



Cannabis use
Obesity
Mental health
Physical activity
Alcohol use
Smoking
Sedentary behaviour

COMPASS is an ongoing longitudinal study (started in 2012) designed to follow a prospective cohort of grade 9 to 12 students attending a convenience sample of Canadian secondary schools to better understand how changes in school environment characteristics (policies, programs, built environment) and provincial, territorial, and national policies are associated with changes in youth health behaviours. This special edition of the COMPASS brochure highlights current trends of youth cannabis use in Canada using the COMPASS data.

THE COMPASS STUDY

- The COMPASS study connects researchers with schools and youth across Canada to identify important youth health issues. Results will help schools, communities, and government agencies across Canada to develop and evaluate policies and programs aimed at promoting healthy lifestyles among Canadian youth.
- COMPASS offers multi-level, multi-year, comprehensive research paired with knowledge exchange and strategic health partnerships to help turn knowledge into action and action into positive results for youth, like no study has done before.
- Student responses are linked throughout all participating years giving researchers the ability to examine trajectories of different health behaviours and the impact of any changes in policies, programs, or resources.



THE VALUE OF COMPASS DATA

Student-level Data: COMPASS annually collects individual level data on student behaviours across a number of health domains. Each student is tracked using a unique anonymized code allowing researchers to understand how health outcomes develop and change over time.

School Policies and Programs Data: School administration provides details regarding the presence, absence, or any change to relevant school programs, policies, and/or resources related to student health for each of the behavioural domains measured by COMPASS. Data on school programs and policies are then linked back to student-level data to determine the impact the school environment has on youth health behaviours.

Built Environment Data: Built environment data are collected within the school and the surrounding community to measure the impact these characteristics and structures have on student health behaviours and outcomes.

AMONG STUDENTS PARTICIPATING IN COMPASS IN 2018/19, 26% HAVE USED CANNABIS AT LEAST ONCE IN THEIR LIFETIME, AND 13% REPORT USING AT LEAST MONTHLY.

CANNABIS LEGISLATION IN CANADA

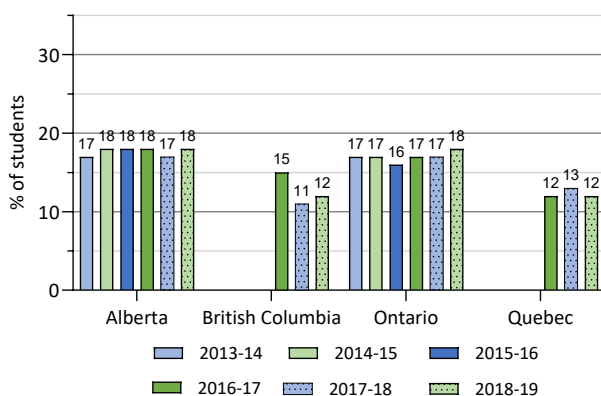
➤ In 2018, Canada federally legalized the recreational use of cannabis among adults, with minimum age requirements varying by province.

« After a steady decrease in patterns of cannabis use among youth over several years, it appears that there has been a gradual increase in cannabis use among youth following the start of discourse around cannabis legalisation, with some populations of youth being at greater risk. »

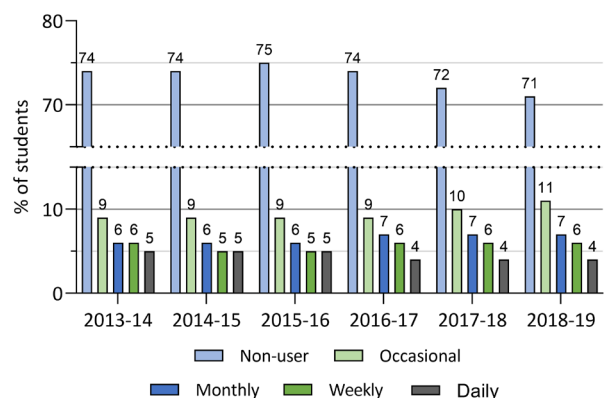
(ZUCKERMANN ET AL., 2019)

TRENDS IN CANNABIS USE

Cannabis Use by Province

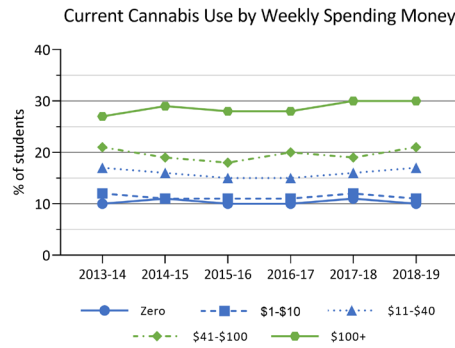
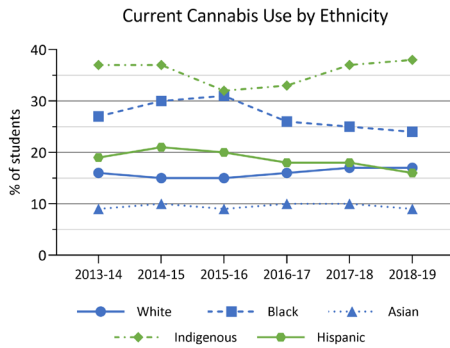
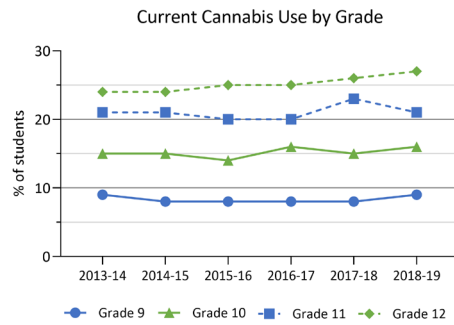
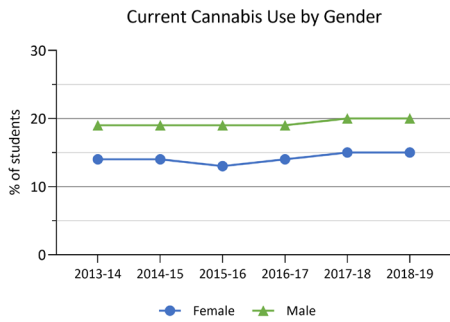


Frequency of Cannabis Use



CANNABIS USE IS DEFINED AS ANY USE IN PAST 30 DAYS
SOURCE: 2013-14 TO 2018-19 COMPASS SCHOOLS

SOURCE: 2013-14 TO 2018-19 ONTARIO COMPASS SCHOOLS



« CANNABIS USE INCREASES WITH GRADE AND SPENDING MONEY, AND USE IS MORE COMMON AMONG MALE STUDENTS. »»

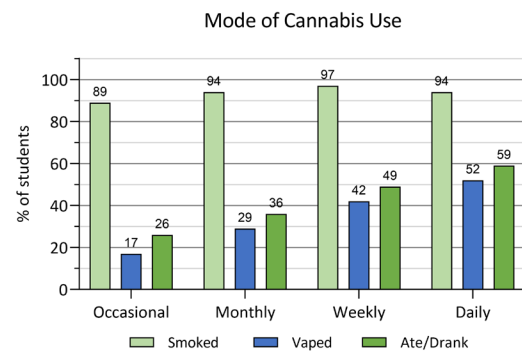
SOURCE: 2013-14 TO 2018-19 COMPASS ONTARIO SCHOOLS

CURRENT CANNABIS USE IS DEFINED AS ANY USE IN PAST 30 DAYS

CANNABIS USE AND MENTAL HEALTH

- » Students who use cannabis more commonly report symptoms of depression and anxiety and these symptoms increase as cannabis is used more frequently. (BUTLER ET AL., 2018)
- » The presence of depressive symptoms, and poorer emotional regulation skills were associated with higher rates of cannabis use. (ROMANO ET AL., 2018)
- » Students who report greater psychosocial wellbeing (e.g. flourishing) are less likely to use cannabis or use at higher frequencies. (ROMANO ET AL, 2019; BUTLER ET AL., 2018)

MODES OF USE AMONG STUDENTS WHO USE CANNABIS IN 2018/19




*Values do not add up to 100% as students could select more than one response.

OTHER HEALTH BEHAVIOURS ASSOCIATED WITH CANNABIS USE


- » Polysubstance use, inclusive of cannabis, vaping and alcohol, was reported by 13.5% of Ontario and Alberta students. (ZUCKERMANN ET AL., 2019)
- » Escalation of cannabis use throughout high school was associated with being male, vaping, and low math marks. (ZUCKERMANN ET AL., 2019)
- » Students that engage in healthier behaviours (e.g., meeting screen time and sleep guidelines) are less likely to use cannabis. (ROMANO ET AL., 2019)
- » Binge drinking, cigarette use, vaping, and opioid use were all associated with higher rates of cannabis use. (ROMANO ET AL., 2019)

CANNABIS AND SCHOOL OUTCOMES

- » Improving school connectedness is protective against the frequency of cannabis use among students. (WEATHERSON ET AL., 2018)
- » Students who used cannabis were less likely to attend class regularly, complete their homework, and achieve and value high marks, relative to their peers who abstained from using cannabis. (PATTE ET AL., 2017; WILLIAMS ET AL., 2019)

Flourishing is protective against cannabis ever use and the frequency of cannabis use among all youth, regardless of depression or anxiety symptoms. 

(BUTLER ET AL., 2018)

Cessation of cannabis use throughout high school was associated with academic rigor, ... and physical activity. 

(ZUCKERMANN ET AL., 2019)

RELATED COMPASS PUBLICATIONS

1. Zuckermann AME, Williams G, Battista K, et al. (2019). Trends of poly-substance use among Canadian youth. Addictive Behaviors Reports. <https://doi.org/10.1016/j.abrep.2019.100189>.
2. Williams GC, Battista K, Leatherdale ST (2019). An examination of how age of onset for alcohol, cannabis, and tobacco are associated with school outcomes in grade 12. Addictive Behaviors, Vol 102; <https://doi.org/10.1016/j.addbeh.2019.106215>
3. Romano I, Williams G, Butler A, Aleyan S, Patte K, Leatherdale ST (2019). Psychological and Behavioural Correlates of Cannabis Use among Canadian Secondary School Students: Findings from the COMPASS study. Canadian Journal of Addiction. DOI: 10.1097/CXA.000000000000058
4. Williams G, Battista K, Leatherdale ST (2019). An examination of how age of onset for alcohol, cannabis, and tobacco are associated with physical activity, screen time and BMI as students are preparing to graduate from high school. Preventive Medicine Reports. Doi: <https://doi.org/10.1016/j.pmedr.2019.100956>
5. Zuckermann AME, Battista K, de Groh M, et al. (2019). Prelegalisation patterns and trends of cannabis use among Canadian youth: results from the COMPASS prospective cohort study. BMJ Open 2019;9:e026515. doi: 10.1136/bmjopen-2018-026515
6. Zuckermann AME, Gohari MR, de Groh M, Jiang Y, Leatherdale ST. (2018). Factors associated with cannabis use change in youth: Evidence from the COMPASS study. Addictive Behaviours, 90: 158-163. <https://doi.org/10.1016/j.addbeh.2018.10.048>
7. Butler A, Patte KA, Ferro, MA, Leatherdale ST. (2019). Interrelationships among depression, anxiety, flourishing, and cannabis use in youth. Addictive Behaviours, 89: 206-215. <https://doi.org/10.1016/j.addbeh.2018.10.007>
8. Patte KA, Qian W, Leatherdale ST. (2017) Marijuana and alcohol use as predictors of academic aspirations and achievement: a longitudinal analysis among secondary school students in the COMPASS study. Journal of School Health 2017;87(5):310-318. DOI:10.1111/josh.12498

ONGOING CANNABIS RESEARCH PROJECTS

1. Doggett A, Battista K, Leatherdale ST. Examining the different modes of cannabis use among Canadian youth in the COMPASS study; the prevalence of smoking, vaping, and eating/drinking cannabis. Under revisions at Drugs: Education, Prevention and Policy
2. Doggett A, Godin K, Schnell O, Wong S, Leatherdale S. Assessing associations between school neighbourhood characteristics and youth substance use over time: COMPASS study, 2015 to 2018. For submission to International Journal of Environmental Research and Public Health
3. Magier M, Patte KA, Battista K, Cole AG, Leatherdale ST. Are school substance use policy violation disciplinary consequences associated with student engagement in cannabis? Submitted to the Journal of Cannabis Research on October 30, 2019. Under review.
4. Duncan MJ, Patte KA, Leatherdale ST. Hit the chronic... physical activity: are cannabis associated mental health changes in adolescents attenuated by physical activity? Submitted to Social Psychiatry and Psychiatric Epidemiology on September 17, 2019. Under review.
5. Williams GC, Burns KE, Battista K, de Groh M, Jiang Y, Leatherdale ST. High school sport participation as a predictor of substance use: a cross-sectional analysis of students from the COMPASS Study. Submitted to: The Journal of Adolescent Health.
6. Zuckermann AME, Gohari MR, de Groh M, Jiang Y, Leatherdale ST. Cannabis cessation among youth: rates, patterns, and academic outcomes in a large prospective cohort of Canadian high school students. Accepted for publication at Health Promotion and Chronic Disease Prevention in Canada.
7. Zuckermann AME, Gohari MR, de Groh M, Jiang Y, Leatherdale ST. The Role of School Characteristics in Pre-Legalization Cannabis Use Change among Canadian Youth: Implications for Policy and Harm Reduction. Under review at Health Education Research.
8. Romano I, Williams G, Aleyan S, Butler A, Patte KA, Leatherdale ST. Varying modes of cannabis consumption among Canadian secondary school students. For submission to Journal of Studies on Alcohol and Drugs.

compass.uwaterloo.ca

VISIT THE WEB FOR MORE INFORMATION ABOUT THE COMPASS STUDY AND TO VIEW COMPASS PUBLICATIONS.



Health
Canada



UNIVERSITY OF
WATERLOO