Prevalence of substance use in lifetime, past year and past 30 days in British Columbia and other provinces of Canada from 2008 to 2012

Jinhui Zhao, Kate Vallance, Gina Martin, Scott Macdonald and Tim Stockwell,
Centre for Addictions Research of British Columbia, University of Victoria

1. Objective

In this report, the prevalence of several types of substance use (alcohol, cannabis, pharmaceutical, pain reliever, sedatives, stimulants and cigarettes) in lifetime, past year and past 30 days are presented for British Columbia (BC) and other provinces of Canada from 2008 to 2012. Breakdowns are provided by sex.

2. Methods

The analyses were based on the Canadian Alcohol and Drug Use Monitoring Survey (CADUMS) from 2008 to 2012. The CADUMS is an on–going survey on alcohol and other substance use among Canadians. The survey covers population aged 15 years and older in ten provinces and excludes residents of the Yukon, the Northwest Territories and Nunavut, permanent residents of institutions, people living in households without a telephone and people with cell phones only. Details on the survey can be found elsewhere [1-4].

2.1. Survey sampling

The CADUMS was a virtually continuous survey on alcohol and other substance use among Canadians initiated in April 2008 by the Controlled Substances and Tobacco Directorate, Health Canada.[1-3] The survey was derived from the Canadian Addiction Survey administered in 2004 and contained questions on alcohol and illicit drug use (including prescription drug misuse) and associated harms.[5] The CADUMS used random digit dialing to obtain a stratified sample across all 10 provinces with equal representation of subjects each month. It is based on a two–stage (telephone household, respondent) random sample stratified by province. The CADUMS survey covers population aged 15 years and older in ten provinces and excludes residents of the Yukon, the Northwest Territories and Nunavut, permanent residents of institutions, people living in households without a telephone and people with cell phones only. The sample size was 16,674 in 2008, 13,082 in 2009, 13,615 in 2010, 10,076 in 2011 and 11,090 in 2012. Each sample represents an estimated 25,957,435 Canadians aged 15 years and older to order to ensure an even monthly distribution of the data.

2.1. Prevalence of substance use

Measures of substance use can be found in Appendix A. The percent of adults who used alcohol in lifetime, past year, past 30 days was estimated. Lifetime drinker was defined as those who drank at least one time and one drink in lifetime (one standard drink=13.6 g or 17.05 ml in Canada). Past year drinker was defined as those who reported drinking at least one time and one drink in the past 12 months before the survey and past 30–day drinker was defined as those who reported drinking at least once and one drink during the past 30 days before the survey.

Lifetime, past year and past 30–day cannabis user was defined as those who used marijuana, cannabis or hashish at least once in lifetime, past year or past 30 days. The prevalence of lifetime, past year and past 30–day cannabis use among Canadians aged 15 years and older was estimated.

Lifetime methamphetamine (or crystal meth) use was reported in the 2010, 2011 and 2012 CADUMS and the prevalence in 2010, 2011 and 2012 was estimated. Past year methamphetamine use was reported in the 2008, 2009, 2010, 2011 and 2012 but the unstable estimate has been suppressed because of no or a few methamphetamine users in each of the samples.

CADUMS for five years includes only questions relating to the use of psychoactive pharmaceutical drugs: pain relievers, sedatives and tranquillizers, and stimulants in the past year. Therefore, the percentages of those who used pain relievers, those who used sedatives and tranquillizer, and those who used stimulants in the past year were estimated.

Lifetime smoker was defined as those who smoked 100 cigarettes in lifetime and past year smokers are those who smoked occasionally and daily in the past year. The percentages of lifetime and past year smoker were estimated.

2.2. Statistical analysis

Each sample was analyzed to estimate the prevalence of substance use and 95% confidence interval (CI) in each year and the pooled sample was also analyzed to estimate the prevalence during the period from 2008 to 2012. The estimates were based on the weighted sample and the weights were recalculated and rescaled [6]. The method of comparison of two proportions and z–test were used to test for significant differences between BC and other provinces of Canada overall and by gender during the period from 2008 to 2012 and in each of years [7]. Multivariate logistic regression was used to examine the relationship between each of past year substance uses and year, i.e., trend in substance use in BC and other provinces of Canada overall and by gender [8]. The Wald test was used to examine the relationship between past year substance use and year. Statistical analyses were completed using SAS 9.3 [9]. Statistical analyses were completed using the SAS SURVEYMEANS, SURVEYFREQ and SURVEYLOGISTIC procedures because these procedures analyze sample survey data taking into account the sample design effect [9].

3. Results

3.1 Alcohol consumption

Table 1A, 1B and 1C present the percentages of those using alcohol in lifetime, past year and past 30 days, with breakdowns by gender and provinces from 2008 to 2012. The percent of adults that used alcohol in lifetime was 89.87% in BC and 89.64% in other provinces during the period from 2008 to 2012 and no significant difference in the prevalence of lifetime alcohol use was found between BC and other provinces (Z–test: P>0.05). There was no significant difference in the prevalence for either men or women between BC and other provinces (Z–test: P>0.05).

In BC, the percent of adults that used alcohol in the past year was 76.97% during the period from 2008 to 2012 which was lower than that (77.43%) in other nine provinces of Canada but not significant (Z–test: P>0.05). There was no significant difference in the prevalence of alcohol use in the past year for either men or women between BC and other provinces (Z–test: P>0.05).

The prevalence of past 30–day alcohol use in men was 67.87% in BC which was significantly lower than 69.88% in other provinces in 2008–2012 (95% CI of the rate difference: –3.54 to –0.48%, Z–test: P<0.05). There was no significant difference in the prevalence for women between BC and other provinces (Z–test: P>0.05).

The prevalence of alcohol drinking in lifetime and past year remained unchanged over years in both BC and other provinces but the prevalence in the past 30 days for females significantly decreased in BC (Wald test P<0.01).

3.2 Cannabis use

Table 2A, 2B and 3C present the prevalence of substance use in BC and other provinces from 2008 to 2012. The prevalence of cannabis use in lifetime, past year and 30 days was significantly higher in BC than that in other provinces during the period 2008–2012. The prevalence in past year tended to decrease significantly among males in BC from 2008 to 2012 (Wald test P=0.0399). The prevalence in lifetime and past 30 days appeared to decrease significantly among females in BC from 2008 to 2012 (Wald test P=0.0054 and 0.0338).

3.3. Methamphetamine use

Table 3A presents the prevalence of methamphetamine use in past year in BC and other provinces from 2008 to 2012. Most estimates were unstable (CV > 33.3%) and have been suppressed. Estimates of the prevalence of lifetime methamphetamine use in 2012 showed a higher rate in BC but it is not significantly different than in other provinces (Z–test: P>0.05). The prevalence remained unchanged over years from 2008 to 2012 in men and women in both BC and other provinces (Wald test P>0.05).

3.4. Pharmaceutical use

Table 4A presents the prevalence of pharmaceutical use (pain relievers, sedatives and stimulants) in past year in BC and other provinces from 2008 to 2012. The prevalence of pharmaceutical use in past year tended to be higher in BC than that in other provinces during the period 2008–2012 (95% CI$_{(diff)}$ of the rate difference: 1.15 to 3.19% for males and females and Z–test P<0.001; 0.32 to 3.12% for males and Z–test P<0.05; 1.16 to 4.08% for females and Z–test P<0.001). The prevalence of pharmaceutical use appeared to decrease significantly in other provinces over years from 2008 to 2012 (Wald test P<0.0001 for combined males and females, P=0.0202 for males and P<0.0001 for females).

3.4.1. Pain reliever use

Table 4B presents the prevalence of pain reliever use in past year in BC and other provinces from 2008 to 2012. The prevalence of pain reliever use in past year tended to be higher in BC than that in other provinces in 2008–2012 (95% CI$_{(diff)}$ of the rate difference: 1.45 to 3.31% for males and females and Z–test P<0.001; 0.72 to 3.32% for males and Z–test P<0.01; 1.39 to 4.05% for females and Z–test P<0.001). The prevalence of pain reliever use appeared to decrease significantly in other provinces over years from 2008 to 2012 (Wald test P<0.0001 for combined males and females, P=0.0204 for males and P<0.0001 for females).

3.4.2. Sedative use

Table 4C presents the prevalence of sedative use in past year in BC and other provinces from 2008 to 2012. The prevalence of sedative use in past year tended to be higher in BC than that in other provinces in 2008–2012 (95% CI$_{(diff)}$ of the rate difference: 0.20 to 1.58% for males and females and Z–test P<0.05; 0.52 to 2.68% for females and Z–test P<0.01). The prevalence of sedative use remained unchanged in either BC or other provinces over years from 2008 to 2012.

3.4.3. Stimulant use

Table 4D presents the prevalence of stimulant use in past year in BC and other provinces from 2008 to 2012. No statistical difference between BC and other provinces was found during the period from 2008 to 2012. The prevalence of stimulant use in past year significantly increased in other provinces from 2008 to 2012 among males (Wald test P=0.0191).

3.5. Smoking

Table 5A and 5B show the percentages of those smoking in lifetime and past year in BC and other provinces from 2008 to 2012. The proportion of lifetime smokers tended to be lower in BC than other provinces from 2008 to 2012 (95% CI$_{(diff)}$ of the rate difference: –4.02 to –1.76% for males and females and Z–test P<0.001; –5.50 to –2.24% for males and Z–test P<0.001; –3.52 to –1.55% for

females and Z–test P<0.001). The proportion of past year smokers also tended to be lower in BC than other provinces from 2008 to 2012 (95% CI$_{(diff)}$ of the rate difference: –5.59 to –3.97% for males and females and Z–test P<0.001; –5.95 to –3.49% for males and Z–test P<0.001; –5.88 to –3.78% for females and Z–test P<0.001). The prevalence in lifetime decreased significantly over years in BC overall (Wald test P<0.05) and in other provinces overall and for men (Wald test P<0.01 and <0.05). The prevalence in past year decreased significantly over years in BC overall (Wald test P<0.05) and in men (Wald test P<0.05).

References

1.   Health Canada: **Canadian Alcohol and Drug Use Monitoring Survey 2008: Microdata User Guide**. In. Ottawa: Health Canada. Available from URL: http://prod.library.utoronto.ca/datalib/codebooks/cstdli/cadums/2008/cadums-technical-guide-2008-final-eng.pdf. Accessible 14 December 2010; 2009.

2.   Health Canada: **Canadian alcohol and drug use monitoring survey 2009: microdata user guide**. In. Ottawa: Health Canada. Available from URL: http://datalib.chass.utoronto.ca/codebooks/cstdli/cadums09/cadums%20final%20technical%20guide%202009%20-en.pdf. Accessible 29 Marhc 2011; 2010.

3.   Health Canada: **Canadian alcohol and drug use monitoring survey 2010: microdata user guide**. In. Ottawa: Health Canada. Available from URL: odesi.ca/documentation/CADUMS/2010/cadums_2010_gid_eng.pdf. Accessible 18 June 2013.; 2011.

4.   Health Canada: **Canadian Alcohol and Drug Use Monitoring Survey (CADUMS)**. In. Ottawa: Health Canada. Available from URL: http://www.hc-sc.gc.ca/hc-ps/drugs-drogues/cadums-esccad-eng.php. Accessible 11 September 2012; 2012.

5.   Canadian Centre on Substance Abuse: **Canadian Addiction Survey 2004: Microdata eGuide**. In. Ottawa: Canadian Centre on Substance Abuse; 2005.

6.   Thomas S, Wannell B: **Combining cycles of the Canadian Community Health Survey**. *Health Reports* 2009, **20**(1).

7.   Pagano M, Gauvreau K: **Principles of biostatistics**, 2 edn. Pacific Grove, CA: Duxbury; 2000.

8.   Hosmer DW, Lemeshow S: **Applied logistic regression**. New York: Wiley; 2000.

9.   SAS Institute: **SAS/STAT 9.3 user's guide**. Cary, NC: SAS Institute Inc. ; 2011.

Appendix A. Questions about substance use in the 2008–2012 CADUMS

Substance	Lifetime use	Past year use	Past 30 days use
Alcohol	Have you ever had a drink? (2008, 2009, 2010, 2011, 2012)	How often did you drink alcoholic beverages during the past 12 months? (2008, 2009, 2010, 2011,)	What about the past 30 days, on how many of these days did you drink alcoholic beverages? (2008, 2009, 2010, 2011, 2012)
Cannabis	In your lifetime, have you ever used or tried marijuana, cannabis or hashish including medical use? (2008, 2009, 2010, 2011, 2012)	Have you ever used or tried marijuana, cannabis or hashish including medical use in the past 12 months? (2008, 2009, 2010, 2011, 2012)	How about the past 30 days, on how many of these days did you use marijuana? (2008, 2009, 2010, 2011, 2012)
Methamphetamine	Have you ever used or tried methamphetamine or crystal meth? (2010, 2011, 2012)	Have you used or tried methamphetamine or crystal meth during the past 12 months? (2008, 2009, 2010, 2011, 2012)	
Psychoactive pharmaceuticals		Used pain relievers, sedatives/tranquillizers or stimulants at least once during the past 12 months (2008, 2009, 2010, 2011, 2012)	
Pain relievers		In the past 12 months how often, if at all, have you used any such pain relievers (Percodan, Demerol, OxyContin)? (2008, 2009, 2010, 2011, 2012)	
Sedatives and tranquillizers		In the past 12 months how often, if at all, have you used any such sedatives or tranquillizers (Valium, Ativan, Xanax or others)? (2008, 2009, 2010, 2011, 2012)	

Stimulants		In the past 12 months how often, if at all, have you used any such stimulants (such as Ritalin, Concerta, Adderall Dexedrine, or others)? (2008, 2009, 2010, 2011, 2012)	
Smoking	Have you ever smoked at least 100 cigarettes in your life? (2008, 2009, 2010, 2011, 2012)	Current daily smokers plus current occasional smokers (2008, 2009, 2010, 2011, 2012)	

Alcohol consumption in lifetime

Table 1A. Prevalence (%) of alcohol consumption in lifetime overall and by gender in British Columbia and other provinces of Canada, 2008–2012

Gender	Year						Wald Test for Trend Δ
	2008–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	89.87 [89.09–90.66]	89.72 [88.59–90.85]	88.68 [87.50–89.86]	89.48 [87.44–91.51]	90.57 [87.77–93.37]	91.35 [89.55–93.15]	P=0.1148 (+)
Other provinces	89.64 [89.10–90.18]	90.29 [89.22–91.35]	88.56 [87.37–89.75]	88.84 [87.74–89.94]	89.61 [88.16–91.05]	90.96 [89.66–92.26]	P=0.5908 (+)
Rate difference †	0.23 [–0.46–0.92]	–0.57 [–1.93–0.79]	0.12 [–1.48–1.72]	0.64 [–0.89–2.17]	0.96 [–0.74–2.66]	0.39 [–1.15–1.93]	
Z–test, P–value	ns	ns	ns	ns	ns	ns	
Male							
BC	92.17 [91.17–93.18]	91.75 [90.19–93.30]	91.00 [89.34–92.67]	92.33 [89.69–94.97]	92.53 [89.23–95.82]	93.66 [91.29–96.03]	P=0.1565 (+)
Other provinces	92.24 [91.52–92.95]	93.33 [91.97–94.68]	91.02 [89.36–92.67]	91.14 [89.62–92.67]	92.94 [91.19–94.70]	92.74 [90.91–94.57]	P=0.8502 (+)
Rate difference	–0.07 [–0.95–0.81]	–1.58 [–3.33–0.17]	–0.02 [–2.10–2.06]	1.19 [–0.72–3.10]	–0.41 [–2.58–1.76]	0.92 [–1.01–2.58]	
Z–test, P–value	ns	ns	ns	ns	ns	ns	
Female							
BC	87.71 [86.53–88.89]	87.81 [86.18–89.44]	86.50 [84.84–88.16]	86.79 [83.75–89.83]	88.73 [84.31–93.14]	89.18 [86.51–91.85]	P=0.3376 (+)
Other provinces	87.20 [86.41–87.99]	87.43 [85.81–89.05]	86.25 [84.56–87.94]	86.68 [85.11–88.25]	86.47 [84.24–88.70]	89.27 [87.43–91.11]	P=0.5336 (+)
Rate difference	0.51 [–0.63–1.55]	0.38 [–1.67–2.33]	0.25 [–2.16–2.66]	0.11 [–2.23–2.45]	2.26 [–0.31–4.83]	–0.09 [–2.46–2.28]	
Z–test, P–value	ns	ns	ns	ns	ns	ns	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [$P_{(BC)}$–$P_{(OTHER)}$] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05.

Table 1B. Prevalence (%) of alcohol consumption in past year overall and by gender in British Columbia and other provinces of Canada, 2008–2012

Gender	Year						Wald Test for Trend Δ
	2008–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	76.97 [75.92–78.01]	76.96 [75.50–78.41]	75.57 [74.05–77.09]	77.25 [74.42–80.09]	77.15 [73.45–80.84]	78.10 [75.71–80.49]	P=0.8145 (+)
Other provinces	77.43 [76.73–78.13]	77.39 [75.93–78.84]	76.63 [75.11–78.16]	76.91 [75.42–78.39]	78.08 [76.33–79.83]	78.50 [76.85–80.15]	P=0.7386 (+)
Rate difference †	–0.46 [–1.42–0.50]	–0.43 [–2.32–1.46]	–1.06 [–3.23–1.11]	0.34 [–1.74–2.42]	–0.93 [–3.35–1.49]	–0.40 [–2.66–1.86]	
Z–test, P–value	ns	ns	ns	ns	ns	ns	
Male							
BC	80.41 [78.90–81.92]	80.96 [78.89–83.04]	78.57 [76.36–80.77]	80.48 [76.37–84.59]	78.81 [73.31–84.30]	83.11 [79.92–86.30]	P=0.7965 (+)
Other provinces	81.31 [80.31–82.32]	81.42 [79.35–83.49]	80.44 [78.27–82.62]	80.21 [77.98–82.43]	82.32 [79.88–84.77]	82.62 [80.26–84.99]	P=0.6589 (+)
Rate difference	–0.90 [–2.19–0.39]	–0.46 [–2.99–2.07]	–1.87 [–4.84–1.10]	0.27 [–2.55–3.09]	–3.51 [–6.86–0.16]	0.49 [–2.45–3.43]	
Z–test, P–value	ns	ns	ns	ns	ns	ns	
Female							
BC	73.72 [72.27–75.16]	73.18 [71.16–75.20]	72.74 [70.67–74.82]	74.20 [70.29–78.11]	75.58 [70.61–80.56]	73.37 [69.93–76.82]	P=0.9331 (+)
Other provinces	73.38 [72.81–74.74]	73.60 [71.58–75.61]	73.06 [70.93–75.18]	73.80 [71.82–75.78]	74.10 [71.62–76.57]	74.59 [72.32–76.86]	P=0.9739 (+)
Rate difference	–0.06 [–1.46–1.34]	–0.42 [–3.19–2.35]	–0.32 [–3.46–2.82]	0.40 [–2.63–3.43]	1.49 [–1.98–4.94]	–1.22 [–4.58–2.14]	
Z–test, P–value	ns	ns	ns	ns	ns	ns	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [$P_{(BC)}$–$P_{(OTHER)}$] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05.

Table 1C. Prevalence (%) of alcohol consumption in past 30 days overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
Gender	Year						Wald Test for Trend Δ
	2008–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	62.40 [61.17–63.64]	64.58 [62.94–66.23]	61.16 [59.42–62.89]	63.63 [60.22–67.05]	58.17 [53.84–62.49]	62.93 [60.14–65.71]	P=0.0095 (–)
Other provinces	63.65 [62.85–64.46]	64.36 [62.69–66.03]	63.86 [62.11–65.61]	62.70 [61.01–64.38]	63.80 [61.81–65.79]	63.39 [61.42–65.36]	P=0.0643 (–)
Rate difference †	**–1.25** **[–2.36– –0.14]**	0.22 [–1.93–2.37]	**–2.70** **[–5.17– –0.23]**	0.93 [–1.47–3.33]	**–5.63** **[–8.48– –2.78]**	–0.46 [–3.11–2.19]	
Z–test, P–value	*	ns	*	ns	***	ns	
Male							
BC	67.87 [66.04–69.70]	69.49 [67.06–71.91]	66.44 [63.87–69.01]	68.99 [63.82–74.16]	63.59 [57.20–69.98]	69.63 [65.56–73.70]	P=0.3525 (–)
Other provinces	69.88 [68.69–71.07]	70.76 [68.32–73.20]	70.16 [67.62–72.70]	68.26 [65.72–70.79]	70.35 [67.49–73.21]	69.79 [66.80–72.77]	P=0.2606 (–)
Rate difference	**–2.01** **[–3.54– –0.48]**	–1.27 [–4.24–1.70]	**–3.72** **[–7.15– –0.29]**	0.73 [–2.58–4.04]	**–6.76** **[–10.72– –2.80]**	–0.16 [–3.78–3.46]	
Z–test, P–value	*	ns	*	ns	***	ns	
Female							
BC	57.25 [55.60–58.89]	59.94 [57.73–62.16]	56.19 [53.87–58.50]	58.59 [54.07–63.11]	52.99 [47.22–58.76]	56.63 [52.91–60.36]	**P=0.0045 (–)**
Other provinces	57.80 [56.72–58.88]	58.37 [56.13–60.61]	57.97 [55.59–60.35]	57.47 [55.25–59.68]	57.61 [54.89–60.34]	57.33 [54.77–59.88]	P=0.1238 (–)
Rate difference	–0.55 [–2.13–1.03]	1.57 [–1.51–4.65]	–1.78 [–5.29–1.73]	1.12 [–2.30–4.54]	**–4.62** **[–8.65– –0.59]**	–0.70 [–4.49–3.09]	
Z–test, P–value	ns	ns	ns	ns	*	ns	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [$P_{(BC)}$–$P_{(OTHER)}$] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05 *P<0.05 ***P<0.001.

Cannabis use

Gender	Year						Wald Test for Trend Δ
Table 2A. Prevalence (%) of cannabis use in lifetime overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
	2008–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	48.04 [46.79–49.28]	49.57 [47.85–51.28]	47.46 [45.70–49.23]	48.93 [45.40–52.47]	44.34 [40.15–48.54]	48.66 [45.85–51.48]	P=0.2440 (–)
Other provinces	41.04 [40.21–41.87]	43.02 [41.27–44.78]	41.67 [39.83–43.50]	40.31 [38.60–42.02]	38.62 [36.63–40.60]	40.44 [38.47–42.41]	**P=0.0091 (–)**
Rate difference †	**7.00 [5.86–8.14]**	**6.55 [4.31–8.79]**	**5.79 [3.26–8.32]**	**8.62 [6.15–11.09]**	**5.72 [2.86–8.58]**	**8.22 [5.49–10.95]**	
Z–test, P–value	***	***	***	***	***	***	
Male							
BC	53.77 [51.90–55.64]	54.00 [51.40–56.61]	50.75 [48.06–53.43]	58.34 [53.20–63.49]	52.51 [46.23–58.79]	52.52 [48.22–56.81]	P=0.9751 (+)
Other provinces	47.25 [45.96–48.54]	48.62 [45.88–51.35]	47.61 [44.80–50.42]	47.38 [44.68–50.09]	44.44 [41.39–47.48]	47.19 [44.06–50.33]	P=0.3181 (–)
Rate difference	**6.52 [4.89–8.15]**	**5.38 [2.16–8.60]**	3.14 [–0.50–6.78]	**10.96 [7.44–14.48]**	**8.07 [3.94–12.20]**	**5.33 [1.40–9.26]**	
Z–test, P–value	***	**	ns	***	***	**	
Female							
BC	42.64 [41.02–44.25]	45.39 [43.16–47.62]	44.38 [42.07–46.69]	40.08 [35.50–44.65]	36.63 [31.24–42.03]	45.03 [41.38–48.68]	P=0.0852 (–)
Other provinces	35.20 [34.16–36.24]	37.77 [35.54–40.01]	36.08 [33.72–38.43]	33.68 [31.62–35.75]	33.13 [30.60–35.66]	34.05 [31.65–36.45]	**P=0.0054 (–)**
Rate difference	**7.44 [5.88–9.00]**	**7.62 [4.51–10.73]**	**8.30 [4.81–11.79]**	**6.40 [3.03–9.77]**	3.50 [–0.36–7.36]	**10.98 [7.20–14.75]**	
Z–test, P–value	***	***	***	***	ns	***	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [P(BC)–P(OTHER)] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05 **P<0.01 **P<0.01 ***P<0.001.

Table 2B. Prevalence (%) of cannabis use in past year overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
Gender	Year						Wald Test for Trend Δ
	2008–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	12.88 [12.02–13.73]	13.07 [11.81–14.33]	12.68 [11.38–13.99]	12.63 [10.33–14.93]	12.14 [9.35–14.94]	13.78 [11.72–15.85]	P=0.2638 (+)
Other provinces	10.18 [9.63–10.73]	11.13 [9.91–12.36]	10.29 [8.99–11.59]	10.43 [9.36–11.49]	8.66 [7.46–9.85]	9.70 [8.42–10.98]	P=0.0771 (−)
Rate difference †	**2.70 [1.95–3.45]**	**1.94 [0.44–3.44]**	**2.39 [0.72–4.06]**	**2.20 [0.57–3.83]**	**3.48 [1.63–5.33]**	**4.08 [2.22–5.94]**	
Z–test, P–value	***	*	*	**	***	***	
Male							
BC	16.57 [15.19–17.95]	15.95 [13.93–17.97]	15.82 [13.73–17.91]	16.62 [12.84–20.40]	15.76 [11.50–20.02]	19.02 [15.52–22.51]	**P=0.0399 (+)**
Other provinces	13.55 [12.63–14.46]	14.17 [12.22–16.11]	13.97 [11.80–16.14]	14.30 [12.42–16.19]	11.66 [9.65–13.67]	12.90 [10.75–15.04]	P=0.4218 (−)
Rate difference	**3.02 [1.82–4.22]**	1.78 [−0.57–4.13]	1.85 [−0.79–4.49]	2.32 [−0.31–4.95]	**4.10 [1.13–7.07]**	**6.12 [3.09–9.15]**	
Z–test, P–value	***	ns	ns	ns	**	***	
Female							
BC	9.40 [8.38–10.43]	10.36 [8.82–11.90]	9.73 [8.14–11.33]	8.87 [6.19–11.55]	8.73 [5.04–12.42]	8.85 [6.64–11.06]	P=0.3982 (−)
Other provinces	7.02 [6.39–7.64]	8.29 [6.78–9.79]	6.83 [5.39–8.28]	6.79 [5.77–7.81]	5.83 [4.52–7.14]	6.68 [5.26–8.10]	P=0.0649 (−)
Rate difference	**2.38 [1.47–3.29]**	**2.07 [0.19–3.95]**	**2.90 [0.85–4.95]**	**2.08 [0.14–4.02]**	**2.90 [0.68–5.12]**	**2.17 [0.03–4.31]**	
Z–test, P–value	***	*	**	*	*	*	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [P(BC)–P(OTHER)] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (−)–decrease in trend. Z–test: ns P>0.05 *P<0.05 **P<0.01 ***P<0.001.

Table 2C. Prevalence (%) of cannabis use in past 30 days overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
Gender	Year						Wald Test for Trend Δ
	2008–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	8.21 [7.52–8.91]	9.01 [7.92–10.09]	8.18 [7.11–9.24]	6.48 [4.86–8.11]	8.40 [5.99–10.82]	9.01 [7.22–10.80]	P=0.6164 (+)
Other provinces	6.43 [5.98–6.89]	7.62 [6.57–8.66]	6.33 [5.27–7.39]	6.58 [5.67–7.49]	4.95 [4.05–5.85]	5.95 [4.92–6.99]	**P=0.0130 (–)**
Rate difference †	**1.78 [1.16–2.40]**	**1.39 [0.12–2.66]**	**1.85 [0.48–3.22]**	–0.10 [–1.32–1.12]	**3.45 [1.89–5.01]**	**3.06 [1.52–4.60]**	
Z–test, P–value	***	*	**	ns	***	***	
Male							
BC	10.99 [9.85–12.13]	11.60 [9.82–13.38]	10.41 [8.68–12.14]	9.22 [6.36–12.09]	11.18 [7.64–14.73]	12.75 [9.65–15.85]	P=0.2421 (+)
Other provinces	9.13 [8.34–9.93]	10.48 [8.73–12.24]	8.97 [7.13–10.81]	9.59 [7.92–11.27]	7.21 [5.59–8.84]	8.47 [6.65–10.29]	P=0.1224 (–)
Rate difference	**1.86 [0.85–2.87]**	1.12 [–0.93–3.17]	1.44 [–0.76–3.64]	–0.37 [–2.44–1.70]	**3.97 [1.42–6.52]**	**4.28 [1.71–6.85]**	
Z–test, P–value	***	ns	ns	**ns**	**	**	
Female							
BC	5.59 [4.78–6.41]	6.56 [5.29–7.83]	6.08 [4.80–7.35]	3.90 [2.29–5.52]	■	5.48 [3.66–7.30]	P=0.4648 (–)
Other provinces	4.93 [3.43–4.36]	4.93 [3.76–6.09]	3.84 [2.75–4.93]	3.76 [3.00–4.52]	2.82 [1.99–3.65]	3.57 [2.53–4.60]	**P=0.0338 (–)**
Rate difference	**1.69 [0.97–2.41]**	**1.63 [0.10–3.16]**	**2.24 [0.59–3.89]**	–0.14 [–1.19–1.47]	**2.96 [1.15–4.77]**	**1.91 [0.21–3.61]**	
Z–test, P–value	***	*	**	ns	**	*	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [P(BC)–P(OTHER)] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. □ Estimate has moderate sampling variability and should be interpreted with caution (CV range: 16.6–33.3). ■ Estimate was unstable and has been suppressed (CV range: 33.3+). Z–test: ns P>0.05 *P<0.05 **P<0.01 ***P<0.001.

Methamphetamine use

Table 3A. Prevalence (%) of methamphetamine use in lifetime overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
Gender	Year						Wald Test for Trend Δ
	2010–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	■			■	■	1.03 [0.42–1.64]	P=0.3859 (–)
Other provinces	0.66 [0.47–0.85]			0.87 [0.50–1.23]	■	0.59 [0.36–0.83]	P=0.2082 (–)
Rate difference †						0.44 [–0.10–0.98]	
Z–test, P–value						ns	
Male							
BC	■			■			P=0.2657 (–)
Other provinces	■			1.43 [0.72–2.14]	0.32 [0.15–0.48]	0.77 [0.35–1.18]	P=0.0875 (–)
Rate difference							
Z–test, P–value							
Female							
BC	■			■			P=0.5167 (+)
Other provinces	■			■		0.43 [0.19–0.67]	P=0.4562 (+)
Rate difference							
Z–test, P–value							
Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [$P_{(BC)}$–$P_{(OTHER)}$] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. □ Estimate has moderate sampling variability and should be interpreted with caution (CV range: 16.6–33.3). ■ Estimate was unstable and has been suppressed (CV range: 33.3+). Z–test: ns P>0.05.							

Pharmaceutical use

Gender	Year						Wald Test for Trend Δ
	2010–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	27.48 [26.40–28.56]	29.34 [27.80–30.88]	25.54 [24.03–27.06]	27.13 [24.03–30.23]	28.12 [24.50–31.74]	26.85 [24.41–29.30]	P=0.5074 (–)
Other provinces	25.31 [24.59–26.03]	28.21 [26.67–29.75]	24.95 [23.39–26.52]	25.79 [24.27–27.31]	22.15 [20.57–23.74]	23.62 [21.87–25.37]	**P<0.0001 (–)**
Rate difference †	**2.17 [1.15–3.19]**	1.13 [–0.91–3.17]	0.59 [–1.62–2.80]	1.34 [–0.87–3.55]	**5.97 [3.37–8.57]**	**3.23 [0.81–5.65]**	
Z–test, P–value	***	ns	ns	ns	***	**	
Male							
BC	24.36 [22.78–25.93]	25.99 [23.72–28.26]	23.53 [21.26–25.81]	24.15 [19.64–28.67]	22.75 [17.67–27.83]	24.57 [20.91–28.22]	P=0.6561 (–)
Other provinces	22.64 [21.57–23.71]	24.19 [21.96–26.41]	22.14 [19.85–24.42]	24.82 [22.44–27.21]	19.82 [17.58–22.06]	20.75 [18.00–23.50]	**P=0.0202 (–)**
Rate difference	**1.72 [0.32–3.12]**	1.80 [–1.02–4.62]	1.39 [–1.69–4.47]	–0.67 [–3.72–2.38]	2.93 [–0.54–6.40]	**3.82 [0.45–7.19]**	
Z–test, P–value	*	ns	ns	ns	ns	*	
Female							
BC	30.44 [28.97–31.92]	32.51 [30.43–34.58]	27.44 [25.42–29.45]	29.95 [25.71–34.19]	33.28 [28.20–38.35]	29.01 [25.75–32.27]	P=0.6321 (–)
Other provinces	27.82 [26.87–28.78]	31.99 [29.90–34.09]	27.59 [25.45–29.73]	26.70 [24.78–28.62]	24.35 [22.13–26.57]	26.32 [24.11–28.53]	**P<0.0001 (–)**
Rate difference	**2.62 [1.16–4.08]**	0.52 [–2.41–3.45]	–0.15 [–3.30–3.00]	**3.25 [0.29–6.41]**	**8.93 [5.13–12.73]**	2.69 [–0.77–6.15]	
Z–test, P–value	***	ns	ns	*	***	ns	

Table 4A. Prevalence (%) of pharmaceutical use in past year overall and by gender in British Columbia and other provinces of Canada, 2008–2012

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [P(BC)–P(OTHER)] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05 *P<0.05 **P<0.01 ***P<0.001.

Pain reliever use

Gender	Year						Wald Test for Trend Δ
	2010–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	21.41 [20.41–22.40]	23.00 [21.58–24.43]	20.25 [18.84–21.65]	21.56 [18.65–24.46]	21.45 [18.22–24.69]	20.16 [17.91–22.40]	P=0.1670 (–)
Other provinces	19.03 [18.38–19.68]	21.44 [20.04–22.84]	19.09 [17.67–20.52]	20.41 [19.00–21.82]	15.95 [14.55–17.35]	16.39 [14.86–17.92]	**P<0.0001 (–)**
Rate difference †	**2.38** **[1.45–3.31]**	1.56 [–0.32–3.44]	1.16 [–0.87–3.19]	1.15 [–0.89–3.19]	**5.50** **[3.14–7.86]**	**3.77** **[1.59–5.95]**	
Z–test, P–value	***	ns	ns	ns	***	***	
Male							
BC	19.90 [18.45–21.35]	21.71 [19.58–23.84]	19.34 [17.21–21.47]	20.21 [15.95–24.47]	18.56 [14.25–22.87]	18.68 [15.28–22.08]	P=0.2142 (–)
Other provinces	17.88 [16.90–18.87]	18.50 [16.47–20.53]	18.11 [16.00–20.23]	21.00 [18.70–23.29]	15.43 [13.36–17.50]	15.04 [12.65–17.43]	**P=0.0204 (–)**
Rate difference	**2.02** **[0.72–3.32]**	**3.21** **[0.57–5.85]**	1.23 [–1.64–4.10]	–0.79 [–3.66–2.08]	3.13 [–0.08–6.34]	**3.64** **[0.60–6.68]**	
Z–test, P–value	**	*	ns	ns	ns	*	
Female							
BC	22.83 [21.46–24.20]	24.22 [22.31–26.13]	21.10 [19.24–22.96]	22.84 [18.88–26.79]	24.24 [19.50–28.98]	21.55 [18.58–24.52]	P=0.5099 (–)
Other provinces	20.11 [19.25–20.96]	24.20 [22.27–26.12]	20.01 [18.10–21.93]	19.86 [18.18–21.54]	16.44 [14.53–18.35]	17.67 [15.73–19.60]	**P<0.0001 (–)**
Rate difference	**2.27** **[1.39–4.05]**	0.02 [–2.66–2.70]	1.09 [–1.78–3.96]	**2.98** **[0.09–5.87]**	**7.80** **[4.36–11.24]**	**3.88** **[0.77–6.99]**	
Z–test, P–value	***	ns	ns	*	***	*	

Table 4B. Prevalence (%) of pain reliever use in past year overall and by gender in British Columbia and other provinces of Canada, 2008–2012

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [P(BC)–P(OTHER)] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05 *P<0.05 **P<0.01 ***P<0.001.

Sedative use

Gender	Year						Wald Test for Trend Δ
Table 4C. Prevalence (%) of sedative use in past year overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
	2010–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	10.38 [9.67–11.09]	11.49 [10.45–12.53]	8.78 [7.85–9.70]	8.93 [7.08–10.78]	10.58 [8.05–13.12]	12.20 [10.49–13.91]	P=0.2111 (+)
Other provinces	9.49 [9.02–9.95]	10.56 [9.57–11.54]	9.13 [8.13–10.13]	8.66 [7.66–9.65]	8.84 [7.82–9.85]	9.92 [8.74–11.09]	P=0.2518 (–)
Rate difference †	**0.89 [0.20–1.58]**	0.93 [–0.49–2.35]	–0.35 [–1.79–1.09]	0.27 [–1.14–1.68]	1.74 [–0.02–3.50]	**2.28 [0.51–4.05]**	
Z–test, P–value	*	ns	ns	ns	ns	*	
Male							
BC	7.18 [6.26–8.10]	7.65 [6.28–9.02]	7.08 [5.76–8.40]	6.30 [3.95–8.65]	5.67 [2.26–9.07]	9.02 [7.00–11.04]	P=0.4231 (+)
Other provinces	7.02 [6.38–7.67]	8.07 [6.74–9.41]	6.96 [5.62–8.30]	6.43 [4.95–7.90]	5.96 [4.74–7.18]	7.23 [5.46–9.00]	P=0.1045 (–)
Rate difference	0.16 [–0.68–1.00]	–0.42 [–2.14–1.30]	0.12 [–1.74–1.98]	–0.13 [–1.86–1.60]	–0.29 [–2.21–1.63]	1.79 [–0.43–4.01]	
Z–test, P–value	ns		ns	ns	ns	ns	
Female							
BC	13.41 [12.35–14.47]	15.11 [13.56–16.66]	10.38 [9.09–11.66]	11.42 [8.61–14.23]	15.20 [11.47–18.94]	15.23 [12.55–17.92]	P=0.3306 (+)
Other provinces	11.81 [11.14–12.47]	12.89 [11.46–14.32]	11.17 [9.70–12.64]	10.75 [9.40–12.10]	11.54 [9.96–13.13]	12.46 [10.89–14.03]	P=0.8829 (–)
Rate difference	**1.60 [0.52–2.68]**	2.22 [0.01–4.44]	–0.79 [–2.95–1.37]	0.67 [–1.52–2.86]	**3.66 [0.82–6.50]**	**2.77 [0.05–5.49]**	
Z–test, P–value	**	ns	ns	ns	**	*	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [$P_{(BC)}$–$P_{(OTHER)}$] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. ▢ Estimate has moderate sampling variability and should be interpreted with caution (CV range: 16.6–33.3). Z–test: ns P>0.05 *P<0.05 **P<0.01.

Stimulant use

Table 4D. Prevalence (%) of pain stimulant use in past year overall and by gender in British Columbia and other provinces of Canada, 2008–2012

Gender	Year						Wald Test for Trend Δ
	2010–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	1.07 [0.82–1.32]	1.07 [0.69–1.45]	0.92 [0.53–1.32]	1.30 [0.65–1.96]	■	1.58 [0.71–2.45]	P=0.4705 (+)
Other provinces	1.09 [0.91–1.28]	1.10 [0.70–1.50]	0.96 [0.55–1.36]	0.99 [0.71–1.27]	0.94 [0.60–1.29]	1.50 [0.89–2.10]	P=0.2563 (+)
Rate difference †	–0.02 [–0.25–0.21]	–0.03 [–0.49–0.43]	–0.04 [–0.52–0.44]	0.31 [–0.24–0.86]		0.08 [–0.60–0.76]	
Z–test, P–value	ns	ns	ns	ns		ns	
Male							
BC	1.21 [0.84–1.58]	1.21 [0.60–1.83]	0.94 [0.33–1.55]	■		2.03 [0.85–3.21]	P=0.3139 (+)
Other provinces	1.16 [0.89–1.43]	0.97 [0.53–1.42]	0.59 [0.22–0.96]	1.21 [0.72–1.69]	1.33 [0.71–1.96]	1.88 [0.84–2.92]	**P=0.0191 (+)**
Rate difference	0.05 [–0.31–0.41]	0.24 [–0.45–0.93]	0.35 [–0.33–1.03]			0.15 [–0.95–1.25]	
Z–test, P–value	ns	ns	ns			ns	
Female							
BC	0.94 [0.61–1.27]	0.93 [0.47–1.39]	0.91 [0.41–1.41]	1.32 [0.51–2.13]	■		P=0.9376 (–)
Other provinces	1.03 [0.77–1.28]	1.22 [0.58–1.86]	1.30 [0.60–1.99]	0.78 [0.50–1.07]	0.57 [0.27–0.88]	1.13 [0.49–1.77]	P=0.4782 (–)
Rate difference	–0.09 [–0.40–0.22]	–0.29 [–0.90–0.32]	–0.39 [–1.08–0.30]	0.54 [–0.23–1.31]			
Z–test, P–value	ns	ns	ns	ns			

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [P(BC)–P(OTHER)] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. □ Estimate has moderate sampling variability and should be interpreted with caution (CV range: 16.6–33.3). ■ Estimate was unstable and has been suppressed (CV range: 33.3+). Z–test: ns P>0.05.

Smoking

Table 5A. Prevalence (%) of smoking in lifetime overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
Gender	Year						Wald Test for Trend Δ
	2010–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	42.00 [40.80–43.20]	44.45 [42.76–46.13]	41.92 [40.22–43.62]	41.08 [37.64–44.53]	42.51 [38.45–46.57]	39.10 [36.49–41.72]	**P=0.0096 (–)**
Other provinces	44.89 [44.07–45.71]	46.33 [44.59–48.07]	45.77 [43.96–47.59]	44.47 [42.75–46.18]	43.29 [41.31–45.28]	43.66 [41.69–45.62]	**P=0.0264 (–)**
Rate difference †	**−2.89 [−4.02– −1.76]**	−1.88 [−4.11–0.35]	**−3.85 [−6.35– −1.35]**	**−3.39 [−5.84– −0.94]**	−0.78 [−3.63–2.07]	**−4.56 [−7.24– −1.88]**	
Z–test, P–value	***	ns	**	**	ns	***	
Male							
BC	45.34 [43.48–47.19]	46.90 [44.30–49.49]	45.25 [42.61–47.89]	46.49 [41.13–51.85]	46.23 [40.01–52.44]	40.93 [36.86–45.01]	P=0.0665 (–)
Other provinces	49.21 [47.92–50.49]	51.12 [48.40–53.85]	49.61 [46.81–52.41]	49.36 [46.67–52.06]	48.03 [44.99–51.08]	46.74 [43.62–49.85]	**P=0.0448 (–)**
Rate difference	**−3.87 [−5.50– −2.24]**	**−4.22 [−7.44– −1.00]**	**−4.36 [−7.98– −0.74]**	−2.87 [−6.43–0.69]	−1.80 [−5.93–2.33]	**−5.81 [−9.68– −1.94]**	
Z–test, P–value	***	*	*	ns	ns	**	
Female							
BC	38.85 [37.33–40.38]	42.14 [39.97–44.32]	38.78 [36.61–40.95]	36.00 [31.68–40.33]	39.00 [33.85–44.16]	37.38 [34.07–40.70]	P=0.0651 (–)
Other provinces	40.82 [39.79–41.86]	41.83 [39.66–44.00]	42.16 [39.84–44.49]	39.85 [37.73–41.97]	38.83 [36.30–41.35]	40.74 [38.30–43.17]	P=0.3116 (–)
Rate difference	**−1.97 [−3.52– −1.55]**	0.31 [−2.78–3.40]	−3.38 [−6.82–0.06]	**−3.85 [−7.18– −0.52]**	0.17 [−3.75–4.09]	−3.36 [−7.06–0.34]	
Z–test, P–value	***	ns	ns	*	ns	ns	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [$P_{(BC)}$–$P_{(OTHER)}$] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05 *P<0.05 **P<0.01 ***P<0.001.

Gender	Year						Wald Test for Trend Δ
Table 5B. Prevalence (%) of smoking in past year overall and by gender in British Columbia and other provinces of Canada, 2008–2012							
	2010–2012 ‡	2008	2009	2010	2011	2012	
Total							
BC	14.04 [13.22–14.86]	16.39 [15.12–17.67]	14.78 [13.54–16.03]	12.36 [10.04–14.68]	12.30 [9.67–14.94]	13.28 [11.50–15.06]	**P=0.0387 (–)**
Other provinces	18.82 [18.18–19.47]	19.97 [18.59–21.35]	20.17 [18.72–21.62]	18.50 [17.14–19.86]	16.92 [15.49–18.35]	17.65 [16.16–19.14]	P=0.0994 (–)
Rate difference †	**−4.78** **[−5.59– −3.97]**	**−3.58** **[−5.26– −1.90]**	**−5.39** **[−7.22– −3.56]**	**−6.14** **[−7.82– −4.46]**	**−4.62** **[−6.55– −2.69]**	**−4.37** **[−6.26– −2.48]**	
Z–test, P–value	***	*	***	***	***	***	
Male							
BC	16.30 [14.98–17.62]	19.41 [17.35–21.47]	17.67 [15.62–19.71]	15.48 [11.63–19.33]	12.25 [8.30–16.20]	14.71 [11.85–17.56]	**P=0.0171 (–)**
Other provinces	21.02 [19.98–22.06]	22.27 [20.02–24.53]	22.71 [20.38–25.04]	20.86 [18.63–23.09]	18.96 [16.66–21.26]	19.24 [16.84–21.65]	P=0.2425 (–)
Rate difference	**−4.72** **[−5.95– −3.49]**	**−2.86** **[−5.43– −0.29]**	**−5.04** **[−7.85– −2.23]**	**−5.38** **[−8.01– −2.75]**	**−6.71** **[−9.50– −3.92]**	**−4.54** **[−7.36– −1.70]**	
Z–test, P–value	***	*	*	***	***	**	
Female							
BC	11.92 [10.92–12.91]	13.55 [12.02–15.07]	12.07 [10.62–13.51]	9.43 [6.77–12.09]	12.36 [8.85–15.86]	11.94 [9.77–14.11]	P=0.7365 (–)
Other provinces	16.75 [15.99–17.52]	17.81 [16.18–19.43]	17.78 [16.03–19.54]	16.27 [14.70–17.85]	15.00 [13.28–16.72]	16.14 [14.35–17.93]	P=0.2300 (–)
Rate difference	**−4.83** **[−5.88– −3.78]**	**−4.26** **[−6.44– −2.08]**	**−5.72** **[−8.07– −3.35]**	**−6.84** **[−8.94– −4.74]**	−2.64 [−5.32–0.04]	**−4.20** **[−6.72– −1.68]**	
Z–test, P–value	***	*	***	***	ns	***	

Note: Estimates were based on the Canadian Alcohol and Drug Use Monitoring Survey, 2008–2012 and weighted. []: 95% confidence interval of the prevalence. † Rate difference [P(BC)–P(OTHER)] and its 95% CI (CIs contains 0: no significant difference, <0: significantly lower, >0: significant higher). ‡ Estimates were based on the pooled five surveys. Δ Wald test for trend in multivariate logistic models adjusted for covariates including age, sex, marital status, education and income, (+)–increase in trend and (–)–decrease in trend. Z–test: ns P>0.05 *P<0.05 **P<0.01 ***P<0.001.