

# knowledge snapshot



## The overlap between cannabis use and gambling

### What this article is about

Substance use, especially tobacco and alcohol use, typically co-occur with gambling. Tobacco and alcohol are also linked to increased gambling-related problems. When looking at substance use and gambling, it is helpful to differentiate simultaneous use and independent use. Simultaneous use refers to using substances while gambling. Independent use is when a person engages in both substance use and gambling but at different times.

Across North America, many forms of gambling are legal, and cannabis is being legalized as a recreational drug. For some people, gambling and cannabis use can become problematic. Examining the overlap between cannabis and gambling is important to inform policy that considers cannabis and gambling. This article examined the current scientific knowledge of the co-occurrence of cannabis and gambling.

### What was done?

A systematic review was conducted to identify scientific papers from January 1, 1900, to August 31<sup>st</sup>, 2019 on the co-occurrence of cannabis and gambling. The articles were included in the review if they were original research. The papers also had to be published in peer-reviewed journals and written in English. The papers also had to report results on measuring both cannabis use and gambling in human participants.

### What you need to know

Fifty-one studies met the inclusion criteria and were included in the review. Most studies were large studies looking at the independent use of cannabis and gambling. Twenty-six studies were with students and youths, including high school and college

### Why is this article important?

Cannabis is now a legal recreational drug in Canada and parts of the US. This article summarizes the research on the overlap between cannabis use and gambling. Fifty-one studies were found across a variety of populations including youths, adults, treatment-seeking people, and specific populations. Cannabis use increased the likelihood of gambling, and vice versa. Cannabis use and gambling were associated with greater gambling problems. Cannabis use and gambling were also associated with other problematic behaviours. Cannabis use could increase risky decision making, which might lead to more gambling harms. The article provides several policy implications for cannabis use and gambling, including education and prevention in youths.

students. Thirteen studies were with adults who were aged 18+. Four studies were with people seeking treatment. Eight studies were with specific populations, such as Inuit people and twins.

Overall, youths who gambled were more likely to use cannabis. This was true for middle school, high school, and university students. Co-occurring gambling and cannabis use were also associated with more severe gambling problems. Cannabis use and gambling were associated with other problematic behaviours including other substance uses, psychological distress, lower grades, and illegal behaviours. Cannabis use was linked to gambling across more settings, chance-based gambling, and gambling at an earlier age. Three studies with college students provided information on simultaneous cannabis use during gambling. Using

cannabis before or during gambling was linked to greater problem gambling severity.

Adults who gambled were also more likely to use cannabis. Adults who gambled and used cannabis were likely to gamble more heavily, report using other substances, and have difficulties maintaining attention and focusing on tasks. However, a few studies with adults did not find an association between cannabis use and gambling.

In treatment-seeking groups, people who met the criteria for gambling disorder had greater rates of cannabis use disorder. In veterans seeking gambling treatment, cannabis was the most common substance use disorder. Compared to late-onset gambling, early-onset was associated with a higher rate of cannabis use. In people seeking treatment for a mood disorder, cannabis, and not alcohol, was the only substance associated with lifetime gambling problems.

Studies with specific populations, such as Inuit adults and people seeking treatment for HIV, also found a relationship between cannabis use and gambling. A large twin study found a shared overlap in genetic and environmental factors for cannabis use and gambling. A large birth cohort study from New Zealand found that at age 18 and 21, past year problem gambling was associated with cannabis dependence.

In healthy individuals, the effects of cannabis can reduce decision making and lead to risk-taking. Cannabis may also lead to continued risky actions. Recent use of cannabis, such as past day use, has been found to lead to worse decision making. The effects of cannabis on decision making may result in more harm in a gambling setting.

The results of the review suggest that policy should focus on education and prevention in youths. Cannabis should also not be sold in casinos until there is a better understanding of the potential harms.

### Who is it intended for?

This article is intended for policymakers and casino operators to minimize the harms of cannabis use and gambling. This article could also be used by

researchers to inform and guide further areas of cannabis-gambling research.

### About the researchers

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### About Gambling Research Exchange (GREO)

Gambling Research Exchange (GREO) has partnered with the Knowledge Mobilization Unit at York University to produce Research Snapshots. GREO is an independent knowledge translation and exchange organization that aims to eliminate harm from gambling. Our goal is to support evidence-informed decision making in safer gambling policies, standards, and practices. The work we do is intended for researchers, policy makers, gambling regulators and operators, and treatment and prevention service providers.

Learn more about GREO by visiting [greo.ca](http://greo.ca) or emailing [info@greo.ca](mailto:info@greo.ca).

