



April 2014

# Waterpipe Use in Ontario

As waterpipe (hookah) use has increased around the world, particularly among young people, it has become a growing public health concern. The smoke inhaled through waterpipe contains many of the same toxic constituents found in cigarette smoke, posing potential health risks to users and those who are exposed to secondhand smoke.<sup>1,2</sup>

Key Finding: 30% of Ontario's young adults aged 20-24 have smoked waterpipe tobacco

This update examines the latest population survey data about the prevalence of waterpipe use in Ontario, patterns of use, the relationship of waterpipe smoking to use of other tobacco products, beliefs about potential harms, and attitudes about regulation.

### Waterpipe Use among Youth

#### 2013 Ontario Student Drug Use and Health Survey

- According to the 2013 Ontario Student Drug Use and Health Survey (students in grades 7-12), the prevalence of ever use of hookah was 11.2% (95% CI: 9.5, 13.1) with 9.7% (95% CI: 8.2, 11.5) of students reporting hookah use within the past year (see Table 1 and 2).
- 4.3% (95% CI: 3.3, 5.5) of students reported using hookah at least 6 times in the past 12 months. There were significant differences in past year use by sex and grade.
- For daily smokers 43.3% used hookah in the past year compared to 42.8% of occasional smokers and 6.3% of nonsmokers. Cigarette users, marijuana users, and alcohol users were more likely to have used hookah.
- Use of hookah was lowest in the Erie St Clair and South West LHIN and the Waterloo Wellington LHIN with 7.5% past year use. Use was highest in the Hamilton LHIN with 15.3% past year use.
- Among all students including both waterpipe users and nonusers, only 18.2% (95% CI: 16.7, 19.9) thought there was a "great risk" of using hookah regularly compared to 30% of students who perceived great risk from using 1 to 2 cigarettes daily.

#### 2010 Youth Smoking Survey

- Using the Youth Smoking Survey data, the estimate of ever use in 2010 in Ontario youth grades 7-12 was 6.2% (95% CI: 5.3, 7.2) compared to 5.7% (95% CI: 4, 7.5) in 2006 (see Table 3 and 4). This is lower than the national average of 7.3% (95% CI: 6.4, 8.3) in 2010.
- The prevalence of hookah use increased 6% using among all Canadian students.<sup>3</sup> Boys and students in older grades were more likely to have ever used hookah.
- Over forty per cent of current cigarette smokers had tried hookah (40.7%; 95% CI: 29.6, 51.9). Cigarette smokers, marijuana users, occasional and frequent alcohol drinkers and binge drinkers were more likely to have used hookah.
- Nondrinkers and nonmarijuana users were less likely to have used hookah compared to nonsmokers. There was no reportable difference by ethnicity. Marijuana users and males were more likely to use hookah.

### Waterpipe Use among Young Adults

- The Canadian Tobacco Use Monitoring Survey captures young adult use. In 2012 in Ontario, 29.7% (95% CI: 23.3, 36.1) of young adults 20-24 had reported using waterpipe, compared to 12.9 (95% CI: 12.9, 9.5) of youth 15-19 years old.
- Young adult ever use but not youth ever use was significantly higher in 2012 than in 2011. There was no statistical difference in use by education or occupation for the Ontario data.
- While the Ontario data was not reportable, 82.9% of Canadian waterpipe users who reported use in the past 30 days said that they smoked flavoured tobacco in the waterpipe (see Table 5 for additional data).

#### Public Opinion about Waterpipe Use

- The CAMH Monitor, 2012 (n=3030) asks adults older than 18 about public support for waterpipe regulations. Of those who expressed an opinion, 23% supported allowing waterpipe smoking indoors and outdoors while over three quarter (77%) supported additional regulations.
- Banning use on patios and indoors was supported by 41%, while banning indoor use only was supported by an additional 36%.

Categories	Weighted Population Estimates	Weighted Estimates (%)	Lower 95% Cl	Upper 95% Cl	Coefficient of Variation	Reportability <sup>b</sup>
Grade 7-12, All sex	88,400	9.7	8.2	11.5	8.7	Reportable
Grade 7-12, Female	34,800	7.9	6.4	9.6	10.0	Reportable
Grade 7-12, Male	53,500	11.5	9.1	14.4	11.6	Reportable
Grade 7-9, All sex	9,100	2.4	1.7	3.5	17.9	Reportable
Grade 7-9, Female	3,700	2.0	1.2	3.3	26.1	Reportable
Grade 7-9, Male	5,300	2.9	1.8	4.6	23.5	Reportable
Grade 10-12, All sex	79,300	14.7	12.5	17.4	8.4	Reportable
Grade 10-12, Female	31,100	12.1	9.8	14.7	10.2	Reportable
Grade 10-12, Male	48,100	17.2	13.9	21.2	10.8	Reportable
Grade 7-8, All sex	2,800	1.3	0.7	2.4	32.8	Reportable
Grade 7-8, Female						Data not reportable
Grade 7-8, Male	2,100	2.0	1.0	3.7	31.9	Reportable
Grade 9, All sex	6,200	4.3	2.9	6.3	19.8	Reportable
Grade 9, Female	3,000	4.4	2.6	7.4	26.9	Reportable
Grade 9, Male	3,200	4.2	2.2	7.9	32.2	Reportable
Grade 10, All sex	12,900	8.5	5.8	12.3	18.9	Reportable
Grade 10, Female	6,500	8.8	4.8	15.6	29.8	Reportable
Grade 10, Male	6,400	8.2	4.9	13.3	25.3	Reportable
Grade 11, All sex	24,800	15.1	11.4	19.7	13.9	Reportable
Grade 11, Female	8,400	10.6	7.1	15.5	19.7	Reportable
Grade 11, Male	16,300	19.2	12.7	27.9	20.0	Reportable
Grade 12, All sex	41,500	18.8	14.6	23.9	12.6	Reportable
Grade 12, Female	16,200	15.4	11.1	21.0	16.2	Reportable
Grade 12, Male	25,300	21.8	16.0	29.0	15.1	Reportable

#### Table 1: Percentage of Students Reporting Waterpipe Use in the Last 12 Months, Ontario<sup>a</sup>

Ethnic: White (Grade 7-12)	52,400	9.9	8.0	12.2	10.8	Reportable
Ethnic: Black and Latin/Central/South American (Grade 7-12)	7,300	7.4	4.6	11.7	23.6	Reportable
Ethnic: Asian (Grade 7-12)	23,300	10.0	7.6	13.1	13.9	Reportable
Ethnic: Aboriginal (Grade 7-12)						Data not reportable
Cigarette use in last 12 months: Non-smoker (Grade 7-12)	52,100	6.3	5.0	7.9	11.4	Reportable
Cigarette use in last 12 months: Occasional smoker (Grade 7-12)	20,900	42.8	32.7	53.4	12.4	Reportable
Cigarette use in last 12 months: daily smoker (Grade 7-12)	12,800	43.3	31.7	55.6	14.2	Reportable
Cannabis use in last 12 months: non-users (Grade 7-12)	14,300	2.0	1.4	3.0	20.0	Reportable
Cannabis use in last 12 months: 1-5 times (Grade 7-12)	15,300	17.0	11.5	24.6	19.4	Reportable
Cannabis use in last 12 months: 6-19 times (Grade 7-12)	18,200	39.7	30.8	49.4	12.0	Reportable
Cannabis use in last 12 months: 20 times or more (Grade 7-12)	40,000	56.3	47.3	65.0	8.1	Reportable
Binge Drinking in last 4 weeks: Non-binge drinker (Grade 7-12)	39,000	5.3	4.1	7.0	13.8	Reportable
Binge Drinking in last 4 weeks: 1-3 times (Grade 7-12)	35,300	24.7	20.3	29.8	9.7	Reportable
Binge Drinking in last 4 weeks: 4 + times (Grade 7-12)	13,500	45.5	27.2	65.1	22.2	Reportable
LHIN: Erie St Clair & South West (Grade 9-12)	4,000	7.5	4.5	12.4	25.8	Reportable
LHIN: Waterloo Wellington (Grade 9-12)	5,100	7.5	4.1	13.3	29.6	Reportable
LHIN: Hamilton Niag-Hald-Brant (Grade 9-12)	12,400	15.3	9.0	24.8	25.6	Reportable
LHIN: Central West (Grade 9-12)	8,500	14.2	8.6	22.6	24.6	Reportable
LHIN: Mississauga Halton (Grade 9-12)	7,000	14.3	11.1	18.2	12.6	Reportable
LHIN: Toronto Central & Central (Grade 9-12)	20,100	14.8	9.6	22.0	21.0	Reportable
LHIN: Central East & North Simcoe Muskoka (Grade 9-12)	15,300	12.1	9.1	16.0	14.3	Reportable
LHIN: South East (Grade 9-12)	800	11.1	6.5	18.2	26.0	Reportable
LHIN: Champlain (Grade 9-12)	8,300	12.2	8.4	17.6	18.7	Reportable
LHIN: North East & North West (Grade 9-12)	3,700	11.6	6.4	20.2	29.2	Reportable

Source: Ontario Student Drug Use and Health Survey (OSDUHS) 2013

<sup>a</sup> OSDUHS collected date among grade 7-12 students in Ontario between November 2012 and June 2013. Total survey sample size is 10,272 students. Waterpipe use was asked in half of the sample N=4794

<sup>b</sup> Marginal estimates should be interpreted with caution: subject to moderate sampling variability

Categories	Weighted Population Estimates	Weighted Estimates (%)	Lower 95% Cl	Upper 95% Cl	Coefficient of Variation	Reportability <sup>b</sup>
Grade 7-12, All sex	101,600	11.2	9.5	13.1	8.1	Reportable
Grade 7-12, Female	40,600	9.1	7.5	11.2	10.2	Reportable
Grade 7-12, Male	61,000	13.1	10.6	16.0	10.5	Reportable
Grade 7-9, All sex	10,700	2.9	2.1	4.0	17.1	Reportable
Grade 7-9, Female	4,700	2.6	1.6	4.1	24.1	Reportable
Grade 7-9, Male	5,900	3.2	2.1	4.9	22.0	Reportable
Grade 10-12, All sex	90,800	16.9	14.4	19.6	7.8	Reportable
Grade 10-12, Female	35,800	13.9	11.3	17.0	10.4	Reportable
Grade 10-12, Male	55,000	19.7	16.1	23.7	9.8	Reportable
Grade 7-8, All sex	3,500	1.6	0.9	2.8	29.9	Reportable
Grade 7-8, Female						Data not reportable
Grade 7-8, Male	2,500	2.3	1.3	4.2	30.0	Reportable
Grade 9, All sex	7,200	5.0	3.4	7.2	18.9	Reportable
Grade 9, Female	3,800	5.5	3.4	8.8	24.2	Reportable
Grade 9, Male	3,400	4.5	2.4	8.1	30.8	Reportable
Grade 10, All sex	16,300	10.7	7.6	14.9	17.2	Reportable
Grade 10, Female	7,900	10.7	6.5	17.3	24.8	Reportable
Grade 10, Male	8,300	10.7	6.5	17.1	24.7	Reportable
Grade 11, All sex	27,300	16.6	12.8	21.2	12.8	Reportable
Grade 11, Female	8,900	11.2	7.6	16.3	19.5	Reportable
Grade 11, Male	18,300	21.5	14.9	30.0	17.7	Reportable
Grade 12, All sex	47,200	21.4	16.9	26.6	11.5	Reportable
Grade 12, Female	18,900	18.1	13.3	24.1	15.1	Reportable
Grade 12, Male	28,200	24.3	18.2	31.7	14.1	Reportable

#### Table 2: Percentage of Students Reporting Ever Use of Waterpipe, Ontario<sup>a</sup>

Ethnic: White (Grade 7-12)	59,900	11.4	9.3	13.8	10.1	Reportable
Ethnic: Black and Latin/Central/South American (Grade 7-12)	8,000	8.2	5.3	12.4	21.5	Reportable
Ethnic: Asian (Grade 7-12)	27,000	11.6	8.9	14.9	13.1	Reportable
Ethnic: Aboriginal (Grade 7-12)						Data not reportable
Cigarette use in last 12 months: Non-smoker (Grade 7-12)	60,800	7.3	6.0	9.0	10.2	Reportable
Cigarette use in last 12 months: Occasional smoker (Grade 7-12)	22,900	46.9	36.9	57.2	11.1	Reportable
Cigarette use in last 12 months: daily smoker (Grade 7-12)	15,300	51.5	36.9	65.8	14.6	Reportable
Cannabis use in last 12 months: non-users (Grade 7-12)	19,800	2.8	2.1	3.8	15.7	Reportable
Cannabis use in last 12 months: 1-5 times (Grade 7-12)	17,600	19.6	13.9	27.0	16.9	Reportable
Cannabis use in last 12 months: 6-19 times (Grade 7-12)	19,400	42.3	32.9	52.3	11.7	Reportable
Cannabis use in last 12 months: 20 times or more (Grade 7-12)	43,600	61.5	52.0	70.2	7.6	Reportable
Binge Drinking in last 4 weeks: Non-binge drinker (Grade 7-12)	45,700	6.3	4.9	8.0	12.5	Reportable
Binge Drinking in last 4 weeks: 1-3 times (Grade 7-12)	41,500	29.0	24.4	34.2	8.6	Reportable
Binge Drinking in last 4 weeks: 4 + times (Grade 7-12)	13,800	46.5	27.2	66.9	22.9	Reportable
LHIN: Erie St Clair & South West (Grade 9-12)	4,900	9.3	6.2	13.5	19.5	Reportable
LHIN: Waterloo Wellington (Grade 9-12)	5,100	7.5	4.1	13.3	29.6	Reportable
LHIN: Hamilton Niag-Hald-Brant (Grade 9-12)	15,200	18.9	12.0	28.5	22.0	Reportable
LHIN: Central West (Grade 9-12)	10,100	16.9	11.8	23.5	17.4	Reportable
LHIN: Mississauga Halton (Grade 9-12)	8,400	17.2	14.5	20.4	8.6	Reportable
LHIN: Toronto Central & Central (Grade 9-12)	21,400	15.7	10.5	22.9	19.8	Reportable
LHIN: Central East & North Simcoe Muskoka (Grade 9-12)	17,300	13.6	10.0	18.2	15.1	Reportable
LHIN: South East (Grade 9-12)	900	12.6	6.8	22.2	30.0	Reportable
LHIN: Champlain (Grade 9-12)	10,200	15.0	11.3	19.8	14.1	Reportable
LHIN: North East & North West (Grade 9-12)	4,100	12.7	7.5	20.8	25.9	Reportable

Source: Ontario Student Drug Use and Health Survey (OSDUHS) 2013

<sup>a</sup> OSDUHS collected date among grade 7-12 students in Ontario between November 2012 and June 2013. Total survey sample size is 10,272 students. Waterpipe was asked in half of the sample: N=4794

<sup>b</sup> Marginal estimates should be interpreted with caution: subject to moderate sampling variability

Categories	Weighted Population Estimates	Weighted Estimates (%)	Lower 95% Cl <sup>ь</sup>	Upper 95% Cl <sup>b</sup>	Coefficient of Variation <sup>b</sup>	Reportability <sup>c</sup>
Grade 7-12, all sex	63,400	6.2	5.3	7.2	7.56	Reportable
Grade 7-12, girls	24,300	4.9	3.6	6.3	13.6	Reportable
Grade 7-12, boys	39,100	7.5	6.4	8.5	7.05	Reportable
Grade 7-9, all sex	7,800	1.7	1.2	2.2	15.06	Reportable
Grade 7-9, girls	2,900	1.2	0.7	1.8	21.41	Marginal
Grade 7-9, boys	5,000	2.1	1.3	2.8	18.17	Marginal
Grade 10-12, all sex	55,600	10.2	8.5	11.9	8.49	Reportable
Grade 10-12, girls	21,400	8.2	5.7	10.6	15.24	Reportable
Grade 10-12, boys	34,100	12	10.3	13.8	7.46	Reportable
Cigarette: Current smoker (Grade 7-12) <sup>d</sup>	20,600	40.7	29.6	51.9	13.96	Reportable
Cigarette: Non-current smoker (Grade 7-12)	42,800	4.4	3.7	5.2	8.96	Reportable
Ethnicity: White (Grade 7-12)	36,600	6.3	5.3	7.2	7.6	Reportable
Ethnicity: Black, Latin, other (Grade 7-12)	16,100	8.1	5.1	11.1	19.02	Marginal
Ethnicity: Asia (Grade 7-12)						Data not reportable
Ethnicity: Aboriginal (Grade 7-12)						Data not reportable
Marijuana last 12 months: Non-user (Grade 7-12) <sup>e</sup>	14,900	1.9	1	2.7	22.48	Marginal
Marijuana last 12 months: Occasional user (Grade 7-12) <sup>e</sup>	16,300	16.2	13.7	18.8	8.05	Reportable
Marijuana last 12 months: Frequent user (Grade 7-12) <sup>e</sup>	29,300	40.1	32.8	47.5	9.31	Reportable
Binge drinking last 12 months: Non-drinker (Grade 7-12) <sup>f</sup>	13,300	1.9	1.1	2.8	22.92	Marginal
Binge drinking last 12 months: Occasional drinker (Grade 7-12) <sup>f</sup>	33,500	15.9	12.9	19	9.84	Reportable
Binge drinking last 12 months: Frequent drinker (Grade 7-12) <sup>f</sup>	13,000	34	29.5	38.6	6.85	Reportable

Table 3: Ever Waterpipe Use by Grade, Sex, Cigarette Smoking Status, Ethnicity, Marijuana Use Status and Binge Drinking Status, 2010/11ª

Source: Youth Smoking Survey (YSS) 2010/11. Public User Microdata file

<sup>a</sup> YSS 2010/11 asked about waterpipe use in Grade 6-12 but there were only a few users among grade 6 students. Our analyses cover grades 7-12

<sup>b</sup> 95% confidence interval and coefficient of variation are from bootstrap methods

<sup>c</sup> Marginal estimates should be interpreted with caution: subject to moderate sampling variability

<sup>d</sup> Current cigarette smokers are those who had smoked 100 cigarettes in their lifetime and had smoked in the previous 30 days; Non-current cigarette smokers include former smokers who had smoked 100 cigarettes in their lifetime but had not smoked in the previous 30 days and nonsmokers who had smoked fewer than 100 cigarettes in their lifetime <sup>e</sup> Marijuana use in the past 12 months was assessed by asking respondents, "In the last 12 months, how often did you use marijuana or cannabis? (a joint, pot, weed, hash . . .)". Those who reported never or not in the last 12 months were considered nonusers, those who reported using marijuana in the last year but not weekly were categorized as occasional users, and those who reported using marijuana weekly were considered frequent users

<sup>f</sup> Binge drinking in the past 12 months was assessed by asking respondents, "In the last 12 months, how often did you have 5 drinks of alcohol or more on 1 occasion?" Those who reported never or not in the last 12 months were nonusers, those who reported binge drinking in the last year but not weekly were categorized as occasional drinkers, and those who reported binge drinking weekly were considered frequent drinkers

Categories	Weighted Population Estimates	Weighted Estimates (%)	Lower 95% Cl <sup>ь</sup>	Upper 95% Cl <sup>ь</sup>	Coefficient of Variation <sup>b</sup>	Reportability <sup>c</sup>
Grade 7-12, all sex	63,400	6.2	5.3	7.2	7.56	Reportable
Grade 7-12, girls	24,300	4.9	3.6	6.3	13.6	Reportable
Grade 7-12, boys	39,100	7.5	6.4	8.5	7.05	Reportable
Grade 7-9, all sex	7,800	1.7	1.2	2.2	15.06	Reportable
Grade 7-9, girls	2,900	1.2	0.7	1.8	21.41	Marginal
Grade 7-9, boys	5,000	2.1	1.3	2.8	18.17	Marginal
Grade 10-12, all sex	55,600	10.2	8.5	11.9	8.49	Reportable
Grade 10-12, girls	21,400	8.2	5.7	10.6	15.24	Reportable
Grade 10-12, boys	34,100	12	10.3	13.8	7.46	Reportable
Cigarette: Current smoker (Grade 7-12) <sup>d</sup>	20,600	40.7	29.6	51.9	13.96	Reportable
Cigarette: Non-current smoker (Grade 7-12)	42,800	4.4	3.7	5.2	8.96	Reportable
Ethnicity: White (Grade 7-12)	36,600	6.3	5.3	7.2	7.6	Reportable
Ethnicity: Black, Latin, other (Grade 7-12)	16,100	8.1	5.1	11.1	19.02	Marginal
Ethnicity: Asia (Grade 7-12)						Data not reportable
Ethnicity: Aboriginal (Grade 7-12)						Data not reportable
Marijuana last 12 months: Non-user (Grade 7-12) <sup>e</sup>	14,900	1.9	1	2.7	22.48	Marginal
Marijuana last 12 months: Occasional user (Grade 7-12) <sup>e</sup>	16,300	16.2	13.7	18.8	8.05	Reportable
Marijuana last 12 months: Frequent user (Grade 7-12) <sup>e</sup>	29,300	40.1	32.8	47.5	9.31	Reportable
Binge drinking last 12 months: Non-drinker (Grade 7-12) <sup>f</sup>	13,300	1.9	1.1	2.8	22.92	Marginal
Binge drinking last 12 months: Occasional drinker (Grade 7-12) <sup>f</sup>	33,500	15.9	12.9	19	9.84	Reportable
Binge drinking last 12 months: Frequent drinker (Grade 7-12) <sup>f</sup>	13,000	34	29.5	38.6	6.85	Reportable

Table 4: Past 30-day Waterpipe Use by Grade, Sex, Cigarette Smoking Status, Ethnicity, Marijuana Use Status and Binge Drinking Status, 2010/11ª

Source: Youth Smoking Survey (YSS) 2010/11. Public User Microdata file

<sup>a</sup> YSS 2010/11 asked about waterpipe use in Grade 6-12 but there were only a few users among grade 6 students. Our analyses cover grades 7-12

<sup>b</sup> 95% confidence interval and coefficient of variation are from bootstrap methods

<sup>c</sup> Marginal estimates should be interpreted with caution: subject to moderate sampling variability

<sup>d</sup> Current cigarette smokers are those who had smoked 100 cigarettes in their lifetime and had smoked in the previous 30 days; Non-current cigarette smokers include former smokers who had smoked 100 cigarettes in their lifetime but had not smoked in the previous 30 days and nonsmokers who had smoked fewer than 100 cigarettes in their lifetime <sup>e</sup> Marijuana use in the past 12 months was assessed by asking respondents, "In the last 12 months, how often did you use marijuana or cannabis? (a joint, pot, weed, hash . . .)". Those who reported never or not in the last 12 months were considered nonusers, those who reported using marijuana in the last year but not weekly were categorized as occasional users, and those who reported using marijuana weekly were considered frequent users

<sup>f</sup> Binge drinking in the past 12 months was assessed by asking respondents, "In the last 12 months, how often did you have 5 drinks of alcohol or more on 1 occasion?" Those who reported never or not in the last 12 months were nonusers, those who reported binge drinking in the last year but not weekly were categorized as occasional drinkers, and those who reported binge drinking weekly were considered frequent drinkers

Table 5: Waterpipe Use by Age, Sex, Education, Occupation, Marital Status, Cigarette Smoking Status, Marijuana Use Status, and Student's Weekly Spending, for Ontario, 2012<sup>a</sup>

Categories	Weighted Population Estimates	Weighted Estimates (%)	Lower 95% Cl <sup>b</sup>	Upper 95% Cl <sup>b</sup>	Coefficient of Variation <sup>c</sup>	Reportability
Age 15+, all sex	1,093,800	9.8	8	11.7	9.74	Reportable
Age 15+, female	365,800	6.5	4.3	8.6	16.75	Marginal
Age 15+, male	728,000	13.4	10.2	16.5	11.97	Reportable
Age 18+, all sex	1,059,700	10	8	11.9	9.96	Reportable
Age 18+, female	345,800	6.4	4.2	8.5	17.37	Marginal
Age 18+, male	713,900	13.8	10.5	17.1	12.15	Reportable
Age 19+, all sex	1,015,000	9.7	7.8	11.7	10.26	Reportable
Age 19+, female	323,700	6.1	3.9	8.3	18.34	Marginal
Age 19+, male	691,300	13.6	10.2	16.9	12.54	Reportable
Age 15-24, all sex	389,900	21.8	18	25.6	8.92	Reportable
Age 15-24, female	186,100	21.2	14.9	27.5	15.11	Reportable
Age 15-24, male	203,800	22.3	17.7	26.9	10.57	Reportable
Age 15-19, all sex	109,300	12.9	9.5	16.3	13.31	Reportable
Age 15-19, female						Data not reportable
Age 15-19, male	59,600	13.7	9.1	18.4	17.38	Marginal
Age 20-24, all sex	280,600	29.7	23.3	36.1	10.96	Reportable
Age 20-24, female	136,400	29.4	18.5	40.2	18.87	Marginal
Age 20-24, male	144,200	30	22.8	37.3	12.32	Reportable
Education: Less than secondary (Age 15+) <sup>d</sup>						Data not reportable
Education: Completed secondary (Age 15+) <sup>d</sup>	459,100	12.6	8.8	16.5	15.51	Reportable
Education: Completed community, technical college, CEGEP or nurse's college (Age 15+) <sup>d</sup>						Data not reportable
Education: Completed University or teacher's college (Age 15+) <sup>d</sup>	406,800	11.3	7.6	15	16.71	Marginal
Occupation: White collars (Age 15+) <sup>e</sup>	450,400	10.6	7.4	13.8	15.59	Reportable

Occupation: Sales and Services (Age 15+) <sup>e</sup>	244,900	13.3	8.7	17.8	17.44	Marginal
Occupation: Blue collars (Age 15+) <sup>e</sup>	188,400	14.6	6	23.2	30.06	Marginal
Marital: Common-law/Married (Age 15+) <sup>f</sup>	447,100	6.5	4.3	8.7	17.22	Marginal
Marital: Widowed/Divorced/Separated (Age 15+) <sup>f</sup>						Data not reportable
Marital: Single, never married (Age 15+) <sup>f</sup>	633,500	21	16	26	12.05	Reportable
Cigarette: Current smoker (Age 15+) <sup>g</sup>	320,000	18.7	11.7	25.7	19.07	Marginal
Cigarette: Former smoker (Age 15+) <sup>g</sup>	244,800	8.3	4.5	12.1	23.14	Marginal
Cigarette: Never smoker (Age 15+) <sup>g</sup>	529,000	8.2	6.1	10.3	13.01	Reportable
Ever tried Marijuana, cannabis or hashish:Yes (Age 15+) <sup>h</sup>	786,100	19.9	15.4	24.5	11.55	Reportable
Ever tried Marijuana, cannabis or hashish:No (Age 15+) <sup>h</sup>	295,700	4.3	2.5	6.1	21.36	Marginal
Use Marijuana in the past 12 months:Yes (Age 15+) <sup>i</sup>	476,800	38.9	28.6	49.2	13.57	Reportable
Use Marijuana in the past 12 months:No (Age 15+) <sup>i</sup>	605,000	6.3	4.7	7.9	13.1	Reportable
Marijuana users past 12 months: use less than weekly (Age 15+) <sup>j</sup>	340,300	39.2	25.9	52.6	17.36	Marginal
Marijuana users past 12 months: use more than weekly but less than daily (Age 15+) <sup>j</sup>						Data not reportable
Marijuana users past 12 months: use daily (Age 15+) <sup>j</sup>						Data not reportable
Weekly spending money, Age 15-24 attending school/college/university: \$0-99 <sup>k</sup>	121,800	18	12.9	23.1	14.37	Reportable
Weekly spending money, Age 15-24 attending school/college/university: \$100+ <sup>k</sup>	97,400	23.4	16	30.8	16.13	Reportable

<sup>a</sup> Canadian Tobacco Use Monitoring Survey (CTUMS), Annual (2012)

<sup>b</sup> 95% confidence intervals and coefficient of variation are from bootstrap methods

<sup>c</sup> Marginal estimates should be interpreted with caution: subject to moderate sampling variability

<sup>d</sup> Education is based on the derived variable for highest level of education attained (DVEDUC)

<sup>e</sup> Occupation is based on the main job of those who worked in a job (include seasonal, contract work, self-employment, and any other paid work) in the past 12 months (DVNOCS10) <sup>f</sup> Marital status of respondent is based on the variable (DVMARST)

<sup>g</sup> Cigarette smoking: current smokers are those smoked 100 cigarette lifetime and smoked in the past 30 days, former smokers are those smoked 100 cigarettes lifetime but did not smoked in the past 30 days, and never smokers are those have not smoked 100 cigarettes in their lifetime (SS\_Q10,SS\_Q2-,SS\_Q40)

<sup>h</sup> Marijuana ever tried are those who have tried just once or more than once (MU\_Q10)

<sup>i</sup> Marijuana used in the past 12 months are those have used it in the past 12 month (MU\_Q20)

<sup>j</sup> Marijuana use in the past 12 months: Less than weekly are those used "Less than once a month" or "1-3 times a month"; more than weekly but less than daily are those used "Once a week" or "More than once a week"; used daily are those used "Every day" (MU\_Q30)

 $^{
m k}$  Student's weekly spending money among age 15-24 who are in schooling is based on variable SI\_G20

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## References

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<sup>2</sup> Zhang B, Haji F. Kaufman P, Muir S, Ferrence R. 'Enter at your own risk': A multimethod study of air quality and biological measures in Canadian waterpipe cafes. *Tobacco Control* 2013 Oct 25[Epub ahead of print].

<sup>3</sup> Czoli CD, Leatherdale ST, Rynard V. Bidi and Hookah Use Among Canadian Youth: Findings From the 2010 Canadian Youth Smoking Survey. *Prev Chronic Dis* 2013.