



Tobacco Use in Canada: Patterns and Trends

Special Supplement: Cannabis in Canada



PROPEL
CENTRE FOR
POPULATION
HEALTH IMPACT

University of Waterloo | Waterloo, Ontario

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About this Supplement

This report is intended to provide an overview of cannabis and tobacco use, specifically in the Canadian context. Canada is in the process of legalizing the non-medical use of cannabis; this supplement reports national estimates of cannabis and tobacco use in Canada, with a focus on youth.

Data sources

This report uses data primarily from the 2014-15 **Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS)**, funded by Health Canada and implemented by the Propel Centre for Population Health Impact at the University of Waterloo in collaboration with researchers across Canada. CSTADS monitors tobacco, alcohol and drug use among students in grades 6 to 12 (6 to Secondary V in Quebec) via classroom-based surveys. Schools were randomly sampled within each of the 10 provinces, using a stratified single-stage design. The sample excluded residents of Yukon, Nunavut and Northwest Territories, residents of institutions, and those attending schools on First Nations reserves, special needs schools (e.g., schools for visually- or hearing-impaired individuals), schools located on military bases, and schools with fewer than 20 eligible students in all eligible grades. The 2014-15 CSTADS did not achieve a generalizable sample of students in New Brunswick; therefore, provincial estimates for NB are not reported, although NB is included in the national estimates.

For further details, visit: www.cstads.ca

Figures 1-3 use data from the 2015 **Canadian Tobacco, Alcohol and Drugs Survey (CTADS)**, conducted by Statistics Canada with the cooperation and support of Health Canada, to provide data on tobacco, alcohol and drug use, and related issues. Data were collected via telephone interviews conducted from February to December 2015. The sample was selected from the Household Survey Frame Service (which includes cell phones) using a stratified random sampling procedure, and included the population of Canada aged 15 years and over, excluding residents of Yukon, Northwest Territories and Nunavut, as well as full-time residents of institutions and residents with neither landlines nor cell phones.

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

Analysis

The data presented in this report are weighted estimates (using survey weights), generated using SAS 9.4, unless otherwise noted. Coefficients of variation were calculated for all estimates using bootstrap weights. Estimates with coefficients of variation from 16.6% to 33.3% are noted as having moderate sampling variability and should be interpreted with caution, while those with coefficients greater than 33.3% are suppressed due to low quality. Statistical comparisons between groups were tested using weighted regression analyses in SAS 9.4, applying bootstrap weights. Reported p values were computed using the Wald test. The term “significant” has been reserved for instances where statistical testing has been performed, with $p < 0.05$ as the cut-off for significance. Estimates are suppressed where specific categories included <30 individuals (unweighted).

Data analysis was completed by Cheryl Madill, MSc, and Vicki Rynard, MSc, of the Propel Centre for Population Health Impact, using the CSTADS and CTADS datasets made available by Health Canada and Statistics Canada.

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

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This supplement and the main report, *Tobacco Use in Canada: Patterns and Trends, 2017 Edition*, are available online at www.tobaccoreport.ca and <https://uwaterloo.ca/tobacco-use-canada/>.

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HIGHLIGHTS

BACKGROUND

WHAT IS CANNABIS?

- Cannabis is a broad term used to describe several **psychoactive preparations of the *Cannabis sativa* and *Cannabis indica* plants**.
- Tetrahydrocannabinol (Δ 9-THC), more commonly known as THC, is primarily responsible for the psychoactive effects associated with the euphoria, or 'high', derived from its use.
- The effects of THC may vary depending on the **dose, route of administration, and co-ingestion with other substances, as well as the cannabis strain itself**.
- Cannabis is the **most commonly used illicit substance** in Canada.

LEGAL AND REGULATORY STATUS

- As of 2016, the ***Access to Cannabis for Medical Purposes Regulations* govern the use of medical cannabis** in Canada.
- The federal government is in the process of legalizing non-medical cannabis use, with implementation planned for 2018.

CANNABIS AND TOBACCO USE IN CANADA

- There exists a **strong and consistent association between tobacco use and cannabis use**.
- Dual use of tobacco and cannabis is associated with an increased risk of adverse health effects compared with using cannabis alone.

DATA FROM THE CANADIAN TOBACCO, ALCOHOL AND DRUGS SURVEY, 2015

- **Nearly half of Canadians aged 15 and older (44.5%) reported having ever tried cannabis**; 12.3% had used it in the past year, and 8.8% had used cannabis in the past 3 months.
- **Recent use of cannabis was more prevalent among young people**: approximately 20% of youth aged 15-19 and 30% of young adults aged 20-24 had used cannabis in the past year, compared to 10% of Canadians age 25 and older.

DATA FROM THE CANADIAN STUDENT TOBACCO, ALCOHOL AND DRUGS SURVEY, 2014-2015

- **1 in 5 Canadian students in grades 7-12 (21.8%) reported ever trying cannabis**; 16.5% reported past 12-month use; 1 in 10 (11.1%) had used cannabis in the past 30 days; 2.0% reported daily use.
- Prevalence of cannabis use was **similar among males and females**.
- Cannabis use varied by grade level: for each measure of use, **prevalence increased with each subsequent grade**.
- Prevalence of cannabis use **varied by province**.
- **Current cigarette smokers reported greater prevalence of cannabis use than non-smokers**. Among students in grades 7-9, 9 in 10 current cigarette smokers (91.8%) reported ever trying cannabis; among students in grades 10-12, nearly all current cigarette smokers (94.3%) reported ever trying cannabis.
- **More than three-quarters of current e-cigarette users in grades 7-12 (77.1%) reported ever trying cannabis**; among senior grades, 85.3% of current e-cigarette users had ever tried cannabis.
- Among grade 12 students who had used cannabis, **the mean age of initiation was 15.0 years of age**; 14.2 years among current e-cigarette users, and 13.3 years among current cigarette smokers.
- Students who reported **smoking tobacco cigarettes or using e-cigarettes perceived greater ease of access to cannabis**.

BACKGROUND: CANNABIS

WHAT IS CANNABIS?

Cannabis is a broad term used to describe psychoactive preparations of the *Cannabis sativa* and *Cannabis indica* plants. Canadians commonly refer to it as marijuana, but also use a variety of colloquial names, such as weed, pot, dope, ganja, chronic, kush, etc. Cannabis can take many forms, including dried herb, hash, or extracts (e.g., oil, wax), and may be smoked, vaporized, ingested, or even used as a topical cream.¹

The active ingredients in cannabis that provide its characteristic effects are called cannabinoids. The cannabis plant has distinct male and female forms, and the highest concentrations of cannabinoids are found in the flowering regions of the female plant.² Of the more than 400 bioactive molecules contained in cannabis, over 60 cannabinoids contribute to the overall physiological effects associated with cannabis.³ Tetrahydrocannabinol (Δ^9 -THC), more commonly known as THC, is primarily responsible for the psychoactive effects associated with euphoria, or feeling “high”.^{4,5} The effects of THC may vary depending on the dose, route of administration, co-ingestion with other substances, as well as the strain of cannabis plant.⁶ The THC content of recreational cannabis has increased significantly over the past three decades in North American markets, from approximately 2% to 9% in the dried herb form.⁷

CANNABIS USE IN CANADA

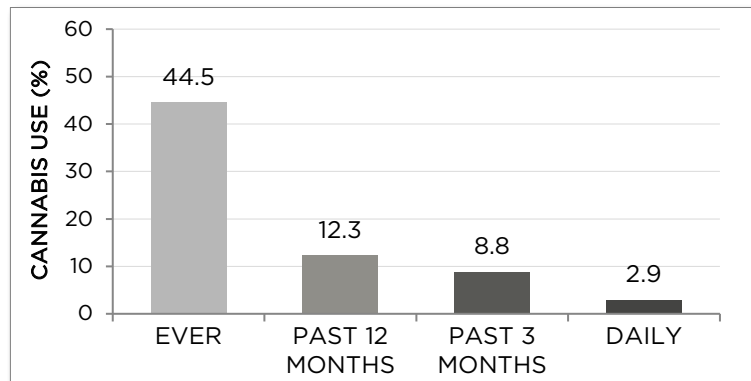
Cannabis is the most commonly used illicit substance in Canada and around the world.^{8,9,10}

According to the 2015 Canadian Tobacco, Alcohol and Drugs Survey (CTADS), more than 4 in 10 (44.5%; 13.1 million) Canadians aged 15 and older reported ever using cannabis (Figure 1). Approximately 1 in 10 (12.3%; 3.6 million) reported use in the past 12 months; of these, 1 in 4 (24%; 831,000) reported using cannabis for medical purposes.⁹ The number of medical cannabis users quadrupled from 30,357 registered patients in 2014 to 129,876 in December 2016.^{11,12}

Further, 8.8% of Canadians (2.6 million) reported using cannabis in the past 3 months; 2.9% (839,000) reported daily or almost daily consumption of cannabis in the 3 months preceding the survey.

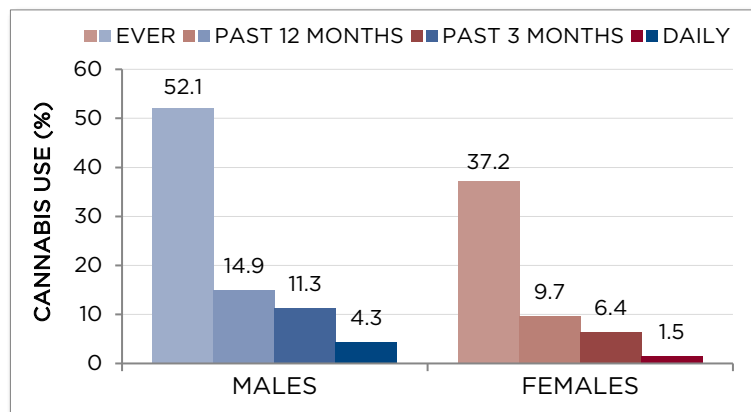
Figure 2 shows prevalence of cannabis use by sex. Prevalence was greater among males than females for all measures ($p < 0.0001$).

FIGURE 1: CANNABIS USE AMONG CANADIANS AGE 15+, 2015



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

FIGURE 2 : CANNABIS USE BY SEX, CANADIANS AGE 15+, 2015



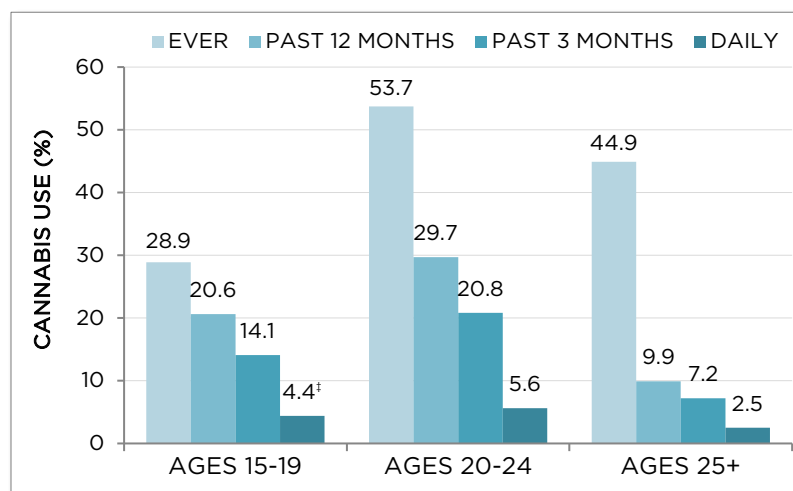
DATA SOURCE: CTADS, 2015

CANNABIS USE AMONG ADOLESCENTS AND YOUNG ADULTS

Compared to other developed countries, Canadian youth consistently have among the highest prevalence rates of recreational or non-medical cannabis use.¹⁰

Recent cannabis use is most prevalent among young Canadians (Figure 3). In 2015, approximately 1 in 5 (20.6%; 426,000) Canadian youth aged 15 to 19, and 3 in 10 (29.7%; 715,000) young adults aged 20 to 24 reported using cannabis in the past year, compared to 1 in 10 (9.9%; 2.5 million) adults aged 25 and older. Over the last decade, national surveys indicate modest decreases in the prevalence of cannabis use among youth, along with delays in average age of first use or initiation.¹³

FIGURE 3: CANNABIS USE BY AGE GROUP, CANADA, 2015



DATA SOURCE: CTADS, 2015

† MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

Cannabis use is more common among some subgroups of youth. These include youth who report poor school performance, sensation-seeking personality traits, early use of tobacco, alcohol and other drugs, fraternizing with drug-using peers, experiencing a difficult family environment, or having greater cannabis accessibility and availability.^{14,15}

CANNABIS USE AMONG INDIGENOUS CANADIANS

The prevalence of ever-use of cannabis among Indigenous Canadian youth is approximately twice that of youth in the general population,^{13,15} According to the most recent First Nations Regional Health Survey (conducted in 2008/2010 and representative of First Nations individuals living on-reserve and in Northern communities), approximately one-third (32.3%) of Indigenous Canadian adults reported cannabis use in the past year, including 40.5% of males and 24.1% of females.¹⁶ Currently, most national substance use monitoring surveys (including CTADS and CSTADS) do not include on-Reserve populations or residents of the territories. The lack of consistent and representative data on cannabis use among Indigenous Canadians has limited our understanding of current patterns of use and trends over time.

EFFECTS OF CANNABIS ON HEALTH AND SOCIETY

Cannabis has several therapeutic benefits, which are reflected in Canadian medical cannabis regulations, including: relief and reduction of chronic pain symptoms, alleviation of effects from chemotherapy in cancer patients, and reduction in muscular spastic activity in those experiencing conditions such as multiple sclerosis, epilepsy, etc.¹⁷ Despite these benefits, most research has focussed on adverse outcomes.^{8,17,18,19,20,21}

The health effects associated with cannabis depend on three primary factors: the frequency of use, age of initiation, and use among high-risk groups or settings.²² Early initiation and heavier use of cannabis among youth is consistently associated with more severe long-term negative outcomes.²³ Daily use among youth has been associated with poor academic achievement, cognitive impairment, increased use of other illicit drugs, increased risk of depression, suicidal ideation and behaviour, as well as psychosis

and schizophrenia.⁸ Although these associations are well established, the extent to which they are causal remains unclear. Negative health effects are also greater among high-risk groups, including individuals with a history of drug abuse/addiction, individuals susceptible to mental health problems, and pregnant users (given the effects on pre- and post-natal development).

Cannabis use also increases the risk of accidents and injuries while driving.^{24,25} Impaired driving under the influence of cannabis—referred to as ‘drugged driving’— is a criminal offence in Canada, and appears to be increasing.²⁶

Cannabis use has broader social costs, including the administrative burden associated with the enforcement of cannabis laws.²⁷ In 2014, cannabis possession offences in Canada accounted for 57,314 police-reported drug offences—more than half of all police-reported drug offences—and resulted in more than 22,000 possession charges.²⁸ Criminal records resulting from these charges are more common among marginalized groups, and can have serious implications, including difficulty securing employment and housing.

LEGAL AND REGULATORY STATUS

Although non-medical cannabis use in Canada has been illegal since 1923,²⁹ Canadians were granted legal access to cannabis for medical purposes in 2001. In 2000, a legal decision based on Section 56 exemptions under the *Controlled Drugs and Substances Act* gave eligible individuals with serious medical needs access to the *dried herb* form of cannabis.³⁰ The *Marihuana Medical Access Regulations* (MMAR), implemented in 2001, gave Canadians who were approved and received licences from Health Canada the right to possess a legal supply of dried cannabis for medical purposes through one of three options: Health Canada’s supply, a personal cultivation licence, or a designated-person licence to produce cannabis for the approved individual.³¹ Several years into the program, few Canadians had obtained MMAR approval, and many reported obtaining their supply of medical cannabis through illegal sources.³²

In 2012, the MMAR framework was replaced with the *Marihuana for Medical Purposes Regulations* (MMPR), which addressed concerns related to the practice of industrial cultivation and distribution, access restrictions, lack of plant and seed diversity (licenced producers were only legally permitted to produce a single strain), as well as concerns regarding the health and security of home cannabis producers (e.g., risk of violent home invasion, health concerns from mould, air quality issues, electricity installation).³³

The MMPR outlined the creation of a licensing scheme and development of standard conditions for commercial production and distribution.³³ Under the MMPR, health care providers also had greater flexibility over diagnoses for which they were permitted to prescribe cannabis.^{34,35} In 2015, the MMPR was further modified after the Supreme Court of Canada found that it would be unconstitutional to restrict access to cannabis solely to its dried herbal form (*R v. Smith*); a broader scope of cannabis forms (i.e., bud, oil, fresh leaves, etc.) became legally available to approved cannabis users.³⁶

In 2016, the MMPR was replaced by the *Access to Cannabis for Medical Purposes Regulations* (ACMPR) in response to a Federal Court decision (*Allard v. Canada*), which found that individuals did not have “reasonable access” to medical cannabis under the MMPR (which required sole access from licenced producers) and thus it violated section 7 of the Canadian Charter of Rights and Freedoms.³⁷ The ACMPR retained aspects of MMAR and MMPR that established the framework for conditions for commercial production and distribution by licenced producers, as well as additional forms that were legally acceptable under the MMPR. The ACMPR limits the quantities of cannabis an individual can possess, but allows for personal production or production by a third party for the use of the approved user.³⁰

In 2016, the Canadian government began the process of legalizing non-medical cannabis use. The government appointed a Task Force on Cannabis Legalization and Regulation, which issued a series of recommendations in their final report, released in November 2016.³⁸ The Task Force recommendations, intended to minimize the harms of cannabis use, included enforcing a minimum age of purchase (18 years), applying limits to cannabis promotion, requiring plain packaging and specific labelling requirements, creating limits on maximum THC content per unit, clarifying distribution systems, and enhancing efforts to detect and discourage impaired driving from cannabis use.³⁸ The federal government has indicated that it intends to legalize cannabis by July of 2018.³⁹

CANNABIS AND TOBACCO USE IN CANADA

Cannabis use and tobacco use share a strong and consistent association. In one study that analyzed nationally-representative population surveys (the 2009-2010 Canadian Community Health Survey (CCHS) and the 2010 Canadian Alcohol and Drug Use Monitoring Survey (CADUMS)), two-thirds (67%) of individuals who identified as current smokers reported using cannabis in their lifetime, and 1 in 4 (26%) reported use of cannabis in the past year.⁴⁰ A study of Ontario students found that patterns of co-occurring use of tobacco and cannabis have changed dramatically over the past 20 years: in 2011, 92% of past year tobacco users reported also using cannabis, compared to 16% in 1991.⁴¹ According to the 2011 Ontario Student Drug Use and Health Survey, while virtually all students who reported using tobacco also reported using cannabis, only 25% of past-year cannabis users reported using tobacco.⁴¹



Tobacco and cannabis are often used together in what are known as “blunts” or “spliffs”, or as “cigarette chasers”. Blunts refer to hollowed-out cigars or rolled tobacco leaves that are filled with cannabis. Tobacco can also be added to cannabis “joints”, which use rolling paper, similar to hand-rolled cigarettes. A “cigarette chaser” refers to alternating use of a cannabis cigarette and a tobacco cigarette.⁴²

The dual use of tobacco and cannabis may be due to a perceived economic advantage. Tobacco has been observed to increase the rate by which THC (the primary psychoactive ingredient in cannabis) is inhaled by up to 45%, which appears to produce a greater effect with less of the substance.⁴³ Treatment for dependency for individuals who exhibit dual use of tobacco and cannabis is not readily available in Canada, as dual tobacco/cannabis users may not perceive themselves as tobacco smokers and may attribute symptoms of dependency to active cannabinoids, ignoring habit-forming compounds in tobacco.^{44,45}

POTENTIAL EFFECTS OF CANNABIS AND TOBACCO DUAL USE

THE GATEWAY EFFECT

A primary concern with the association between tobacco and cannabis is that there will be a “gateway effect”, where the use of one substance increases the likelihood of using another. Historically, youth have typically initiated tobacco use before cannabis use.^{46,47} Several studies have found that tobacco users or individuals that have used tobacco in the past are also more likely to have used cannabis.^{48,49,50,51,52} One study found a ten-fold increase in trying cannabis among US youth aged 18-25 who had a history of using tobacco.⁵³ However, a “reverse gateway”, where cannabis use precedes tobacco use, has also been observed in a number of other studies, although direct causal relationships have not been

established.^{17,54,55,56,57,58} The effects in these studies are primarily observed and are more pronounced among youth who have used either substance before or during their early adolescent years. While it is difficult to discount the gateway effect entirely, the temporal association is not necessarily causal: the same factors that increase likelihood of trying one substance are also likely to increase the likelihood of other substance use.⁵⁹ In other words, individual and contextual factors may play a greater role in any gateway effect, rather than the direct effects of the substances themselves. In the case of tobacco and cannabis, earlier initiation of tobacco use may simply reflect its greater availability compared to cannabis.

DUAL USE VS. SUBSTANCE-SPECIFIC OUTCOMES

Dual tobacco and cannabis use is associated with a greater likelihood of problematic behaviours among youth, including lower academic performance than tobacco-only users *and* cannabis-only users; lower academic performance is also an indicator for problematic behaviour.⁶⁰ A 2004 study of young people in Canada found that past 12-month cannabis users who were also current smokers were more likely to be young males aged 15 to 19, who were not attending school and reported living in an urban community.⁶¹ More recent studies from the US have indicated similar results: individuals who used tobacco and cannabis concurrently tended to be male, non-daily smokers who reported greater alcohol and other drug use, and were not attending school; prevalence patterns by ethnicity varied by region.^{49,62,63}

HEALTH EFFECTS OF DUAL USE OF TOBACCO AND CANNABIS

There are specific concerns about the health effects of dual tobacco and cannabis use. The two substances in combination may have multiplicative effects that could generate worse health outcomes than either substance on its own. These negative health effects or outcomes may be due to the increased toxicant exposure from the two substances due to the mechanical aspects of ingestion (i.e., holding combusted smoke deeper in the lungs for a longer period of time).^{54,64,65} Additionally, smoke from both cannabis and tobacco contains a number of common toxic compounds, including hydrocyanic acid, ammonia, carbon monoxide, naphthalene, and known carcinogens, such as benzanthracene and benzopyrene.⁶⁶

Dual use is also associated with higher levels of problematic cannabis use. In one Canadian study, 18.2% of current tobacco smokers received a moderate/high score on the World Health Organization's Alcohol, Smoking and Substance Involvement Screening Test, reporting higher rates of problems associated with their cannabis use than non-smokers, only 3.2% of which scored moderate/high.⁴⁰

Overall, there is a paucity of evidence regarding the long-term health effects of the co-use of tobacco and cannabis.

POTENTIAL CONSEQUENCES OF LEGALIZATION

There are concerns that legalizing cannabis may undermine efforts to reduce tobacco use in Canada. It is possible that increasing access to cannabis will 're-normalize' tobacco use or reduce perceptions of the risks of smoking, due to greater visibility of cannabis smoking. The increasing popularity of e-cigarettes and 'vaping'* also has the potential to increase dual use of tobacco and cannabis, given that both substances are increasingly being vaped.^{50,67}

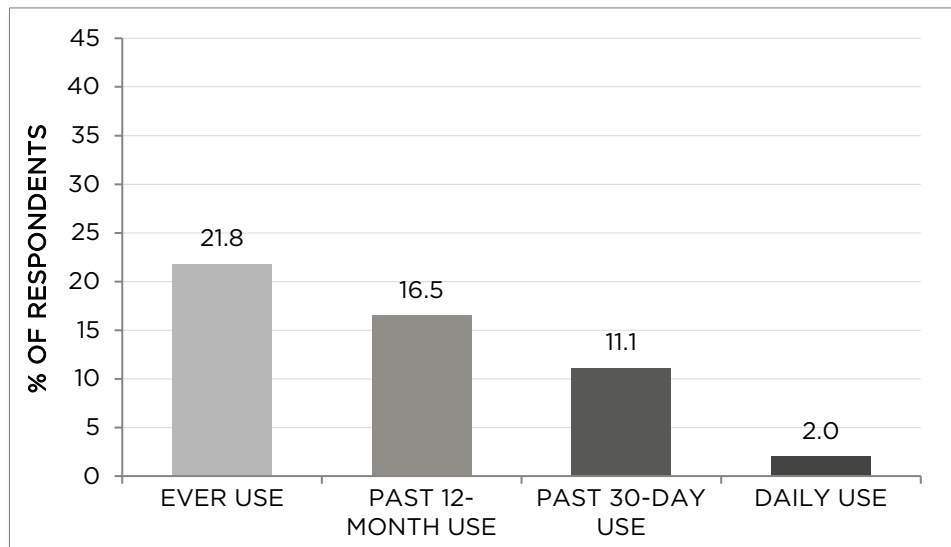
*For more information regarding e-cigarettes, refer to *E-cigarettes in Canada - Tobacco Use in Canada: Patterns and Trends, 2015 Edition, Special Supplement*. Available online: <https://uwaterloo.ca/tobacco-use-canada/e-cigarette-supplement>.

CANNABIS USE IN CANADA: DATA FROM CSTADS, 2014-15

The 2014-15 Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS) surveyed 36,665 Canadian students in grades 7 to 12 (Secondary I to V in Quebec).*

As shown in Figure 4, approximately 1 in 5 Canadian students in grades 7 to 12 reported having used cannabis in their lifetime; 1 in 10 reported using it in the past 30 days, and 2% reported having used cannabis daily in the preceding 30 days.

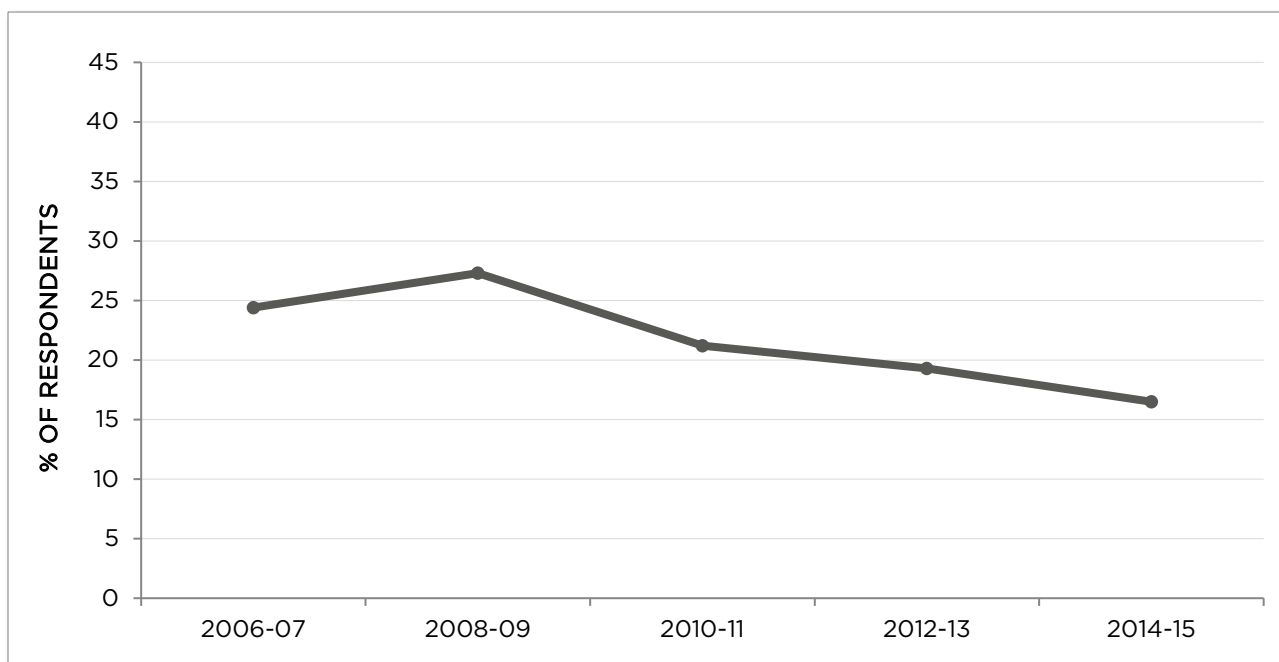
FIGURE 4: PREVALENCE OF CANNABIS USE, GRADES 7-12, 2014-15



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

The prevalence of cannabis use in the past 12 months among Canadian youth in grades 7 to 12 has decreased over the past decade (Figure 5). Data from the last five survey cycles of CSTADS (formerly the Youth Smoking Survey) indicate that past 12-month use of cannabis peaked in 2008-09, with more than one-quarter (27.3%) of students reporting cannabis use in the past 12 months.

FIGURE 5: PREVALENCE OF CANNABIS USE IN THE PAST 12 MONTHS, GRADES 7-12, 2005-06 TO 2014-15



DATA SOURCE: CSTADS, FORMERLY THE YOUTH SMOKING SURVEY (YSS), 2006-07 TO 2014-15¹³

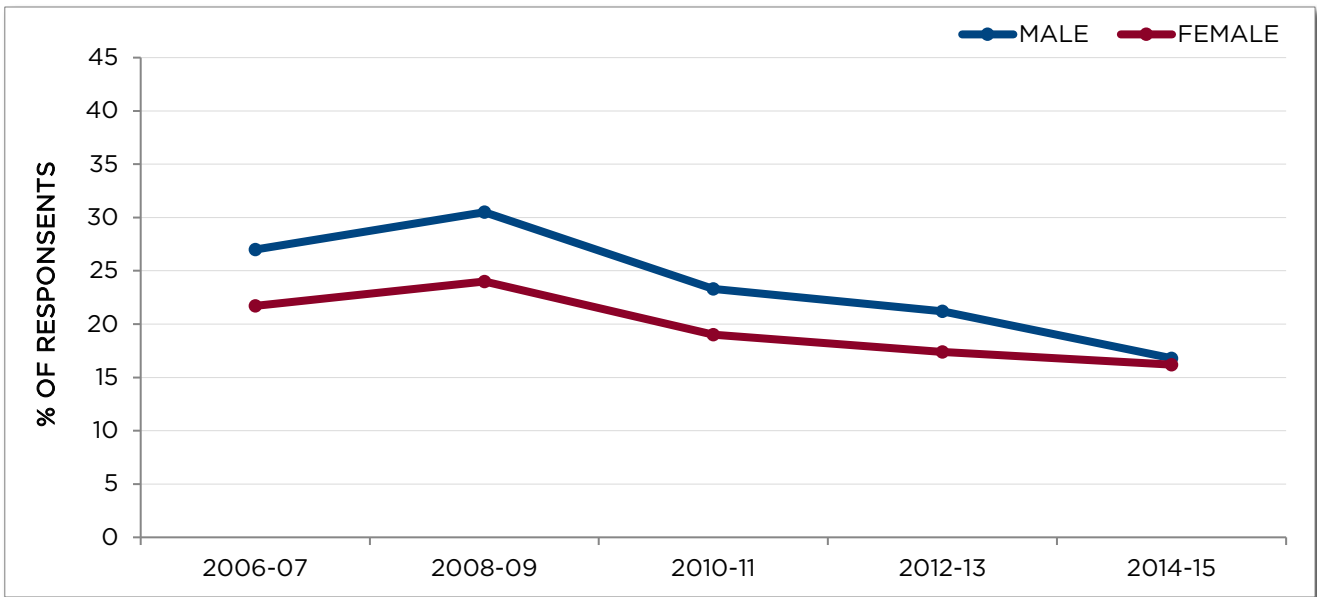
*CSTADS 2014-15 included students in grades 6 to 12; however, grade 6 students were not asked about drug use.

DEMOGRAPHIC PATTERNS OF CANNABIS USE

Prevalence by Sex

In 2014-15, there was no statistical difference between the sexes in prevalence of past 12-month cannabis use, for the first time since 2006-07, when surveys began including grades 7 through 12 (Figure 6).

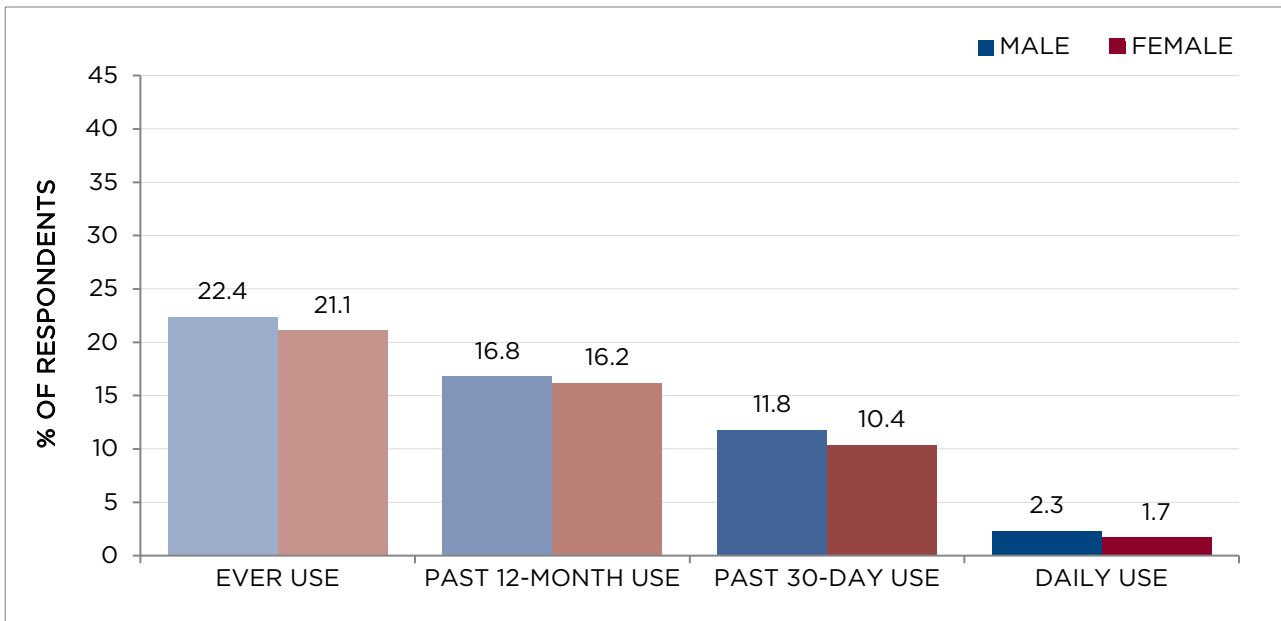
FIGURE 6: PREVALENCE OF CANNABIS USE IN THE PAST 12 MONTHS, BY SEX, GRADES 7-12, 2006-07 TO 2014-15



DATA SOURCE: CSTADS, FORMERLY THE YOUTH SMOKING SURVEY (YSS), 2006-07 TO 2014-15¹³

Males and females reported similar prevalence of ever use ($p=0.25$), past 12-month use ($p=0.55$), past 30-day use ($p=0.09$), and daily use ($p=0.06$) of cannabis in 2014-15 (Figure 7).

FIGURE 7: PREVALENCE OF CANNABIS USE BY SEX, GRADES 7-12, 2014-15



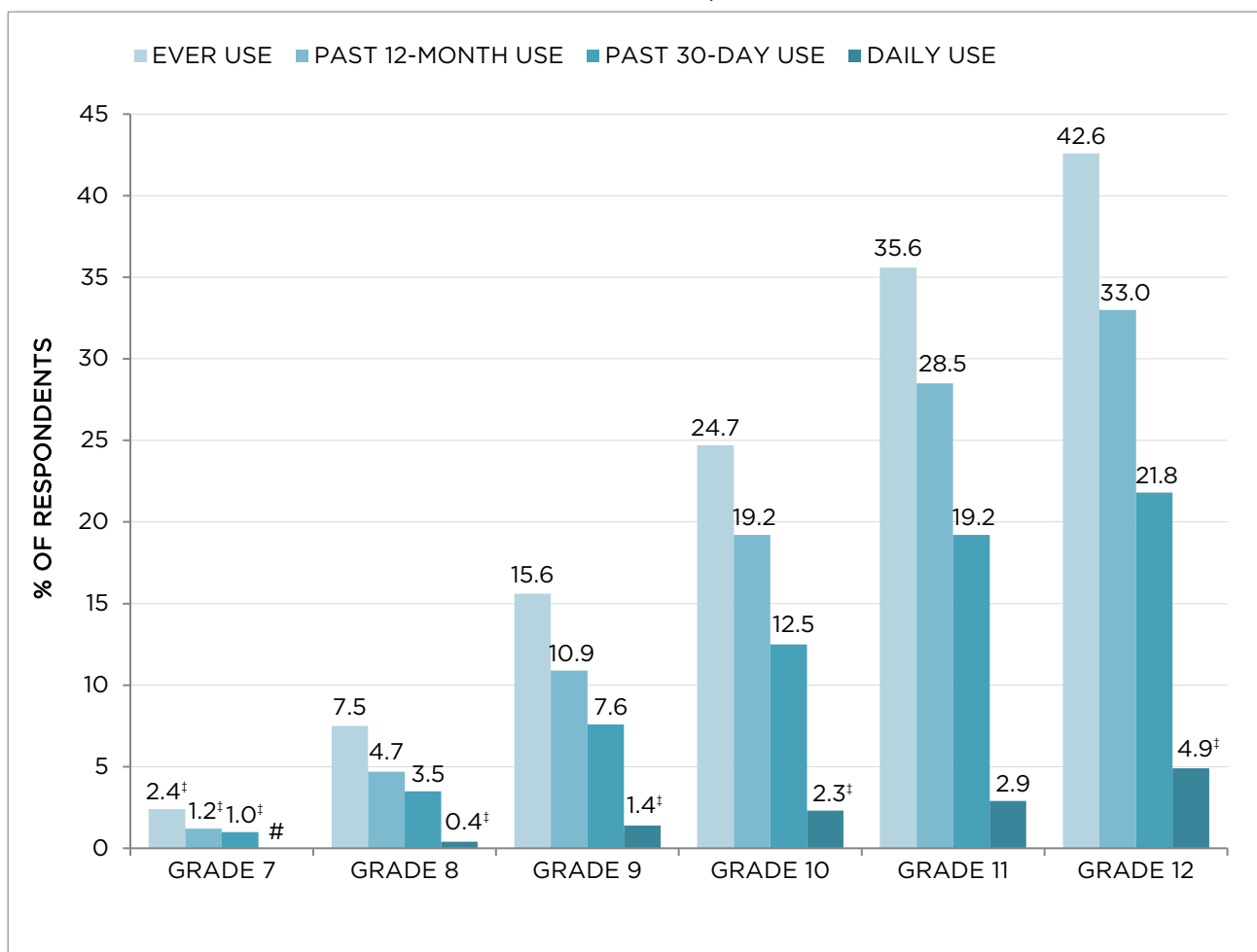
DATA SOURCE: CSTADS, 2014-15

Prevalence by Grade

Cannabis use varied significantly by grade level, an indicator for age (Figure 8). Reported prevalence of ever use, past 12-month use, past 30-day use, and daily use were significantly higher in senior grades (grades 10-12) than junior grades (grades 7-9) ($p < 0.0001$ for all measures).

Prevalence of use was greater at each subsequent grade level, for each measure of use. Cannabis use was most prevalent among grade 12 students: approximately one-third reported use in the past year, one-fifth reported use in the past 30 days, while 5% reported using cannabis daily in the past month.

FIGURE 8: PREVALENCE OF CANNABIS USE BY GRADE, 2014-15



DATA SOURCE: CSTADS, 2014-15

† MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

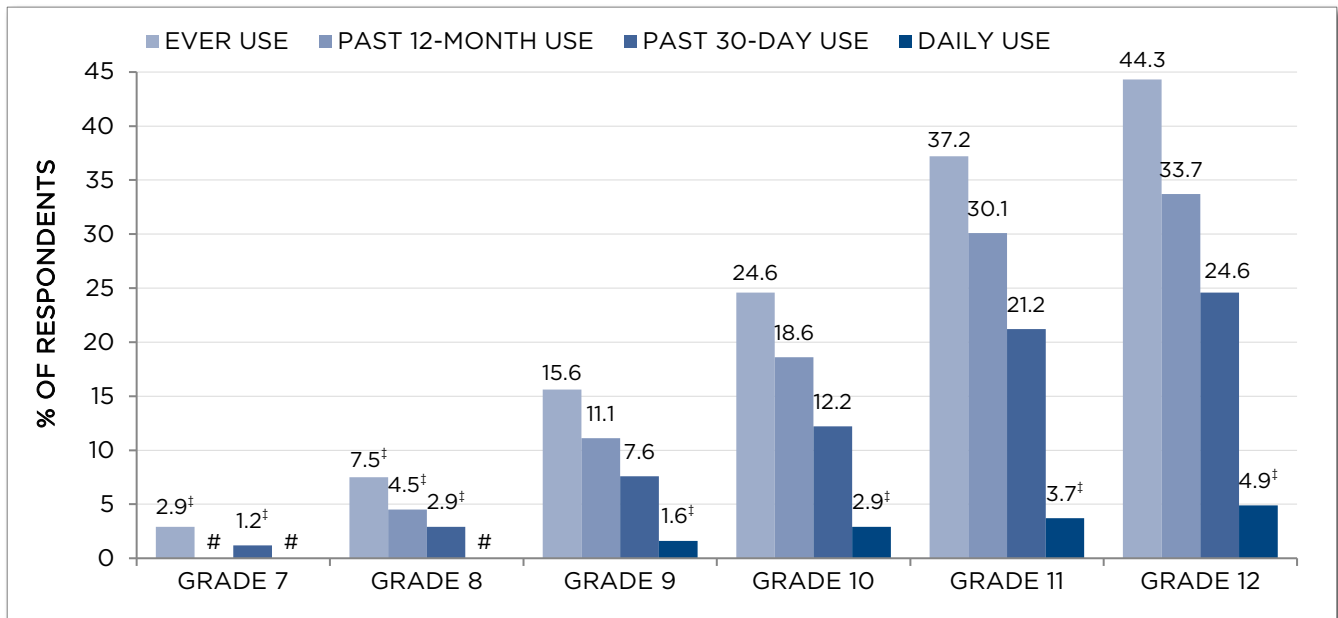
DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

NOTE: Throughout this report, some estimates should be interpreted with caution, where specified (denoted using the † symbol). In addition, some estimates are suppressed due to high sampling variability or low sample size (#).

Prevalence by Sex and Grade

Figures 9 and 10 display cannabis use patterns by sex and grade. Within each grade level, males and females reported similar prevalence of using cannabis for each measure. All measures of cannabis use increased with grade level, both male and female students, and junior students (grades 7-9) reported using markedly less than students in the senior grades (grades 10-12).

FIGURE 9: PREVALENCE OF CANNABIS USE AMONG MALES, BY GRADE, 2014-15

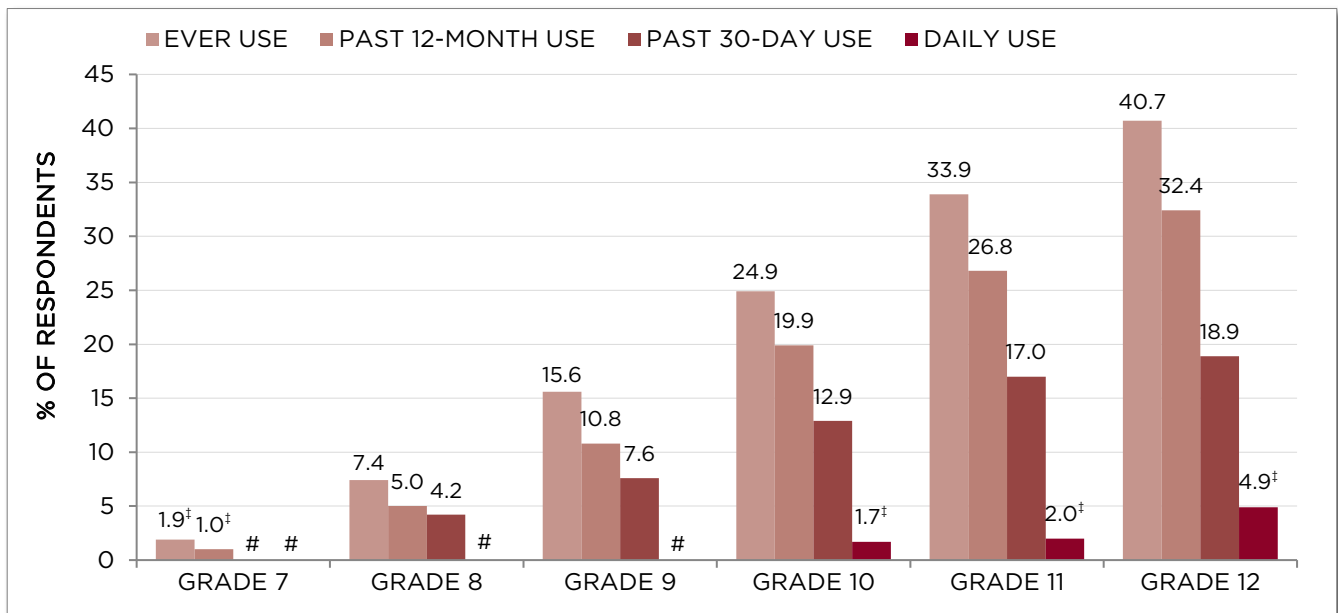


DATA SOURCE: CSTADS, 2014-15

[‡] MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

FIGURE 10: PREVALENCE OF CANNABIS USE AMONG FEMALES, BY GRADE, 2014-15



DATA SOURCE: CSTADS, 2014-15

[‡] MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

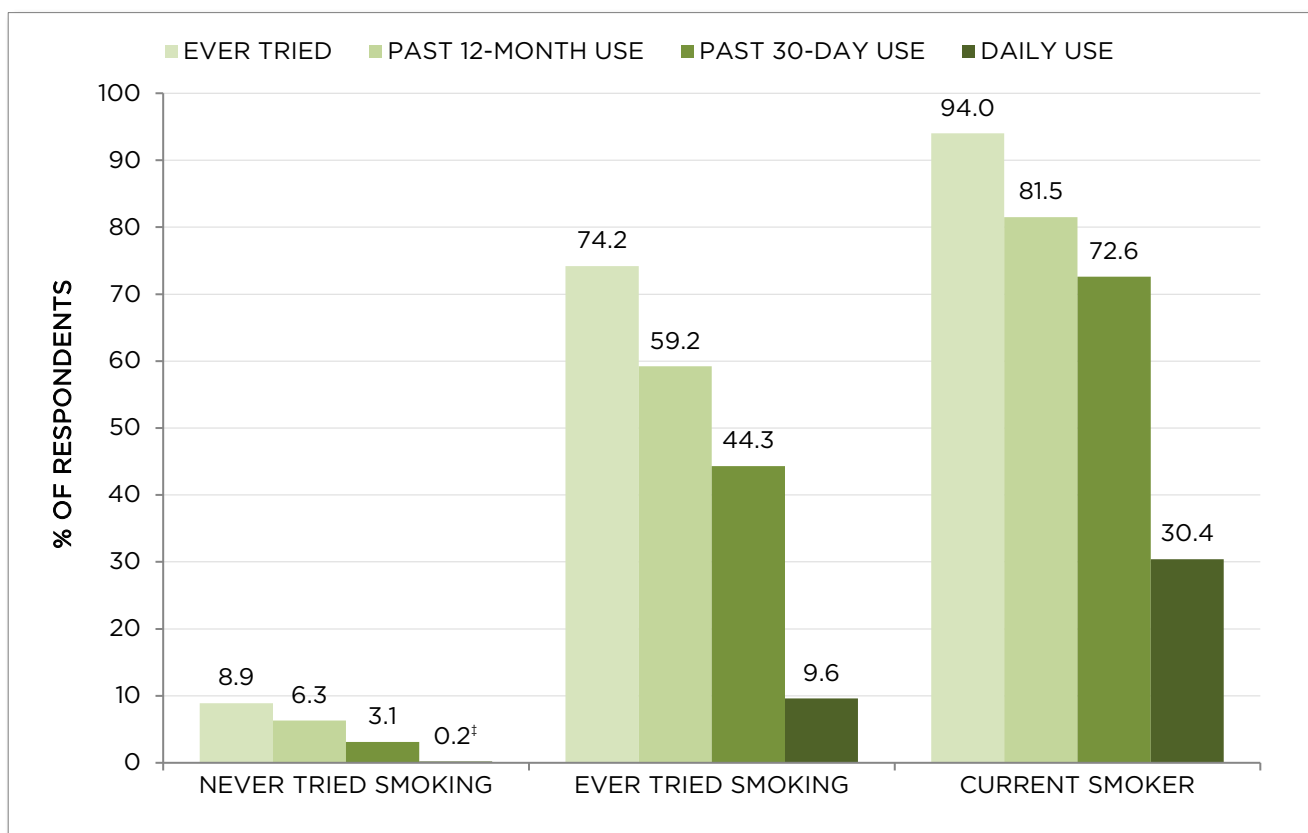
SMOKING STATUS AND CANNABIS USE

Figure 11 presents the prevalence of cannabis use among Canadian students in grades 7 to 12 by their smoking status*. Experience with cigarette smoking appears to be associated with greater cannabis use.

More than 90% of students who reported being *current* smokers (i.e., smokers who had a cigarette in the past 30 days), and approximately three-quarters of those who had *ever* tried smoking, also reported ever using cannabis. In contrast, fewer than 1 in 10 students who reported *never* trying cigarette smoking reported ever using cannabis.

The majority of *ever* and *current* cigarette smokers also reported using cannabis in the past 12 months. In addition, nearly three-quarters of *current* smokers reported past 30-day cannabis use, and 3 in 10 *current* smokers reported using cannabis daily in the past 30 days.

FIGURE 11: PREVALENCE OF CANNABIS USE BY CIGARETTE SMOKING STATUS, GRADES 7-12, 2014-15



DATA SOURCE: CSTADS, 2014-15

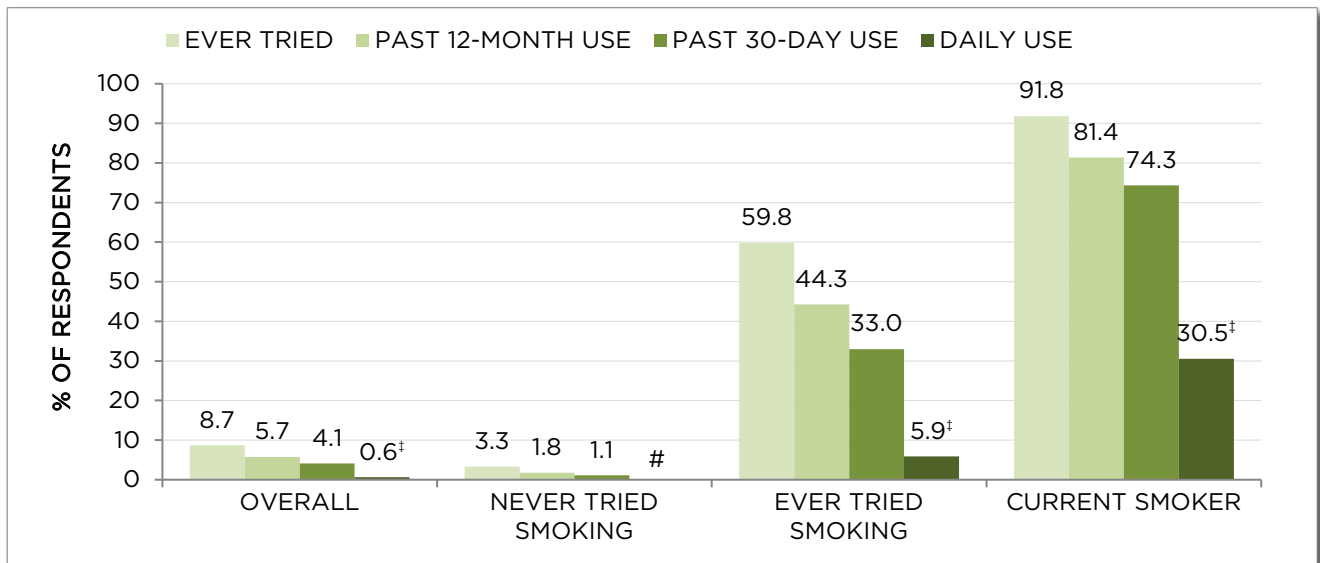
‡ MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

MORE THAN 90% OF CURRENT CIGARETTE SMOKERS HAVE EVER TRIED CANNABIS.

*NOTE: In this report, the terms “smoking” and “cigarette smoking” refer to tobacco cigarettes.

Figures 12 and 13 present the prevalence of cannabis use among Canadian students in grades 7 to 9 and grades 10 to 12, by their smoking status. *Ever* and *current* cigarette smokers in both age groups had significantly higher ($p < 0.0001$) prevalence estimates for all cannabis use measures, compared to those who had *never* tried smoking.

FIGURE 12: PREVALENCE OF CANNABIS USE BY CIGARETTE SMOKING, GRADES 7-9, 2014-15

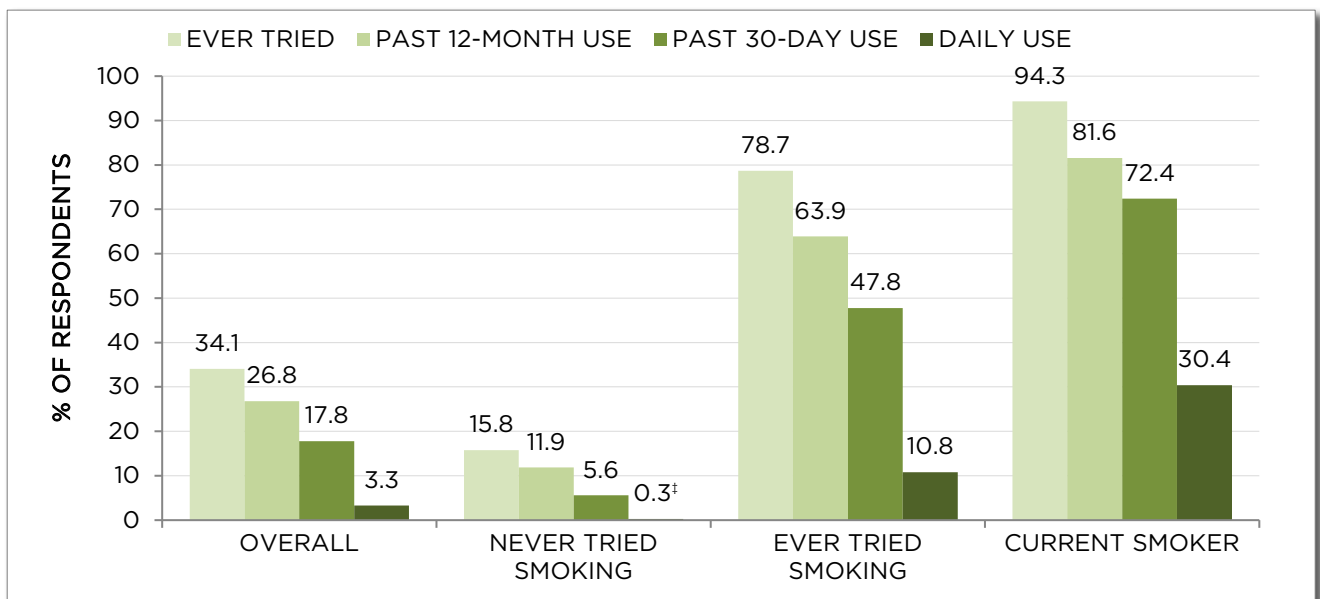


DATA SOURCE: CSTADS, 2014-15

[‡] MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

FIGURE 13: PREVALENCE OF CANNABIS USE BY CIGARETTE SMOKING, GRADES 10-12, 2014-15



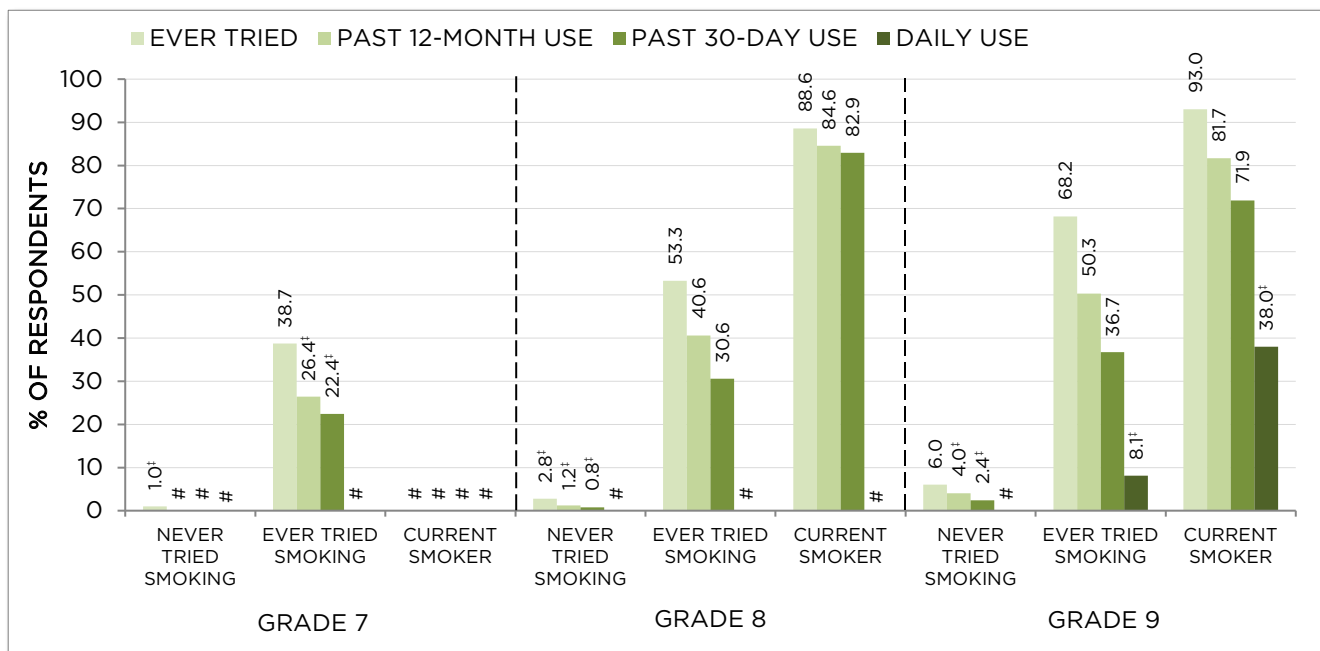
DATA SOURCE: CSTADS, 2014-15

[‡] MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

Current cigarette smokers reported similar cannabis use prevalence in junior and senior grades. Patterns of cannabis use prevalence by smoking status were virtually identical between grades 7-9 and 10-12; the higher prevalence among senior grades is accounted for by greater use among never-smokers.

Figures 14 and 15 display prevalence of cannabis use by cigarette smoking status within each grade. In each grade from 8 through 12, approximately 9 in 10 *current* smokers reported ever having tried cannabis, and approximately 7 in 10 reported use in the past 12 months and in the past 30 days.

FIGURE 14: PREVALENCE OF CANNABIS USE BY CIGARETTE SMOKING AND GRADE (7-9), 2014-15

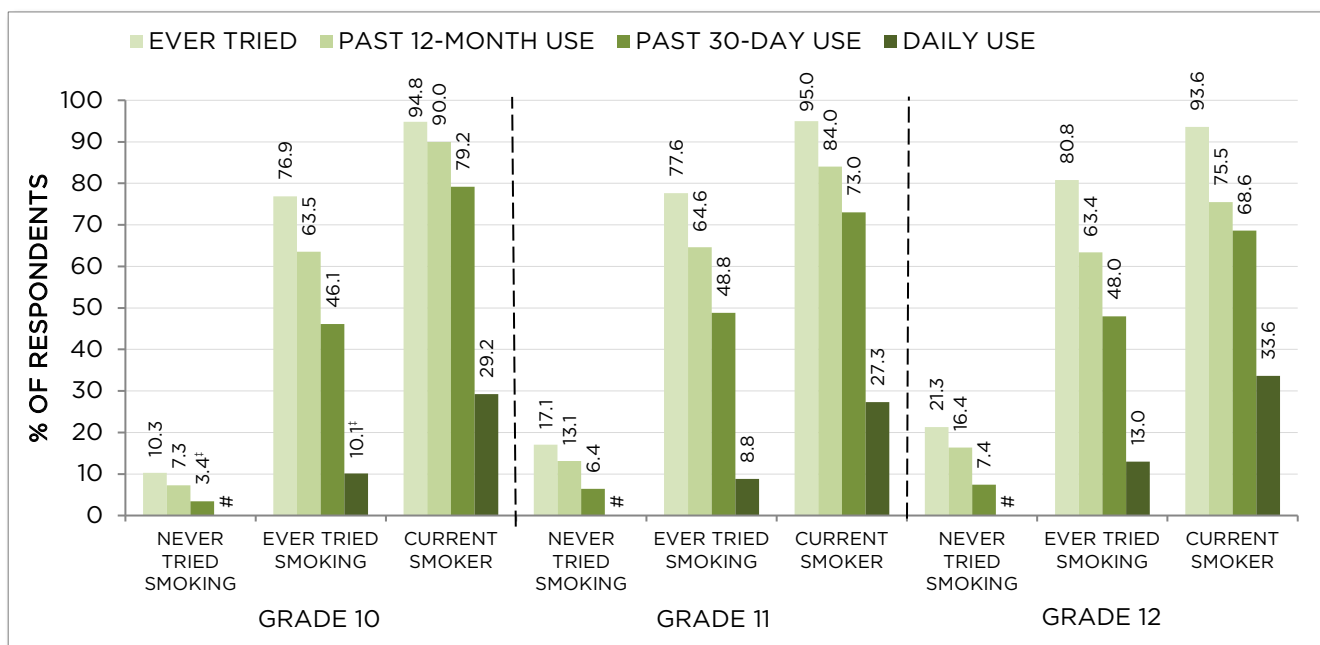


DATA SOURCE: CSTADS, 2014-15

‡ MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

FIGURE 15: PREVALENCE OF CANNABIS USE BY CIGARETTE SMOKING AND GRADE (10-12), 2014-15



DATA SOURCE: CSTADS, 2014-15

‡ MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

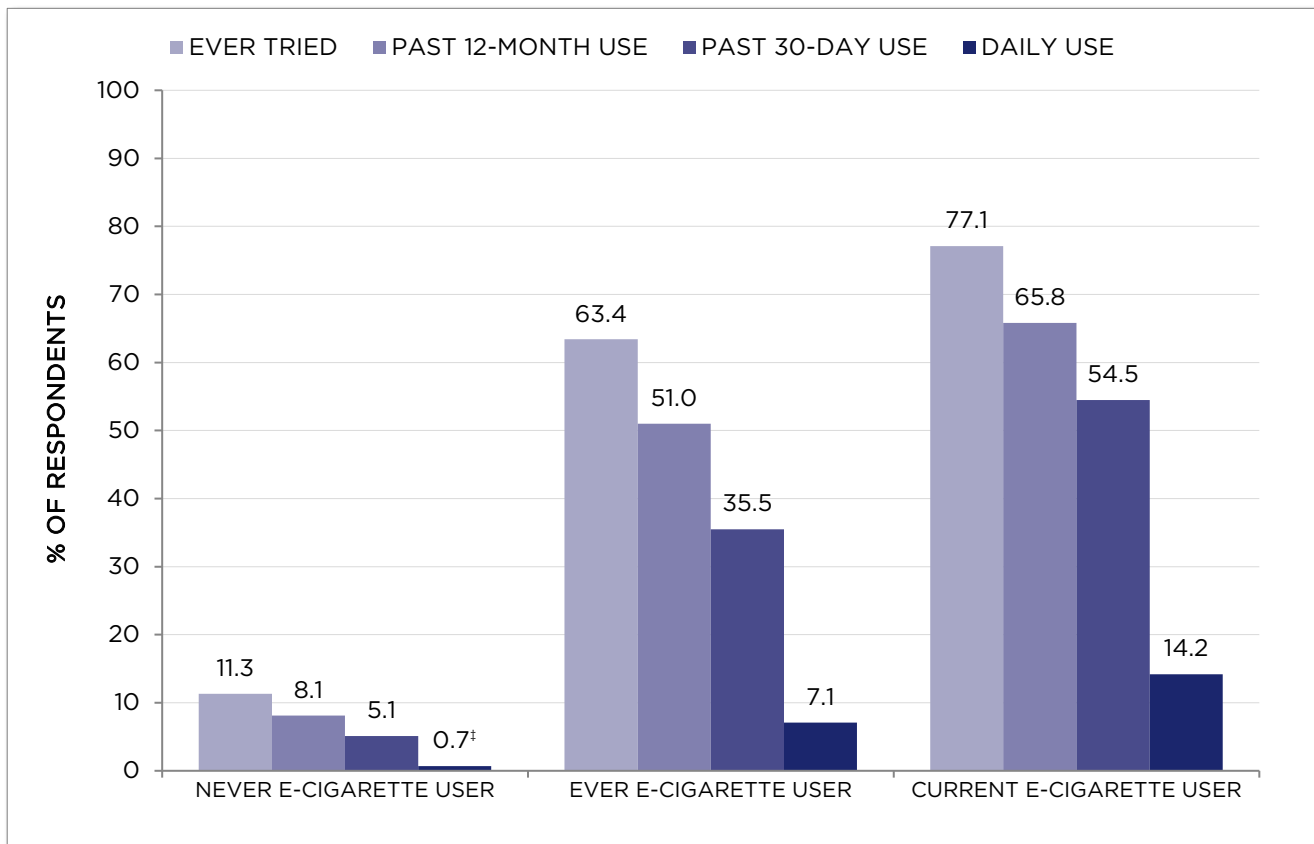
DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

E-CIGARETTE STATUS AND CANNABIS USE

Figure 16 displays prevalence of cannabis use by e-cigarette use status. More than three-quarters of *current* e-cigarette users (i.e., those that used an e-cigarette in the past 30 days) reported having ever used cannabis. Approximately two-thirds of *ever* e-cigarette users reported having ever used cannabis. Only 1 in 10 respondents who reported *never* using e-cigarettes reported ever using cannabis.

More than half of *ever* and *current* e-cigarette users reported having used cannabis in the past 12 months. *Ever* and *current* e-cigarette users also reported greater recent (i.e., past 30-day) use and daily use of cannabis than *never* e-cigarette users.

FIGURE 16: PREVALENCE OF CANNABIS USE BY E-CIGARETTE USE, GRADES 7-12, 2014-15



DATA SOURCE: CSTADS, 2014-15

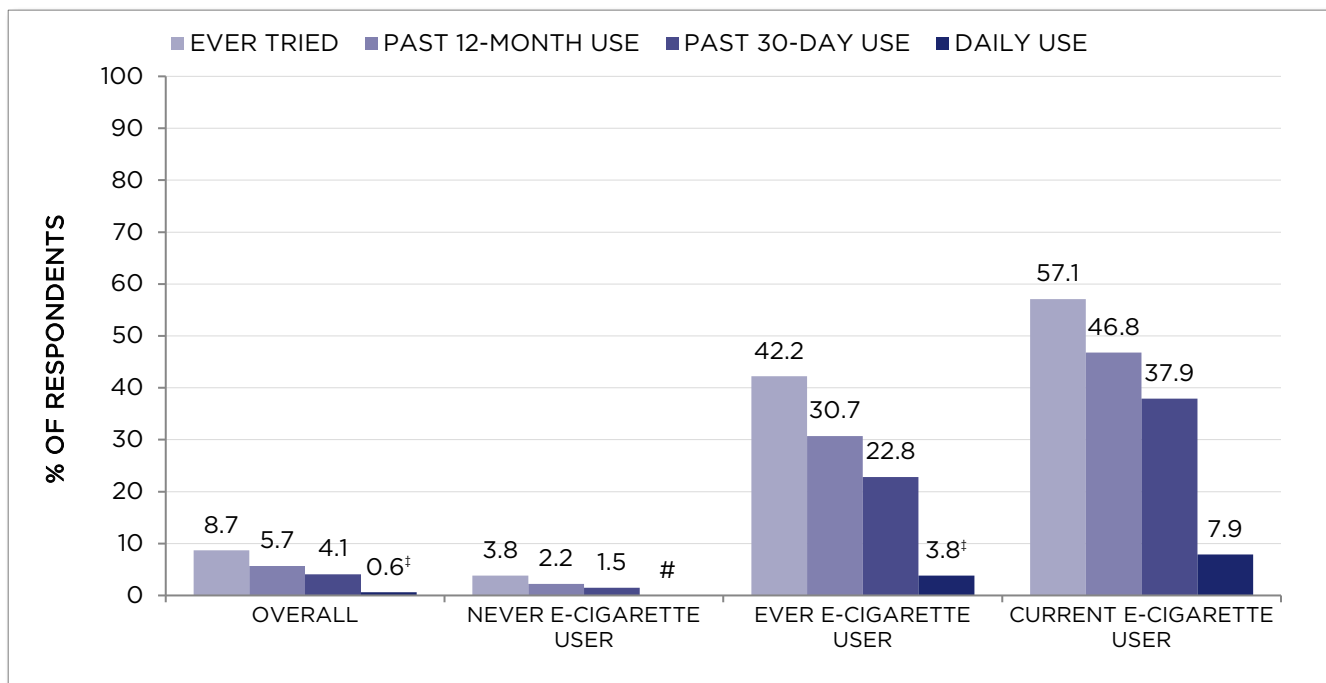
[†] MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

Figures 17 and 18 (*next page*) present the prevalence of cannabis use among Canadian students by e-cigarette use status in the junior and senior grades, respectively. The same general pattern was observed in each, although cannabis use was considerably more prevalent among students in senior grades.

When separated into junior and senior grades, the patterns that emerge appear to be similar to those observed for cannabis users by cigarette smoking status in Figures 11 and 12 (*page S2-13*). Those that responded that they were *current* e-cigarette users consistently reported higher prevalence of past 12-month, past 30-day, and daily cannabis use.

Figures 19 and 20 (*page S2-17*) display cannabis use prevalence by e-cigarette use status within each grade. The vast majority of grade 12 respondents (91.7%) who were *current* e-cigarette users reported having ever tried cannabis.

FIGURE 17: PREVALENCE OF CANNABIS USE BY E-CIGARETTE USE, GRADES 7-9, 2014-15

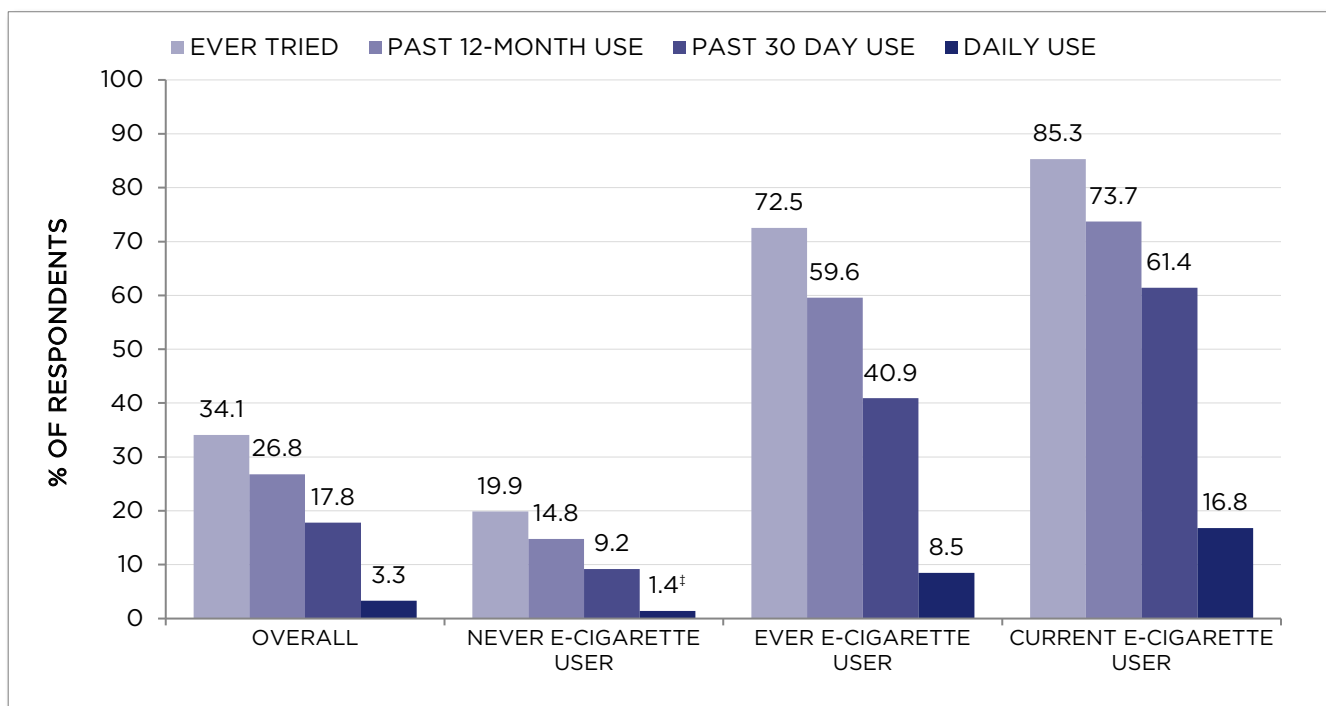


DATA SOURCE: CSTADS, 2014-15

[‡] MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

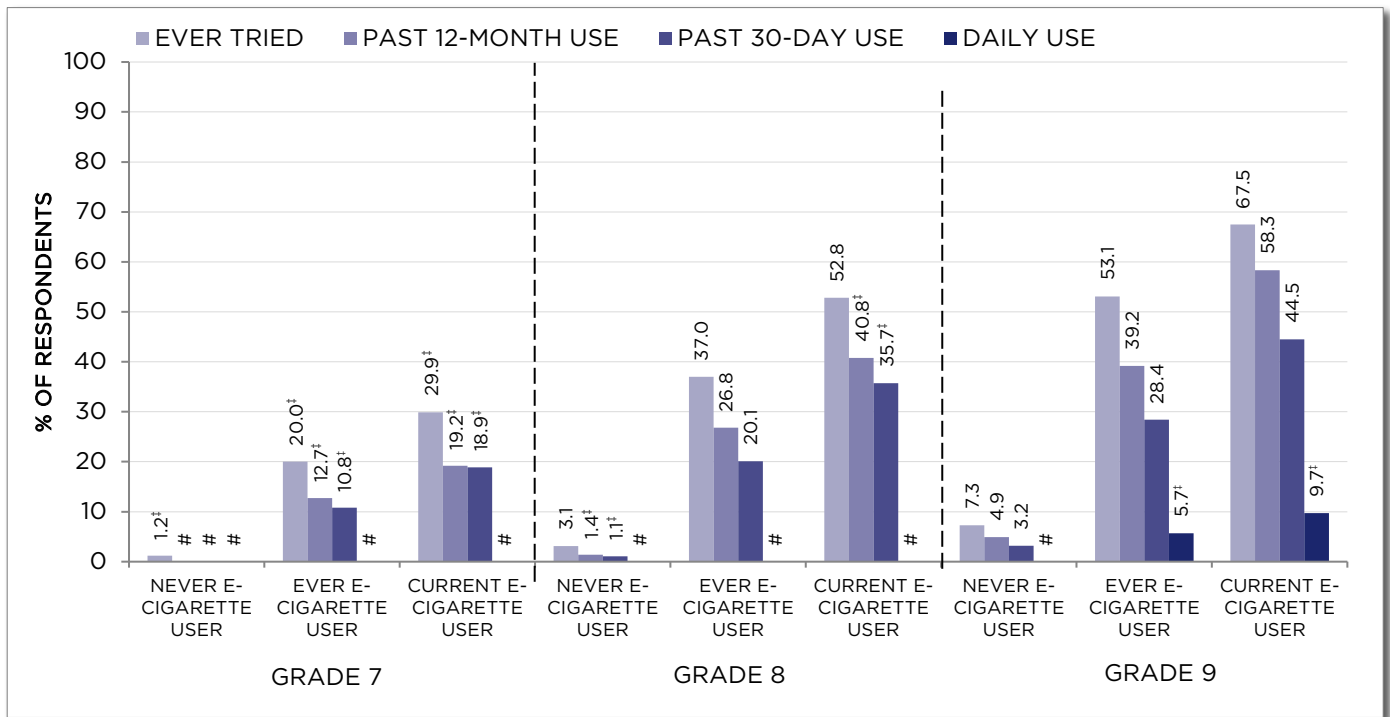
FIGURE 18: PREVALENCE OF CANNABIS USE BY E-CIGARETTE USE, GRADES 10-12, 2014-15



DATA SOURCE: CSTADS 2014-2015

[‡] MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

FIGURE 19: PREVALENCE OF CANNABIS USE BY E-CIGARETTE USE AND GRADE (7-9), 2014-15

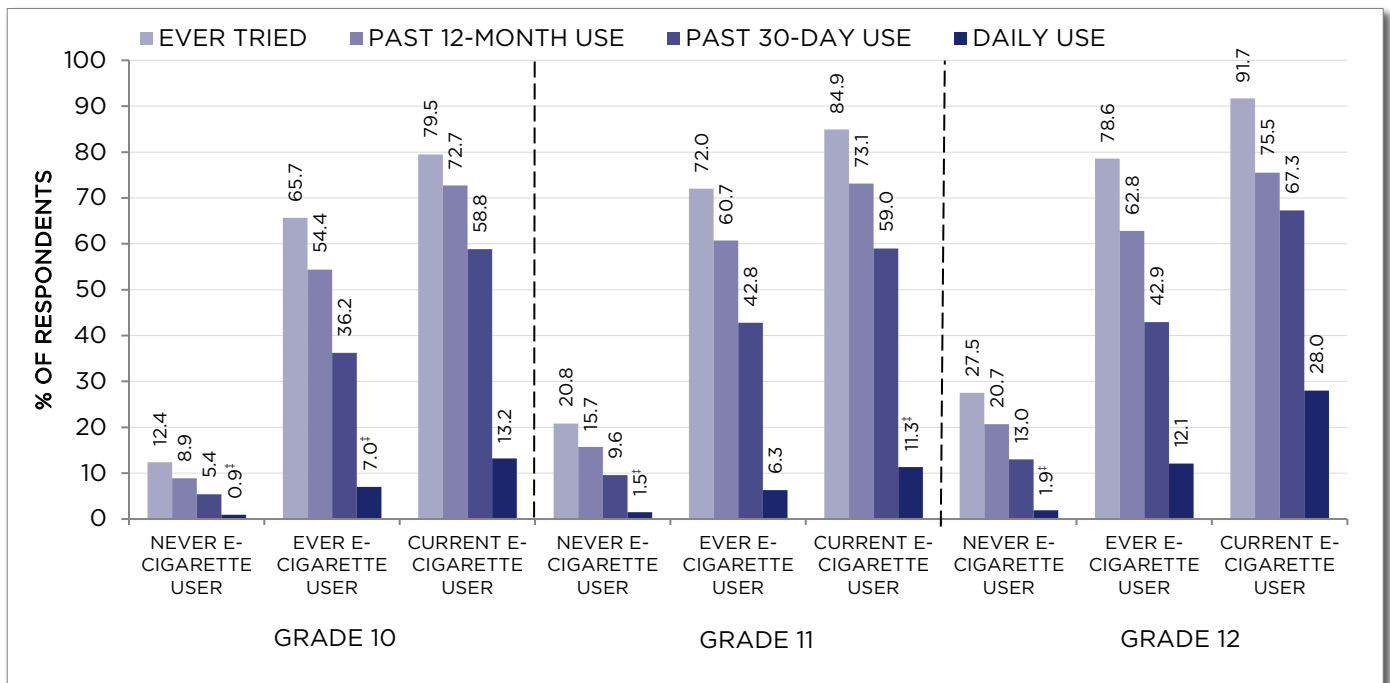


DATA SOURCE: CSTADS, 2014-15

‡ MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

FIGURE 20: PREVALENCE OF CANNABIS USE BY E-CIGARETTE USE AND GRADE (10-12), 2014-15



DATA SOURCE: CSTADS, 2014-15

‡ MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

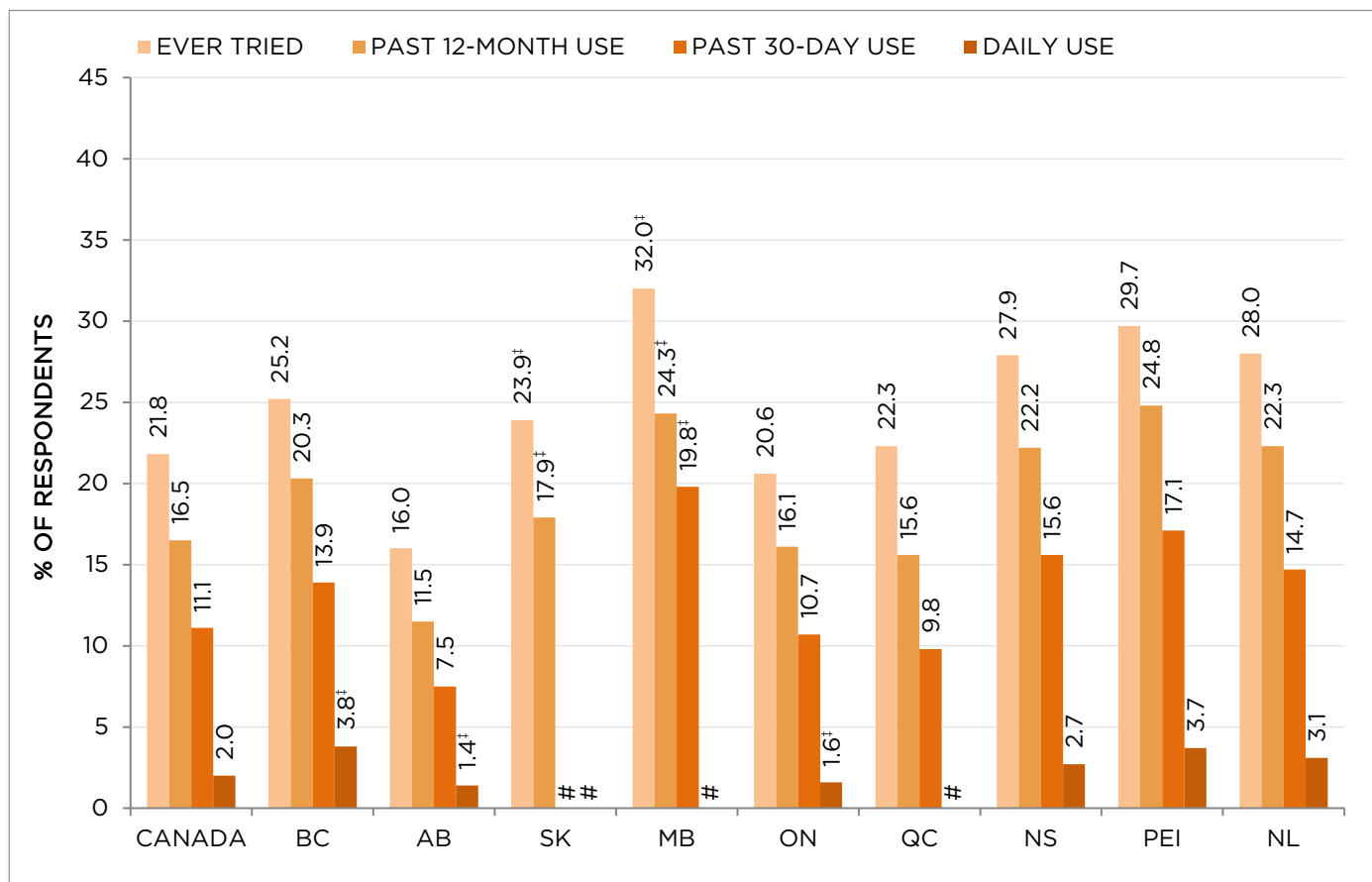
DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

PREVALENCE OF CANNABIS USE BY PROVINCE

Prevalence of cannabis use varied significantly between provinces, for ever use ($p < 0.0001$), past 12-month use ($p < 0.0001$), past 30-day use ($p < 0.0001$), and daily use ($p = 0.0004$) (Figure 21).

Prevalence estimates were generally higher in Manitoba and the Atlantic provinces, and lower in Alberta and central Canada.

FIGURE 21: PREVALENCE OF CANNABIS USE BY PROVINCE*, GRADES 7-12, 2014-15



DATA SOURCE: CSTADS, 2014-15

NOTE: DATA FROM QUEBEC ARE FOR SECONDARY I-V (I.E., DO NOT INCLUDE GRADE 12).

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

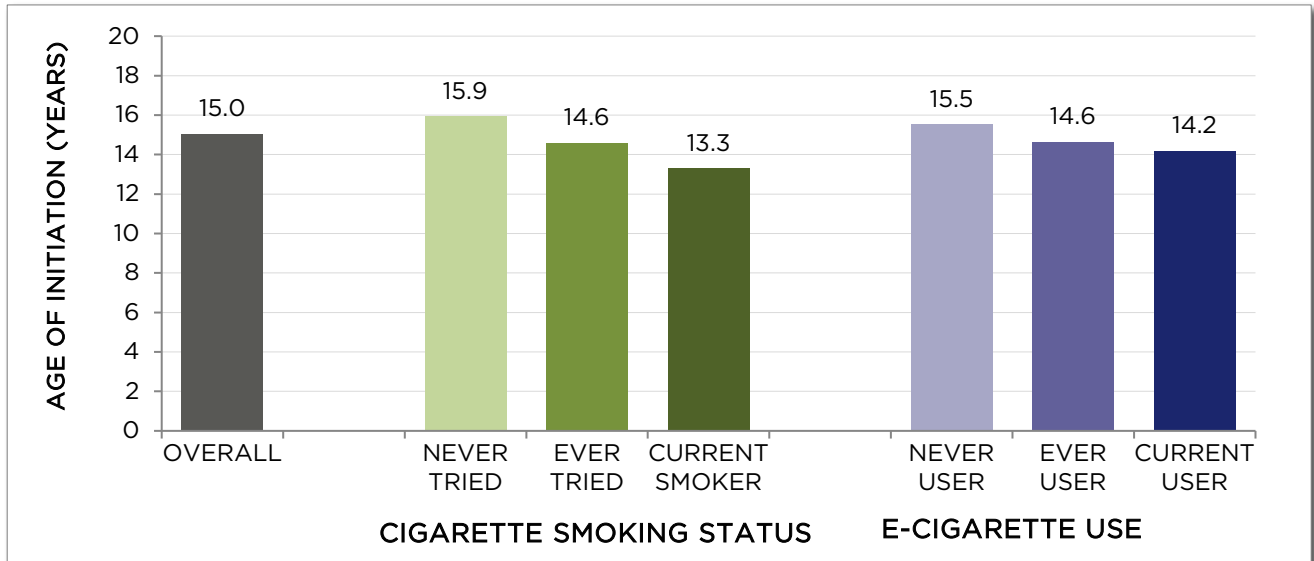
† MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

DATA ARE SUPPRESSED: UNRELEASABLE DUE TO HIGH SAMPLING VARIABILITY OR LOW SAMPLE SIZE

AGE OF INITIATION OF CANNABIS USE

Among all users in grade 12, mean age for first use of cannabis was 15.0 years. Figure 22 displays the mean age of initiation of cannabis use, overall, and by cigarette smoking and e-cigarette use status. Current (past 30-day) smokers reported initiating cannabis use 2.6 years earlier than those who had never tried smoking a cigarette. Current (past 30-day) e-cigarette users reported, on average, initiating cannabis use over a year earlier than those who had never used e-cigarettes.

FIGURE 22: MEAN AGE OF INITIATION AMONG CANNABIS USERS IN GRADE 12, BY CIGARETTE SMOKING AND E-CIGARETTE USE STATUS, 2014-15



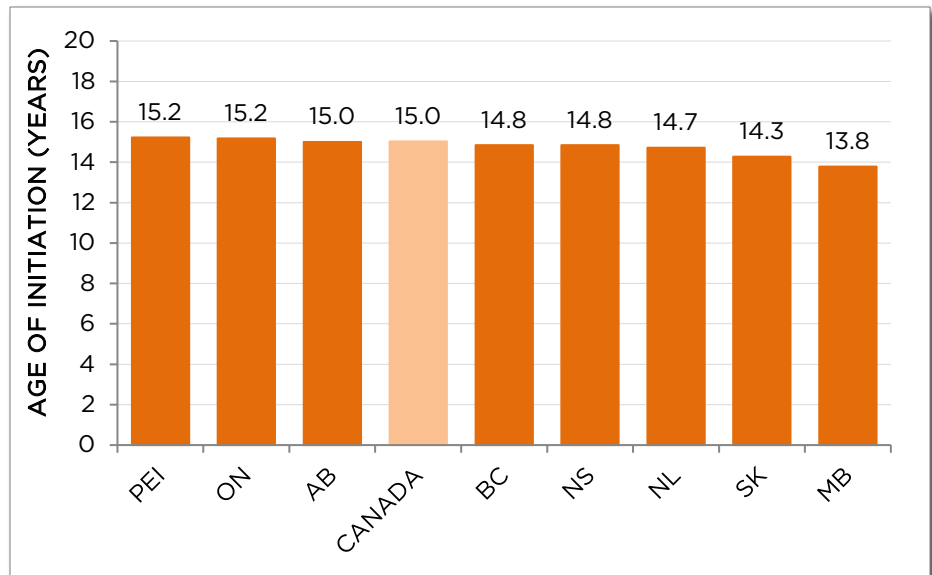
DATA SOURCE: CSTADS, 2014-15

NOTE: DATA FROM QUEBEC ARE NOT INCLUDED: QUEBEC SCHOOLS DID NOT INCLUDE GRADE 12.

Age of Initiation by Province

The mean age of initiation among cannabis users in grade 12 varied between provinces ($p=0.04$). Age of initiation ranged from 13.8 years of age in Manitoba to 15.2 years of age in Prince Edward Island and Ontario, as shown in Figure 23.

FIGURE 23: MEAN AGE OF INITIATION AMONG CANNABIS USERS IN GRADE 12, BY PROVINCE*, 2014-15



DATA SOURCE: CSTADS, 2014-15

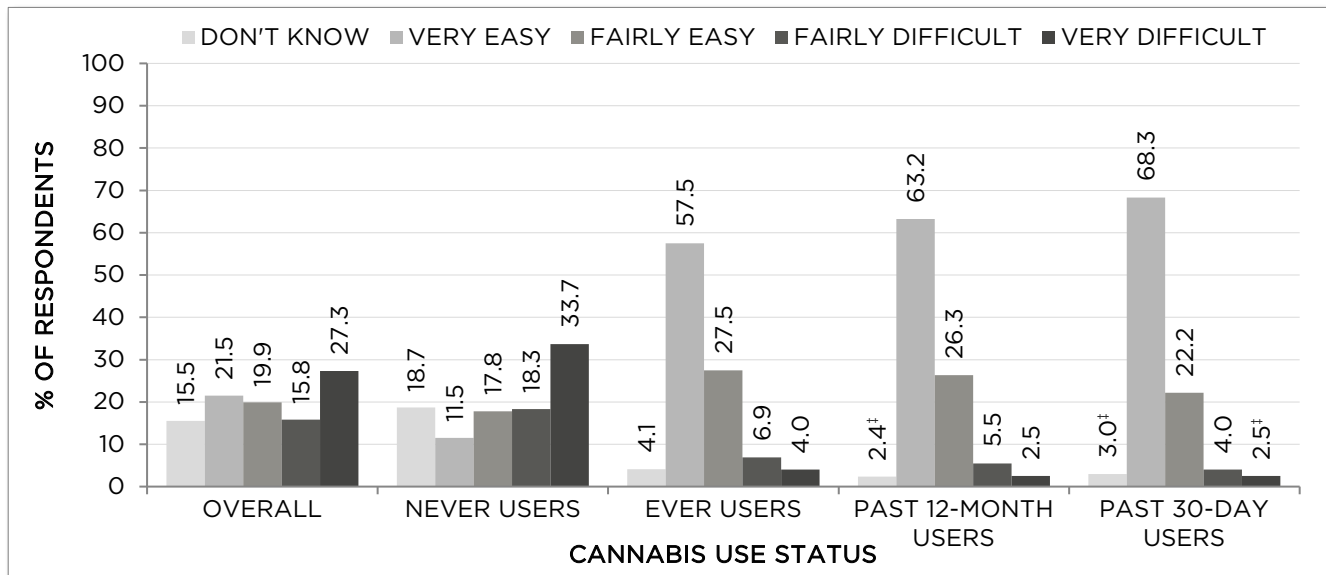
NOTE: DATA FROM QUEBEC ARE NOT INCLUDED: QUEBEC SCHOOLS DID NOT INCLUDE GRADE 12.

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

EASE OF ACCESS TO CANNABIS

Students were asked about perceived ease of access to cannabis with the question, “How difficult do you think it would be for you to get each of the following types of substances, if you wanted some?”, where one of the substances was “marijuana or cannabis”. Most students in grades 7 to 12 who had ever used cannabis reported “very easy” and “fairly easy” access to the substance (Figure 24). Those who had never used cannabis perceived greater difficulty in access; approximately one-third reported accessing cannabis to be “very difficult” and nearly one in five responded with “don’t know”.

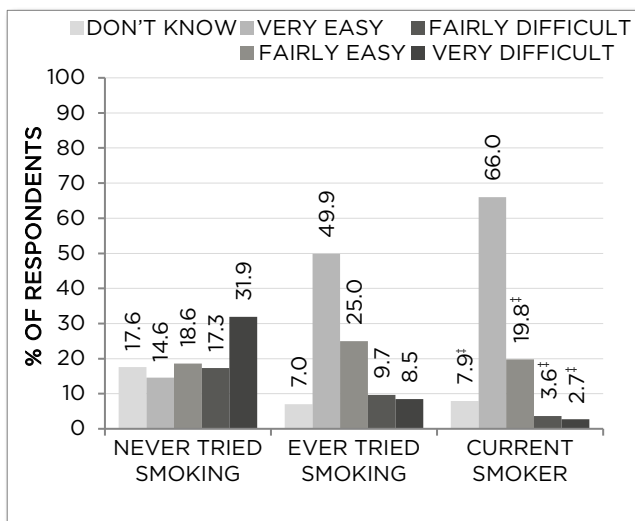
FIGURE 24: PERCEIVED EASE OF ACCESS TO CANNABIS, OVERALL AND BY CANNABIS USE STATUS, GRADES 7-12, 2014-15



DATA SOURCE: CSTADS, 2014-15
† MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

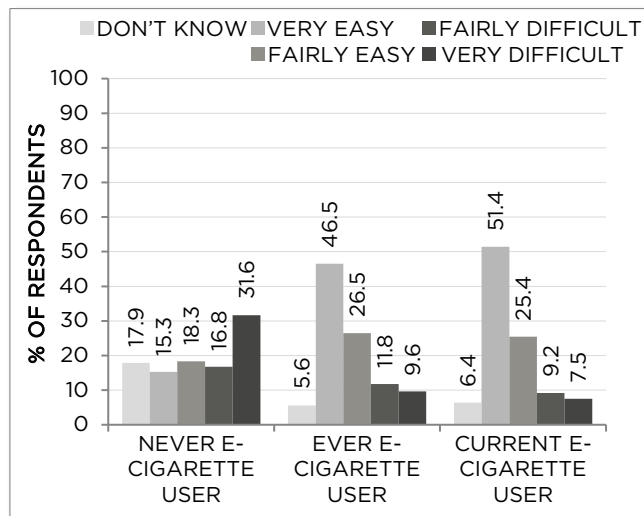
Respondents who smoked or used e-cigarettes reported greater ease of access to cannabis (Figures 25 and 26). Two-thirds of smokers and half of e-cigarette users reported “very easy” access to cannabis.

FIGURE 25: PERCEIVED EASE OF ACCESS TO CANNABIS BY CIGARETTE SMOKING, 2014-15



DATA SOURCE: CSTADS, 2014-15
† MODERATE SAMPLING VARIABILITY, INTERPRET WITH CAUTION

FIGURE 26: PERCEIVED EASE OF ACCESS TO CANNABIS BY E-CIGARETTE USE, 2014-15



DATA SOURCE: CSTADS, 2014-15

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