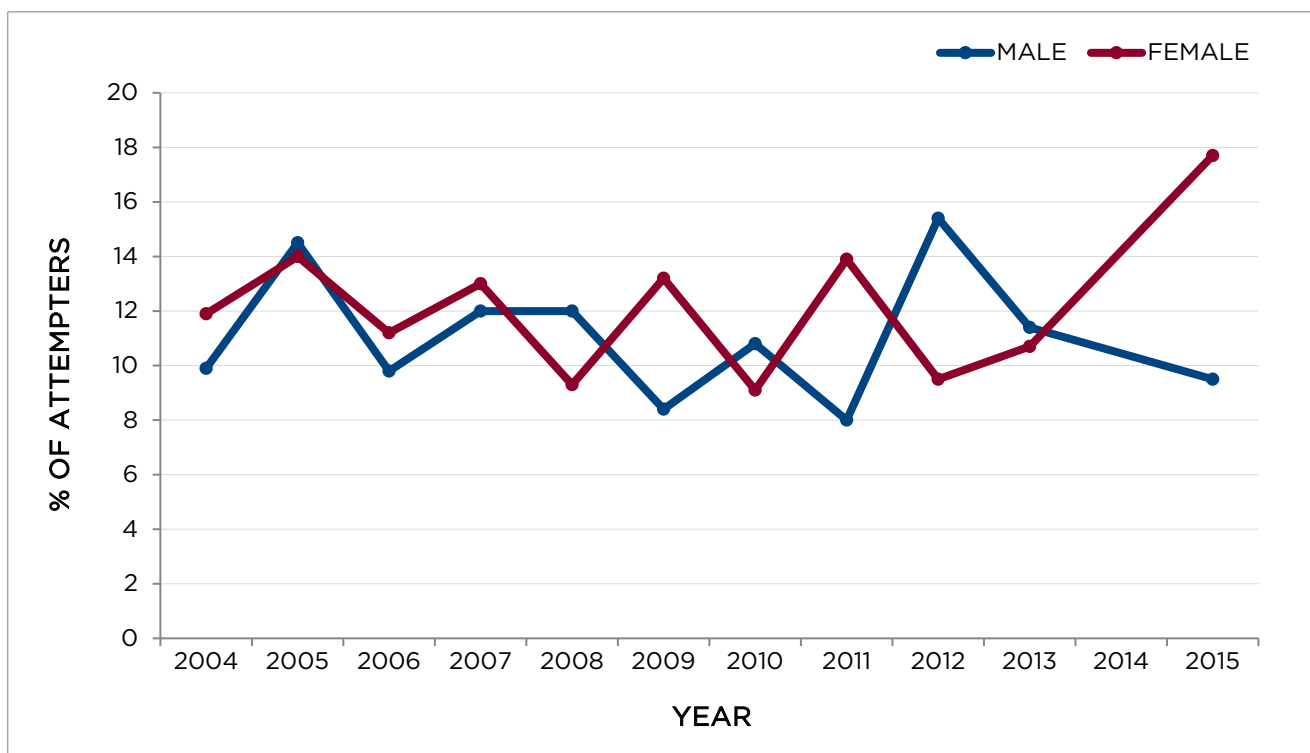
Since 2004, success in remaining abstinent from smoking has fluctuated among both males and females, with no clear pattern emerging (Figure 6.21).

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, 2015



*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS
DATA SOURCE: CTADS, 2015

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, 2004-2015



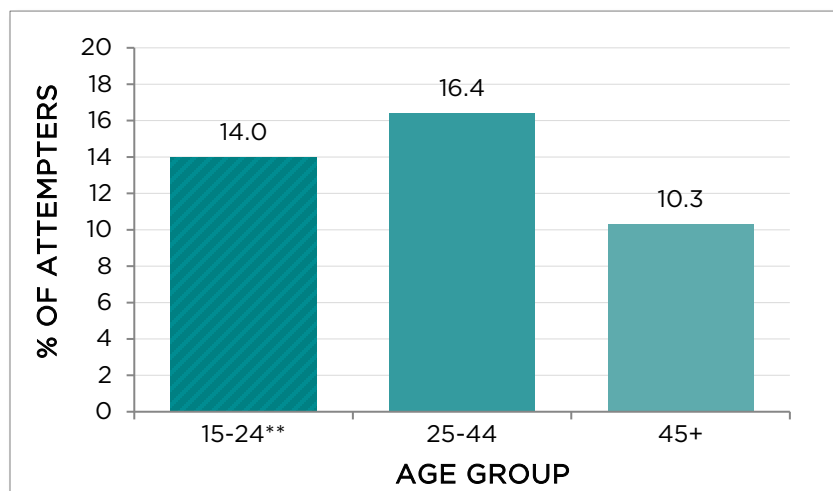
*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS
DATA SOURCES: CTUMS, 2004-2012; CTADS, 2013, 2015

Quit Success by Age

In 2015, smoking abstinence rates among those who attempted to quit in the past 12 months did not differ significantly by age group⁶² although abstinence rates at the time of survey appeared to be somewhat lower among the older age group (Figure 6.22).

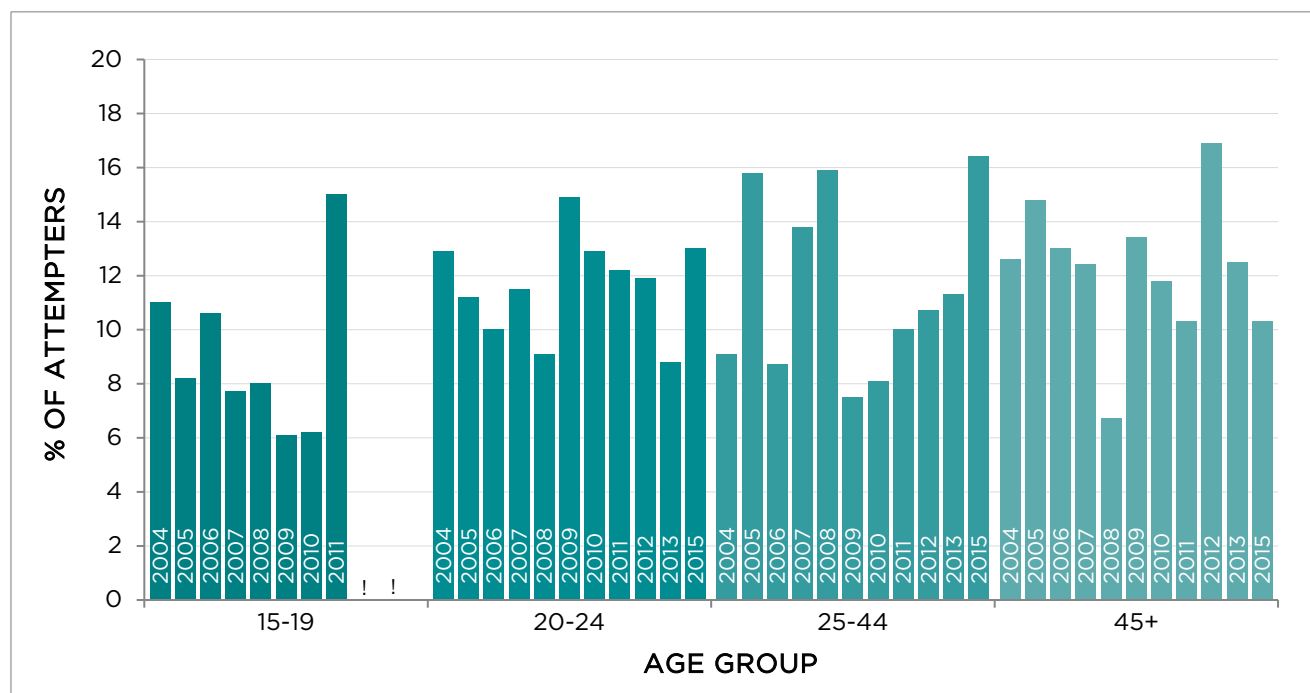
Over time, quit success within each age group has been highly variable, and no clear patterns by age have emerged (Figure 6.23). The large increases and decreases observed in some years may reflect high variability due to smaller sample sizes for this measure, rather than real trends.

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, 2015



*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS
**AGE GROUPS 15-19 AND 20-24 COMBINED DUE TO LOW NUMBERS
DATA SOURCE: CTADS, 2015

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, 2004-2015



*INCLUDES CURRENT SMOKERS AND FORMER SMOKERS WHO HAD QUIT IN THE PAST 12 MONTHS
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CTUMS, 2004-2012; CTADS, 2013, 2015

6.5 CESSATION METHODS

Telephone helpline

The phone number for the Smoker's Helpline was added to the cigarette package warning labels and inserts introduced in 2012.^{xiii} In 2015, most current smokers (83.9%) said that they were aware of "1-800 telephone quit-lines or other smoker help lines available to help you quit smoking". Further, use of a telephone quitline in the past year was reported by 6.9% of current smokers who had tried to quit in the past year and former smokers who had quit in the past 2 years; this was not a significant change from the 2013 estimate of 5.6%.⁶³ Use of a telephone helpline was also asked in some waves of the previous CTUMS survey (see Figure 6.24), although these previous estimates should not be directly compared to CTADS due to changes in question coverage (i.e., recent quitters and smokers who attempted to quit in the last year were asked in CTADS; past 2 years in CTUMS).

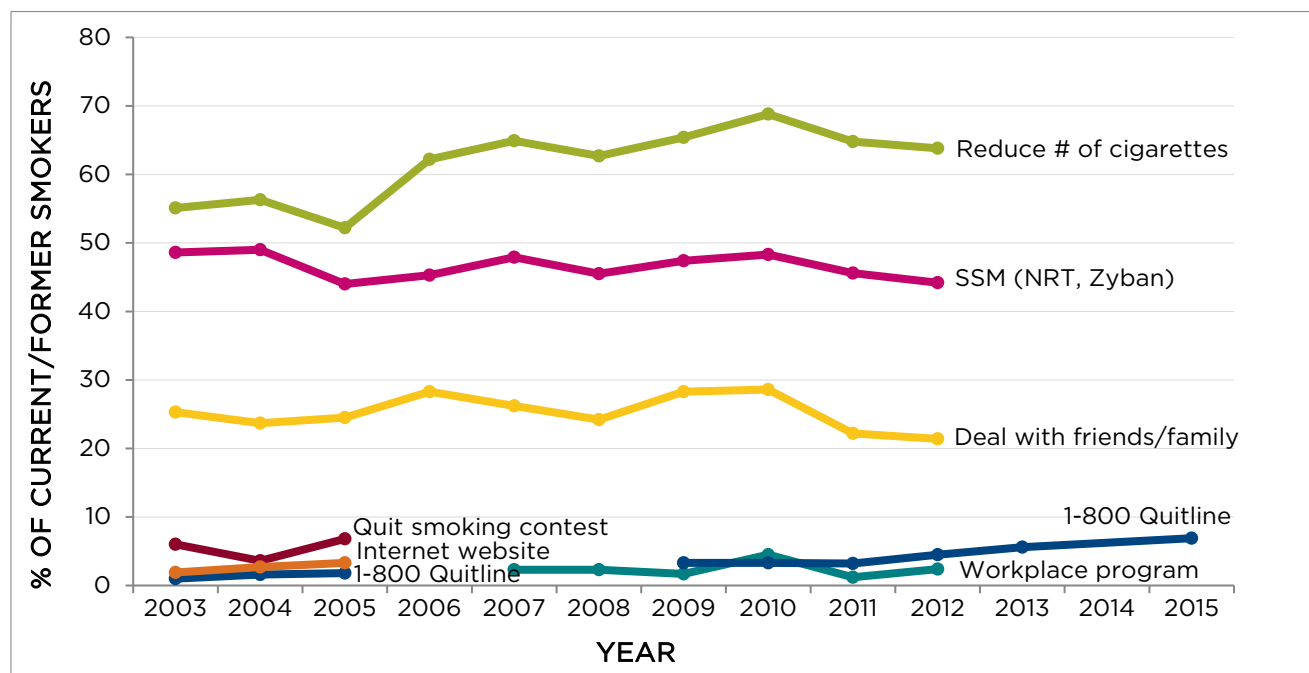
E-cigarettes

E-cigarettes have recently gained attention as a potential cessation aid (see also section 12.5). In 2015, of those current and former smokers who had made a quit attempt in the past year, one-third (33.5%) reported using an e-cigarette as a cessation aid in the past two years, up from 22.9% in 2013.

Other cessation methods

CTUMS asked about a number of cessation methods from 2003 to 2012, which are presented in Figure 6.24 below. In these years, reducing cigarette consumption as a way to quit was popular, followed by stop-smoking medications (SSMs; including nicotine replacement therapy (NRT) and medications like Zyban), and making a deal with friends or family to quit. 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. These cessation methods are not assessed on CTADS (2013 onward).

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*, 2003-2015



*IN 2013 AND 2015, ONLY CURRENT SMOKERS WHO HAD TRIED TO QUIT IN THE LAST YEAR (RATHER THAN PAST 2 YEARS) WERE INCLUDED, AS WELL AS FORMER SMOKERS WHO STOPPED SMOKING IN THE LAST 2 YEARS.

DATA SOURCES: CTUMS, 2003-2012; CTADS, 2013, 2015

6.6 REASONS FOR QUITTING SMOKING

When recent (past year) quitters were asked about their main reason for quitting smoking, two-thirds (66.6%) cited health. This figure increased to 71.6% when pregnancy or a baby in the household (i.e., health of a child) was included (Figure 6.25). Few smokers (8.2%) cited the cost of cigarettes as their main reason to quit. One in five (20.2%) cited some other reason.

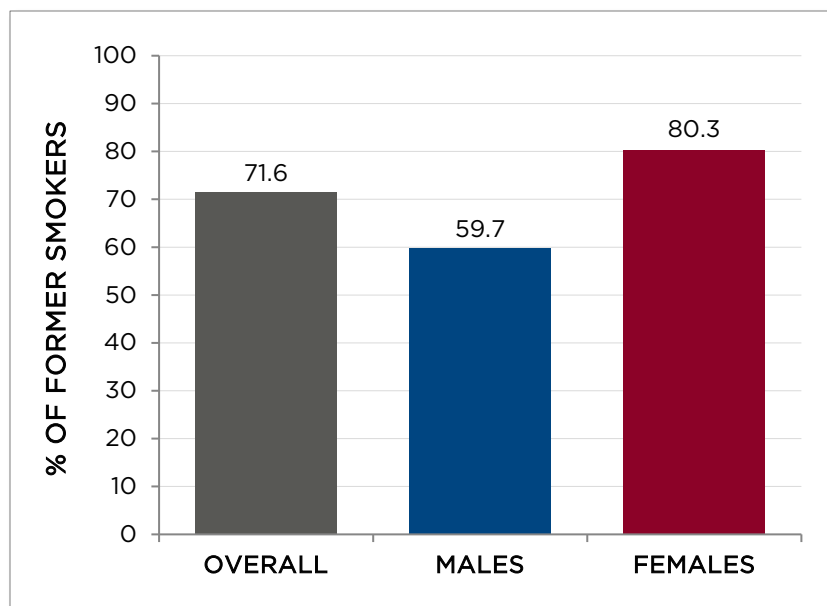
Reasons to Quit by Sex

Health or a pregnancy or baby in the household was the main reason to quit cited by the majority of recent quitters among both males (59.7%) and females (80.3%) (Figure 6.25). More females cited health alone (72.4%) than males (58.8%); this difference was not statistically significant.⁶⁴

Reasons to Quit by Age

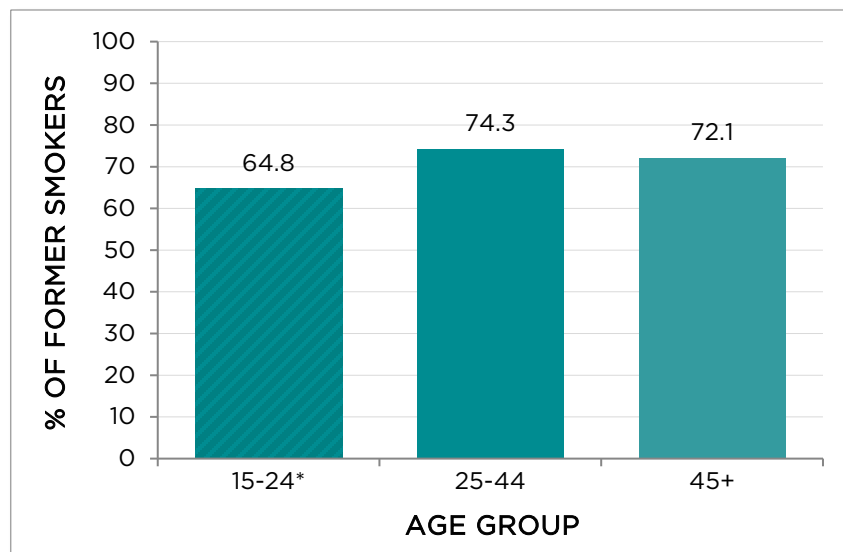
The percentage of recent quitters who cited health or pregnancy as a reason for quitting appeared to be lower among young people, although age group differences were not statistically significant⁶⁵ (Figure 6.26).

FIGURE 6.25: PERCENTAGE OF RECENT QUITTERS WHOSE MAIN REASON TO QUIT WAS HEALTH OR PREGNANCY/BABY, OVERALL AND BY SEX, 2015



DATA SOURCE: CTADS, 2015

FIGURE 6.26: PERCENTAGE OF RECENT QUITTERS WHOSE MAIN REASON TO QUIT WAS HEALTH OR PREGNANCY/BABY, BY AGE GROUP, 2015



*AGE GROUPS 15-19 AND 20-24 WERE COMBINED DUE TO LOW NUMBERS
DATA SOURCE: CTADS, 2015

SECTION III: TOBACCO USE AMONG CANADIAN YOUTH



HIGHLIGHTS

Among youth in grades 6-9, in 2014-15:

8.1% of students in grades 6-9 overall had ever tried a cigarette, ranging from 2.6% in grade 6 to 15.5% in grade 9. (page 68-69)

Three out of ten never-smokers in grades 6-9 were classified as susceptible to smoking. (p. 70)

Less than 2% of students in grades 6-9 were current smokers overall, although the exact estimate cannot be reported. (p. 72)

- Prevalence increased with grade level, to a high of 2.2% among grade 9 students. (p. 73)
- Similar percentages of males and females were current smokers. (p. 74)

Daily smokers in grades 7-9 smoked an average of 8.8 cigarettes per day. (p. 77)

4.9% 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)

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

Among youth aged 15-19, in 2015:

Less than one in five (18.2%) youth reported ever having smoked a whole cigarette, ranging from 4.1% of 15-year-olds to one-third (32.6%) of 19-year-olds. (page 70)

One in ten youth aged 15-19 (9.7%) were current smokers overall, with age-specific rates ranging from 5.0% among 15- and 16-year-olds to 17.7% of 19-year-olds. (p. 72-73)

- Daily smoking (4.3%) accounted for less than half of youth prevalence (5.4% non-daily). (p. 72)
- Prevalence among males (11.0%) and females (8.3%) was not significantly different. (p. 74)
- Saskatchewan had the highest provincial prevalence estimate, at 13.7%. (p. 76)

22% of youth aged 15-19 had ever smoked a cigarillo; 13% had ever smoked a cigar. (p. 80)

- Males were more likely to have used these products: 18% of males (vs. 7% of females) had smoked a cigar, while 27% of males (vs. 16% of females) had smoked a cigarillo. (p. 81)

Daily smokers aged 15-19 smoked an average of 11.6 cigarettes per day. (p. 77)

Nearly half of smokers aged 15-18 usually bought cigarettes from a store, while four in ten were given cigarettes by social sources, and 16% obtained them through “other” sources (including buying from others and on First Nations Reserves). (p. 79)

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

Two-thirds (65%) of smokers aged 15-19 had made a quit attempt in the past 12 months. (p. 85)

7. SMOKING INITIATION

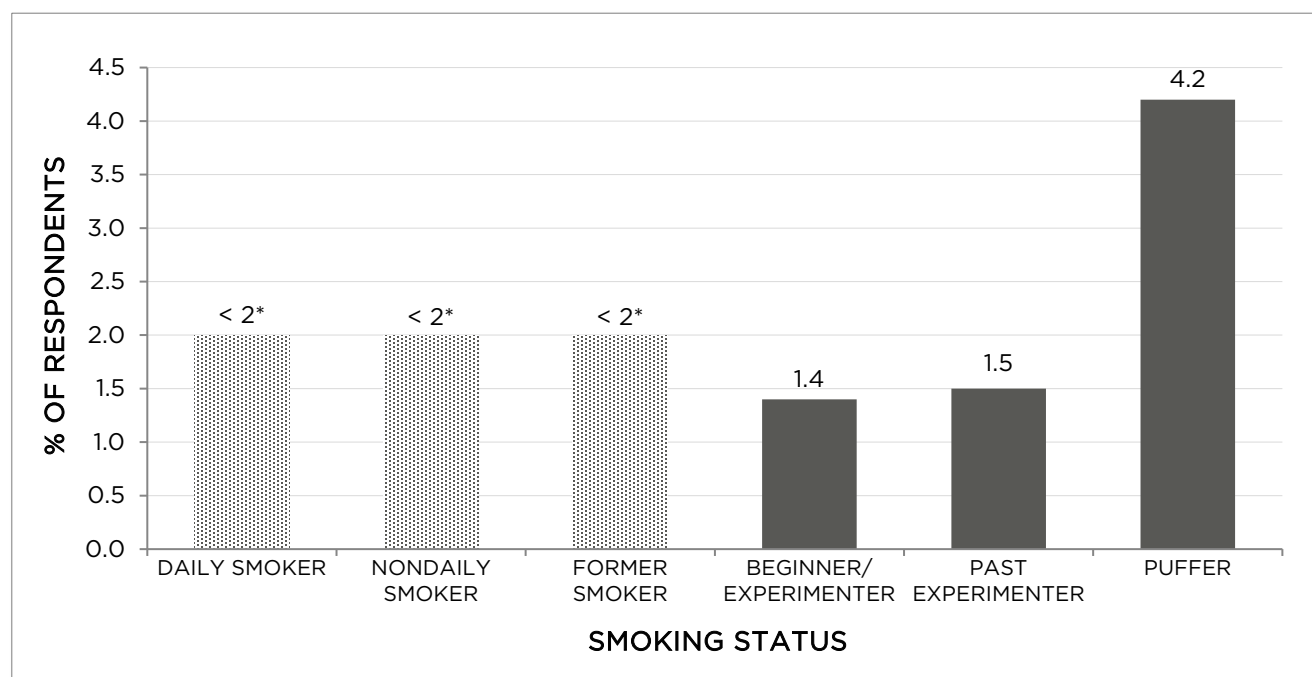
Previous research indicates that most smokers begin smoking by age 19.^{xiv} Accordingly, preventing smoking initiation is the target of many youth tobacco interventions, and youth initiation is monitored by Canada's national tobacco surveys.

7.1 EVER SMOKING

Ever smoking among students in grades 6-9

In 2014-15, the majority (91.9%) of students surveyed in grades 6-9 had never tried smoking cigarettes, ranging from 97.4% in grade 6 to 84.5% in grade 9. However, 8.1% 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, 2014-15



*EXACT ESTIMATES SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUNDS FOR THE ESTIMATES ARE LESS THAN 2% (SEE APPENDIX C).

CURRENT SMOKER: SMOKED 100+ CIGARETTES IN LIFETIME, INCLUDING:

- **DAILY SMOKER:** AT LEAST ONE CIGARETTE PER DAY FOR EACH OF THE 30 DAYS PRECEDING THE SURVEY
- **NON-DAILY SMOKER:** AT LEAST ONE CIGARETTE DURING THE LAST 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 SMOKED 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

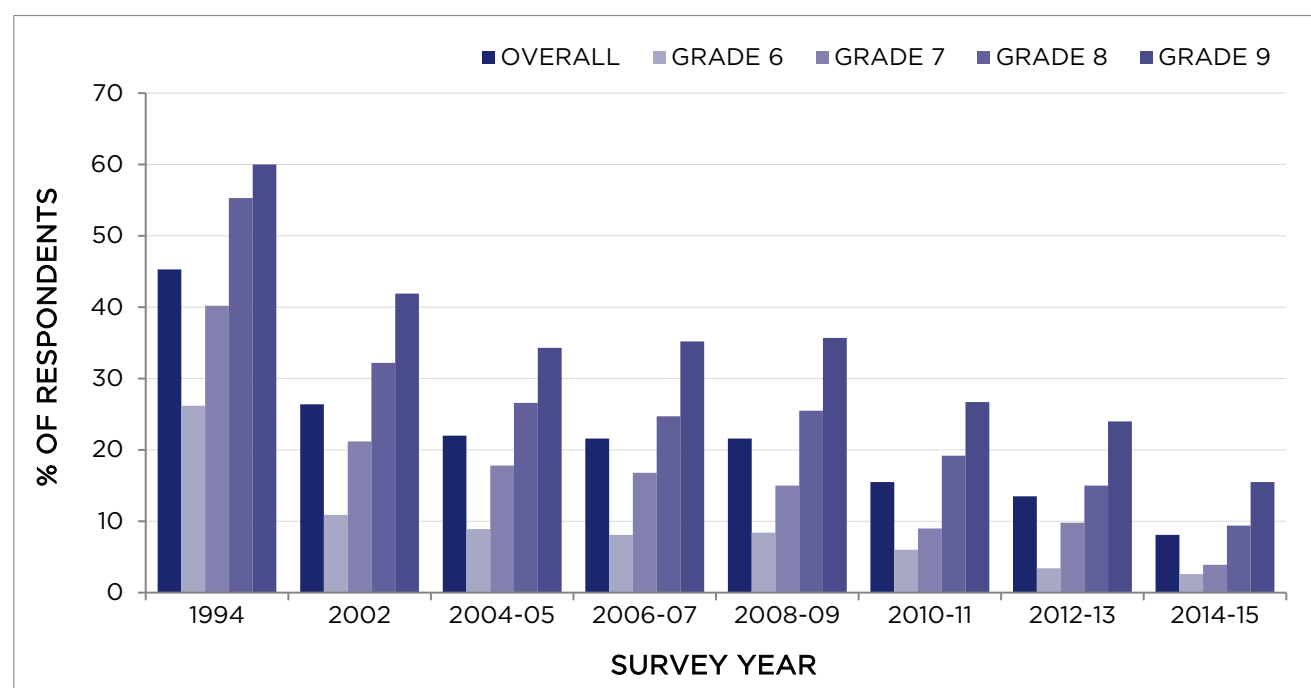
DATA SOURCE: CANADIAN STUDENT TOBACCO, ALCOHOL AND DRUGS SURVEY (CSTADS), 2014-15

In 2014-15, the percentages of male (8.4%) and female (7.8%) students in grades 6-9 who had tried smoking cigarettes were not significantly different.⁶⁶

91.9% of students in grades 6-9 had never tried smoking cigarettes.

The overall percentage of students in grades 6-9 who had ever tried smoking dropped substantially between 1994 and 2002, and then remained fairly stable throughout the 2000s before declining again in recent waves; prevalence of ever smoking decreased significantly between 2012-13 and 2014-15⁶⁷ (Figure 7.2). The percentage of students who had tried smoking a cigarette increased with grade level: in 2014-15, just 2.6% of students in grade 6 had tried smoking, compared to 15.5% of grade 9 students.

FIGURE 7.2: PERCENTAGE OF STUDENTS IN GRADES 6-9 WHO HAVE EVER TRIED SMOKING A CIGARETTE, BY GRADE, 1994-2014-15

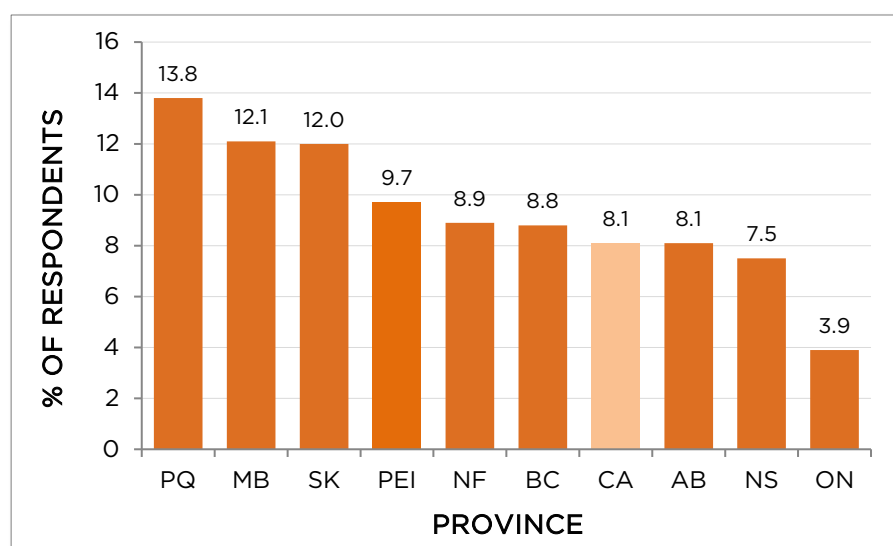


DATA SOURCES: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

The percentage of students in grades 6-9 who had ever tried smoking a cigarette varied significantly by province⁶⁸ (Figure 7.3). For example, just 3.9% of youth in Ontario had tried smoking, while more than triple that (13.8%) in Quebec had tried.

Note that there are no provincial estimates reported for New Brunswick, as the province did not have a generalizable sample of students in the 2014-15 CSTADS.

FIGURE 7.3: PERCENTAGE OF STUDENTS IN GRADES 6-9 WHO HAD EVER TRIED SMOKING A CIGARETTE, BY PROVINCE*, 2014-15



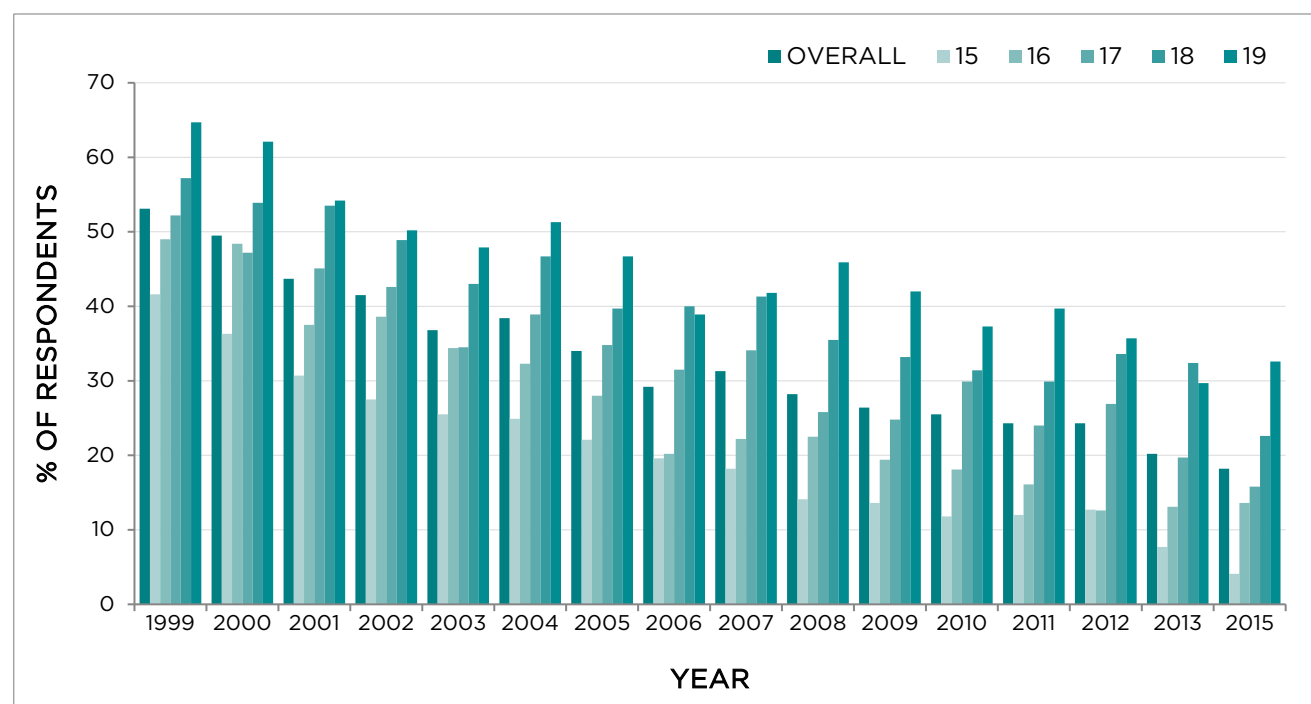
*PROVINCIAL ESTIMATES FOR NEW BRUNSWICK NOT REPORTED BECAUSE CSTADS DID NOT ACHIEVE A GENERALIZABLE SAMPLE OF NB STUDENTS IN 2014-15
DATA SOURCE: CSTADS, 2014-15

Ever smoking among youth aged 15-19

Among youth aged 15-19, 18.2% reported ever having smoked a whole cigarette in 2015, not significantly different from the 2013 estimate of 20.2%⁶⁹ (Figure 7.4). One-fifth (20.2%) of males and 16.1% of females had smoked a whole cigarette, but this difference was not statistically significant.⁷⁰

The percentage of students who had ever smoked a whole cigarette increased with age in most years between 1999 and 2015. This age gradient appeared to be particularly steep in the most recent years; in 2015, prevalence of ever smoking among 19-year-olds was more than double that of 16- and 17-year-olds, and eight times that of 15-year-olds.

FIGURE 7.4: PERCENTAGE OF YOUTH AGED 15-19 WHO HAVE EVER SMOKED A WHOLE CIGARETTE, BY AGE, 1999-2015



DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

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 2015, the mean age at which ever-smokers age 25 and over smoked their first cigarette was 15.9.

7.2 SUSCEPTIBILITY TO SMOKING

Although current smoking prevalence was 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.^{xv}

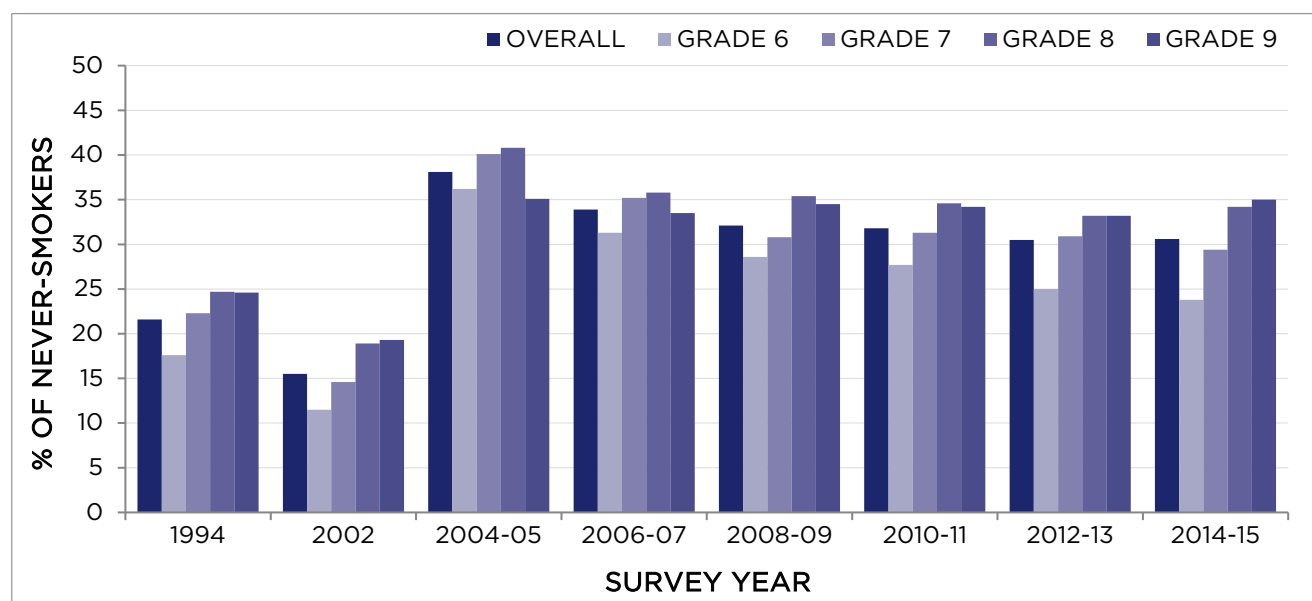
Overall, 30.6% of never-smokers in grades 6-9 were classified as susceptible to smoking* in 2014-15, which was not significantly different from in 2012-13.⁷¹ Similar percentages of males (31.5%) and females (29.7%) were susceptible to smoking.⁷²

* Students were classified as NOT susceptible if they responded “definitely not” to the following three items: “Do you think in the future you might try smoking cigarettes?”, “If one of your best friends was to offer you a cigarette would you smoke it?”, and “At any time during the next year 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 2012-13 and 2014-15⁷¹ (**Note:** comparisons with the earliest survey years are not possible due to question changes). From 1994 to 2014-15, the percentage of never-smokers who were susceptible to smoking increased with grade level up to grade 8: for example, in 2014-15, 23.8% of students in grade 6 were susceptible, while 34.2% of grade 8 and 35.0% of grade 9 students were susceptible (Figure 7.5). Susceptibility among grade 9 students was similar 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, 1994-2014-15



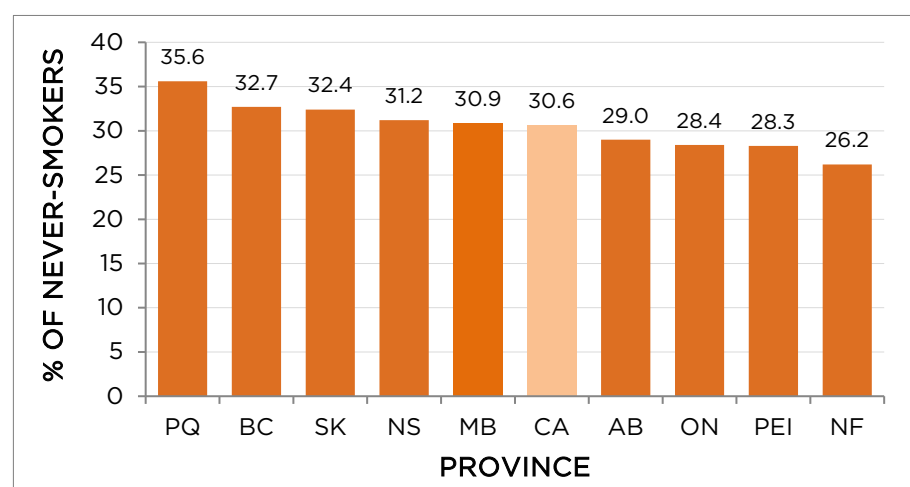
*FROM 2004-05 TO 2014-15, SUSCEPTIBILITY WAS DEFINED AS OUTLINED ABOVE (PAGE 70). IN 1994 AND 2002, STUDENTS WERE CLASSIFIED AS NOT SUSCEPTIBLE IF THEY RESPONDED "NO" TO BOTH OF THE FOLLOWING ITEMS: "HAVE YOU EVER SERIOUSLY THOUGHT ABOUT TRYING SMOKING?" AND "DO YOU THINK YOU MIGHT TRY SMOKING WITHIN THE NEXT MONTH?"; OTHERS WERE CLASSIFIED AS SUSCEPTIBLE.

DATA SOURCES: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

Susceptibility to smoking by province

The percentage of students in grades 6-9 who were susceptible to smoking varied significantly by province⁷³ (Figure 7.6). For example, just 26.2% of students in Newfoundland and Labrador were susceptible to smoking, while 35.6% of students in Quebec were susceptible.

FIGURE 7.6: PERCENTAGE OF NEVER-SMOKERS IN GRADES 6-9 WHO WERE SUSCEPTIBLE TO SMOKING, BY PROVINCE*, 2014-15



*PROVINCIAL ESTIMATE FOR NEW BRUNSWICK NOT REPORTED BECAUSE CSTADS DID NOT ACHIEVE A GENERALIZABLE SAMPLE OF NB STUDENTS IN 2014-15

DATA SOURCE: CSTADS, 2014-15

8. CURRENT SMOKING AMONG YOUTH

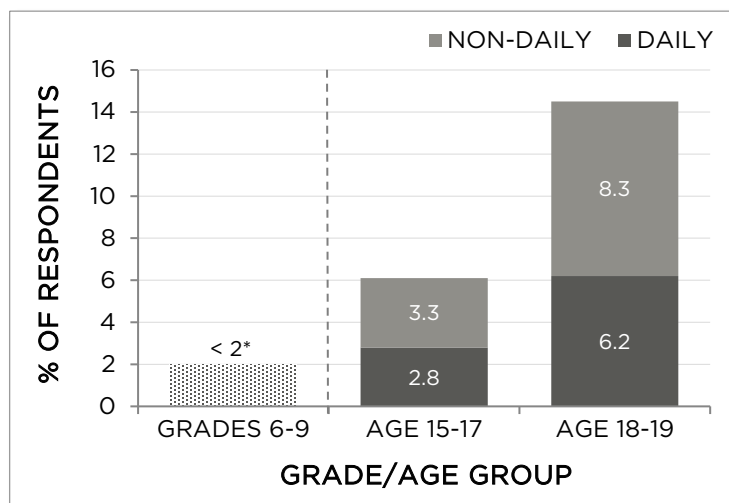
8.1 SMOKING PREVALENCE

In 2014-15, overall smoking prevalence among students in grades 6-9 was below 2%, although the exact estimate is suppressed due to unacceptable quality. Among adolescents aged 15-19, 9.7% were current smokers in 2015, with substantial variation by age, from 5.0% among 15- and 16-year-olds to 17.7% of 19-year-olds. Daily smoking (at 4.3%) accounted for just under half of smoking among youth, and increased with age (Figure 8.1).

Smoking prevalence among students in grades 6-9 dropped by more than half between 1994 and 2002, and has since remained low. Between 2012-13 and 2014-15, prevalence decreased significantly overall⁷⁴ and for non-daily⁷⁵ smoking, but not for daily smoking⁷⁶ (Figure 8.2).

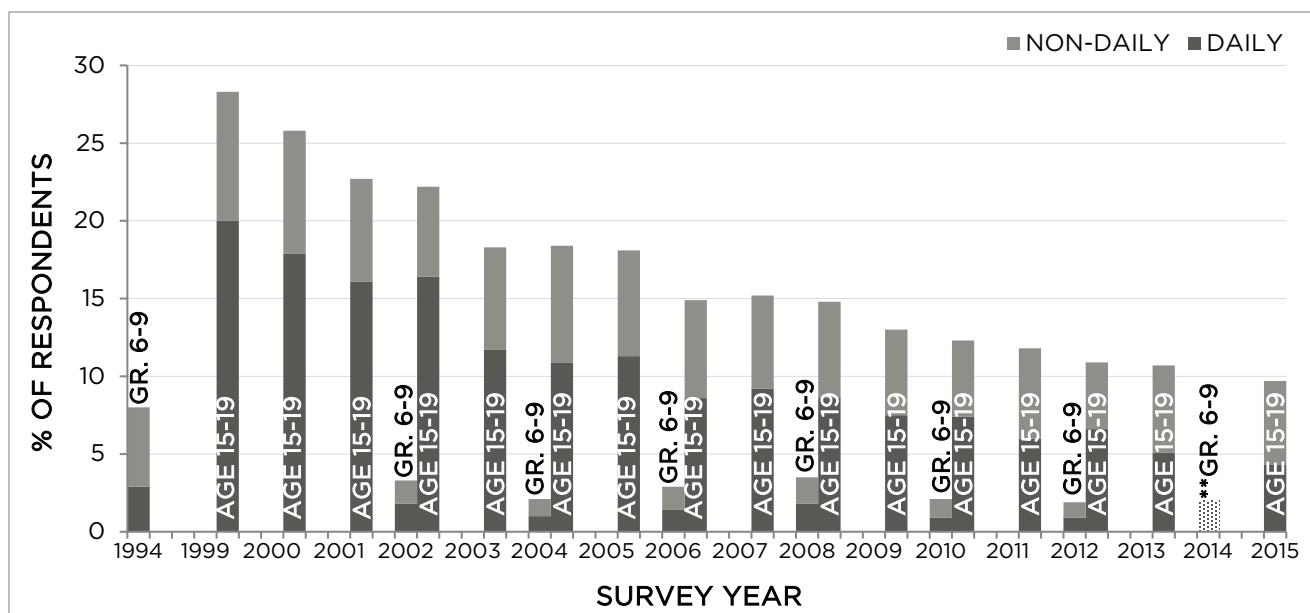
Among youth aged 15-19, smoking prevalence declined steadily after 1999 for several years before levelling off and then again decreasing to another plateau; since 2008, prevalence has declined very slowly and gradually (Figure 8.2). Between 2013 and 2015, there was no significant change in overall, daily, or non-daily smoking prevalence.⁷⁷⁻⁷⁹ Most of the decline in smoking observed among 15- to 19-year-olds appears to be due to decreasing daily smoking.

FIGURE 8.1: CURRENT SMOKING PREVALENCE, GRADES 6-9, 2014-15, AND AGE 15-19, 2015



*EXACT ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUND OF THE ESTIMATE IS LESS THAN 2%.
DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

FIGURE 8.2: CURRENT SMOKING PREVALENCE* (DAILY AND NON-DAILY), GRADES 6-9 AND AGE 15-19, 1994-2015



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

**EXACT ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUND OF THE ESTIMATE IS <2%.

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

Smoking Prevalence by Age

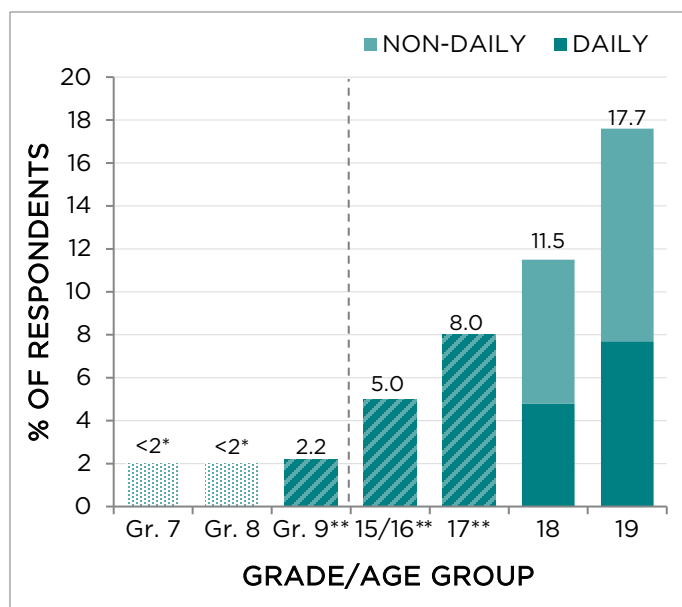
Smoking prevalence appeared to increase with age: rates were too low to report among grade 6 students, but increased to 17.7% of 19-year-olds (Figure 8.3).

As noted, data up to grade 9 is provided by CSTADS, and data from CTADS is used for older youth (see p. 106). There may be some overlap in coverage between grade 9 students and 15-year-olds.

Among students in grades 7-9, smoking patterns by grade were fairly consistent between 2002 and 2014-15, and prevalence was much lower in these years than in 1994 (Figure 8.4).

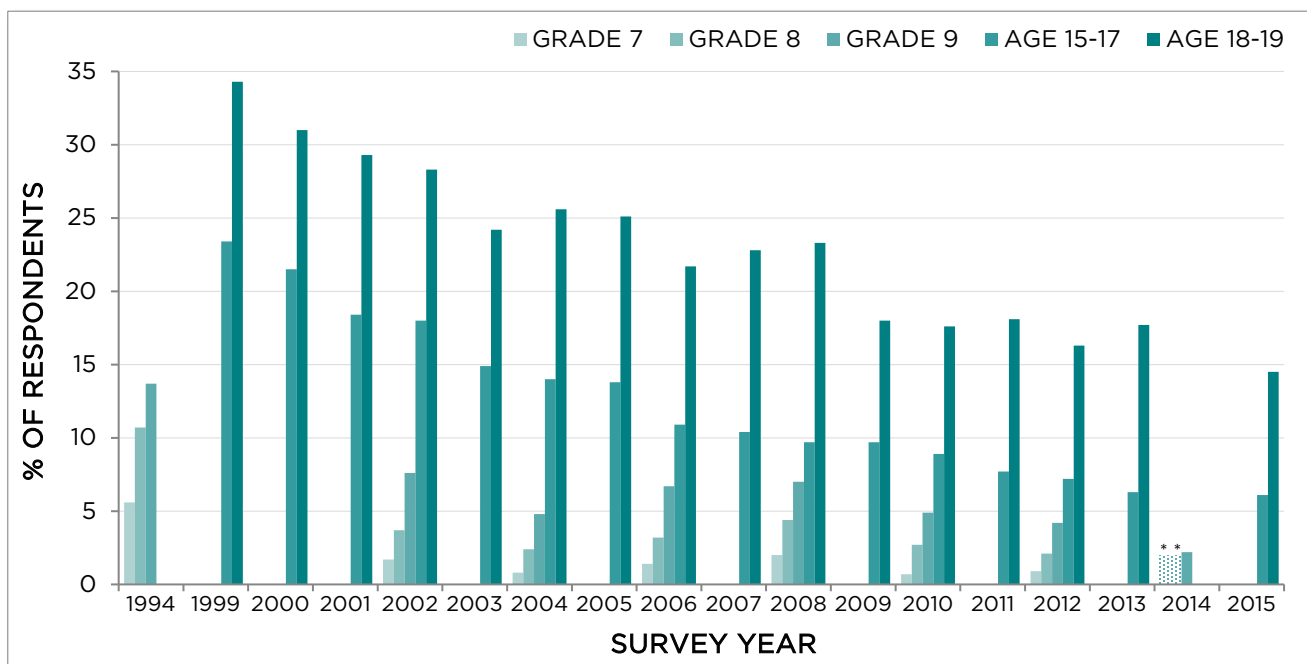
Over time, smoking among youth aged 15-17 declined fairly steadily overall, although there was little change in the most recent waves. Among 18- and 19-year-olds, smoking also declined overall, but less consistently, and levelling off in recent years (Figure 8.4). This has led to a greater difference in smoking rates between older and younger adolescents: in 2015, the smoking rate among 18- and 19-year-olds was more than double that of 15- to 17-year-olds.

FIGURE 8.3: CURRENT SMOKING PREVALENCE BY GRADE/AGE, GRADES 7-9, 2014-15, AND AGE 15-19, 2015



*EXACT ESTIMATES SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUNDS FOR THE ESTIMATES ARE LESS THAN 2%.
**OVERALL PREVALENCE SHOWN FOR GR. 9, AGE 15/16 (COMBINED), AND AGE 17
DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

FIGURE 8.4: CURRENT SMOKING PREVALENCE[†] BY GRADE/AGE, GRADES 7-9[‡] AND AGE 15-19, 1994-2015



[†]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
[‡]ESTIMATE FOR GRADE 6 SUPPRESSED DUE TO UNACCEPTABLE QUALITY
* EXACT ESTIMATES SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUNDS FOR THE ESTIMATES ARE LESS THAN 2%.
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

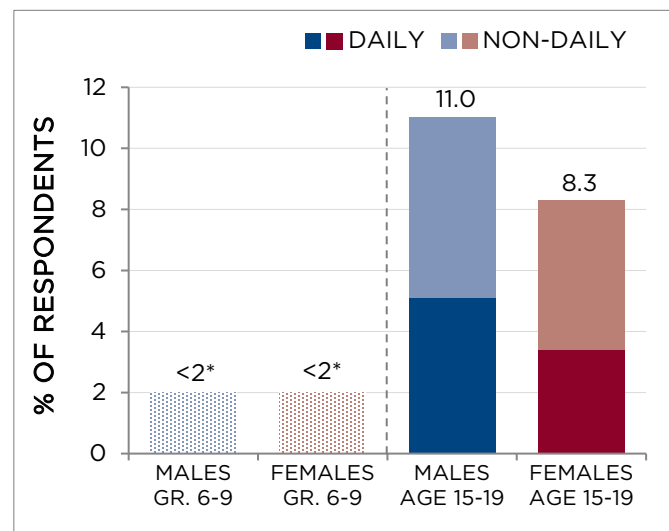
Smoking Prevalence by Sex

Smoking prevalence was the same for male and female students in grades 6-9 in 2014-15, although exact estimates are suppressed due to unacceptable quality.⁸⁰ Similarly, among youth aged 15-19, smoking prevalence did not differ significantly between males and females in 2015⁸¹ (Figure 8.5).

Over time, among 15- to 19-year-olds, prevalence patterns have shifted from higher female smoking prevalence (from 1999 until the mid-2000s), to a greater percentage of males smoking for most of the last decade (Figure 8.6).

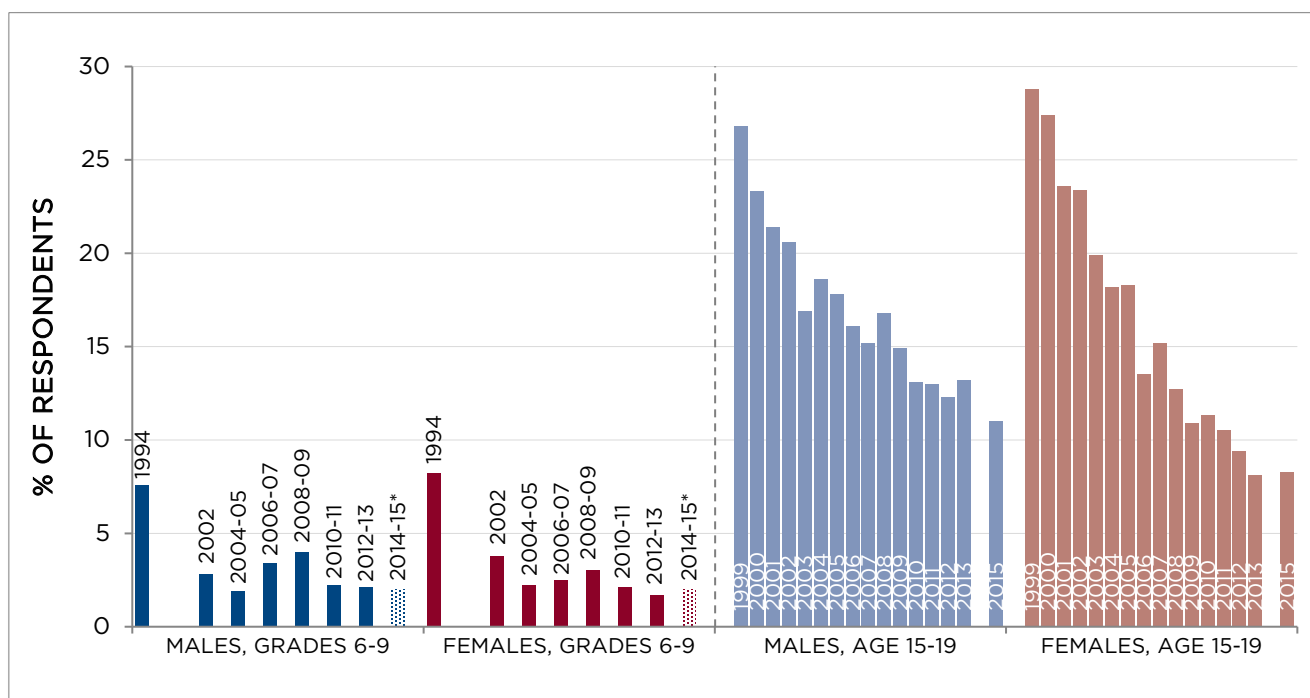
Among students in grades 6-9, the same general pattern was observed, although with much smaller differences between the sexes: females had slightly higher smoking rates from 1994 to 2004-05, followed by slightly higher rates among males, but equalizing in the most recent waves (Figure 8.6).

FIGURE 8.5: CURRENT SMOKING PREVALENCE BY SEX, GRADES 6-9, 2014-15, AND AGE 15-19, 2015



*EXACT ESTIMATES SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUNDS FOR THE ESTIMATES ARE LESS THAN 2%.
DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

FIGURE 8.6: CURRENT SMOKING PREVALENCE (DAILY AND NON-DAILY) BY SEX, GRADES 6-9 AND AGE 15-19, 1994-2015



*EXACT ESTIMATES SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUNDS FOR THE ESTIMATES ARE LESS THAN 2%.
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

Smoking Prevalence by Province

PREVALENCE AMONG STUDENTS IN GRADES 6-9

Smoking prevalence among students in grades 6-9 varied by province in 2014-15, although this difference was not statistically significant⁸² (Table 8.1). Specific prevalence estimates for 2014-15 for most provinces cannot be reported, due to unacceptable quality.

In the decade from 1994 and 2004-05, smoking declined substantially in all provinces; although small increases were observed in some provinces in the waves that followed, prevalence appears to have decreased to 2004-05 levels or lower in most provinces in recent waves (Table 8.1). In 2014-15, prevalence had declined to levels too low to report in most provinces.

TABLE 8.1: CURRENT SMOKING PREVALENCE* BY PROVINCE, GRADES 6-9, 1994-2014-15

YEAR	1994	2002	2004-05	2006-07	2008-09	2010-11	2012-13	2014-15
CANADA	7.9	3.3	2.1	3.0	3.5	2.2	1.9	<2**
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	^b	1.1
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	^a	3.4	^c
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	!	!	!
NEWFOUNDLAND & LABRADOR	9.3	5.9	3.8	!	5.6	4.0	1.7	!

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

**EXACT ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY. THE UPPER BOUND FOR THE ESTIMATE IS LESS THAN 2%.

^aIN 2010-11, NEW BRUNSWICK DECLINED PARTICIPATION IN THE YSS.

^bIN 2012-13, MANITOBA DECLINED PARTICIPATION IN THE YSS.

^cPROVINCIAL ESTIMATES FOR NEW BRUNSWICK NOT REPORTED BECAUSE CSTADS DID NOT ACHIEVE A GENERALIZABLE SAMPLE OF NB STUDENTS IN 2014-15

! ESTIMATES SUPPRESSED DUE TO UNACCEPTABLE QUALITY

DATA SOURCES: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

PREVALENCE AMONG YOUTH AGED 15-19

Among youth aged 15-19, the variation in smoking prevalence between provinces was not statistically significant in 2015 (Table 8.2).⁸³ Saskatchewan had the highest provincial prevalence estimate, at 13.7%. Many provincial prevalence estimates for 2015 cannot be reported, due to unacceptable quality.

Since 1999, smoking prevalence among youth has decreased by more than half in Canada, as well as in all provinces (Table 8.2).

TABLE 8.2: CURRENT SMOKING PREVALENCE* BY PROVINCE, AGE 15-19, 1999-2015

YEAR	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015
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	9.7
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#	!
ALBERTA	26.4	24.4	24.1	19.0	18.1	15.7	18.9	15.2	20.1	16.0	12.4	17.0	8.3	9.9	8.8#	!
SASK.	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	13.7
MANITOBA	29.5	25.4	28.2	23.3	20.3	21.0	20.0	19.7	20.1	17.0	17.9	15.0	14.3	12.5	12.6	12.7
ONTARIO	24.8	25.1	18.8	19.2	14.5	16.8	16.0	12.5	13.5	12.8	9.1	9.1	9.1	9.0	9.5	!
QUEBEC	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	12.9
NEW BRUNSWICK	27.4	29.9	24.6	17.6	21.6	17.7	17.9	15.7	16.8	14.2	15.7	11.9	13.8	14.0	12.4	!
NOVA SCOTIA	30.1	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	14.1	13.1	13.7	14.2	11.3	14.4	8.5	11.5	13.2
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	!

*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.

! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

8.2 CIGARETTE CONSUMPTION

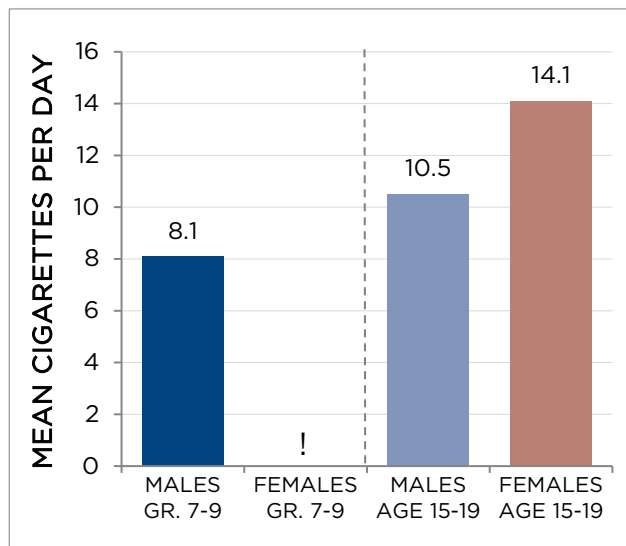
In 2014-15, average daily cigarette consumption among daily smokers in grades 7-9 was 8.8, which was not significantly different from the 2012-13 estimate of 10.5.⁸⁴ Among 15- to 19-year-olds, average daily cigarette consumption was 11.6 in 2015, no significant change from the 2013 estimate of 9.2.⁸⁵

Cigarette Consumption by Sex

Among daily smokers in grades 7-9, there was no significant difference in mean daily cigarette consumption between males and females in 2014-15,⁸⁶ although the estimate for females is suppressed due to unacceptable quality (Figure 8.7). In this age group, consumption appears to have fluctuated over time among males, but remained stable among females (Figure 8.8).

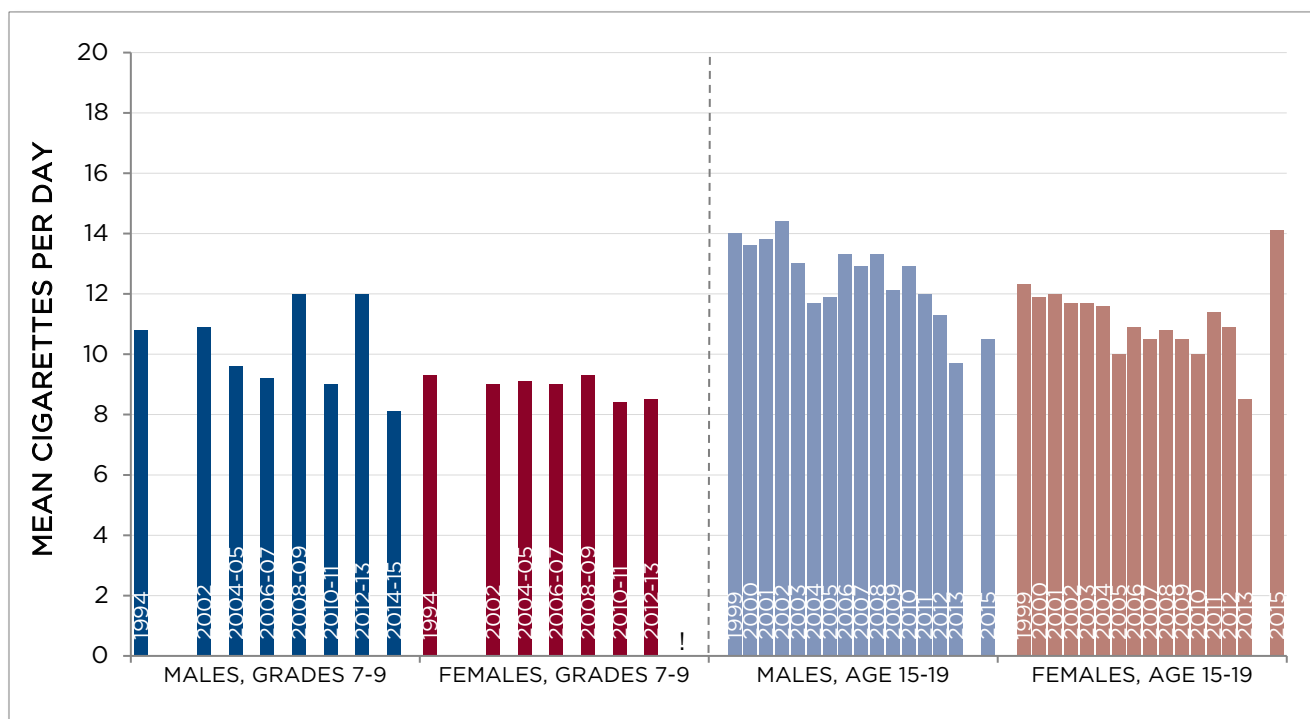
Among daily smokers aged 15-19, mean daily cigarette consumption did not differ significantly between males and females in 2015⁸⁷ (Figure 8.7). However, males appeared to have smoked more than females in most of the preceding years (Figure 8.8).

FIGURE 8.7: AVERAGE DAILY CIGARETTE CONSUMPTION* BY SEX, GRADES 7-9, 2014-15, AND AGE 15-19, 2015



*AMONG DAILY SMOKERS
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

FIGURE 8.8: AVERAGE DAILY CIGARETTE CONSUMPTION* BY SEX, GRADES 7-9 AND AGE 15-19, 1994-2015



*AMONG DAILY SMOKERS
! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

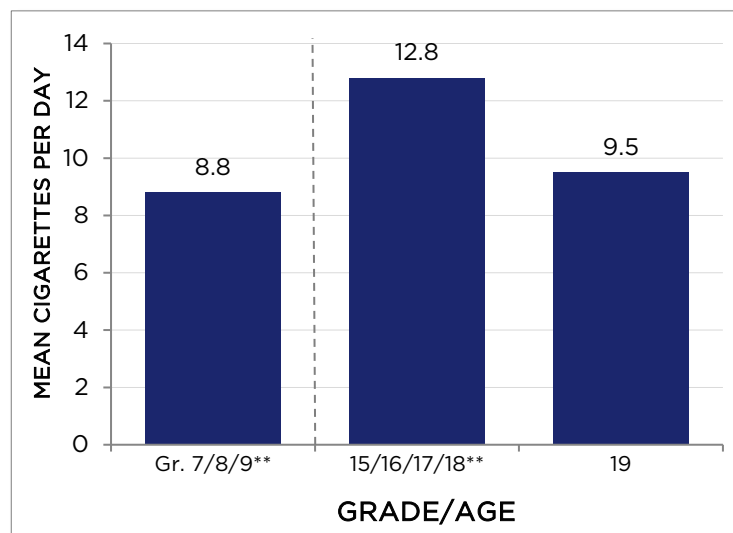
Cigarette Consumption by Age

Among daily smokers, cigarette consumption appeared to be lower among students in grades 7-9 (in 2014-15) than among youth aged 15-19 (in 2015) (Figure 8.9).

Among daily smokers aged 15-19, between 1999 and 2015, average daily cigarette consumption decreased overall, but there has been considerable variation in this downward trend, including some periods of increase (Figure 8.10).

Among smokers in grades 7-9, daily consumption has remained roughly between 9 and 11 since 1994 (Figure 8.10).

FIGURE 8.9: AVERAGE DAILY CIGARETTE CONSUMPTION* BY AGE, GRADES 7-9, 2014-15, AND AGE 15-19, 2015



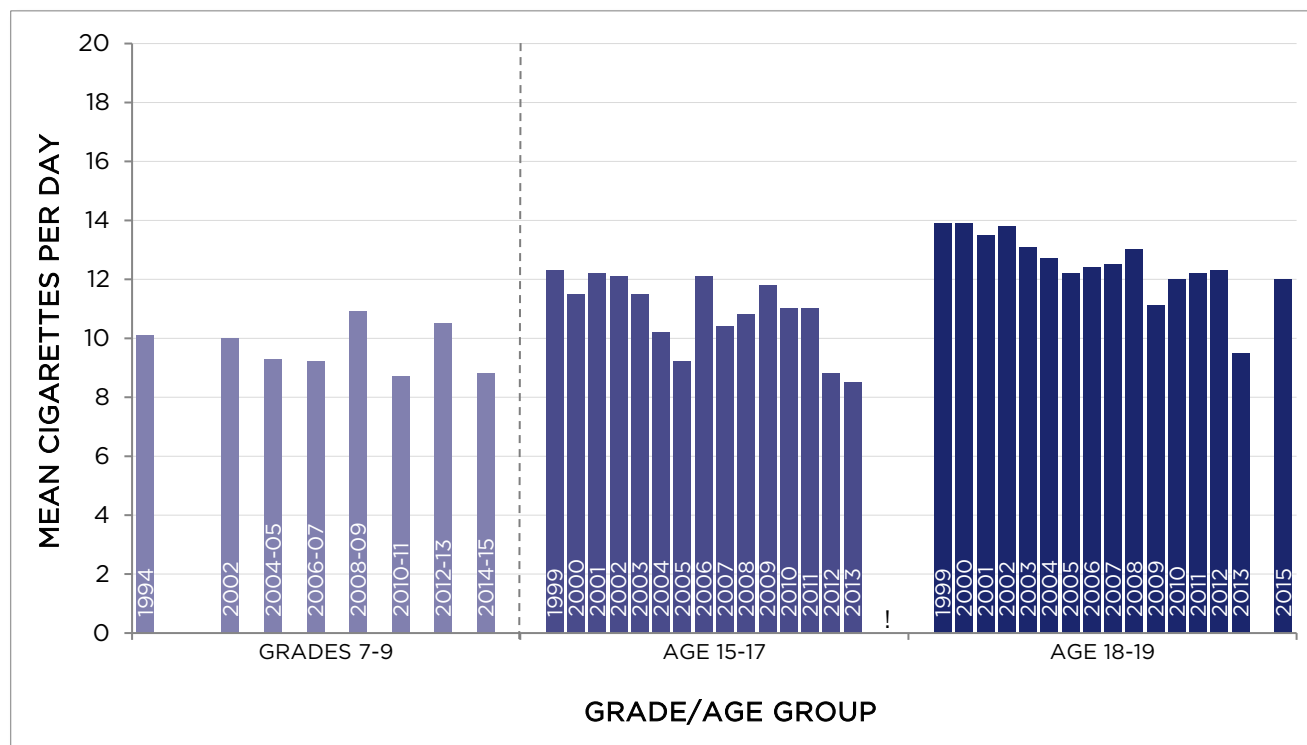
*AMONG DAILY SMOKERS

**GRADES 7/8/9 AND AGES 15/16/17/18 COMBINED DUE TO LOW NUMBERS

! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

FIGURE 8.10: AVERAGE DAILY CIGARETTE CONSUMPTION* BY AGE GROUP, GRADES 7-9 AND AGE 15-19, 1994-2015



*AMONG DAILY SMOKERS

! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

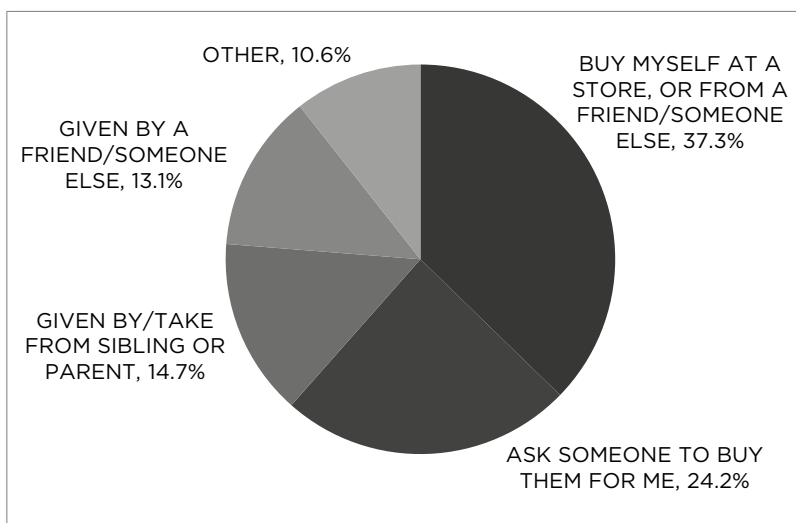
DATA SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

9. SOURCES OF CIGARETTES

SOURCES OF CIGARETTES FOR STUDENTS IN GRADES 6-9

In 2014-15, when smokers in grades 6-9 were asked where they usually got their cigarettes, most reported obtaining them from social sources. Nearly one-quarter of smokers usually asked someone to buy cigarettes for them, and another 20% bought them from a friend or someone else. More than one-quarter reported being given cigarettes by a friend, family member or someone else, or taking them from a family member (Figure 9.1).

FIGURE 9.1: USUAL SOURCES OF CIGARETTES FOR CURRENT SMOKERS* IN GRADES 6-9, 2014-15



*CURRENT SMOKER: SMOKED 100+ CIGARETTES IN LIFETIME AND SMOKED IN THE PAST 30 DAYS
NOTE: SOME CATEGORIES HAVE BEEN COMBINED: "I BUY THEM MYSELF AT A STORE", "I BUY THEM FROM A FRIEND", AND "I BUY THEM FROM SOMEONE ELSE"; "MY BROTHER OR SISTER GIVES THEM TO ME", "MY MOTHER OR FATHER GIVES THEM TO ME" AND "I TAKE THEM FROM MY MOTHER/ FATHER/SIBLINGS"; "A FRIEND GIVES THEM TO ME" AND "SOMEONE ELSE GIVES THEM TO ME".

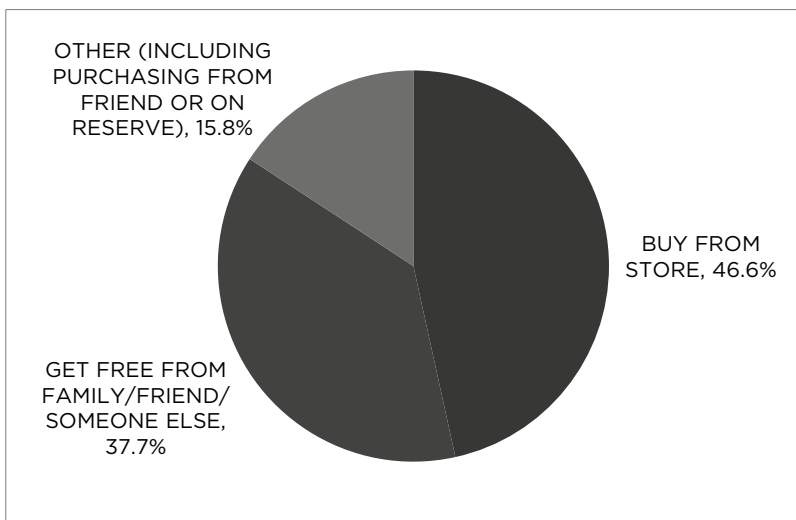
DATA SOURCE: CSTADS, 2014-15

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 2015, when smokers aged 15-18 were asked where they usually got their cigarettes, almost half reported purchasing them from a retail source, primarily small grocery/corner stores (Figure 9.2). Nearly four in ten reported being given cigarettes by another person, including friends, family and others. Approximately one in six (15.8%) reported getting cigarettes from "other" sources, which included First Nations reserves and purchasing from friends/others.

FIGURE 9.2: PERCENTAGE OF SMOKERS AGED 15-18 WHO USUALLY GET CIGARETTES FROM VARIOUS SOURCES, 2015



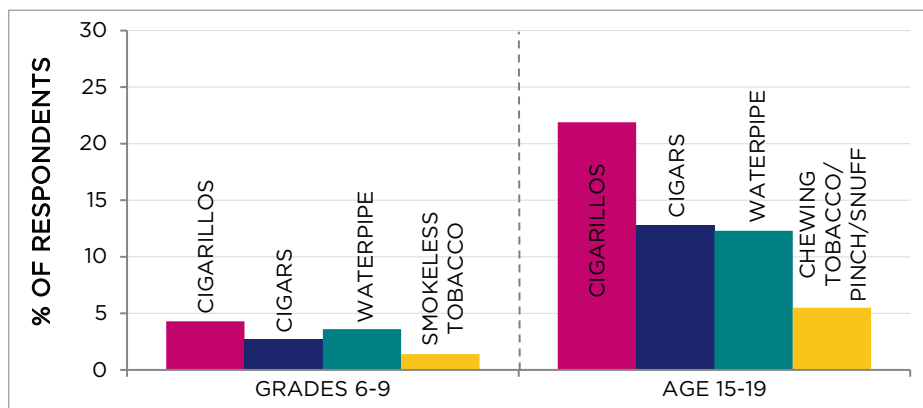
NOTE: SOME CATEGORIES HAVE BEEN COMBINED DUE TO LOW NUMBERS: "BUY FROM STORE" INCLUDES "SMALL GROCERY/CORNER STORE", "SUPERMARKET" AND "ANOTHER KIND OF STORE"; "GET FREE FROM FAMILY/FRIEND/SOMEONE ELSE" INCLUDES BEING GIVEN BY MOTHER/FATHER, OR FRIEND/SOMEONE ELSE; "OTHER" INCLUDES "BUY ON A FIRST NATIONS RESERVE", "BUY FROM FRIEND/SOMEONE ELSE", AND "OTHER".

DATA SOURCE: CTADS, 2015

10. USE OF OTHER TOBACCO PRODUCTS

In 2014-15, 4.3% of students in grades 6-9 reported having ever smoked a cigarillo, and 2.7% had smoked a cigar (Figure 10.1). In 2015, among youth aged 15-19, these figures were 21.9% and 12.8%, respectively. Waterpipe use was also popular, with 3.6% of grades 6-9 students and 12.3% of youth aged 15-19 reporting ever use. Far fewer youth reported having used smokeless tobacco products.

FIGURE 10.1: PERCENTAGE OF YOUTH WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, GRADES 6-9, 2014-15, AND AGE 15-19, 2015

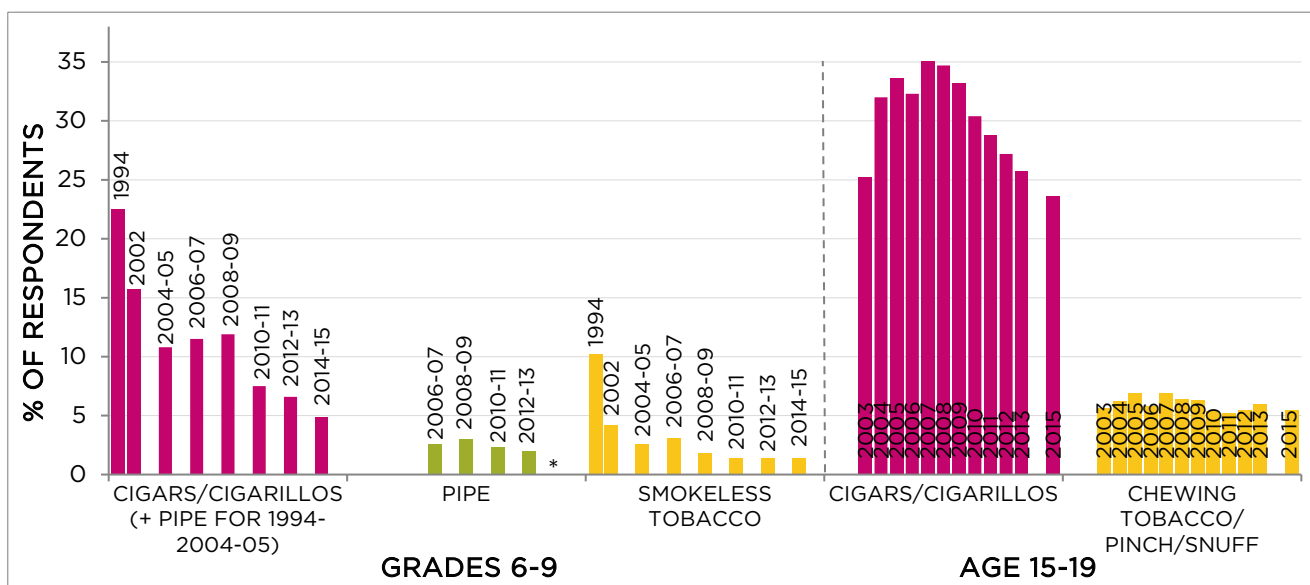


DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

NOTE: CSTADS 2014-15 asked about use of each tobacco product individually (yes/no), whereas previous years asked in a “check all that apply” format; estimates may not be comparable over time.

As shown in Figure 10.2, among youth aged 15-19, ever use of cigars/cigarillos increased between 2003 and 2007, but has declined steadily since then; ever use of chewing tobacco/pinch/snuff has remained fairly stable since 2003. Between 2013 and 2015, there was no significant change in use of either cigars/cigarillos⁸⁸ or chewing tobacco/pinch/snuff,⁸⁹ in the 15-19 age group. Among students in grades 6-9, ever use of cigars/cigarillos has decreased over time since 1994, while smokeless tobacco use decreased substantially between 1994 and 2004-05 and has remained low since, and pipe use was low in all years measured. Between 2012-13 and 2014-15, there was no significant change in ever use of cigars/cigarillos⁹⁰ or smokeless tobacco,⁹¹ among students in grades 6-9.

FIGURE 10.2: PERCENTAGE OF YOUTH IN GRADES 6-9 AND AGE 15-19 WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, 1994-2015



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 “SMOKELESS TOBACCO” ITEM FROM 2008-09 ONWARD
*EVER USE OF PIPE NOT ASKED IN CSTADS 2014-15

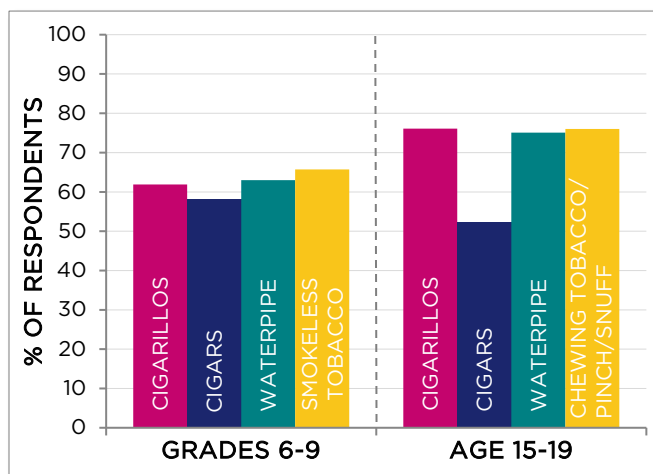
DATA SOURCES: CTUMS, 2003-2012; CTADS, 2013, 2015; YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

FLAVOURED TOBACCO PRODUCTS

Previous research has shown that flavoured tobacco products have greater appeal among youth,^{xvi} and federal legislation^{x,xii} 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, 2.0% reported using flavoured tobacco products in the past 30 days.

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, 66% of youth in grades 6-9 and 80% 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, 38% of past-30-day smokers in grades 6-9, as well as 15.1% of youth aged 15-19 who had smoked in the past 30 days, had smoked a menthol cigarette in that time.

FIGURE 10.3: PERCENTAGE OF YOUTH WHO HAD USED FLAVOURED TOBACCO PRODUCTS, AMONG LAST 30-DAY USERS, GRADES 6-9, 2014-15, AND AGE 15-19, 2015



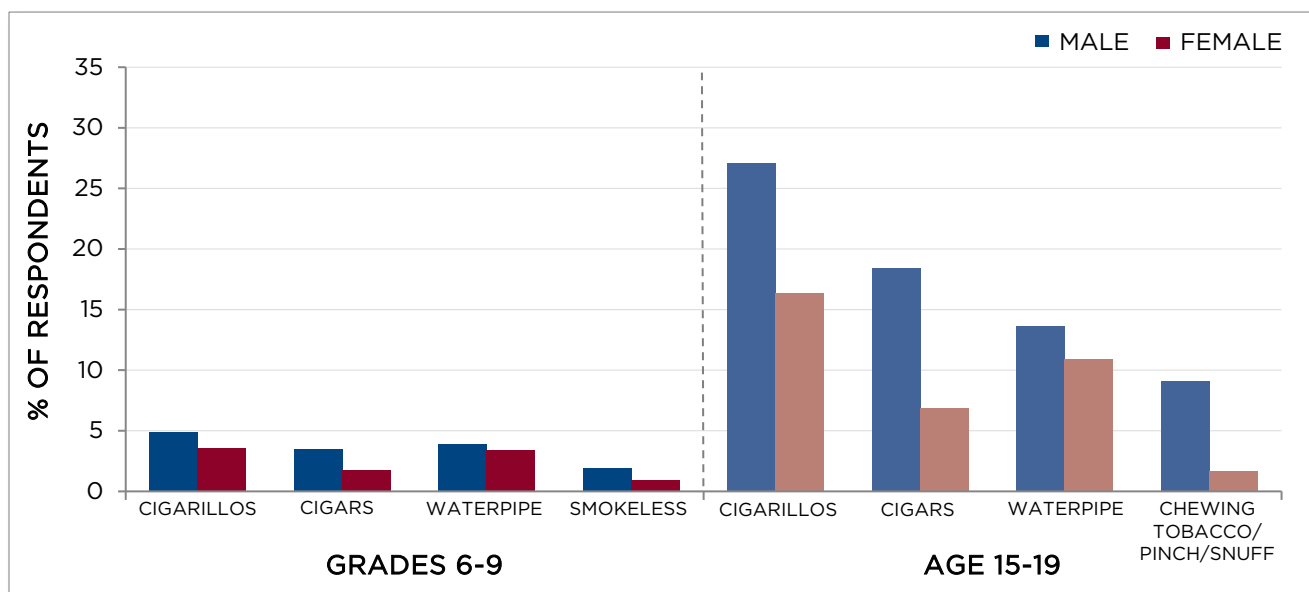
DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

DEMOGRAPHIC PATTERNS IN OTHER TOBACCO USE

Use of Other Tobacco Products by Sex

In 2015, among youth aged 15-19, significantly more males than females had tried cigars, cigarillos, and chewing tobacco/snuff,⁹²⁻⁹⁴ but there was not a significant sex difference in waterpipe use⁹⁵ (Figure 10.4). A similar pattern was observed among students in grades 6-9: while prevalence estimates were higher for males ever trying all other tobacco products, sex differences were statistically significant for cigars and smokeless tobacco,^{96,97} but not for cigarillos or waterpipe.^{98,99}

FIGURE 10.4: PERCENTAGE OF YOUTH WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, BY SEX, GRADES 6-9, 2014-15, AND AGE 15-19, 2015



DATA SOURCES: CTADS, 2015; CSTADS, 2014-15

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 products¹⁰⁰⁻¹⁰³ (Table 10.1). Quebec had the highest percentages of youth ever trying cigars or cigarillos (9.5%), and waterpipe (7.0%). Saskatchewan and PEI had the highest prevalence of youth ever trying smokeless tobacco (3.8% and 3.9%, respectively).

TABLE 10.1: PERCENTAGE OF YOUTH IN GRADES 6-9 WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, BY PROVINCE, 2014-15

PROVINCE	Cigars or Cigarillos	Cigarillos	Cigars	Waterpipe	Smokeless tobacco
CANADA	4.9%	4.3%	2.7%	3.6%	1.4%
BRITISH COLUMBIA	5.4	4.8	2.7	3.1	!
ALBERTA	4.0	3.6	2.1	3.5	2.2
SASKATCHEWAN	5.6	5.0	3.1	3.0	3.8
MANITOBA	6.2	5.4	2.5	2.9	1.5
ONTARIO	2.2	1.8	1.4	2.3	0.8
QUEBEC	9.5	!	!	7.0	1.4
NEW BRUNSWICK	*	*	*	*	*
NOVA SCOTIA	3.1	!	!	2.2	!
PRINCE EDWARD ISLAND	4.5	4.3	2.6	3.7	3.9
NFLD. & LABRADOR	4.9	4.6	2.7	1.8	!

! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY

*PROVINCIAL ESTIMATE FOR NEW BRUNSWICK NOT REPORTED BECAUSE CSTADS DID NOT ACHIEVE A GENERALIZABLE SAMPLE OF NB STUDENTS IN 2014-15

DATA SOURCE: CSTADS, 2014-15

Among youth aged 15-19, use varied significantly by province for cigars,¹⁰⁴ cigarillos,¹⁰⁵ and chewing tobacco/snuff,¹⁰⁶ but not for waterpipe¹⁰⁷ (Table 10.2). Quebec had the highest percentages of youth ever trying cigarillos (30.4%) and cigars (15.8%). Ontario had the highest prevalence of waterpipe use (14.7%). Saskatchewan had the highest percentage of youth who had used chewing tobacco or snuff (14.0%).

TABLE 10.2: PERCENTAGE OF YOUTH AGED 15-19 WHO HAVE EVER TRIED VARIOUS TOBACCO PRODUCTS, BY PROVINCE, 2015

PROVINCE	Cigarillos	Cigars	Waterpipe	Chewing tobacco/snuff
CANADA	22.0%	12.9%	12.3%	5.5%
BRITISH COLUMBIA	17.9	11.7	11.5	!
ALBERTA	20.1	8.8	13.5	10.3
SASKATCHEWAN	20.7	11.5	!	14.0
MANITOBA	22.4	13.0	!	!
ONTARIO	19.4	12.7	14.7	!
QUEBEC	30.4	15.8	10.7	!
NEW BRUNSWICK	21.5	!	!	!
NOVA SCOTIA	21.6	14.8	!	!
PRINCE EDWARD ISLAND	16.8	13.8	!	!
NFLD. & LABRADOR	21.6	14.1	!	!

! ESTIMATES SUPPRESSED DUE TO UNACCEPTABLE QUALITY

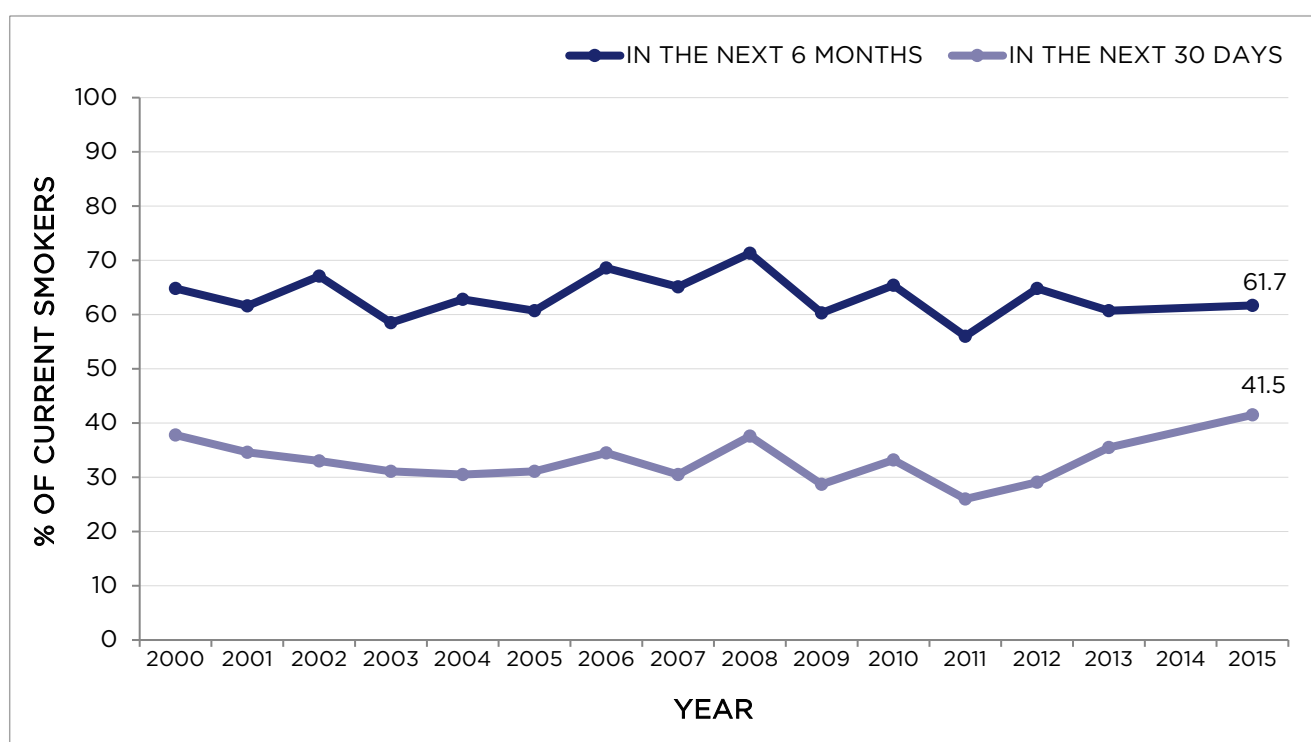
DATA SOURCE: CTADS, 2015

11. QUITTING SMOKING

11.1 QUIT INTENTIONS

In 2015, six in ten smokers aged 15 to 19 (61.7%) were seriously considering quitting in the next 6 months, and two-thirds (67.5%) of those were considering doing so in the next 30 days—equivalent to 41.5% of all current smokers (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, 2000-2015



DATA SOURCES: CTUMS, 2000-2012; CTADS, 2013, 2015

The majority of youth smokers were interested in quitting:

- Six out of ten smokers aged 15 to 19 were seriously considering quitting.
- Approximately seven out of ten smokers in grades 6-9 and three-quarters of smokers aged 15-19 had ever attempted to quit.
- 65% of smokers aged 15-19 had attempted to quit in the past year.

11.2 QUIT ATTEMPTS

Quit attempts among students in grades 6-9

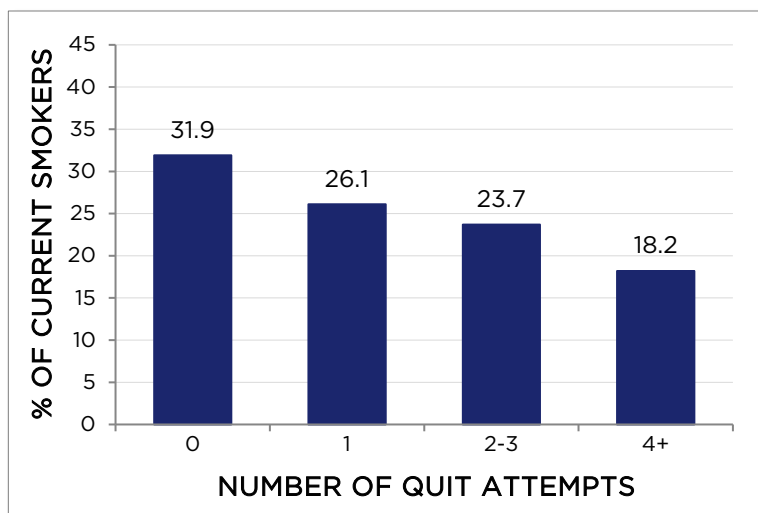
Among current smokers in grades 6-9, nearly seven out of ten (68.1%) had ever tried to quit smoking.

Most smokers who had ever tried to quit had made one to three attempts, with 18% having made four or more attempts (Figure 11.2).

Between 2012-13 and 2014-15, there was no significant change in the percentage of smokers in grades 6-9 who had ever tried to quit smoking.¹⁰⁸

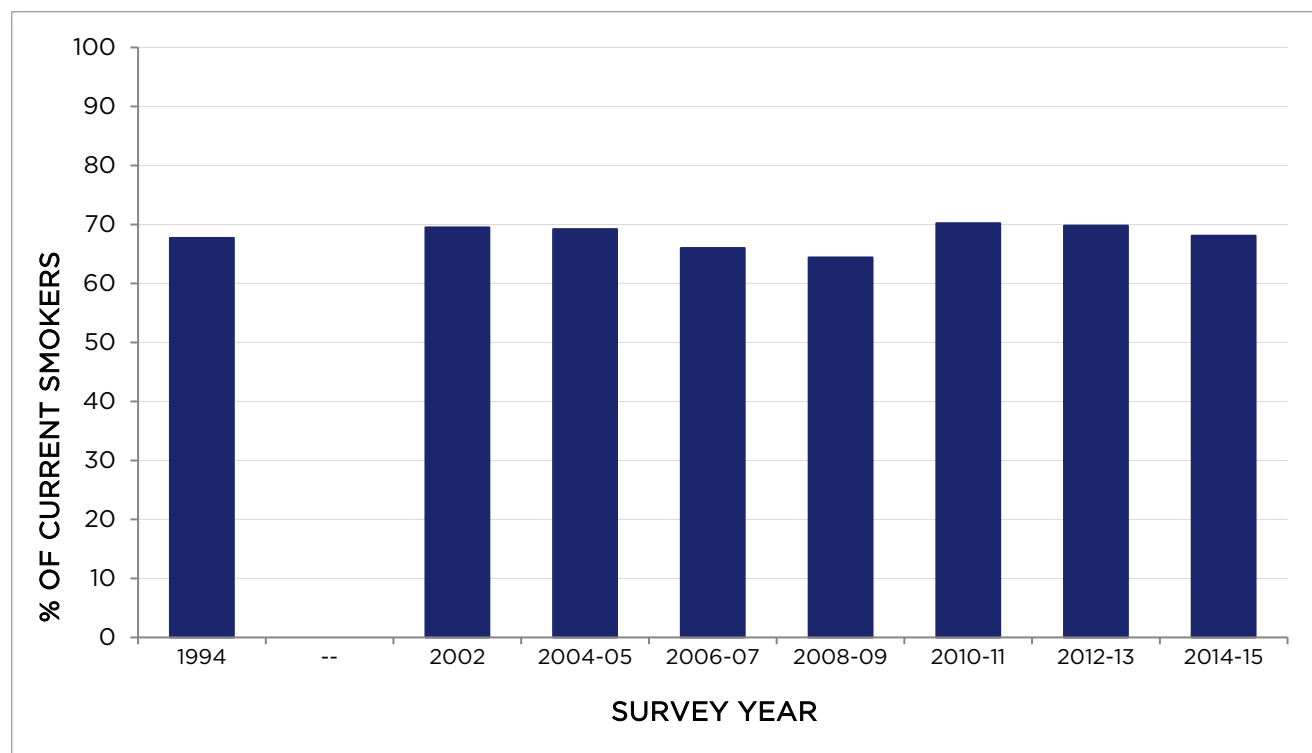
The percentage of current smokers who had ever attempted to quit has remained fairly stable over time at around two-thirds, although there was slight variation from wave to wave (Figure 11.3).

FIGURE 11.2: NUMBER OF QUIT ATTEMPTS EVER MADE BY CURRENT SMOKERS, GRADES 6-9, 2014-15



DATA SOURCE: CSTADS, 2014-15

FIGURE 11.3: PERCENTAGE OF CURRENT SMOKERS WHO HAVE EVER MADE A QUIT ATTEMPT, GRADES 6-9, 1994-2014-15



DATA SOURCES: YSS, 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13; CSTADS, 2014-15

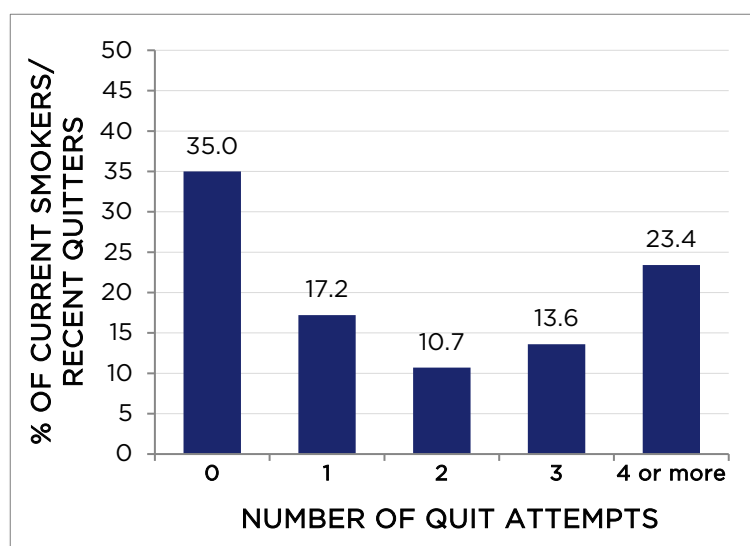
Quit attempts among youth aged 15-19

Among current smokers aged 15-19, three-quarters (74.2%) had ever made a quit attempt.

The majority (65.0%) of current smokers and recent quitters aged 15-19 had made a quit attempt lasting at least 24 hours in the past 12 months: four out of ten had made one to three attempts in the past 12 months, while nearly a quarter had made four or more attempts (Figure 11.4).

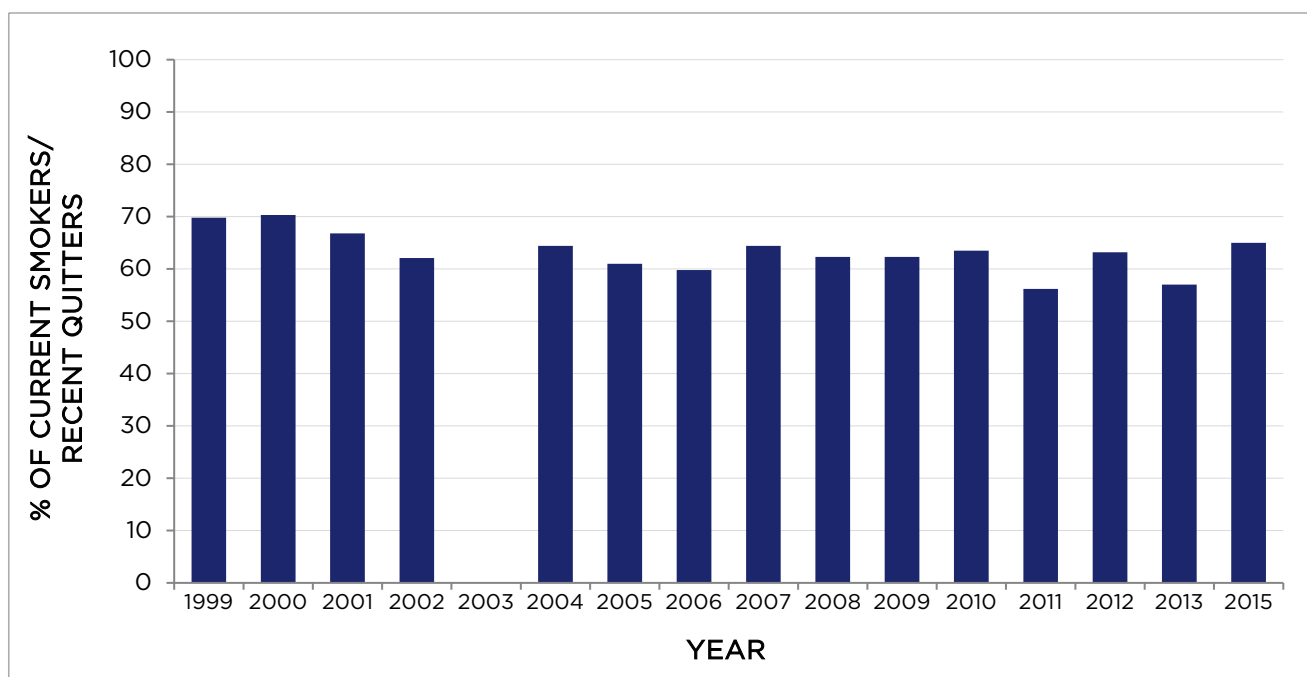
Between 2013 and 2015, there was no significant difference in the percentage of smokers aged 15-19 who had tried to quit smoking in the past 12 months.¹⁰⁹ Since 1999, the percentage of smokers and recent quitters who had attempted to quit in the past 12 months has remained approximately stable, with 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, 2015



DATA SOURCE: CTADS, 2015

FIGURE 11.5: PERCENTAGE OF SMOKERS AND RECENT QUITTERS* WHO ATTEMPTED TO QUIT IN THE PAST 12 MONTHS, BY AGE GROUP, 1999-2015**



*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; 2004-2015 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 SOURCES: CTUMS, 1999-2012; CTADS, 2013, 2015

SECTION IV: E-CIGARETTE USE

HIGHLIGHTS



In 2015, among Canadians age 15 and older:

A substantial number of Canadians had tried e-cigarettes, but very few reported using them daily:

- 13.2% (3.9 million) reported having ever tried an e-cigarette;
- 3.2% (~946,000) used one in the past 30 days;
- 1.0% (~308,000) reported daily use. (page 87)

Use of e-cigarettes (ever, and in the past 30 days) **increased significantly between 2013 and 2015.** (p. 87)

E-cigarette use was most prevalent among young people:

- **One in four youth aged 15-19, and 3 out of 10 young adults aged 20-24, reported ever trying an e-cigarette.** (p. 89)
- 6.3% of youth and young adults had used an e-cigarette in the past 30 days (p. 89)

Among Canadians who used e-cigarettes in the past 30 days, daily use was more prevalent among adults aged 45 and older (42.8%), compared to those aged 15-24 (21.0%) and 25-44 (32.5%). (p. 89)

Ever use of e-cigarettes was more prevalent among males (16.1%) than females (10.5%), but there was no difference in past 30-day use (3.6% vs. 2.8%). (p. 88)

- Sex differences were more pronounced among younger age groups. (p. 90)

E-cigarette use varied by province: ever use ranged from 10.4% in Ontario to 18.8% in Nova Scotia. Past 30-day use also varied by province. (p. 91)

Prevalence of e-cigarette use was much greater among smokers:

- **51.0% of current smokers had ever used e-cigarettes, compared to 7.6% of non-smokers.**
- Past 30-day use was 15.5% among current smokers and 1.4% among non-smokers. (p. 92)

Nearly half of e-cigarette users (47.8%) reported that the last e-cigarette they used contained nicotine, despite nicotine-containing e-cigarettes not being approved for sale in Canada. (p. 95)

Fruit and tobacco were the most common usual flavours of e-cigarettes. Fruit flavours were most popular among younger users, while tobacco flavour was more popular among older users and smokers. (p. 96)

Among all ever users, **nearly one-quarter (22.8%) reported using e-cigarettes to help them quit smoking** within the past two years. (p. 97)

Approximately one-third (35.2%) of e-cigarette ever-users who were also cigarette smokers reported using an e-cigarette when they were unable to smoke, or to smoke fewer cigarettes. (p. 97)

Among youth in grades 6-9, in 2014-15:

- **One in ten Canadian students in grades 6-9 reported having ever tried an e-cigarette.** (p. 98)
- 3.2% had used an e-cigarette in the past 30 days. (p. 98)
- **Half of current smokers in grades 6-9 had used e-cigarettes in the past 30 days,** compared to 2.8% of non-smokers. (p. 99)
- E-cigarette use varied by province, and was lowest in Ontario and highest in Quebec. (p. 98)

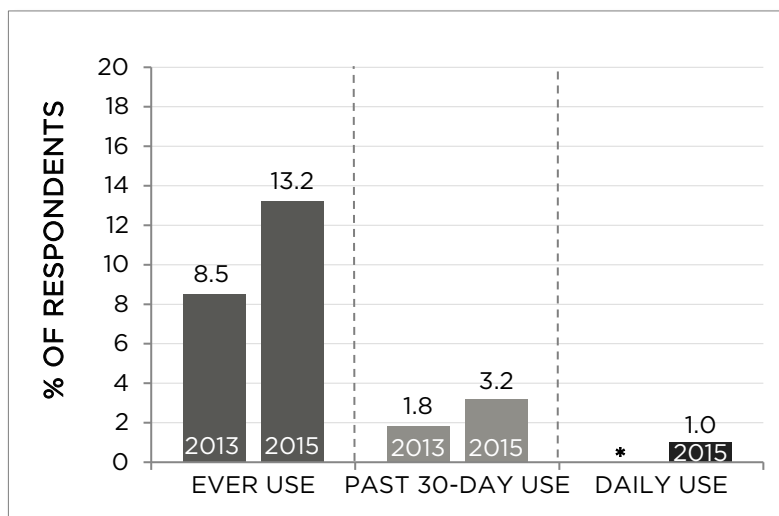
12. E-CIGARETTE USE AMONG CANADIAN ADULTS

12.1 PREVALENCE OF E-CIGARETTE USE

In 2015, 13.2% of Canadians age 15 and older (3.9 million) reported having ever tried an e-cigarette, and 3.2% (~946,000) had used an e-cigarette in the past 30 days. Prevalence of ever use¹¹⁰ and past 30-day¹¹¹ use both increased significantly from 2013 to 2015 (Figure 12.1).

The past 30-day prevalence of e-cigarette use was similar to some tobacco products, like cigarillos and cigars (see Figure 4.1), but still much lower than smoking cigarettes—which 13.2% of Canadians reported in the past 30 days.

FIGURE 12.1: PREVALENCE OF EVER USE, PAST 30-DAY USE, AND DAILY USE OF E-CIGARETTES AMONG CANADIANS AGE 15+, 2013-2015



*DAILY USE OF E-CIGARETTES NOT ASKED IN CTADS 2013
DATA SOURCE: CTADS, 2013, 2015

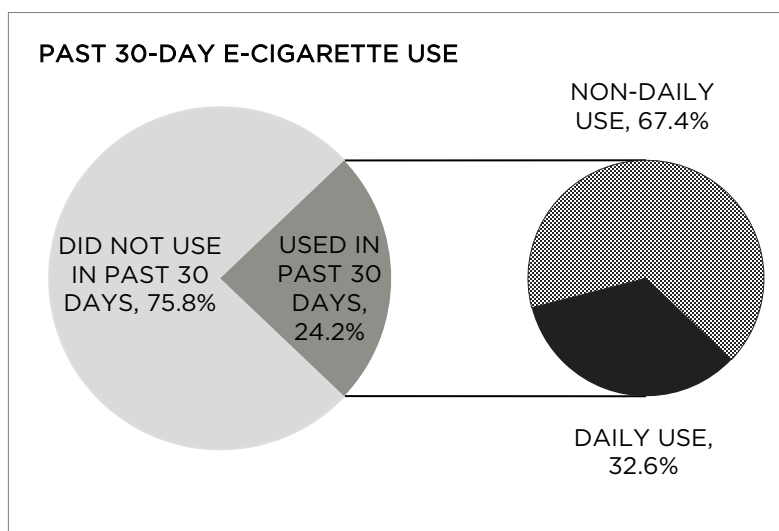
Frequency of E-cigarette Use

Overall, daily use of e-cigarettes was reported by 1.0% (~308,000) of Canadians (Figure 12.1).

Of those who reported ever trying an e-cigarette, most were not current users: 75.8% had not used an e-cigarette in the past 30 days (Figure 12.2).

Of those who reported using an e-cigarette in the past 30 days, approximately one-third (32.6%) used one every day (Figure 12.2).

FIGURE 12.2: CURRENT FREQUENCY OF E-CIGARETTE USE AMONG EVER-USERS, 2015



DATA SOURCE: CTADS, 2015

3.9 million Canadians have tried e-cigarettes.

DEMOGRAPHIC PATTERNS IN E-CIGARETTE USE

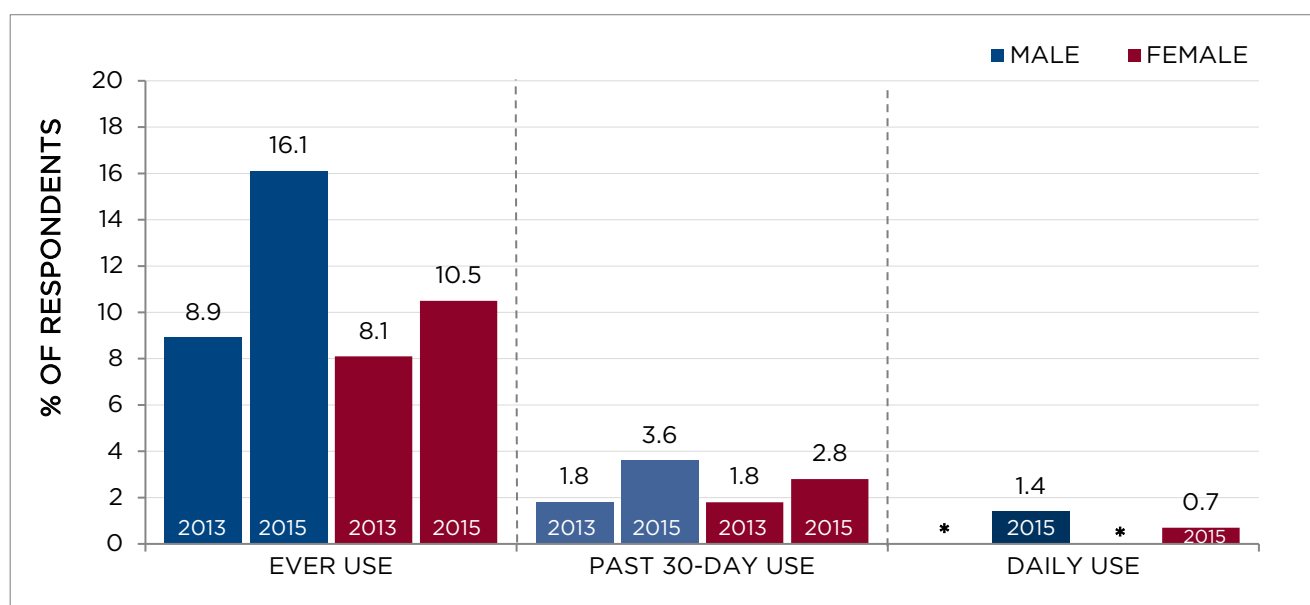
Prevalence by Sex

Ever use of e-cigarettes was significantly more prevalent among males, at 16.1% (2.3 million), compared to 10.5% of females (1.6 million) (Figure 12.3).¹¹²

Prevalence of e-cigarette use in the past 30 days, however, was not significantly different between males (3.6%) and females (2.8%) (Figure 12.3).¹¹³

However, these overall figures obscure sex differences within some age groups, which can be pronounced (see page 90). For example, among those under 25, past 30-day prevalence among males was double that of females.

FIGURE 12.3: PREVALENCE OF EVER USE, PAST 30-DAY USE, AND DAILY USE OF E-CIGARETTES AMONG CANADIANS AGE 15+, BY SEX, 2013-2015



*DAILY USE OF E-CIGARETTES NOT ASKED IN CTADS 2013
DATA SOURCE: CTADS, 2013, 2015

Frequency of E-cigarette Use by Sex

Overall, daily use of e-cigarettes was significantly more prevalent among males, reported by 1.4%, compared to 0.7% of females (Figure 12.3).¹¹⁴

Of those who reported ever trying an e-cigarette, similar proportions of males (22.5%) and females (26.8%) had used an e-cigarette in the past 30 days.¹¹⁵

Of those who reported using an e-cigarette in the past 30 days, the proportions of males (38.6%) and females (25.0%) that used one every day were not significantly different.¹¹⁶

Prevalence by Age

Ever Use

Prevalence of ever using e-cigarettes varied significantly by age group:¹¹⁷ use was highest among young adults aged 20-24 and youth aged 15-19, decreasing with age into adulthood (Figure 12.4). Between 2013 and 2015, ever use significantly increased within all age groups, except for adults aged 35-44.¹¹⁸⁻¹²²

Among youth aged 15-19, the prevalence estimate for ever trying e-cigarettes was comparable to cigarettes or cigarillos, but higher than other smoked tobacco products (see Figure 10.1).

Past 30-day Use

Use of e-cigarettes in the past 30 days also varied significantly by age group:¹²³ prevalence was highest among youth and young adults (Figure 12.5). Between 2013 and 2015, past 30-day use increased significantly in all age groups.¹²⁴⁻¹²⁷

Among youth aged 15-19, past 30-day use of e-cigarettes was less prevalent than cigarette smoking, which was reported by 9.8%.

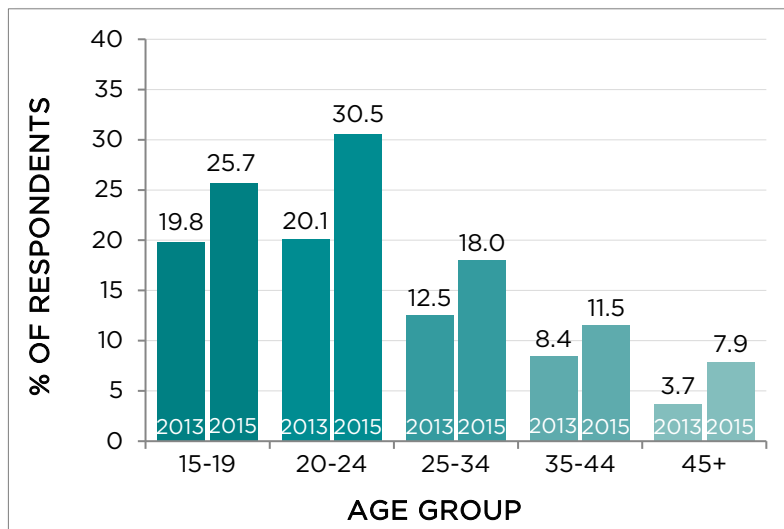
Of those who reported ever trying an e-cigarette, use in the past 30 days did not vary significantly by age group:¹²⁸ 24.5% of ever-users aged 15-19 had used an e-cigarette in the past 30 days, as well as 20.8% aged 20-24, 23.2% aged 25-44, and 27.4% aged 45 and older.

Daily Use

Overall, daily e-cigarette use was reported by 1.3% of young people aged 15-24, 1.1% of adults aged 25-44, and 0.9% of adults age 45 and older—not significantly different between age groups.¹²⁹

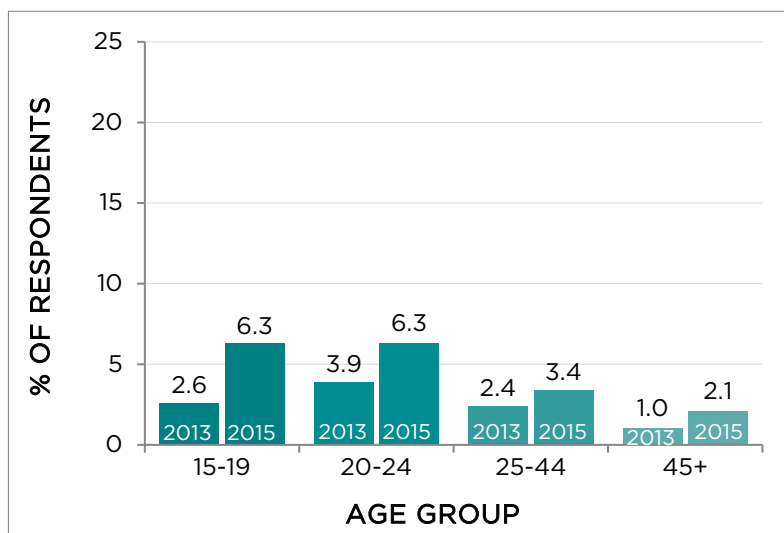
Of those reporting e-cigarette use in the past 30 days, the proportion using daily increased significantly with age,¹³⁰ from 21.0% of users aged 15-24, to 32.5% of users aged 25-44, to 42.8% of users aged 45 and older.

FIGURE 12.4: PREVALENCE OF EVER USE OF E-CIGARETTES AMONG CANADIANS AGE 15+, BY AGE GROUP, 2013-2015



DATA SOURCE: CTADS, 2013, 2015

FIGURE 12.5: PREVALENCE OF PAST 30-DAY USE OF E-CIGARETTES AMONG CANADIANS AGE 15+, BY AGE GROUP, 2013-2015



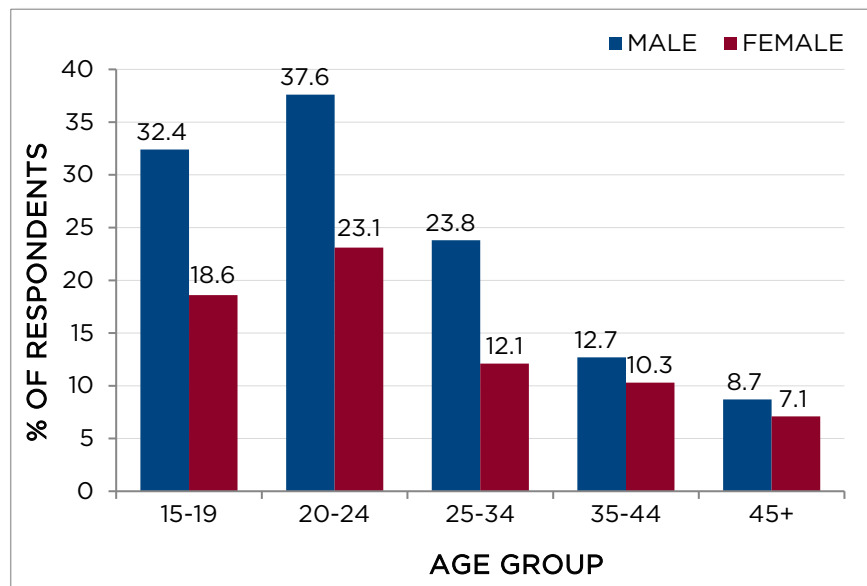
NOTE: AGE GROUPS 25-34 AND 35-44 COMBINED DUE TO LOW NUMBERS IN 2013
DATA SOURCE: CTADS, 2013, 2015

Prevalence by Sex and Age Group

Ever Use

Prevalence of ever use of e-cigarettes was significantly higher among male youth, young adults, and adults aged 25-34,¹³¹⁻¹³³ but was not significantly different between males and females in the older age groups^{134,135} (Figure 12.6).

FIGURE 12.6: PREVALENCE OF EVER USE OF E-CIGARETTES AMONG CANADIANS AGE 15+, BY AGE GROUP AND SEX, 2015

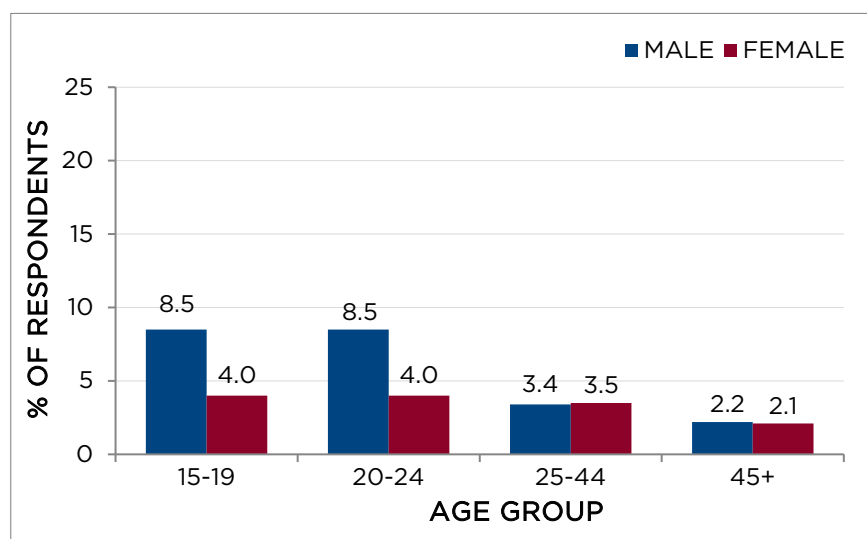


DATA SOURCE: CTADS, 2015

Past 30-day Use

While prevalence of e-cigarette use in the past 30 days was much lower than ever use, similar patterns were observed: past 30-day use was higher among male youth and young adults,^{136,137} but there were no significant sex differences among older age groups^{138,139} (Figure 12.7).

FIGURE 12.7: PREVALENCE OF PAST 30-DAY USE OF E-CIGARETTES, AMONG CANADIANS AGE 15+, BY AGE GROUP AND SEX, 2015

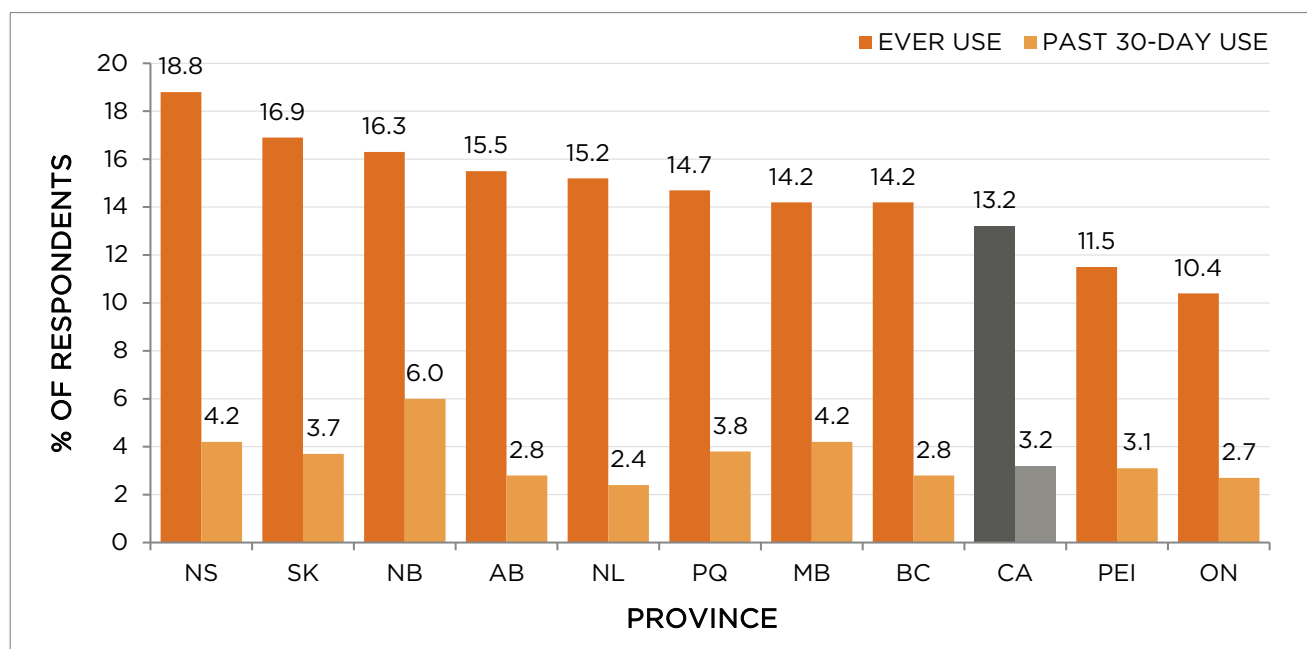


NOTE: AGE GROUPS 25-34 AND 35-44 COMBINED DUE TO LOW NUMBERS IN 2013
DATA SOURCE: CTADS, 2015

Prevalence by Province

As shown in Figure 12.8, there was significant variation in ever use of e-cigarettes by province,¹⁴⁰ ranging from a low of 10.4% in Ontario to a high of 18.8% in Nova Scotia. Use of e-cigarettes in the past 30 days also varied significantly by province, ranging from 2.4% in Newfoundland & Labrador to 6.0% in New Brunswick.¹⁴¹

FIGURE 12.8: PREVALENCE OF EVER USE AND PAST 30-DAY USE OF E-CIGARETTES AMONG CANADIANS AGE 15+, BY PROVINCE, 2015



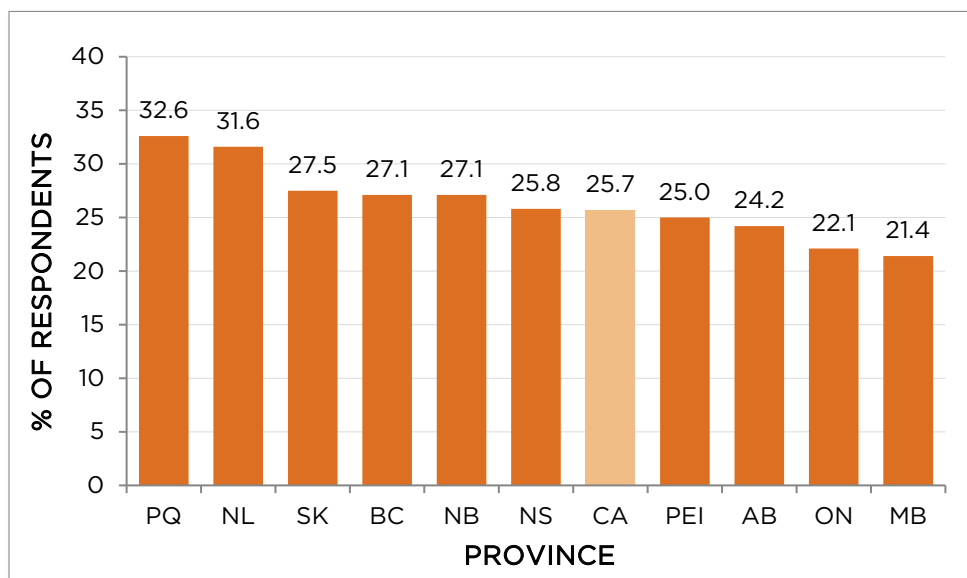
DATA SOURCE: CTADS, 2015

Youth aged 15-19

There is a great deal of concern about youth uptake of e-cigarettes, with many provinces introducing age restrictions on sales of e-cigarettes to minors (including British Columbia, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, Newfoundland & Labrador, and PEI).^{xvii}

Among youth aged 15-19, although prevalence estimates for ever using e-cigarettes varied by province, this difference was not statistically significant¹⁴² (Figure 12.9).

FIGURE 12.9: PREVALENCE OF EVER USE OF E-CIGARETTES AMONG YOUTH AGED 15-19, BY PROVINCE, 2015



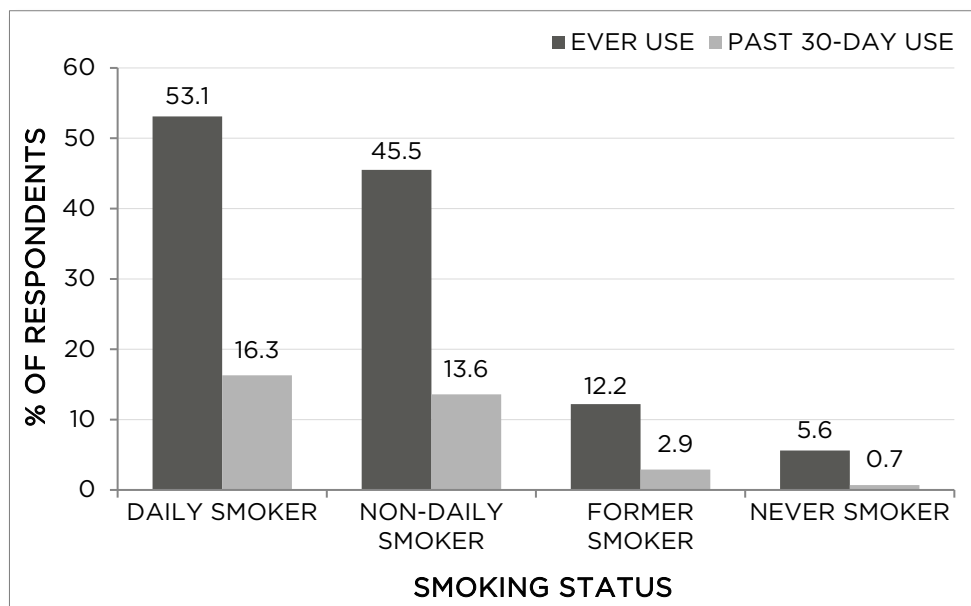
DATA SOURCE: CTADS, 2015

Prevalence by Smoking Status

As shown in Figure 12.10, prevalence of e-cigarette use varied greatly by smoking status, both for ever use¹⁴³ and past 30-day use.¹⁴⁴

Half (51.0%) of current smokers (including daily and non-daily smokers) had ever used e-cigarettes, compared to 7.6% of non-smokers (including former and never smokers). Similarly, past 30-day use was 15.5% among current smokers and just 1.4% among non-smokers.

FIGURE 12.10: EVER USE AND PAST 30-DAY USE OF E-CIGARETTES BY SMOKING STATUS AMONG CANADIANS AGE 15+, 2015



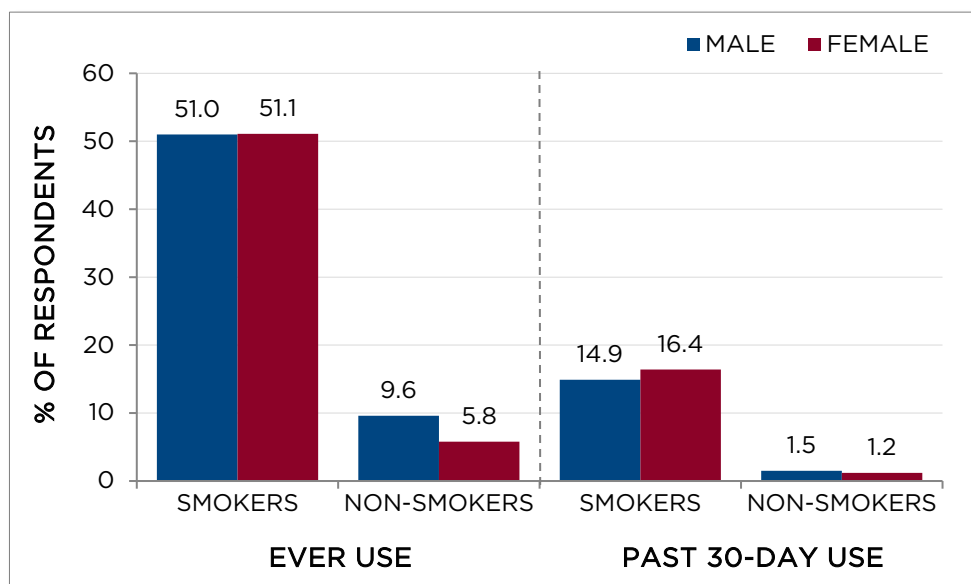
DAILY SMOKER: RESPONDED "EVERY DAY" TO "AT THE PRESENT TIME DO YOU SMOKE CIGARETTES EVERY DAY, OCCASIONALLY OR NOT AT ALL?"; **NON-DAILY SMOKER:** RESPONDED "OCCASIONALLY" TO "AT THE PRESENT TIME DO YOU SMOKE CIGARETTES EVERY DAY, OCCASIONALLY OR NOT AT ALL?"; **FORMER SMOKER:** SMOKED "NOT AT ALL" AT THE TIME OF THE SURVEY, BUT HAD SMOKED 100+ CIGARETTES IN LIFETIME
DATA SOURCE: CTADS, 2015

Prevalence by sex, among smokers and non-smokers

As shown in Figure 12.11, prevalence of using e-cigarettes was similar among male and female smokers for both ever use and past 30-day use.^{145,146}

Among non-smokers, ever-use of e-cigarettes was significantly more prevalent among males,¹⁴⁷ but past 30-day use did not differ significantly by sex.¹⁴⁸

FIGURE 12.11: EVER USE AND PAST 30-DAY USE OF E-CIGARETTES AMONG CANADIANS AGE 15+, BY SEX AND SMOKING STATUS, 2015

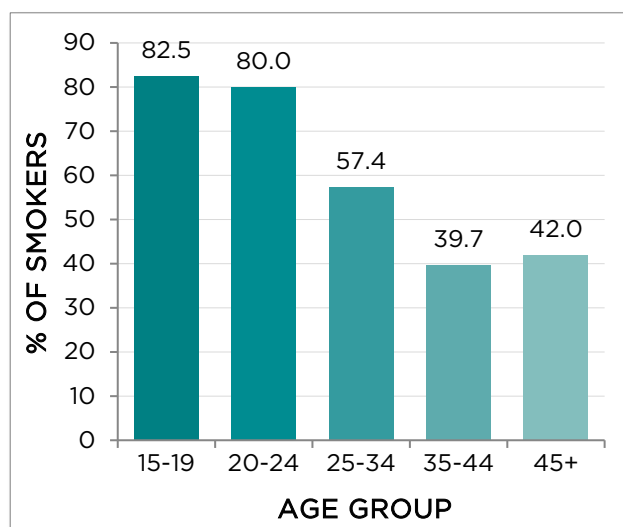


DATA SOURCE: CTADS, 2015

Prevalence by age group, among smokers and non-smokers

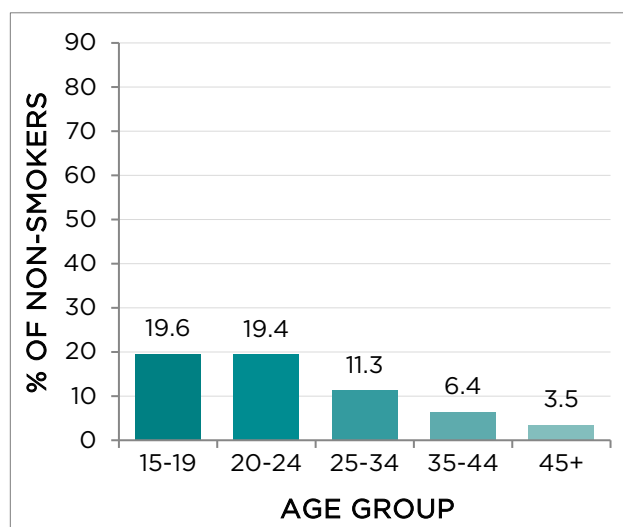
While there were large differences between smokers and non-smokers in ever use of e-cigarettes, the same pattern of high use among youth and young adults, declining with age, was observed in both groups (Figure 12.12, Figure 12.13).^{149,150}

FIGURE 12.12: EVER USE OF E-CIGARETTES BY AGE GROUP AMONG SMOKERS, 2015



DATA SOURCE: CTADS, 2015

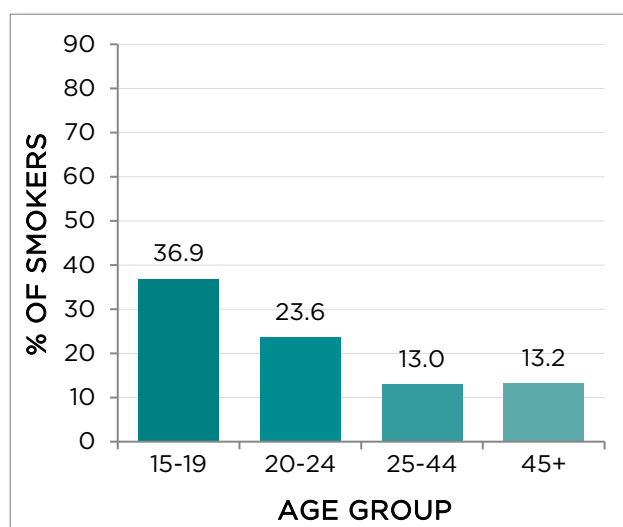
FIGURE 12.13: EVER USE OF E-CIGARETTES BY AGE GROUP AMONG NON-SMOKERS, 2015



DATA SOURCE: CTADS, 2015

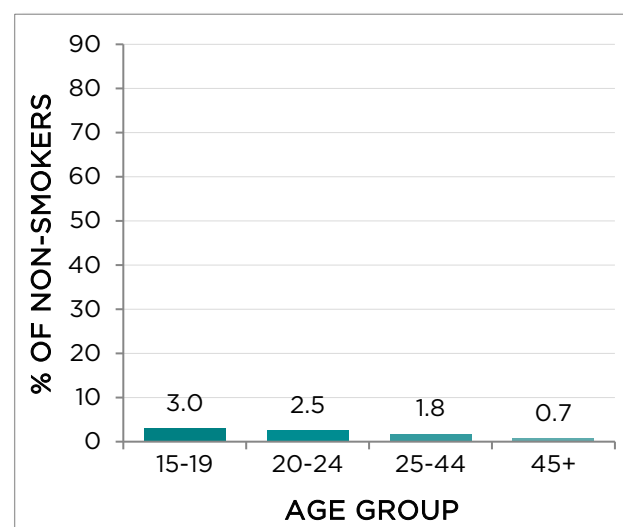
Use of e-cigarettes in the past 30 days also varied by smoking status and age group,^{151,152} again with much higher use observed among smokers than non-smokers and similar patterns by age group, although at much lower prevalence levels than for ever use (Figure 12.14, Figure 12.15).

FIGURE 12.14: PAST 30-DAY USE OF E-CIGARETTES BY AGE GROUP AMONG SMOKERS, 2015



DATA SOURCE: CTADS, 2015

FIGURE 12.15: PAST 30-DAY USE OF E-CIGARETTES BY AGE GROUP AMONG NON-SMOKERS, 2015

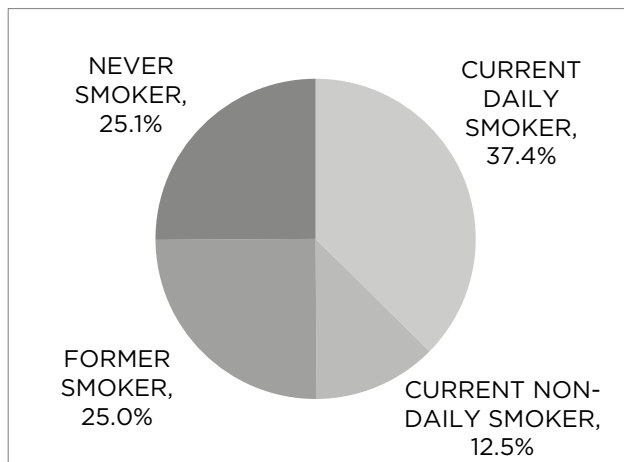


DATA SOURCE: CTADS, 2015

12.2 SMOKING STATUS OF E-CIGARETTE USERS

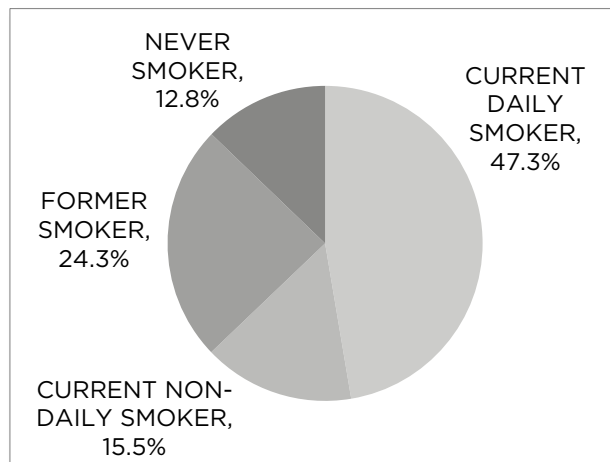
Half (49.9%) of ever users and a majority (62.8%) of past 30-day users of e-cigarettes were current smokers, suggesting that dual use of cigarettes and e-cigarettes is high. One-quarter of ever and recent (past 30 day) e-cigarette users were former smokers. One-quarter of ever users and 12.8% of recent users of e-cigarettes had never been a smoker, indicating some interest among non-smokers (Figure 12.16; Figure 12.17). There were no differences between males and females in the percentages of ever or past 30-day users who were smokers (49.4% vs. 50.5% and 64.6% vs. 60.6%, respectively).^{153,154}

FIGURE 12.16: SMOKING STATUS OF EVER USERS OF E-CIGARETTES, 2015



DATA SOURCE: CTADS, 2015

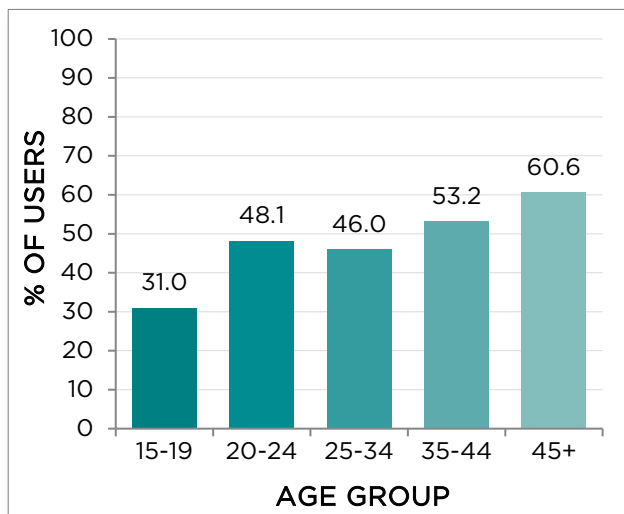
FIGURE 12.17: SMOKING STATUS OF PAST 30-DAY USERS OF E-CIGARETTES, 2015



DATA SOURCE: CTADS, 2015

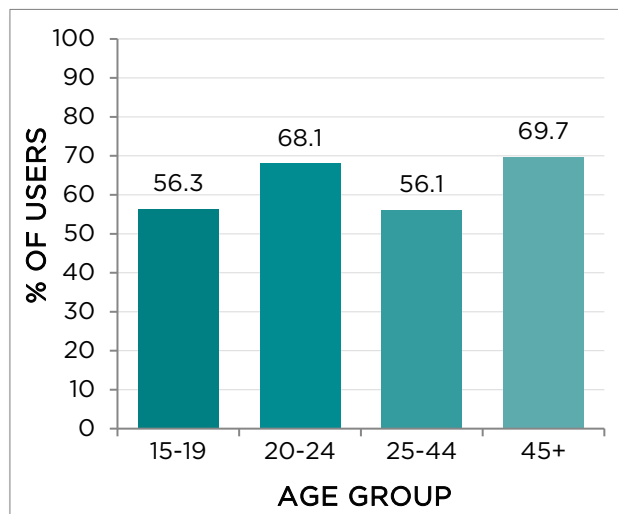
The percentage of ever e-cigarette users who were current smokers varied significantly by age,¹⁵⁵ and was lowest among youth age 15-19 (Figure 12.18). No significant age difference was observed for past 30-day users¹⁵⁶ (Figure 12.19). Never smokers comprised the majority (64.2%) of youth ever users and 38.2% of past 30-day e-cigarette users; among young adults, never smokers comprised 36.1% and 20.1% of ever and recent users, respectively. E-cigarette use among never smokers over age 35 was rare.

FIGURE 12.18: PERCENTAGE OF EVER E-CIGARETTE USERS WHO WERE CURRENT SMOKERS*, BY AGE GROUP, 2015



*INCLUDES DAILY AND NON-DAILY SMOKERS
DATA SOURCE: CTADS, 2015

FIGURE 12.19: PERCENTAGE OF PAST 30-DAY E-CIGARETTE USERS WHO WERE CURRENT SMOKERS*, BY AGE GROUP, 2015

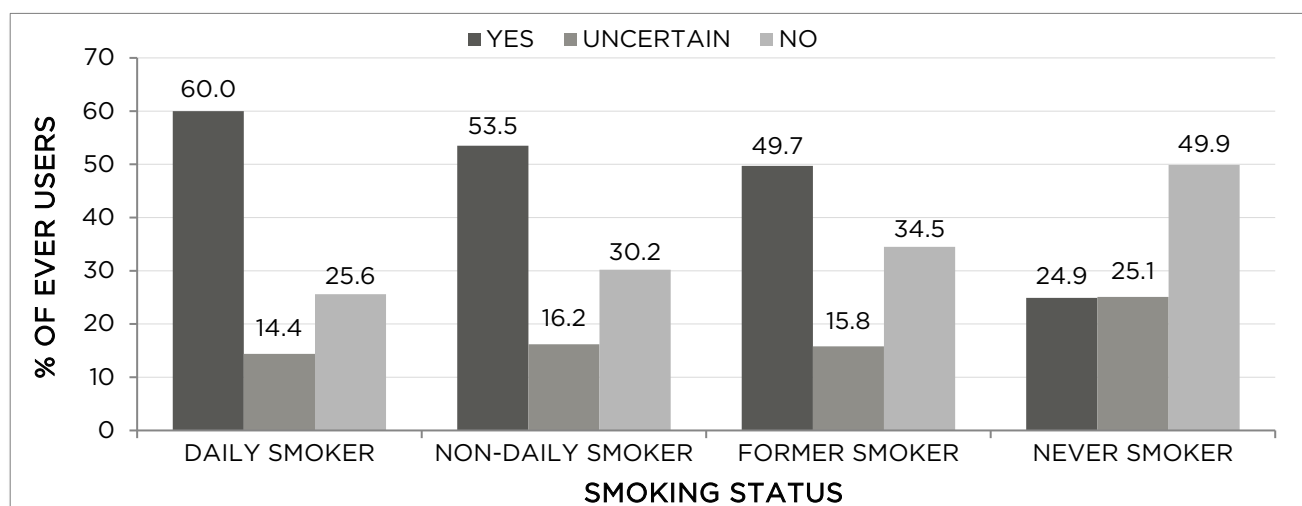


*INCLUDES DAILY AND NON-DAILY SMOKERS
NOTE: AGES 25-34 AND 35-44 WERE COMBINED DUE TO LOW NUMBERS
DATA SOURCE: CTADS, 2015

12.3 NICOTINE IN E-CIGARETTES

When ever-users of e-cigarettes were asked whether the last one they used contained nicotine, nearly half (47.8%) said it did, despite nicotine-containing e-cigarettes not being approved for sale in Canada.^{xviii} This represented a significant increase from 2013,¹⁵⁷ when 26.4% of users reported that their last e-cigarette contained nicotine. One-third (34.5%) said the last e-cigarette they used did not contain nicotine. Nearly one in five users (17.7%) did not know whether their last e-cigarette contained nicotine, highlighting the importance of clear product labelling. Use of nicotine-containing e-cigarettes varied by significantly by smoking status¹⁵⁸ (Figure 12.20); more than half of current smokers used e-cigarettes containing nicotine, as well as half of former smokers, compared to one-quarter of never smokers.

FIGURE 12.20: RESPONSES TO “THE LAST TIME YOU USED AN E-CIGARETTE, DID IT CONTAIN NICOTINE?” AMONG EVER USERS OF E-CIGARETTES, BY SMOKING STATUS, 2015



DAILY SMOKER: RESPONDED “EVERY DAY” TO “AT THE PRESENT TIME DO YOU SMOKE CIGARETTES EVERY DAY, OCCASIONALLY OR NOT AT ALL?”

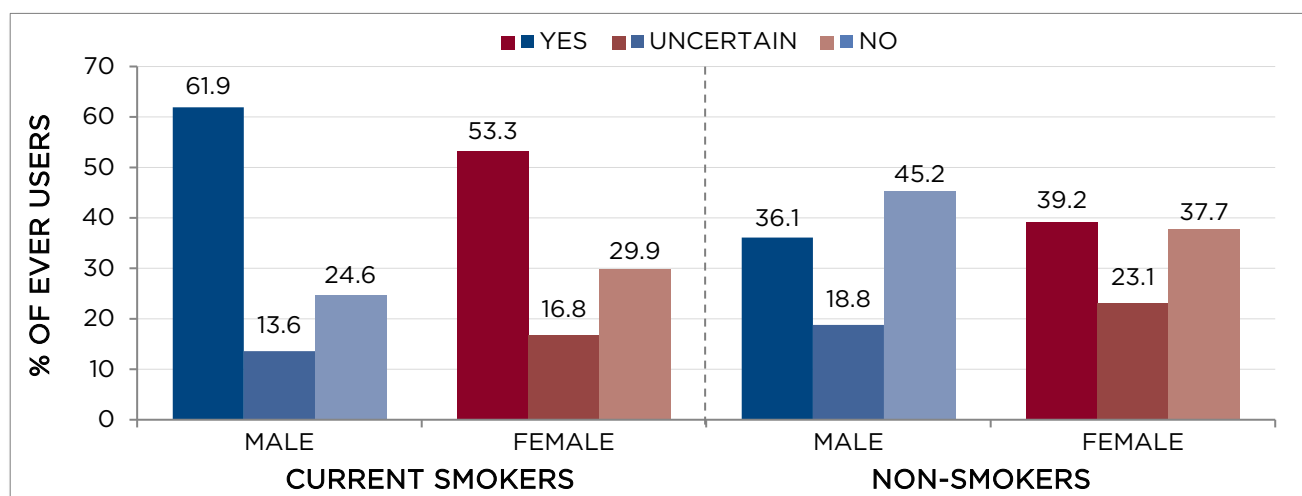
NON-DAILY SMOKER: RESPONDED “OCCASIONALLY” TO “AT THE PRESENT TIME DO YOU SMOKE CIGARETTES EVERY DAY, OCCASIONALLY OR NOT AT ALL?”

FORMER SMOKER: SMOKED “NOT AT ALL” AT THE TIME OF THE SURVEY, BUT HAD SMOKED 100+ CIGARETTES IN LIFETIME

DATA SOURCE: CTADS, 2015

As shown in Figure 12.21, it appears that more male smokers used e-cigarettes containing nicotine, while slightly more female non-smokers used e-cigarettes with nicotine; however, neither difference was statistically significant.^{159,160}

FIGURE 12.21: RESPONSES TO “THE LAST TIME YOU USED AN E-CIGARETTE, DID IT CONTAIN NICOTINE?” AMONG EVER USERS OF E-CIGARETTES, 2015



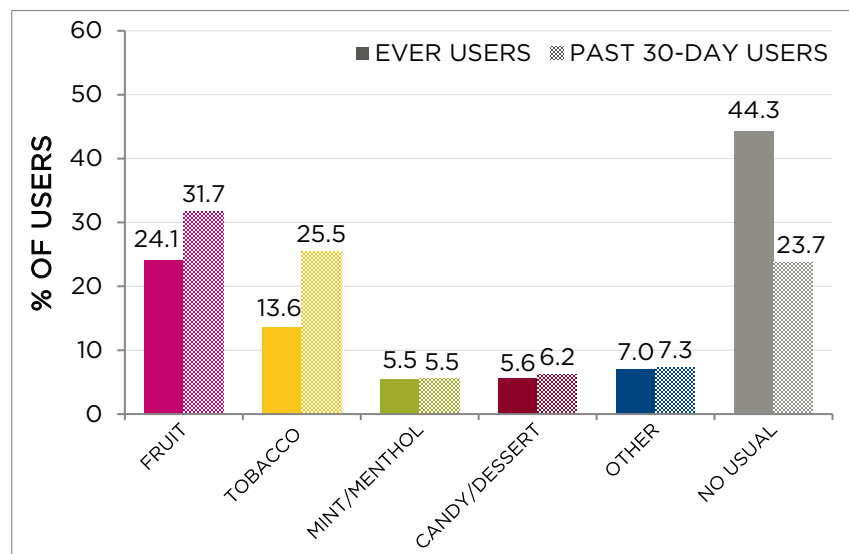
DATA SOURCE: CTADS, 2015

12.4 FLAVOURS IN E-CIGARETTES

E-cigarettes and e-liquids are manufactured in a variety of flavours. When those who had ever used e-cigarettes were asked about their usual flavour of e-cigarette, 44.3% reported that they had no usual flavour; this figure dropped to 23.7% among those who had used an e-cigarette in the past 30 days. Fruit and tobacco were the most popular usual flavours among both ever and past 30-day users (Figure 12.22).

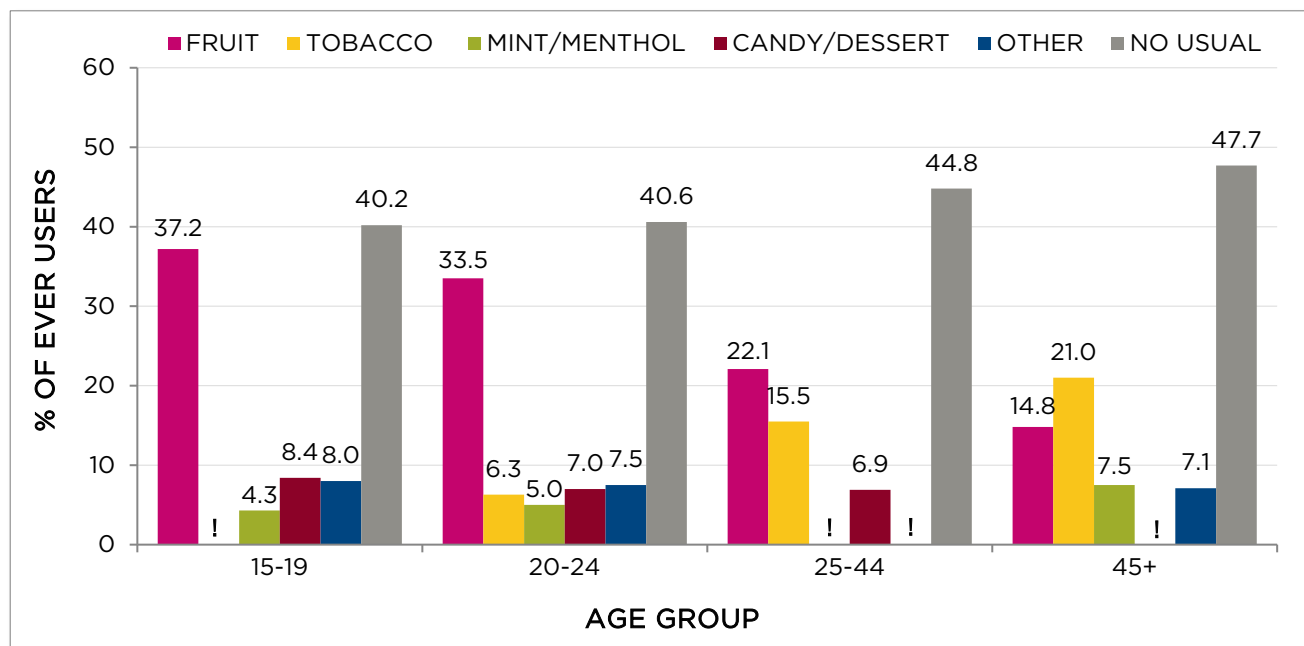
Usual flavours were similar by sex (*data not shown*). However, they appeared to vary by age (Figure 12.23), with fruit flavours most popular among younger users, and tobacco flavour most popular among older users.

FIGURE 12.22: USUAL E-CIGARETTE FLAVOURS AMONG EVER AND PAST 30-DAY USERS OF E-CIGARETTES, 2015



DATA SOURCE: CTADS, 2015

FIGURE 12.23: USUAL E-CIGARETTE FLAVOURS AMONG EVER USERS OF E-CIGARETTES, BY AGE GROUP, 2015



! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY (FOR AGE 15-19 TOBACCO FLAVOUR, AGE 25-44 MINT/MENTHOL FLAVOUR AND OTHER FLAVOURS, AND AGE 45+ CANDY/DESSERT FLAVOURS)

DATA SOURCE: CTADS, 2015

Considering the smoking status of e-cigarette users, tobacco was the usual flavour for 22.4% of current daily smokers, 7.1% of non-daily smokers, and 16.4% of former smokers, but too few never smokers to report an estimate. Only one-third (33.5%) of smokers did not have a usual flavour, compared to around half of other groups (49.9% of non-daily smokers, 47.7% of former smokers, and 54.1% of never smokers).

12.5 REASONS FOR USE OF E-CIGARETTES

USE AS A SMOKING CESSATION AID

Ever-users of e-cigarettes who were either recent (past year) quitters or current smokers who had ever tried to quit, were asked “*In the past two years, did you ever use the e-cigarette as an aid while attempting to quit smoking?*”; half (50.1%) reported doing so.

Use of e-cigarettes as a smoking cessation aid was reported by nearly equal proportions of males (50.1%) and females (49.7%).¹⁶¹ Use as a cessation aid also did not differ significantly by age group,¹⁶² although it appeared to be less prevalent among youth than among adults over age 20 (Figure 12.24).

When considering all those who had ever used an e-cigarette (of any smoking status), 22.8% reported using it as a quit aid within the past 2 years (22.3% of males; 23.6% of females).

More than three-quarters (76.6%) of smokers who had used e-cigarettes in the past 30 days were intending to quit smoking in the next 6 months, significantly greater than the 63.6% of smokers who had NOT used e-cigarettes.¹⁶³ Intentions to quit smoking in the next 30 days were similar between past 30-day users (29.5%) and non-users (31.3%) of e-cigarettes.¹⁶⁴

USE TO REPLACE CIGARETTES

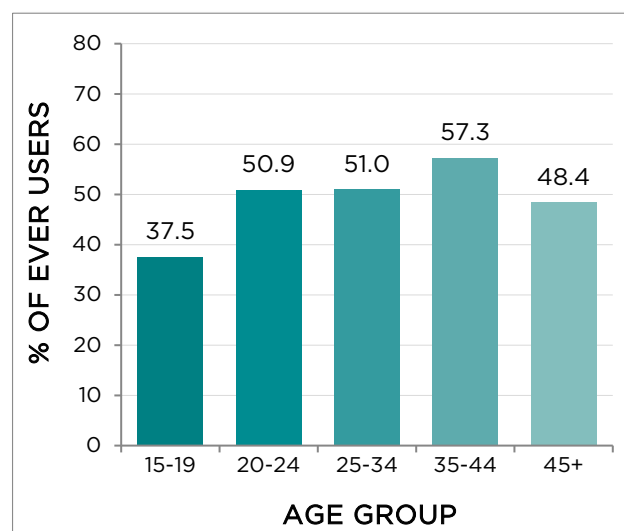
Current smokers were asked the following: “*Sometimes smokers use e-cigarettes even when they are not attempting to quit smoking. Have you ever used e-cigarettes when you were not able to smoke or when you wanted to smoke fewer cigarettes? (For example, in a meeting, on a plane, at school?)*”.

Overall, approximately one-third (35.2%) of e-cigarette ever-users who were also cigarette smokers reported using an e-cigarette when they were unable to smoke, or to smoke fewer cigarettes.

This type of use was reported by 37.7% of males and 31.6% of females, not significantly different.¹⁶⁵ As well, there was no significant variation by age group in this type of use¹⁶⁶ (Figure 12.25).

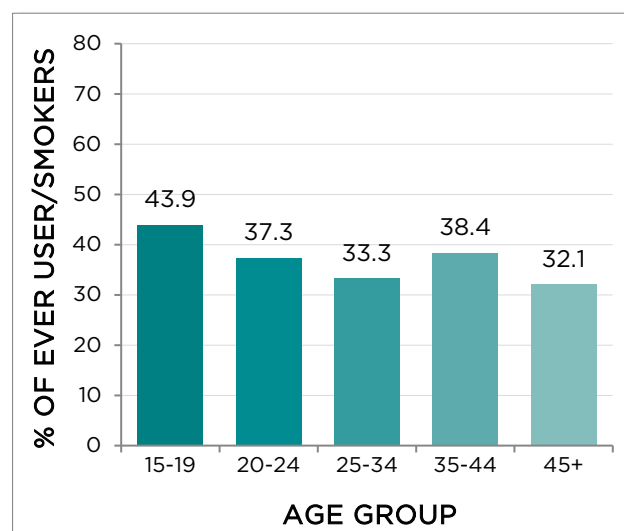
When all current smokers were considered, 17.7% reported ever using an e-cigarette to replace cigarettes (19.0% of males; 15.9% of females).

FIGURE 12.24: USE OF E-CIGARETTES AS A SMOKING CESSATION AID, AMONG EVER USERS WHO WERE EITHER RECENT QUITTERS OR SMOKERS WHO HAD TRIED TO QUIT, BY AGE GROUP, 2015



DATA SOURCE: CTADS, 2015

FIGURE 12.25: USE OF E-CIGARETTES TO REPLACE CIGARETTES, AMONG EVER USERS WHO WERE CURRENT SMOKERS, BY AGE GROUP, 2015



DATA SOURCE: CTADS, 2015

13. E-CIGARETTE USE AMONG STUDENTS IN GRADES 6-9

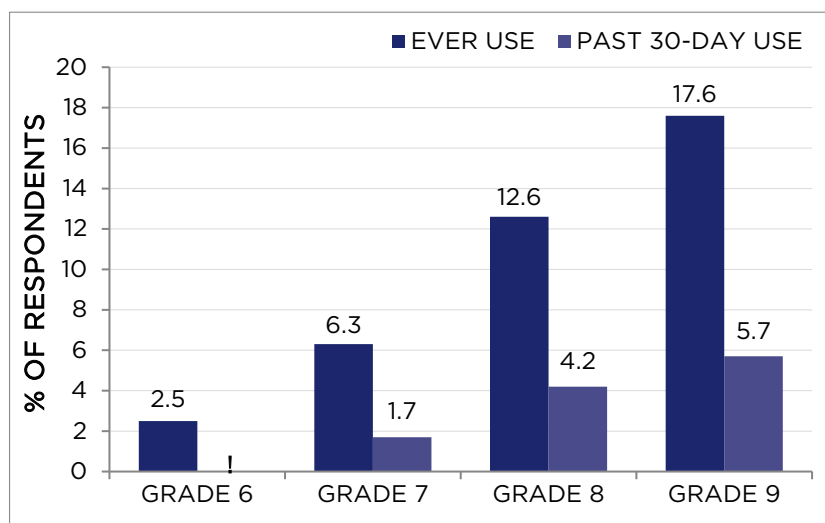
13.1 PREVALENCE OF E-CIGARETTE USE

The Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) included questions about e-cigarettes for the first time in 2014-15. One in ten Canadian students in grades 6-9 (10.1%) reported having ever tried an e-cigarette, while 3.2% had used an e-cigarette in the past 30 days.

E-cigarette use differed significantly by grade,^{167,168} increasing with each grade level, as shown in Figure 13.1.

Ever use of e-cigarettes was significantly more prevalent among males (11.5%) than females (8.6%), as was past 30-day use (3.7% among males and 2.6% among females).^{169,170}

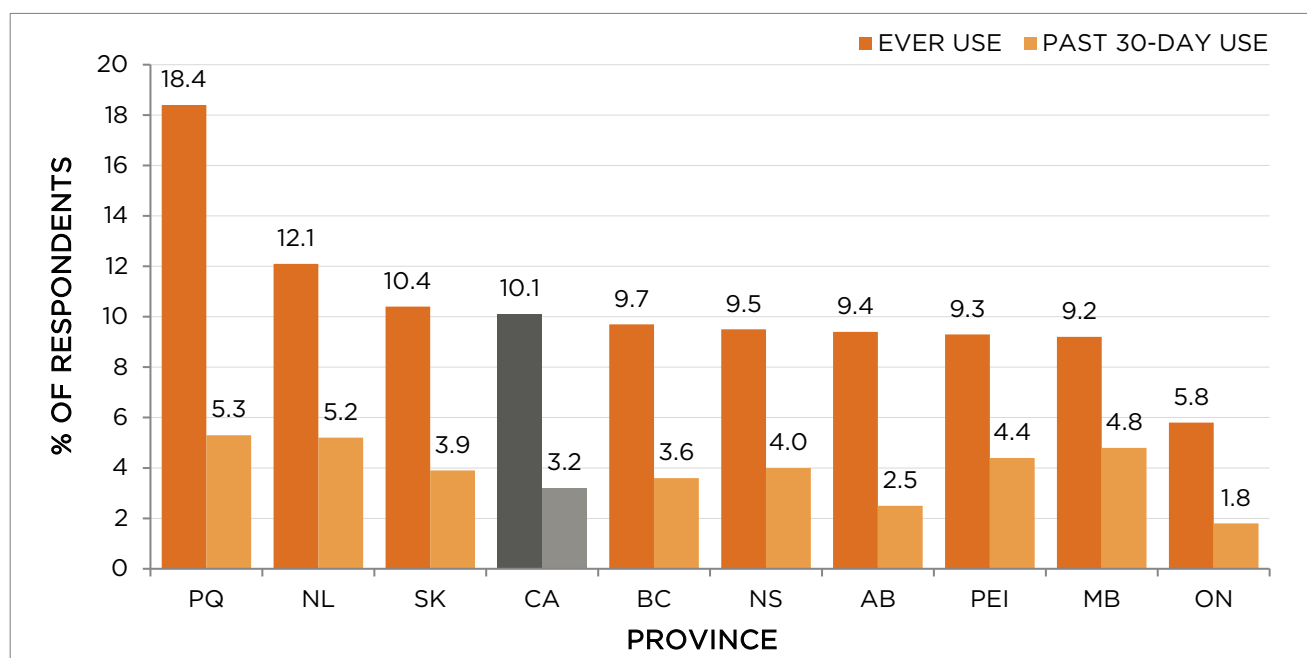
FIGURE 13.1: EVER USE AND PAST 30-DAY USE OF E-CIGARETTES, BY GRADE, 2014-15



! ESTIMATE SUPPRESSED DUE TO UNACCEPTABLE QUALITY
DATA SOURCES: CSTADS, 2014-15

Prevalence of trying e-cigarettes among students in grades 6-9 varied significantly by province, from 5.8% in Ontario to 18.4% in Quebec (Figure 13.2).¹⁷¹ Past 30-day use also varied significantly by province.¹⁷²

FIGURE 13.2: EVER USE AND PAST 30-DAY USE OF E-CIGARETTES, BY PROVINCE*, GRADES 6-9, 2014-15



*PROVINCIAL ESTIMATE FOR NEW BRUNSWICK NOT REPORTED BECAUSE CSTADS DID NOT ACHIEVE A GENERALIZABLE SAMPLE OF NB STUDENTS IN 2014-15
DATA SOURCE: CSTADS, 2014-15

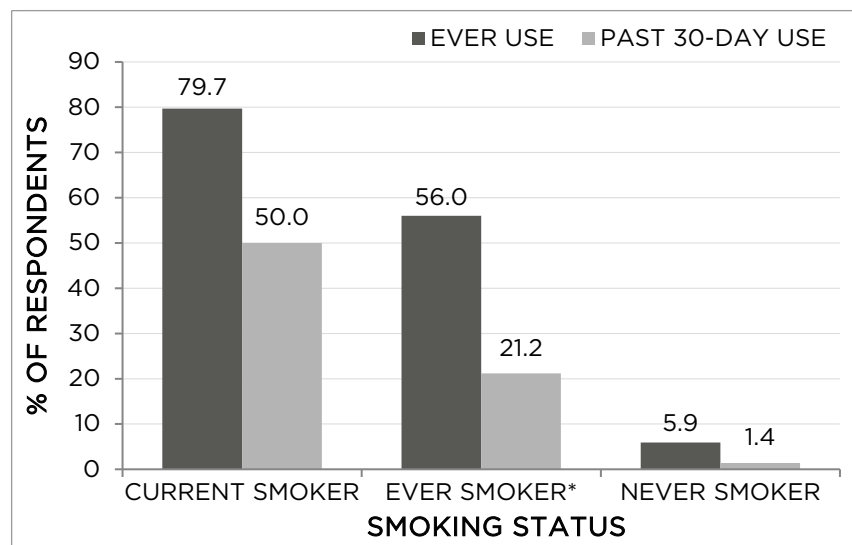
E-cigarette Use by Smoking Status

Among students in grades 6-9, e-cigarette use (ever and in the past 30 days) varied significantly by smoking status (Figure 13.3).^{173,174}

Eight out of ten current smokers had ever tried e-cigarettes, compared to one in ten non-smokers (9.5%). Half of current smokers had used e-cigarettes in the past 30 days, compared to just 2.8% of non-smokers.

When asked, “Which did you try first: smoking a cigarette or an e-cigarette (electronic cigarette)?”, 35.4% of students who had used both reported using e-cigarettes first.

FIGURE 13.3: EVER USE AND PAST 30-DAY USE OF E-CIGARETTES BY SMOKING STATUS, GRADES 6-9, 2014-15



*EVER SMOKER INCLUDES PUFFERS, EXPERIMENTERS, PAST EXPERIMENTERS, AND FORMER SMOKERS, AND EXCLUDES CURRENT SMOKERS (DAILY AND NON-DAILY).
DATA SOURCE: CSTADS, 2014-15

13.2 BELIEFS ABOUT E-CIGARETTES

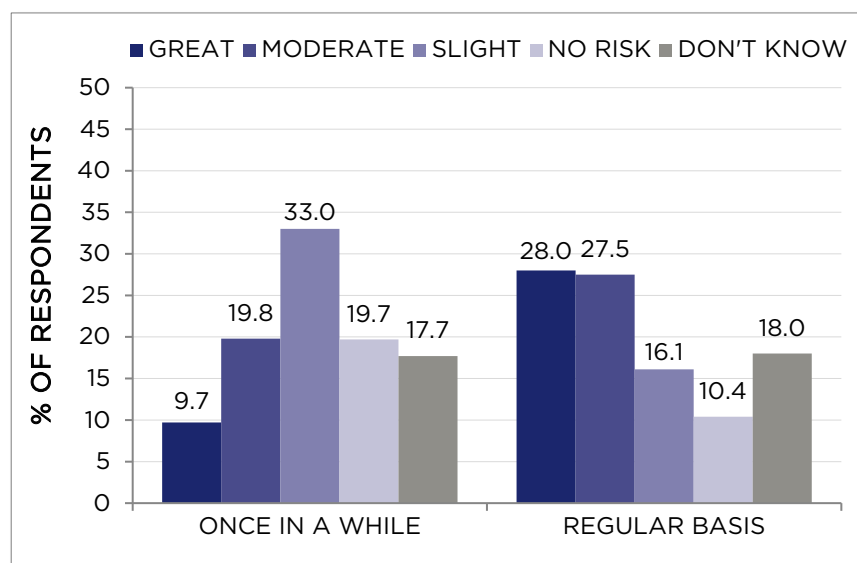
Students were asked, “How difficult or easy do you think it would be for you to get each of the following types of substances, if you wanted some?” For e-cigarettes, 31.9% of students in grades 6-9 thought that it would be “fairly easy” or “very easy”, while 43.2% thought it would be “fairly” or “very difficult”, and 24.9% did not know. However, perceived access varied significantly by e-cigarette use status:¹⁷⁵ 79.8% of users thought it would be “fairly easy” or “very easy,” compared to 26.5% of never-users of e-cigarettes.

Perceived risk was assessed by asking “How much do you think people risk harming themselves when they do each of the following activities?” for “Use an e-cigarette once in a while” and “Use an e-cigarette on a regular basis” (Figure 13.4).

Overall, the majority of students in grades 6-9 perceived “no risk” or “slight” risk of using e-cigarettes “once in a while”, but “moderate” or “great” risk of regular use.

Significantly more e-cigarette users perceived “no risk” of using e-cigarettes once in a while (53.4%) or on a regular basis (29.3%), compared to never users (15.9% and 8.2%, respectively).^{176,177}

FIGURE 13.4: PERCEIVED RISK OF E-CIGARETTE USE, ON A REGULAR BASIS AND ONCE IN A WHILE, GRADES 6-9, 2014-15



DATA SOURCE: CSTADS, 2014-15

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.

E-cigarette use has been defined as follows:

- **Ever e-cigarette use:** "yes" to "Have you ever tried an electronic cigarette, also known as an e-cigarette."
- **Past 30-day e-cigarette use:** responded "yes" to "In the past 30 days did you use an electronic cigarette, also known as an e-cigarette?" OR "every day" to "At the present time, do you use an electronic cigarette, also known as an e-cigarette every day, occasionally or not at all?"
- **Daily e-cigarette use:** responded "every day" to the question "At the present time, do you use an electronic cigarette, also known as an e-cigarette every day, occasionally or not at all?" OR "yes" to "During the past 30 days, did you use an electronic cigarette, also known as an e-cigarette every day?"

CSTADS/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.

Ever e-cigarette use: responded "yes" to the item "Using e-cigarettes (electronic cigarettes)" when asked, "Have you ever tried any of the following?"

Past 30-day e-cigarette use: responded "yes" to the item "E-cigarettes (electronic cigarettes)" when asked, "In the last 30 days, did you use any of the following?"

INDEX OF STATISTICAL TESTS

^WWald test used to compute the p-value

^FF test used to compute the p-value

^ZZ test used to compute the p-value (for differences between 2013 and 2015 CTADS)

^RRegression of the log of the outcome variable on time

¹Difference in overall smoking prevalence between 2013 and 2015: $p=0.04^Z$

²Difference in daily smoking prevalence between 2013 and 2015: $p=0.04^Z$

³Difference in non-daily smoking prevalence between 2013 and 2015: $p=0.70^Z$

⁴Overall effect of time (1999-2015) on smoking prevalence: $p<0.0001^F$

⁵Overall annual rate of decline in prevalence, 1999-2015=3.5%; relationship of log prevalence & time: $p<0.0001^R$

⁶Difference in overall smoking prevalence between males and females in 2015: $p<0.0001^W$

⁷Difference in daily smoking prevalence between males and females in 2015: $p=0.001^W$

⁸Difference in non-daily smoking prevalence between males and females in 2015: $p<0.0001^W$

⁹Difference in current smoking prevalence among females between 2013 and 2015: $p=0.004^Z$

¹⁰Difference in current smoking prevalence among males between 2013 and 2015: $p=0.75^Z$

¹¹Difference in current smoking prevalence between age groups in 2015: $p<0.0001^W$

¹²Difference in consumption between 2013 and 2015: $p=0.78^Z$

¹³Overall effect of time (1999-2015) on consumption: $p<0.0001^F$

¹⁴Overall annual rate of decline in consumption, 1999-2015=1.3%; relationship of log CPD & time: $p<0.0001^R$

¹⁵Difference in consumption between males and females in 2015: $p=0.0002^W$

¹⁶Difference in consumption among males between 2013 and 2015: $p=0.92^Z$

¹⁷Difference in consumption among females between 2013 and 2015: $p=0.42^Z$

¹⁸Difference in consumption between age groups in 2015: $p=0.01^W$

¹⁹Difference in self-rated health (excellent/very good vs. other) by smoking status in 2015: $p<0.0001^W$

²⁰Difference in (excellent/very good) self-rated health by smoking status, age 15-19, in 2015: $p<0.0001^W$

²¹Difference in (excellent/very good) self-rated health by smoking status, age 20-24, in 2015: $p<0.0001^W$

²²Difference in (excellent/very good) self-rated health by smoking status, age 25-34, in 2015: $p=0.04^W$

²³Difference in (excellent/very good) self-rated health by smoking status, age 35-44, in 2015: $p=0.01^W$

²⁴Difference in (excellent/very good) self-rated health by smoking status, age 45+, in 2015: $p<0.0001^W$

²⁵Difference in self-rated mental health (excellent/very good vs. other) by smoking status in 2015: $p<0.0001^W$

²⁶Difference in (excellent/very good) self-rated mental health by smoking status, age 15-19, in 2015: $p=0.048^W$

²⁷Difference in (excellent/very good) self-rated mental health by smoking status, age 20-24, in 2015: $p=0.02^W$

²⁸Difference in (excellent/very good) self-rated mental health by smoking status, age 25-34, in 2015: $p=0.006^W$

²⁹Difference in (excellent/very good) self-rated mental health by smoking status, age 35-44, in 2015: $p=0.03^W$

³⁰Difference in (excellent/very good) self-rated mental health by smoking status, age 45+, in 2015: $p=0.005^W$

³¹Difference in smoking prevalence between provinces in 2015: $p<0.0001^W$

³²Difference in consumption between provinces in 2015: $p=0.001^W$

³³Difference in cigar use between males and females in 2015: $p<0.0001^W$

³⁴Difference in cigarillo use between males and females in 2015: $p<0.0001^W$

³⁵Difference in pipe use between males and females in 2015: $p=0.007^W$

³⁶Difference in chewing tobacco/snuff use between males and females in 2015: $p<0.0001^W$

³⁷Difference in waterpipe use between males and females in 2015: $p=0.04^W$

³⁸Difference in cigarillo use between (4) age groups in 2015: $p<0.0001^W$

³⁹Difference in pipe use between (2) age groups in 2015: $p=0.0006^W$

⁴⁰Difference in chewing tobacco/snuff use between (3) age groups in 2015: $p<0.0001^W$

⁴¹Difference in waterpipe use between (3) age groups in 2015: $p<0.0001^W$

⁴²Difference in cigar use between (4) age groups in 2015: $p=0.07^W$

⁴³Difference in cigar/cigarillo use between provinces in 2015: $p=0.045^W$

⁴⁴Difference in any SHS exposure in past month between males and females in 2015: $p<0.0001^W$

⁴⁵Difference in any SHS exposure in past month between age groups in 2015: $p<0.0001^W$

⁴⁶Difference in any SHS exposure in past month by smoking status in 2015: $p<0.0001^W$

⁴⁷Difference in quitter percentage between males and females in 2015: $p=0.054^W$

⁴⁸Difference in ever smoking between males and females in 2015: $p<0.0001^W$

⁴⁹Difference in current smoking between males and females in 2015: $p<0.0001^W$

⁵⁰Difference in quitter percentage between age groups in 2015: $p<0.0001^W$

⁵¹Difference in 6-month quit intentions between 2013 and 2015: $p=0.65^Z$

⁵²Difference in 30-day quit intentions between 2013 and 2015: $p=0.99^Z$

- ⁵³Difference in 6-month quit intentions between males and females in 2015: $p=0.41^W$
- ⁵⁴Difference in 30-day quit intentions between males and females in 2015: $p=0.43^W$
- ⁵⁵Difference in 30-day quit intentions between age groups in 2015: $p=0.045^W$
- ⁵⁶Difference in 6-month quit intentions between age groups in 2015: $p=0.28^W$
- ⁵⁷Difference in having made a quit attempt in the past year between 2013 and 2015: $p=0.37^Z$
- ⁵⁸Difference in having made a quit attempt in the past year between males and females in 2015: $p=0.07^W$
- ⁵⁹Difference in having made a quit attempt in the past year between age groups in 2015: $p=0.01^W$
- ⁶⁰Difference in quit success (among past-year attempters) between 2013 and 2015: $p=0.43^Z$
- ⁶¹Difference in quit success (among past-year attempters) between males and females in 2015: $p=0.03^W$
- ⁶²Difference in quit success (among past-year attempters) between (3) age groups in 2015: $p=0.46^W$
- ⁶³Difference in use of telephone helpline (among current smokers who had tried to quit in the past year and former smokers who had quit in the past 2 years) between 2013 and 2015: $p=0.47^Z$
- ⁶⁴Difference in citing health as the main reason for quitting between males and females in 2015: $p=0.10^W$
- ⁶⁵Difference in citing health as the main reason for quitting between (3) age groups in 2015: $p=0.78^W$
- ⁶⁶Difference in ever trying a cigarette between males and females in 2014-15, grades 6-9: $p=0.37^W$
- ⁶⁷Difference in ever trying a cigarette between 2012-13 and 2014-15, grades 6-9: $p<0.0001^W$
- ⁶⁸Difference in ever trying a cigarette between provinces in 2014-15, grades 6-9: $p<0.0001^W$
- ⁶⁹Difference in ever smoking a whole cigarette between 2013 and 2015, age 15-19: $p=0.26^Z$
- ⁷⁰Difference in ever smoking a whole cigarette between males and females in 2015, age 15-19: $p=0.16^W$
- ⁷¹Difference in susceptibility between 2012-13 and 2014-15, grades 6-9: $p=0.94^W$
- ⁷²Difference in susceptibility between males and females in 2014-15, grades 6-9: $p=0.08^W$
- ⁷³Difference in susceptibility between provinces in 2014-15, grades 6-9: $p=0.03^W$
- ⁷⁴Difference in smoking prevalence between 2012-13 and 2014-15, grades 6-9: $p=0.048^W$
- ⁷⁵Difference in non-daily smoking prevalence between 2012-13 and 2014-15, grades 6-9: $p=0.048^W$
- ⁷⁶Difference in daily smoking prevalence between 2012-13 and 2014-15, grades 6-9: $p=0.07^W$
- ⁷⁷Difference in smoking prevalence between 2013 and 2015, age 15-19: $p=0.45^Z$
- ⁷⁸Difference in daily smoking prevalence between 2013 and 2015, age 15-19: $p=0.40^Z$
- ⁷⁹Difference in non-daily smoking prevalence between 2013 and 2015, age 15-19: $p=0.85^Z$
- ⁸⁰Difference in smoking prevalence between males and females in 2014-15, grades 6-9: $p=0.94^W$
- ⁸¹Difference in smoking prevalence between males and females in 2015, age 15-19: $p=0.22^W$
- ⁸²Difference in smoking prevalence between provinces in 2014-15, grades 6-9: $p=0.19^W$
- ⁸³Difference in smoking prevalence between provinces in 2015, age 15-19: $p=0.17^W$
- ⁸⁴Difference in consumption between 2012-13 and 2014-15, grades 7-9: $p=0.53^W$
- ⁸⁵Difference in consumption between 2013 and 2015, age 15-19: $p=0.11^Z$
- ⁸⁶Difference in consumption between males and females in 2014-15, grades 7-9: $p=0.60^W$
- ⁸⁷Difference in consumption between males and females in 2015, age 15-19: $p=0.15^W$
- ⁸⁸Difference in cigar/cigarillo use between 2013 and 2015, age 15-19: $p=0.29^Z$
- ⁸⁹Difference in chewing tobacco/snuff use between 2013 and 2015, age 15-19: $p=0.61^Z$
- ⁹⁰Difference in cigar/cigarillo use between 2012-13 and 2014-15, grades 6-9: $p=0.055^W$
- ⁹¹Difference in smokeless tobacco use between 2012-13 and 2014-15, grades 6-9: $p=0.91^W$
- ⁹²Difference in cigar use between males and females in 2015, age 15-19: $p<0.0001^W$
- ⁹³Difference in cigarillo use between males and females in 2015, age 15-19: $p=0.0001^W$
- ⁹⁴Difference in chewing tobacco/snuff use between males and females in 2015, age 15-19: $p<0.0001^W$
- ⁹⁵Difference in waterpipe use between males and females in 2015, age 15-19: $p=0.24^W$
- ⁹⁶Difference in cigar use between males and females in 2014-15, grades 6-9: $p=0.007^W$
- ⁹⁷Difference in smokeless tobacco use between males and females in 2014-15, grades 6-9: $p<0.0001^W$
- ⁹⁸Difference in cigarillo use between males and females in 2014-15, grades 6-9: $p=0.06^W$
- ⁹⁹Difference in waterpipe use between males and females in 2014-15, grades 6-9: $p=0.11^W$
- ¹⁰⁰Difference in cigar use between provinces in 2014-15, grades 6-9: $p=0.01^W$
- ¹⁰¹Difference in cigarillo use between provinces in 2014-15, grades 6-9: $p<0.0001^W$
- ¹⁰²Difference in smokeless tobacco use between provinces in 2014-15, grades 6-9: $p<0.0001^W$
- ¹⁰³Difference in waterpipe use between provinces in 2014-15, grades 6-9: $p=0.001^W$
- ¹⁰⁴Difference in cigar use between provinces in 2015, age 15-19: $p=0.04^W$
- ¹⁰⁵Difference in cigarillo use between provinces in 2015, age 15-19: $p=0.006^W$
- ¹⁰⁶Difference in chewing tobacco/snuff use between provinces in 2015, age 15-19: $p=0.005^W$
- ¹⁰⁷Difference in waterpipe use between provinces in 2015, age 15-19: $p=0.56^W$
- ¹⁰⁸Difference in ever having made a quit attempt between 2012-13 and 2014-15, grade 6-9 smokers: $p=0.85^W$
- ¹⁰⁹Difference in having made a quit attempt in the past 12 months between 2013 and 2015, smokers age 15-19: $p=0.24^Z$
- ¹¹⁰Difference in prevalence of ever e-cigarette use between 2013 and 2015: $p<0.0001^Z$

- ¹¹¹Difference in prevalence of past 30-day e-cigarette use between 2013 and 2015: $p < 0.0001^Z$
- ¹¹²Difference in prevalence of ever e-cigarette use between males and females in 2015: $p < 0.0001^W$
- ¹¹³Difference in prevalence of past 30-day e-cigarette use between males and females in 2015: $p = 0.13^W$
- ¹¹⁴Difference in prevalence of daily e-cigarette use between males and females in 2015: $p = 0.03^W$
- ¹¹⁵Difference in prevalence of past 30-day e-cigarette use among ever users, between males and females in 2015: $p = 0.24^W$
- ¹¹⁶Difference in prevalence of daily e-cigarette use among past 30-day users, between males and females in 2015: $p = 0.10^W$
- ¹¹⁷Difference in prevalence of ever e-cigarette use between age groups in 2015: $p < 0.0001^W$
- ¹¹⁸Difference in prevalence of ever e-cigarette use between 2013 and 2015, age 15-19: $p = 0.002^Z$
- ¹¹⁹Difference in prevalence of ever e-cigarette use between 2013 and 2015, age 20-24: $p < 0.0001^Z$
- ¹²⁰Difference in prevalence of ever e-cigarette use between 2013 and 2015, age 25-34: $p = 0.02^Z$
- ¹²¹Difference in prevalence of ever e-cigarette use between 2013 and 2015, age 35-44: $p = 0.06^Z$
- ¹²²Difference in prevalence of ever e-cigarette use between 2013 and 2015, age 45+: $p < 0.0001^Z$
- ¹²³Difference in prevalence of past 30-day e-cigarette use between age groups in 2015: $p < 0.0001^W$
- ¹²⁴Difference in prevalence of past 30-day e-cigarette use between 2013 and 2015, age 15-19: $p < 0.0001^Z$
- ¹²⁵Difference in prevalence of past 30-day e-cigarette use between 2013 and 2015, age 20-24: $p = 0.01^Z$
- ¹²⁶Difference in prevalence of past 30-day e-cigarette use between 2013 and 2015, age 25-44: $p = 0.13^Z$
- ¹²⁷Difference in prevalence of past 30-day e-cigarette use between 2013 and 2015, age 45+: $p = 0.006^Z$
- ¹²⁸Difference in prevalence of past 30-day e-cigarette use among ever-users, between age groups in 2015: $p = 0.49^W$
- ¹²⁹Difference in prevalence of daily e-cigarette use between age groups in 2015: $p = 0.60^W$
- ¹³⁰Difference in prevalence of daily e-cigarette use among past 30-day users, between age groups in 2015: $p = 0.04^W$
- ¹³¹Difference in prevalence of ever e-cigarette use between males and females in 2015, age 15-19: $p < 0.0001^W$
- ¹³²Difference in prevalence of ever e-cigarette use between males and females in 2015, age 20-24: $p = 0.0004^W$
- ¹³³Difference in prevalence of ever e-cigarette use between males and females in 2015, age 25-34: $p = 0.0004^W$
- ¹³⁴Difference in prevalence of ever e-cigarette use between males and females in 2015, age 35-44: $p = 0.35^W$
- ¹³⁵Difference in prevalence of ever e-cigarette use between males and females in 2015, age 45+: $p = 0.21^W$
- ¹³⁶Difference in prevalence of past 30-day e-cigarette use between males and females in 2015, age 15-19: $p = 0.009^W$
- ¹³⁷Difference in prevalence of past 30-day e-cigarette use between males and females in 2015, age 20-24: $p = 0.007^W$
- ¹³⁸Difference in prevalence of past 30-day e-cigarette use between males and females in 2015, age 25-44: $p = 0.98^W$
- ¹³⁹Difference in prevalence of past 30-day e-cigarette use between males and females in 2015, age 45+: $p = 0.84^W$
- ¹⁴⁰Difference in prevalence of ever e-cigarette use between provinces in 2015: $p < 0.0001^W$
- ¹⁴¹Difference in prevalence of past 30-day e-cigarette use between provinces in 2015: $p = 0.009^W$
- ¹⁴²Difference in prevalence of ever e-cigarette use between provinces in 2015, age 15-19: $p = 0.25^W$
- ¹⁴³Difference in prevalence of ever e-cigarette use by smoking status in 2015: $p < 0.0001^W$
- ¹⁴⁴Difference in prevalence of past 30-day e-cigarette use by smoking status in 2015: $p < 0.0001^W$
- ¹⁴⁵Difference in prevalence of ever e-cigarette use between male and female smokers in 2015: $p = 0.98^W$
- ¹⁴⁶Difference in prevalence of past 30-day e-cigarette use between male and female smokers in 2015: $p = 0.64^W$
- ¹⁴⁷Difference in prevalence of ever e-cigarette use between male and female non-smokers in 2015: $p < 0.0001^W$
- ¹⁴⁸Difference in prevalence of past 30-day e-cigarette use between male and female non-smokers in 2015: $p = 0.46^W$
- ¹⁴⁹Difference in prevalence of ever e-cigarette use between age groups, among smokers in 2015: $p < 0.0001^W$
- ¹⁵⁰Difference in prevalence of ever e-cigarette use between age groups, among non-smokers in 2015: $p < 0.0001^W$
- ¹⁵¹Difference in prevalence of past 30-day e-cigarette use between age groups, among smokers in 2015: $p < 0.0001^W$
- ¹⁵²Difference in prevalence of past 30-day e-cigarette use between age groups, among non-smokers in 2015: $p = 0.003^W$
- ¹⁵³Difference in smoking prevalence between males and females, among ever e-cigarette users in 2015: $p = 0.79^W$
- ¹⁵⁴Difference in smoking prevalence between males and females, among past 30-day e-cigarette users in 2015: $p = 0.64^W$

- ¹⁵⁵Difference in smoking prevalence between age groups, among ever e-cigarette users in 2015: $p < 0.0001^W$
- ¹⁵⁶Difference in smoking prevalence between age groups, among past 30-day e-cigarette users in 2015: $p = 0.40^W$
- ¹⁵⁷Difference in percentage of ever e-cigarette users who reported that their last e-cigarette contained nicotine between 2013 and 2015: $p < 0.0001^Z$
- ¹⁵⁸Difference in percentage of ever e-cigarette users who reported that their last e-cigarette contained nicotine, by smoking status: $p < 0.0001^W$
- ¹⁵⁹Difference in percentage of ever e-cigarette users who reported that their last e-cigarette contained nicotine between male and female smokers in 2015: $p = 0.14^W$
- ¹⁶⁰Difference in percentage of ever e-cigarette users who reported that their last e-cigarette contained nicotine between male and female non-smokers in 2015: $p = 0.54^W$
- ¹⁶¹Difference in percentage of ever e-cigarette users (who either quit smoking in the past year or were current smokers that had ever tried to quit) who reported that they used e-cigarettes as a cessation aid, between males and females in 2015: $p = 0.94^W$
- ¹⁶²Difference in percentage of ever e-cigarette users (who either quit smoking in the past year or were current smokers that had ever tried to quit) who reported that they used e-cigarettes as a cessation aid, between age groups in 2015: $p = 0.52^W$
- ¹⁶³Difference in percentage of smokers who intended to quit in the next 6 months, between past 30-day e-cigarette users vs. non-users in 2015: $p = 0.007^W$
- ¹⁶⁴Difference in percentage of smokers who intended to quit in the next 30 days, between past 30-day e-cigarette users vs. non-users in 2015: $p = 0.76^W$
- ¹⁶⁵Difference in percentage of ever e-cigarette users who were current smokers who reported using e-cigarettes when unable to smoke or to smoke fewer cigarettes between males and females in 2015: $p = 0.22^W$
- ¹⁶⁶Difference in percentage of ever e-cigarette users who were current smokers who reported using e-cigarettes when unable to smoke or to smoke fewer cigarettes between age groups in 2015: $p = 0.61^W$
- ¹⁶⁷Difference in prevalence of ever e-cigarette use between grades in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁶⁸Difference in prevalence of past 30-day e-cigarette use between grades in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁶⁹Difference in prevalence of ever e-cigarette use between males and females in 2014-15, grades 6-9: $p = 0.0004^W$
- ¹⁷⁰Difference in prevalence of past 30-day e-cigarette use between males and females in 2014-15, grades 6-9: $p = 0.0009^W$
- ¹⁷¹Difference in prevalence of ever e-cigarette use between provinces in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁷²Difference in prevalence of past 30-day e-cigarette use between provinces in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁷³Difference in prevalence of ever e-cigarette use by smoking status in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁷⁴Difference in prevalence of past 30-day e-cigarette use by smoking status in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁷⁵Difference in percentage who perceived "easy" or "very easy" access to e-cigarettes between ever e-cigarette users vs. non-users in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁷⁶Difference in percentage who perceived "no risk" of using e-cigarettes once in a while between ever e-cigarette users vs. non-users in 2014-15, grades 6-9: $p < 0.0001^W$
- ¹⁷⁷Difference in percentage who perceived "no risk" of using e-cigarettes on a regular basis between ever e-cigarette users vs. non-users in 2014-15, grades 6-9: $p < 0.0001^W$

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

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; biannually 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 two-phase 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, prior to 2015). 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 releases data sets every two years, from 2013 onward.

CTADS datasets and documentation available at:

<http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=4440>.

CTUMS datasets and documentation available from: <http://www.statcan.gc.ca/dli-ild/products-eng.htm>.

APPENDIX B: Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS)/Youth Smoking Survey (YSS)

The Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS; renamed from the Youth Smoking Survey (YSS) in 2014-15) is funded by Health Canada, and since 2004-05 has been implemented biennially by the Propel Centre for Population Health Impact at the University of Waterloo, in partnership with researchers across Canada. CSTADS/YSS provides timely and reliable data on tobacco, alcohol and drug use and related issues among Canadian students (grades 6-9/10-12) attending generalizable samples of private, public, and Catholic schools. CSTADS/YSS uses a repeated cross-sectional survey design to collect data through classroom-based surveys. Eight cycles of the CSTADS/YSS have been conducted: 1994, 2002, 2004-05, 2006-07, 2008-09, 2010-11, 2012-13, and 2014-15. Sampling methodology varied by survey cycle, as outlined below.

In 1994 and 2002, schools were stratified by census metropolitan area (CMA) versus non-CMA. Grades within schools were then sampled by two levels of stratification in 1994 (province and grade) and three levels of stratification in 2002 (province, school and grade). Students in grades 5-9 were included in the target sample. 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. In 1994, all grade 5-9 students completed the same questionnaire. In 2002, grade 5 and 6 students completed a version of the questionnaire that excluded the drug and alcohol questions.

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 two strata (low or high smoking rate), so that approximately half of the total student enrolment in any province was assigned to each stratum. At stage 2, schools were sampled from the selected school boards, according to two strata: senior (senior elementary or high school grades) and junior (junior elementary grades). From 2004-05 onward, all eligible students within participating schools/classrooms were invited to participate in the survey. Similar to 2002, grade 5 and 6 students completed a version of the questionnaire that excluded the drug and alcohol questions.

Beginning in 2006-07, schools became the sampling units, and grade 10-12 students were also included in the target population. In 2006-07, a stratified single-stage cluster design with strata based on health region

smoking rate and type of school was employed. In each province, two health region smoking rate strata (low and high) and two school-level strata (elementary and secondary) were defined. Similar to 2002 and 2004-05, grade 5 and 6 students completed a version of the questionnaire that excluded the drug and alcohol questions. However, grade 7-12 students were randomly selected to receive one of two versions (modules) of the questionnaire that included the alcohol and drug questions. For this reason, the 2006-07 YSS data has two survey weights (rather than one, as in other years), the use of which depends on which questionnaire module(s) included the variables being analysed (see *2006-2007 YSS Main Microdata User Guide*).

For the 2008-09 to 2014-15 cycles, a third health region smoking rate stratum (urban) was introduced, and grade 5 students were removed from the target population. Similar to 2006-07, a stratified single-stage cluster design with strata based on health region smoking rate and type of school was employed. In each province, two or three health region smoking rate strata (low, high, urban) and two school-level strata (elementary and secondary) were defined. The urban stratum was introduced in Ontario in 2008-09, Alberta in 2010-11, Quebec in 2012-13 and Nova Scotia in 2014-15. With the removal of the grade 5 population, only the grade 6 students responded to a version of the questionnaire that excluded the drug and alcohol questions.

Once the sampling frame was defined, schools were randomly selected within each stratum to ensure a generalizable sample of schools for each province and for Canada. The following details some variations in the sampling methodology since 2006-07.

- In 2010-11, the province of New Brunswick did not participate in the survey. 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. A census sample was conducted in the province of Quebec in partnership with another project (see *2010/2011 YSS Microdata User Guide*).
- In 2012-13, the province of Manitoba did not participate in the survey. 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.
- In 2014-15, a provincially generalizable sample was not obtained in the province of New Brunswick; therefore provincial estimates are not available, but data from the participating New Brunswick students was included in the estimates for Canada.

In all years, the sample excluded residents of the Yukon, Nunavut and Northwest Territories, residents of institutions, and those attending schools on First Nations reserves, special needs schools (e.g., schools for visually- or hearing-impaired individuals) or schools located on military bases; schools that did not have at least 20 students enrolled in at least one eligible grade were also excluded.

Additional information on the CSTADS/YSS is available at: www.cstads.ca

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

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. Confidence intervals were generated using the statistical software Stata (Version 14.2) using the bootstrap weights where they were available (CTADS 2013, CTUMS 2001 to 2012, CSTADS 2014-15, and YSS 2004-05 to 2012-13).

Reporting

Confidence intervals are available in data tables posted on the website (www.tobaccoreport.ca); 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. In some cases for CSTADS estimates, to facilitate interpretation of these suppressed estimates based on less than 30 individuals, an upper bound of the estimate was calculated. The upper bound is the percentage that would occur if 30 individuals were in the numerator rather than the number less than 30. Similarly, for estimates with coefficients of variation in excess of 33.3%, an upper bound of the estimate was calculated. The upper bound, in this case, is the percentage estimate that would be needed to achieve a coefficient of variation of 33.3%. When either of these upper bounds are <2%, they have been reported as such.

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 cut-off for significance. Bootstrap weights were used to perform significance testing between groups or between the latest two years, where they were available (CTADS 2013 and 2015, CTUMS 2001 to 2012, CSTADS 2014-15, and YSS 2004-05 to 2012-13). For binary response variables, statistical comparisons were performed using the SURVEYLOGISTIC procedure in SAS statistical software (Version 9.4) for CSTADS or the svy: logit command in Stata (Version 14.2) for CTADS. For the continuous variable of cigarettes per day, comparisons were performed using the SURVEYREG procedure in SAS for CSTADS or the svy: regress command in Stata for CTADS. The change in the specification of the bootstrap weights from CTADS 2013 to CTADS 2015 necessitated using the variances (each calculated using their own set of bootstrap weights) to perform a z-test when testing the differences in estimates between CTADS 2013 and CTADS 2015. Comparisons of prevalence rate and cigarettes per day (CPD) over the time period 1999-2015 (#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 101). 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)

Both CSTADS/YSS and CTADS/CTUMS data were used for the youth analysis: CSTADS/YSS data were used for youth in grades 6-9, who were approximately aged 10-14, and CTADS/CTUMS 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 CSTADS/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 CTADS/CTUMS sample; CTADS/CTUMS was selected as the data source for older youth since the sampling frame includes youth both in and out of school, whereas the CSTADS/YSS only samples youth who are attending school.

CSTADS/YSS and CTADS/CTUMS 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 2015 for CTADS, and 2014-15 for CSTADS. The CSTADS/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 CSTADS/YSS (grades 6-9) are presented by grade rather than age, as the survey was school-based and sampling was done by grade. CTADS/CTUMS is not school-based, so data are presented by age.

The CSTADS/YSS and CTADS/CTUMS 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; CTADS/CTUMS 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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