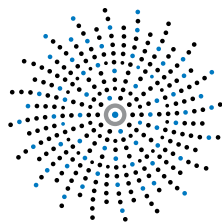




Tobacco Use in Canada:  
Patterns and Trends

**Special Supplement:  
Flavoured Tobacco Use**

2014 EDITION



**PROPEL**  
CENTRE FOR  
POPULATION  
HEALTH IMPACT

University of Waterloo | Waterloo, Ontario

[www.tobaccoreport.ca](http://www.tobaccoreport.ca)

## About this Supplement

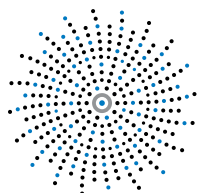
This supplement is intended to provide an overview of flavoured tobacco product availability and use in Canada. Flavoured tobacco products are described and flavoured tobacco use is presented by age and by product type. As of the writing of this supplement, provincial legislation on flavoured tobacco is still rapidly developing.

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

Propel Centre for Population Health Impact  
University of Waterloo  
200 University Ave. W.  
Waterloo, ON Canada N2L 3G1  
Phone: (519) 888-4520  
Fax: (519) 746-8171  
Email: [tobaccoreport@uwaterloo.ca](mailto:tobaccoreport@uwaterloo.ca)

This special supplement, as well as the main report, *Tobacco Use in Canada: Patterns and Trends*, are available online at [www.tobaccoreport.ca](http://www.tobaccoreport.ca) and [www.propel.uwaterloo.ca](http://www.propel.uwaterloo.ca).

**Suggested citation:** Minaker L, Manske S, Rynard VL, Reid JL & Hammond D. *Tobacco Use in Canada: Patterns and Trends, 2014 Edition - Special Supplement: Flavoured Tobacco Use*. Waterloo, ON: Propel Centre for Population Health Impact, University of Waterloo.



**PROPEL**  
CENTRE FOR  
POPULATION  
HEALTH IMPACT



UNIVERSITY OF  
**WATERLOO**



Canadian Cancer Society  
Société canadienne  
du cancer

## BACKGROUND

Flavoured tobacco products include menthol cigarettes, as well as mint-, candy-, or fruit-flavoured cigarillos, cigars, sheesha (waterpipe tobacco), blunt wraps, bidis, and smokeless tobacco. These products are often packaged in brightly-coloured wrappers and are strongly scented (particularly candy- and fruit-flavoured products).

Among youth tobacco users, over half (52%) of Canadian grade 9-12 students reported using flavoured products and 32% of youth cigarette smokers smoked menthol cigarettes in the last 30 days.<sup>1</sup>

## ABOUT FLAVOURED TOBACCO

Flavoured cigarettes offer unique sensory effects that appeal to youth and young adult smokers because they have a lower tolerance for irritation and an undeveloped taste for tobacco smoke.<sup>2</sup> Flavoured tobacco is more popular among youth and young adults relative to older adults,<sup>3-5</sup> in part because of selective marketing strategies.<sup>6</sup> All tobacco products can be flavoured. The most common flavour added to tobacco products is menthol. Candy, fruit and alcohol flavours are more recent product innovations that have been used to flavour a wide variety of tobacco products.

## MENTHOL



Menthol is the longest-standing and most prominent flavour used in cigarettes in Canada and many other markets. In Canada, menthol is the only flavour currently allowed in cigarettes. Menthol is added to approximately 90% of cigarettes sold in the United States<sup>7</sup> and manufacturers have used menthol to reduce the harshness of cigarette smoke.<sup>2</sup> In a recent review of the evidence, the US Food and Drug Administration concluded that menthol in cigarettes is likely associated with increased initiation and progression to regular cigarette smoking, as well as reduced success in smoking cessation.<sup>8</sup>

## CANDY, FRUIT AND ALCOHOL FLAVOURS

In the late 1990s, innovations in flavour technology resulted in the appearance of candy-, fruit- and alcohol-flavoured cigarettes on the market.<sup>3</sup> Flavoured cigarette brand extensions – traditional cigarette brands that created new flavoured versions – boosted sales by almost 10% for some brands.<sup>9</sup> Flavoured tobacco is among the product innovations used by tobacco companies to promote the appeal of their products to young people.<sup>6</sup>

Candy, fruit and alcohol flavours have been used in a wide variety of tobacco products, not just cigarettes. Canadian store shelves contain appletini flavoured cigars, chocolate mint cigarillos, rum cigarillos, peach flavoured smokeless tobacco, and a host of other flavours. Flavour is one of the most important characteristics driving growth in smokeless tobacco sales, accounting for almost 60% of the total growth in moist snuff sales from



CANADIAN CANCER SOCIETY POSTER OCTOBER 2013

2005-2011 in the US.<sup>10</sup> Flavourants in tobacco products make the products more palatable and attractive to new users,<sup>2,10,11</sup> and are seen by the tobacco industry as providing additional “consumer benefits”, including increased social acceptance because of pleasing aromas and aftertaste, increased excitement (including sharing flavours), increased smoking enjoyment, and a “high curiosity to try factor.”<sup>12</sup>

The World Health Organization’s Framework Convention on Tobacco Control states that sweet-flavoured cigarettes fall into the category of products likely to create an erroneous impression that the product is less harmful than other tobacco products.<sup>12</sup>

### THE CANADIAN LEGISLATIVE LANDSCAPE

An increasing number of jurisdictions have restricted the use of flavours in tobacco products. In 2010, Canada’s Bill C-32 (*An Act to Amend the Tobacco Act*) prohibited the sale of cigarettes, little cigars or cigarillos that contain 1.4g or less of tobacco and blunt wraps (a tobacco wrapper that can be wrapped around cigarette tobacco) that contain specific additives, including most flavouring agents (excluding menthol), and prohibited the sale of these products in units less than 20.<sup>13</sup> However, the Act did not cover all tobacco products: cigarillos containing over 1.4g of tobacco, regular cigars, smokeless tobacco, sheesha (waterpipe tobacco) and other products remained untouched by the Act.

In some cases, manufacturers modified the weight and packaging of their products to technically comply with the Act’s requirements (e.g., increased the size of cigarillos slightly to meet the weight requirement for which characterizing flavours are still allowed [ $>1.4g$ ]).



VANILLA, PEACH, GRAPE AND CHERRY INDIVIDUAL PRIME TIME CIGARILLOS PURCHASED FOR \$1.46 EACH, OCTOBER 2013



FRUIT-FLAVOURED “BLUNT” CIGAR WRAPS, PURCHASED IN 2012

In terms of provincial legislation, policies are rapidly evolving. In Alberta, Bill 206, a private member’s bill that would provide regulatory authority to restrict or prohibit flavours in tobacco products (including mentholated products) passed third reading at the Legislative Assembly of Alberta in November 2013.<sup>14</sup> In Quebec, the Canadian Cancer Society recently appeared before the Parliamentary Committee on Health and Social Services to advocate for amending the Tobacco Act to ban all flavours.<sup>15</sup> In November 2013, the Ontario government tabled legislation that would ban flavoured tobacco products (excluding menthol cigarettes).<sup>16</sup>

## FLAVOURED TOBACCO USE IN CANADA

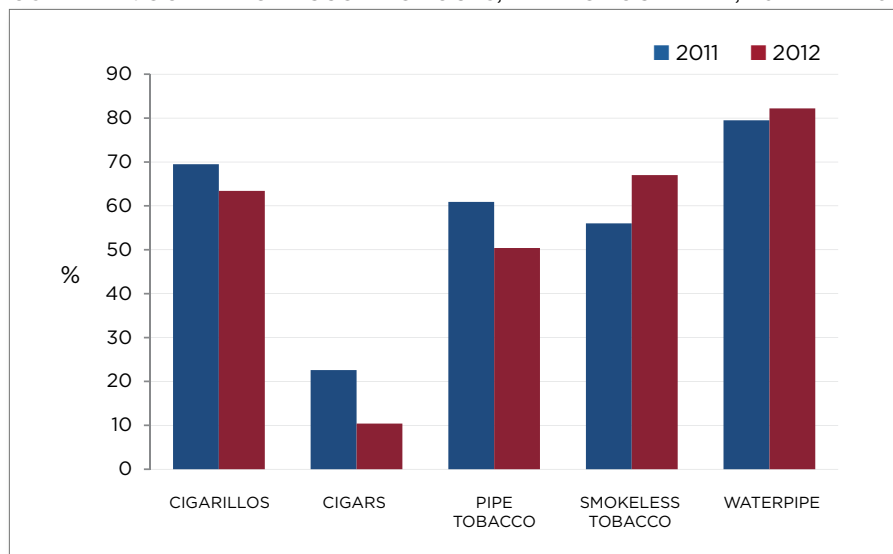
### ADULTS

In Canada, 4.6% of adult smokers reported usually smoking a menthol brand, according to data collected in 2006 by the International Tobacco Control (ITC) Four Country Study.<sup>17</sup> Among adult menthol smokers, 40% agreed that menthol cigarettes might be less harmful than other kinds of cigarettes,<sup>17</sup> although there is no evidence that this is true. To our knowledge, no studies have been published on the use of other types of flavoured tobacco among Canadian adults.

However, in 2011, the Canadian Tobacco Use Monitoring Survey (CTUMS) began monitoring flavoured tobacco use. Figure 1 (below) shows the proportion of last 30-day users of each of the products that had used flavoured tobacco in the last 30 days, in 2011 and in 2012. Flavoured tobacco use varied by product type, with few cigar smokers using flavoured products, compared to a majority among other product types. Between 2011 and 2012<sup>a</sup>, the percentage of last 30-day users that used flavoured product in the last 30 days decreased significantly for cigars<sup>b</sup>, but did not change for cigarillos<sup>c</sup>, pipe tobacco<sup>d</sup>, smokeless<sup>e</sup>, or waterpipe<sup>f</sup>.

Roughly one-fifth of smokers begin smoking after the age of 18.<sup>18</sup> Little research has been done on flavoured tobacco use among young adults. However, 2012 data from CTUMS revealed that relative to other age groups, young adults aged 20-24 years had the highest prevalence of smoking flavoured cigars (30% of 20-24-year-olds smoking cigars in the last 30 days reported smoking flavoured cigars). Large proportions of young adults who reported currently using various forms of tobacco also reported using flavoured versions of cigarillos (79%), smokeless tobacco (69%) and sheesha (83%) (CTUMS, 2012).

**FIGURE 1: PERCENTAGE OF LAST 30-DAY USERS (AGED 20+) WHO HAD USED FLAVOURED TOBACCO PRODUCTS, BY PRODUCT TYPE, 2011 AND 2012**



DATA SOURCE: CTUMS, 2011; CTUMS, 2012

<sup>a</sup> Statistical comparisons between years were tested using regression analysis with bootstrap weights. The statistical comparisons were performed using the SURVEYLOGISTIC procedure in SAS statistical software (Version 9.3).

<sup>b</sup> Difference from 2011 to 2012 in percentage of last 30-day cigar users, aged 20+ who had used flavoured cigars in the last 30 days: Wald  $\chi^2=6.1$ ,  $p=0.01$

<sup>c</sup> Difference from 2011 to 2012 in percentage of last 30-day cigarillo users, aged 20+ who had used flavoured cigarillos in the last 30 days: Wald  $\chi^2=0.5$ ,  $p=0.46$

<sup>d</sup> Difference from 2011 to 2012 in percentage of last 30-day pipe users, aged 20+ who had used flavoured pipe tobacco in the last 30 days: Wald  $\chi^2=0.5$ ,  $p=0.50$

<sup>e</sup> Difference from 2011 to 2012 in percentage of last 30-day smokeless tobacco users, aged 20+ who had used flavoured smokeless tobacco in the last 30 days: Wald  $\chi^2=0.7$ ,  $p=0.41$

<sup>f</sup> Difference from 2011 to 2012 in percentage of last 30-day waterpipe users, aged 20+ who had used flavoured waterpipe tobacco (sheesha) in the last 30 days: Wald  $\chi^2=0.1$ ,  $p=0.78$

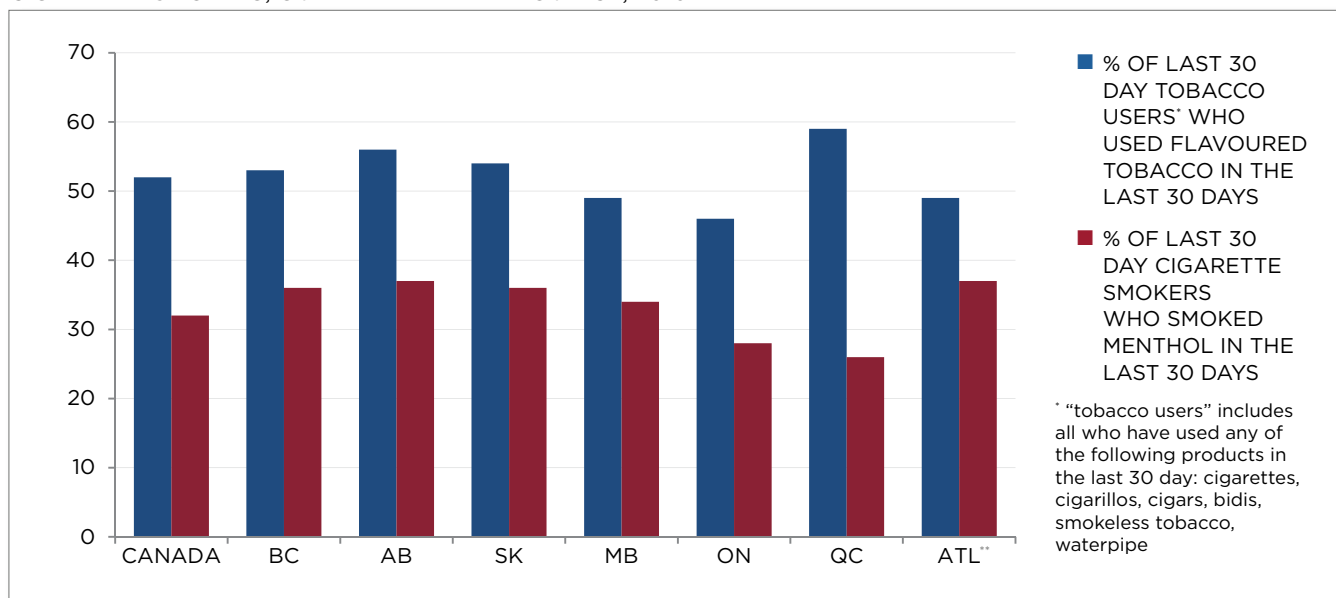
## CHILDREN AND YOUTH

Flavoured tobacco is of particular concern given the plateau in youth smoking rates in recent years. Since flavoured tobacco targets youth, the availability of flavoured tobacco may be stalling progress in decreasing tobacco initiation and use among Canadian youth.

In 2008/2009, 28% of Canadian grades 9-12 students (32% of males and 24% of females) reported ever using flavoured tobacco.<sup>19</sup> In 2010/2011, 25% of Canadian grades 9-12 students (28% of males and 23% of females) reported ever using flavoured tobacco (YSS, 2010/2011). Overall in Canada, 52% of students in grades 9-12 who reported any tobacco use in the last 30 days had used flavoured tobacco products in the last 30 days (52% among boys and 51% among girls) in 2010/2011. On a population basis, this is equivalent to 169,300 grades 9-12 students in Canada using flavoured tobacco products in the last 30 days. The prevalence of flavoured tobacco use as a proportion of all tobacco use was slightly lower for students in grades 6-8, at 35-42%, equivalent to another 18,800 students.<sup>1</sup>

The same study found that about a third (32%) of Canadian youth in grades 9-12 (about 75,200 students) who smoked cigarettes reported smoking menthol cigarettes in the last 30 days. Like use of all flavoured tobacco products, rates of menthol cigarette smoking were similar among boys and girls, indicating that both genders are susceptible to menthol cigarette use.<sup>1</sup>

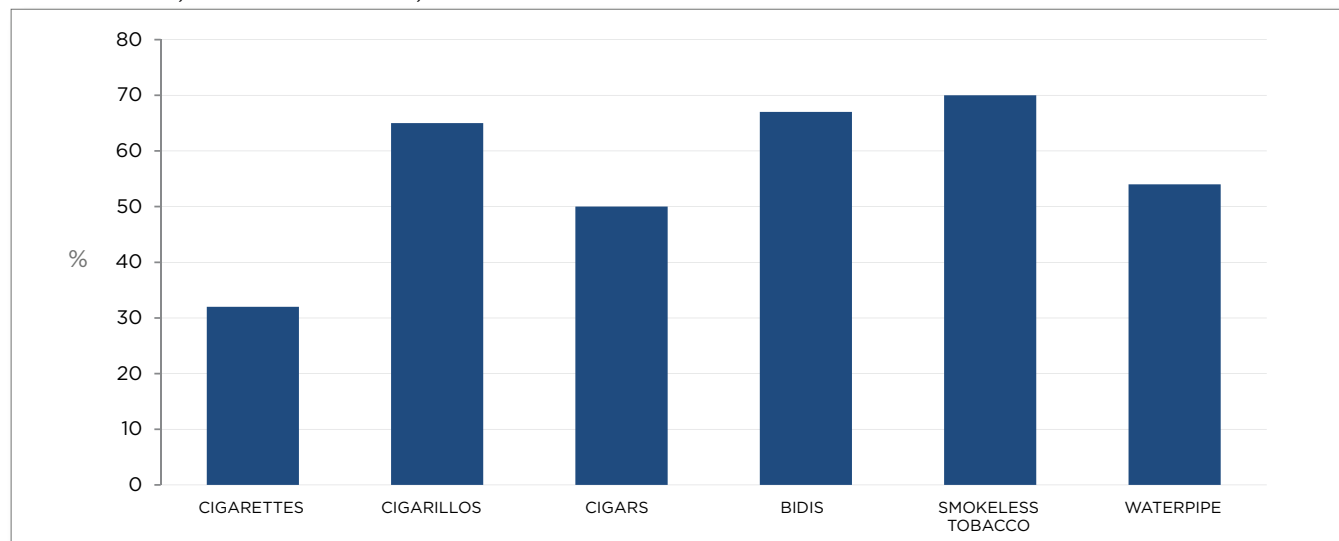
**FIGURE 2: LAST 30 DAY FLAVOURED TOBACCO USE AS A PROPORTION OF OVERALL TOBACCO USE AND CIGARETTE SMOKING, OVERALL AND BY PROVINCE, 2010-11**



\*\* ATL: ATLANTIC PROVINCES INCLUDE PEI, NS, AND NL (NB DECLINED PARTICIPATION IN THE 2010-2011 YSS).  
**DATA SOURCE:** YSS 2010/2011

Flavoured tobacco use varied by province (see Figure 2). The provinces ranged from a low of 46% of Ontario youth tobacco users using flavoured products in the last 30 days to a high of 59% of users in Quebec using flavoured products. Menthol cigarette smoking, as a proportion of overall smoking in the last 30 days, ranged from a low of 26% in Quebec to 37% in both Alberta and the Atlantic provinces. Some provinces with high overall flavoured tobacco use actually had low menthol cigarette use. For example, Quebec ranked highest for overall flavoured tobacco product use and lowest for menthol cigarette use, while the Atlantic provinces and Manitoba ranked second lowest on overall flavoured tobacco use but highest on menthol cigarette use.<sup>1</sup>

**FIGURE 3:** PERCENTAGE OF LAST 30 DAY USERS IN GRADES 9-12 WHO HAD USED FLAVOURED PRODUCTS IN THE LAST 30 DAYS, BY PRODUCT TYPE, 2010-11



DATA SOURCE: YSS 2010/2011

The percentage of students who reported using any tobacco product (flavoured or unflavoured) in the last 30 days (20%) was much higher than only those reporting cigarette smoking in the last 30 days (14%). This corresponds to 90,000 grades 9-12 students using only non-cigarette tobacco products, reflecting the incomplete picture offered if measurement and reporting of tobacco use is restricted to cigarette smoking.

Flavoured tobacco use varied dramatically by the type of tobacco product used (Figure 3). For example, while 32% of last 30 day cigarette smokers smoked menthol, more than twice that proportion (70%) of smokeless tobacco users used flavoured smokeless tobacco. Within Canada, flavoured smokeless tobacco and flavoured water-pipe/hookah tobacco were consumed by 28,200 and 34,300 grades 9-12 students, respectively, in the last 30 days.<sup>1</sup>

*Appendix A includes data tables corresponding to the figures and results presented in this section.<sup>9</sup>*

### HIGHLIGHTS: FLAVOURED TOBACCO USE AMONG YOUTH

- Over half of Canadian youth tobacco users used flavoured tobacco products in the last 30 days
- Almost one-third of youth cigarette smokers smoked menthol in the last 30 days
- Flavoured tobacco use among tobacco users varied by province from 46% in Ontario to 59% in Quebec
- Flavoured tobacco use varied by type of tobacco product used, from about one-third of cigarettes to 70% of smokeless tobacco.

<sup>9</sup>Appendix A1 reports the use of tobacco products in the last 30 days for Canada and provinces by grade and sex. Appendix A2 contains the population estimates for each of the percentages reported in Appendix A1. Appendix A3 and A4 contain the percent usage and population estimates for six tobacco products separately, reporting the percent usage of each flavoured tobacco product compared to overall usage of that product.<sup>1</sup>

## REFERENCES

1. Manske SR, Rynard VL, Minaker LM. *Flavoured tobacco use among Canadian youth: Evidence from Canada's 2010/2011 Youth Smoking Survey*. Propel Centre for Population Health Impact; 2013. Available from: [https://uwaterloo.ca/propel/sites/ca.propel/files/uploads/files/flavoured\\_tobacco\\_use\\_yss\\_20131007.pdf](https://uwaterloo.ca/propel/sites/ca.propel/files/uploads/files/flavoured_tobacco_use_yss_20131007.pdf)
2. Carpenter CM, Wayne GF, Pauly JL, Koh HK, Connolly GN. New cigarette brands with flavors that appeal to youth: Tobacco marketing strategies: Tobacco industry documents reveal a deliberate strategy to add flavors known to appeal to younger people. *Health Affairs* 2005;24(6):1601-1610.
3. Klein SM, Giovino GA, Barker DC, Tworek C, Cummings KM, O'Connor RJ. Use of flavored cigarettes among older adolescent and adult smokers: United States, 2004-2005. *Nicotine and Tobacco Research* 2008;10(7):1209-1214.
4. Hersey JC, Wen Ng S, Nonnemaker JM, Mowery P, Thomas KY, Vilsaint M-, Allen JA, Lyndon Haviland M. Are menthol cigarettes a starter product for youth? *Nicotine and Tobacco Research* 2006;8(3):403-413.
5. Giovino GA, Villanti AC, Mowery PD, Sevilimedu V, Niaura RS, Vallone DM, Abrams DB. Differential trends in cigarette smoking in the USA: Is menthol slowing progress? *Tobacco Control* 2013;1-10.
6. Lewis MJ, Wackowski O. Dealing with an innovative industry: A look at flavored cigarettes promoted by mainstream brands. *American Journal of Public Health* 2006;96(2):244-251.
7. Giovino GA, Sidney S, Gfroerer JC, O'Malley PM, Allen JA, Richter PA, Cummings KM. Epidemiology of menthol cigarette use. *Nicotine and Tobacco Research* 2004;6(SUPPL. 1):S67-S81.
8. Food and Drug Administration. *Preliminary scientific evaluation of the possible public health effects of menthol versus nonmenthol cigarettes*. 2013;2013(08/19).
9. Berk CC. RJ Reynolds earnings surged in second quarter. *Wall Street Journal* 2004 August 3.
10. Delnevo CD, Wackowski OA, Giovenco DP, Manderski MTB, Hrywna M, Ling PM. Examining market trends in the United States smokeless tobacco use: 2005-2011. *Tobacco Control* 2012;0:1-6.
11. Kreslake JM, Wayne GF, Connolly GN. The menthol smoker: Tobacco industry research on consumer sensory perception of menthol cigarettes and its role in smoking behavior. *Nicotine and Tobacco Research* 2008;10(4):705-715.
12. Manning KC, Kelly KJ, Comello ML. Flavoured cigarettes, sensation seeking and adolescents' perceptions of cigarette brands. *Tobacco Control* 2009;18(6):459-465.
13. Bill C-32. An act to amend the tobacco act, S.C. 2009. 2009;2013(08/14). Available from: [http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/legislation/federal/amend\\_faq-modif-eng.php](http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/legislation/federal/amend_faq-modif-eng.php)
14. Bill 206: Tobacco Reduction: *Flavoured Tobacco Products Amendment Act, 2013*. Available from: [http://www.assembly.ab.ca/net/index.aspx?p=bills\\_status&selectbill=206&legl=28&session=1](http://www.assembly.ab.ca/net/index.aspx?p=bills_status&selectbill=206&legl=28&session=1)
15. Scott M. Australian legislator behind tough tobacco laws spreads message to Quebec. *Montreal Gazette* 2013 08/19.
16. Bill 130: Smoke-free Ontario amendment act (Prohibiting flavoured tobacco, new tobacco products and smokeless tobacco), 2013. Available from: [http://www.ontla.on.ca/web/bills/bills\\_detail.do?locale=en&Intranet=&BillID=2893](http://www.ontla.on.ca/web/bills/bills_detail.do?locale=en&Intranet=&BillID=2893)
17. Mutti S, Hammond D, Borland R, Cummings MK, O'Connor RJ, Fong GT. Beyond light and mild: Cigarette brand descriptors and perceptions of risk in the International Tobacco Control (ITC) Four Country Survey. *Addiction* 2011.
18. Hammond D. Smoking behaviour among young adults: Beyond youth prevention. *Tobacco Control* 2005;14:181-185.
19. Leatherdale ST, Rios P, Elton-Marshall T, Burkhalter R. Cigar, cigarillo, and little cigar use among Canadian youth: Are we underestimating the magnitude of this problem? *Journal of Primary Prevention* 2011;32(3-4):161-170.



## APPENDIX A

**APPENDIX A1: PERCENT USE OF TOBACCO PRODUCTS IN THE LAST 30 DAYS, BY GRADE, SEX AND REGION, 2010/2011 YSS**

	% [95% Confidence Interval]				
	Cigarette smoking <sup>†</sup>	Any form of tobacco use <sup>‡</sup>	Any form of flavoured tobacco use <sup>§</sup>	Flavoured tobacco use, among last 30 day tobacco users	Menthol smoking, among last 30 day cigarette smokers <sup>†</sup>
Canada*, Gr. 9-12**, both sexes	14 [13-16]	20 [18-22]	10 [9-12]	52 [48-55]	32 [28-35]
Canada, Gr. 9-12**, boys	16 [14-18]	24 [22-25]	12 [10-14]	52 [46-58]	32 [26-37]
Canada, Gr. 9-12**, girls	13 [11-15]	16 [14-18]	8 [7-9]	51 [48-55]	32 [28-36]
Canada, Gr. 9 <sup>††</sup> , both sexes	10 [8-11]	13 [11-15]	7 [5-8]	51 [46-57]	32 [26-37]
Canada, Gr. 10 <sup>††</sup> , both sexes	12 [11-14]	17 [16-19]	9 [7-10]	51 [45-57]	33 [26-40]
Canada, Gr. 11 <sup>††</sup> , both sexes	16 [13-18]	22 [19-24]	12 [10-14]	56 [52-60]	34 [29-39]
Canada, Gr. 12 <sup>††</sup> , both sexes	21 [18-23]	28 [26-31]	14 [11-17]	49 [42-55]	29 [24-35]
Atlantic*, Gr. 9-12, both sexes	20 [18-22]	25 [23-26]	12 [11-13]	49 [46-51]	37 [33-40]
Atlantic, Gr. 9-12, boys	23 [20-25]	29 [27-32]	15 [14-17]	52 [49-56]	38 [34-42]
Atlantic, Gr. 9-12, girls	17 [16-19]	20 [18-21]	9 [8-10]	43 [39-47]	34 [29-39]
Quebec, Sec III-V both sexes	15 [12-18]	21 [17-24]	12 [9-15]	59 [50-68]	26¶ [15-37]
Quebec, Sec III-V boys	16 [12-19]	22 [17-27]	13 [7-18]	59 [43-74]	#
Quebec, Sec III-V girls	14 [10-18]	19 [15-24]	12 [9-15]	60 [53-68]	#
Ontario, Gr. 9-12, both sexes	11 [8-14]	16 [14-19]	8 [5-10]	46 [39-54]	28 [20-36]
Ontario, Gr. 9-12, boys	13 [11-16]	21 [19-23]	10 [8-13]	49 [38-61]	29¶ [18-40]
Ontario, Gr. 9-12, girls	9¶ [5-12]	11 [8-14]	4¶ [3-6]	40 [33-47]	26¶ [16-36]
Manitoba, Gr. 9-12, both sexes	13 [10-16]	18 [13-22]	9¶ [6-12]	49 [44-55]	34 [27-40]
Manitoba, Gr. 9-12, boys	16 [11-20]	22 [16-29]	11¶ [7-16]	51 [44-58]	32 [23-41]
Manitoba, Gr. 9-12, girls	11 [9-12]	13 [10-16]	6 [4-8]	47 [42-51]	36 [28-44]
Saskatchewan, Gr. 9-12, both sexes	28¶ [14-42]	34¶ [20-47]	18 [14-23]	54 [43-65]	36 [27-45]
Saskatchewan, Gr. 9-12, boys	32¶ [21-43]	42 [32-52]	25 [21-29]	60 [50-69]	36¶ [23-48]
Saskatchewan, Gr. 9-12, girls	#	#	11¶ [5-18]	44 [34-54]	36 [29-42]
Alberta, Gr. 9-12, both sexes	18 [13-22]	23 [19-28]	13 [10-16]	56 [52-60]	37 [28-45]
Alberta, Gr. 9-12, boys	17¶ [12-23]	25 [20-31]	12¶ [8-17]	49 [40-57]	25¶ [13-36]
Alberta, Gr. 9-12, girls	18 [14-22]	21 [17-26]	14 [11-17]	65 [56-74]	48¶ [32-64]
British Columbia, Gr. 9-12, both sexes	17 [15-19]	23 [20-26]	12 [10-15]	53 [46-59]	36 [32-40]
British Columbia, Gr. 9-12, boys	17 [15-19]	25 [23-28]	13 [11-15]	52 [48-56]	35 [31-40]
British Columbia, Gr. 9-12, girls	17 [14-20]	20 [17-23]	11 [8-14]	54 [43-66]	37 [33-40]

% [95% Confidence Interval]					
	Cigarette smoking <sup>†</sup>	Any form of tobacco use <sup>‡</sup>	Any form of flavoured tobacco use <sup>§</sup>	Flavoured tobacco use, among last 30 day tobacco users	Menthol smoking, among last 30 day cigarette smokers <sup>†</sup>
Canada Gr. 6-12, both sexes <sup>**</sup>	10 [9-11]	13 [12-14]	7 [6-7]	50 [47-54]	30 [27-34]
Canada, Gr. 6-12, boys <sup>**</sup>	11 [10-12]	16 [15-17]	8 [7-9]	50 [46-55]	30 [25-35]
Canada, Gr. 6-12, girls <sup>**</sup>	9 [8-10]	11 [10-12]	5 [5-6]	50 [46-54]	31 [27-34]
Canada, Gr. 6, both sexes	1¶ [1-1]	1¶ [1-2]	1¶ [0-1]	35¶ [20-51]	#
Canada, Gr. 7 <sup>**</sup> both sexes	2 [1-3]	3 [2-4]	1¶ [1-1]	36 [27-45]	19¶ [11-28]
Canada, Gr. 8 <sup>**</sup> both sexes	6 [4-8]	8 [6-9]	3 [2-4]	42 [34-49]	22 [15-28]
Atlantic, Gr. 6-12, both sexes	14 [13-15]	17 [16-18]	8 [7-9]	47 [44-49]	35 [32-38]
Quebec, Gr. 6-Sec V, both sexes	10 [8-12]	14 [11-16]	8 [6-9]	55 [49-62]	25¶ [16-35]
Ontario, Gr. 6-12, both sexes	7 [5-9]	11 [9-12]	5 [4-6]	45 [38-53]	28 [20-35]
Manitoba, Gr. 6-12, both sexes	10 [8-12]	13 [10-16]	6 [4-8]	45 [40-50]	32 [26-37]
Saskatchewan, Gr 6-12, both sexes	18¶ [10-27]	23¶ [14-31]	12 [9-15]	53 [43-63]	34 [26-43]
Alberta, Gr. 6-12, both sexes	12 [9-14]	15 [13-18]	8 [7-10]	55 [52-58]	34 [27-42]
British Columbia Gr. 6-12, both sexes	12 [10-14]	16 [15-18]	8 [7-10]	52 [43-60]	34 [29-39]

DATA SOURCE: YSS 2010/2011

\* New Brunswick declined participation in the 2010-11 YSS

† Includes daily, occasional and experimental smoking

‡ "Any form of tobacco" includes cigarettes, pipe tobacco, cigarillos or little cigars, cigars, roll-your-own cigarettes, bidis, smokeless tobacco, water pipe to smoke tobacco, or blunt wraps, but does NOT include individuals who only used nicotine patches, nicotine gum, nicotine lozenges, or nicotine inhalers

§ "Any form of flavoured tobacco" includes menthol cigarettes, flavoured cigarillos or little cigars, flavoured cigars, flavoured bidis, flavoured smokeless tobacco, or flavoured tobacco in a water-pipe. NOTE: The original data included a small number of inconsistencies where students reported use of a flavoured tobacco product in the last 30 days when they had not previously reported use of that product. These cases were excluded from estimates of flavoured tobacco use, providing the most conservative estimate of flavoured tobacco use

¶ Moderate sampling variability, interpret with caution

# High sampling variability, data are suppressed

\*\* Secondary III-V in Quebec

†† For Quebec, Grade 7 represents Secondary I, Grade 8 represents Secondary II, Grade 9 represents Secondary III, Grade 10 represents Secondary IV, Grade 11 represents Secondary V and Grade 12 does not exist

**APPENDIX A2: POPULATION ESTIMATES OF USE OF TOBACCO PRODUCTS IN THE LAST 30 DAYS<sup>s</sup>, BY GRADE, SEX AND REGION, 2010/2011 YSS**

	Population Estimate			
	Cigarette smoking <sup>†</sup>	Any form of tobacco use <sup>‡</sup>	Any form of flavoured tobacco use <sup>s</sup>	Menthol smoking, among last 30 day cigarette smokers <sup>†</sup>
Canada*, Gr. 9-12**	237,100	327,000	169,300	75,200
Canada, Gr. 9-12**, boys	134,800	199,700	103,800	42,500
Canada, Gr. 9-12**, girls	102,300	127,300	65,500	32,700
Canada, Gr. 9 <sup>††</sup> , both sexes	40,100	52,400	26,900	12,700
Canada, Gr. 10 <sup>††</sup> , both sexes	51,800	73,500	37,700	17,100
Canada, Gr. 11 <sup>††</sup> , both sexes	65,300	90,800]	51,000	22,100
Canada, Gr. 12 <sup>††</sup> , both sexes	79,900	110,300	53,800	23,300
Atlantic*, Gr. 9-12, both sexes	16,000	19,800	9,600	5,900
Atlantic, Gr. 9-12, boys	9,200	12,000	6,300	3,500
Atlantic, Gr. 9-12, girls	6,900	7,800	3,400	2,400
Quebec, Sec III-V both sexes	40,300	56,300	33,400	10,500¶
Quebec, Sec III-V boys	21,700	30,400	17,800¶	#
Quebec, Sec III-V girls	18,600	25,900	15,600	#
Ontario, Gr. 9-12, both sexes	79,300	117,000	54,200	22,400
Ontario, Gr. 9-12, boys	49,800	79,100	39,100	14,600¶
Ontario, Gr. 9-12, girls	29,500¶	37,900	15,100¶	7,700¶
Manitoba, Gr. 9-12, both sexes	8,700	11,700	5,800¶	2,900
Manitoba, Gr. 9-12, boys	5,300	7,500	3,800¶	1,700
Manitoba, Gr. 9-12, girls	3,500	4,200	2,000	1,200
Saskatchewan, Gr. 9-12, both sexes	15,400¶	18,700¶	10,100	5,500
Saskatchewan, Gr. 9-12, boys	9,100¶	11,800	7,100	3,300¶
Saskatchewan, Gr. 9-12, girls	#	#	3,000¶	2,300
Alberta, Gr. 9-12, both sexes	34,900	46,000	25,700	12,800
Alberta, Gr. 9-12, boys	17,100¶	25,100	12,200¶	4,300¶
Alberta, Gr. 9-12, girls	17,800	20,900	13,500	8,500¶
British Columbia, Gr. 9-12, both sexes	42,400	57,500	30,500	15,300
British Columbia, Gr. 9-12, boys	22,700	33,700	17,500	8,000
British Columbia, Gr. 9-12, girls	19,700	23,800	13,000	7,300

	Population Estimate			
	Cigarette smoking <sup>†</sup>	Any form of tobacco use <sup>‡</sup>	Any form of flavoured tobacco use <sup>§</sup>	Menthol smoking, among last 30 day cigarette smokers <sup>†</sup>
Canada Gr. 6-12, both sexes <sup>**</sup>	272,400	374,400	188,000	82,700
Canada, Gr. 6-12, boys <sup>**</sup>	152,900	226,200	114,200	45,900
Canada, Gr. 6-12, girls <sup>**</sup>	119,500	148,200	73,800	36,800
Canada, Gr. 6, both sexes	2,900¶	5,300¶	1,900¶	#
Canada, Gr. 7 <sup>**</sup> both sexes	8,100	11,600	4,200¶	1,600¶
Canada, Gr. 8 <sup>**</sup> both sexes	24,300	30,600	12,700	5,300
Atlantic, Gr. 6-12, both sexes	18,300	22,700	10,600	6,400
Quebec, Gr. 6-Sec V, both sexes	55,900	75,600	41,800	14,100¶
Ontario, Gr. 6-12, both sexes	84,900	126,500	57,300	23,600
Manitoba, Gr. 6-12, both sexes	10,500	14,100	6,400	3,300
Saskatchewan, Gr 6-12, both sexes	16,600¶	20,300¶	10,800	5,700
Alberta, Gr. 6-12, both sexes	38,100	50,800	28,000	13,100
British Columbia Gr. 6-12, both sexes	48,100	64,400	33,200	16,400

**DATA SOURCE:** YSS 2010/2011

\* New Brunswick declined participation in the 2010-11 YSS

† Includes daily, occasional and experimental smoking

‡ "Any form of tobacco" includes cigarettes, pipe tobacco, cigarillos or little cigars, cigars, roll-your-own cigarettes, bidis, smokeless tobacco, water pipe to smoke tobacco, or blunt wraps, but does NOT include individuals who only used nicotine patches, nicotine gum, nicotine lozenges, or nicotine inhalers

§ "Any form of flavoured tobacco" includes menthol cigarettes, flavoured cigarillos or little cigars, flavoured cigars, flavoured bidis, flavoured smokeless tobacco, or flavoured tobacco in a water-pipe. NOTE: The original data included a small number of inconsistencies where students reported use of a flavoured tobacco product in the last 30 days when they had not previously reported use of that product. These cases were excluded from estimates of flavoured tobacco use, providing the most conservative estimate of flavoured tobacco use

¶ Moderate sampling variability, interpret with caution

# High sampling variability, data are suppressed

\*\* Secondary III-V in Quebec

†† For Quebec, Grade 7 represents Secondary I, Grade 8 represents Secondary II, Grade 9 represents Secondary III, Grade 10 represents Secondary IV, Grade 11 represents Secondary V and Grade 12 does not exist

**APPENDIX A3: PERCENTAGE OF LAST 30 DAY USERS OF EACH TOBACCO PRODUCT WHO HAD USED FLAVOURED PRODUCT IN THE LAST 30 DAYS<sup>§</sup>, BY GRADE, SEX AND REGION, 2010/2011 YSS**

	% [95% Confidence Interval]					
	Smokers <sup>†</sup> who smoked menthol	Cigarillo/ little cigars <sup>§</sup>	Cigars <sup>§</sup>	Bidis <sup>§</sup>	Smokeless tobacco <sup>§</sup>	Waterpipe <sup>§</sup>
Canada*, Gr. 9-12**, both sexes	32 [28-35]	65 [61-69]	50 [43-56]	67 [57-76]	70 [65-75]	54 [49-60]
Canada, Gr. 9-12**, boys	32 [26-37]	64 [59-69]	46 [38-54]	56 [44-68]	69 [63-74]	46 [39-54]
Canada, Gr. 9-12**, girls	32 [28-36]	68 [63-74]	61 [51-70]	88 [78-98]	75 [62-88]	69 [57-80]
Canada, Gr. 9 <sup>††</sup> , both sexes	32 [26-37]	64 [56-72]	56 [47-66]	74 [56-91]	75 [65-84]	76 [66-87]
Canada, Gr. 10 <sup>††</sup> , both sexes	33 [26-40]	61 [55-68]	55 [44-65]	69 [53-86]	76 [66-87]	53 [41-65]
Canada, Gr. 11 <sup>††</sup> , both sexes	34 [29-39]	61 [55-67]	52 [42-62]	82 [71-94]	76 [65-86]	63 [55-71]
Canada, Gr. 12 <sup>††</sup> , both sexes	29 [24-35]	74 [66-81]	40 [31-49]	38 <sup>¶</sup> [24-52]	58 [46-71]	41 [29-52]
Atlantic*, Gr. 9-12, both sexes	37 [33-40]	64 [60-69]	47 [42-51]	62 [55-68]	63 [57-68]	50 [45-55]
Atlantic, Gr. 9-12, boys	38 [34-42]	64 [59-68]	47 [42-51]	63 [55-71]	65 [60-70]	49 [43-55]
Atlantic, Gr. 9-12, girls	34 [29-39]	66 [59-73]	48 [38-57]	#	#	53 [42-65]
Quebec, Sec III-V both sexes	26 <sup>¶</sup> [15-37]	60 [53-67]	54 <sup>¶</sup> [34-75]	#	#	78 [65-92]
Quebec, Sec III-V boys	#	60 [50-71]	#	#	#	#
Quebec, Sec III-V girls	#	59 [51-67]	#	#	#	#
Ontario, Gr. 9-12, both sexes	28 [20-36]	67 [58-76]	44 [35-53]	#	72 [62-82]	40 [32-48]
Ontario, Gr. 9-12, boys	29 <sup>¶</sup> [18-40]	67 [57-77]	42 [30-54]	#	73 [62-84]	34 <sup>¶</sup> [23-45]
Ontario, Gr. 9-12, girls	26 <sup>¶</sup> [16-36]	66 [55-78]	#	#	#	53 <sup>¶</sup> [34-71]
Manitoba, Gr. 9-12, both sexes	34 [27-40]	66 [61-72]	47 [36-58]	#	70 [58-83]	44 [36-52]
Manitoba, Gr. 9-12, boys	32 [23-41]	68 [64-73]	45 [31-58]	#	70 [55-84]	43 [30-57]
Manitoba, Gr. 9-12, girls	36 [28-44]	62 [50-74]	#	#	#	#
Saskatchewan, Gr. 9-12, both sexes	36 [27-45]	68 [56-79]	48 [37-58]	#	63 [46-80]	70 [60-80]
Saskatchewan, Gr. 9-12, boys	36 <sup>¶</sup> [23-48]	68 [56-79]	49 [39-59]	#	65 [47-83]	71 [61-80]
Saskatchewan, Gr. 9-12, girls	36 [29-42]	67 [53-82]	#	#	#	#
Alberta, Gr. 9-12, both sexes	37 [28-45]	68 [61-75]	69 [54-84]	#	72 [57-87]	74 [53-94]
Alberta, Gr. 9-12, boys	25 <sup>¶</sup> [13-36]	62 [50-74]	61 [45-77]	#	57 [47-67]	#
Alberta, Gr. 9-12, girls	48 <sup>¶</sup> [32-64]	75 [68-83]	81 [61-100]	#	#	#
British Columbia, Gr. 9-12, both sexes	36 [32-40]	67 [55-80]	37 <sup>¶</sup> [17-57]	38 <sup>¶</sup> [21-55]	68 [64-71]	56 [43-69]
British Columbia, Gr. 9-12, boys	35 [31-40]	60 [54-66]	31 <sup>¶</sup> [10-52]	#	68 [63-72]	54 [41-68]
British Columbia, Gr. 9-12, girls	37 [33-40]	78 [56-99]	53 [37-69]	#	#	59 [45-72]

	% [95% Confidence Interval]					
	Smokers <sup>†</sup> who smoked menthol	Cigarillo/ little cigars <sup>§</sup>	Cigars <sup>§</sup>	Bidis <sup>§</sup>	Smokeless tobacco <sup>§</sup>	Waterpipe <sup>§</sup>
Canada Gr. 6-12, both sexes <sup>††</sup>	30 [27-34]	65 [61-69]	49 [44-55]	65 [56-73]	69 [64-74]	55 [50-60]
Canada, Gr. 6-12, boys <sup>††</sup>	30 [25-35]	63 [58-68]	46 [39-53]	55 [45-65]	68 [63-74]	46 [40-53]
Canada, Gr. 6-12, girls <sup>††</sup>	31 [27-34]	68 [62-74]	58 [50-66]	86 [76-96]	72 [60-84]	69 [59-80]
Canada, Gr. 6, both sexes	#	#	#	#	#	#
Canada, Gr. 7 <sup>††</sup> both sexes	19¶ [11-28]	61¶ [38-83]	#	#	#	#
Canada, Gr. 8 <sup>††</sup> both sexes	22 [15-28]	61 [50-71]	43 [31-55]	#	63 [47-78]	55 [37-73]
Atlantic, Gr. 6-12, both sexes	35 [32-38]	64 [60-69]	48 [44-52]	63 [57-69]	62 [57-67]	51 [46-56]
Quebec, Gr. 6-Sec V, both sexes	25¶ [16-35]	61 [55-67]	50 [36-65]	#	#	71 [60-81]
Ontario, Gr. 6-12, both sexes	28 [20-35]	65 [56-74]	43 [34-51]	#	72 [63-81]	41 [33-49]
Manitoba, Gr. 6-12, both sexes	32 [26-37]	63 [57-70]	47 [36-58]	#	68 [57-80]	44 [37-52]
Saskatchewan, Gr 6-12, both sexes	34 [26-43]	68 [57-79]	49 [39-59]	#	62 [45-80]	69 [58-79]
Alberta, Gr. 6-12, both sexes	34 [27-42]	68 [61-75]	69 [54-83]	#	73 [59-86]	75 [56-95]
British Columbia Gr. 6-12, both sexes	34 [29-39]	67 [53-80]	40¶ [22-58]	46¶ [28-64]	68 [64-71]	58 [46-70]

DATA SOURCE: YSS 2010/2011

<sup>§</sup> NOTE: Each column of the table reflects the percentage of users of each tobacco product (e.g., cigarettes or cigarillos) who have used a flavoured form of that product in the last 30 days

\* New Brunswick declined participation in the 2010-11 YSS

† Includes daily, occasional and experimental smoking

¶ Moderate sampling variability, interpret with caution

# High sampling variability, data are suppressed

\*\* Secondary III-V in Quebec

†† For Quebec, Grade 7 represents Secondary I, Grade 8 represents Secondary II, Grade 9 represents Secondary III, Grade 10 represents Secondary IV, Grade 11 represents Secondary V and Grade 12 does not exist

**APPENDIX A4: POPULATION ESTIMATES OF NUMBER OF STUDENTS USING FLAVOURED TOBACCO PRODUCTS IN THE LAST 30 DAYS, BY GRADE, SEX AND REGION, 2010/2011 YSS**

	Population Estimate						
	Any form of flavoured tobacco <sup>‡</sup>	Smokers <sup>†</sup> who smoked menthol	Cigarillo or little cigars <sup>§</sup>	Cigars <sup>§</sup>	Bidis <sup>§</sup>	Smokeless tobacco <sup>§</sup>	Waterpipe <sup>§</sup>
Canada*, Gr. 9-12**, both sexes	169,300	75,200	84,100	41,000	10,000	28,200	34,300
Canada, Gr. 9-12**, boys	103,800	42,500	53,500	28,300	5,700	22,700	18,700
Canada, Gr. 9-12**, girls	65,500	32,700	30,600	12,800	4,300	5,500	15,500
Canada, Gr. 9 <sup>††</sup> , both sexes	26,900	12,700	14,000	8,700	3,000	4,900	6,600
Canada, Gr. 10 <sup>††</sup> , both sexes	37,700	17,100	17,300	9,800	1,600	6,200	6,400
Canada, Gr. 11 <sup>††</sup> , both sexes	51,000	22,100	24,500	13,000	4,000	9,300	11,600
Canada, Gr. 12 <sup>††</sup> , both sexes	53,800	23,300	28,300	9,500	1,500¶	7,800	9,700
Atlantic*, Gr. 9-12, both sexes	9,600	5,900	4,600	2,400	700	1,400	1,300
Atlantic, Gr. 9-12, boys	6,300	3,500	3,300	1,900	600	1,200	1,000
Atlantic, Gr. 9-12, girls	3,400	2,400	1,300	500	#	#	300
Quebec, Sec III-V both sexes	33,400	10,500¶	17,800	9,600	#	#	8,100
Quebec, Sec III-V boys	17,800¶	#	10,500	#	#	#	#
Quebec, Sec III-V girls	15,600	#	7,200	#	#	#	#
Ontario, Gr. 9-12, both sexes	54,200	22,400	24,700	10,700	#	11,500	11,300
Ontario, Gr. 9-12, boys	39,100	14,600¶	19,100	8,600	#	10,600	6,500¶
Ontario, Gr. 9-12, girls	15,100¶	7,700¶	5,600	#	#	#	4,800¶
Manitoba, Gr. 9-12, both sexes	5,800¶	2,900	2,900	1,800	#	1,000	800
Manitoba, Gr. 9-12, boys	3,800¶	1,700	2,100	1,500	#	900	600
Manitoba, Gr. 9-12, girls	2,000	1,200	800	#	#	#	#
Saskatchewan, Gr. 9-12, both sexes	10,100	5,500	4,400	2,200	#	2,300	1,100
Saskatchewan, Gr. 9-12, boys	7,100	3,300¶	3,300	1,800	#	2,100	900
Saskatchewan, Gr. 9-12, girls	3,000¶	2,300	1,100	#	#	#	#
Alberta, Gr. 9-12, both sexes	25,700	12,800	16,100	9,900	#	5,400	5,600
Alberta, Gr. 9-12, boys	12,200¶	4,300¶	8,200	5,200	#	2,300	#
Alberta, Gr. 9-12, girls	13,500	8,500¶	7,900	4,700	#	#	#
British Columbia, Gr. 9-12, both sexes	30,500	15,300	13,700	4,500¶	1,000¶	5,700	6,000
British Columbia, Gr. 9-12, boys	17,500	8,000	7,100	2,800¶	#	5,000	4,100
British Columbia, Gr. 9-12, girls	13,000	7,300	6,600	1,700	#	#	2,000

	Population Estimate						
	Any form of flavoured tobacco‡	Smokers† who smoked menthol	Cigarillo or little cigars <sup>§</sup>	Cigars <sup>§</sup>	Bidis <sup>§</sup>	Smokeless tobacco <sup>§</sup>	Waterpipe <sup>§</sup>
Canada Gr. 6-12, both sexes <sup>††</sup>	188,000	82,700	91,800	46,600	11,700	31,100	38,100
Canada, Gr. 6-12, boys <sup>††</sup>	114,200	45,900	57,400	31,600	6,900	25,000	20,900
Canada, Gr. 6-12, girls <sup>††</sup>	73,800	36,800	34,400	15,000	4,800	6,100	17,200
Canada, Gr. 6, both sexes	1,900¶	#	#	#	#	#	#
Canada, Gr. 7 <sup>††</sup> both sexes	4,200¶	1,600¶	1,200¶	#	#	#	#
Canada, Gr. 8 <sup>††</sup> both sexes	12,700	5,300	6,100	3,200	#	2,200	2,500
Atlantic, Gr. 6-12, both sexes	10,600	6,400	5,000	2,700	900	1,600	1,500
Quebec, Gr. 6-Sec V, both sexes	41,800	14,100¶	22,200	12,100	#	#	9,100
Ontario, Gr. 6-12, both sexes	57,300	23,600	25,500	11,600	#	12,500	12,300
Manitoba, Gr. 6-12, both sexes	6,400	3,300	3,000	1,900	#	1,000	800
Saskatchewan, Gr 6-12, both sexes	10,800	5,700	4,700	2,300	#	2,400	1,100
Alberta, Gr. 6-12, both sexes	28,000	13,100	16,600	10,600	#	6,000	6,300
British Columbia Gr. 6-12, both sexes	33,200	16,400	14,700	5,300¶	1,500¶	6,100	6,900

DATA SOURCE: YSS 2010/2011

<sup>§</sup> NOTE: Each column of the table reflects the percentage of users of each tobacco product (e.g., cigarettes or cigarillos) who have used a flavoured form of that product in the last 30 days

\* New Brunswick declined participation in the 2010-11 YSS

† Includes daily, occasional and experimental smoking

‡ "Any form of tobacco" includes cigarettes, pipe tobacco, cigarillos or little cigars, cigars, roll-your-own cigarettes, bidis, smokeless tobacco, water pipe to smoke tobacco, or blunt wraps, but does NOT include individuals who only used nicotine patches, nicotine gum, nicotine lozenges, or nicotine inhalers

¶ Moderate sampling variability, interpret with caution

# High sampling variability, data are suppressed

\*\* Secondary III-V in Quebec

†† For Quebec, Grade 7 represents Secondary I, Grade 8 represents Secondary II, Grade 9 represents Secondary III, Grade 10 represents Secondary IV, Grade 11 represents Secondary V and Grade 12 does not exist