

2024 ANNUAL CANNABIS REPORT

Adult Use Cannabis
Health Advisory Committee



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FOREWORD

The Illinois Cannabis Regulation and Tax Act ([CRTA], Public Act 101-0027) supports the use of funds allocated to the Illinois Department of Human Services (IDHS) Division of Substance Use Prevention and Recovery (SUPR) and the Division of Mental Health Services (DMH) to evaluate the public health impacts of legalizing adult cannabis use in the state.

The current report is the fourth in a series of annual reports in fulfillment of the CRTA's statutory report requirement. The report covers the period between July 2023 and June 2024 and presents and summarizes analyses of data obtained from a wide variety of sources covering an equally comprehensive array of public health-related areas associated with cannabis use and Illinois cannabis policy. Emerging topics such as perinatal cannabis use, awareness and use of synthetic cannabis (i.e., delta-8 THC) made from hemp, and cannabis hyperemesis syndrome are covered as well as updates to topics covered in prior reports such as prevalence, initiation of use, traffic fatalities, reasons for purchasing cannabis from illicit sources, and reasons for use among persons registered in the medical cannabis program compared with non-medical cannabis users.

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HUMAN SUBJECTS

This project was reviewed and approved by the UIC IRB (Human Subjects Assurance No. FWA00000083).

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INTRODUCTION



INTRODUCTION

The Cannabis Regulation and Tax Act ([CRTA], Public Act 101-0027) supports the use of funds allocated to the Illinois Department of Human Services (IDHS)/ Division of Substance Use Prevention and Recovery (SUPR) and the Division of Mental Health (DMH) to evaluate the public health impacts of legalizing adult use cannabis. By provisions in the CRTA, the Illinois Adult Use Cannabis Health Advisory Committee is required to submit an annual report to the General Assembly that details the social and public health consequences of legalizing adult use cannabis. In fulfillment of that requirement, this is the fourth annual report submitted to the Cannabis Health Advisory Committee, covering the state fiscal year (FY) from July 1, 2023 through June 30, 2024.

The CRTA enumerates a minimum set of public health indicators that reasonably could be affected by wider and/or more frequent use of cannabis by Illinois residents, and which therefore should be analyzed, interpreted, documented, and presented to the Advisory Committee in each annual report. The selection of data and analyses presented in this and prior annual reports has therefore been guided by one primary research question: What are the public health harms and benefits associated with the legalization of adult use cannabis in Illinois since the Cannabis Regulation and Tax Act went into effect in January 2020? Although not specific to the CRTA annual report requirements, to provide fuller context for the consideration

of the public health effects of legalized adult use cannabis, this report covers the “business of cannabis” in the state in terms of dispensary licensing of existing and recently added locations, diversity of cannabis company ownership, and state revenues and sales overall and by product type.

The annual report considers whether adult use cannabis legalization has had adverse public health effects for the state’s general population as a whole and, for some measures, for specific subpopulations. Adverse events include commonly identified potential consequences of cannabis use such as traffic fatalities attributable to driving while under the influence of cannabis; needing and receiving treatment in the emergency department (ED) or requiring hospitalization for cannabis-related conditions such as poisoning, acute intoxication, and cannabis use disorder (CUD); emergency medical services for cannabis intoxication or poisonings; and fatalities where cannabis use was an underlying or contributing cause of death. This report also considers changes in cannabis use over time and the extent of adverse effects for vulnerable Illinois subpopulations such as youth ages 12 to 17; children under the age of 12 (to assess the incidence of cannabis-related poisonings); sexual and racial/ethnic minorities; pregnant and perinatal women; persons with a serious mental illness (SMI); and those living below the federal poverty level.

INTRODUCTION (CONTINUED)

To a more limited extent, this report also provides information on the potential beneficial effects of medical cannabis such as use for treating cancer-related pain or neurological conditions such as epilepsy and Parkinson's disease. At present, because of restrictions on data access, we remain unable to assess the full extent to which cannabis has been used for treatment of chronic pain in lieu of opioids but hope to be able to provide such information in future reports.

Where possible, in addition to point estimates expressed most often in the report as percentages, we also now include 95% confidence intervals for many estimates in both the included tables and charts. Confidence intervals allow for a clearer determination of whether year-to-year changes in the provided estimates are due to sampling fluctuations or are attributable to non-random underlying changes. We have also provided in many places the estimated population size for a given percentage estimate and calculate changes or differences as either percentage-point (i.e., by calculating the simple difference in estimates) or as percentages (i.e., by calculating the amount of change or difference in a subsequent year relative to the percentage in the preceding year or years). In a few places, we use regression models or chi-square tests to assess the statistical significance of changes or differences. Because the chi-square test is sensitive to sample size, with

large samples often showing significance for sometimes very small differences, we also provide Cramer's V statistic, which is less affected by sample size, and which shows the strength of an association similar to a correlation.

DATA SOURCES

Table 1 presents the full list of data sources used for this report, which highly overlap with sources used in prior reports albeit with several additions and changes. To obtain more information on high school student cannabis initiation and use, we obtained data from the Centers for Disease Control and Prevention's (CDC) biannual Youth Risk Behavior Surveillance System (YRBSS). This data allowed us to make inter-state and national comparisons applicable to high-school youth cannabis use. Information on past-year arrests for violations of the Cannabis Control Act (CCA) had previously been obtained from inspection of the annual pdf-based [Uniform Crime Reports](#) (UCR) provided by the Illinois State Police (ISP). This information has been supplanted by an online query system—ISP Crime Online—which has more recent arrest information than the [UCR reports](#). As a result of this change, the figures presented in this year's report do not precisely match those presented in last-year's report, but the differences are small and, in our assessment, inconsequential to consideration of changes in CCA arrests.

INTRODUCTION (CONTINUED)

Data Set	Purpose/Information
Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Surveillance System (YRBSS)	Nationally representative, school-based samples of students in grades 9-12 surveyed every other year on behaviors that affect health, including substance use.
Centers for Disease Control and Prevention (CDC) Wide-Ranging Online Data for Epidemiologic Research (WONDER)	Number of fatalities attributable to drug poisonings/overdoses as the underlying or contributing cause of death.
Chicago Data Portal – Crimes Map	Cannabis Control Act arrests in Chicago with street addresses for each arrest.
Illinois Department of Corrections Prison Admissions Data Sets	Annual number of state prison admissions, including where the holding offense is for violations of the Illinois Cannabis Control Act.
Illinois Department of Financial and Professional Regulation/ Cannabis Regulatory and Oversight Office (CROO)	Numbers of persons completing cannabis budtender trainings and annual cannabis-related state revenues.
Illinois Department of Public Health, Division of Patient Safety and Quality, Emergency Department and Hospitalizations Data	Numbers of persons hospitalized or treated in the emergency department for cannabis-related conditions.
Illinois Department of Revenue	State revenues generated by sales and taxation of tobacco, alcohol, and cannabis as remitted to the State Comptroller.
Illinois Department of Public Health, Emergency Medical Services, Prehospital Data Program National Emergency Medical Services Information System (NEMSIS)	Number of emergency medical service runs where cannabis use was a contributing factor.
Illinois General Assembly	Proposed and enacted legislation related to cannabis and associated regulatory and public health issues.
Illinois Medical Cannabis Patient Program (MCCPP) and Opioid Alternative Pilot Program (OAPP)	Numbers of MCCPP and OAPP registrants.
Illinois Poison Control Center (PCC) Data	Number of poisonings reported to the PCC determined to have been caused by cannabis and/or other drugs.
Illinois State Police (ISP) Crime in Illinois Online: Per County Offense and Arrest Annual Comparison	Shows number of arrests for Cannabis Control Act offenses statewide and by county.
National Highway Traffic Safety Administration (NHTSA) Fatality Analysis Reporting System (FARS)	Nationally collected data on traffic accidents and fatal injuries suffered in motor vehicle crashes including drug testing data for drivers and passengers in fatal accidents.
Substance Abuse and Mental Health Services Administration (SAMHSA) National Survey on Drug Use and Health (NSDUH).	Demonstrates substance use, substance use disorder, and associated health conditions in people ages 12 and up.
University of Illinois Chicago Perinatal Cannabis Survey	Survey of pregnant and perinatal women in Illinois to assess frequency of cannabis use, reasons for using, medical advice received on cannabis use during pregnancy, and exposure to cannabis-related advertising.
University of Waterloo, International Cannabis Policy Study (IPCS)	Annual survey of cannabis use and related issues among state residents ages 16 to 64; information provided includes perceptions of risk, price and purchasing, use of Cannabidiol (CBD) and synthetic cannabis products, and exposures to cannabis-related advertising.

INTRODUCTION (CONTINUED)

For the first time, we have also obtained ED and hospitalization data from the Agency for Healthcare Research and Quality's (AHRQ) Healthcare Cost and Utilization Project (HCUP) for five Midwest states and nationally to provide comparative treatment data, whereas in prior reports we were only able to report on trends in Illinois ED visits and hospitalizations.

In last year's report we noted our inability to obtain data from a critical source—the National Survey on Drug Use and Health (NSDUH) for the most recent years then available, 2021 and 2022. NSDUH has been our main source for information on the initiation, incidence, and prevalence of cannabis use and cannabis use disorder (CUD). It covers many substance-related topics in detail and employs a rigorous survey methodology that is consistently employed across years, allowing for unbiased estimates of the Illinois population and subpopulations of interest. The data unavailability issue last year was caused by the disruptive effects of the COVID pandemic on NSDUH survey administration during 2020, making the survey results for that year non-comparable to preceding or successive years. That problem has been rectified, allowing us to examine changes in cannabis-related issues during the two-year periods (2018–2019 and 2021–2022) that bracket 2020 when the CRTA went into effect.

For this report, we have resumed using the NSDUH and other data to present Illinois

findings. In many instances, where possible, we have expanded our use of comparable data collected for neighboring Midwest states: Indiana, Iowa, Michigan, Missouri, and Wisconsin as well as national data. These states vary in terms of their cannabis legalization policies from those that are more liberal than Illinois' (Michigan) to those that maintain an outright prohibition on adult use cannabis (Indiana, Iowa). Comparison of changes over time as well as current incidence and prevalence levels in Illinois with those of the proximal Midwest states and nationally helps us better determine if any changes seen in Illinois are attributable to the provisions of the CRTA or instead are more likely reflective of broader public health changes unrelated to or only marginally related to Illinois' adult use cannabis legalization policies per se.

CHANGES AND ADDITIONS FROM PRIOR ANNUAL REPORTS

Because of strong concern over cannabis use among high school youth ages 12–17, we now report the results for this population in a separate section and have expanded on the results presented in prior reports. For example, we now include information on the percentages of youth initiating cannabis use prior to the age 13, which has been shown to lead to more problematic use and health consequences in later years. We also consider youth use of unregulated hemp-derived products that contain synthetic cannabis products (see Emerging Issues below).

INTRODUCTION (CONTINUED)

Additionally, in preparing last year's report, we noticed there was not much information available on cannabis use among pregnant and perinatal women, such as how much cannabis was being used and reasons why a woman would choose to use cannabis during and following her pregnancy and/or while breastfeeding. To rectify that gap, we conducted our own survey of pregnant and perinatal women. While not obtaining a representative sample of all such women in Illinois, we believe the survey results provide valuable insights into patterns of cannabis use, reasons for use, and associated psychosocial factors related to cannabis use that are simply not available from other data sources. The results of this survey are provided in considerable detail in the 2024 report as well as in the Appendix.

One data source from previous reports was dropped this year, the Treatment Episode Data Set - A (TEDS-A). Preliminary analysis of TEDS-A data showed a very large drop (~ 57%) in the number of Illinois treatment admissions between 2020 (N=33,204) and 2021 (N=14,367). We were not able to determine if this was a valid drop in admissions or attributable to a reporting error. Conversations with Illinois DHS/ Division of Substance Abuse Prevention and Recovery (SUPR) staff who provide the Illinois data that feeds into the TEDS-A system suggest a transition to a new data collection platform in Illinois could be responsible for the large decrease. We therefore did not use the TEDS-A data to report on characteristics of persons admitted to publicly funded drug treatment for CUD as we have done in prior years. We

are in the process of obtaining comparable information using the NSDUH restricted data set and will include an amendment to this report once we have obtained CUD treatment data.

EMERGING ISSUES

In addition to a fuller consideration of cannabis use among pregnant and perinatal women in this year's report, we have included information on and consideration of two emerging issues that could have important public health implications: 1) cannabis hyperemesis syndrome (CHS) and 2) growing use of cannabidiol (CBD) and synthetic forms of cannabis such as delta-8 THC derived from hemp. CHS is characterized by repeated bouts of severe nausea, abdominal pain, and emesis (i.e., vomiting) associated with chronic and frequent use of cannabis, particularly high potency cannabis as found in products sold as oils, tinctures (i.e., highly concentrated liquid extract), and for vaping. CHS has been found to be increasing nationally through higher numbers of affected persons presenting repeatedly to EDs where they are often initially misdiagnosed. We consider the prevalence of CHS in Illinois and nationally for the years prior to and post CRTA enactment.

Hemp-based cannabis products, which by law are required to have only minimal delta-9 THC content (< 0.3%) by dry-weight are otherwise fully legal to market and can contain CBD and synthetic forms of THC, such as delta-8 and delta-10. Products sold with CBD and synthetic THC are not subject

INTRODUCTION (CONTINUED)

to the same legal constraints as products containing delta-9 THC and consequently can be sold at any convenience store, liquor store, or “head” or “smoke” shop to persons of any age and with varying, also unregulated potencies despite the synthetic forms of THC having similar psychoactive effects as delta-9 THC. It is possible that some of the public health effects of cannabis use documented in this report are attributable to use of these synthetic cannabis products. And because of the potentially broader, unregulated market for these products, it is also possible they will or have already cut into state revenues obtained selling legalized adult use cannabis.

Although it is presently difficult to ascertain the size of this inchoate, rapidly evolving unregulated industry and market and the attendant public health effects, we include an initial examination in this report using data from the International Cannabis Policy Study (ICPS) as well as from the YRBSS, which include questions on synthetic cannabis. We plan on a fuller report dedicated specifically to this issue in state fiscal year 2025, the findings of which will be provided to the Adult Health Advisory Committee upon completion.

CANNABIS USE DISORDER ESTIMATES

In 2020 and beyond, the NSDUH began using DSM-5 criteria to estimate the

prevalence of substance use disorders (SUDs), including cannabis use disorder (CUD). Previous administrations of the NSDUH, including in 2018–2019, used DSM-IV criteria of substance abuse or dependence. Although the effects of this change were not expected to have much impact on the estimated prevalence of CUD, this appears not to be the case, at least with respect to comparisons for 2021–2022 and 2018–2019. For example, nationally, the estimate of past-year cannabis abuse or dependence was 1.7% (95% CI = 1.6% – 1.8%). In Illinois, the 2018–2019 estimate was 2.0% (95% CI = 1.6% – 2.4%). Using 2021–2022 NSDUH data, however, the national estimate for CUD increases substantially to 6.2% (95% CI = 5.9% – 6.4%) with Illinois showing a similar increase to 6.5% (95% CI = 5.2% – 8.0%). We also examined prevalence in Indiana and Iowa, non-legalizing Midwest states, and found prevalence estimates for 2021–2022 of 6.8% and 5.9% respectively, comparable to the prevalence of CUD in Illinois. Given the change in diagnostic criteria between 2018–2019 and 2021–2022, we chose not to present comparative data for 2018–2019 for CUD. This is because it is not possible to discern how much of the difference between past-year CUD in 2021–2022 compared with the prevalence of past-year cannabis abuse or dependence in 2018–2019 is attributable to the effects of adult use cannabis legalization in Illinois versus the effects of changing the diagnostic criteria on which the estimates are based.

Substance Abuse and Mental Health Services Administration. Impact of the DSM-IV to DSM-5 Changes on the National Survey on Drug Use and Health [Internet]. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2016 Jun. 2, Substance Use Disorders. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK519702/>

MAIN FINDINGS



MAIN FINDINGS

CANNABIS LEGALIZATION IN ILLINOIS AND THE U.S.

- As of July 2024, 40 states, three territories, and the District of Columbia allow the medical use of cannabis products, with Kentucky joining this list in 2023. 25 states have legalized adult use cannabis with Delaware, Minnesota, and Ohio doing so in 2023.
- 11 states, including Indiana and Iowa, have legalized products that contain high CBD/low-THC concentrations to qualified patients. The relative amounts of CBD and THC vary by state as do the set of qualifying conditions. For instance, in Indiana only “treatment resistant epileptic conditions” qualify for treatment. In contrast, in Iowa, there is a much broader spectrum of thirteen qualifying conditions that include AIDS/HIV, PTSD, and chronic pain, as well as Parkinson’s disease and Crohn’s disease.
- In our assessment, there have been no major changes to the Illinois CRTA passed in 2019 since 2022 when the Criminal Identification Act was amended to prohibit courts from denying requests for expungement solely because of a marijuana, drug test failure.

THE BUSINESS OF CANNABIS IN ILLINOIS

- Since August 2023, Illinois has greatly expanded the number of licensed dispensaries and has also greatly increased the diversity of ownership. In 2023–2024, an additional 82 dispensaries

have been opened bringing the statewide total to 209 open dispensaries in 2024 compared to 127 in 2023; 11 of the new dispensaries were opened in Chicago.

- The majority of new dispensaries opened in counties that already had an existing dispensary (72) whereas only nine opened in eight counties that do not have an existing dispensary. In Chicago, six new dispensaries opened in three community areas that did not have a previously opened dispensary.
- The new dispensaries have increased the diversity of ownership. A survey conducted by the Cannabis Regulatory Oversight Office (CROO) between January 1, 2020 and January 31, 2023, found that diversity among cannabis company ownership has increased between 2020 and 2023 for Black/African American-owned (0% to 27%), Latin/Hispanic-owned (0% to 5%), Asian-owned (0% to 3%), and for a coalition of non-white owners with no one race or ethnicity (0% to 14%). Companies owned by women have increased from 3% to 16% over the same time period.
- A study conducted by the Nerevu Group and commissioned by CROO found that Illinois has the most diverse cannabis industry in the nation. The [study](#) found that minority or women-owned cannabis businesses increased to 59% for the adult use market and 21% for the medical market.

MAIN FINDINGS (CONTINUED)

- Adult use cannabis sales have surpassed liquor sales, with total revenue for the fiscal year 2024 equating to \$457 million compared to \$311 million for liquor sales. Adult use sales account for approximately 79% of total sales revenue for cannabis in Illinois. This includes sales for solid marijuana infused edibles, liquid marijuana infused edibles, marijuana extract, marijuana topicals, usable marijuana, marijuana mix packaged, marijuana mix infused and liquid marijuana.
- June 2024 cannabis sales were \$141.7 million for adult use and \$23.1 million for medical use.
- The total revenue in the Cannabis Regulation Fund for FY24 was approximately \$279.7 million. The largest percentage of revenue from cannabis is being directed towards statewide budget support and reinvestment. Cannabis revenue increased from 2020–2022 with slight year-over-year decreases occurring during 2023 and 2024 suggesting that cannabis sales revenues recognized by the state have flattened out since 2022.
- In 2023, 45.4% of Illinois cannabis users purchased some or all of their cannabis from illicit sources. This is a lower but still substantial percentage compared with 2020 when the CRTA first went into effect and the corresponding percentage was 57.9%.
- Consistent with past reports, based on ICPS results, the main reason cannabis is purchased from an illicit source, endorsed by 35.7% of those who purchased illicit cannabis, is lower prices compared with prices at a legal source. Other reasons provided for making an illicit purchase were dealer loyalty, not having a medical prescription, and less convenient.
- Hash (49.2%) was the least likely form of cannabis to be purchased legally whereas edibles (77.2%) were the form most likely to be purchased legally.
- Black/African American, non-Hispanic cannabis users were more likely to buy from an illicit source compared with white, non-Hispanic users with both of these racial/ethnic groups showing decreases in the percentage of cannabis purchased from a legal source between 2022 and 2023.
- Dispensary proximity does not seem to have as much of an effect on whether cannabis is purchased legally or bought on the illicit market. In 2023, there were not large differences in percentages of cannabis consumers reporting they lived near a dispensary who purchased all of their cannabis from a legal source (57.4%) compared with those who indicated they did not live near a dispensary who purchased all of their cannabis from a legal source (55.2%).

CBD AND SYNTHETIC THC

- In 2023, over one-fourth (28.7%) of survey respondents indicated they were aware or heard of products that contain synthetic variants of THC, the most commonly recognized being delta-8 THC. Such products are synthesized

MAIN FINDINGS (CONTINUED)

from hemp-based products made from the cannabis variant that contains lower levels of delta-9 THC, the main psychoactive ingredient in legally sold cannabis products.

- A lower percentage of Illinois high school youth in grades 9 through 12 (5.7%, 95% CI = 4.8% - 6.7%) report ever using synthetic cannabis compared with high school youth nationally (6.5%, 95% CI = 6.0% - 7.2%).
- A survey of the general population in Illinois ages 17 to 64 found that 6.9% had used a cannabis product containing delta-8 THC with 2.5% reporting they used such a product in 2023. This is lower than past-30-day use reported in 2022 (4.1%).
- The most frequently used delta-8 THC products in 2023 were oils for vaping (27.8%), dried herb (25.6%), and edibles (28.6%) as reported by those using any such product in the past year. Use of these types of cannabis declined in 2023 compared with 2022.

CANNABIS INITIATION AND USE BY YOUTH

- Compared with 2015, Illinois high school students across all grades have shown declines in cannabis use initiation prior to age 13. The decrease in cannabis initiation prior to age 13 for Illinois high school students has followed a declining trend similar to the national trend.
- Illinois experienced a 3.7 percentage-point decrease in past-year initiation of cannabis use for 12-17-year-olds between

There was an estimated increase of 641,000 Illinois residents reporting any cannabis use in the past year between 2018-2019 and 2021-2022.

- 2018-2019 and 2021-2022. This decrease was not statistically significant, however. The percentage estimate translates to 25,000 youth ages 12 to 17 initiating cannabis use in the past year in 2021-2022.
- Although the percentage of high school students who perceive smoking cannabis once a month or more as risky has decreased, this has not translated into an increase in use of cannabis.

TRENDS IN ILLINOIS CANNABIS USE INCIDENCE AND PREVALENCE

- In 2021-2022, Illinois initiation of cannabis use among those 12 or older was at 0.9% which was below the national percentage (1.1%) and below all other neighboring Midwest states except Indiana where initiation was also at 0.9%. The 0.9% figure is lower than in 2018-2019 for Illinois when the percent initiating cannabis use was 1.2%.
- Past-year initiation of cannabis use declined among Illinois youth 12-17 years old from 6.8% (N = 68,000) in 2017-2018 to 6.2% in 2018-2019, and to 2.5% (N = 25,000) in 2021-2022.

MAIN FINDINGS (CONTINUED)

- There was an estimated increase of 641,000 Illinois residents reporting any cannabis use in the past year between 2018–2019 and 2021–2022. Similar percentage increases were seen throughout the Midwest and nationally and for past-month cannabis use.
- For all of the Midwest states considered and nationally, the prevalence of any past-month cannabis use was highest among individuals 18–25 years old. Illinois exhibits similar prevalence rates to national estimates across age groups.
- The percentage of Illinois cannabis users who used cannabis frequently (i.e., 20 or more days per month) decreased between 2018–2019 and 2021–2022 but the difference was not statistically significant.
- Past-year CUD in Illinois for 2021–2022 is estimated at 6.5% (95% CI = 5.2% to 8.0%) or 688,000 residents ages 12 or older. This prevalence is comparable to the national estimate of 6.2% (95% CI = 5.5% to 6.4%) and to the prevalence of CUD in neighboring Midwest states.

In total, 2,371,000 Illinois residents, or 22.2% of the population ages 12 or older, used cannabis at least once in the past year.

the number of females was 1,159,000 (21.2%). These reflect a 16.7% increase for males and a 64.2% increase for females. In total, 2,371,000 Illinois residents, or 22.2% of the population ages 12 or older, used cannabis at least once in the past year in 2021–2022. This could reflect that adult use of cannabis for those 21 or older was legal in 2021–2022 as opposed to 2018–2019.

- Frequent cannabis use, defined as using on 20 or more days in the past 30, decreased from 2018–2019 to 2021–2022 for males and only slightly increased for females but these gender differences were statistically non-significant (chi-square (df=1,750) = 0.93, p = 0.34). The number of past-month frequent male cannabis users in 2021–2022 is estimated at N = 434,000 and at N = 272,000 for females. The percentage decrease for males was -13.7%, and the percentage increase was 2.3% for females. Because more Illinois residents are using cannabis in 2021–2022, the proportion of all cannabis users who used cannabis frequently decreased, though the number of frequent users increased.
- Men (8.2%, N = 427,000) were almost twice as likely to meet DSM-5 criteria for a past-year cannabis use disorder

CANNABIS USE TRENDS FOR ILLINOIS SUBPOPULATIONS

USE BY GENDER

- The number of persons using cannabis in the past year increased for both males and females between 2018–2019 and 2021–2022. The number of males using cannabis at least once in the past year in 2021–2022 was 1,213,000 (23.1%), and

MAIN FINDINGS (CONTINUED)

compared with women (4.8%, N = 281,000). This difference was marginally statistically significant (chi-square (df = 1,750) = 2.6, p = .05).

USE BY PREGNANCY STATUS

- The number of women, regardless of pregnancy status, who reported any cannabis use in the past year showed a general increase from 12.8% (N = 706,000) in 2018–2019 to 21.2% (N = 1,159,000) in 2021–2022. This represents a 64.2% increase in cannabis use among women ages 12 or older in Illinois.
- The increase in use was especially pronounced among pregnant women ages 12–44, with an estimated 11.8% prevalence in 2018–2019 that increased to 27.5% in 2021–2022 for a 133% percentage increase and a 15.7% percentage-point increase.
- Among women who reported using cannabis in the past year in 2021–2022, frequent cannabis use (i.e., using on 20 or more days in the past 30), was lower among pregnant women ages 12–44 (28.8%, N = 3,000) compared to non-pregnant women or women older than 44 years of age (38.8%, N = 269,000). While this difference was not statistically significant (df = 1, 750) = 0.13, p = .720) the results do indicate a substantial proportion of cannabis-using pregnant women in Illinois report frequent past-month cannabis use during their pregnancy.
- Just over 10.0% (N = 9,000) of women ages 12 to 44 who were pregnant at the time of the survey met the criteria for a DSM-5 cannabis use disorder compared with 4.7% (N = 252,000) of women who were not pregnant or older than 44 years.
- Perinatal cannabis users with medical cards tended to experience any type of abuse compared to non-users and users without medical cards, particularly childhood abuse (37.2%), family abuse (34.4%), intimate partner violence (26.7%), and workplace or organizational violence (13.3%).
- Perinatal women not using cannabis tended to have pre-term deliveries (39%) and NICU admissions (17.5%) compared to perinatal cannabis users with medical cards (11.5% and 11.5%) and perinatal cannabis users without medical cards (22.3% and 8.6%). Perinatal women who did not report using cannabis also tended to have any adverse pregnancy outcomes (78.6%), particularly compared to perinatal cannabis users with medical cards (53.8%). However, perinatal cannabis users with and without medical cards tended to give birth to babies that had a birth weight of less than three pounds and four ounces (11.5% and 13.1%).
- For pregnant and breastfeeding women who indicated using cannabis, compared to perinatal cannabis users without medical cards, perinatal cannabis users with medical cards were more likely to use cannabis for all medical conditions, particularly headaches/migraines (46.1%), pain (35.0%), nausea/vomiting (42.2%), lack of appetite (38.9%), muscle spasms (19.4%), and seizures (35.0%) problems sleeping (24.4%), seizures

MAIN FINDINGS (CONTINUED)

($p < 0.001$). Perinatal cannabis with medical cards were more likely to use it for anxiety (53.3%), depression (40.0%), PTSD (40.0%), and eating disorders (18.3%) compared to perinatal cannabis users without medical cards ($p < 0.001$).

USE BY SEXUAL ORIENTATION

- The number of persons using cannabis in the past year who identified as lesbian, gay, or bisexual increased substantially between 2018–2019 (N = 201,000) and 2021–2022 (N = 355,000). This reflects a 76.6% percentage increase.
- Just over 18.0% of persons who identified as lesbian, gay, or bisexual met DSM-5 criteria for a past-year cannabis use disorder (N = 123,000). This was substantially higher than the percentage of heterosexuals (5.7%) who met DSM-5 criteria for a cannabis use disorder (N = 501,000). This difference is statistically significant (chi-square (df = 1,750) = 10.4, $p < .001$).

USE BY RACE/ETHNICITY

- Any cannabis use in the past year increased for all racial-ethnic groups between 2018–2019 and 2021–2022 except for persons identifying as being Other or Multiple Race/Ethnicities, where cannabis use declined slightly. The largest increase was among persons identifying as white, non-Hispanic, whose use increased from 15.9% in 2018–2019 to 24.9% in 2021–2022, representing a 9.0% point-prevalence increase and a 56.6% percentage

increase. The differences across racial-ethnic groups were statistically significant (chi-square (df = 1, 750) = 8.56, $p < .001$).

- The prevalence of past-year cannabis use disorder per DSM-5 criteria was relatively higher for persons identifying as white, non-Hispanic (6.9%) and Black/African American, non-Hispanic (7.7%) compared with persons of Other or Multiple Racial Groups (3.3%) and persons identifying as Hispanic (5.3%). The overall difference was statistically significant (chi-square (df = 9, 750) = 8.19, $p < .001$).

USE BY MENTAL ILLNESS SEVERITY

- Any cannabis use in the past year increased generally and for all groups of persons with a mental illness. The largest increase was among persons with severe mental illness, although the change for this group from 2018–2019 to 2021–2022 was not statistically significant. Nevertheless, persons with a mental illness are more likely to use cannabis than persons who do not have a mental illness, regardless of illness severity.
- The prevalence of past-year cannabis use disorder per DSM-5 criteria was substantially higher among persons with indications of a mental illness, with the prevalence of past-year cannabis use disorder increasing with increasing severity of the mental illness. The overall difference was statistically significant (chi-square (df = 3, 750) = 11.47, $p < .001$), primarily owing to the difference between

MAIN FINDINGS (CONTINUED)

persons with no mental illness and those with any mental illness.

USE BY FEDERAL POVERTY THRESHOLD

- Among persons living below twice the federal poverty threshold, which was defined in 2022 as \$54,550 for a family of four, there was a relatively large percentage increase (44.9%) from 2018–2019 (15.8%, N = 311,000) to 2021–2022 (20.6%, N = 587,000). This difference was statistically significant. There was virtually no increase among persons living below the federal poverty threshold and a non-significant percentage increase (23.3%) among persons living above twice the federal poverty level.
- By poverty level, the following met DSM-5 criteria for a past-year cannabis use disorder: just over 9.0% of persons living below the federal poverty threshold (N = 114,000), 11.4% (N = 240,000) of persons reporting incomes up to twice the federal poverty threshold, and 4.5% (N = 334,000) of persons with incomes more than twice the poverty threshold. These differences were statistically significant (chi-square (df = 6,750) = 4.5, p < .001).

MEDICAL CANNABIS USE AND BENEFITS

- OAPP patient registration has been on a steady decline since October 2019. At its peak, there were 2,220 patients registered in September 2019, whereas only 143

patients were registered in June 2024.

Conversely, there was a large increase in the number of healthcare professionals registered with OAPP beginning in August 2021 and this increase has continued through June 2024 with 5,399 physicians registered.

- Since November 2022 there has been a steady month-over-month increase in the number of persons enrolled in MCPP. This trend reversed in 2024 when there has been month-over-month declines through June 2024. The number of active MCPP patients at that time was 141,189.
- Medically, cannabis is most used to manage pain, headaches/migraines, sleep disturbances, and lack of appetite by both medical and adult users. Adult users reported also using cannabis to manage muscle spasms, but this was not as common among medical cannabis users.
- Per ICPS, a large majority (81.2%) of Illinois residents ages 16 to 64 who indicated they had ever used and received a prescription for cannabis indicated they had used cannabis to manage mental health symptoms. (Note: In Illinois, persons are registered for MCPP and OAPP and do not receive prescriptions per se for cannabis. However, the ICPS survey uses the term “prescriptions,” which we have retained here, though it is not technically applicable in Illinois). The most common mental health symptoms were depression (52.1%), anxiety (51.6%), and PTSD/Trauma (41.9%) in 2023.

MAIN FINDINGS (CONTINUED)

CANNABIS HYPEREMESIS SYNDROME

- Patients with Cannabis Hyperemesis Syndrome (CHS) present to the emergency department (ED) with intractable nausea, vomiting, sweating, and colicky abdominal pain, with or without diarrhea. Patients may also present describing compulsive bathing, which evolves as a learned behavior over time as patients find this can relieve their symptoms temporarily.
- Nationally, increasing numbers of patients are presenting to the emergency room with symptoms that could indicate Cannabis Hyperemesis Syndrome (CHS). This trend has been related to both cannabis legalization, as well as increases in the availability of synthetic cannabis products.
- In Illinois, the number of persons presenting to the ED with symptoms consistent with CHS has increased from 4,765 in 2019 to 8,446 in 2023. Increases in the number of patients presenting with CHS-like symptoms have been smaller since 2021 and show signs of reaching a plateau as of 2023.
- Intoxication with psychosis (F12.925) with 37 such cases in 2021, 38 in 2022, and 41 in 2023.
- 29.9% of persons using cannabis in the past year said they experienced one or more adverse effects with panic reaction (10.6%), nausea or vomiting (9.9%), and feeling faint or dizzy (7.2%) being among the more common adverse health effects.
- Hospitalizations for cannabis poisoning (i.e., overdose), whether as an admitting or co-occurring diagnosis, remain relatively rare. There is no indication of a large increase in such hospitalizations since adult use cannabis legalization in Illinois in 2020. It appears that the majority of cases presenting with cannabis poisoning are treated in the ED and released without requiring hospitalization.
- In contrast to hospitalizations and ED visits for a cannabis use disorder, ED visits appear to be continuing at an increased level since 2020 for cannabis poisoning. Compared with 2019, when there were 1,003 ED visits that included a diagnosis of cannabis poisoning (ICD-10 code T40.7X), the 1,466 such ED visits in 2023 reflects a 46.2% increase.
- Across all age groups, the largest number of persons presenting to the ED with cannabis poisoning appear to be in the 26 years of age or older group. The number of persons 26 years or older presenting to the ED for treatment of cannabis poisonings appears to have been fairly level since 2019.

CANNABIS INTOXICATION AND CANNABIS USE DISORDER

- There has been a clear increase in cases presenting with cannabis intoxication seen in the ED between 2018 and 2023. However, there have been very few cases diagnosed as having cannabis

MAIN FINDINGS (CONTINUED)

PUBLIC HEALTH EFFECTS

- The pattern in the trend of cannabis poisonings is somewhat different per Poison Control Center data than the ED visit data. After 2022, when cannabis poisonings among pediatric cases appeared to be leveling off and had declined slightly from the previous year, there was again an increase in 2023 among children ages 1 to 11 years old. There were 409 such cases in 2023 compared with 301 in 2022, representing a 35.9% increase. The average age of children in this category was 4.7 years (95% CI = 4.4, 5.0), reflecting a slight though not statistically significant decrease since 2016–2018, when the mean age of pediatric poisonings in this age group was just over 5.0 years ($F(df = 7, 1,446) = 0.5, p = 0.83$).
- There were also increased numbers of poisonings among other age groups in 2023, but much smaller than the increase among pediatric cases.
- By age group, the increase in Emergency Medical Services (EMS) runs where the provider's primary or secondary impression included cannabis poisoning (ICD-10 T40.7X) was predominantly among persons 26 years of age or older. The next largest increase, albeit much smaller than the increase among adults 26 and older, was among children 1 to 11 years of age.
- The majority of the increase in EMS runs where cannabis poisoning was perceived as a primary or secondary impression was among whites with most such EMS runs occurring in northern suburban Cook, Kane, or Winnebago Counties. There were also increases among Black/African Americans and other racial groups, but these were much smaller than the increase for whites.
- There was a decrease in cannabis-related fatalities in Illinois from 2022–2023. Cannabis poisoning (ICD-10 code, T40.7) as a contributing cause of death remains low whether counted as a contributing cause where the underlying cause was drug-related or for any underlying cause.
- Most neighboring Midwest states, with the exception of Iowa, as well as nationally, had a higher percentage of drug tests (24.5% in 2021–2022 vs. 19.6% in 2018–2019) that were positive for any form of cannabis (i.e., synthetic or delta-9) for drivers in fatal traffic accidents. In Illinois, the percentage increase in positive tests was 11.8% (28.3% in 2021–2022 vs. 25.3% in 2018–2019), and the point-percentage increase was 3.0%. This increase was not statistically significant ($\chi^2(df=1) = 2.93, p = .09$).
- Illinois, Indiana, and Missouri all saw small decreases in driving while using cannabis, whereas Iowa, Michigan, and Wisconsin had increases. In Illinois, the 0.5 percentage-point decline in motorists driving while under the influence of cannabis reflects a 10.6% decrease. The 4.2% of Illinois participants reporting cannabis-related DUI is the same as the national percentage for 2021–2022.

MAIN FINDINGS (CONTINUED)

CANNABIS AND THE CRIMINAL JUSTICE SYSTEM

- The number of Illinois Department of Corrections (IDOC) admissions for a holding offense that was cannabis-related has held steady since 2020–2021, with just over 100 such admissions per year. This reflects about one-third of the number of such admissions in 2018 and about half of the number in 2019.
- There were no statistically significant differences by race or gender among those incarcerated for cannabis-related offenses versus other offenses. However, those charged with a cannabis-related holding offense were significantly younger (mean = 33.6 years old, 95% CI = 32.0 - 35.2) than those charged with any other type of holding offense (mean = 36.4 years old, 95% CI = 36.3 - 36.6); $f(df=17,754, 104) = 1.8, p < .001$.
- The number of arrests for Cannabis Control Act (CCA) violations has been steadily declining since 2016 with the sharpest decline between 2016 and 2017. In 2023 there were 3,453 CCA arrests down from 4,012 in 2022 or a 14% decrease.
- The seven Illinois counties with CCA arrest rates over 100 per 100,000 in 2023 were: Perry (188.9); DeKalb (156.8); Jersey (156.5); Winnebago (127.5); Livingston (107.3); Madison (105.9); and Tazewell (103.9). Forty-one Illinois counties reported zero CCA arrests in 2023.
- Many of the Chicago communities with the highest numbers of CCA arrests in 2023–2024 continue to have no licensed cannabis dispensaries. Examples of Chicago community areas with no dispensaries but relatively high CCA arrest rates include: West Garfield Park, Humboldt Park, Austin, East Garfield Park on the city's west side and Englewood, West Englewood, Chicago Lawn, Auburn Gresham, Chatham, Roseland, and Burnside on the city's south side.

CANNABIS LEGALIZATION IN ILLINOIS AND THE U.S.



STATUTORY

(410 ILCS 705/55-80)

Sec. 55-80. Annual reports.

(d) The Adult Use Cannabis Health Advisory Committee shall submit to the General Assembly and Governor a report, by September 30 of each year, that does not disclose any identifying information about any individuals, but does contain, at a minimum:

- (1) Self-reported youth cannabis use, as published in the most recent Illinois Youth Survey available;
- (2) Self-reported adult cannabis use, as published in the most recent Behavioral Risk Factor Surveillance Survey available;
- (3) Hospital room admissions and hospital utilization rates caused by cannabis consumption, including the presence or detection of other drugs;
- (4) Overdoses of cannabis and poison control data, including the presence of other drugs that may have contributed;
- (5) Incidents of impaired driving caused by the consumption of cannabis or cannabis products, including the presence of other drugs or alcohol that may have contributed to the impaired driving;
- (6) Prevalence of infants born testing positive for cannabis or delta-9-tetrahydrocannabinol, including demographic and racial information on which infants are tested;
- (7) Public perceptions of use and risk of harm;
- (8) Revenue collected from cannabis taxation and how that revenue was used;
- (9) Cannabis retail licenses granted and locations;
- (10) Cannabis-related arrests; and
- (11) The number of individuals completing required bud tender training.

(e) Each agency or committee submitting reports under this Section may consult with one another in the preparation of each report.

Source: P.A. 101-27, eff. 6-25-19; 101-593, eff. 12-4-19; 102-538, eff. 8-20-21.
<https://www.ilga.gov/legislation/ilcs/ilcs5.asp?ActID=3992>

TIMELINE OF CANNABIS LEGALIZATION IN ILLINOIS

6/27/2012

Chicago City Council votes to decriminalize marijuana possession. Provides that possession of up to 15 grams of marijuana is punishable by a fine of between \$250 and \$500. (Effective August 4, 2012.)

Source: <https://www.chicago.gov/content/dam/city/depts/mayor/Press%20Room/Press%20Releases/2012/June/6.27.12MarijuanaOrd.pdf>

8/4/2012

Chicago ordinance to fine marijuana possession of up to 15 grams of marijuana takes effect.

8/1/2013

Governor signs into law the Compassionate Use of Medical Cannabis Pilot Program Act (Public Act 098-0122). (Effective January 1, 2014.)

Source: <https://www.ilga.gov/legislation/publicacts/98/098-0122.htm>

1/1/2014

Compassionate Use of Medical Cannabis Pilot Program Act enacted. Serves as a four-year pilot program and provides that when a person has been diagnosed by a physician as having a debilitating medical condition, the person and the person's primary caregiver may be issued a registry identification card by the Department of Public Health that permits the person or the person's primary caregiver to legally possess no more than 2.5 ounces of usable cannabis during a 14-day period that is derived solely from an intrastate source.

TIMELINE OF CANNABIS LEGALIZATION IN ILLINOIS

7/21/2014

Governor approves amendments to the Compassionate Use of Medical Cannabis Pilot Program Act by changing Sections 10 and 60; adds seizures to the definition of debilitating conditions and allowed persons under age 18 to apply for medical cannabis registration card. (Public Act 098-0775). (Effective January 1, 2015.)

Source: <https://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=098-0775>

1/1/2015

Amendments to Sections 10 and 60 of the Compassionate Use of Medical Cannabis Pilot Program Act take effect.

6/30/2016

Governor approves amendments to the Compassionate Use of Medical Cannabis Pilot Program Act by changing Sections 2, 3, 4, and 9 and by adding 6.1 and 6.2 (Public Act 099-519); extends pilot through 6/20/20, adds PTSD to the definition of debilitating conditions, and establishes a three-year cycle for patient applications. Amendments effective immediately.

Source: <https://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=3503&ChapterID=35>

7/29/2016

Governor approves amendments to the Cannabis Control Act (Public Act 099-0697); decriminalizes possession of up to 10 grams of marijuana, making it a civil offense punishable by a fine of between \$100 and \$200, and provides that law enforcement will automatically expunge the civil citation from the record of anyone charged with possessing 10 or fewer grams of marijuana within six months. Amendments effective immediately.

Source: <https://www.ilga.gov/legislation/billstatus.asp?DocNum=2228&GAID=13&GA=99&DocTypeID=SB&LegID=93232&SessionID=88>

TIMELINE OF CANNABIS LEGALIZATION IN ILLINOIS

8/1/2018

Governor approves amendments to the Compassionate Use of Medical Cannabis Pilot Program by changing Section 30 (Public Act 100-0660); allows caregivers of minor registered patients to administer medical cannabis on school property, also known as “Ashley’s Law”. Amendments effective immediately.

Source: <https://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=100-0660>

8/28/2018

Governor approves amendments to the Compassionate Use of Medical Cannabis Pilot Program Act by changing Sections 5, 7, 10, 35, 55, 60, 65, 75, 130, and 160 and adding Sections 36 and 6. Governor also signs into law the Alternatives to Opioids Act of 2018 (Public Act 100-1114). Changes include the establishment of the Opioid Alternative Pilot Program, provide provisional access to dispensaries for medical cannabis patient applicants, remove fingerprinting requirements and eliminate disqualifying criminal offenses, prohibit organizations from charging fee for assisting with application, made the Medical Cannabis Pilot Program and Opioid Alternative Pilot Program permanent, allow veterans receiving medical services at VA facilities to participate in OAPP, added physician assistants (PA) / advanced practice nurses (APN) / nurse practitioners (NP) to providers who can certify, expand list of debilitating conditions, increase number of possible caregivers to three, and require dispensary changes. Amendments effective immediately. (Opioid Alternative Pilot Program begins January 31, 2019).

Source: <https://www.ilga.gov/legislation/publicacts/100/100-1114.htm>

1/31/2019

Opioid Alternative Pilot Program launches; provides access to medical cannabis for individuals who have or could receive a prescription for opioids as certified by a physician licensed in Illinois. Veterans with a current prescription for an opioid who are receiving services at a VA will be eligible for the program on September 30, 2019.

Source: <http://dph.illinois.gov/topics-services/prevention-wellness/medical-cannabis/opioid-alternative-pilot-program>

TIMELINE OF CANNABIS LEGALIZATION IN ILLINOIS

6/25/2019

Governor signs into law the Cannabis Regulation and Tax Act (Public Act 101-0027). (Effective January 1, 2020.) Possession of up to 30 grams of cannabis became immediately legal.

Source: <https://www.ilga.gov/legislation/BillStatus.asp?DocNum=1438&GAID=15&DocTypeID=HB&SessionID=108&GA=101>

01/01/2020

Cannabis Regulation and Tax Act allows adults 21 and older to purchase cannabis products in licensed stores and allows registered medical cannabis patients to grow up to five cannabis plants for personal consumption. An adult Illinois resident may possess up to 30 grams of cannabis flower, five grams of cannabis concentrate and up to 500 milligrams of THC in a cannabis infused product. Existing medical cannabis dispensaries will provide to adult consumers until additional licensees can apply and get approved. Also authorized the automatic expungement of arrests and convictions for “minor cannabis offenses,” defined as involving not more than 30 grams, no enhancements, and no violence.

TIMELINE OF CANNABIS LEGALIZATION IN ILLINOIS

7/15/2021

Illinois passes HB1443 and makes amendments to both the Cannabis Regulation and Tax Act and Compassionate Use of Medical Cannabis Program Act (Public Act 102-0098). These changes are effective immediately. The changes to the CRTA create two new lotteries for 110 additional licenses. The first 55 licenses are available to applicants who scored at least 85% on their submission to the 75 original licenses. The second 55 licenses are available to applicants who scored at least 85% on their submission and also qualify as a social equity applicant (i.e. majority ownership must be someone who has (a) lived in an area impacted by the war on drugs for 10 years, (b) be a member of a family impacted by the war on drugs, or (c) have been arrested or convicted of a marijuana crime eligible for expungement). The changes to the Compassionate Use of Medical Cannabis Program Act allow medical cannabis patients to purchase cannabis at any dispensary. Previously, patients were required to purchase from a single designated dispensary.

Source: <https://www.ilga.gov/legislation/BillStatus.asp?DocNum=1443&GAID=16&DocTypeID=HB&SessionID=110&GA=102>

5/27/2022

On May 27th, 2022, Illinois amends the Criminal Identification Act (Public Act 102-0933). The changes now prohibit courts from denying a petitioner's request for expungement solely because of marijuana drug test failure. Previously, negative marijuana drug tests were required within 30 days prior to filing the petition. These changes are effective January 1, 2023.

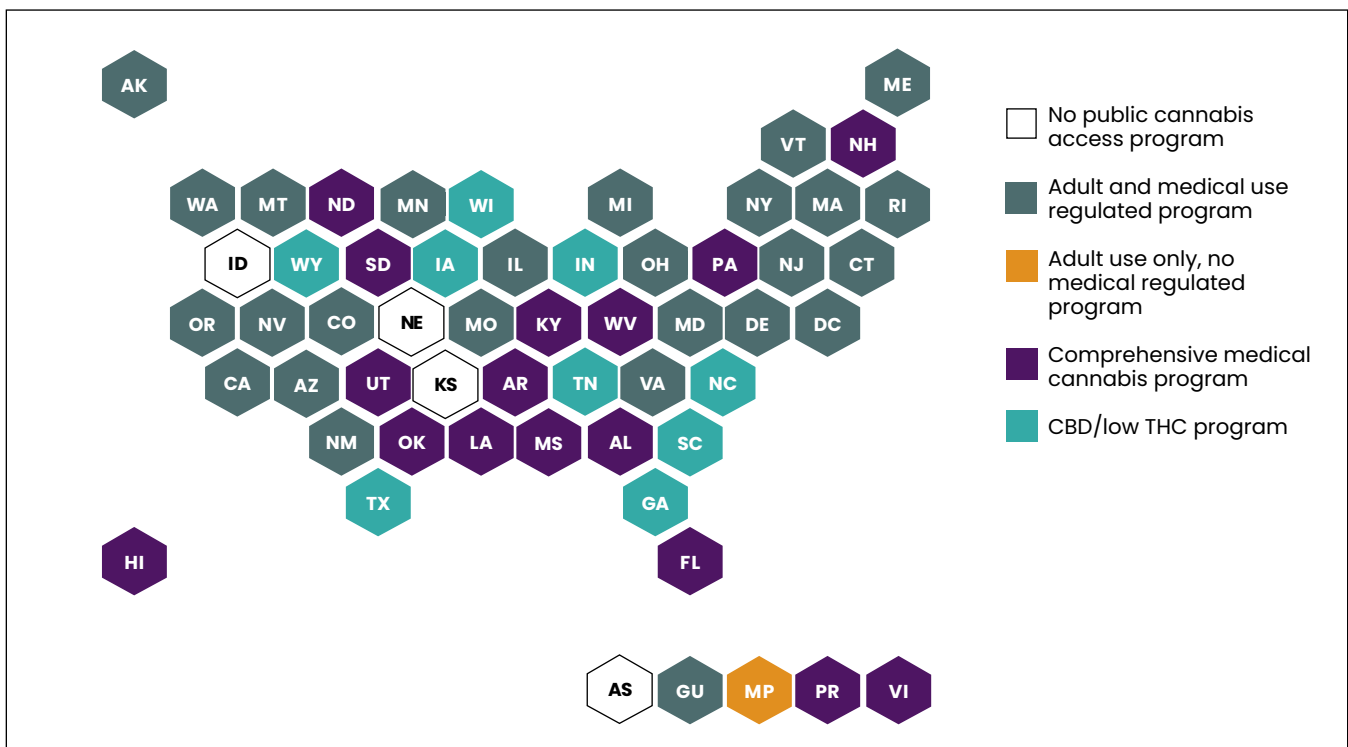
Source: <https://www.ilga.gov/legislation/BillStatus.asp?DocNum=4392&GAID=16&DocTypeID=HB&SessionID=110&GA=102>

UNITED STATES MAP OF STATE REGULATED CANNABIS PROGRAMS

Observations and Notes: As of July 2024, 40 states, three territories, and the District of Columbia allow the medical use of cannabis products with Kentucky joining this list in 2023. 24 states and Washington, D.C. have legalized adult use cannabis sales and use with Delaware, Minnesota, and Ohio doing so in 2023.

10 states, including Indiana and Iowa, have legalized products that contain high CBD/low-THC concentrations to qualified patients. The relative amounts of CBD and THC vary by state as do the set of qualifying conditions. For instance, in Indiana only “treatment resistant epileptic conditions including Dravet syndrome and Lennox-Gastaut syndrome” qualify for treatment. In contrast, in Iowa, there is a much broader spectrum of 13 qualifying conditions that include AIDS/HIV, PTSD, and chronic pain, as well as Parkinson’s disease and Crohn’s disease.

In our assessment, there have been no major changes to the Illinois CRTA passed in 2019 since 2022 when the Criminal Identification Act was amended to prohibit courts from denying requests for expungement solely because of a marijuana, drug test failure.



Source: <https://mjbizdaily.com/map-of-us-marijuana-legalization-by-state/>

COMPARATIVE MIDWEST STATES: CANNABIS HISTORY

In this report, we compare selected metrics in Illinois with five neighboring Midwest states: Michigan, Missouri, Iowa, Indiana, and Wisconsin. As context for those comparisons, we present here the laws that are in effect for each of these neighboring states, which represent a mixture of legalizing and non-legalizing states. It is our intent that these comparisons allow us to examine the extent to which any public health effects in Illinois can be more confidently attributed to the CRTA or whether they simply reflect regional or national trends.

There have been no changes to neighboring states' cannabis laws since our previous report in 2023. As of June 2024, the regulations guiding cannabis use and distribution that are presently in effect in each neighboring state are as follows:

APPROVED ADULT-USE MEDICAL CANNABIS PROGRAMS:

Michigan: In 2008, Michigan legalized medical cannabis for qualifying medical patients. Cannabis dispensaries in the state were not yet authorized, but permissions allowed patients to cultivate their own plants. In 2016, Michigan expanded their medical program to include licensing and regulation of medical marijuana businesses—allowing for dispensaries within the state. The first licenses were awarded in July 2018. In November 2018, Michigan legalized adult use cannabis.

Missouri: In 2014, Missouri permitted only low-THC CBD for patients with seizure disorder. In late 2018, Missouri legalized medical cannabis for qualifying patients. The first licenses were awarded in January 2020. In November 2022, Missouri legalized adult use cannabis. The new law automatically expunges criminal records for nonviolent cannabis offenses. There have been no other changes to permissions of adult use cannabis since November 2022.

APPROVED CBD/LOW-THC:

Indiana: In 2017, Indiana permitted only low THC oil for patients with seizure disorder. In 2018, Indiana amended permissions to allow use of low-THC CBD for any person. There have been no other changes to permissions of medical or adult use cannabis since 2018.

Iowa: In 2014, Iowa permitted only the use of low-THC CBD products for certain medical patients. In 2018, 2019, and 2020, Iowa amended permissions to allow use of low-THC CBD for expanded lists of qualifying conditions. There have been no other changes to permissions for medical or adult use cannabis since 2020.

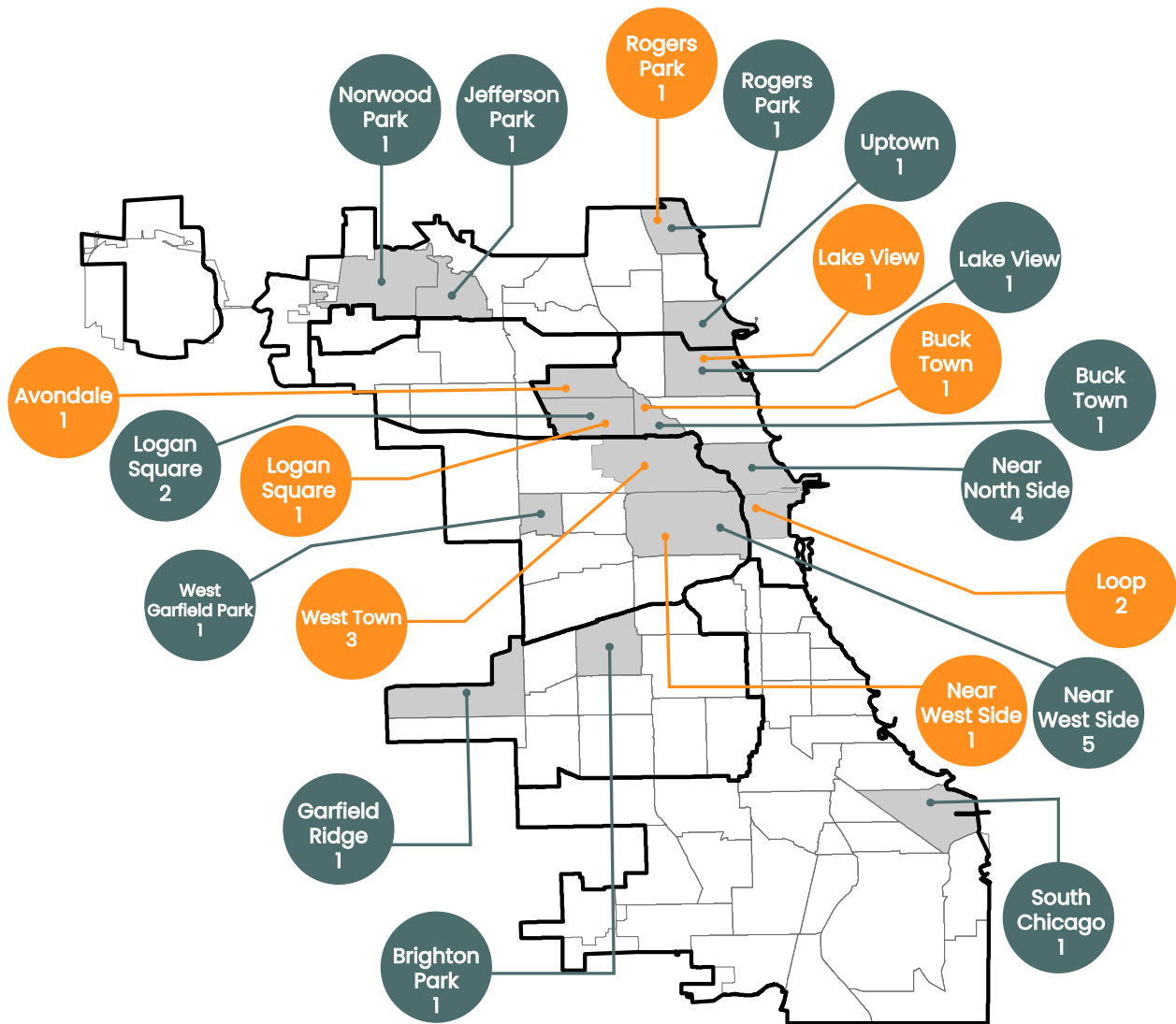
Wisconsin: In 2017, Wisconsin permitted low-THC CBD for patients with seizure disorder. In 2017, Wisconsin expanded permissions to any medical patient. There have been no other changes to permissions of medical or adult use cannabis.

THE BUSINESS OF CANNABIS IN ILLINOIS



LICENSED DISPENSING ORGANIZATIONS IN CHICAGO AS OF JUNE 2024

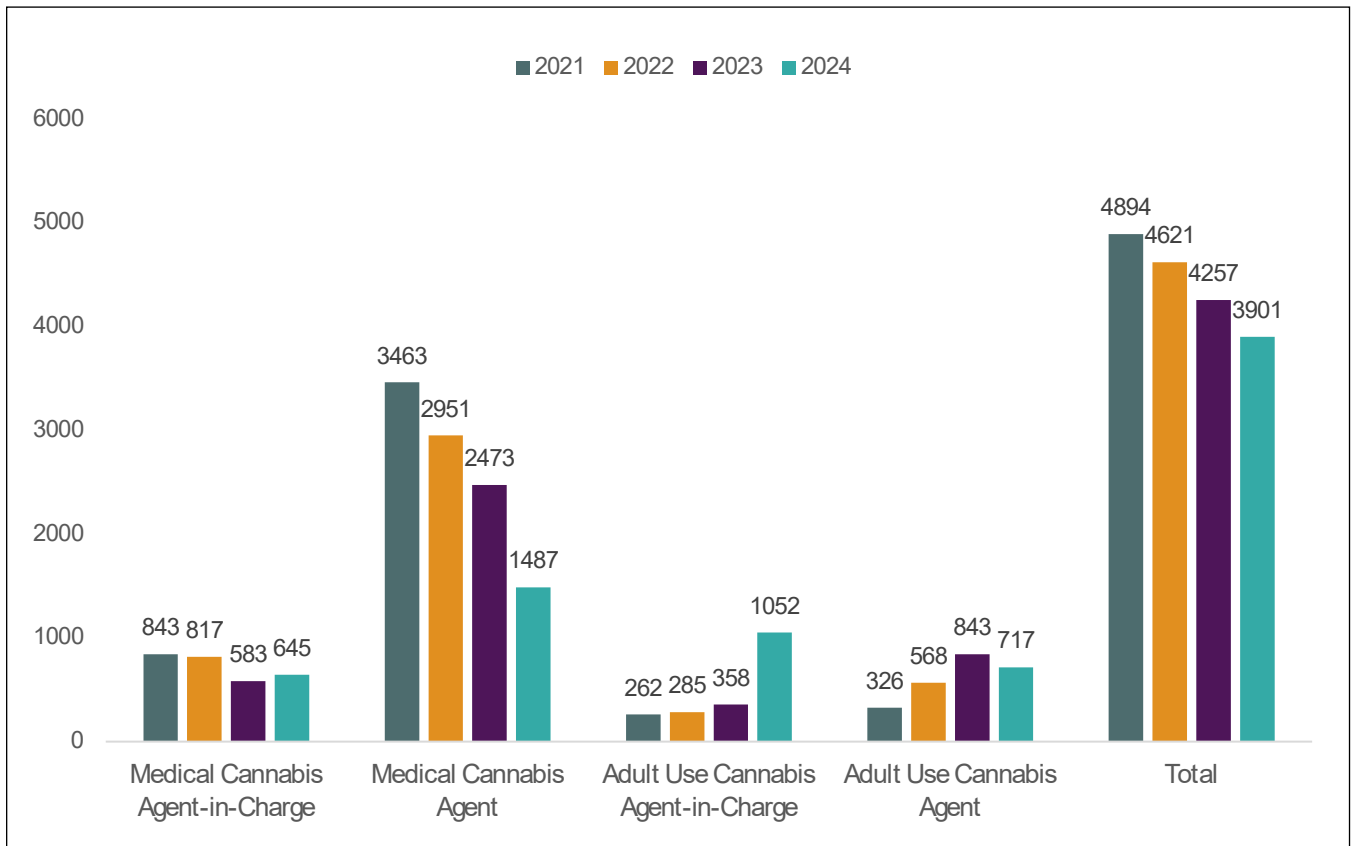
● Dispensaries Opened Prior to 2023	21
● Dispensaries Opened After 2023	11



Source: Cannabis Regulation Oversight Office

Observations and Notes: Since the last report, as of June 2024, 6 new dispensaries opened up in 3 Chicago community areas that did not already contain a dispensary, and 5 new dispensaries opened up in 5 community areas that already had at least one dispensary.

BUDTENDER TRAINING (2021–2024)



Source: Illinois CROO Cannabis Regulation Oversight Office

Observations and Notes: As of June 2024, there were a total of 3,901 trained budtenders within the state of Illinois, which is less than the 4,257 as of June 2023. The decrease in Medical Cannabis Agents was larger than the increase in Adult Use Cannabis Agent-in-Charge, resulting in the net overall decrease.

DISPARITY STUDY

Study: Nerevu Group (2024). [Illinois Adult Use Cannabis Industry Disparity Study Report](#). Illinois Adult Use Cannabis Industry Disparity Study Report. Cannabis Regulation Oversight Office.

Objective: The Cannabis Regulation Oversight Office commissioned the Nerevu Group to determine whether discrimination existed within the Illinois cannabis industry and, if so, evaluate the extent of discrimination, and provide recommendations to promote equity.

Methods: The study examined sales and licensing data between January 1, 2020 and January 31, 2023. Licensing and sales data was examined for the Illinois Department of Professional and Financial Regulation (IDFPR) and the Illinois Department of Agriculture (IDOA) A total of 559 Illinois licenses were analyzed for all five adult use cannabis license types: dispensing organizations, craft growers, infusing organizations, transporting organizations, and cultivating centers. Interviews, focus groups, and surveys were also utilized to supplement the licensing and sales data.

Results: As of January 31, 2023, minority- or women-owned businesses increased to 59% for the adult use market and 21% for the medical market. Additionally, women-and-minority owned businesses held 63% of craft growers, 61% of infusers, and 74% of transporters. Finally, minority- and women-owned businesses accounted for 84% of the State's Forgivable Loans.

Conclusion: Illinois has the most diverse cannabis industry in the nation. Recommendations to continue to strengthen the State's social equity practices include: "(1) increasing access to capital, (2) simplifying cannabis management and administration, (3) unifying State agency policies and practices, and (4) expanding economic opportunities for new businesses."

Source: <https://cannabis.illinois.gov/legal-and-enforcement/disparity-study.html>

CANNABIS REGULATION OVERSIGHT OFFICE (CROO) DIVERSITY SURVEY

Gender	2020	2021	2023
Majority-Owned Firms	100%	100%	100%
Men	97%	50%	69%
Women	3%	12%	16%
Nonbinary	0%	0%	0%
Unknown	-	38%	15%
Majority Owners	100%	100%	100%
Men	82%	70%	70%
Women	18%	19%	25%
Nonbinary	0%	0%	0%
Unknown	0%	11%	5%
Frontline Employees			
Men	42%	44%	37%
Women	32%	48%	37%
Nonbinary	1%	4%	4%
Unknown	25%	4%	22%

Race	2020	2021	2023
Majority-Owned Firms	99%	100%	100%
White	100%	26%	31%
Black/African American	0%	25%	27%
Coalition of Minority Races	-	14%	15%
Latino(a)/Hispanic	0%	5%	5%
Additional Races/ 2+ Races	0%	2%	2%
Unknown	0%	27%	18%
Majority Owners	99%	100%	100%
White	88%	46%	50%
Black/African American	1%	25%	26%
Latino(a)/Hispanic	1%	8%	7%
Asian	-	4%	5%
Middle East/ North African	-	-	2%
Additional Races/ 2+ Races	0%	4%	5%
Unknown	9%	13%	5%

CANNABIS REGULATION OVERSIGHT OFFICE (CROO) DIVERSITY SURVEY (CONTINUED)

Race	2020	2021	2023
Frontline Employees			
White	49%	64%	52%
Black	10%	9%	9%
Latino(a)/Hispanic	5%	13%	11%
Asian	1%	2%	2%
Middle East/ North African	-	-	1%
Additional Races/ 2+ Races	3%	1%	2%
Unknown	33%	8%	23%

Note: Roughly 25% responded to the survey

Source: <https://cannabis.illinois.gov/research-and-data/diversity-survey.html>

Observations and Notes: Diversity has increased among cannabis company owners by the following:

- 0% to 27% for Black/African American-owned, 0% to 5% for Latino/Latina/Hispanic-owned
- 0% to 3% for Asian-owned,
- 0% to 14% for a coalition of non-white owners with no one race or ethnicity,
- 3% to 16% for Women-owned

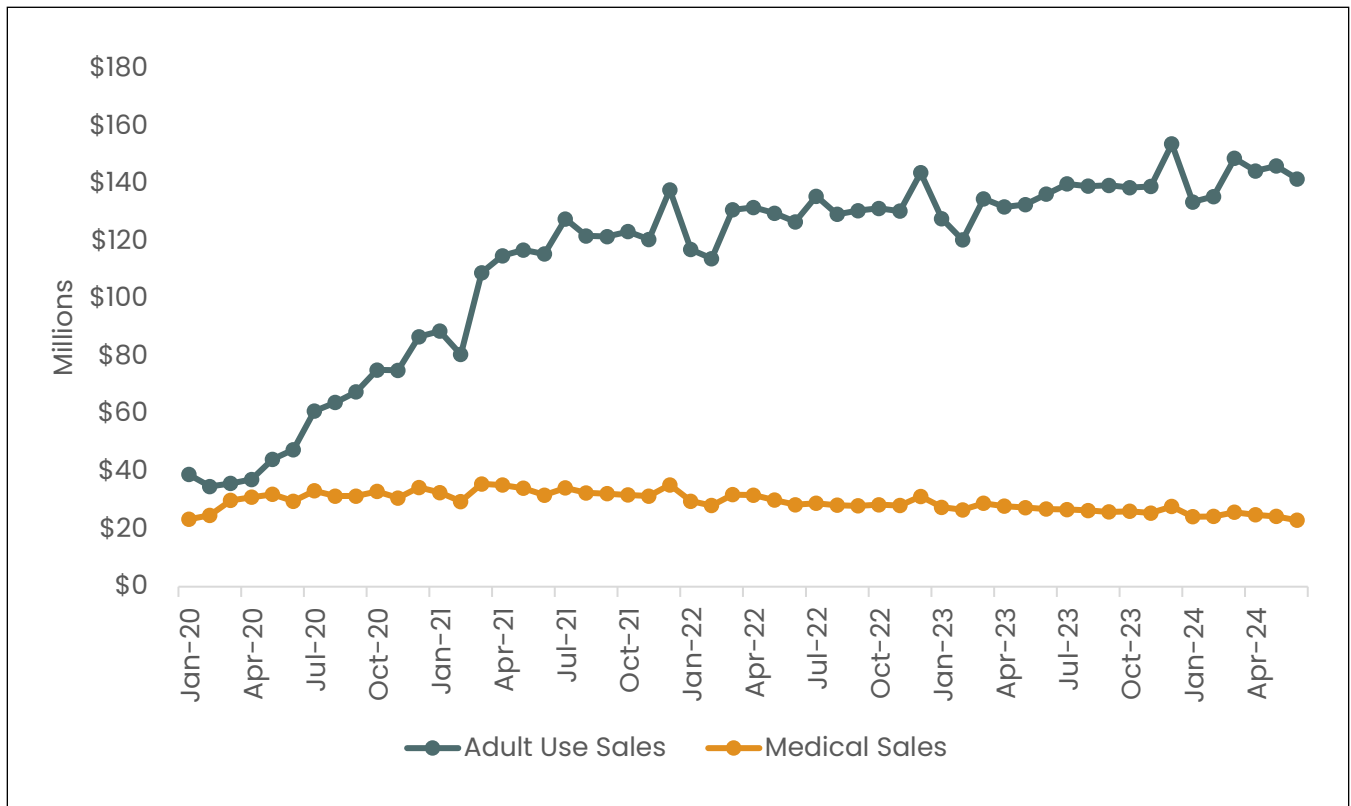
Diversity has also increased among cannabis business owners across all license types by the following:

- 1% to 26% for Black/African American owners,
- 1% to 7% for Latino/Latina/Hispanic owners
- An unknown number to 5% for Asian owners,
- An unknown number to 2% for Middle Eastern/North African owners,
- 18% to 25% for Women owners

Finally, in terms of front-line staff, diversity has increased from:

- 5% to 11% for Latino/Latina/Hispanic employees
- 1% to 2% for Asian employees

ILLINOIS MONTHLY RETAIL CANNABIS SALES (2020–2024)

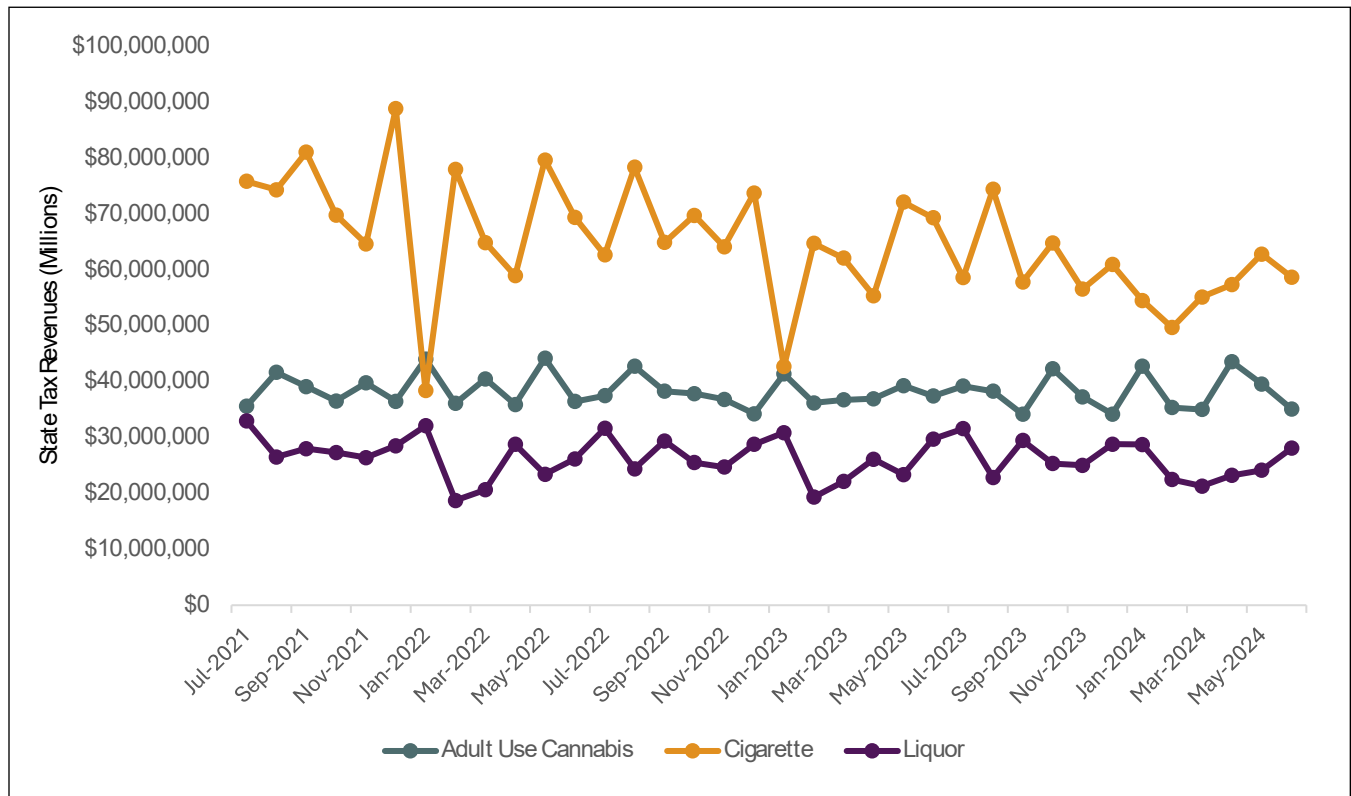


Source: <https://cannabis.illinois.gov/research-and-data/sales-figures.html>

Observations and Notes: Adult use sales account for approximately 79% of total sales revenue for cannabis in Illinois. This includes sales for solid marijuana infused edibles, liquid marijuana infused edibles, marijuana extract, marijuana topicals, usable marijuana, marijuana mix packaged, marijuana mix infused and liquid marijuana sold as Rick Simpson Oil (RSO).

In June 2024, sales were \$141.7 million for adult use and \$23.1 million for medical use.

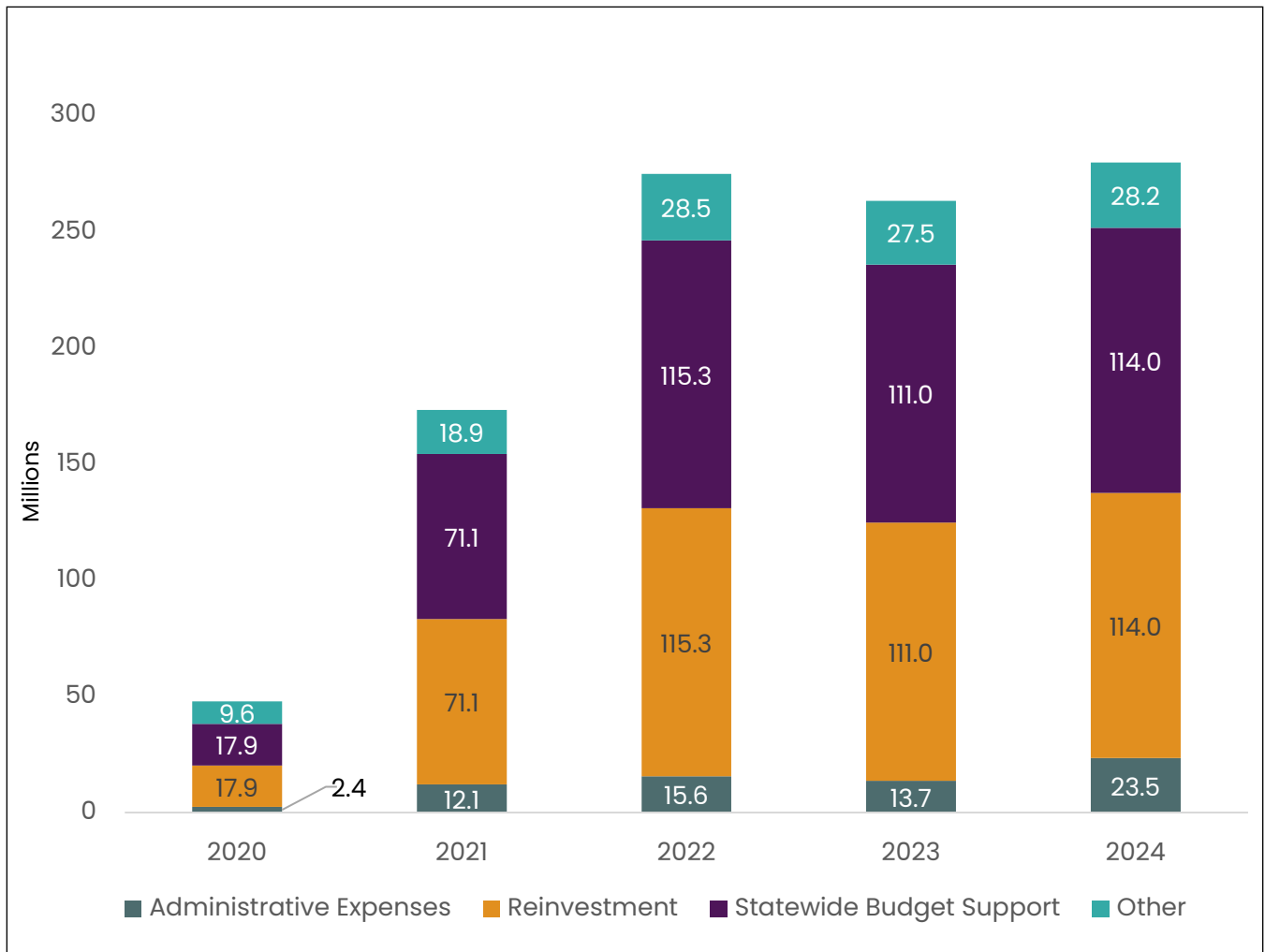
MONTHLY STATE TAX REVENUES (2021–2024)



Source: <https://tax.illinois.gov/research/taxstats/collectionscomptroller.html>

Observations and Notes: Similar trends across fiscal years 2022–2024 are seen, with the highest revenue coming from cigarettes, then cannabis, and finally, liquor. For fiscal year 2024, cigarettes continue to be a greater source of revenue for Illinois, with the total revenue accounting for approximately \$711 million. Adult use cannabis sales have surpassed liquor revenue, with total revenue for fiscal year 2023 equating to \$457 million compared to \$311 million for liquor sales.

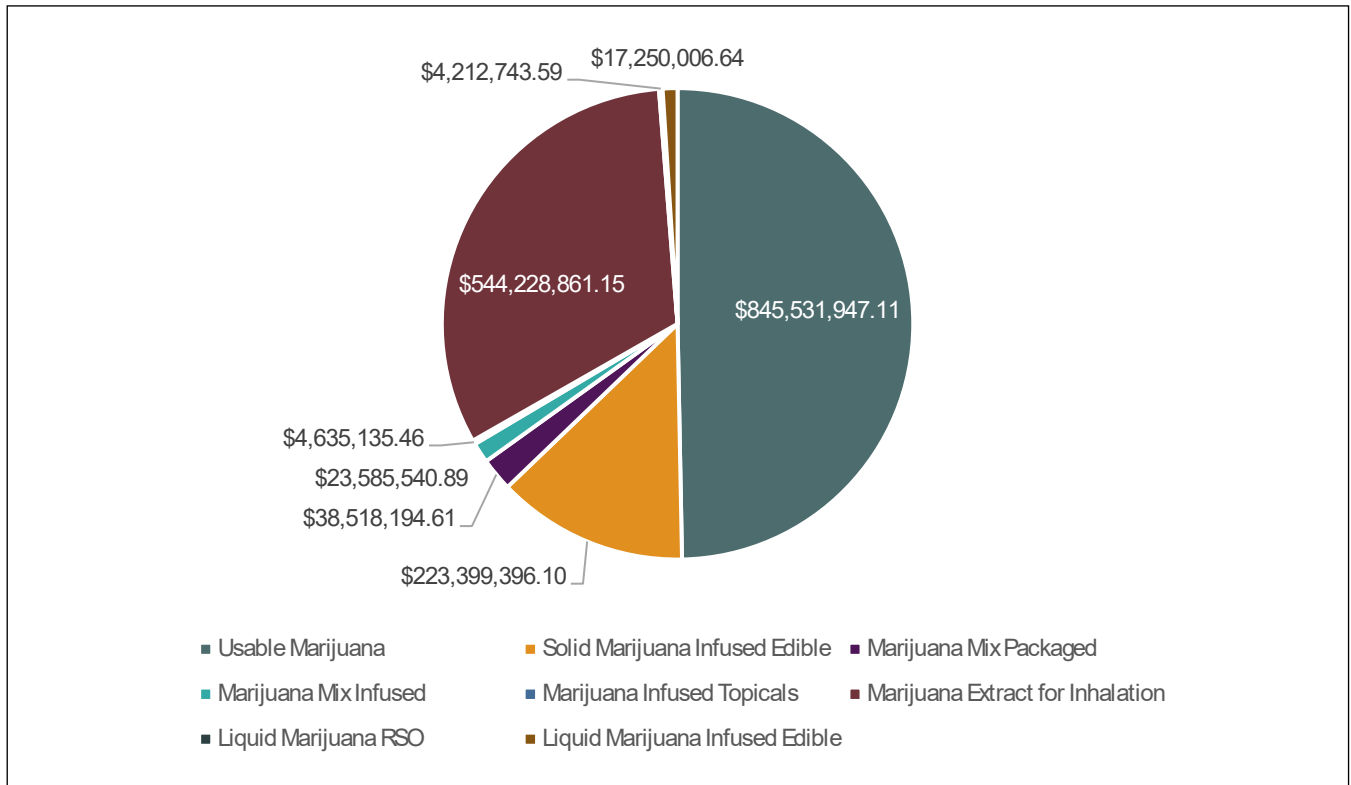
CANNABIS REGULATION FUND ALLOTMENTS (2020–2024)



Source: Illinois CROO Cannabis Regulation Oversight Office, <https://cannabis.illinois.gov/research-and-data/learn-how-cannabis-tax-dollars-are-spent.html>

Observation and Notes: The total revenue in the Cannabis Regulation Fund for FY24 was approximately \$280 million. The largest percentage of revenue from Cannabis is being directed towards statewide budget support and reinvestment. Cannabis funds increased from 2020–2022 with a slight decrease occurring from 2022–2023 and then increasing again from 2023–2024.

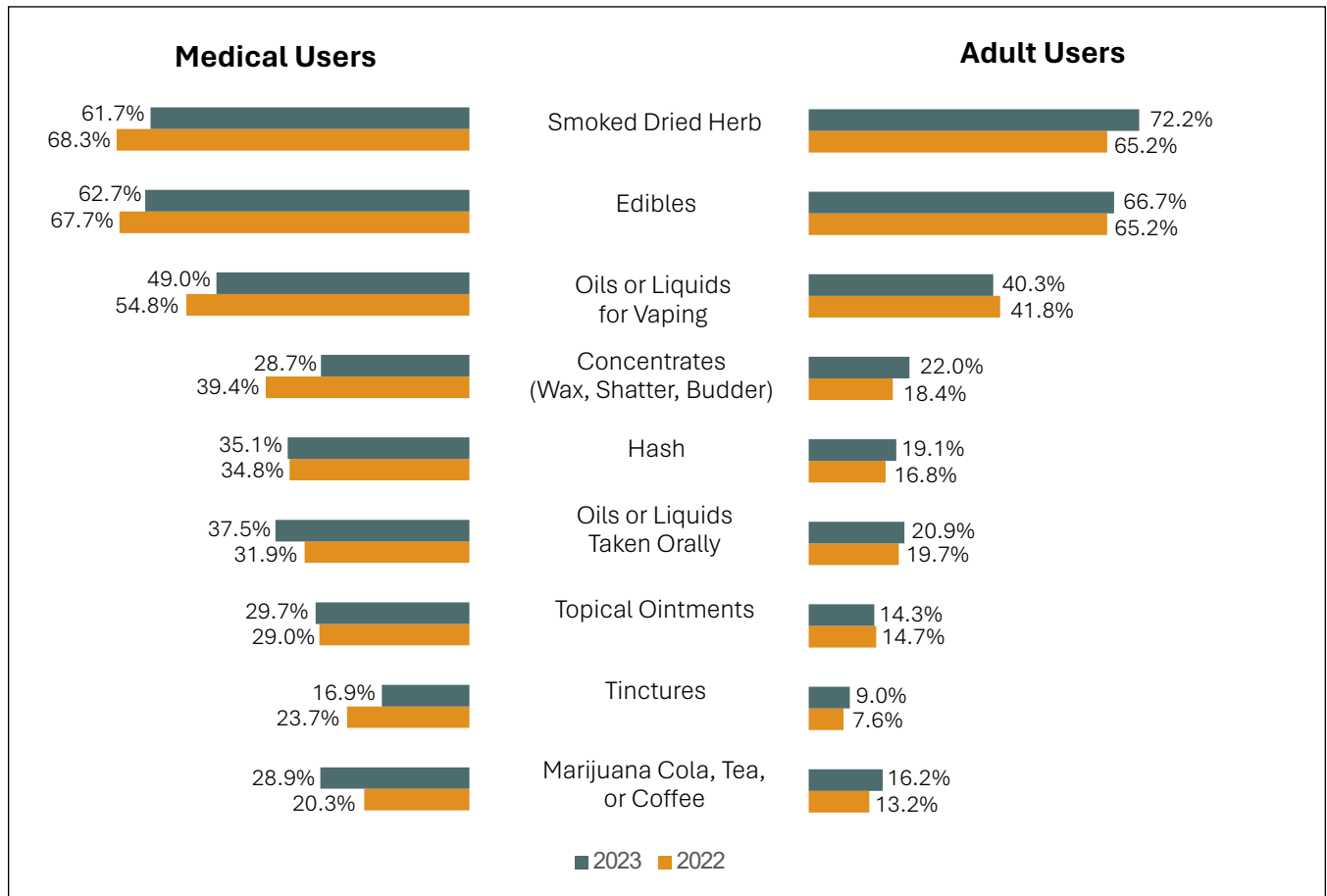
TYPES OF CANNABIS PRODUCTS SOLD IN THE ILLINOIS ADULT USE MARKET (2024)



Source: Illinois CROO Cannabis Regulation Oversight Office

Observations and Notes: The most commonly purchased cannabis products in fiscal year 2024 were usable marijuana (50%), marijuana extract for inhalation (32%), and solid marijuana-infused edibles (13%). Usable marijuana includes flower and pre-rolls.

TYPE OF CANNABIS PRODUCTS USED BY MEDICAL OR ADULT USERS (2022–2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: In both 2022 and 2023, most cannabis users smoked or used edibles or vape oils or liquids. Medical users are more likely to have used a variety of other forms of cannabis compared with adult users. A decline in use of concentrates was seen between 2022 and 2023 by 10.7 percentage points for medical users but increased by 4.9 percentage points for adult users, respectively.

Survey participants were classified as being a medical cannabis user if they indicated they had ever received a prescription from or were certified/registered by a healthcare professional. Analyses shown were restricted to survey year 2022 and 2023 and to participants who said they had used cannabis in the past year.

MEAN REPORTED CANNABIS EXPENDITURES AMONG RESPONDENTS WHO REPORTED CONSUMING EACH PRODUCT TYPE IN THE PAST YEAR (2023)

	Mean (N)	95% Confidence Interval
Dried Herb/Flower	\$715.55 (536)	(\$613.56 - \$ 817.53)
Edibles	\$185.41 (417)	(\$152.10 - \$218.73)
Liquid Capsules	\$401.08 (48)	(\$115.49 - \$686.67)
Liquids for Vaping	\$378.81 (254)	(\$199.15 - \$558.47)
Liquid Drops	\$1,109.22 (72)	(\$466.44 - \$2,684.88)
Hash	\$154.18 (57)	(\$106.47 - \$201.90)
Concentrates (Wax, Shatter, Budder)	\$391.15 (94)	(\$126.59 - \$655.71)
Topical Ointments	\$111.06 (101)	(\$80.43 - \$141.69)
Tinctures	\$107.07 (36)	(\$51.92 - \$162.22)
Drinks	\$89.87 (97)	(\$69.89 - \$109.84)
Novel Products	\$169.42 (205)	(\$ 89.66 - \$249.18)

Source: International Cannabis Policy Study, Illinois site data (2023) - David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: ICPS respondents indicating spending an average of \$829.97 per year on cannabis products. They report spending the most, \$1,107.22, on liquid drops, and the least on drinks, \$89.87. Although the average amount spent on liquid drops was higher than the average amount spent on dried herb/flower and edibles, many more people purchased dried herb/flower and edibles.

Estimates are based on the 2023 International Cannabis Policy Study Survey (ICPS) results for the Illinois population ages 16–65. As ICPS uses a Nielsen panel for obtaining participants, it is not a probability-based sample. Consequently, ICPS estimates should be considered as approximate and potentially biased despite post-stratification to correct for demographic differences between the ICPS sample and the Illinois population.

MEAN PERCENT OF CANNABIS PRODUCTS OBTAINED FROM LEGAL SOURCES AMONG ILLINOIS RESPONDENTS WHO REPORTED CONSUMING EACH PRODUCT TYPE IN THE PAST YEAR (2023)

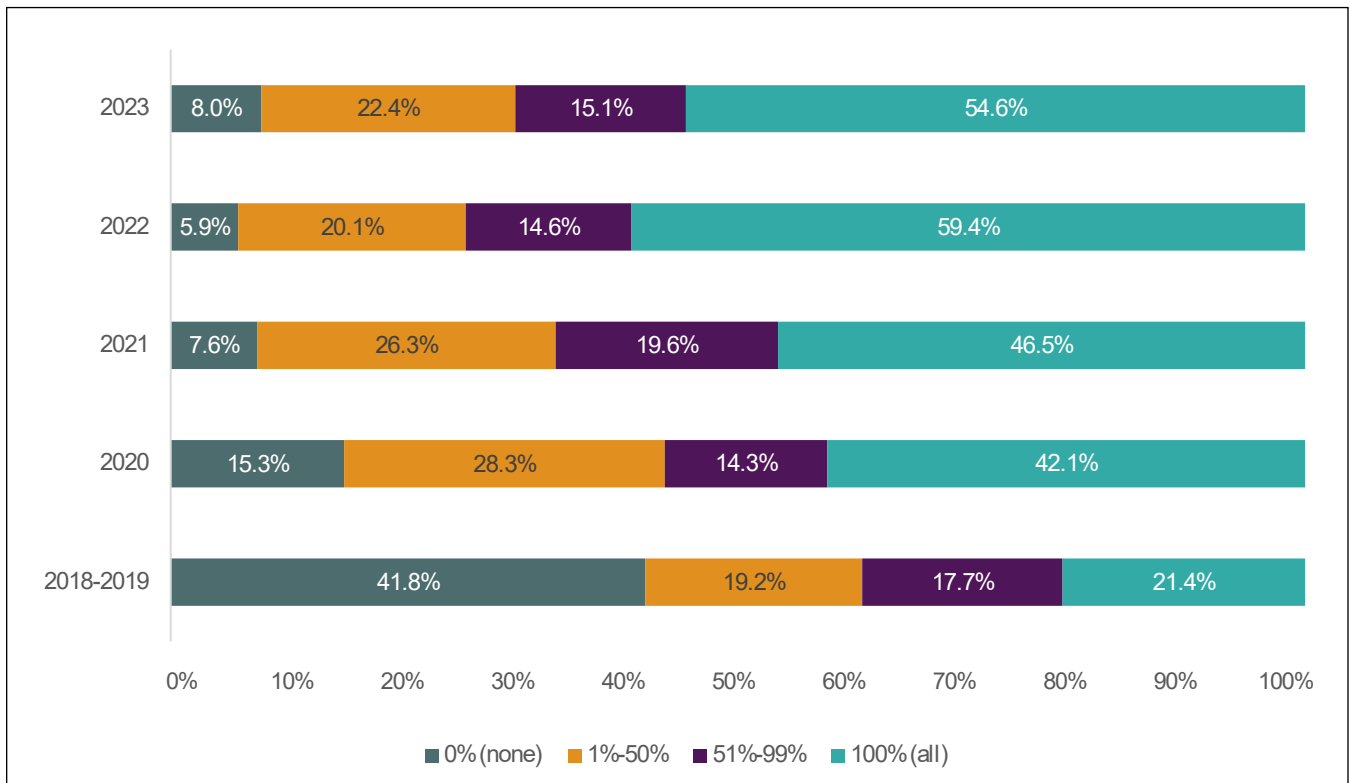
	Mean (N)	95% Confidence Interval
Dried Herb/Flower	65.2% (786)	(62.1% - 68.4%)
Edibles	77.2% (706)	(74.0% - 80.3%)
Liquid Capsules	67.8% (67)	(57.9% - 77.8%)
Liquids for Vaping	73.4% (409)	(69.02% - 77.80%)
Liquid Drops	70.2% (116)	(62.6% - 77.9%)
Hash	49.2% (156)	(41.1% - 57.3%)
Concentrates (Wax, Shatter, Budder)	55.4% (189)	(47.9% - 62.9%)
Tinctures	67.8% (75)	(56.4% - 79.2%)
Drinks	74.8% (169)	(68.5% - 81.0%)

Source: International Cannabis Policy Study, Illinois site data (2023) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: Overall, 72.6% of ICPS survey respondents obtained their cannabis from a legal source. The product least likely to be purchased from a legal source was hash (49.2%), whereas the product most likely to be purchased from a legal source was edibles (77.2%).

Estimates are based on the 2023 International Cannabis Policy Study Survey (ICPS) results for the Illinois population ages 16–65. As ICPS uses a Nielsen panel for obtaining participants, it is not a probability-based sample. Consequently, ICPS estimates should be considered as approximate and potentially biased despite post-stratification to correct for demographic differences between the ICPS sample and the Illinois population.

PERCENT CANNABIS PURCHASED FROM LEGAL SOURCE IN PAST-YEAR (2018–2023)



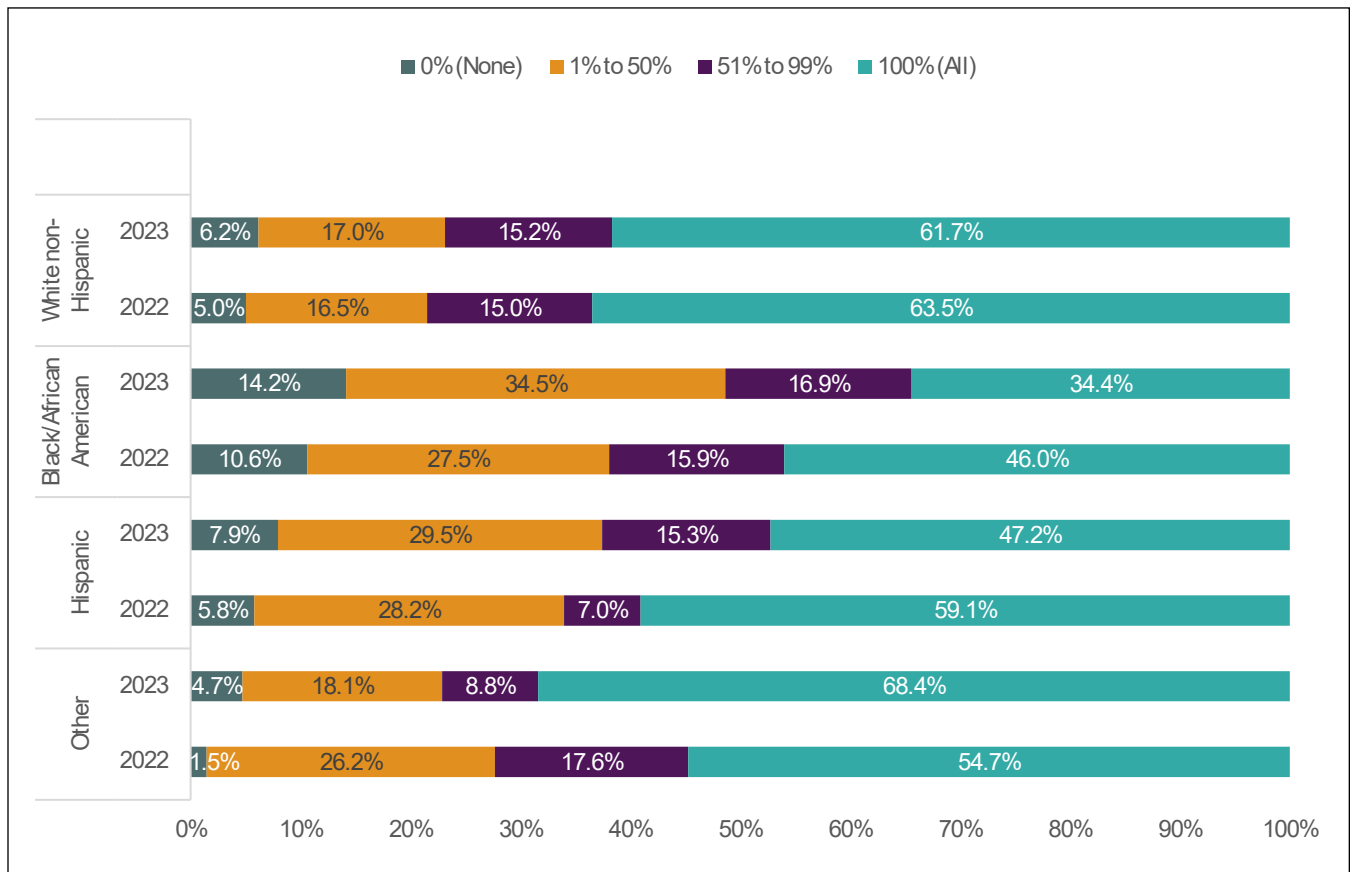
Source: International Cannabis Policy Study, Illinois site data (2018–2023) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: The percentage of cannabis bought exclusively from a legal source increased between 2018–2019 and 2020 from 21.4% to 42.1%. However, this trend was reversed in 2023 when the percentage of cannabis purchased exclusively from a legal source declined to 54.6% after reaching 59.4% in 2022.

As of 2023, 45.4% of Illinois cannabis users continue to purchase some or all of their cannabis from an illicit source.

The overall differences among years were statistically significant (chi-square (df = 12) = 1143.533, $p < 0.01$).

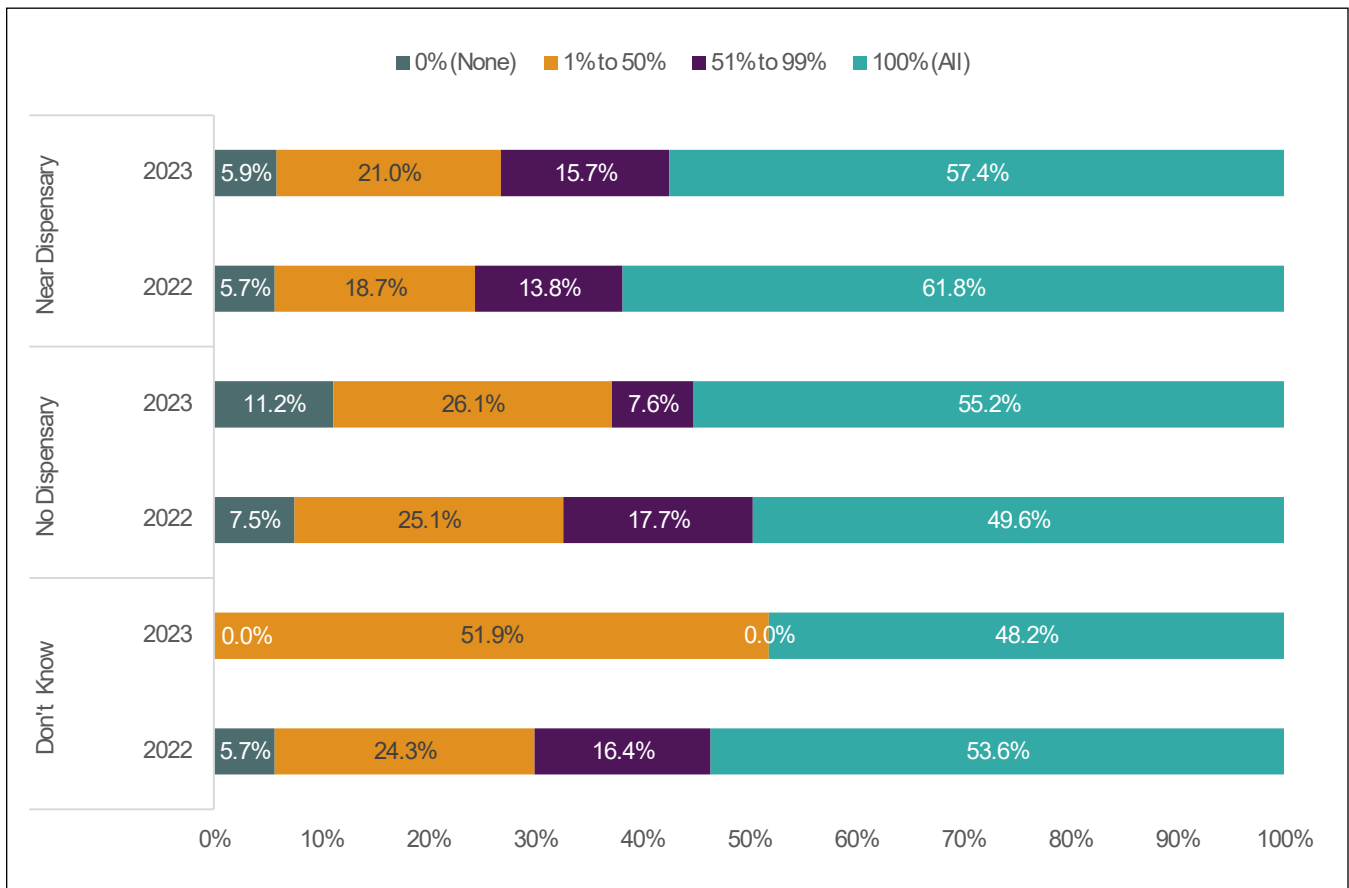
PERCENT OF CANNABIS USED IN PAST-YEAR PURCHASED FROM A LEGAL SOURCE BY RACE/ETHNICITY (2022–2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: For both 2022 and 2023, persons who were white, non-Latino/Latina/Hispanic were the most likely to report buying all of their cannabis from a legal source compared with other racial/ethnic groups. For both Latinos/Latinas/Hispanics and Black/African American, non-Latinos/Latinas/Hispanics, the percentage buying all of their cannabis from a legal source decreased from 2022 to 2023 by 11.9 and 11.6 percentage points, respectively.

PERCENT OF CANNABIS USED IN PAST-YEAR PURCHASED FROM A LEGAL SOURCE BY DISPENSARY PROXIMITY (2022–2023)



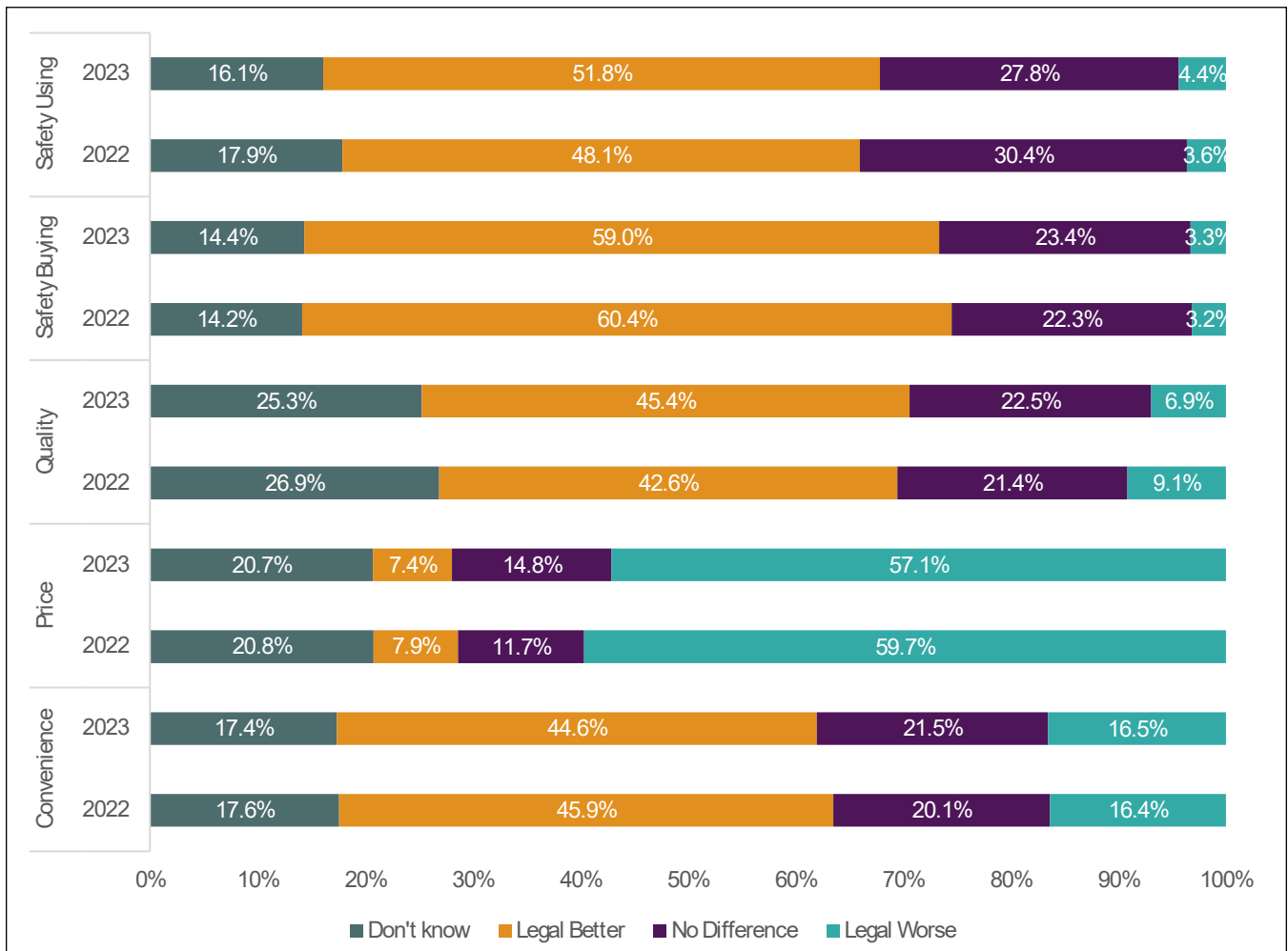
Source: International Cannabis Policy Study, Illinois site data (2022–2023) - David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: In both 2022 and 2023, persons who indicated there was a dispensary in the city or town where they lived were more likely to buy their cannabis from a legal source than when there was not a local dispensary or if the location of a dispensary was unknown. Between 2022 and 2023, there was a 5.6 percentage-point increase in the percentage of cannabis purchased from a legal source for persons who indicated that there was no dispensary in the city or town where they lived. However, there was a 4.4 percent point decrease among persons who said that they live near a dispensary.

PERCENT OF CANNABIS USED IN PAST-YEAR PURCHASED FROM A LEGAL SOURCE BY DISPENSARY PROXIMITY (2022–2023) (CONTINUED)

We also examined the effect on the percentage of cannabis purchased that was legal and living in a zip code where there was a dispensary. Using ordinal logistic regressions of difference-in-differences, we found a 30% greater chance of purchasing more cannabis legally for persons living in a zip code with a dispensary compared to persons who did not live in a zip code with a dispensary (OR=1.3, CIs=1.1, 1.6, p=0.012).

PERCEPTIONS OF LEGAL VERSUS ILLICIT CANNABIS PRODUCT ATTRIBUTES AMONG PAST-YEAR CANNABIS USERS (2022–2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) - David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

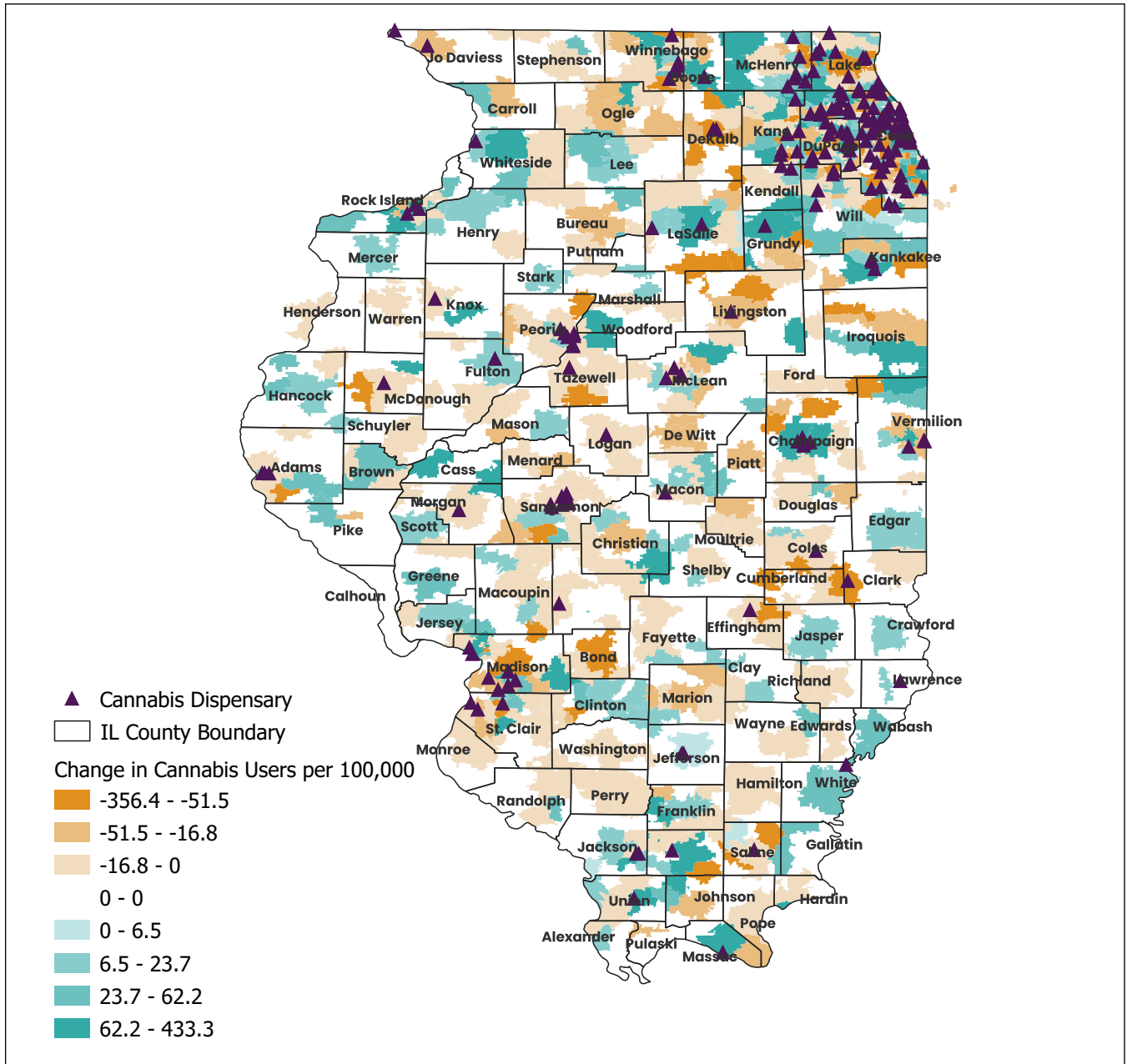
Observations and Notes: Past-year Illinois cannabis users tend to believe that legally purchased cannabis is safer to buy and use, more convenient, is of better quality, and is better priced, although sizable minorities (one-quarter to one-third) do not perceive differences. Both in 2022 and 2023, a majority of users indicated that licit cannabis was more expensive than illicit cannabis.

PERCEPTIONS OF LEGAL VERSUS ILLICIT CANNABIS PRODUCT ATTRIBUTES AMONG PAST-YEAR CANNABIS USERS (2022–2023) (CONTINUED)

2023: Most users indicate they are not at all (64.1%) or only a little concerned (16.4%) about government or law enforcement authorities tracking their cannabis purchases from authorized stores or websites. (not shown on chart)

2022: Most users indicate they are not at all (62%) or only a little concerned (18.8%) about government or law enforcement authorities tracking their cannabis purchases from authorized stores or websites. (not shown on chart)

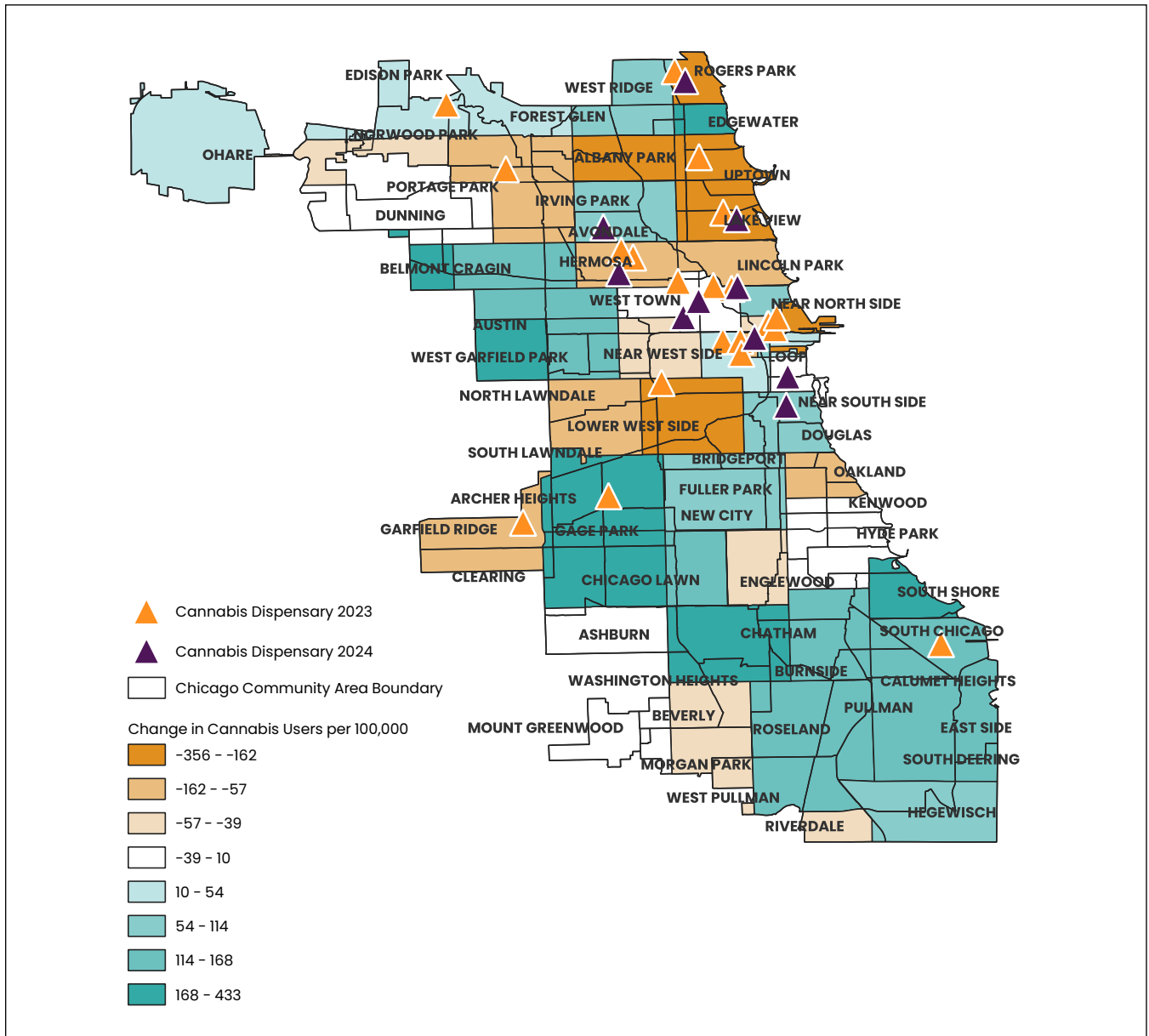
ILLINOIS CHANGE IN CANNABIS USE RELATIVE TO DISPENSARY PROXIMITY (2020 VS. 2023)



Source: Cannabis Oversight Office; International Cannabis Policy Study, Illinois site data (2022–2023) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Note: Change of cannabis use is the weighted population reported to have used cannabis in the last 12 months in the 2023 data minus that number in the 2022 data.

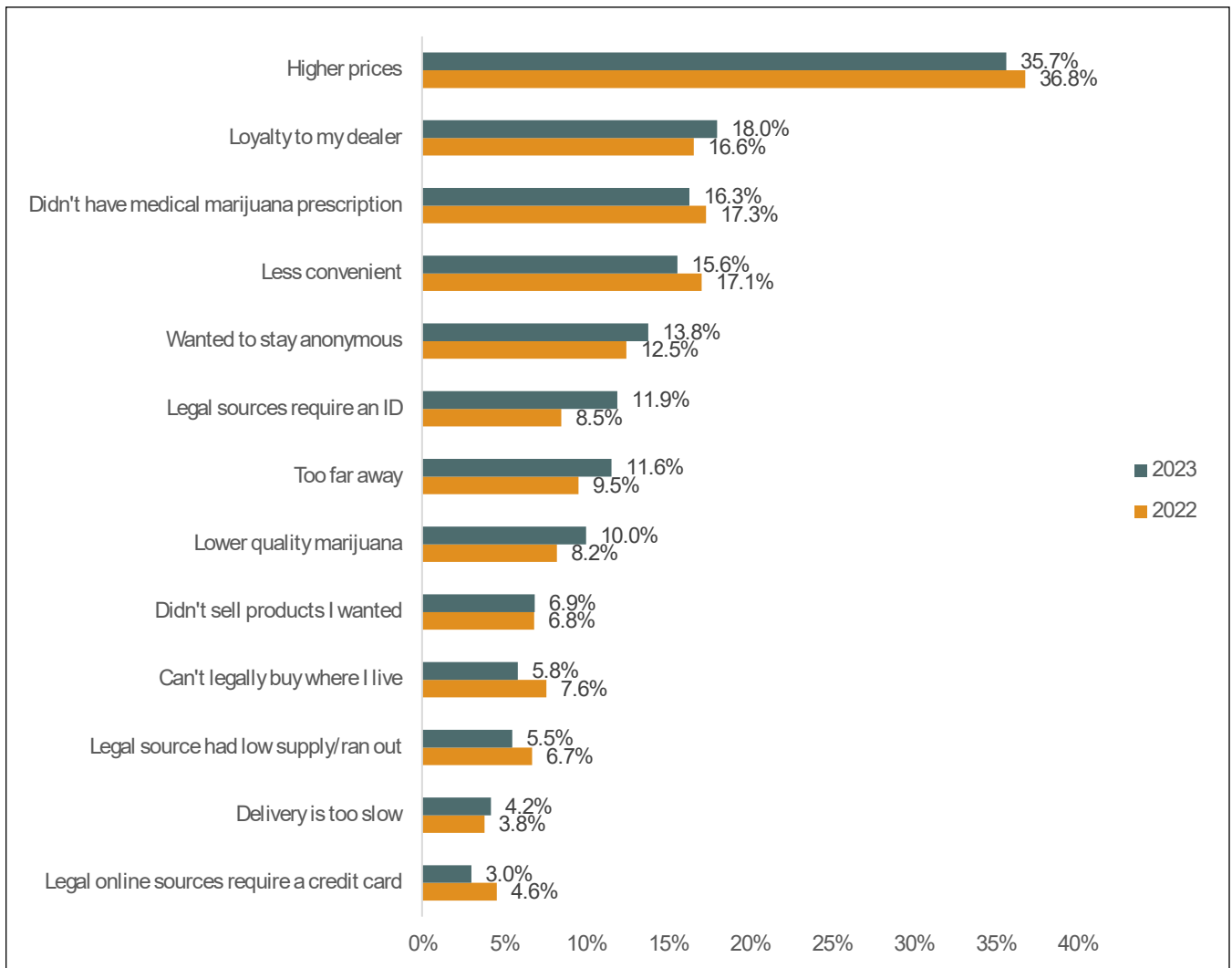
CITY OF CHICAGO CHANGE IN CANNABIS USE RELATIVE TO DISPENSARY PROXIMITY (2020 VS. 2023)



Source: Cannabis Oversight Office; International Cannabis Policy Study, Illinois site data (2022–2023) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Note: Change of cannabis use is the weighted population reported to have used cannabis in the last 12 months in the 2023 data minus that number in the 2022 data.

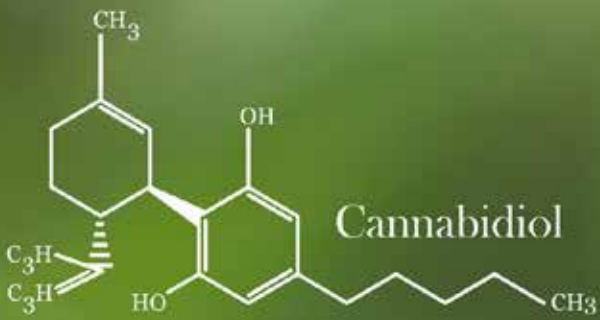
REASONS PURCHASED CANNABIS FROM AN ILLICIT SOURCE IN THE PAST-YEAR (2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: In 2022 and 2023, among persons who indicated they purchased at least some of their cannabis from an illicit source, the main reasons were higher prices, dealer loyalty, no medical prescription, it was simply less convenient, or they wanted to stay anonymous.

CBD AND SYNTHETIC THC



C B D



EMERGING ISSUE: HEMP, SYNTHETIC CANNABIS, AND THE “GRAY MARKET”

It is currently difficult to estimate the size of the hemp, synthetic cannabis, and “gray market” in Illinois and elsewhere given the diversity of products sold by any number of distributors and businesses. And surveys of substance use such as the National Survey on Drug Use and Health (NSDUH), have yet to include a comprehensive set of questions to assess incidence and prevalence of use. As reported in the paper by Harlow et al., the 2023 Monitoring the Future Survey estimates that 11.4% (95% CI = 8.6% – 14.2%) of 12th grade students reported using delta-8 THC and over a third of these (35.4%) reported using it at least 10 times in the past year. However, since these products can contain intoxicants other than delta-8 THC, we simply do not have good estimates of the full extent of their use among youth or older populations or of the total market.

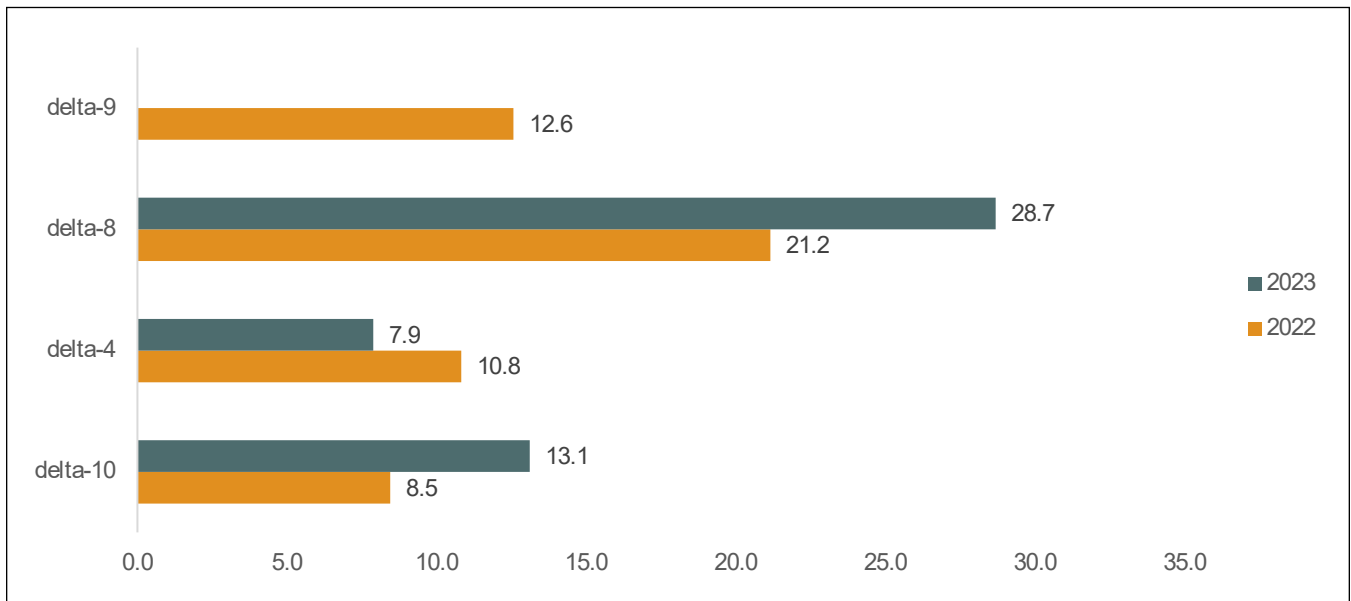
Presently, various groups are lobbying Congress to include federal restrictions on hemp-derived intoxicants as part of the 2024 Farm Bill, which was approved by the House Agriculture Committee, but which has not been brought forward in either the House or Senate for a final vote. Until that bill becomes law, assuming it will contain such restrictions in its final form, it will be up to individual states to pass laws regulating hemp-derived intoxicants.

In Illinois, there is currently a battle between advocates for the hemp and cannabis industries. Interestingly, hemp industry representatives are lobbying to be regulated in a way that would continue to allow sales of hemp-derived intoxicants but with restrictions such as prohibiting sales to those 21 years of age or older. Representatives of the cannabis industry in Illinois are seeking an outright ban on the sale of all such products.

1) Forbes Magazine, The Cannabis Civil War: Hemp vs. Marijuana. Available at: <https://www.forbes.com/sites/daniellechemtob/2024/04/19/forbes-daily-the-budding-28b-hemp-markets-feud-with-marijuana/>

2) McCoppin, R. (May 7, 2024). Illinois hemp businesses owners call for regulation and taxation, not prohibition. Chicago Tribune, Available at: <https://www.chicagotribune.com/2024/05/07/illinois-hemp-businesses-owners-call-for-regulation-and-taxation-not-prohibition/>

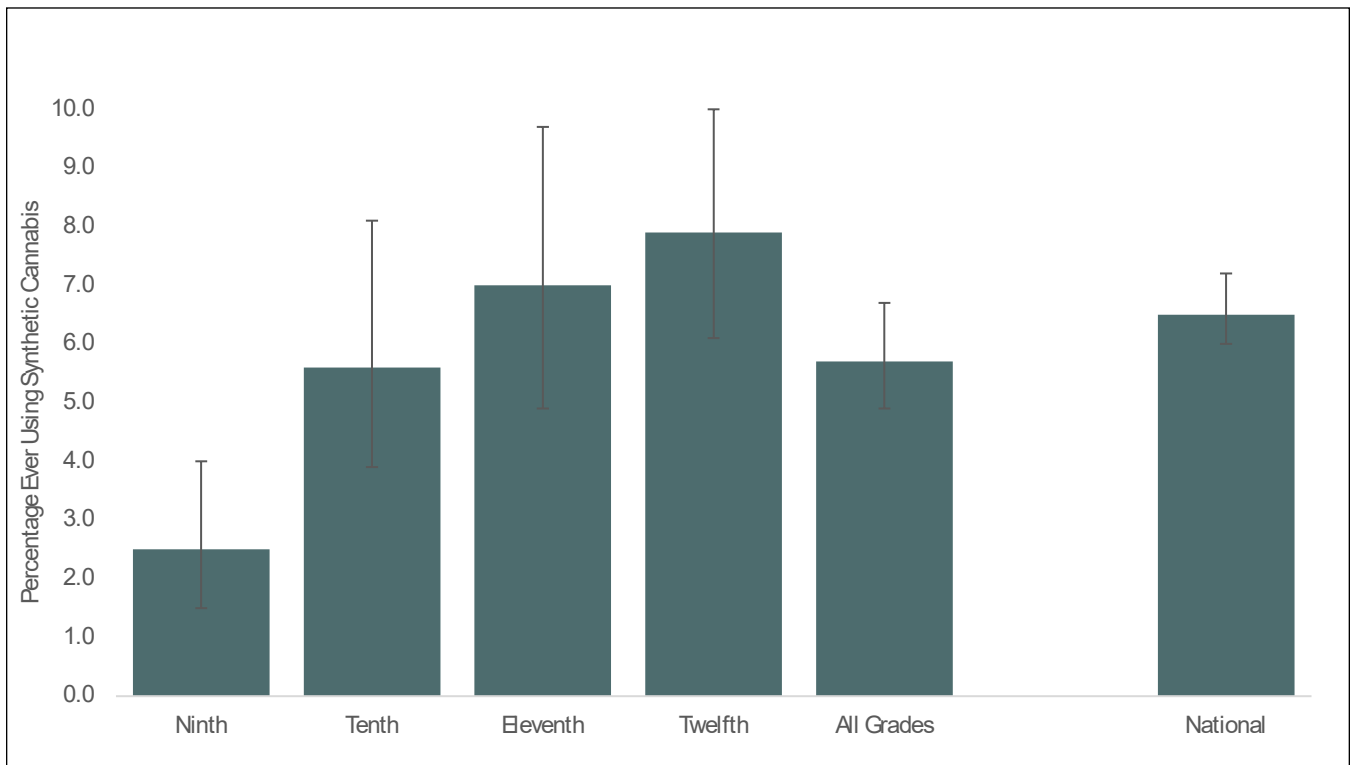
AWARENESS OF DELTA-8 THC AND SYNTHETIC VARIANTS (2022–2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: In 2023, over one-fourth (28.7%) of survey respondents indicated they were aware or heard of products that contain synthetic variants of THC, the most commonly recognized being delta-8 THC. Such products are synthesized from hemp-based products made from the cannabis variant that contains lower levels of delta-9 THC, the main psychoactive ingredient in legally sold cannabis products.

ILLINOIS AND NATIONAL HIGH SCHOOL STUDENT LIFETIME (EVER) SYNTHETIC CANNABIS USE (2021)

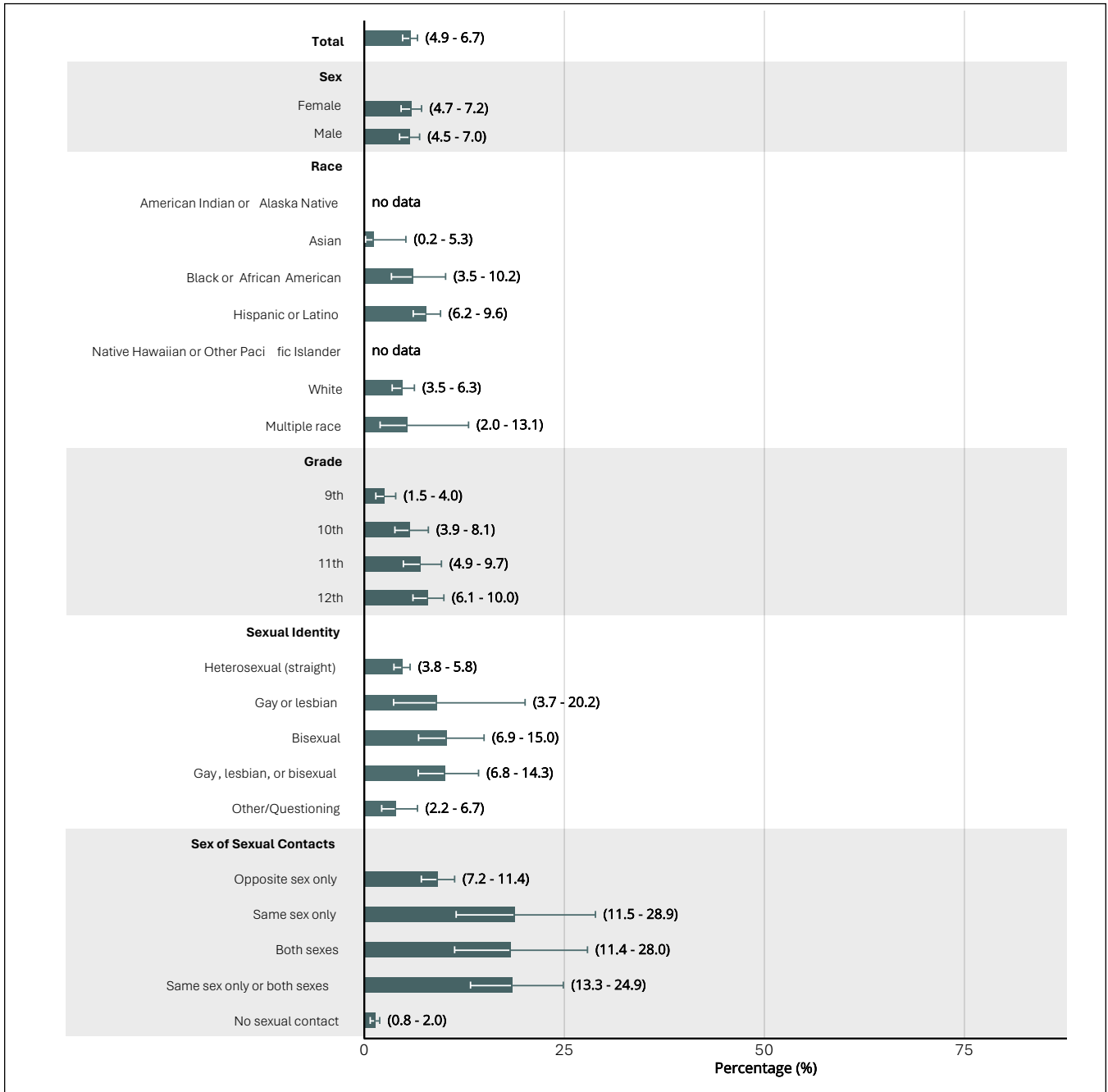


Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

Observations and Notes: Because of an increase in synthetic cannabis products being sold and marketed as legal and alternative to legally sold cannabis products, a question on synthetic cannabis use was added to the 2015 YRBSS questionnaire and first administered in Illinois in 2021. Across all grades, 5.7% (95% CI = 4.8% - 6.7%) of Illinois high school students said they had ever used synthetic cannabis compared with 6.5% (95% CI = 6.0% - 7.2%) of high school students nationally. The summary reports of the YRBSS also showed an increase in synthetic use.

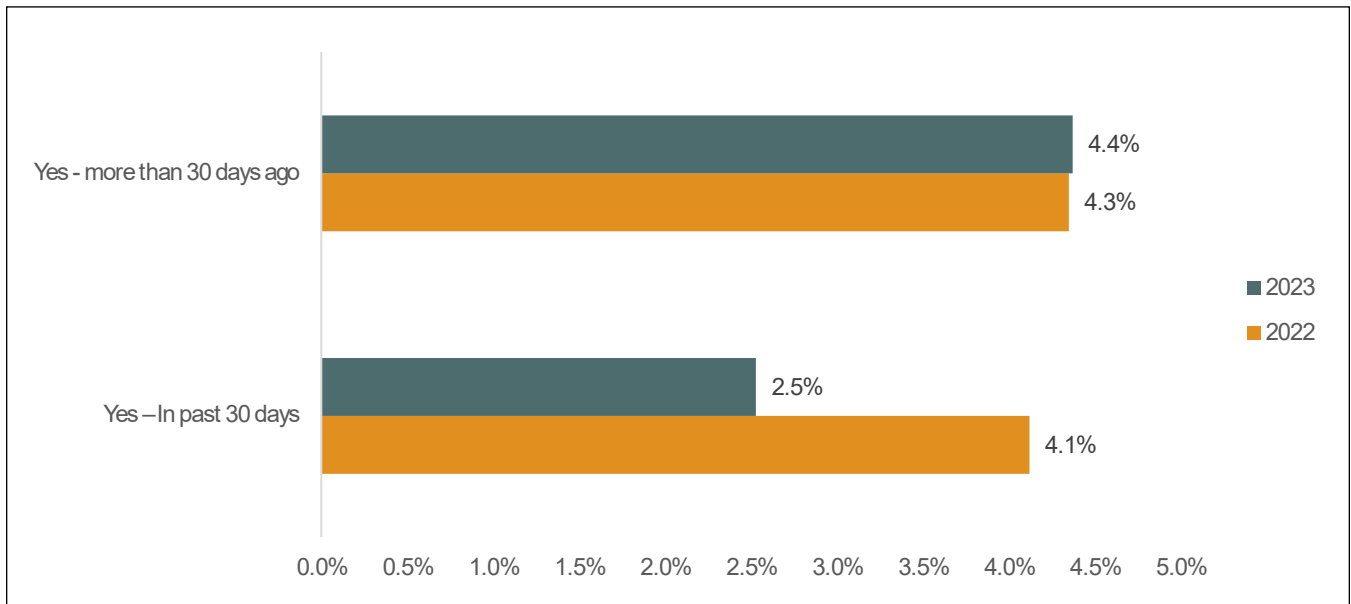
The new question references synthetic cannabis as "Spice," "fake weed," "K2," or "Black Mamba." Thus, it is not clear if responses include the use of CBD or other forms of synthetic-derived cannabis such as delta-8 or delta-10 THC or CBDA (cannabidiolic acid), which, can become converted delta-9 THC, the primary psychoactive ingredient in legally sold cannabis products.

PREVALENCE OF LIFETIME SYNTHETIC CANNABIS USE DEMOGRAPHICS FOR HIGH SCHOOLERS (2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

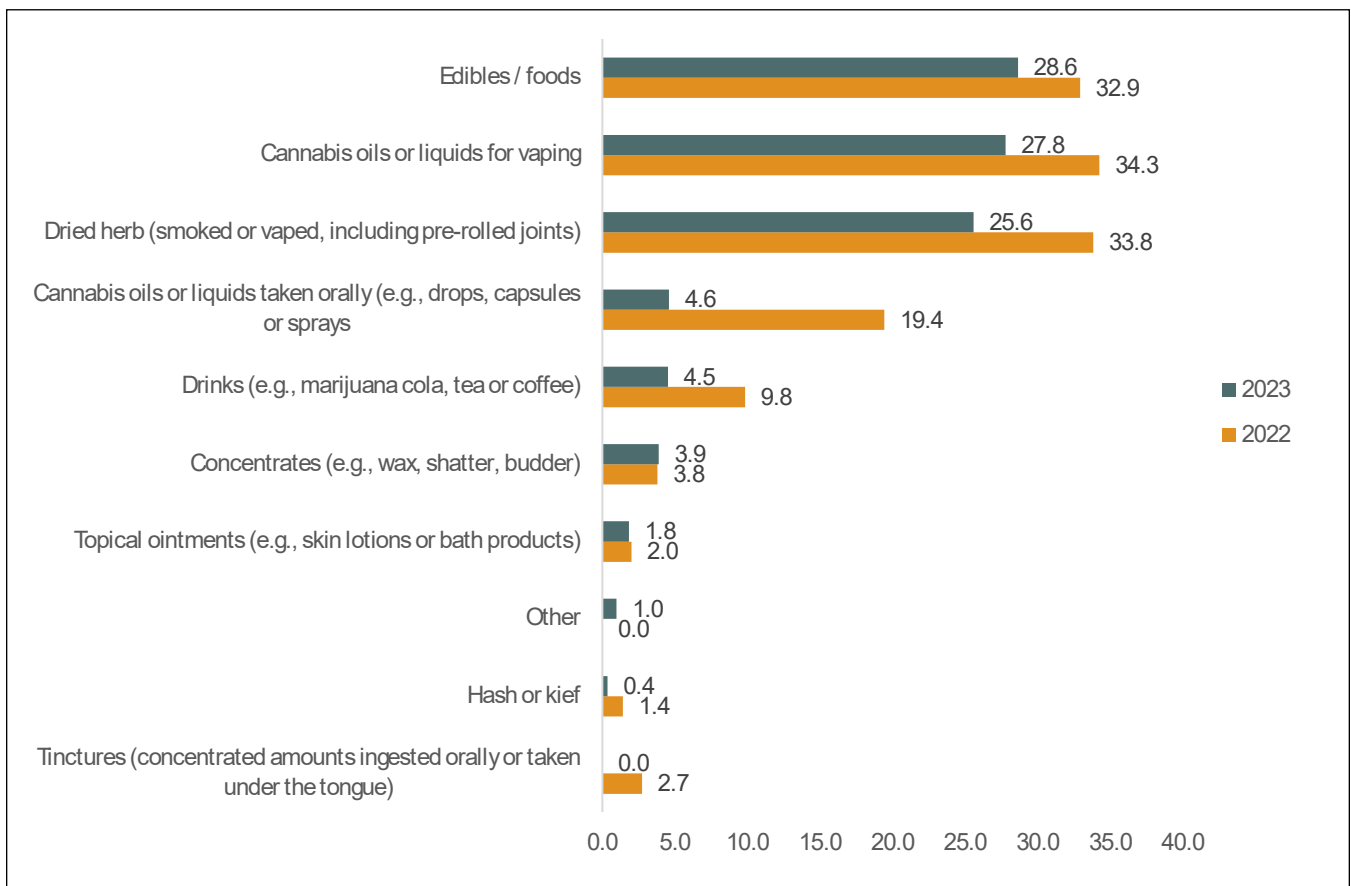
HAVE YOU EVER USED A DELTA-8 THC PRODUCT? (2022-2023)



Source: International Cannabis Policy Study, Illinois site data (2022-2023) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: A survey of the general population in Illinois ages 16 to 64 found that 6.9% had used a cannabis product containing delta-8 THC with 2.5% reporting they used such a product in 2023. This is lower than past-30-day use reported in 2022 (4.1%).

DELTA-8 THC PRODUCT TYPE USED AMONG SURVEY PARTICIPANTS REPORTING ANY DELTA-8 THC USE IN THE PAST YEAR (2022–2203)

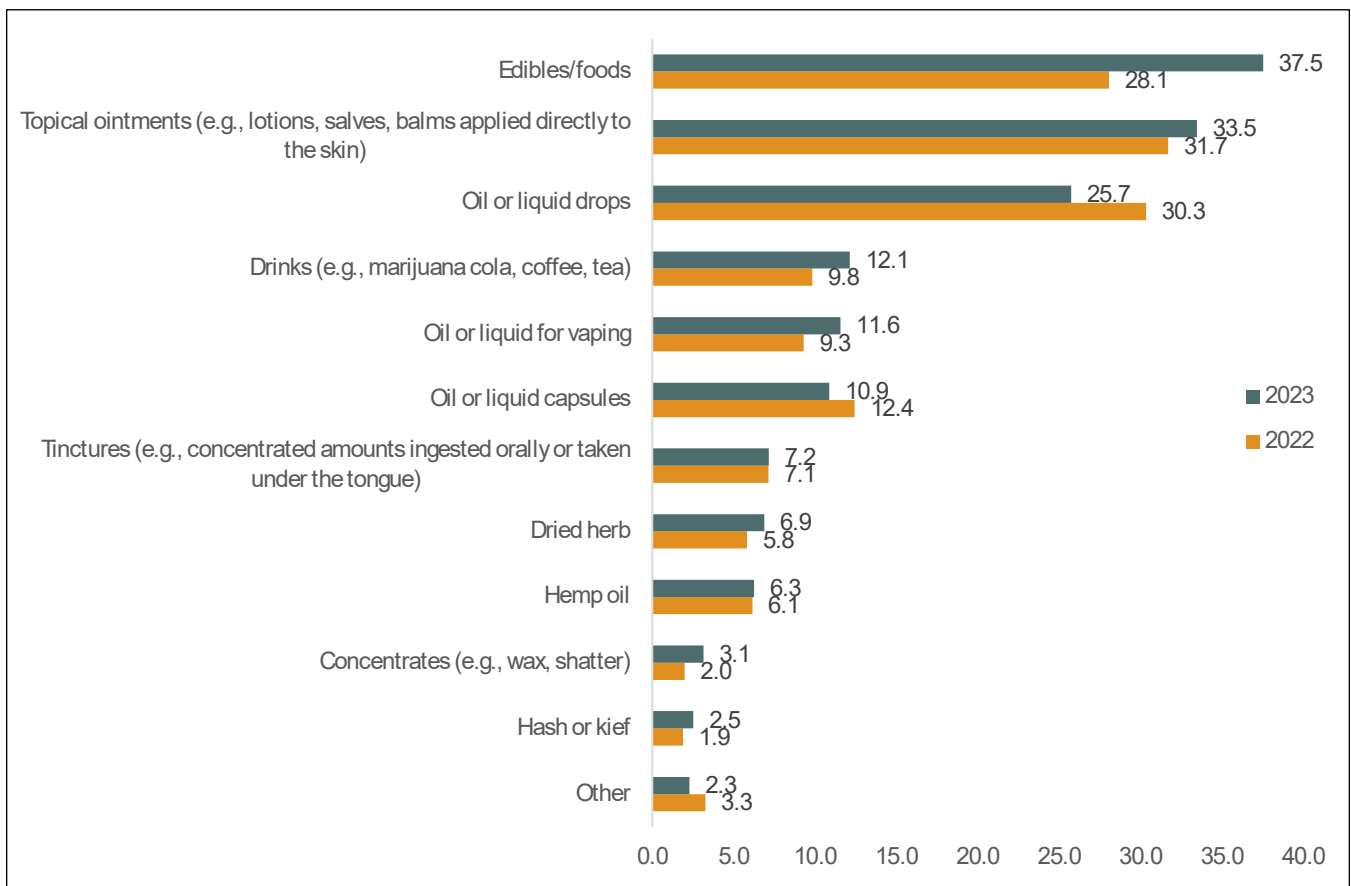


Source: International Cannabis Policy Study, Illinois site data (2022–2023) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: The percentage of survey respondents reporting they used only CBD products in the past year increased from 18.9% in 2022 to 24.7% in 2023, a 30 percent increase.

By product type, ordered from the most to least frequently used CBD product in 2023 for those only using CBD products, the most frequently used was edibles (37.5%) followed by topical ointments (33.5%) and oil or liquid drops (25.7%). The preferred types of CBD product used were generally consistent between 2022 and 2023 with edibles replacing topical ointments and oil or liquid drops as the most commonly used.

CBD PRODUCT TYPE BY PERCENTAGE OF THOSE REPORTING CBD-ONLY USE IN THE PAST YEAR (2022–2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

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CANNABIS INITIATION AND USE BY YOUTH



SUMMARY OF RESEARCH FINDINGS: EFFECTS ON YOUTH

Study: Hinckley J, Bhatia D, Ellingson J, Molinero K, Hopfer C. The impact of recreational [adult use] cannabis legalization on youth: the Colorado experience. *Eur Child Adolesc Psychiatry*. 2024 Mar;33(3):637-650. doi: 10.1007/s00787-022-01981-0

Objectives: This paper provides a “lessons learned” analysis of the effects of cannabis legalization in Colorado, one of the first states along with Washington State, to legalize adult use cannabis in 2012. The review topics considered include: adult use cannabis legalization regulations designed to protect youth; increasing cannabis potency and modes of use; the prevalence of cannabis and other substance use, and changing risk perceptions among Colorado youth; the impact of legalization on cannabis use disorder and comorbid mental health problems and other public health concerns related to cannabis legalization.

Methods: This is not a systematic review of the literature but uses a broad array of sources including public health metrics collected in Colorado and nationally to consider and summarize the public health and other effects of legalized adult use cannabis.

Results/Findings:

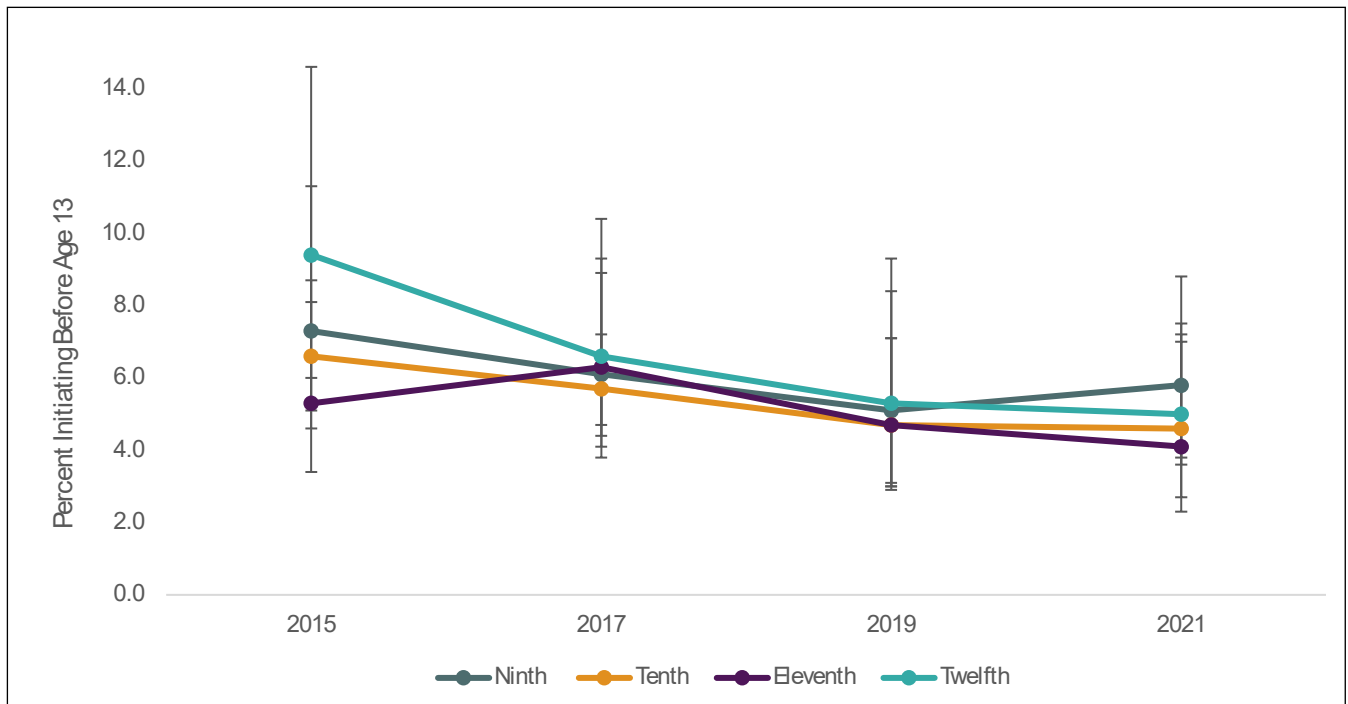
- Adult use cannabis legalization in Colorado resulted in sharp increases in cannabis potency, products, and modes of use. By 2020, there were 2,709 licensed cannabis businesses with cannabis dispensary sales reaching 2.2 billion generating nearly 400 million in tax revenue.
- Because of concern regarding youth access to cannabis, the regulations have been adjusted such as limiting sales to persons 21 years of age or older, making possession of cannabis on school grounds illegal, prohibiting direct advertising to minors, etc.
- Despite these changes, youth continue to be exposed to cannabis messaging via lightly controlled online and social media advertising.
- Cannabis potency has increased dramatically with state-regulated markets offering flower products that are twice as potent as comparable products offered on the illicit-market. High-concentrate products offered at dispensaries are up to four times more potent than flower-based products and up to seven times more potent than comparable products sold illicitly. The prevalence of use of high potency products such as those used for vaping, in edibles, and waxes has increased dramatically.
- While adolescents under age 18 appear to be using more high potency products, the prevalence of cannabis use among this demographic has been relatively stable. Cannabis use prevalence has increased the most among those 18 to 25 years old.
- Treatment admission rates for cannabis use disorder (CUD) have declined “significantly” across the United States as well as in Colorado.

SUMMARY OF RESEARCH FINDINGS: EFFECTS ON YOUTH (CONTINUED)

- Persons with a mental health condition are more likely to self-report cannabis use than persons who do not have a mental health disorder. Youth diagnosed with attention deficit hyperactivity disorder (ADHD) are particularly more likely to use cannabis. The most common mental health disorders associated with CUD include depression and anxiety disorders, psychosis, and earlier onset of mania than youth who do not use cannabis.
- Cannabis use also appears to be associated with suicide, but the role of cannabis (causal versus associative) remains unclear. Frequent cannabis use (20 or more days per month) in particular has been associated with attempted, planned, and seriously considered suicide.
- Although there were concerns that adult use cannabis legalization would adversely affect high school graduation and drop-out rates, this has not happened with graduation and drop-out rates actually improving and at the highest and lowest levels in 2019–2020.
- Colorado youth are accessing emergency services due to cannabis use at higher rates. Past-year ED visits with cannabis-related ICD-10 codes are the highest among young adults aged 18–25 years old, and hospital admissions are highest among youth aged 9–17 years old. Cannabis abuse was the most common discharge ICD code (62%), and a comorbid psychiatric diagnosis was made for 71% of the visits.
- Young women ages 15–19 years old (13.3%), followed by young adults aged 20–24 years old (12.3%) had the highest rates of cannabis use during pregnancy. Cannabis use has also been more common among women with unintended (10.4%) pregnancies than planned (4.1%) pregnancies. “In 2018, a statewide study found that 70% of dispensaries recommended using cannabis products for morning sickness.”

Conclusions: Cannabis policies have evolved through political processes that have outpaced and, in some cases, superseded scientific research. The prevalence of cannabis use should not be the only, nor is it an adequate, public health measure of the impact of cannabis legalization. Little is known about the frequency of cannabis use among youth in more permissive regions. Further, increases in THC potency and changes in modes of use continue to severely outpace cannabis research.

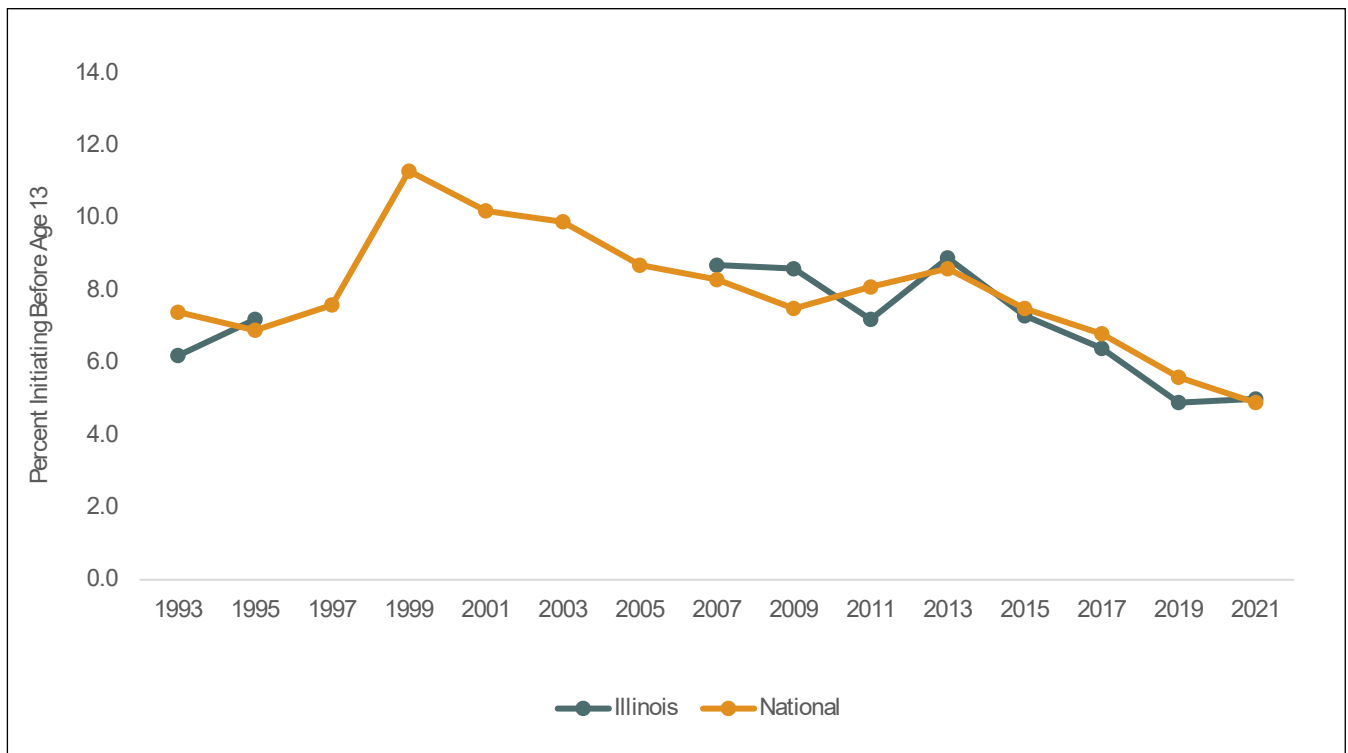
ILLINOIS HIGH SCHOOL STUDENT INITIATION OF CANNABIS USE BEFORE AGE 13 BY GRADE (2015–2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

Observations and Notes: Compared with 2015, Illinois high school students across all grades have shown declines in cannabis use initiation prior to age 13. In 2021, 5.0% (95% CI = 3.9% - 6.5%) of Illinois high school students reported initiating cannabis use by age 13.

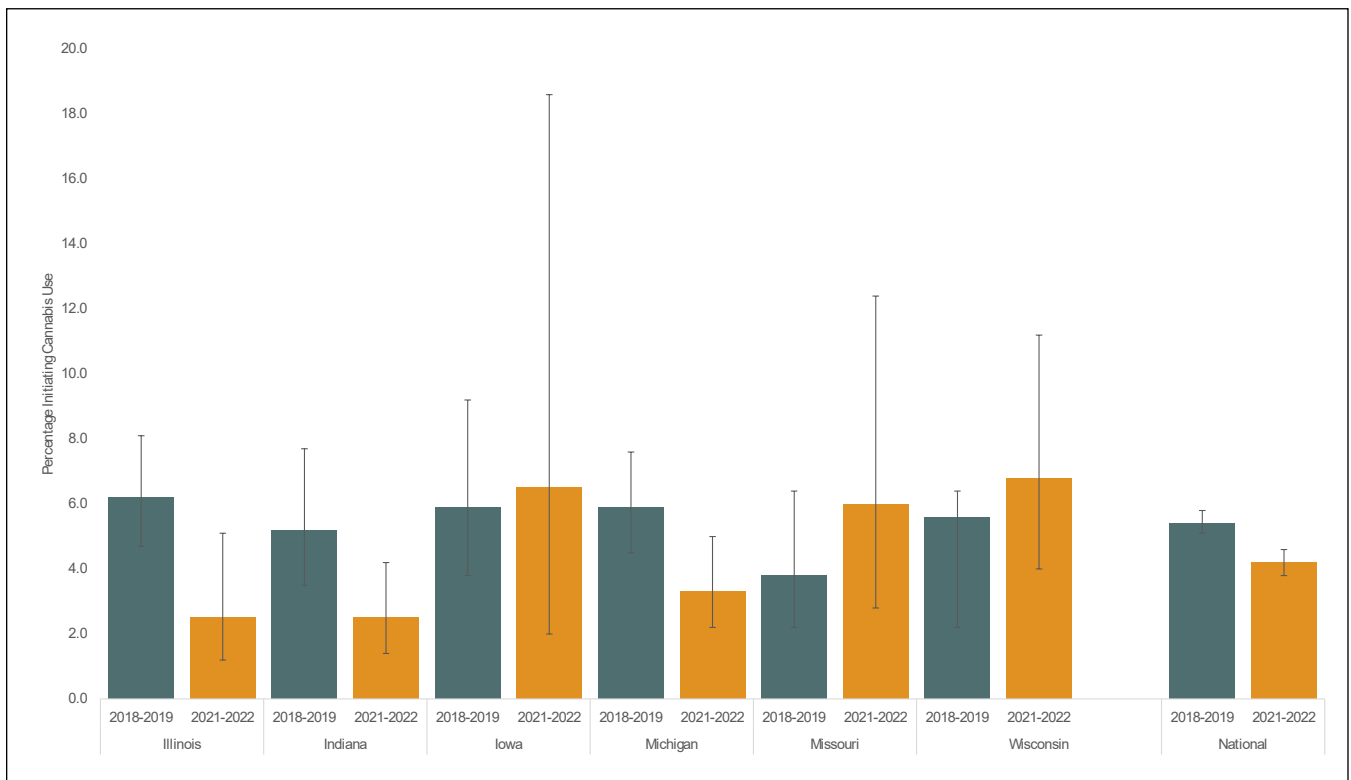
NATIONAL AND ILLINOIS HIGH SCHOOL STUDENT TRENDS IN INITIATION OF CANNABIS USE BEFORE AGE 13 (1993–2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

Observations and Notes: The decrease in cannabis initiation prior to age 13 for Illinois high school students has followed a declining trend similar to the national trend. In 2021, across all grades, 5.0% (95% CI = 3.9% - 6.5%) of Illinois high school students reported initiating cannabis use by age 13. Nationally, cannabis initiation across high school grades was 4.9% (95% CI = 4.0% - 5.8%) in the same year, a non-significant difference compared with Illinois high school students.

PAST-YEAR CANNABIS USE INITIATION AGES 12–17 BY MIDWEST STATE AND NATIONALLY (2018–2022)

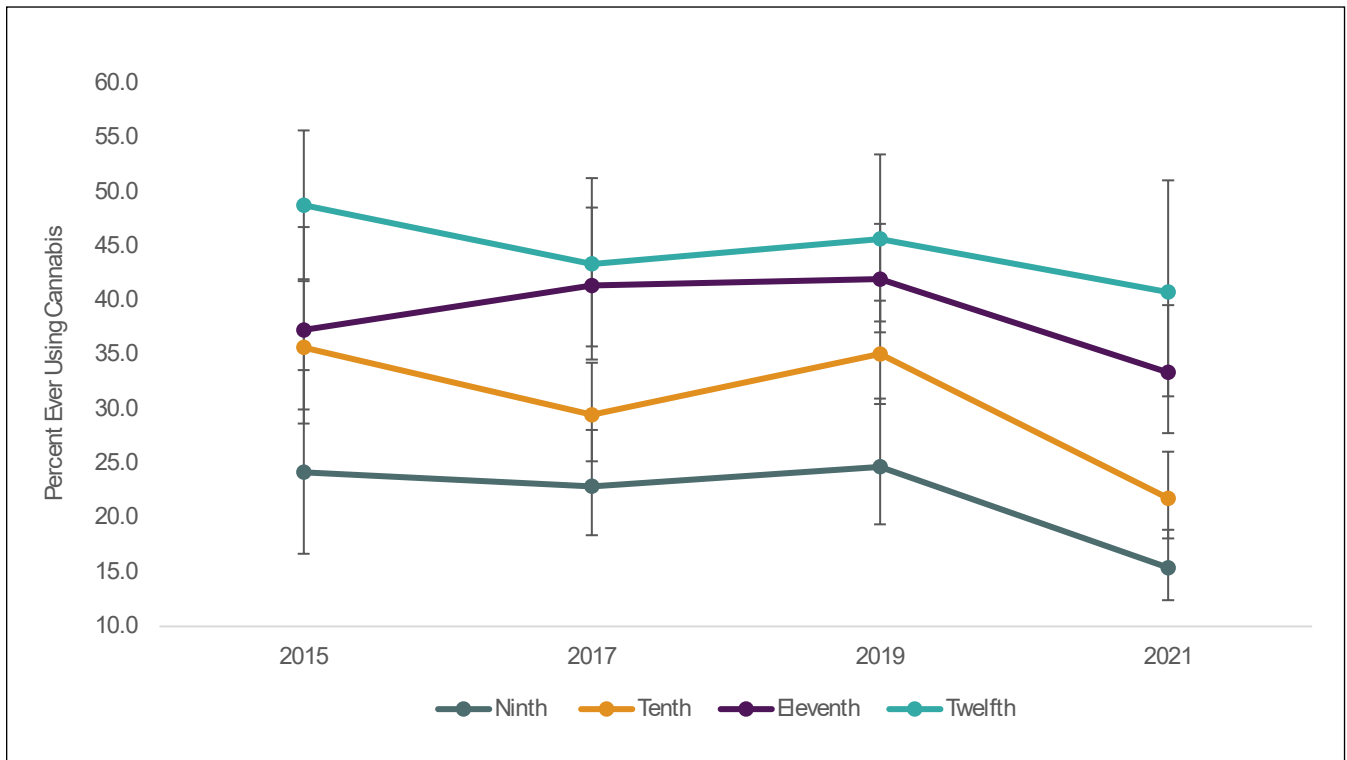


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Illinois experienced a 3.7 percentage-point decrease in past-year initiation of cannabis use for 12–17-year-olds between 2018–2019 and 2021–2022. This decrease was not statistically significant, however. The percentage estimate translates to 25,000 youth ages 12 to 17 initiating cannabis use in the past year in 2021–2022.

Indiana and Michigan also showed decreases in past-year initiation by 2.7 and 2.6 percentage-points, respectively. Wisconsin, Missouri, and Iowa all showed increases in past-year initiation for 12–17-year-olds by 0.6% or greater.

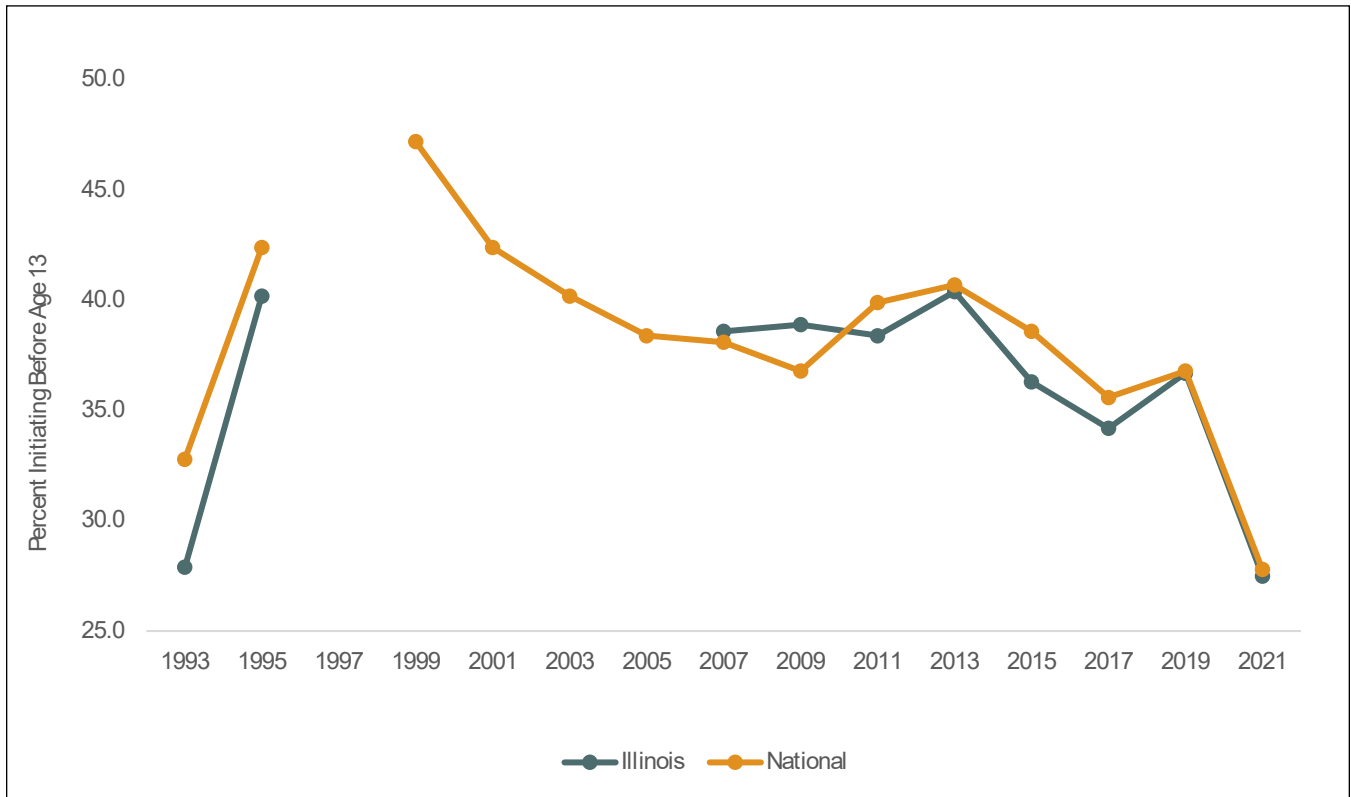
ILLINOIS HIGH SCHOOL STUDENT LIFETIME (EVER) CANNABIS USE BY GRADE (2015–2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

Observations and Notes: Compared with 2015, lifetime (ever) use of cannabis has also declined. Across all grades, 27.5% (95% CI = 23.9% - 31.5%) of Illinois students reported having ever used cannabis. There was a statistically significant difference between Illinois students in the 10th and (21.8%, 95% CI = 18.1% - 26.1%) and 11th (33.4%, 95% CI = 27.8% - 39.6%) grades in 2021.

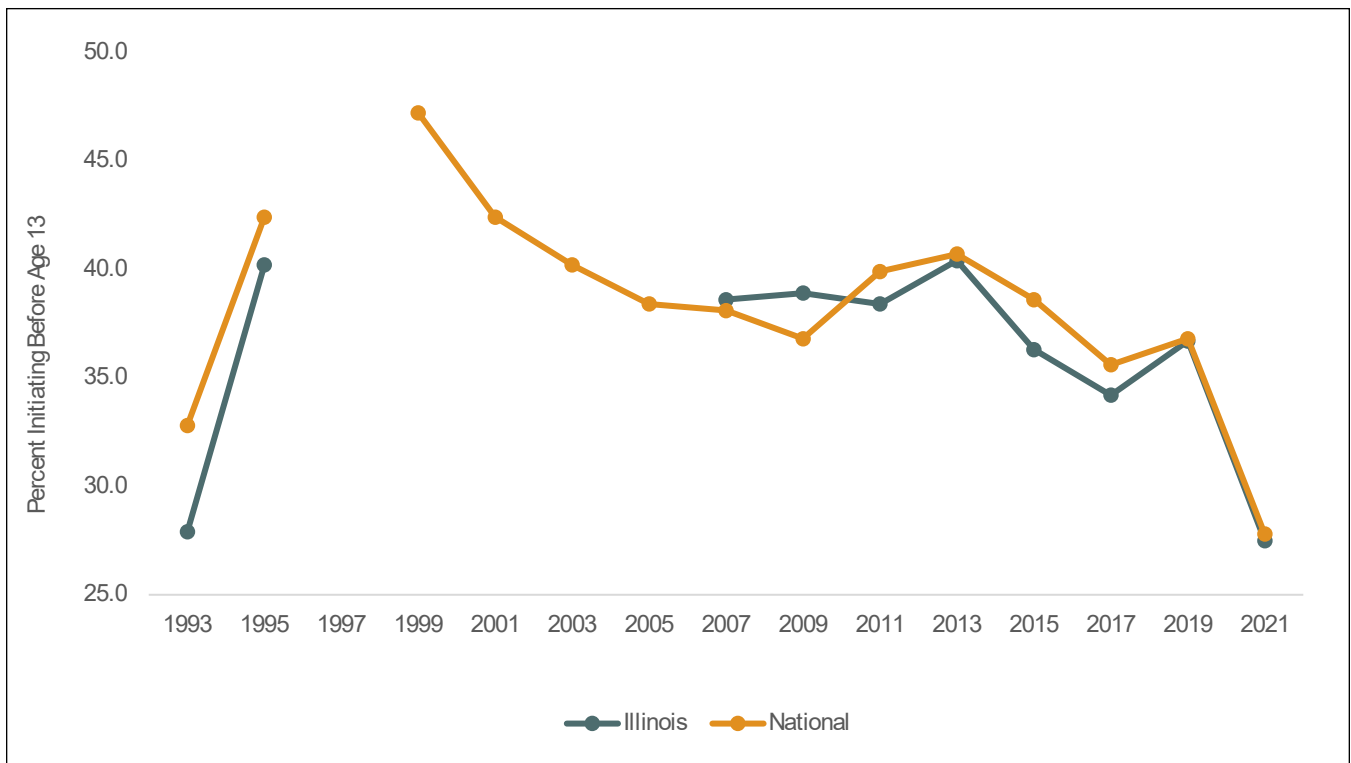
NATIONAL AND ILLINOIS HIGH SCHOOL STUDENT TRENDS IN LIFETIME (EVER) CANNABIS USE (1993–2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

Observations and Notes: The trend in lifetime (ever) cannabis use among Illinois high school students closely follows the national trend, whereby there was a sharp decrease between 2019 and 2021. In 2021 lifetime cannabis use among Illinois high school students was estimated as 27.5% (95% CI = 23.9% - 31.5%) whereas the national estimate was 27.8% (95% CI = 25.5% - 30.3%). The small difference between the 2021 Illinois and national estimates is statistically non-significant.

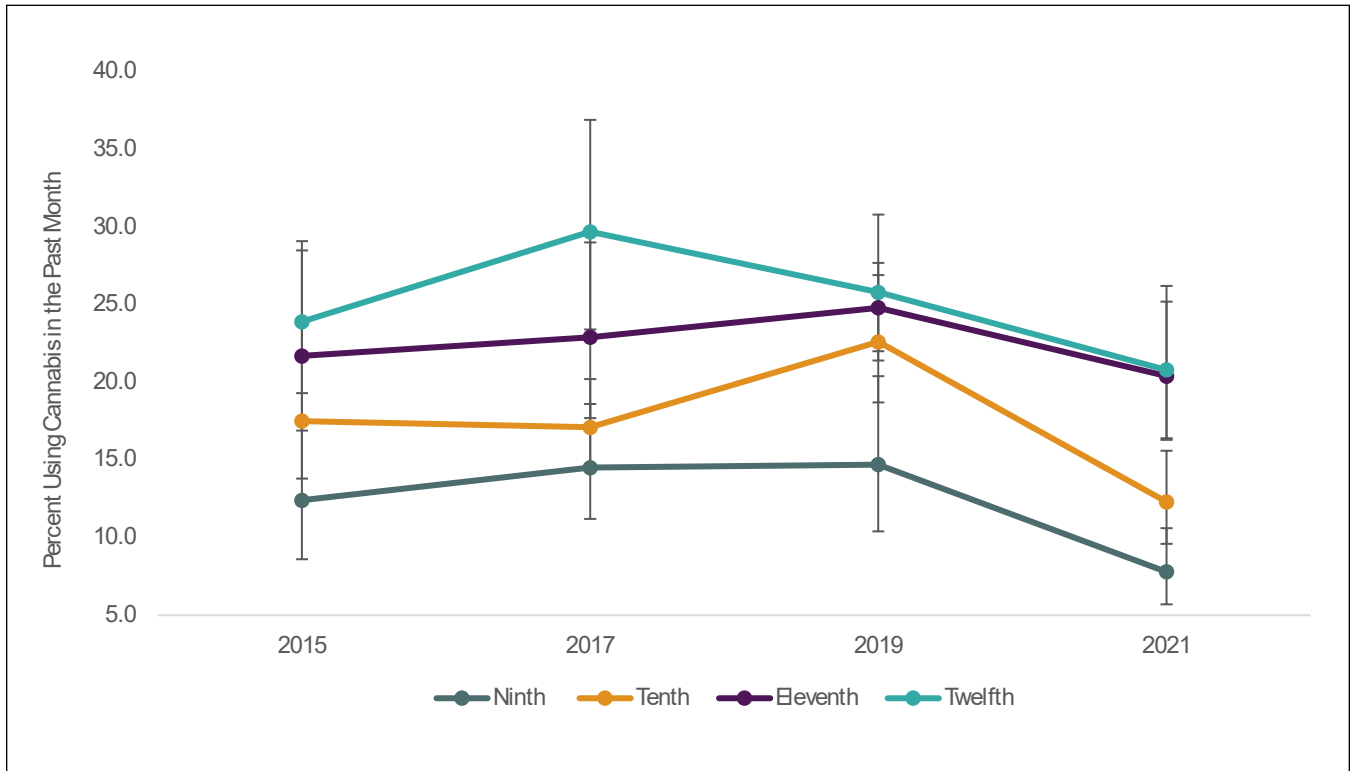
NATIONAL AND ILLINOIS HIGH SCHOOL STUDENT TRENDS IN PAST-MONTH CANNABIS USE (1993–2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

Observations and Notes: The trend in past-month cannabis use among Illinois high school students closely follows the national trend and the trend in lifetime cannabis use, whereby there was a sharp decrease between 2019 and 2021. In 2021 past-month cannabis use among Illinois high school students was estimated as 15.1% (95% CI = 13.3% - 17.1%) whereas the national estimate was 15.8% (95% CI = 14.1% - 17.6%). The difference between the Illinois and national estimates is statistically non-significant.

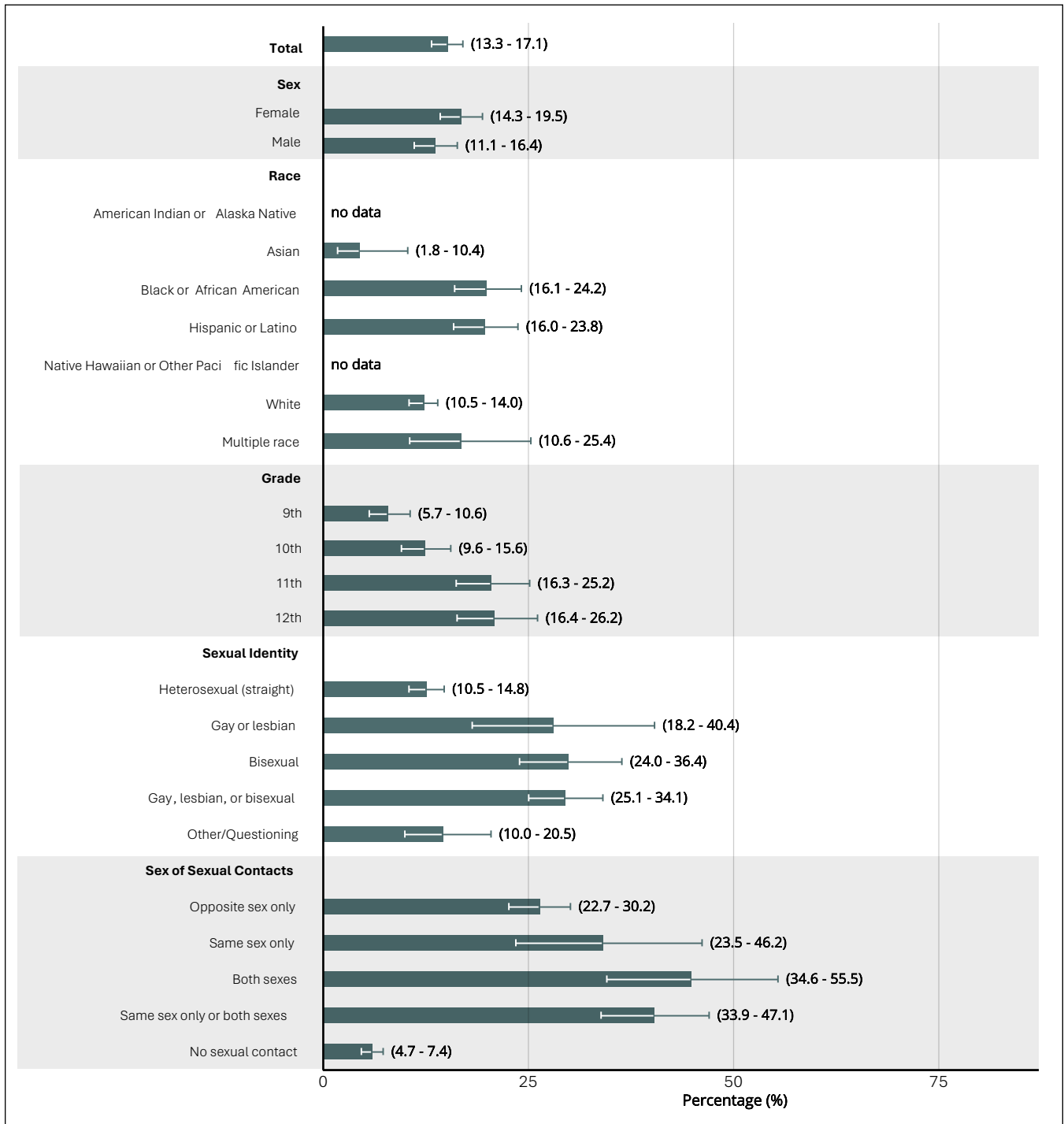
ILLINOIS HIGH SCHOOL STUDENT PAST-MONTH CANNABIS USE BY GRADE (2015–2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

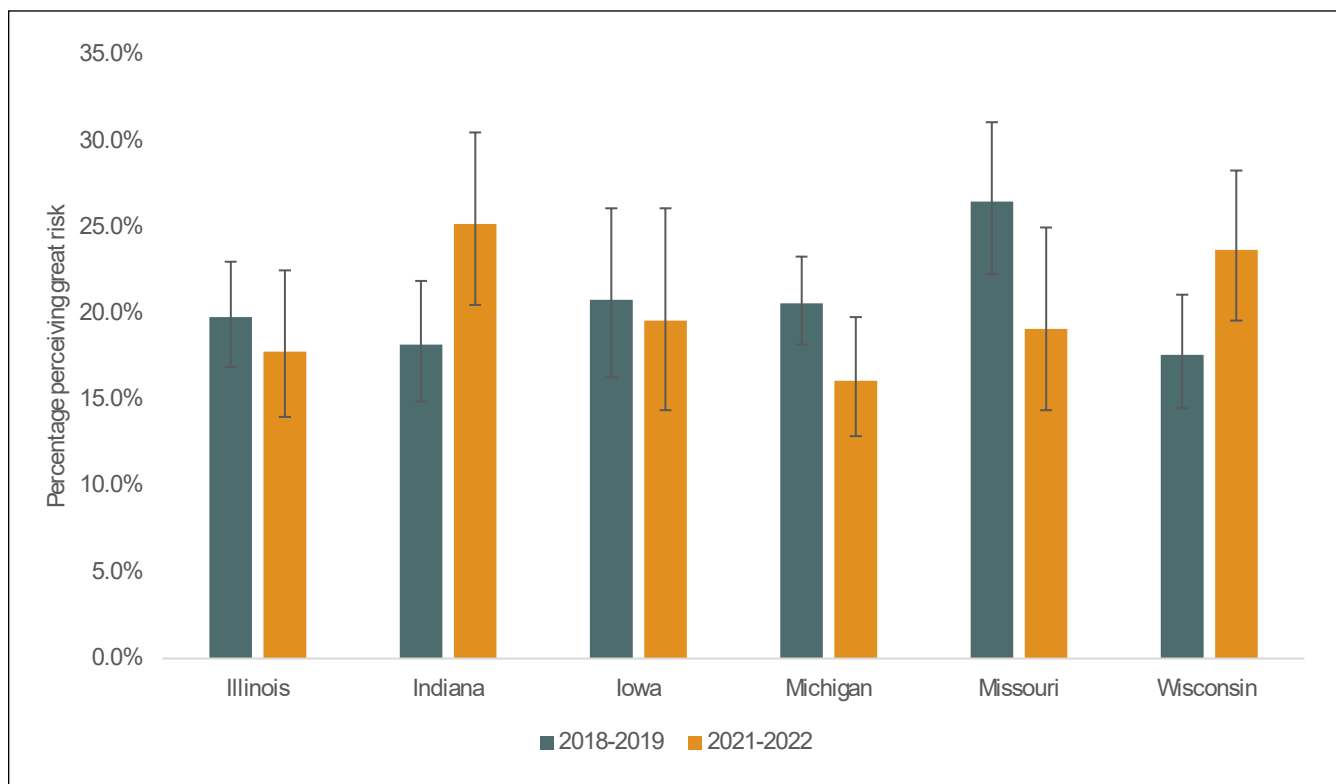
Observations and Notes: Similar to the findings for lifetime (ever) use of cannabis, past-month cannabis use has also declined among Illinois high school students. Across all grades, 15.1% (95% CI = 13.3% - 17.1%) of Illinois students reported using cannabis in the past 30 days with students in the 11th (20.4%, 95% CI = 16.3% - 25.2%) and 12th (20.8%, 95% CI = 16.4% - 26.2%) grades having higher prevalences of recent cannabis use compared with students in the 9th (7.8%, 95% CI = 5.7% - 10.6%) and 10th (12.3%, 95% CI = 9.6% - 15.6%) grades.

ILLINOIS PAST-MONTH HIGH SCHOOL CANNABIS USER DEMOGRAPHICS (2021)



Source: Youth Risk Behavior Surveillance System (YRBSS) online data analysis tool available at: <https://yrbs-explorer.services.cdc.gov/#/>

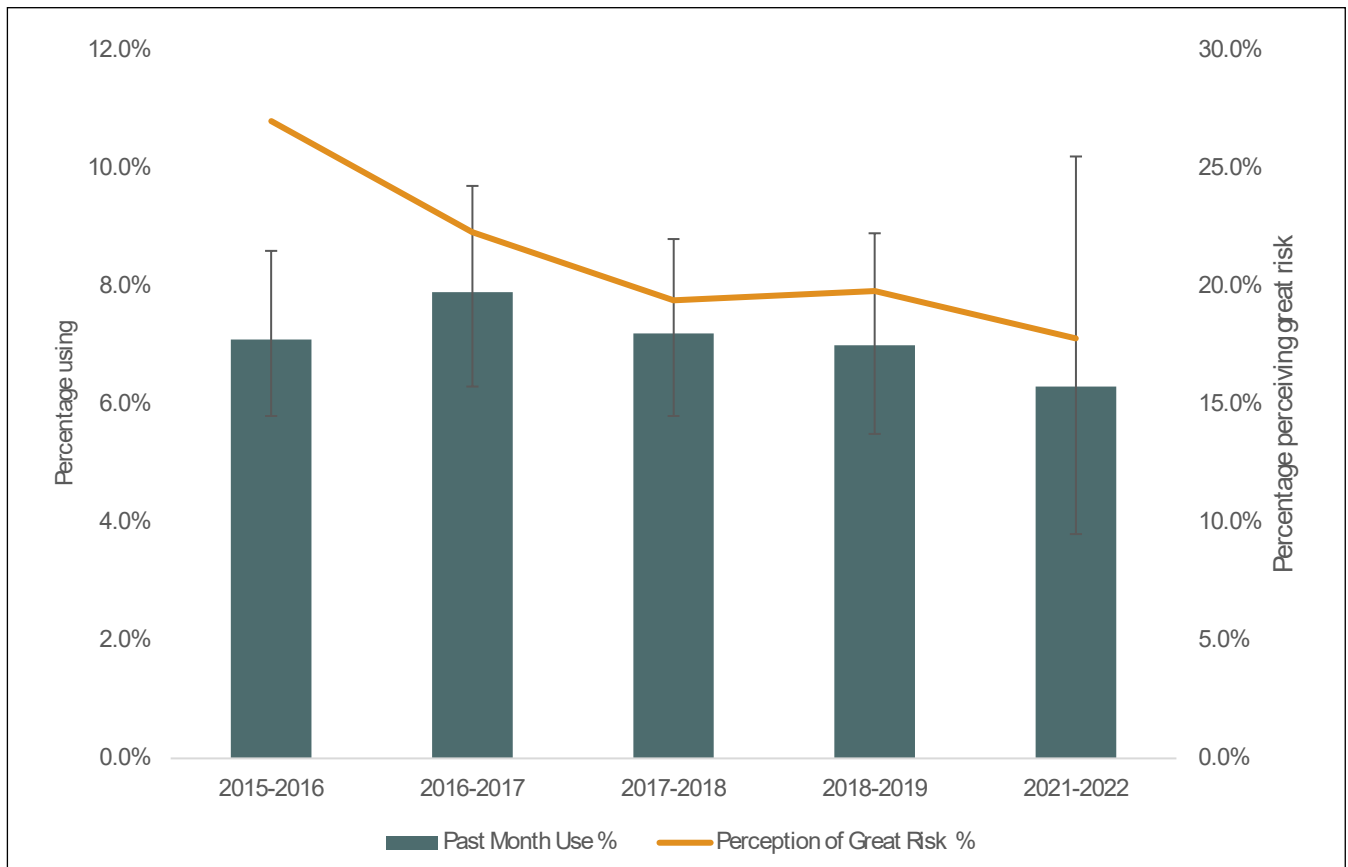
PERCEPTION OF GREAT RISK FOR SMOKING CANNABIS ONCE A MONTH FOR 12–17 YEAR OLDS BY MIDWEST STATE (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: The perception of smoking cannabis once a month as a great risk was 17.8% or 175,00 residents 12–17 years old in 2021–2022. This reflects a 2.0 percentage-point decrease in the perception of smoking cannabis once a month as a great risk from 2018–2019, which was 19.8% or 175,000 residents 12 to 17 years old. This depicts a 2.0 percentage-point decrease in the perception of smoking cannabis once a month as a great risk from 2021–2022, which was 17.8% or 175,000 residents 12 to 17 years old. Iowa, Michigan, and Missouri also had percentage-point decreases in the perception of smoking cannabis once a month as a great risk ranging from 1.7 to 7.4. Indiana and Wisconsin, non-legalizing states, show percentage-point increases in the perception of greatest risk for smoking once a month, 7.0 and 6.1, respectively. National estimates were similar to that of Illinois', with the perception of smoking cannabis once a month as a great risk decreasing from 22.7% in 2018–2019 to 20.8% in 2021–2022 (not shown in chart).

CORRESPONDENCE BETWEEN PAST MONTH USE AND PERCEIVED GREAT RISK OF SMOKING CANNABIS ONCE A MONTH FOR 12–17 YEAR OLDS (2015–2022)



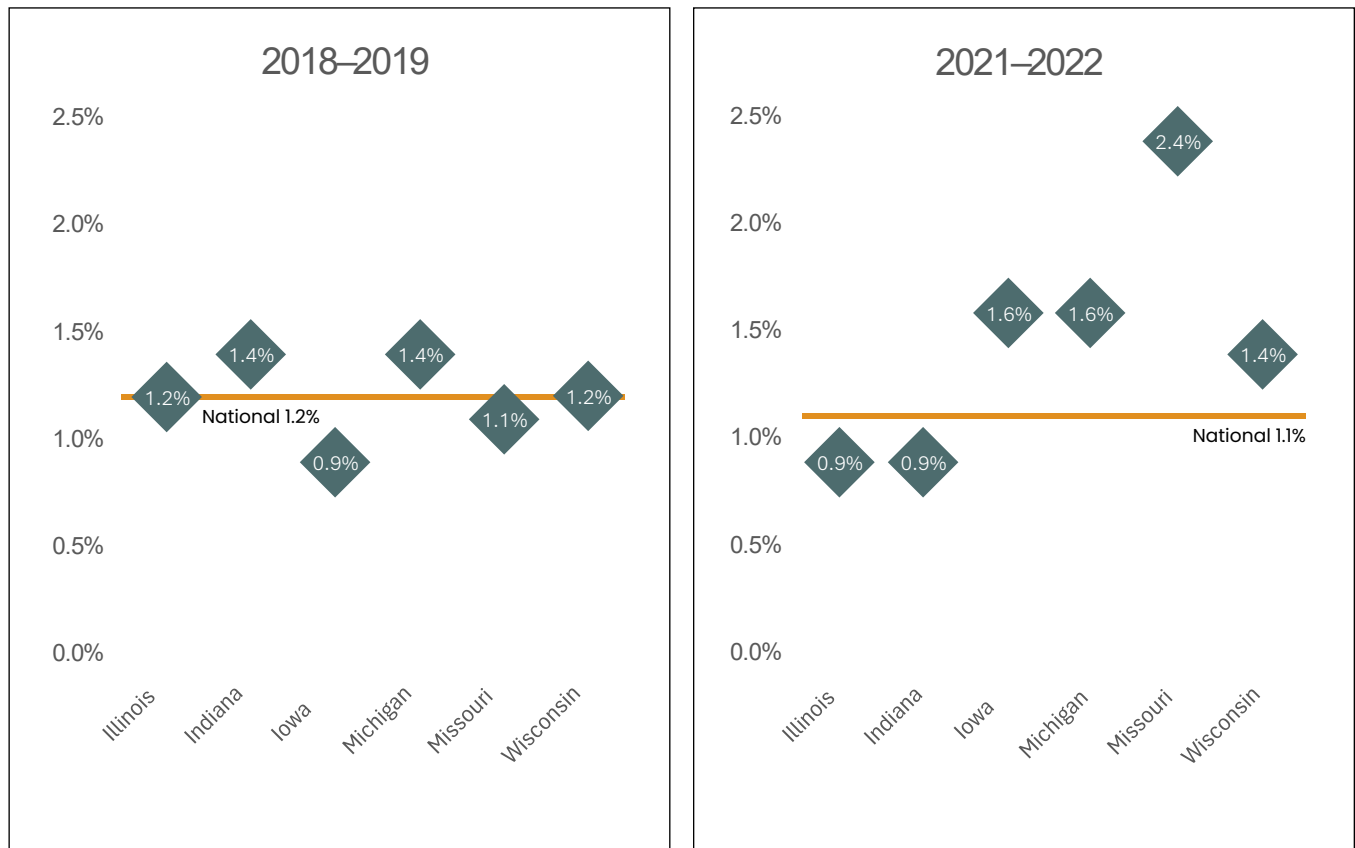
Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Past month cannabis use for 12–17 year olds has decreased 1.6 percentage-points from 2015–2016 to 2021–2022. Therefore, it does not appear that the lower perceived risk of smoking cannabis once a month has translated to an increase in use of smoking cannabis once a month. This corresponds to a 4.5 percentage-point decrease in perceived great risk of smoking cannabis once a month during the same time frame for 12 to 17-year-olds.

TRENDS IN ILLINOIS CANNABIS USE INCIDENCE AND PREVALENCE



PAST-YEAR CANNABIS USE INITIATION BY MIDWEST STATE OR NATIONALLY FOR RESIDENTS AGES 12 OR OLDER (2018–2022)

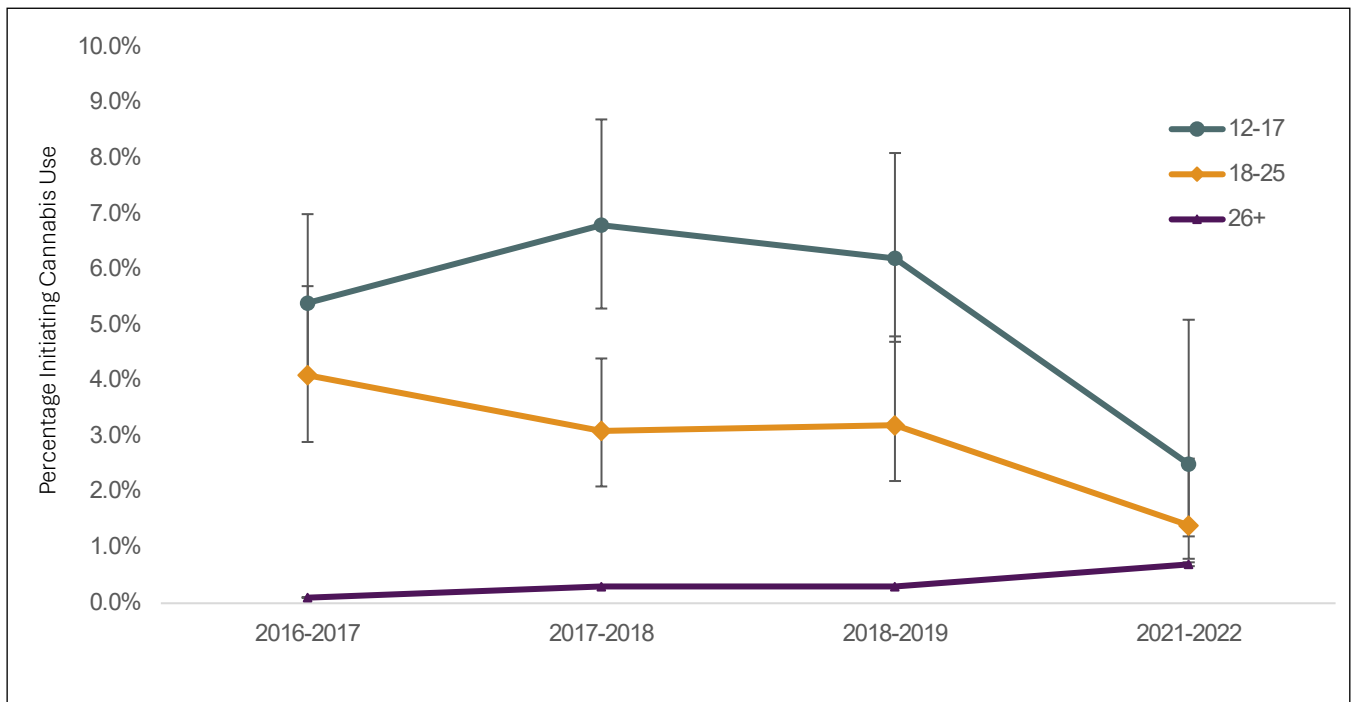


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observation and Notes: Overall, the national incidence of cannabis initiation declined slightly from 1.2% to 1.1%. Cannabis use initiation in Illinois declined from 1.2% in 2018–2019 to 0.9% in 2021–2022. In 2021–2022, Illinois initiation of cannabis use at 0.9% was below the national percentage and below all other neighboring Midwest states except Indiana.

A chi-square test comparing the states in 2021–2022 was marginally significant ($\chi^2(df=5,750) = 2.3, p < .05$). This is probably owing to the relatively higher percentages of cannabis initiation in Missouri, Wisconsin, Iowa, and Michigan compared with Illinois and Indiana. In Illinois, 0.9% translates to a population estimate of 99,000 (95% CI = 64,200 – 149,800) past-year cannabis initiators ages 12 or older.

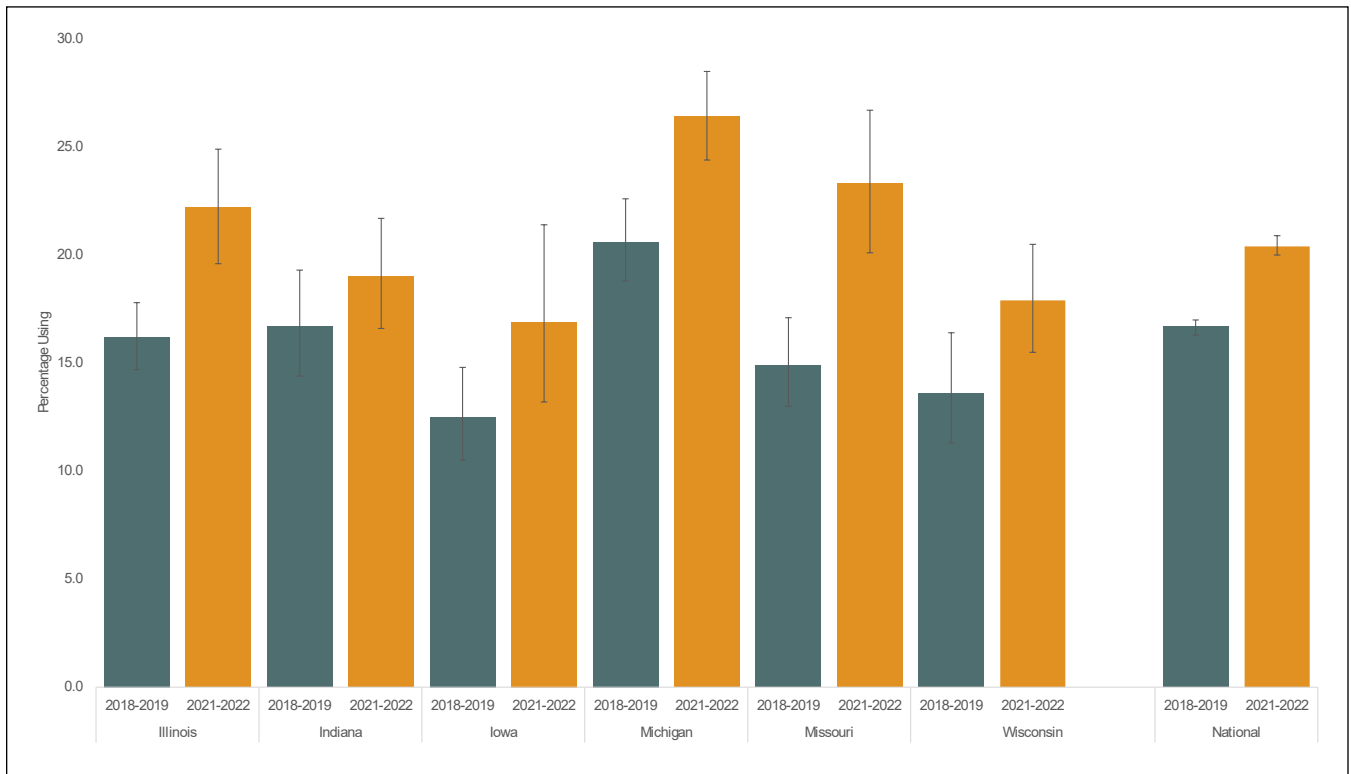
PAST-YEAR CANNABIS INITIATION BY AGE GROUP (2016–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observation and Notes: Past-year initiation of cannabis use declined among Illinois youth 12–17 years old from 6.8% (N = 68,000) in 2017–2018 to 6.2% in 2018–2019, and to 2.5% (N = 25,000) in 2021–2022. This change from 2017–2018 to 2021–2022 is statistically significant and reflects a 4.3 percentage-point decrease and a nearly 63 percent decrease. This finding is consistent with a recent national study showing cannabis initiation among youth in legalizing states has decreased post legalization.

PAST-YEAR CANNABIS USE AGES 12 OR OLDER BY MIDWEST STATE AND NATIONALLY (2018–2022)

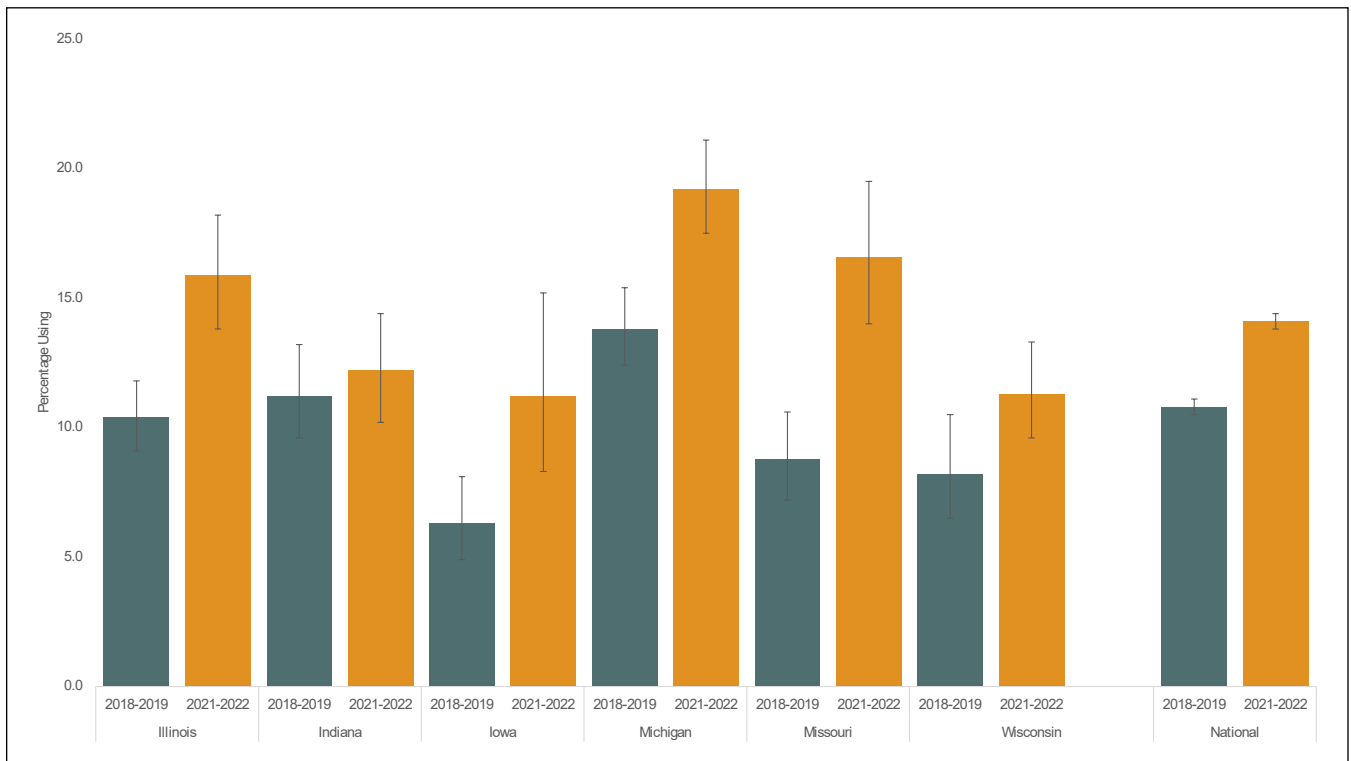


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Past-year cannabis use increased in Illinois and other Midwest states between 2018–2019 and 2021–2022. In Illinois, 16.2% (95% CI = 14.7 – 17.8) of residents ages 12 or older (N = 1,730,000) reported using cannabis at least once in the preceding year. This increased to 22.2% (95% CI = 19.6% – 24.9%; N = 2,371,000) in 2021–2022 indicating an increase of 641,000 Illinois residents reporting any past-year cannabis use in 2021–2022 compared with 2018–2019. The difference was statistically significant at $p < .05$.

Other Midwest states also had increases in past-year cannabis use with Missouri having the largest percentage-point difference of 8.4%. Past-year prevalence in Illinois was higher than the national estimate of 20.4% for past-year cannabis use in 2021–2022.

PAST-MONTH CANNABIS USE BY MIDWEST STATE AND NATIONALLY (2018–2022)



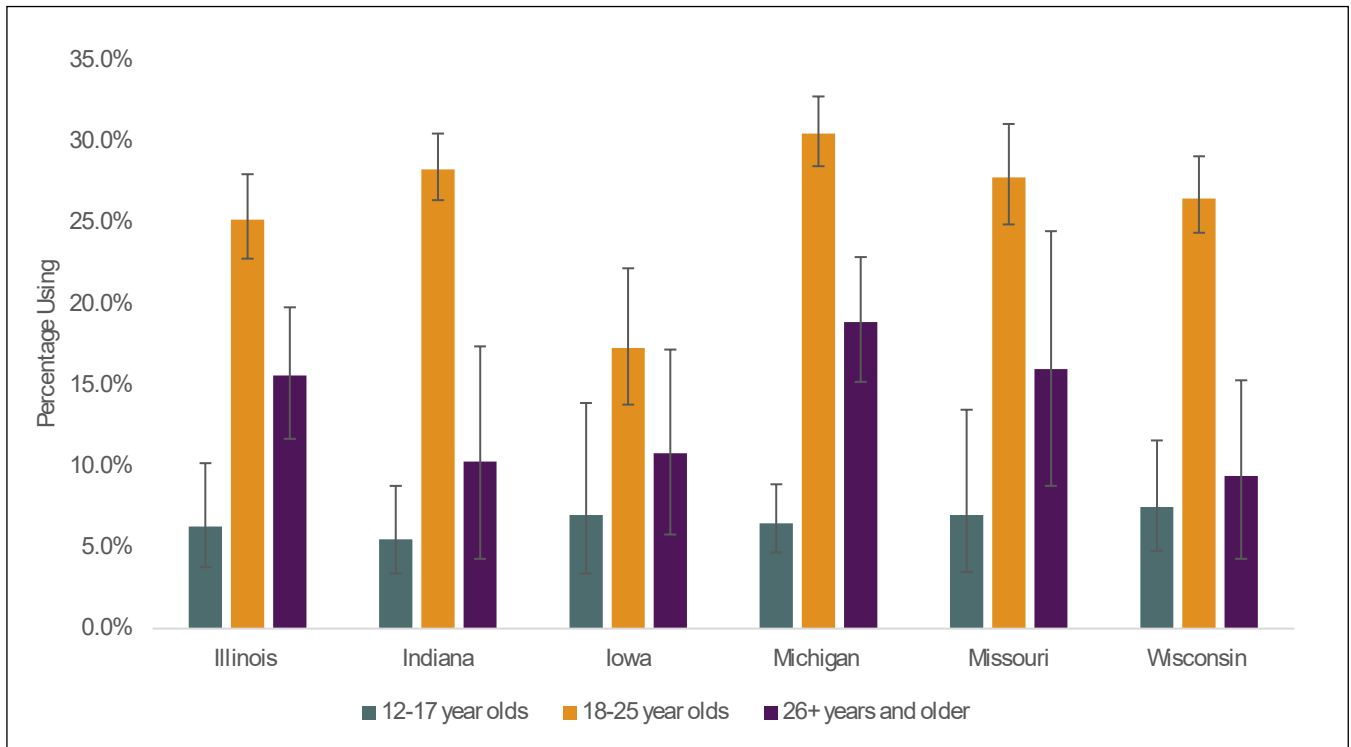
Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Illinois experienced a 5.5 percentage-point increase in past month cannabis use between 2018–2019 and 2021–2022. All other neighboring Midwest states also showed increased past-month cannabis use, with Michigan, Missouri, and Iowa having comparable percentage-point increases of 4.9% or greater.

The Illinois percentage-point increase in past-month prevalence of cannabis use was greater than the national percentage-point increase from 10.8% in 2018–2019 to 14.1% in 2021–2022.

Indiana and Michigan also showed decreases in past-year initiation by 2.7 and 2.6 percentage-points, respectively. Wisconsin, Missouri, and Iowa all showed increases in past-year initiation for 12 to 17-year-olds by 0.6% or greater.

PREVALENCE OF ANY PAST-MONTH CANNABIS USE BY AGE GROUP AND MIDWEST STATE (2021–2022)

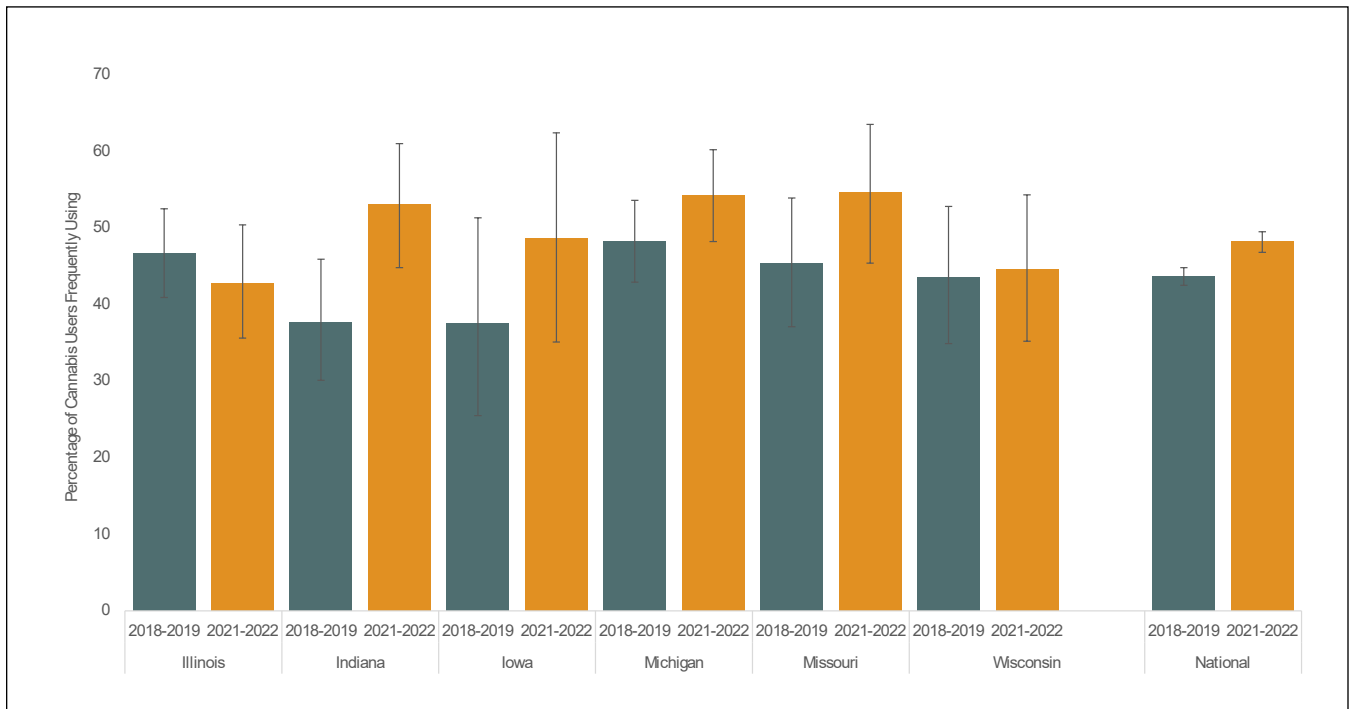


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: For all of the Midwest states considered and nationally, the prevalence of any past-month cannabis use was highest among individuals 18–25 years old. Illinois exhibits similar prevalence rates to national estimates across all age groups. Nationally, the prevalence of any past-month cannabis use for individuals 12–17 years old, 18–25 years old, and 26 years and older was 6.2%, 25.3%, and 13.3% (not shown on graph).

A chi-square test comparing the states in 2021–2022 was statistically significant (chi-square(df=750) = 79.9, $p < .001$). In Illinois, 6.3%, 25.2%, and 15.6% translate to population estimates of 63,000 (95% CI = 46,000 - 80,000), 325,000 (95% CI = 287,000 - 363,000), and 1,315,000 (95% CI = 1,173,000 - 1,457,000) past-month cannabis users.

FREQUENT PAST-MONTH CANNABIS USE AGES 12 OR OLDER BY MIDWEST STATE (2018–2022)

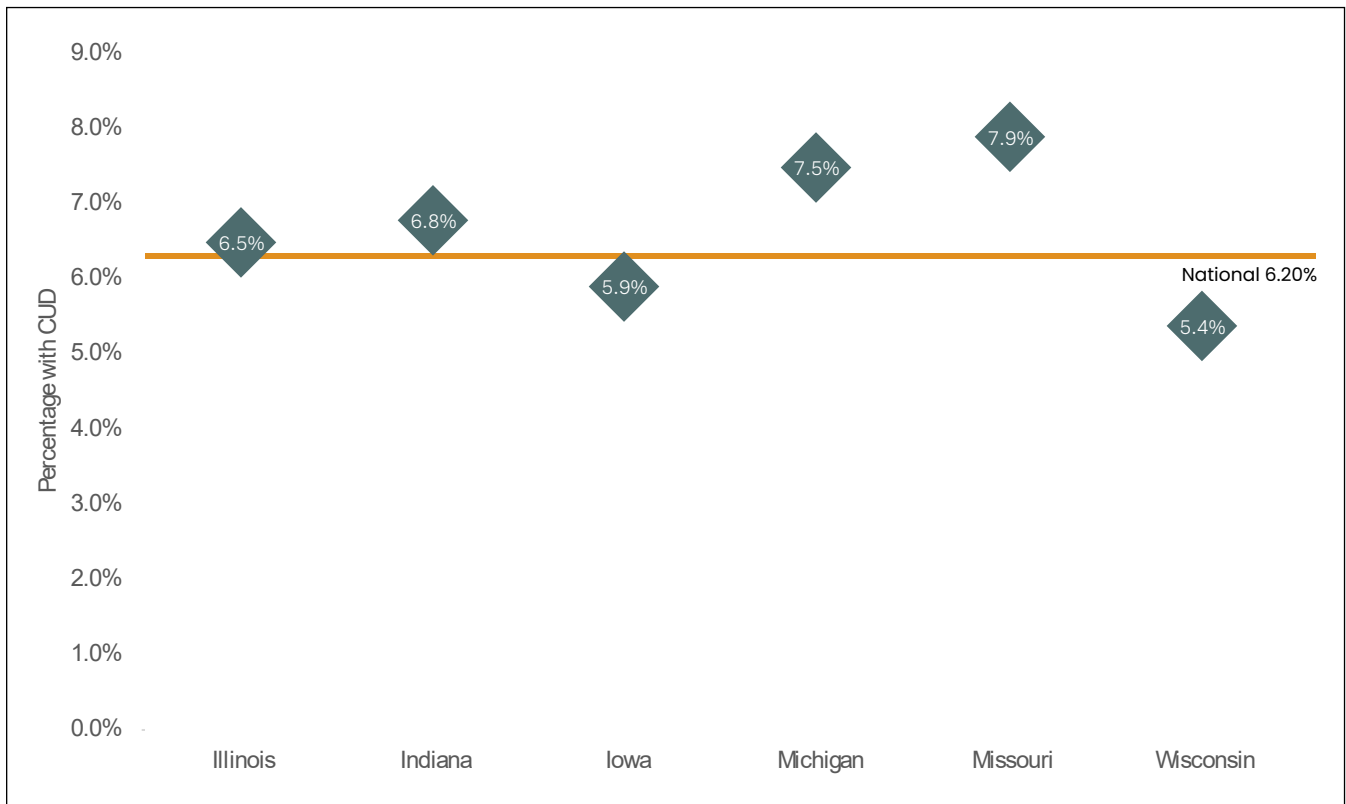


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Among Illinois cannabis users, there was a decrease from 46.7% reporting they used cannabis on 20 or more days in the past month in 2018–2019 to 42.8% in 2021–2022. This difference, however, was not statistically significant. The 42.8% figure translates to a population estimate of 729,000 Illinois residents ages 12 or older using cannabis on 20 or more days per month.

In contrast to the decrease in Illinois, all five neighboring Midwest states showed increases in frequent cannabis use in the past month, with frequent use increasing the most in Indiana, a non-legalizing state, though none of these percentage-point changes were statistically significant either. The percentage of past-year cannabis user reporting frequent use also increased nationally from 43.7% in 2018–2019 to 48.2% in 2021–2022.

PAST-YEAR CANNABIS USE DISORDER BY MIDWEST STATE (2021–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Past-year CUD in Illinois for 2021–2022 is estimated at 6.5% (95% CI = 5.2% to 8.0%) or 688,000 residents ages 12 or older. This prevalence is comparable to the national estimate of 6.2% (95% CI = 5.5% to 6.4%) and to the prevalence of CUD in neighboring Midwest states, which ranged from 5.4% (95% CI = 4.0% to 8.5%) in Wisconsin to 7.9% (95% CI = 5.8% to 10.6%).

CANNABIS USE TRENDS FOR ILLINOIS SUBPOPULATIONS



SUMMARY OF RESEARCH FINDINGS: PERINATAL CANNABIS USE

Study: Bassalov H, Yakirevich-Amir N, Reuveni I, et al. Prenatal cannabis exposure and the risk for neuropsychiatric anomalies in the offspring: A systematic review and meta-analysis. *Am J Obstet Gynecol.* 2024 Jun 20:S0002-9378(24)00682-3. doi: 10.1016/j.ajog.2024.06.014. Epub ahead of print.

Objective: To evaluate the association between cannabis use during pregnancy and the risk for long-term neuropsychiatric pathology in the offspring.

Methods: MEDLINE, EMBASE, and Cochrane library databases were systematically searched until January 22, 2024, with no language or date restrictions. Studies were eligible for inclusion if they reported quantitative data on any long-term neuropsychiatric outcome in offspring whose mothers used cannabis during pregnancy for medical or adult use, by any route and at any trimester, in comparison to offspring of women who abstained from cannabis use during pregnancy. All observational study designs were included in the analysis.

Data were extracted independently by two reviewers. The following offspring outcomes were of interest: attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), depression, anxiety, psychotic disorders, as well as cannabis and other substance use. Odds ratios (OR) and 95% confidence intervals (CI) were pooled for each neuropsychiatric outcome in the offspring of women exposed to cannabis during pregnancy compared with non-exposed. Data were pooled using random-effects models.

Results: 18 eligible observational studies were included in the systematic review, and 17 were included in the final quantitative analysis, representing 534,445 participants. After adjusting for confounders, the pooled OR for ADHD was 1.13 (95% CI 1.01-1.26); for ASD, the pooled OR was 1.04 (95% CI 0.74-1.46); for psychotic symptoms, the pooled OR was 1.29 (95% CI 0.97-1.72); for anxiety, the pooled OR was 1.34 (95% CI 0.79-2.29); for depression, the pooled OR was 0.72 (95% CI 0.11-4.57); and for offspring's cannabis use the pooled OR was 1.20 (95% CI 1.01-1.42).

Conclusions: Prenatal cannabis exposure is not associated with an increased risk of ASD, psychotic symptoms, anxiety, or depression in offspring. However, it may slightly elevate the risk of ADHD and predispose offspring to cannabis consumption. Despite these findings, caution is warranted regarding cannabis use during pregnancy. Further research is imperative, especially given the increasing potency of cannabis in recent years.

PERINATAL CANNABIS SURVEY

Study: Franceschini, D. & Swartz, J.A. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

Objective: The primary objective was to explore prevalence and perceptions of cannabis use among pregnant and breastfeeding women. The aim of this research was to determine whether pregnant or breastfeeding women are using cannabis, the extent of their use, and reasons for use. A secondary aim was to determine whether certain indicators, such as past experiences of abuse and demographic characteristics, are associated with cannabis use during pregnancy. A final aim was to determine whether pregnancy or breastfeeding women are receiving guidance from healthcare providers or other entities (e.g. social media, family, and friends, etc.) on the effects of cannabis use during pregnancy and lactation.

Methodology: Women between the ages of 18–50 that live in the state of Illinois and are either currently pregnant or were pregnant within the last 12 months were invited to participate in the survey. Participants completed the survey within REDCap. A survey panel and outreach methods were used to recruit participants. Outreach was conducted via social media, as well as to entities across the state that serve perinatal women. Stata Corp 18 was used to analyze the data. Statistical significance was determined using multinomial logistic regression for all categorical variables. Only variables with $p < 0.01$ were retained in the model, and BIC was used for model prediction and selection.

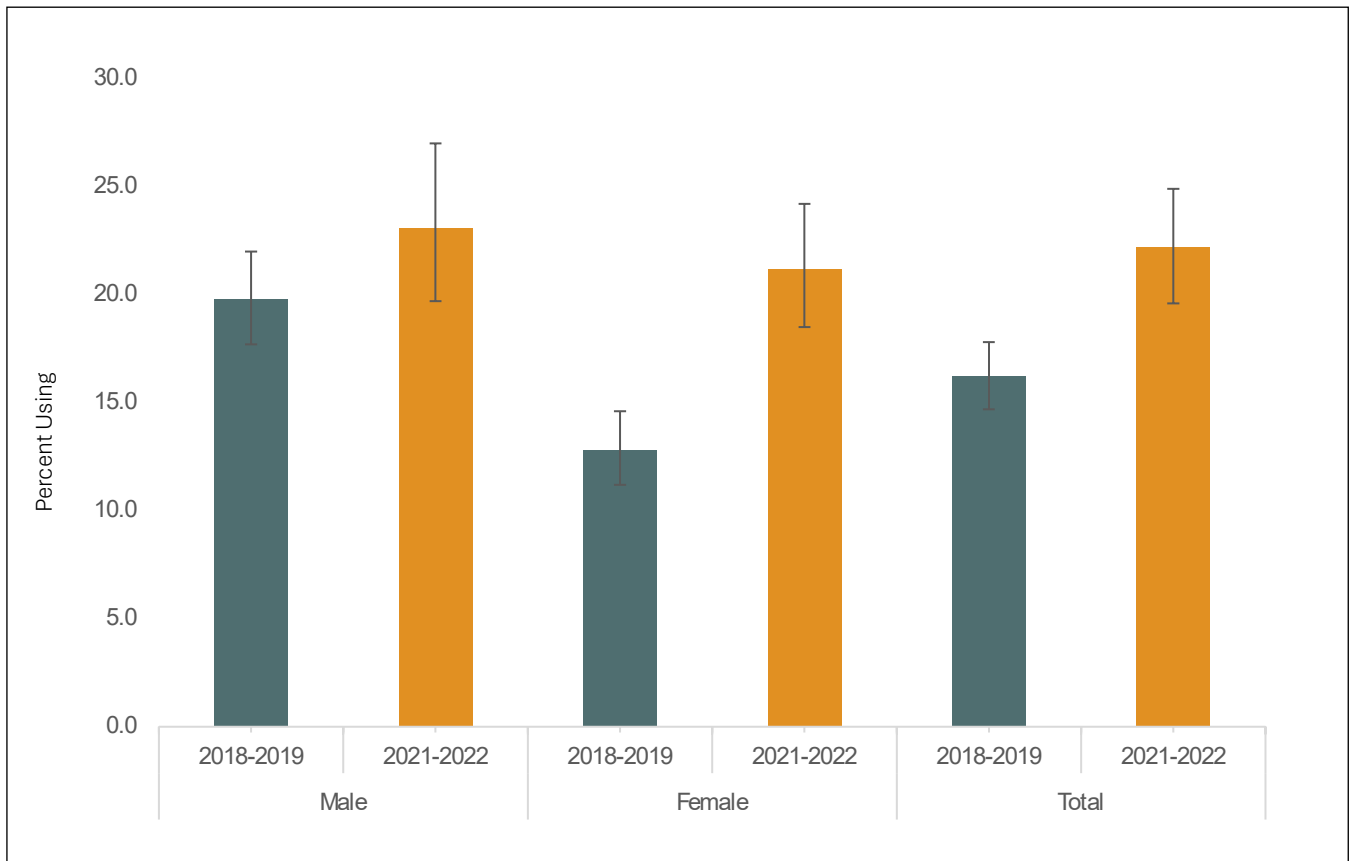
Results: Perinatal cannabis users with medical cards were: 6.7 times more likely to have Tricare insurance, an assistance program, or other insurance; 4.7 times more likely to have severe psychological distress; 2.1 times more likely to have experienced any abuse; 3.0 times more likely to have had lifetime alcohol use; and 11.2 times more likely to have been recruited via outreach. Perinatal cannabis users with medical cards were 3.4 times more likely to be between 36 and 55 years old, 2.5 times more likely to have been between 31 to 35 years old, and 2.3 times more likely to have been between 26 and 30 years old. Additionally, perinatal cannabis users with medical cards were: 70% less likely to have been multi-raced; 50% less likely to have graduated college or have a graduate/professional degree; 70% less likely to be single, married, or other relationship status; and 80% less likely to have had lifetime inhalant use. Perinatal cannabis users without medical cards were: 5.8 times more likely to have Tricare insurance, an assistance program, or other insurance; 2.4 times more likely to have severe psychological distress; 1.5 times more likely to have experienced any abuse; 2.3 times more likely to have had lifetime alcohol use; 1.6 times more likely to be living with a partner; and 3.8 times more likely to have been recruited via outreach. Additionally, perinatal cannabis users without medical cards were 70% less likely to have been multi-raced, 70% less likely to have graduated college or have a graduate/professional degree, and 80% less likely to have had lifetime inhalant use.

PERINATAL CANNABIS SURVEY (CONTINUED)

Limitations: Survey participants constituted a convenience sample, and were recruited via an online panel and by outreach to Illinois women using Facebook and community-based organizations. Consequently, the results may not be generalizable to Illinois perinatal women.

Conclusion: Perinatal cannabis users, both with and without medical cards, are more likely to have mental health conditions, have experienced abuse, and have experience with lifetime alcohol use compared to perinatal women who did not use cannabis. More research is needed to understand the correlation between perinatal cannabis use and the aforementioned indicators. Perinatal women may be experiencing other adverse experiences and conditions that influence use. Programming is needed to support and educate perinatal women.

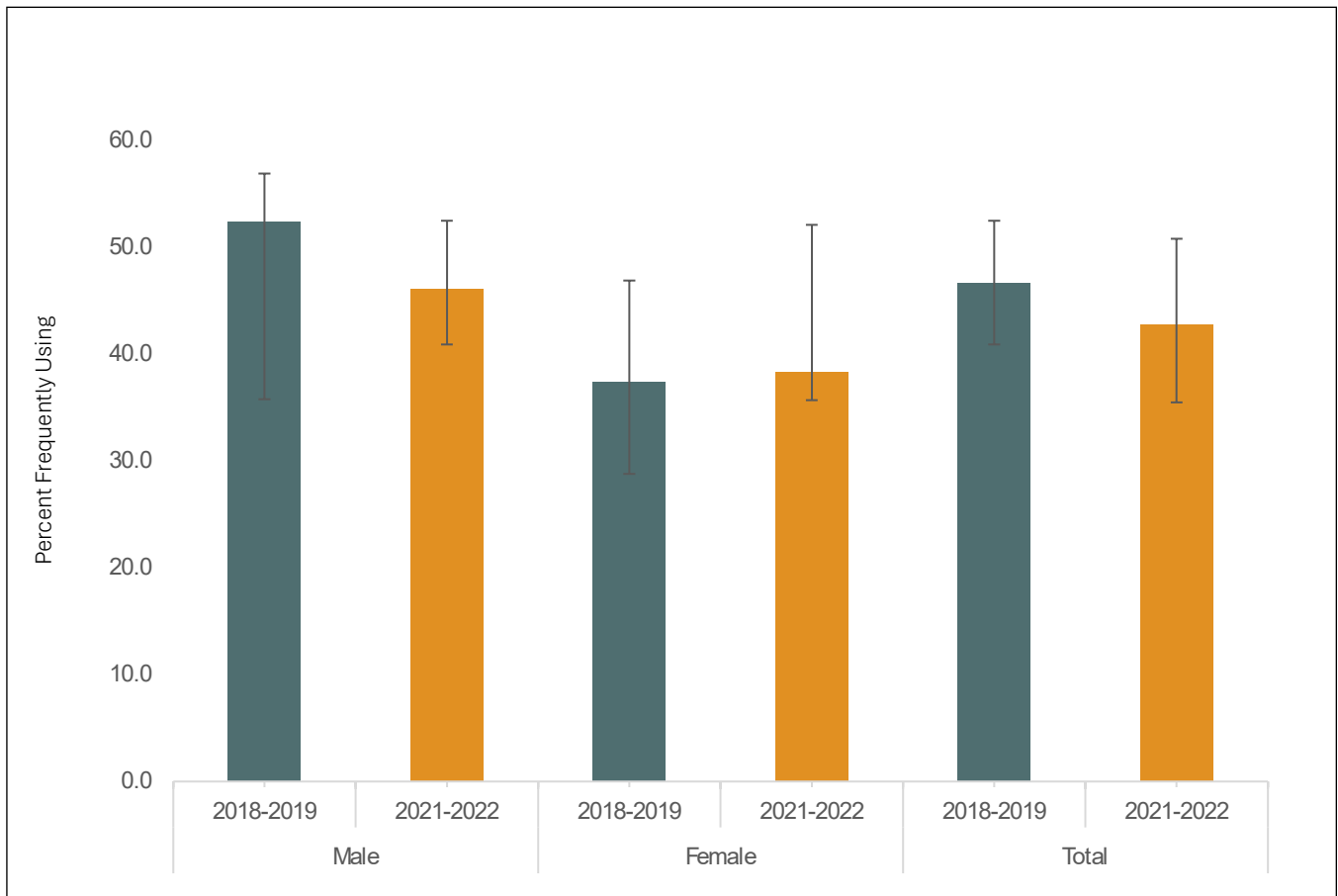
ANY PAST-YEAR CANNABIS USE BY GENDER (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: The number of persons using cannabis in the past year increased for both males and females between 2018–2019 and 2020–2021. The number of males using cannabis at least once in the past year in 2021 was 1,213,000 (23.1%), and the number of females was 1,159,000 (21.2%). These reflect a 16.7% increase for males and a 65.6% increase for females. In total, 2,371,000 Illinois residents, or 22.2% of the population ages 12 or older, used cannabis at least once in the past year.

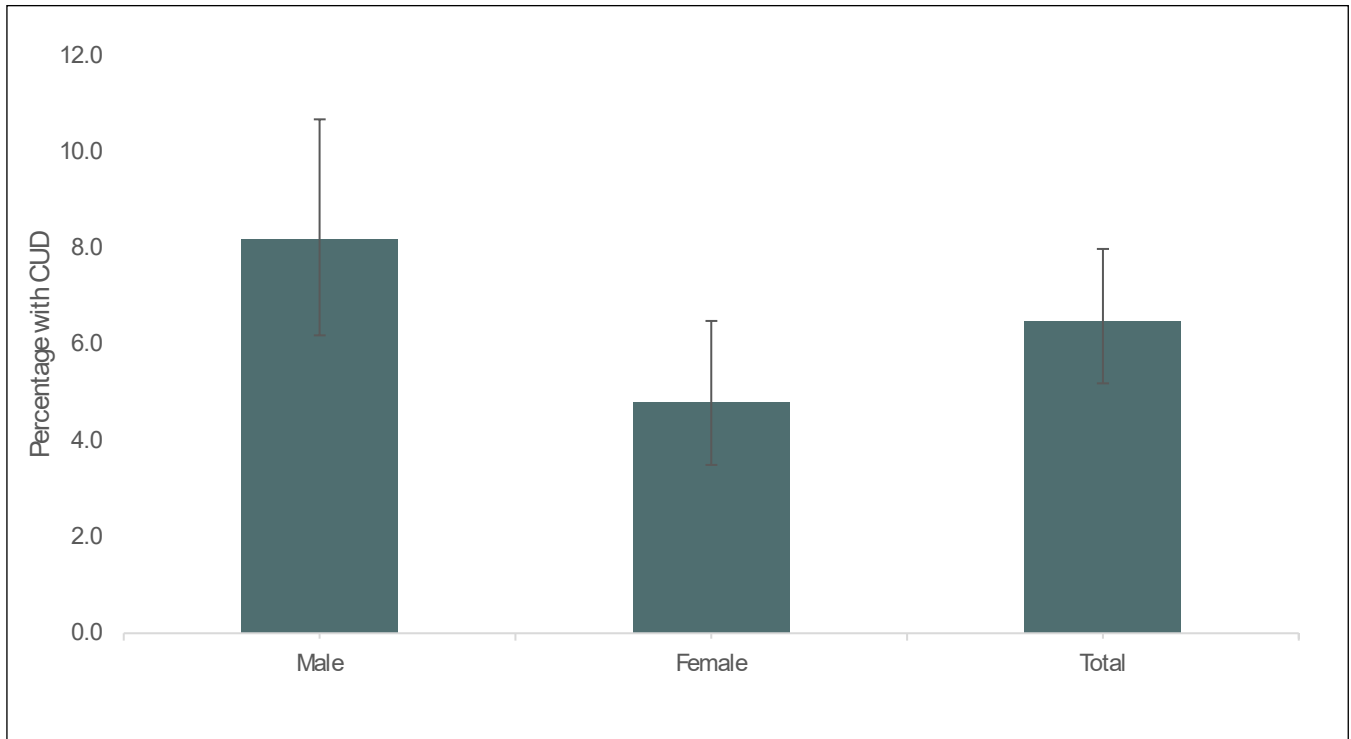
FREQUENT PAST-MONTH CANNABIS USE BY GENDER AMONG PAST-YEAR CANNABIS USERS (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Frequent cannabis use, defined as using on 20 or more days in the past 30, decreased from 2018–2019 to 2021–2022 for males and only slightly increased for females. This difference was not significantly different (chi-square (df=1,750) = 1.26, p = .26). The number of past-month frequent male cannabis users is estimated at N = 451,000 and at N = 279,000 for females. The percentage decrease for males was -13.7%, and the percentage increase was 2.3% for females. Because more Illinois residents were using cannabis, the number of frequent users increased even though the proportion of all cannabis users who used it frequently decreased.

PAST-YEAR CANNABIS USE DISORDER BY GENDER (2021–2022)

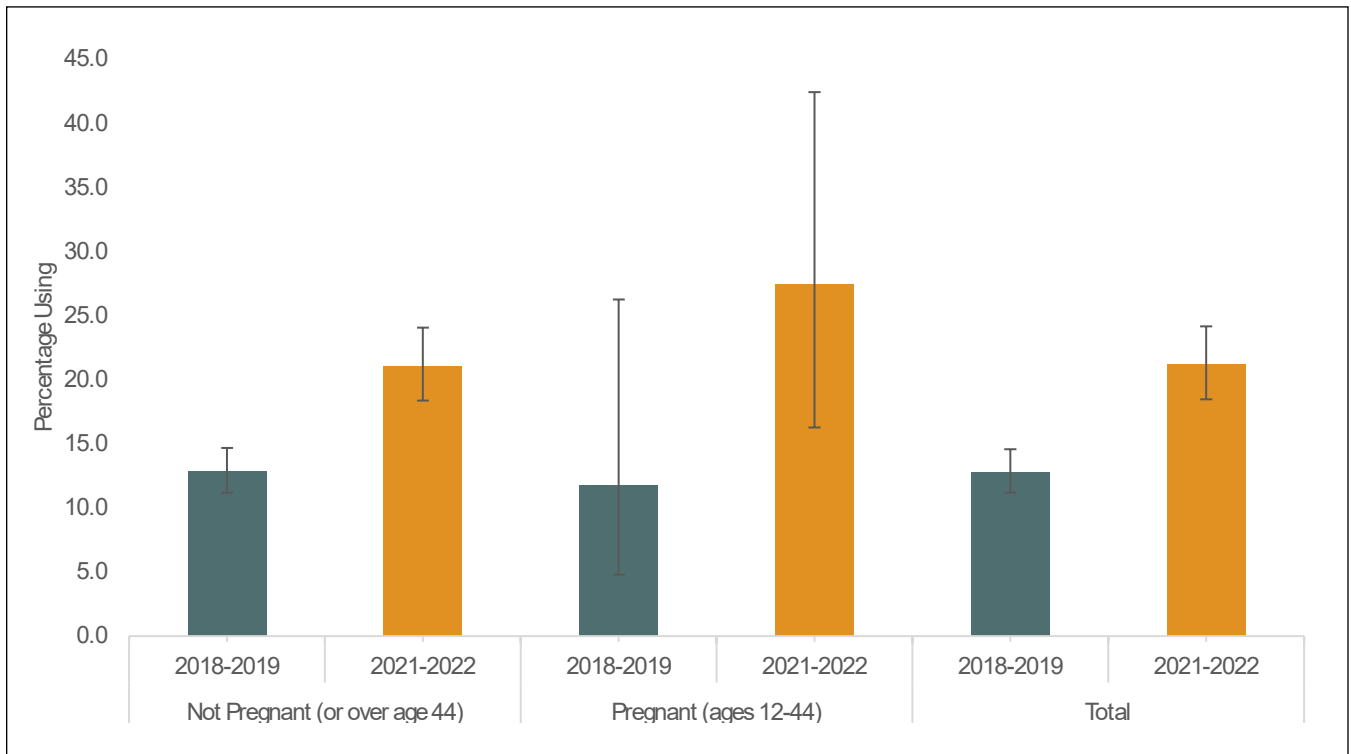


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Men (8.2%, N = 427,000) were almost twice as likely to meet DSM-5 criteria for a past-year cannabis use disorder compared with women (4.8%, N = 281,000). This difference was marginally statistically significant (chi-square (df = 1,750) = 2.6, p = .05).

Comparisons with previous years of NSDUH data are not available as DSM-IV criteria were used to assess substance use disorders prior to 2021.

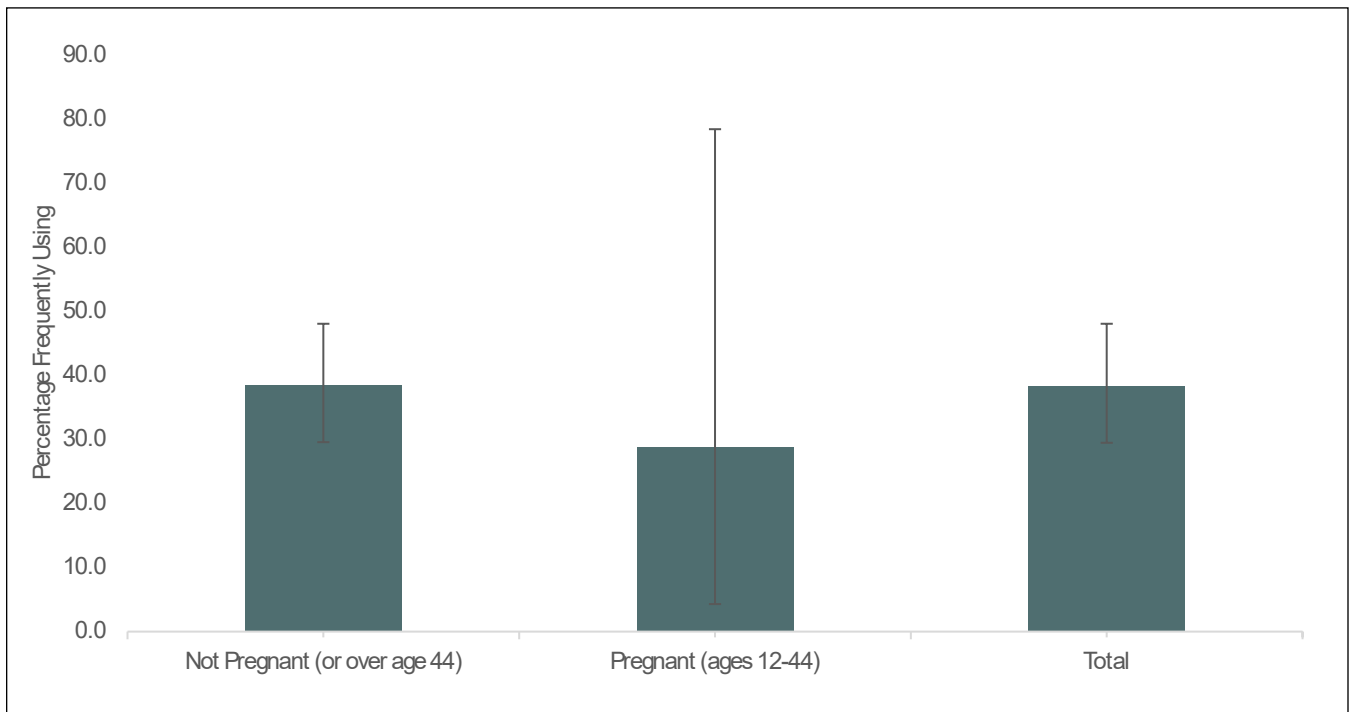
ANY PAST-YEAR CANNABIS USE BY PREGNANCY STATUS (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: The number of women, regardless of pregnancy status, who reported any cannabis use in the past year showed a general increase from 12.8% (N = 706,000) in 2018–2019 to 21.2% (N = 1,158,000) in 2021–2022. This represents a 64% increase in cannabis use among women ages 12 or older in Illinois. The increase in use was especially pronounced among pregnant women ages 12–44, with an estimated 11.8% prevalence in 2018–2019 that increased to 27.5% in 2021–2022 for a 133% percentage increase and a 15.7 percentage-point increase. By comparison, the percentage increase for non-pregnant women or women over age 44 was 63.6%, and the percentage-point increase was 8.2%. Because of the very large confidence intervals around the estimates for pregnant women, the increase in point prevalence was not statistically significant.

FREQUENT PAST-MONTH CANNABIS USE BY PREGNANCY STATUS AMONG PAST-YEAR CANNABIS USERS (2018–2022)

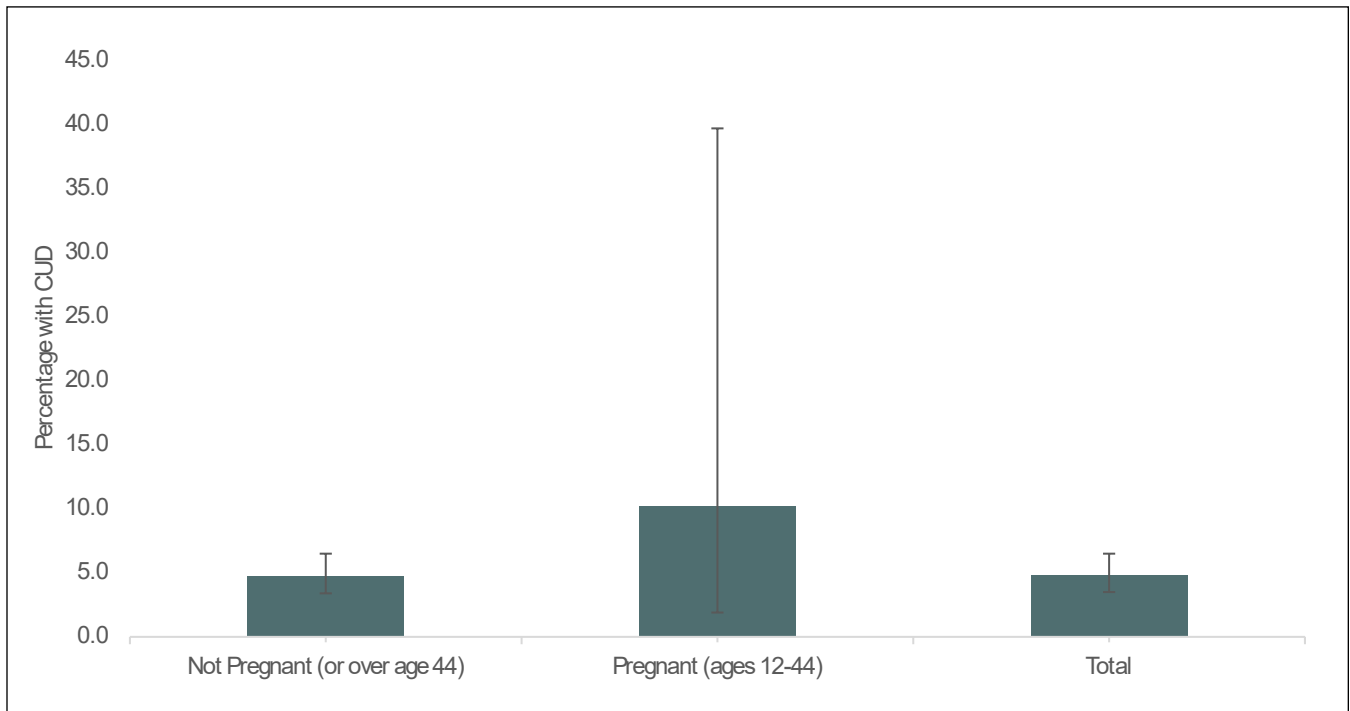


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Frequent cannabis use, defined as using on 20 or more days in the past 30, was lower among pregnant women ages 12–44 (28.8%, N = 3,000) compared to non-pregnant women or women older than 44 years of age (38.5%, N = 279,000). While this difference was not statistically significant ($df = 1, 750$) = 0.13, $p = .720$) the results do indicate a substantial proportion of pregnant women in Illinois report frequent past-month cannabis use during their pregnancy.

Data for 2018–2019 were not available owing to suppression rules.

PAST-YEAR CANNABIS USE DISORDER BY PREGNANCY STATUS (2021–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Just over 10.0% (N = 9,000) of women ages 12 to 44 who were pregnant at the time of the survey met the criteria for a DSM-5 cannabis use disorder compared with 4.7% (N = 252,000) of women who were not pregnant or older than 44 years. However, because of the relatively small number of pregnant women surveyed and the resulting large 95% confidence interval (1.9% to 39.7%), this difference was not statistically significant (chi-square (df = 1,750) = 0.46, p = .500).

Comparisons with previous years of NSDUH data are not available as DSM-IV criteria were used to assess substance use disorders before 2021.

PERINATAL CANNABIS USE DEMOGRAPHICS (2024)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use without Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Gender					**
Female	99.2	96.7	99.7	98.9	
Transgender/Other	0.8	2.3	0.3	1.1	
Age¹					***
18–25 Years Old	28.3	9.5	20.0	21.1	
26–30 Years Old	30.5	38.0	37.1	34.7	
31–35 Years Old	25.1	35.7	30.7	29.6	
36–55 Years Old	16.1	16.8	12.2	14.6	
Race					***
White	48.7	64.4	55.9	54.8	
Black/African American	21.4	20.6	28.3	26.2	
Multi-Race	11.6	6.1	4.8	7.7	
Other	18.3	8.9	11.0	13.3	
Relationship Status					***
Married	56.0	80.6	52.8	59.4	
Living With Partner	22.0	13.3	30.1	23.7	
Single/Never Married/Other	22.0	6.1	17.1	16.8	
Education Level					***
HS, GED, or less	27.0	24.4	37.2	30.9	
Some College/ Associate's Degree	31.8	33.3	38.5	35.0	
Graduated College/Graduate or Professional Degree	41.1	42.2	24.2	34.2	
Employment Status					***
Not Working/Student	15.2	8.3	12.2	12.6	
Part-Time	19.4	23.9	22.5	21.6	
Full-Time	42.0	62.2	51.5	50.0	
Other	23.4	5.6	13.8	15.8	

PERINATAL CANNABIS USE DEMOGRAPHICS (2024) (CONTINUED)

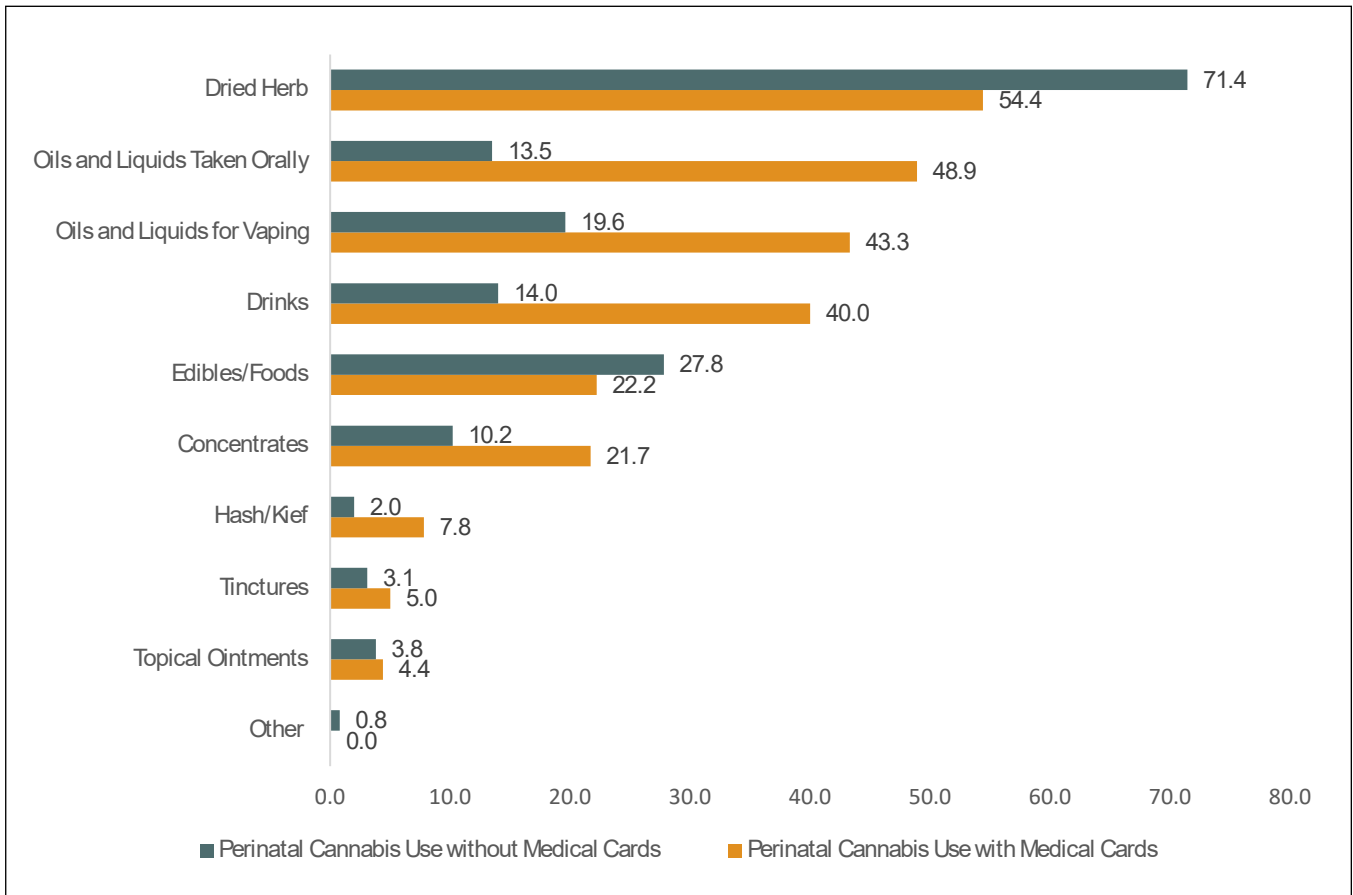
	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use without Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Income					***
< \$34,999/year	27.0	18.9	17.1	21.3	
\$35,000–74,999/year	29.6	58.9	52.3	44.9	
\$75,000/year or more	43.4	22.2	30.6	33.9	
Insurance Status					***
Medicare	19.7	17.2	9.7	15.0	
Medicaid	28.7	23.3	20.1	24.1	
Private Insurance/Employer	48.5	38.9	60.0	51.5	
Tricare/Assistance Program/Other	3.1	20.6	10.2	9.4	
Pregnancy Term					***
First Trimester	9.3	22.8	17.9	15.5	
Second Trimester	29.6	40.5	18.6	27.1	
Third Trimester	15.2	21.7	16.6	17.0	
Post-Partum	43.4	14.4	44.6	38.3	
Uncertain	2.5	0.6	2.3	2.1	
Severe Psychological Distress					***
No/Low Distress	22.3	17.8	27.0	23.4	
Moderate Distress	59.4	37.8	48.7	50.7	
Severe Distress	18.3	44.4	24.3	25.9	

i: Sample size for age was 924 participants due to missing/incorrect data for 3 participants

Observations and Notes: Perinatal cannabis users with medical cards tended to be older, married, white, working full-time, making between \$35,000–74,999 per year, on Tricare, an assistance program or other insurance, in their second trimester, and have severe psychological distress. Perinatal cannabis users without medical cards tended to have some college or an associate’s degree, have private or employer-sponsored insurance, be post-partum, and have moderate psychological distress.

Results are based on the perinatal cannabis survey administered by UIC evaluators. Statistical significance was determined using the chi-square test for all categorical variables. **= $p < 0.01$; *** = $p < .001$; NS = non-significant

PERINATAL CANNABIS MODES OF USE (2024)



Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

Observations and Notes: For pregnant and breastfeeding women who indicated using cannabis, perinatal cannabis users without medical cards preferred dried herb (71.4%) compared to perinatal users with medical cards (54.4%) ($p < 0.01$). However, compared to perinatal users without medical cards, perinatal users with medical cards preferred using oils and liquids taken orally (48.9%), oils and liquids for vaping (43.3%), drinks (40.0%), concentrates (21.7%), and hash/kief (7.8%) ($p < 0.01$). Chi-squared tests were used to determine statistically significant differences between groups.

594 women in the sample indicated that they used cannabis while pregnant or breastfeeding, and they had the ability to select multiple modes of use.

PERINATAL CANNABIS USE FREQUENCY (2024)

	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use without Medical Cards (N=392)	Total (N=572)	Sig
	Percent	Percent	Percent	
Before Pregnancy				***
Daily	15.6	18.9	17.8	
Weekly	59.4	40.1	46.2	
Monthly	22.8	33.7	30.2	
Did Not Use	2.2	7.4	5.8	
First Trimester				***
Daily	12.2	9.7	10.5	
Weekly	58.3	39.0	45.1	
Monthly	15.6	21.2	19.4	
Did Not Use	13.9	30.1	25.0	
Second Trimester				***
Daily	9.2	7.9	8.3	
Weekly	60.4	37.4	44.8	
Monthly	15.2	14.1	14.5	
Did Not Use	15.2	40.6	32.3	
Third Trimester				***
Daily	9.1	7.8	8.2	
Weekly	67.1	41.7	50.2	
Monthly	16.1	15.9	16.0	
Did Not Use	7.7	34.6	25.6	
Postpartum				***
Daily	14.4	9.3	11.1	
Weekly	64.0	43.2	50.5	
Monthly	16.6	18.5	17.8	
Did Not Use	5.0	29.0	20.6	

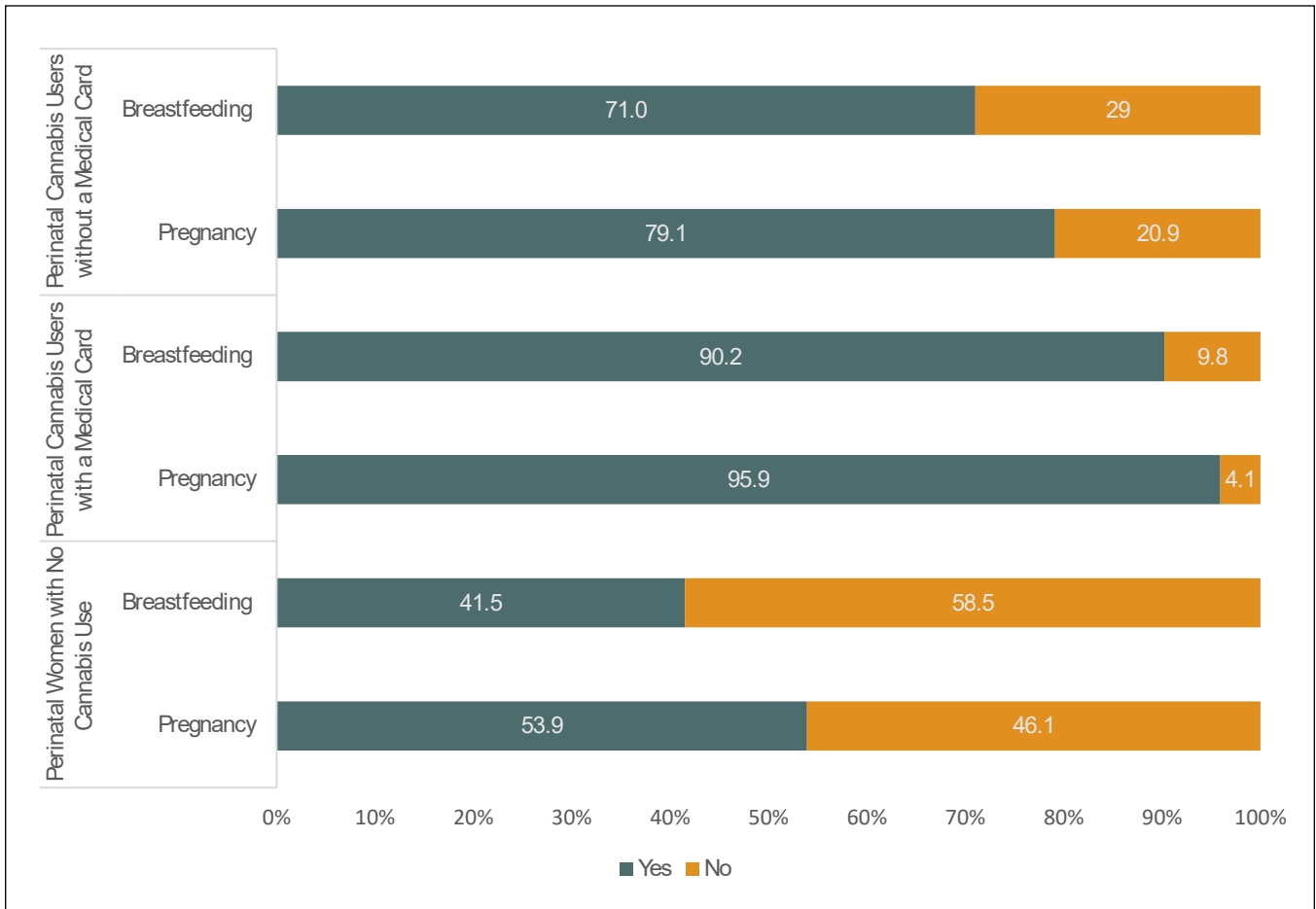
Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

PERINATAL CANNABIS USE FREQUENCY (2024) (CONTINUED)

Observations and Notes: Perinatal cannabis users, both with and without medical cards, tended to use cannabis weekly both before, during, and after pregnancy. However, perinatal cannabis users without medical cards tended to not use cannabis during pregnancy and while breastfeeding compared to medical card holders.

Results are based on the perinatal cannabis survey administered by UIC evaluators. 594 women in the sample indicated that they used cannabis while pregnant or breastfeeding. Statistical significance was determined using the chi-square test for all categorical variables. *** = $p < .001$

PROVIDER DISCUSSED USING CANNABIS WHILE PREGNANT OR BREASTFEEDING (2024)



Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

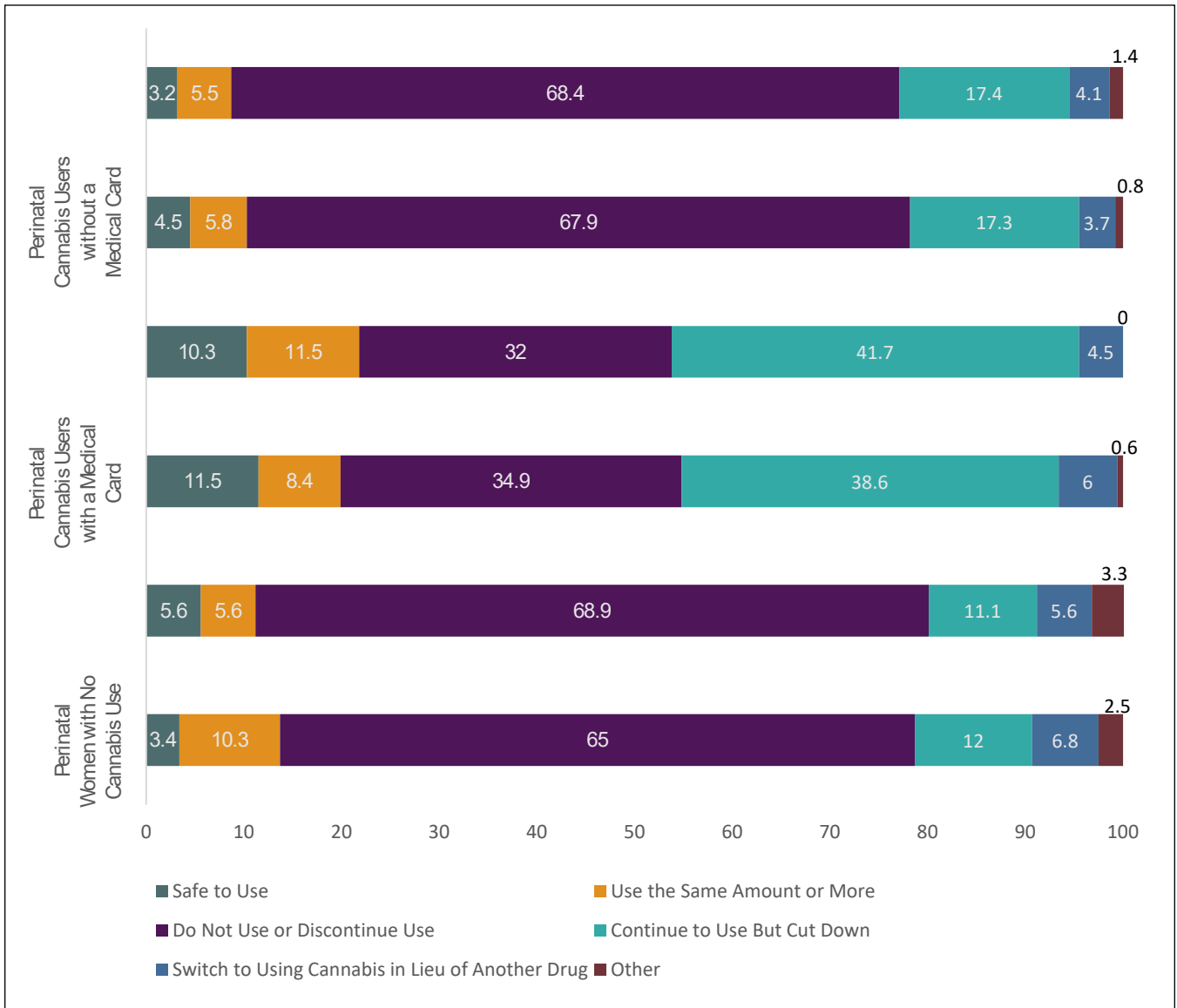
Observations and Notes: 75% of participants indicated that their healthcare provider discussed substance use with them (not shown in the chart). For perinatal cannabis users with medical cards, a healthcare provider discussed cannabis use during pregnancy and while breastfeeding with 95.9% and 90.2% of those users, respectively. For perinatal cannabis users without medical cards, a healthcare provider discussed cannabis use during pregnancy and while breastfeeding with 79.1% and 71.0% of those users, respectively. Though healthcare providers generally advised discontinuing cannabis use while pregnant or breastfeeding, for perinatal cannabis users with medical cards, providers tended

PROVIDER DISCUSSED USING CANNABIS WHILE PREGNANT OR BREASTFEEDING (2024) (CONTINUED)

to advise them to continue to use but cut down during pregnancy (38.6%) and while breastfeeding (41.7%) ($p < 0.001$).

565 women in the sample indicated that their provider gave cannabis use advice cannabis while pregnant. 513 women in the sample indicated that their provider gave cannabis use advice cannabis while breastfeeding. Results are based on the perinatal cannabis survey administered by UIC evaluators. Statistical significance was determined using the chi-square test for all categorical variables. * = $p < 0.05$; ** = $p < 0.01$; *** = $p < .001$; NS = non-significant

PERINATAL CANNABIS USE HEALTHCARE PROVIDER ADVICE (2024)



Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

CHARACTERISTICS OF PERINATAL CANNABIS USE (2024)

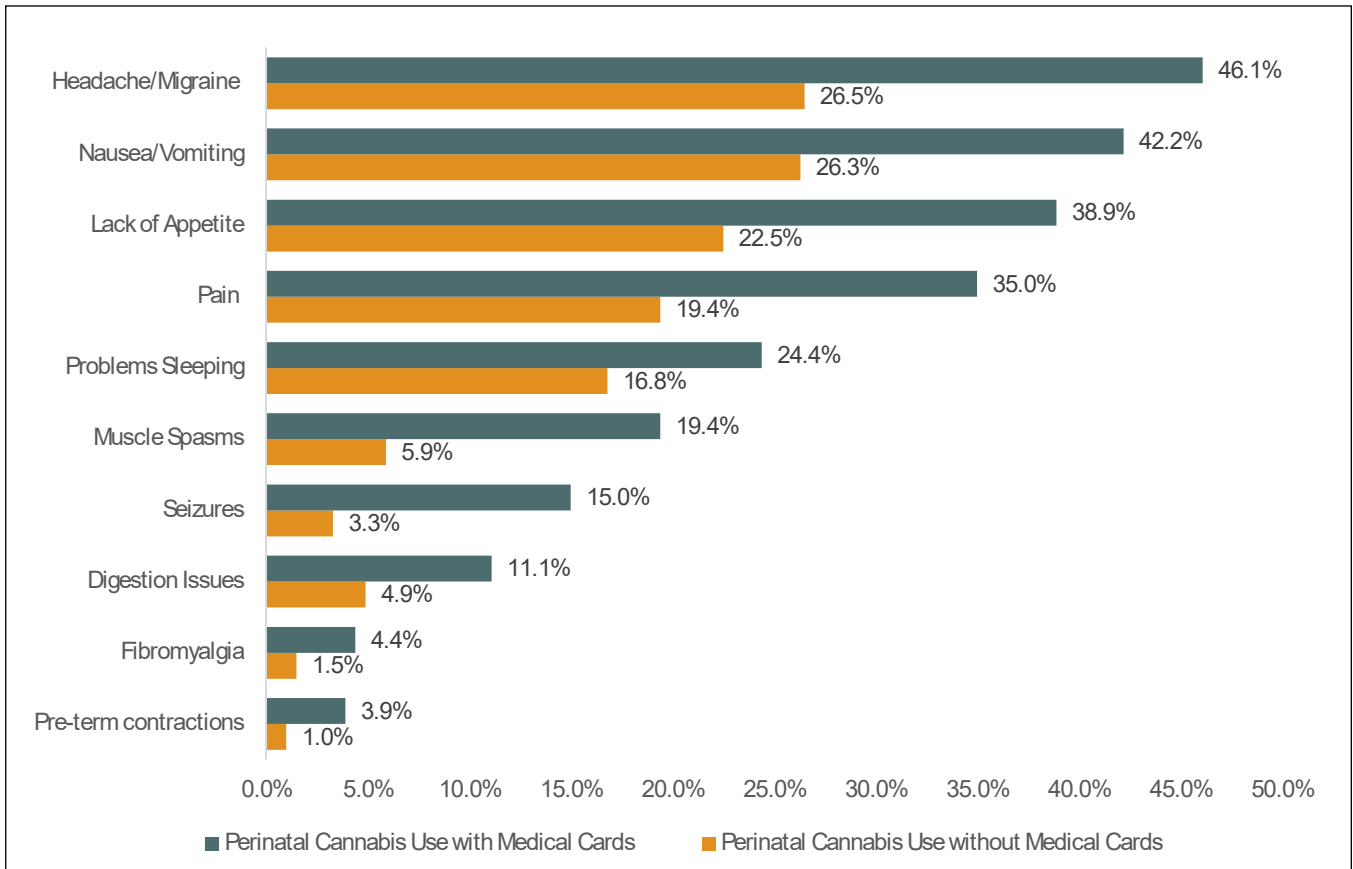
	Perinatal Cannabis Use with Medical Card (N=180)	Perinatal Cannabis Use without a Medical Card (N=392)	Total (N=572)	Sig
	Percent	Percent	Percent	
Medical Card				
Yes	31.5	-	-	
No, but planning to obtain	-	41.6	-	
No, and I do not plan to obtain	-	26.9	-	
Stopped or Cut Down When Found Out Pregnant				**
Yes	90.0	79.1	82.5	
No	10.0	20.1	17.0	
Other	0.0	0.8	0.5	
Stopped or Cut Down While Breastfeeding				NS
Yes	82.8	74.5	77.1	
Unsure	13.3	15.3	14.7	
Not Applicable	3.9	9.9	8.0	
Other	0	0.3	0.2	

Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

Observations and Notes: 31.5% of respondents indicated that they had a medical card. Perinatal cannabis users with medical cards tended to stop or cut down cannabis use when they found out they were pregnant (90.0%) in comparison to perinatal cannabis users without medical care (79.1%) ($p < 0.01$).

Results are based on the perinatal cannabis survey administered by UIC evaluators. Statistical significance was determined using the chi-square test for all categorical variables. **= $p < 0.01$

MEDICAL REASONS FOR PERINATAL CANNABIS USE (2024)

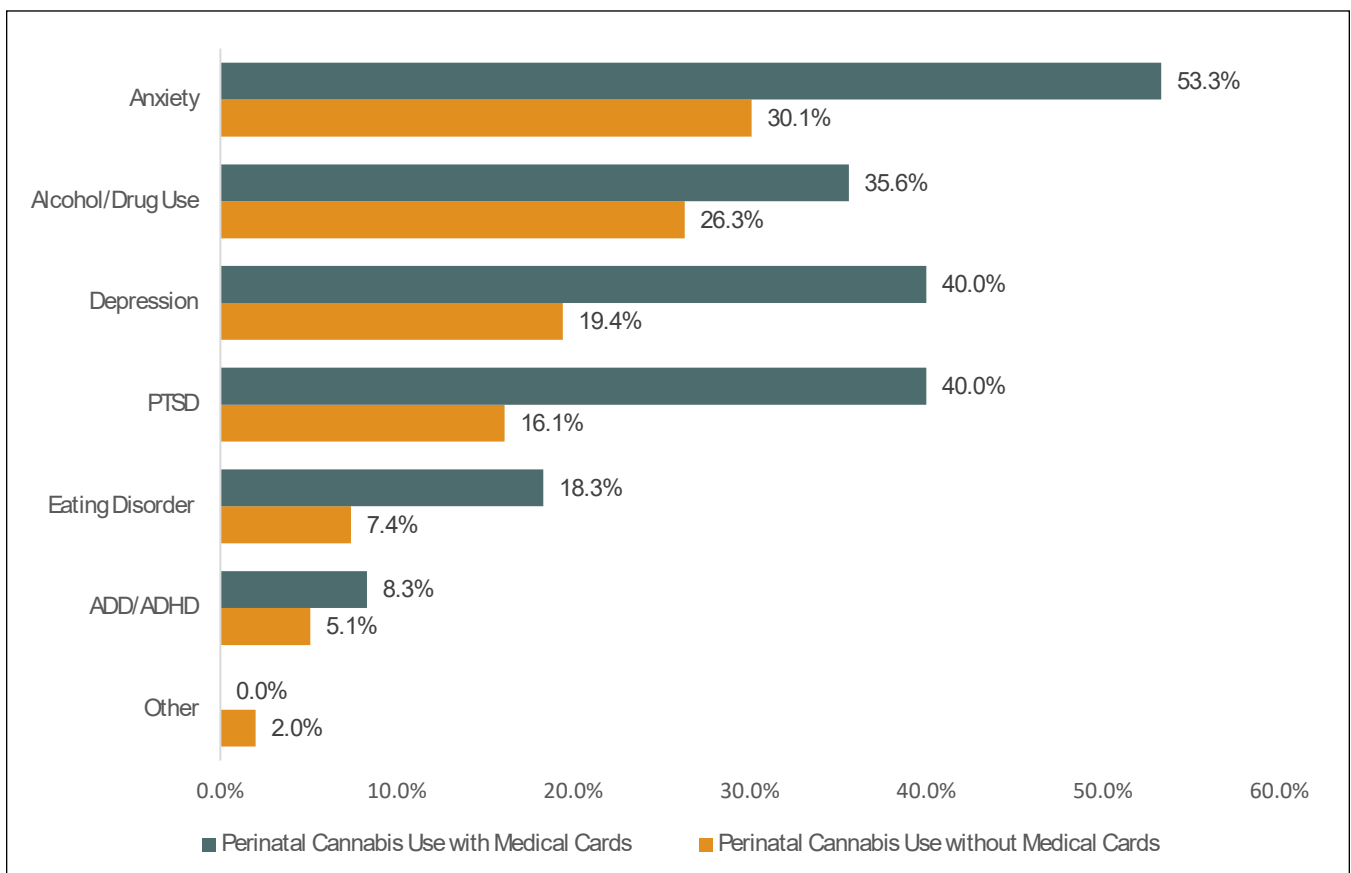


Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

Observations and Notes: For pregnant and breastfeeding women who indicated using cannabis, compared to perinatal cannabis users without medical cards, perinatal cannabis users with medical cards were more likely to use cannabis for all medical conditions, particularly headaches/migraines (46.1%), pain (35.0%), nausea/vomiting (42.2%), lack of appetite (38.9%), muscle spasms (19.4%), and seizures (35.0%) problems sleeping (24.4%), seizures ($p < 0.001$).

594 women in the sample indicated that they used cannabis while pregnant or breastfeeding, and they had the ability to select multiple medical reasons for perinatal cannabis use. hi-squared tests were used to determine statistically significant differences between groups.

PSYCHOLOGICAL/EMOTIONAL CONDITIONS REASONS FOR PERINATAL CANNABIS USE (2024)



Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

Observations and Notes: For pregnant and breastfeeding women who indicated using cannabis, perinatal cannabis with medical cards were more likely to use it for anxiety (53.3%), depression (40.0%), PTSD (40.0%), and eating disorders (18.3%) compared to perinatal cannabis users without medical cards ($p < 0.001$).

594 women in the sample indicated that they used cannabis while pregnant or breastfeeding, and they had the ability to select multiple psychological/emotional reasons for perinatal cannabis use. Chi-squared tests were used to determine statistically significant differences between groups.

PREGNANCY OUTCOMES (2024)

	No Perinatal Cannabis Use (N=154)	Perinatal Cannabis Use with Medical Cards (N=26)	Perinatal Cannabis Use without Medical Cards (N=175)	Total (N=355)	Sig
	Percent	Percent	Percent	Percent	
Delivery Mode					NS
Normal	68.2	69.2	74.9	71.6	
Cesarean or Vaginal with Complications	31.8	30.8	25.1	28.4	
Pre-Term Delivery					**
No	61.0	88.5	77.7	79.1	
Yes	39.0	11.5	22.3	20.9	
Birth Weight Less Than 5 pds, 1 oz					NS
No	76.6	76.6	66.9	71.8	
Yes	23.4	23.4	33.1	28.2	
Birth Weight Less Than 3pds, 4 oz					**
No	97.4	88.5	86.9	91.6	
Yes	2.6	11.5	13.1	8.4	
NICU Admission					*
No	82.5	88.5	91.4	87.3	
Yes	17.5	11.5	8.6	12.7	
Miscarriage or Stillbirth					NS
No	94.2	100.0	96.6	95.8	
Yes	5.8	0.0	3.4	4.2	
Any Adverse Pregnancy Outcome					*
No	21.4	46.2	26.9	25.9	
Yes	78.6	53.8	73.1	75.1	

Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

Observations and Notes: Perinatal women not using cannabis tended to have pre-term deliveries (39%) and NICU admissions (17.5%) compared to perinatal cannabis users with

PREGNANCY OUTCOMES (2024) (CONTINUED)

medical cards (11.5% and 11.5%) and perinatal cannabis users without medical cards (22.3% and 8.6%). Perinatal women who did not report using cannabis also tended to have any adverse pregnancy outcomes (78.6%), particularly compared to perinatal cannabis users with medical cards (53.8%). However, perinatal cannabis users with and without medical cards tended to give birth to babies that had a birth weight of less than three pounds and four ounces (11.5% and 13.1%). No significant differences were found between perinatal cannabis users with and without medical cards.

Results are based on the perinatal cannabis survey administered by UIC evaluators. Statistical significance was determined using the chi-square test for all categorical variables. * = $p < 0.05$; ** = $p < 0.01$; NS = non-significant

LIFETIME EXPERIENCES OF ABUSE (2024)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Childhood Abuse					***
No	85.1	62.8	83.2	79.9	
Yes	14.9	37.2	16.8	20.1	
Family Abuse					***
No	81.7	65.6	84.9	79.9	
Yes	18.3	34.4	15.1	20.1	
Intimate Partner Violence					***
No	89.3	73.3	80.6	82.5	
Yes	10.7	26.7	19.4	17.5	
Workplace or Organizational Violence					**
No	95.2	86.7	91.3	91.9	
Yes	4.8	13.3	8.7	8.1	
Financial or Material Exploitation					NS
No	94.4	92.8	90.1	92.2	
Yes	5.6	7.2	9.9	7.8	
Neighborhood or Community Violence					NS
No	96.6	95.6	96.9	96.5	
Yes	3.4	4.4	3.1	3.5	
Other Abuse					NS
No	99.1	100.0	98.5	99.0	
Yes	0.9	0.0	1.5	1.0	
Any Abuse					***
No	59.2	20.6	41.8	44.3	
Yes	40.9	79.4	58.2	55.7	

Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

LIFETIME EXPERIENCES OF ABUSE (2024) (CONTINUED)

Observations and Notes: Perinatal cannabis users with medical cards tended to experience any type of abuse compared to non-users and users without medical cards, particularly childhood abuse (37.2%), family abuse (34.4%), intimate partner violence (26.7%), and workplace or organizational violence (13.3%).

Results are based on the perinatal cannabis survey administered by UIC evaluators. Statistical significance was determined using the chi-square test for all categorical variables. **= $p < 0.01$; *** = $p < .001$; NS = non-significant

PERINATAL CANNABIS USE MULTINOMIAL LOGISTIC REGRESSION (2024)

	Perinatal Cannabis Use With a Medical Card (N=180)			Perinatal Cannabis Use Without a Medical Card (N=392)		
	Relative Risk Ratio	95% Confidence Intervals	Sig	Relative Risk Ratio	95% Confidence Intervals	Sig
Age¹						
18-25 years old	[Ref]			[Ref]		
26-30 years old	2.3	(1.1, 4.7)	*	1.5	(0.9, 2.4)	NS
31-35 years old	2.5	(1.2, 5.2)	*	1.6	(1.0, 2.7)	NS
36-55 years old	3.4	(1.5, 7.7)	**	1.3	(0.7, 2.3)	NS
Race						
White	[Ref]			[Ref]		
Black/African American	1.2	(0.7, 2.0)	NS	1.3	(0.8, 1.9)	NS
Multi-race	0.3	(0.1, 0.7)	**	0.3	(0.2, 0.6)	**
Other	0.7	(0.3, 1.5)	NS	0.6	(0.4, 1.1)	NS
Education Level						
HS, GED, or less	[Ref]	-		[Ref]	-	
Some college/Associate's Degree	0.8	(0.4, 1.4)	NS	0.8	(0.5, 1.2)	NS
Graduated College/Graduate or Professional Degree	0.5	(0.3, 1.0)	*	0.3	(0.2, 0.6)	***
Relationship Status						
Married	[Ref]			[Ref]		
Living With Partner	0.6	(0.3, 1.1)	NS	1.6	(1.0, 2.4)	*
Single/Never Married/Other	0.3	(0.1, 0.6)	**	1.1	(0.7, 1.8)	NS
Insurance Status						
Medicare	[Ref]	-		[Ref]	-	
Medicaid	1.6	(0.8, 3.3)	NS	1.3	(0.7, 2.3)	NS
Private Insurance/Employer	0.7	(0.4, 1.4)	NS	1.7	(0.9, 2.9)	NS
Tricare/Assistance Program/Other	6.3	(2.4, 16.4)	***	5.8	(2.4, 13.7)	***

PERINATAL CANNABIS USE MULTINOMIAL LOGISTIC REGRESSION (2024) (CONTINUED)

	Perinatal Cannabis Use With a Medical Card (N=180)			Perinatal Cannabis Use Without a Medical Card (N=392)		
	Relative Risk Ratio	95% Confidence Intervals	Sig	Relative Risk Ratio	95% Confidence Intervals	Sig
Severe Psychological Distress						
No/low distress	[Ref]	-		[Ref]	-	
Moderate distress	0.9	(0.5, 1.7)	NS	0.9	(0.6, 1.4)	NS
Severe distress	4.7	(2.3, 9.8)	***	2.4	(1.4, 4.2)	**
Any Abuse						
No	[Ref]	-		[Ref]	-	
Yes	2.1	(1.6, 2.8)	***	1.5	(1.2, 1.9)	***
Lifetime Alcohol Use						
No	[Ref]	-		[Ref]	-	
Yes	3.0	(1.8, 5.2)	***	2.3	(1.5, 3.4)	***
Lifetime Inhalant Use						
No	[Ref]			[Ref]		
Yes	0.2	(0.1, 0.3)	***	0.2	(0.1, 0.4)	***
Survey Pool						
Panel	[Ref]	-		[Ref]	-	
Outreach	11.2	(5.8, 21.9)	***	3.8	(2.5, 5.9)	***

Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

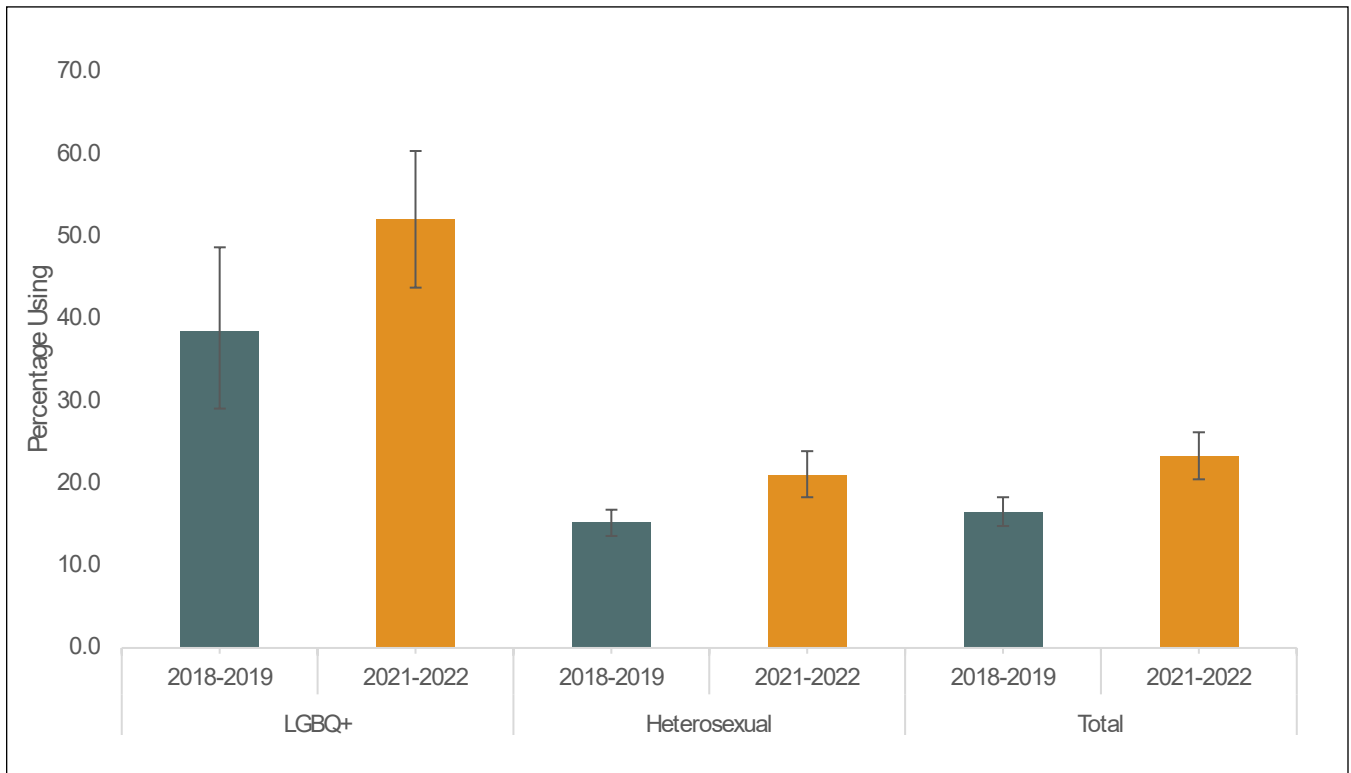
Observations and Notes: Perinatal cannabis users with medical cards were: 6.7 times more likely to have Tricare insurance, an assistance program, or other insurance; 4.7 times more likely to have severe psychological distress; 2.1 times more likely to have experienced any abuse; 3.0 times more likely to have had lifetime alcohol use; and 11.2 times more likely to have been recruited via outreach. Perinatal cannabis users with medical cards were 3.4 times more likely to be between 36 and 55 years old, 2.5 times more likely to have been between 31 to 35 years old, and 2.3 times more likely to have been between 26 and 30

PERINATAL CANNABIS USE MULTINOMIAL LOGISTIC REGRESSION (2024) (CONTINUED)

years old. Additionally, perinatal cannabis users with medical cards were: 70% less likely to have been multi-raced; 50% less likely to have graduated college or have a graduate/professional degree; 70% less likely to be single, married, or other relationship status; and 80% less likely to have had lifetime inhalant use. Perinatal cannabis users without medical cards were: 5.8 times more likely to have Tricare insurance, an assistance program, or other insurance; 2.4 times more likely to have severe psychological distress; 1.5 times more likely to have experienced any abuse; 2.3 times more likely to have had lifetime alcohol use; 1.6 times more likely to be living with a partner; and 3.8 times more likely to have been recruited via outreach. Additionally, perinatal cannabis users without medical cards were 70% less likely to have been multi-raced, 70% less likely to have graduated college or have a graduate/professional degree, and 80% less likely to have had lifetime inhalant use. Results are based on the perinatal cannabis survey administered by UIC evaluators. Statistical significance was determined using multinomial logistic regression for all categorical variables.

Only variables with $p < 0.01$ were retained in the model, and BIC was used for model prediction and selection. * = $p < 0.05$; ** = $p < 0.01$; *** = $p < .001$; NS = non-significant

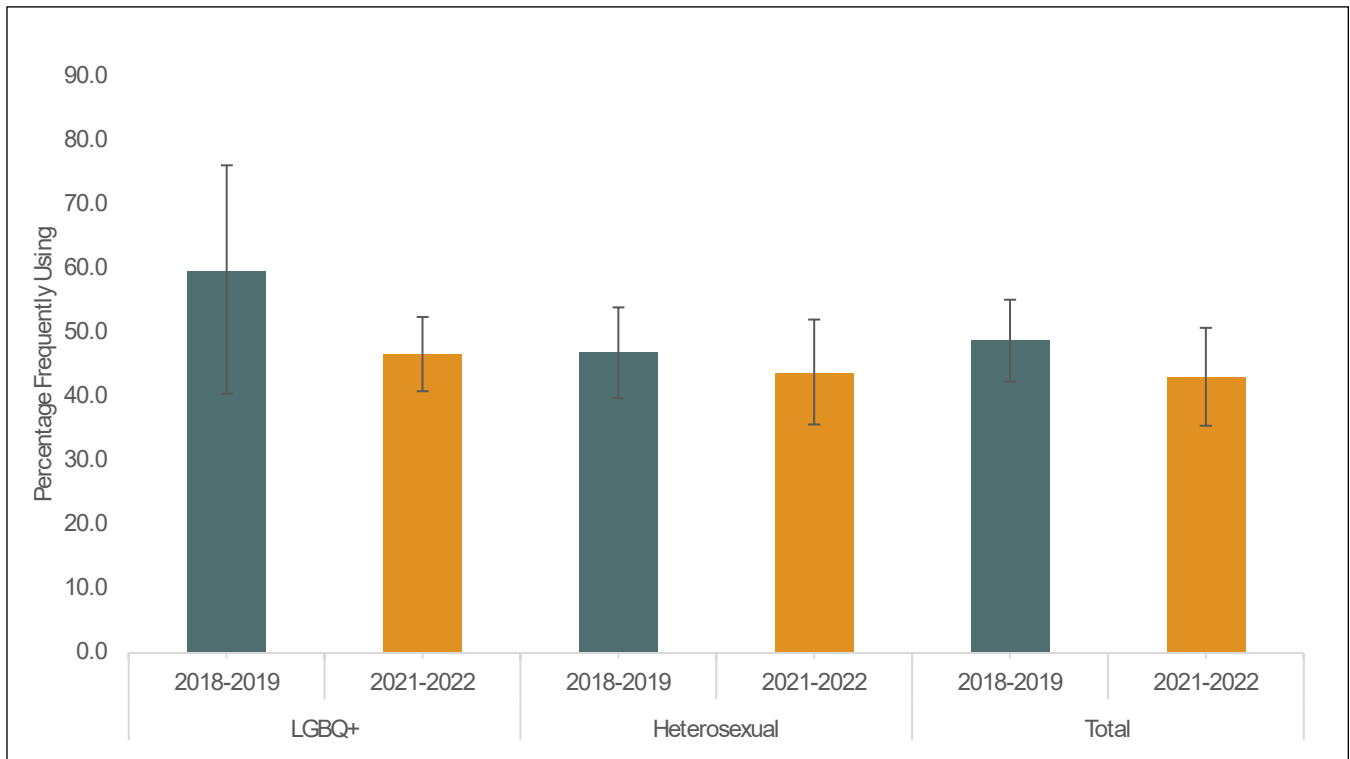
ANY PAST-MONTH CANNABIS USE BY SEXUAL ORIENTATION (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: The number of persons using cannabis in the past year who identified as lesbian, gay, or bisexual increased between 2018–2019 (N = 201,000) and 2021–2022 (N = 355,000). This reflects a 76.6% percentage increase. There was also a large percentage increase (34.5%) in the number of cannabis users identifying as heterosexual in 2018–2019 (N = 1,363,000) and 2021–2022 (N = 1,833,000).

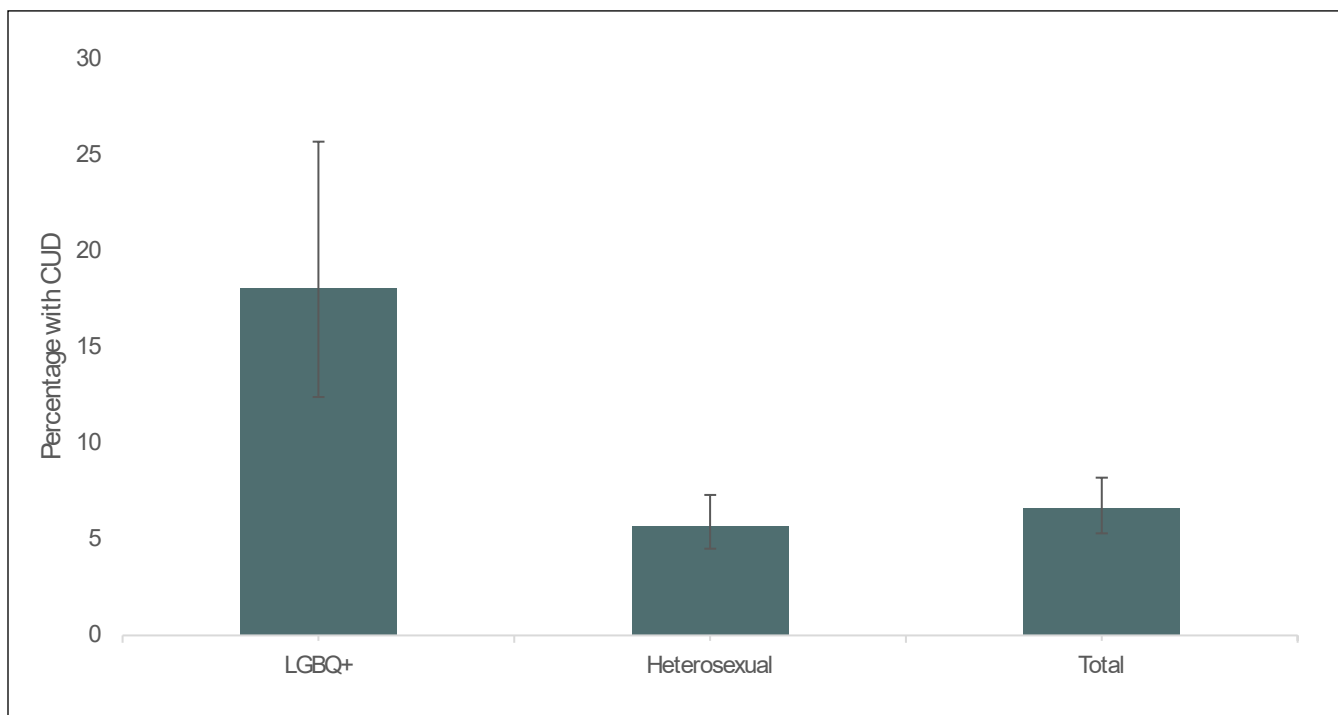
FREQUENT PAST-MONTH CANNABIS USE BY SEXUAL ORIENTATION AMONG PAST-YEAR CANNABIS USERS (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Frequent cannabis use, defined as using on 20 or more days in the past 30, decreased from 2018–2019 to 2021–2022 regardless of sexual identity. However, because more people were using cannabis in 2021–2022, the number of frequent cannabis users increased. In 2018–2019, 89,000 Illinois residents were identified as being in a sexual minority who reported using cannabis on 20 or more days in the past month. This number increased to 116,000 in 2021–2022. Similarly, 403,000 frequent cannabis users identified as heterosexual in 2018–2019, increasing to 552,000 in 2021–2022.

PAST-YEAR CANNABIS USE DISORDER BY SEXUAL ORIENTATION (2021–2022)

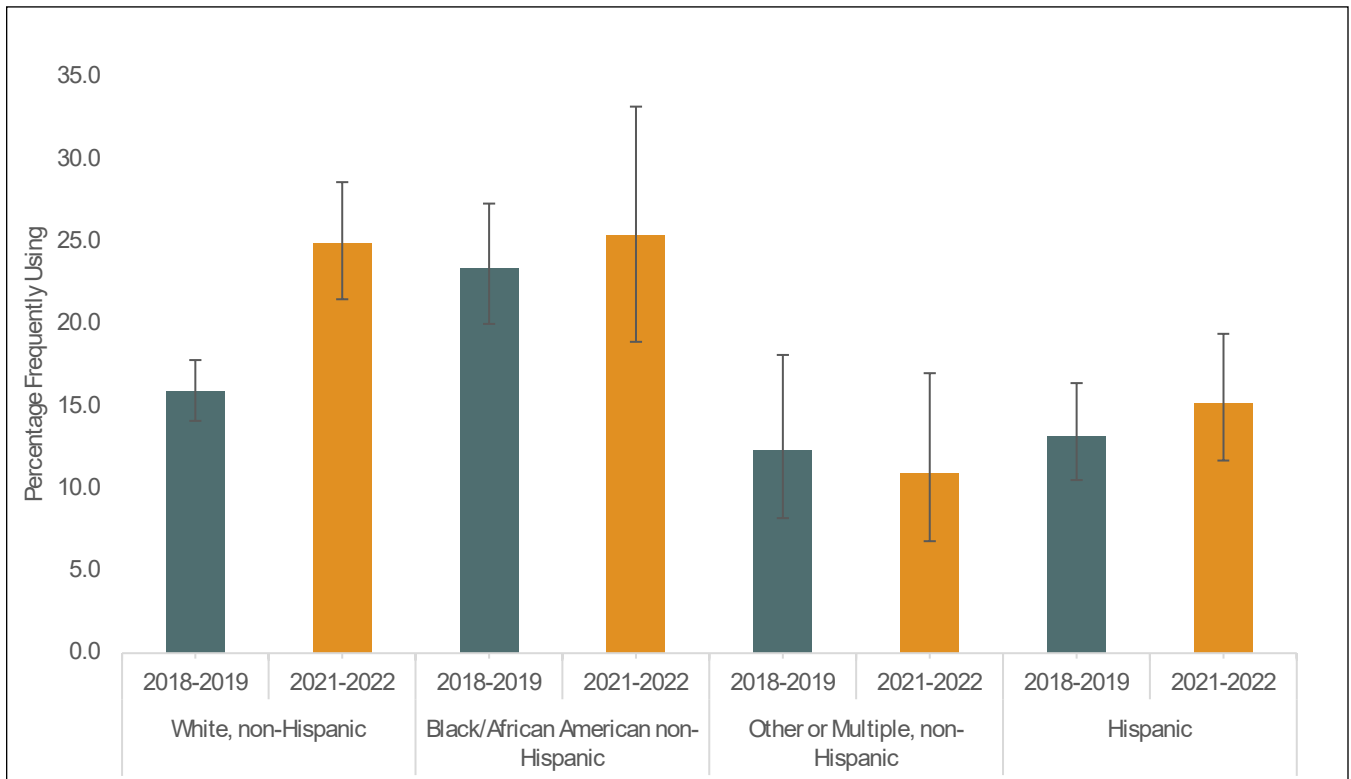


Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Just over 18.0% of persons who identified as lesbian, gay, or bisexual met DSM-5 criteria for a past-year cannabis use disorder (N = 123,000). This was substantially higher than the percentage of heterosexuals (5.7%) who met DSM-5 criteria for a cannabis use disorder (N = 501,000). This difference is statistically significant (chi-square (df = 1,750) = 10.4, $p < .001$).

Comparisons with previous years of NSDUH data are not available as DSM-IV criteria were used to assess substance use disorders before 2021.

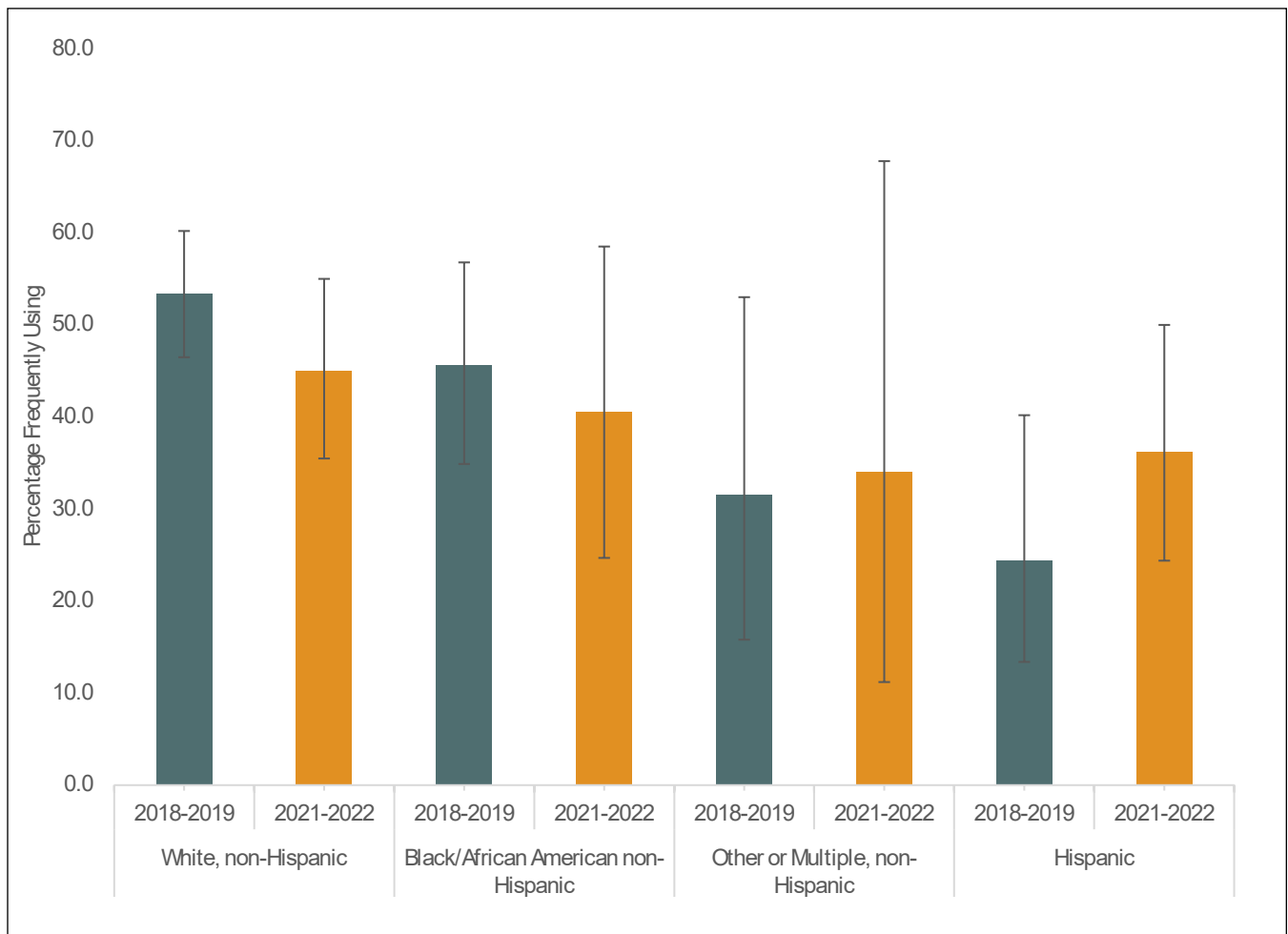
ANY PAST-YEAR CANNABIS USE BY RACE/ETHNICITY (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Any cannabis use in the past year increased for all racial-ethnic groups between 2018–2019 and 2021–2022 except for persons identifying as being Other or Multiple Race/Ethnicities, where cannabis use declined slightly. The largest increase was among persons identifying as white, non-Hispanic, whose use increased from 15.9% in 2018–2019 to 24.9% in 2021–2022, representing a 9.0% point-prevalence increase and a 56.6% percentage increase. The differences across racial-ethnic groups were statistically significant (chi-square (df = 1, 750) = 8.56, $p < .001$).

FREQUENT PAST-MONTH CANNABIS USE BY RACE/ETHNICITY AMONG PAST-YEAR CANNABIS USERS (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Frequent cannabis use, defined as using cannabis on 20 or more days in the past 30, generally decreased between 2018–2019 and 2021–2022, with the exception being a slight but statistically non-significant increase among persons identifying as being Other or Multiple Races, non-Hispanic. The overall difference among persons grouped by race-ethnicity was also not statistically significant (chi-square (df = 3, 750) = .41, $p = .75$).

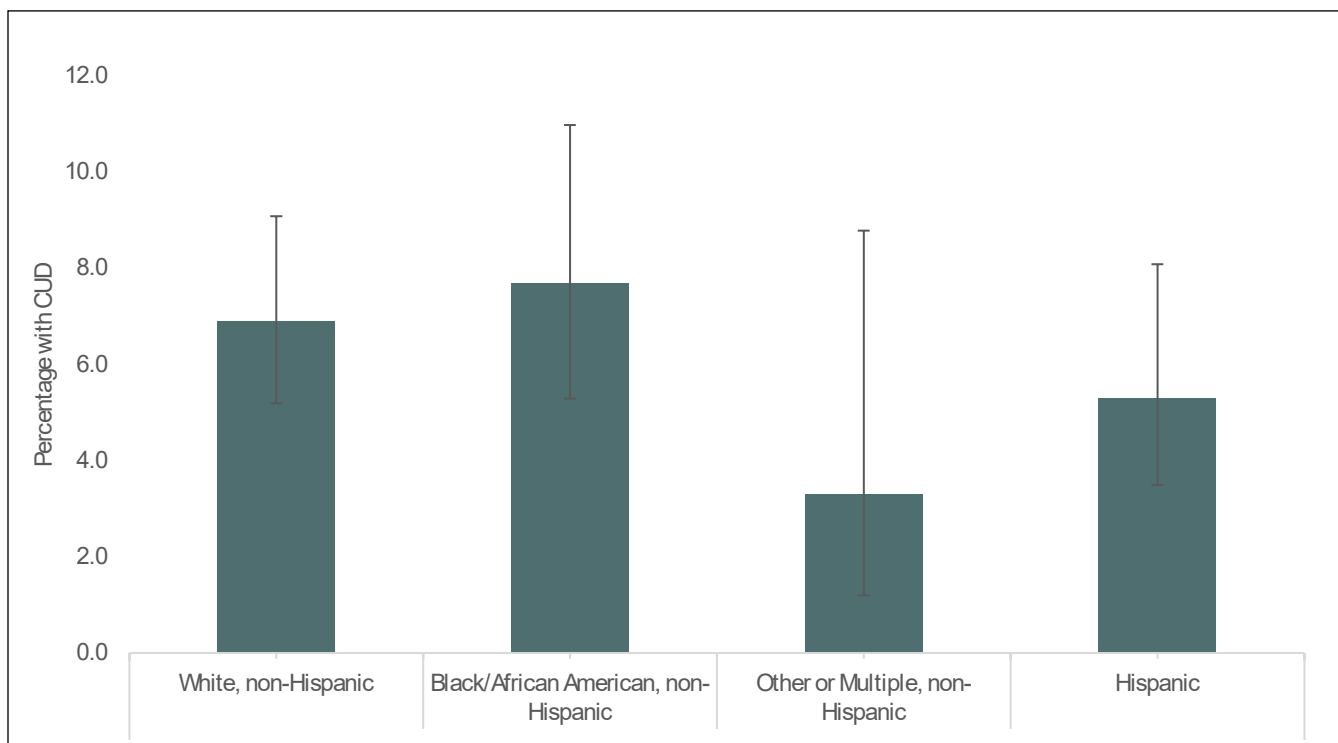
FREQUENT PAST-MONTH CANNABIS USE BY RACE/ETHNICITY AMONG PAST-YEAR CANNABIS USERS (2018–2022) (CONTINUED)

Although the percentage or proportion of past-month cannabis users meeting criteria for frequent use declined, the number of such users actually increased across all racial-ethnic groups. This is because there were many more cannabis users in 2021–2022 compared with 2018–2019, with a lower proportion of the new users being frequent past-month cannabis users.

By race-ethnicity, the number of persons estimated to have used cannabis on 20 or more days in the past month in 2021–2022 are 516,000 (white, non-Hispanic); 121,000 (Black/African American, non-Hispanic); 21,000 (Other or Multiple, non-Hispanic); and 72,000 (Hispanic).

The calculations for frequent use are based on the subset of survey participants who said they had used cannabis in the past month.

PAST-YEAR CANNABIS USE DISORDER BY RACE/ETHNICITY (2021–2022)



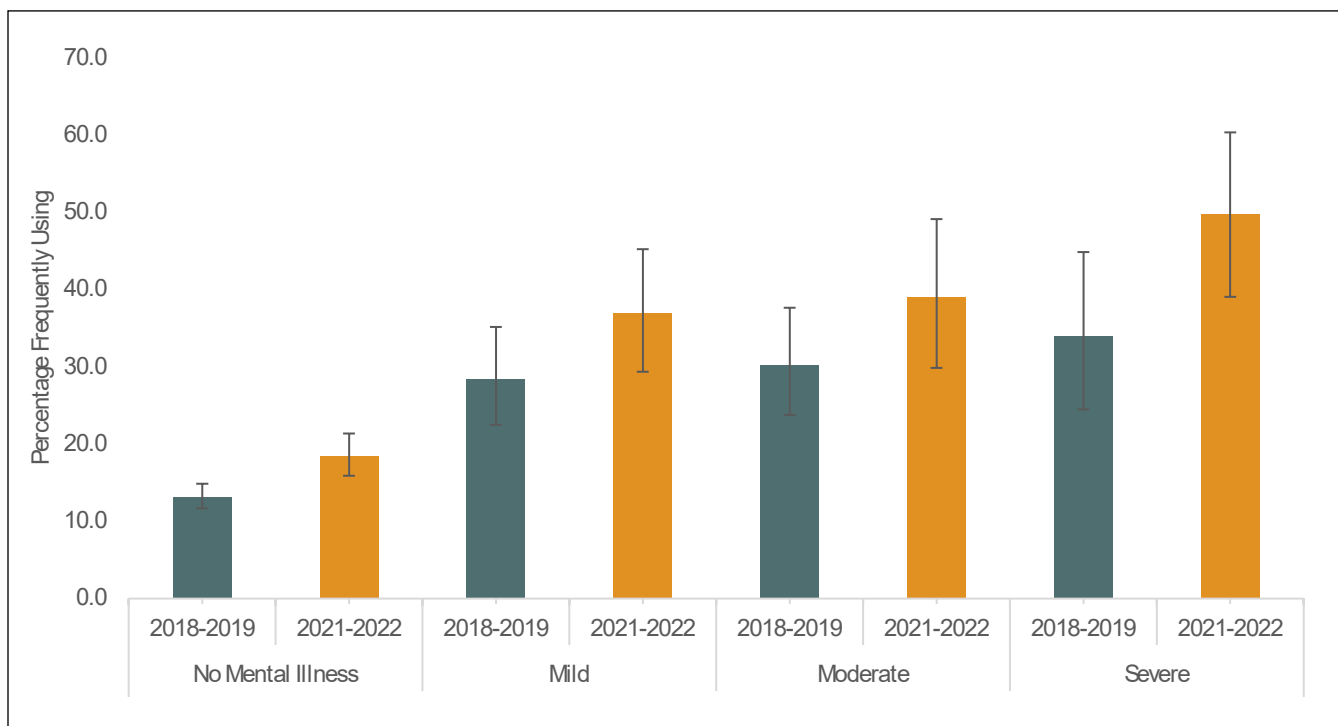
Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: The prevalence of past-year cannabis use disorder per DSM-5 criteria was relatively higher for persons identifying as white, non-Hispanic (6.9%) and Black/African American, non-Hispanic (7.7%) compared with persons of Other or Multiple Racial Groups (3.3%) and persons identifying as Hispanic (5.3%). The overall difference was statistically significant (chi-square (df = 9, 750) = 8.19, $p < .001$).

By racial-ethnic group, the number of persons estimated to have a past-year cannabis use disorder in 2021-2022 are: 452,00 (white, non-Hispanic); 111,000 (Black/African American, non-Hispanic); 28,000 (Other or Multiple, non-Hispanic); and 98,000 (Hispanic).

Comparisons with previous years of NSDUH data are not available as DSM-IV criteria were used to assess substance use disorders prior to 2021. Results shown in this chart are based on a representative sample of the Illinois population 12 years or older.

ANY PAST-YEAR CANNABIS USE BY MENTAL ILLNESS SEVERITY (2018–2022)



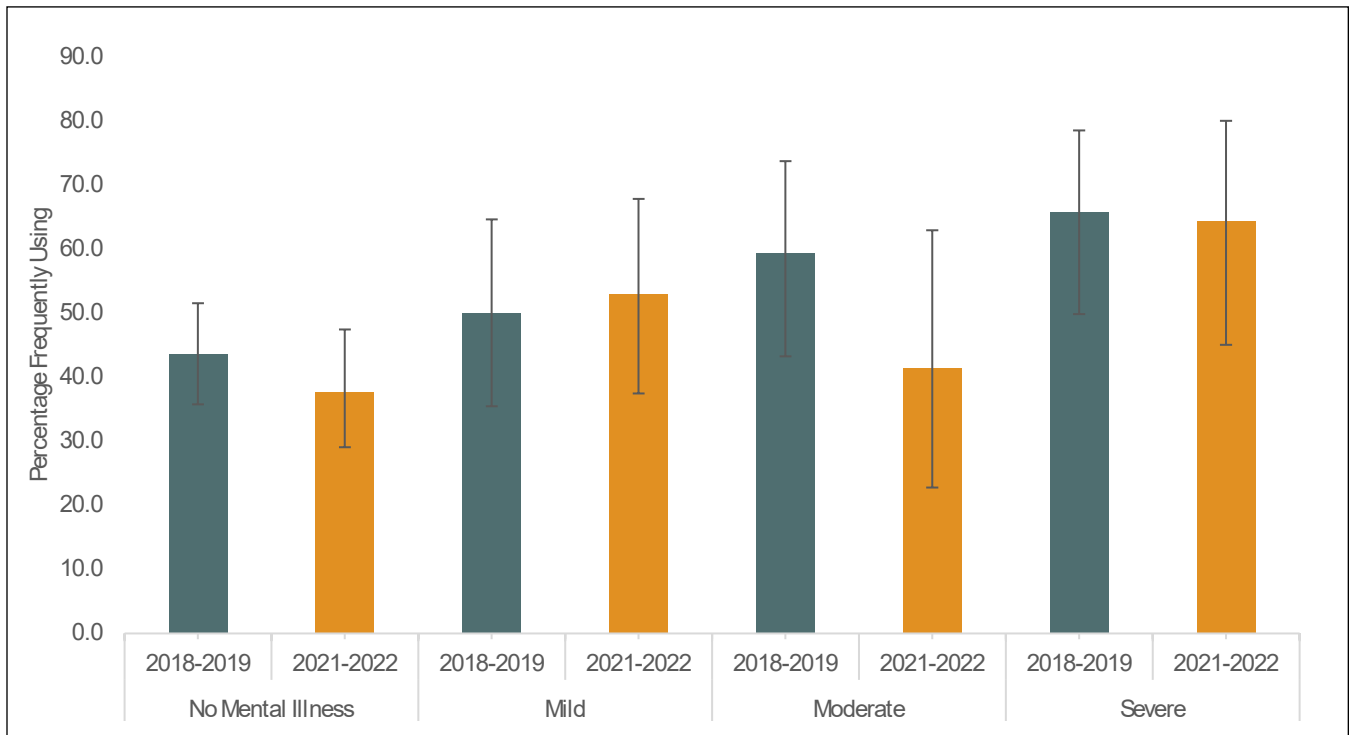
Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Any cannabis use in the past year increased generally and for all groups of persons with a mental illness. The largest increase was among persons with severe mental illness, although the change for this group from 2018–2019 to 2021–2022 was not statistically significant. Nevertheless, persons with a mental illness are more likely to use cannabis than persons who do not have a mental illness, regardless of illness severity.

By mental illness severity, the number of persons estimated to have used cannabis in the past year in 2021–2022 are: 1,389,000 (no mental illness); 384,00 (mild mental illness); 216,000 (moderate mental illness); and 210,000 (severe mental illness).

Details on the methodology and interpretation of the levels of serious mental illness are available at: <https://www.samhsa.gov/data/report/2021-methodological-summary-and-definitions>

FREQUENT PAST-MONTH CANNABIS USE BY MENTAL ILLNESS SEVERITY (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

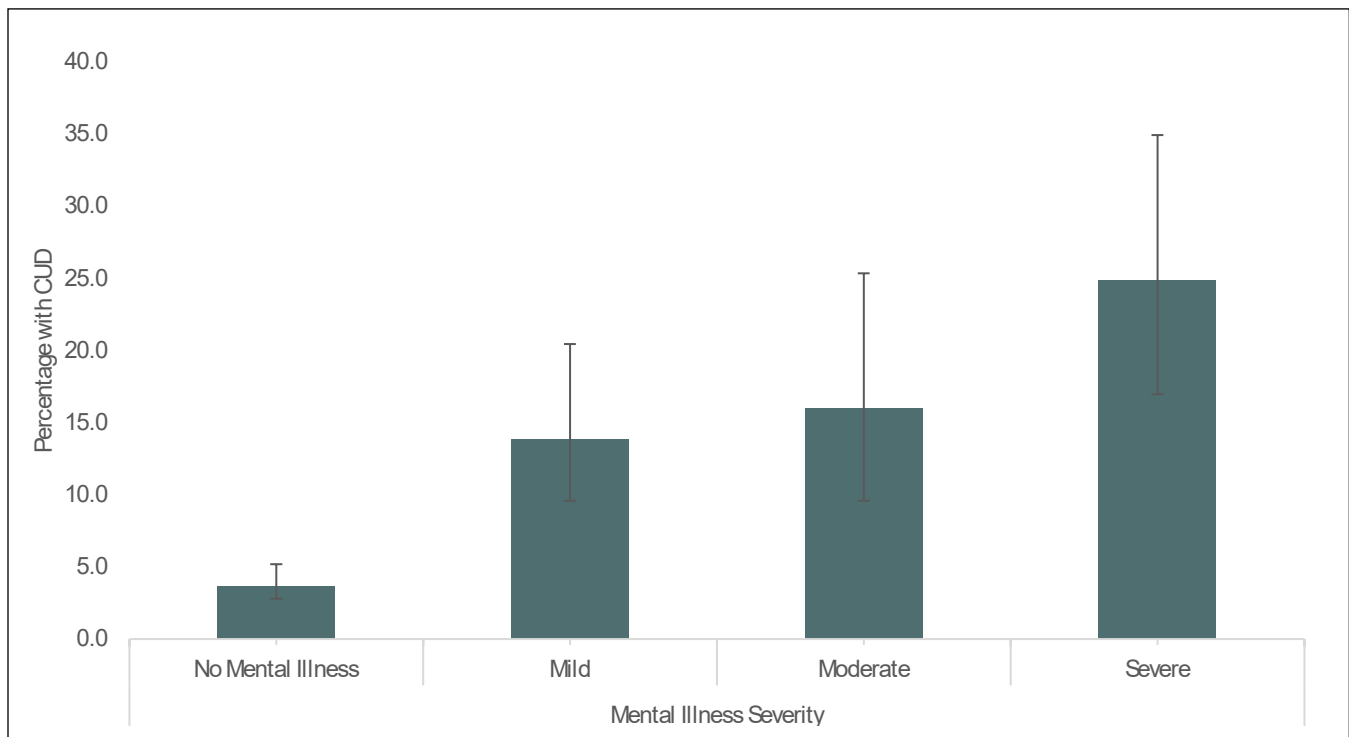
Observations and Notes: Frequent cannabis use, defined as using cannabis on 20 or more days in the past 30, generally remained the same or decreased between 2018-2019 and 2021-2022, with the exception being a slight but statistically non-significant increase among persons with a mild mental illness. The overall differences among persons grouped by mental illness severity were also not statistically significant (chi-square (df = 3, 750) = 2.22, p = .090).

By mental illness severity, the number of persons estimated to have used cannabis on 20 or more days in the past month in 2021-2022 are: 57,000 (no mental illness); 36,000 (mild mental illness); 28,000 (moderate mental illness); and 30,000 (severe mental illness).

The calculations for frequent use are based on the subset of survey participants who said they had used cannabis in the past month.

Details on the methodology and interpretation of the levels of serious mental illness are available at: <https://www.samhsa.gov/data/report/2021-methodological-summary-and-definitions>

PAST-YEAR CANNABIS USE DISORDER BY MENTAL ILLNESS SEVERITY (2021–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

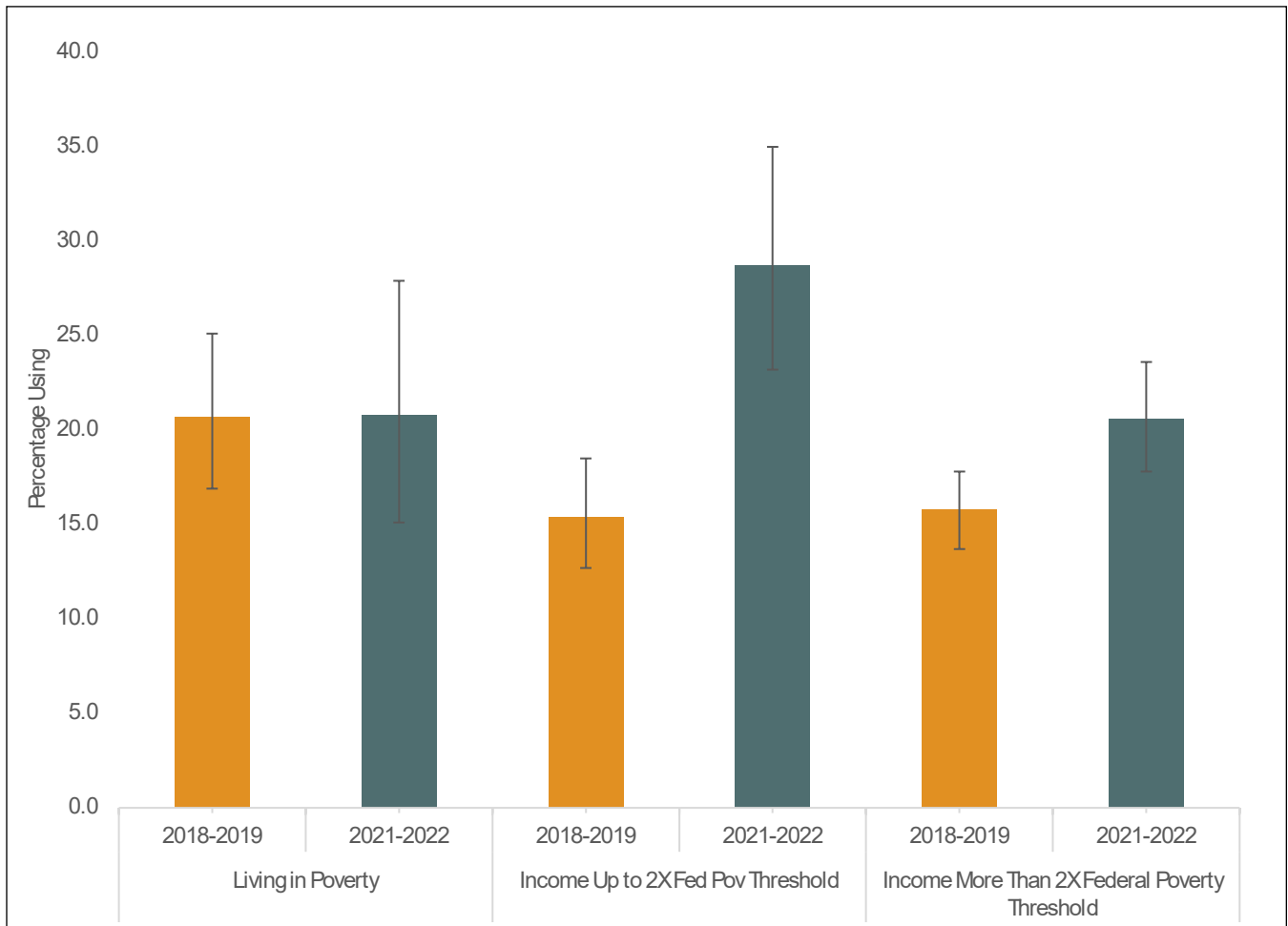
Observations and Notes: The prevalence of past-year cannabis use disorder per DSM-5 criteria was substantially higher among persons with indications of a mental illness, with the prevalence of past-year cannabis use disorder increasing with increasing severity of the mental illness. The overall difference was statistically significant (chi-square (df = 3, 750) = 11.47, $p < .001$), primarily owing to the difference between persons with no mental illness and those with any mental illness.

By mental illness severity, the number of persons estimated to have a past-year cannabis use disorder in 2021–2022 are: 283,00 (no mental illness); 144,00 (mild mental illness); 106,000 (moderate mental illness); and 105,000 (severe mental illness).

Details on the methodology and interpretation of the levels of serious mental illness are available at: <https://www.samhsa.gov/data/report/2021-methodological-summary-and-definitions>

Comparisons with previous years of NSDUH data are not available as DSM-IV criteria were used to assess substance use disorders before 2021.

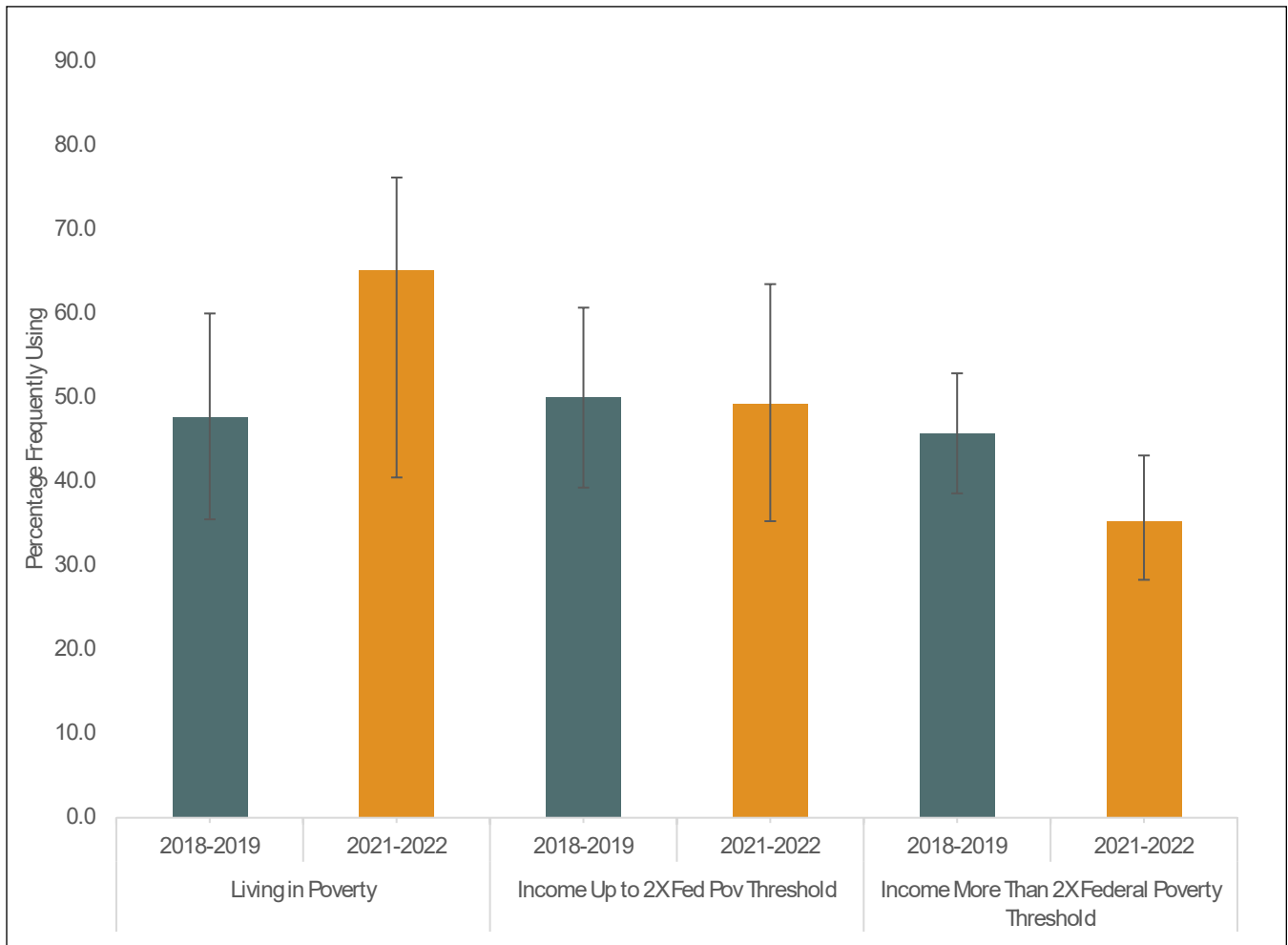
ANY PAST-YEAR CANNABIS USE BY FEDERAL POVERTY THRESHOLD (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Among persons living below twice the federal poverty threshold, there was a relatively large percentage increase (44.9%) from 2018–2019 (15.8%, N = 311,000) to 2021–2022 (20.6%, N = 587,000). This difference was statistically significant. There was virtually no increase among persons living below the federal poverty threshold and a non-significant percentage increase (23.3%) among persons living above twice the federal poverty level, where there were 1,144,000 persons in this income group reporting any cannabis use in 2018–2019, and 1,530,000 in 2021–2022. The differences in past-year cannabis use prevalence among the three income groups in 2021–2022 were marginally significant (chi-square (df = 2, 750) = 3.09, p = .05).

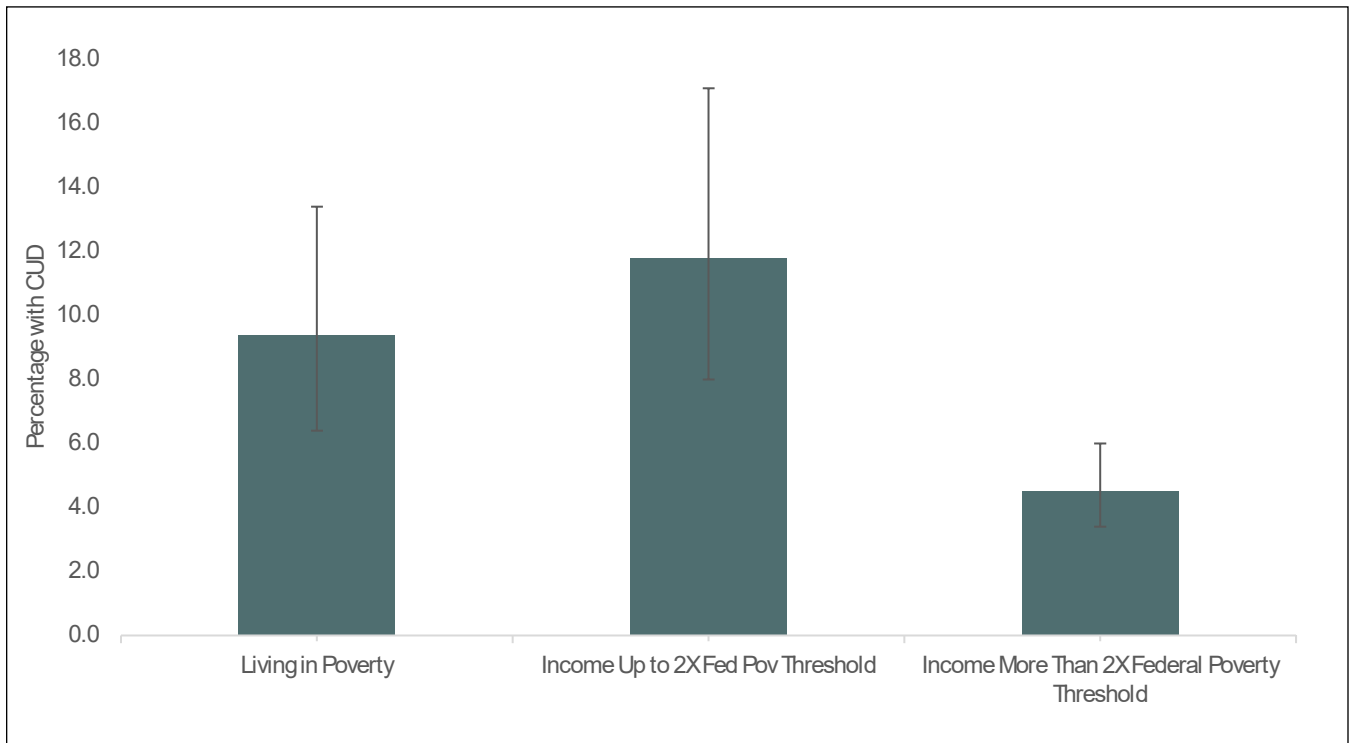
FREQUENT PAST-MONTH CANNABIS USE BY FEDERAL POVERTY THRESHOLD (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Frequent cannabis use, defined as using on 20 or more days in the past 30, increased from 2018–2019 to 2021–2022 among persons living below the federal poverty threshold from 47.6% (N = 88,000) to 65.1% (N = 128,000), a 36.8% increase. There was a slight percentage decrease over this same time among persons living below twice the federal poverty threshold (-1.4%) and a larger percentage decrease among persons living above twice the federal poverty threshold (-22.8%) with neither of these decreases reaching statistical significance.

PAST-YEAR CANNABIS USE DISORDER BY FEDERAL POVERTY THRESHOLD (2021–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online - <https://datatools.samhsa.gov/>

Observations and Notes: Just over 9.0% of persons living below the federal poverty threshold (N = 114,000), 11.4% (N = 240,000) of persons reporting incomes up to twice the federal poverty threshold, and 4.5% (N = 334,000) of persons with incomes more than twice the poverty threshold met DSM-5 criteria for a past-year cannabis use disorder. These differences were statistically significant (chi-square (df = 6,750) = 4.5, $p < .001$), with this difference attributable to the difference between persons living above twice the federal poverty threshold and those living below twice the poverty threshold. The difference between the two groups living below twice the federal poverty threshold is not statistically significant.

Comparisons with previous years of NSDUH data are not available as DSM-IV criteria were used to assess substance use disorders before 2021.

MEDICAL CANNABIS USE AND BENEFITS



SUMMARY OF RESEARCH FINDINGS: MEDICAL BENEFITS – CANCER TREATMENT

Study: Micha JP, Rettenmaier MA, Bohart RD, Goldstein BH. Medical cannabis in the treatment of cancer-associated symptoms. *J Oncol Pharm Pract.* 2024 Jun 20;10781552241262963. doi: 10.1177/10781552241262963. Epub ahead of print.

Objective(s): Previous cancer studies have indicated that medical cannabis addresses a significant unmet need, namely chronic pain treatment and conferring oncology supportive care. However, the clinical research evaluating medical cannabis is preliminary and requires further consideration. This study reviewed the literature on the use of cannabis for treating cancer to evaluate the current evidence base.

Methods: A PubMed search primarily comprising retrospective and prospective studies, systematic reviews, and randomized clinical trials (RCTs) from approximately 2020–2023. The search included specific terms that incorporated medical cannabis, cancer treatment, cancer-related symptoms, pain management, and side effects.

Data summary: A total of 40 studies were included in the review, many of which were either of acceptable or good quality. Select investigations indicated that medical cannabis was associated with decreased overall pain levels and improvements in nausea and vomiting. Alternatively, the results from RCTs have found that the benefits from a placebo were equivalent to medical cannabis in both the treatment of cancer-related pain and providing an opioid-sparing effect.

Conclusions: Despite the potential cancer-related benefits derived from medical cannabis, the study design and results for many of the investigations on which the evidence is based, were neither uniform nor conducted via RCTs; hence, the efficacy and appropriateness of medical cannabis in treating cancer-related conditions remain indeterminate.

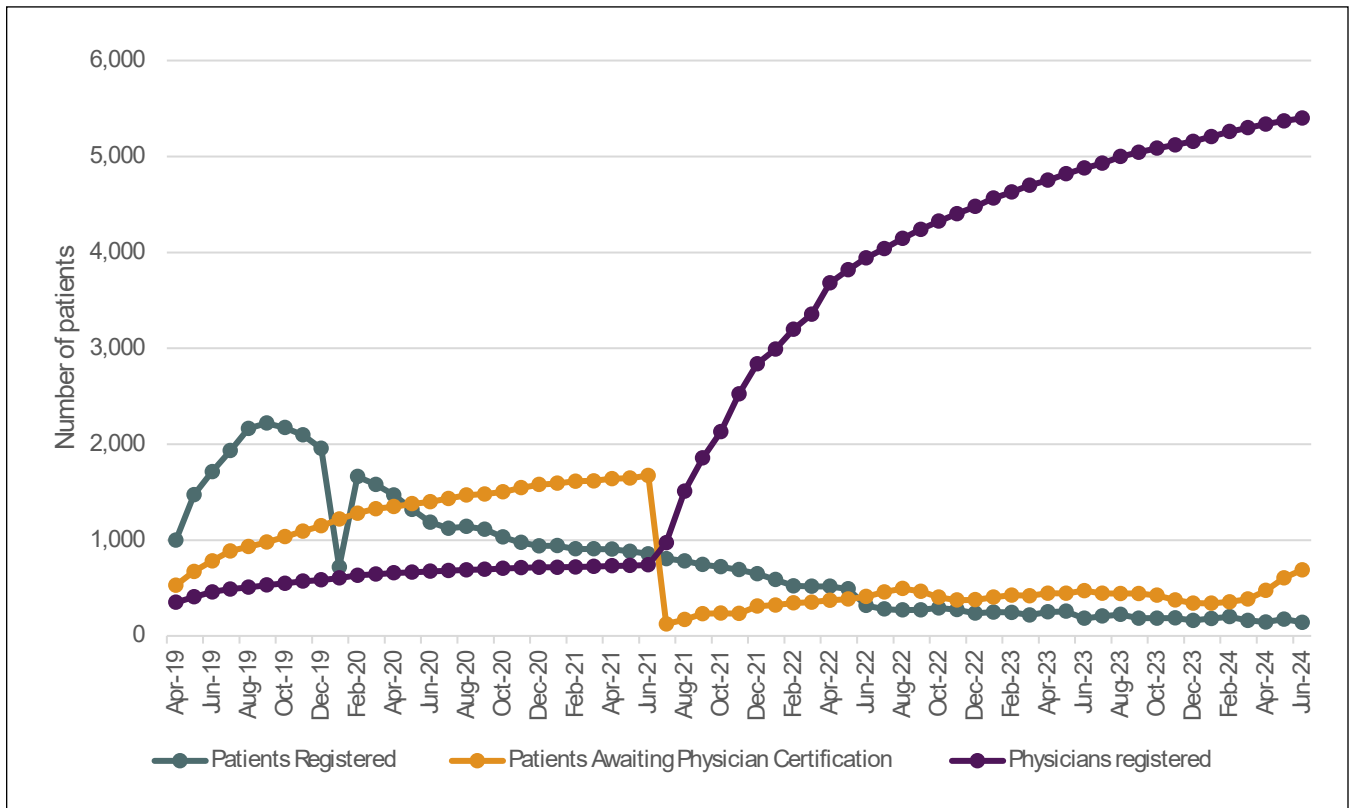
COMPARISON OF MCPP AND OAPP HIGHLIGHTS

	MEDICAL CANNABIS PATIENT PROGRAM	OPIOID ALTERNATIVE PILOT PROGRAM
PROGRAM QUALIFICATIONS	<ul style="list-style-type: none"> • Illinois resident • Diagnosed with at least 1 of the 41 qualifying conditions 	<ul style="list-style-type: none"> • Illinois resident • Be at least 21 years old • Diagnosed with medical condition for which an opioid has been or could be prescribed based on generally accepted standards of care
APPLICATION STEPS	<ul style="list-style-type: none"> • Obtain physician certification • Complete online application, including a copy of ID and passport photo, and pay application fee. • \$50 for 1-year term, \$100, for 2-year term, \$125 for 3-year term 	<ul style="list-style-type: none"> • Obtain physician certification • Complete online application, including a copy of ID and passport photo, and pay application fee. • \$10 for a 90-day term.
RENEWALS	<ul style="list-style-type: none"> • Extension renewal: Occurs annually for patients who did not purchase a 3-year card. Physician certification is not required. • Certification renewal: Occurs every 3 years when card expires. Physician certification is required. 	<ul style="list-style-type: none"> • Certification renewal: Occurs every 90 days. Physician certification is required.
PURCHASES	<ul style="list-style-type: none"> • Patients may purchase up to 2.5 ounces of medical cannabis during a 14-day period – waivers to request increase allotment are accepted. • Patients can purchase from any dispensary. • Designated caregivers are permitted 	<ul style="list-style-type: none"> • Patients may purchase up to 2.5 ounces of medical cannabis during a 14-day period – no waivers to increase allotment are permitted.. • Patients must purchase from single, designated dispensary. • No designated caregivers are permitted.

Source: <https://dph.illinois.gov/topics-services/prevention-wellness/medical-cannabis.html>

Source: <https://dph.illinois.gov/topics-services/prevention-wellness/medical-cannabis/opioid-alternative-pilot-program.html>

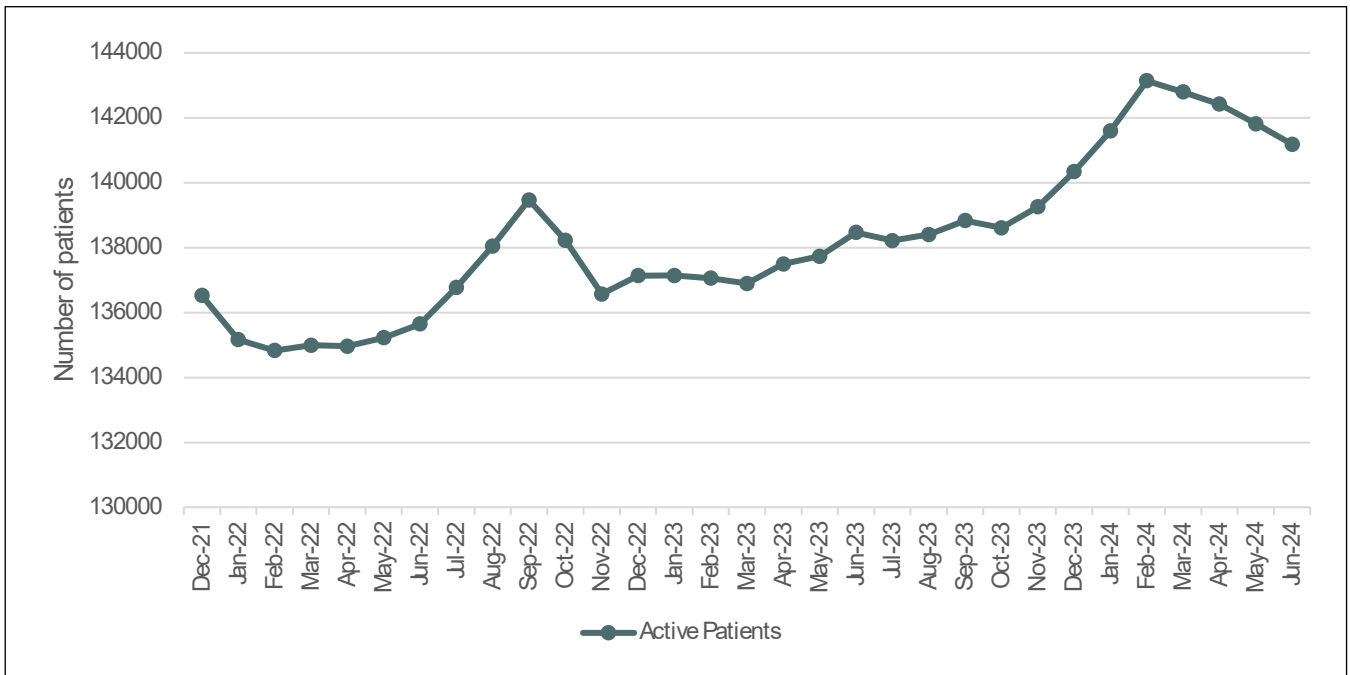
OPIOID ALTERNATIVE PILOT PROGRAM REGISTRATION (2019–2024)



Source: <https://mcpp.illinois.gov/updates.html>

Observations and Notes: OAPP patient registration has been on a steady decline since October 2019. At its peak, there were 2,220 patients registered in September 2019, whereas only 143 patients were registered in June 2024. The number of patients awaiting physician certification experienced a sharp decrease from June 2021 to July 2021 (1,673 to 125) and has remained relatively steady since. There was a large increase experienced in the number of physicians registered beginning in August 2021 and this increase has continued through June 2024 with 5,399 physicians registered to certify patients.

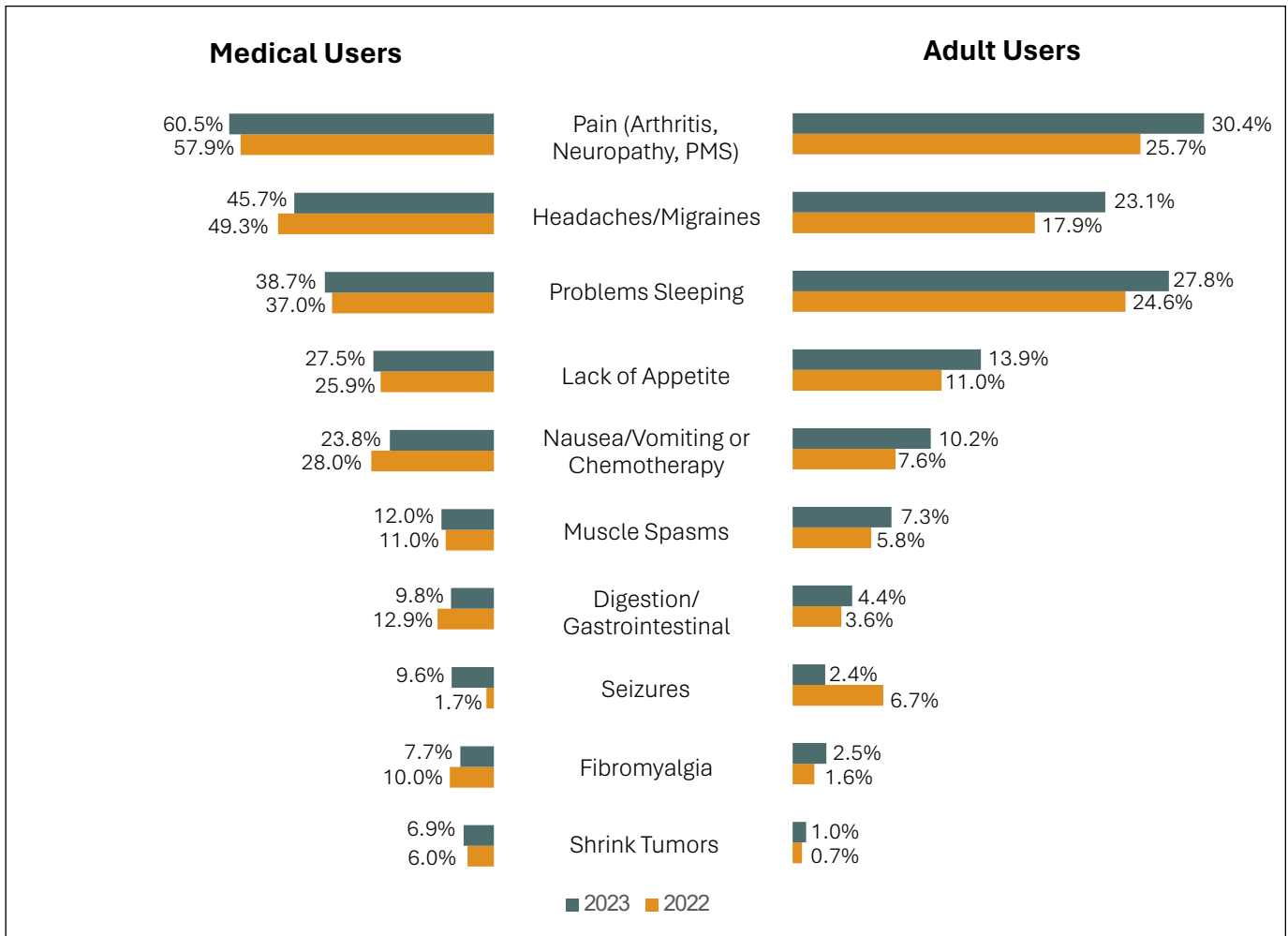
MEDICAL CANNABIS PATIENT PROGRAM ACTIVE PATIENTS (2021–2024)



Source: <https://mcpp.illinois.gov/updates.html>

Observations and Notes: Since November 2022 there has been a steady month-over-month increase in the number of persons enrolled in MCPP. This trend reversed in 2024 when there has been month-over-month declines through June 2024. The number of active MCPP patients at that time was 141,189.

MEDICAL CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR ADULT USE CANNABIS USER (2022–2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

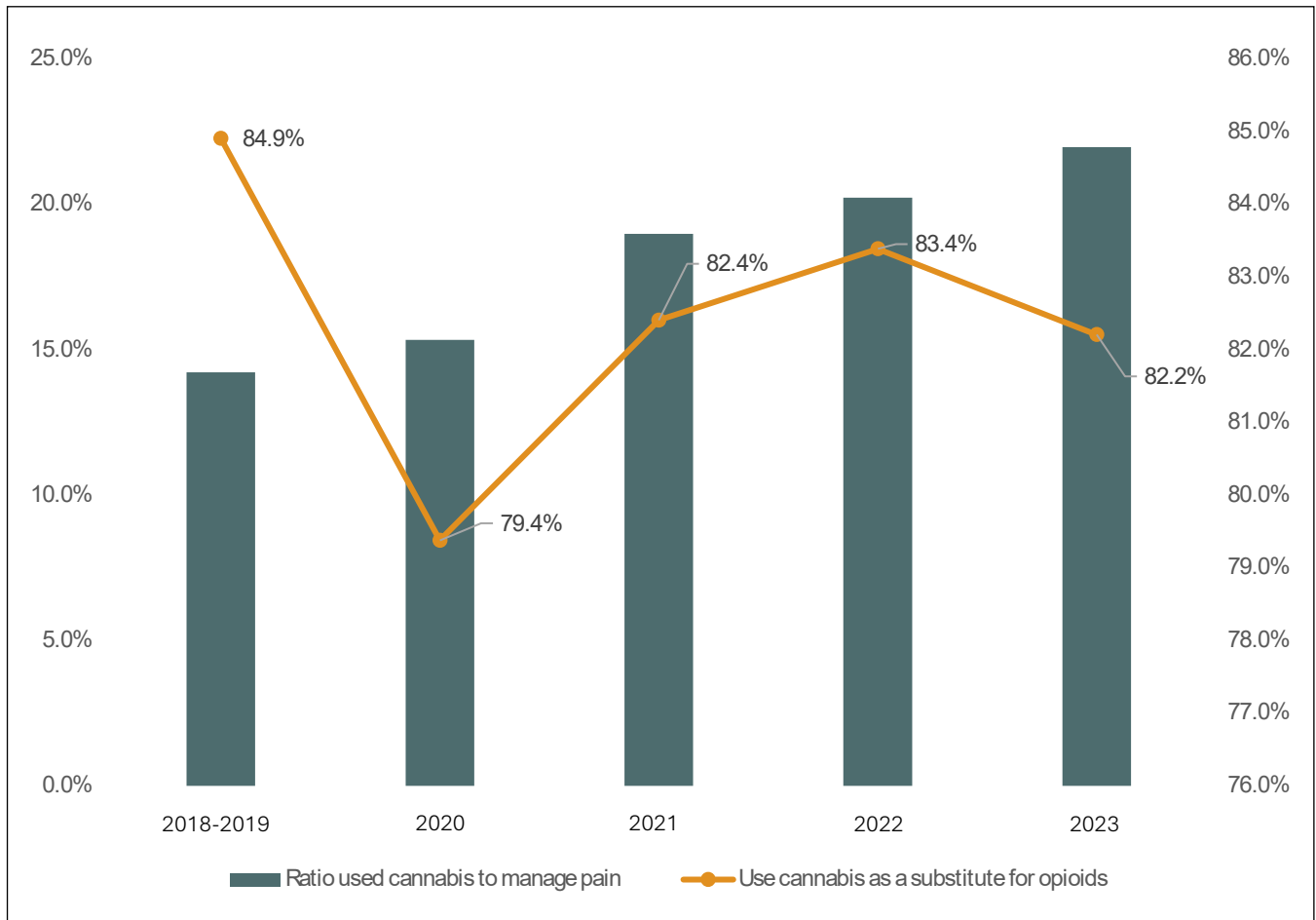
Observations and Notes: Medically, cannabis is most used to manage pain, headaches/migraines, sleep disturbances, and lack of appetite by both medical and adult use cannabis users.

Adult use cannabis users reported also using cannabis to manage muscle spasms but this was not as common among medical cannabis users.

MEDICAL CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR ADULT USE CANNABIS USER (2022–2023) (CONTINUED)

Survey participants were classified as being medical cannabis users if they indicated they had ever been registered as a medical cannabis patient by a health professional. Analyses shown were restricted to survey years 2022 and 2023 and to participants who said they had ever tried cannabis.

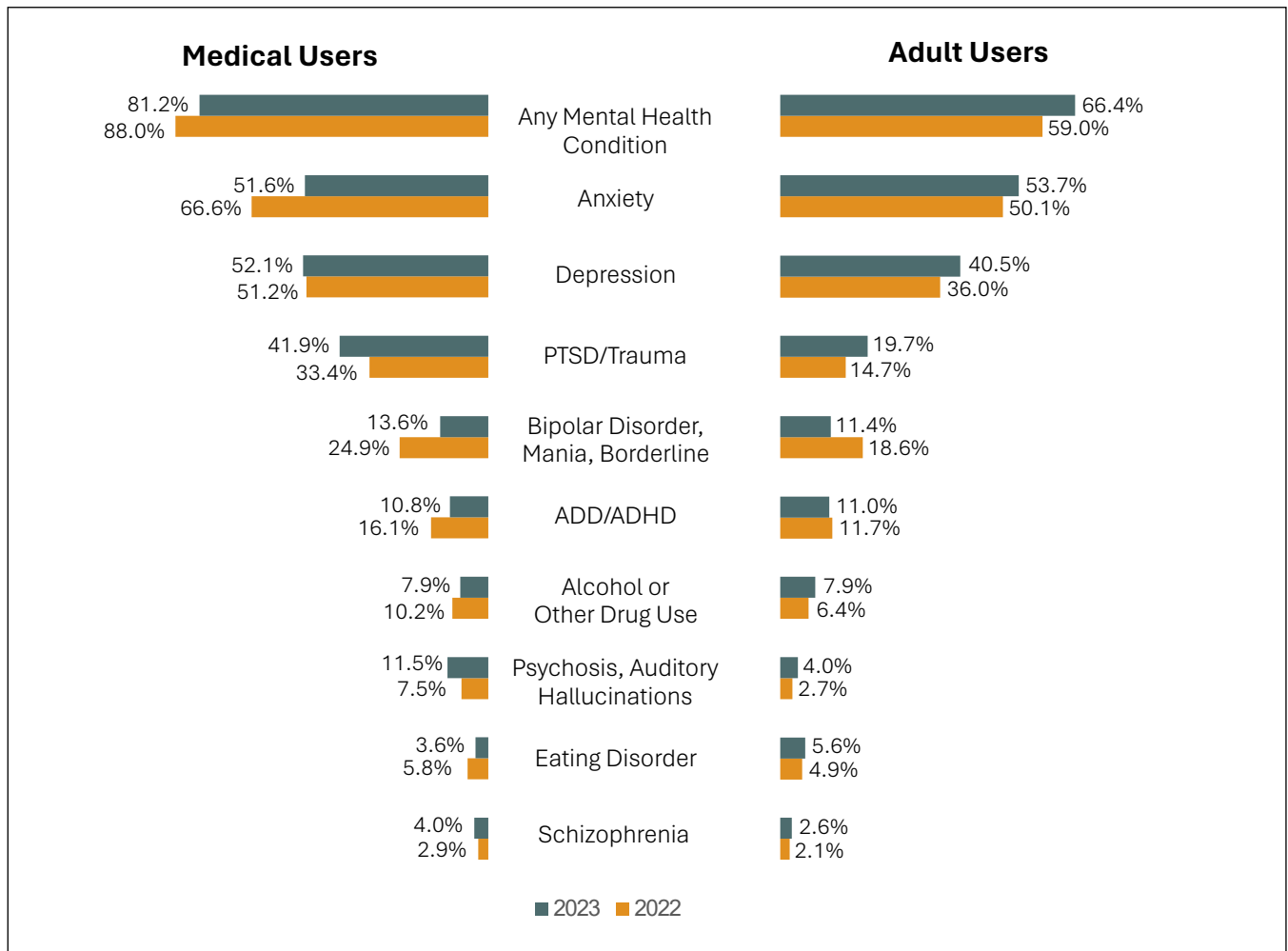
CANNABIS PAIN MANAGEMENT AND OPIOID SUBSTITUTION COMPARISON (2018–2023)



Source: International Cannabis Policy Study, Illinois site data (2018–2023) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: There has been a steady increase of 7.8 percentage points in the percentage of survey participants who used cannabis to manage pain from 2018–2023. Though there was a decrease between 2018–2019 and 2020 in the number of participants who said they used cannabis as a substitute for other forms of pain relief, there was an increase between 2020 and 2021. Between 2021–2023, the percentage has remained relatively steady. Among those who said they had ever used cannabis to manage pain (N = 330.7 or 22% of the ICPS sample) in 2023, 82.2% indicated they used cannabis as a substitute for opioids.

MENTAL HEALTH CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR ADULT USERS (2022–2023)



Source: International Cannabis Policy Study, Illinois site data (2022–2023) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: A large majority (81.2%) of Illinois residents ages 16 to 64 who indicated they had ever used and received a prescription for cannabis indicated they had used cannabis to manage mental health symptoms. The most common mental health symptoms were depression (52.1%), anxiety (51.6%), and PTSD/Trauma (41.9%) in 2023. A smaller but still substantial proportion of adult cannabis users (66.4%) also indicated

MENTAL HEALTH CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR ADULT USERS (2022–2023) (CONTINUED)

they had ever used cannabis to manage mental health symptoms with anxiety (53.7%), depression (40.5%), and PTSD/Trauma (19.7%) also being the most common symptoms mentioned in 2023.

Survey participants were classified as being medical cannabis users if they indicated they had been registered as a medical cannabis patient by a health professional. Analyses shown were restricted to survey years 2022 and 2023 (ICPS waves five and six) and to participants who said they had ever tried cannabis.

CANNABIS USE DISORDER AND TREATMENT



SUMMARY OF RESEARCH FINDINGS: PSYCHOSES

Study: Elser H, Humphreys K, Kiang MV, Mehta S, Yoon JH, Faustman WO, Matthay EC. State Cannabis legalization and psychosis-related health care utilization. *JAMA Netw Open.* 2023 Jan 3;6(1):e2252689. doi: 10.1001/jamanetworkopen.2022.52689.

Objective(s): Assess for an association between psychosis, cannabis use, and state cannabis legalization policies.

Methods: Retrospective cohort design using state-level panel fixed effects to model within-state changes in monthly rates of psychosis-related health care claims as a function of state cannabis policy level. Commercial and Medicare Advantage claims data for beneficiaries 16 years and older in all 50 US States and District of Columbia from 2003 to 2017. States were measured monthly based on law type (medical or adult use) and degree of commercialization (presence or absence of retail outlets). Outcomes were rates of psychosis-related diagnoses and prescribed antipsychotics. A total of 63,680,589 beneficiaries were followed.

Results: Compared with no legalization policy, states with legalization policies experienced no significant increase in rates of psychosis-related diagnoses or prescribed antipsychotics. Exploratory secondary analyses did find increased rates of psychosis-related diagnoses increased significantly among men, people ages 55 to 64 years, and Asian beneficiaries in states with adult use policies compared with no policy.

Conclusions: State medical and adult use cannabis policies were not associated with a statistically significant increase in rates of psychosis-related health outcomes. As states continue to introduce new cannabis policies, continued evaluation of psychosis as a potential consequence of state cannabis legalization may be informative.

EMERGING ISSUE: CANNABIS HYPEREMESIS SYNDROME (CHS)

Studies: Shine D, Goodin A. Cannabis Hyperemesis Syndrome: What Do We Know? *Med Cannabis Cannabinoids*. 2024 May 3;7(1):86–90. doi: 10.1159/000539182

Stubbs J, McCallum R. Cannabis Hyperemesis Syndrome: Prevalence and management in an era of cannabis legalization. *Journal of Investigative Medicine*. 2024. 72(2): 171–177. doi: 10.1177/10815589231217495

Issue: CHS is emerging as a new public health issue related to cannabis use, particularly prolonged (> 1 year) and frequent (at least weekly) use of high-potency cannabis products. It is characterized by severe cyclic vomiting syndrome “Scromiting”; and stabbing abdominal pain. Symptoms typically remit with cessation of cannabis use but return if cannabis use is re-initiated. A pre-emetic or prodromal phase can last for months with patients developing morning nausea, abdominal discomfort, or fear of vomiting. Episodes can last up to 48 hours or possibly longer.

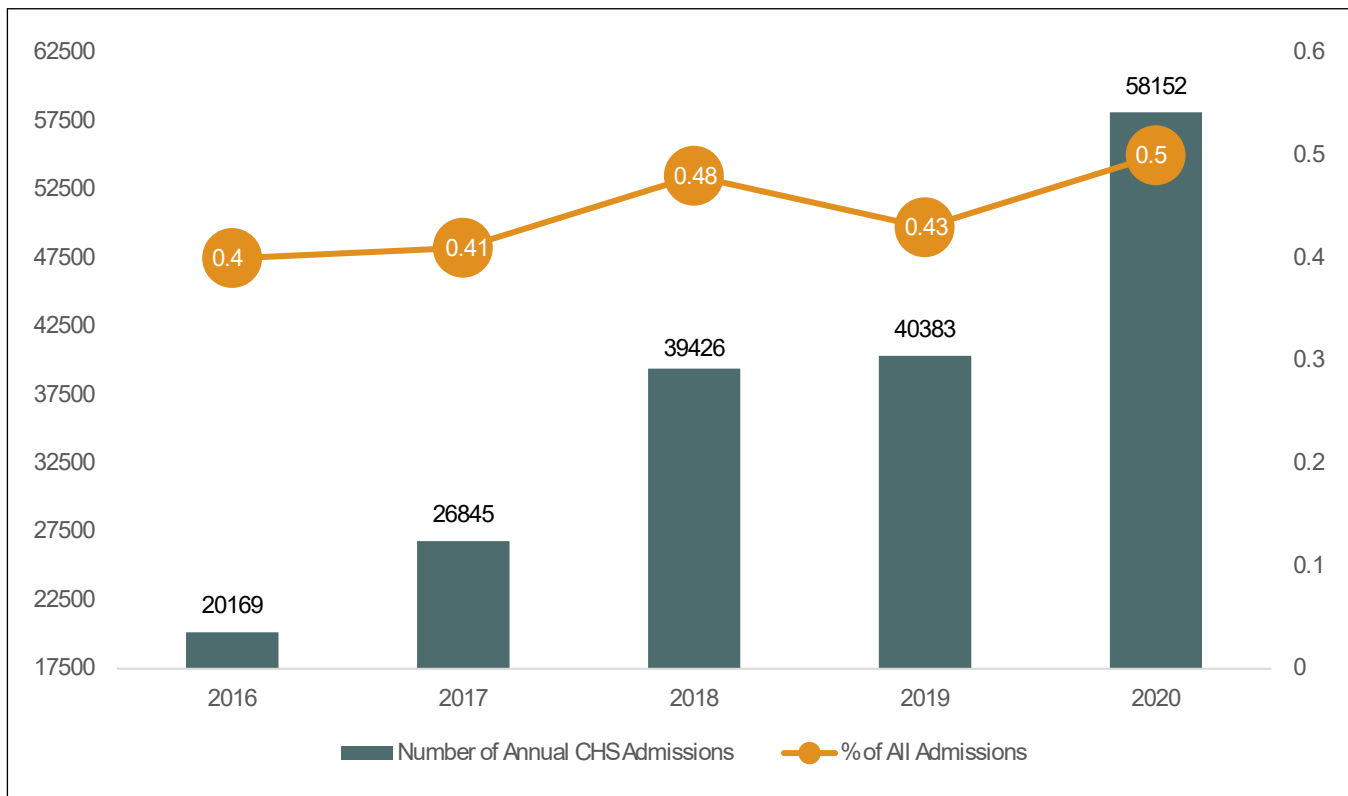
CHS may also be associated with compulsive bathing in hot water as persons with CHS find this temporarily relieves symptoms with some case reports indicating bathing as many as 20 times per day. Patients tend to appear repeatedly at the ED and may be mistaken as having cyclic vomiting syndrome or to be seeking opioids. Per Stubbs and MacCallum, the presence of abdominal pain leads to extensive CT imaging or lab tests to rule out pancreatitis or porphyria. There is also noted failure of symptom relief from traditional antiemetics and weight loss.

Complications of CHS include: dehydration and electrolyte imbalances (low potassium and phosphorus), esophageal rupture and other injuries, aspiration, and air trapped in the chest and cavity between the lungs.

Presently, recommended treatment consists of administering lorazepam or haloperidol and the topical application to the abdomen of capsaicin. Longer-term treatment consists of tricyclic antidepressants.

There is no ICD-10 diagnostic code for CHS. At present, it is identified by a cannabis-related diagnosis (F12) and co-occurring nausea (R11). An ICD code application was submitted to the ICD committee on March 20th, 2024 and supported by the U.S. Food and Drug Administration (FDA), the American Society of Addiction Medicine (ASAM), the American College of Emergency Physicians (ACEP), the Cannabis Regulators Association (CANNRA), the National Institute on Drug Abuse (NIDA), the Substance Abuse and Mental Health Services Administration (SAMHSA), the Council of State and Territorial Epidemiologists (CSTE), and the Rocky Mountain Poison and Drug Safety (RMPDS). A final decision on implementation of the proposed diagnostic code is due September 2024 and if accepted, would be implemented in 2025.

NATIONAL ED VISITS: POTENTIAL CANNABIS HYPEREMESIS SYNDROME (2016–2020)



Source: Agency for Healthcare Research and Quality (AHRQ) Healthcare Cost and Utilization Project (HCUP) Nationwide Emergency Department Sample (NEDS): <https://hcup-us.ahrq.gov/nedsoverview.jsp>

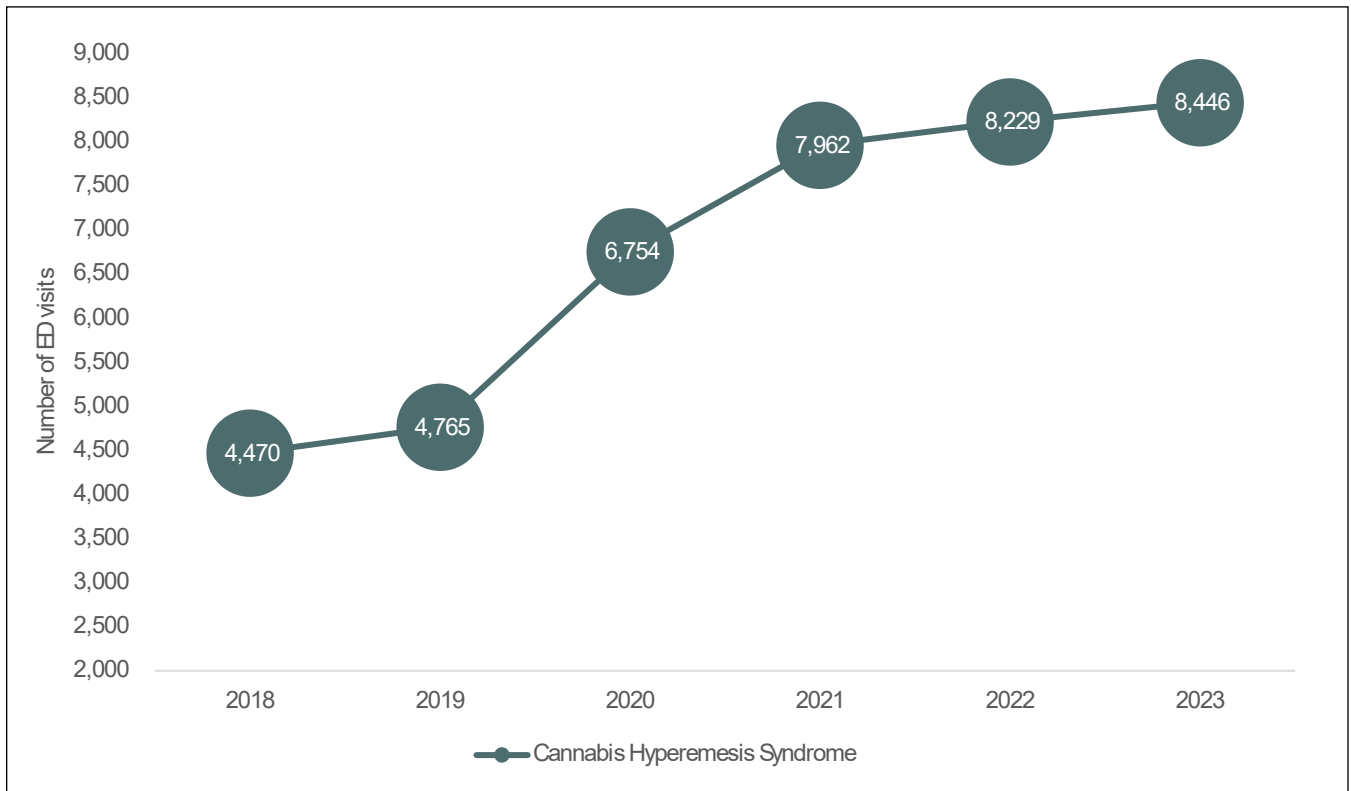
Observations and Notes: Patients with Cannabis Hyperemesis Syndrome (CHS) present to the emergency department (ED) with intractable nausea, vomiting, sweating, and colicky abdominal pain, with or without diarrhea. Patients may also present describing compulsive bathing, which evolves as a learned behavior over time as patients find this can relieve their symptoms temporarily. Patients often take hot baths or showers to relieve the symptoms and can present with elevated temperatures, mild leukocytosis, and even thermal burns. As there has been no specific ICD-10 code to identify CHS, such cases were identified by the co-occurrence of nausea (R11.XX) or hyperemesis gravidarum (O21.1) and any cannabis-related condition (F12.XX).

Frequent and/or prolonged use of higher potency cannabis products, including those that contain synthetic cannabis, are believed to be associated with a greater risk of developing CHS.

NATIONAL ED VISITS: POTENTIAL CANNABIS HYPEREMESIS SYNDROME (2016–2020) (CONTINUED)

These national results show increasing numbers of patients presenting to the emergency room with symptoms that could indicate CHS. There was an especially large increase between 2019 and 2020. As there has been no specific ICD-10 code to identify CHS, such cases were identified by the co-occurrence of nausea (R11.XX) or hyperemesis gravidarum (O21.1) and any cannabis-related condition (F12.XX). Results are based on an analysis of 163,770,963 admissions to emergency departments across the United States.

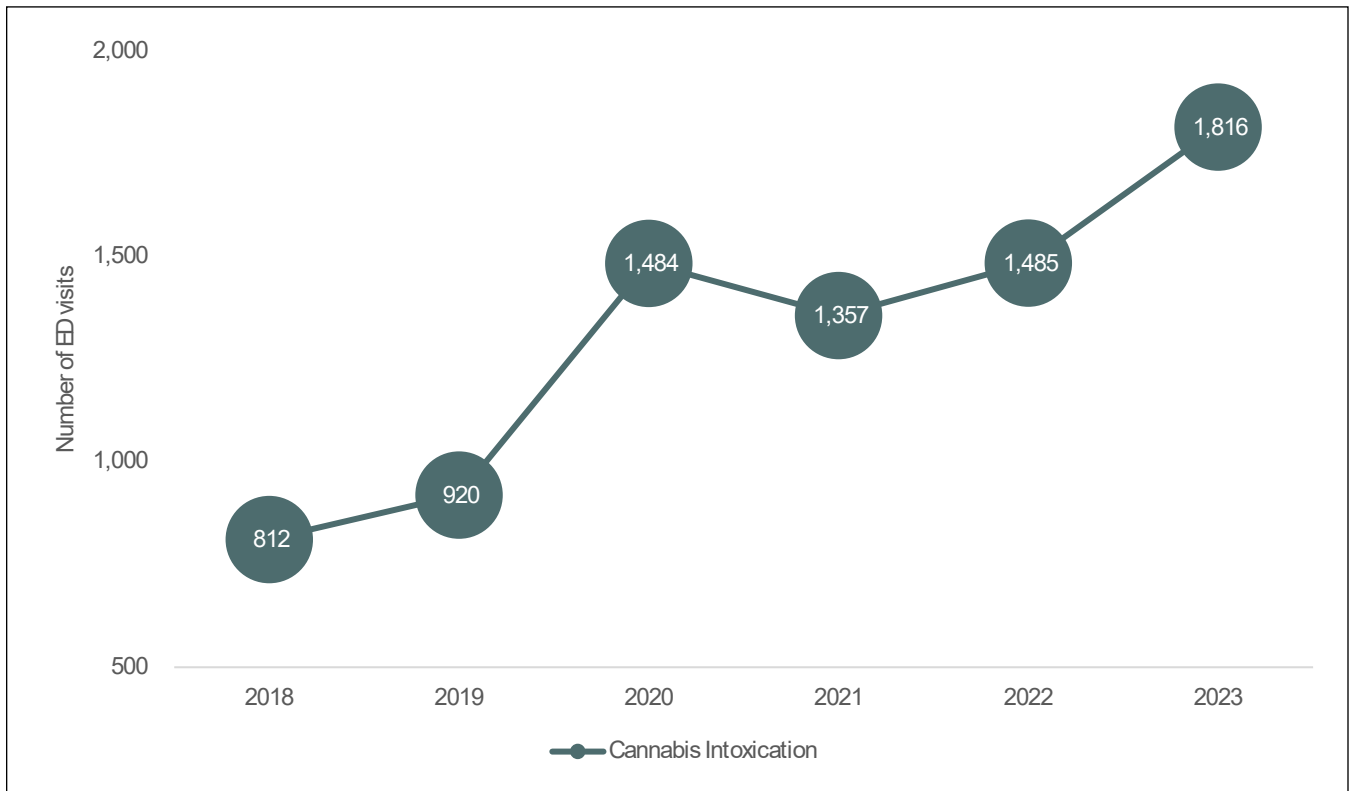
ILLINOIS ED VISITS: POTENTIAL CANNABIS HYPEREMESIS (2018–2023)



Source: Illinois Department of Public Health, Division of Patient Safety and Quality

Observations and Notes: As with the national data, these results show a similar increase in the number of such cases presenting to the ED in Illinois since 2018 with more gradual increases since 2021.

ILLINOIS ED VISITS: CANNABIS INTOXICATION (2018–2023)

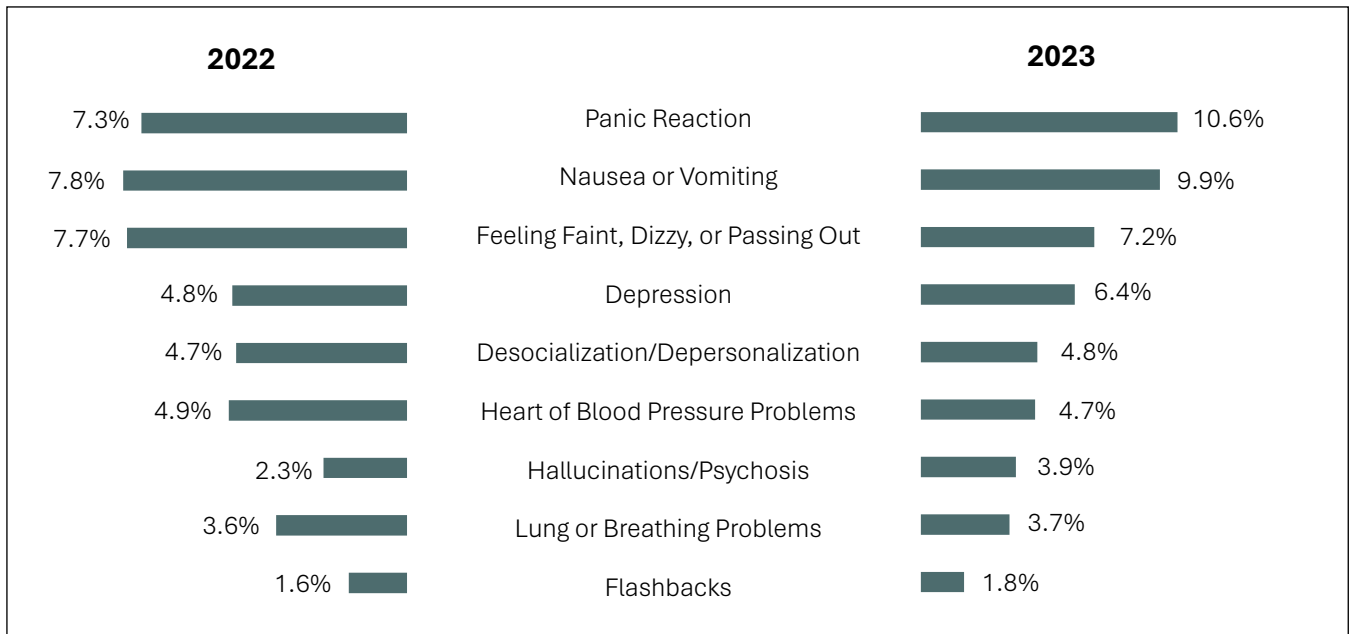


Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

Observations and Notes: Cannabis use, unspecified with intoxication, is diagnosed using ICD-10 code F12.92X. This diagnosis indicates cannabis use whereby the user is clearly experiencing or reporting being intoxicated or “high” but is not experiencing symptoms associated with cannabis poisoning. There has clearly been an increase in such cases seen in the ED between 2018 and 2023. Cannabis intoxication with psychosis is a subclassification (F12.925). There have been very few such reported cases in Illinois with 37 in 2021, 38 in 2022, and 41 in 2023.

The increase in cannabis use with intoxication is consistent across age groups, including pediatric cases ages 1 to 12 years old, where there was an increase from seven such cases in 2018 to 82 in 2023. There has also been an increase among teenagers ages 13 to 17, from 157 in 2018 to 356 in 2023.

PERCENTAGE OF CANNABIS USERS EXPERIENCING ANY ADVERSE EFFECTS IN THE PAST-YEAR (2022–2023)

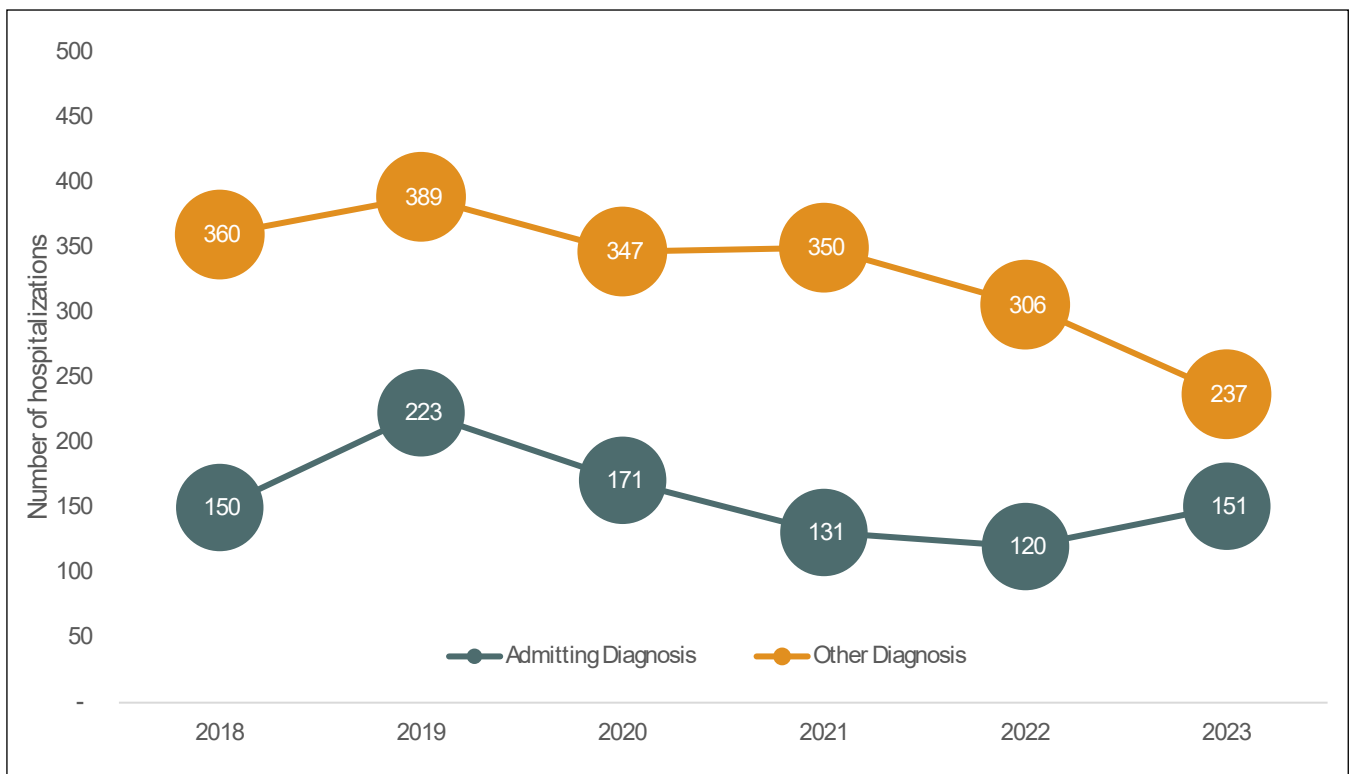


Source: International Cannabis Policy Study, Illinois site data (2022–2023) - David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

Observations and Notes: 29.9% of persons using cannabis in the past year said they experienced one or more adverse effects with panic reaction (10.6%), nausea or vomiting (9.9%), and feeling faint or dizzy (7.2%) being among the more common adverse health effects.

Of those reporting an adverse event, 15.7% experiencing one symptom and 14.2% of those experiencing 2 or more symptoms said they sought medical attention. (not depicted in chart).

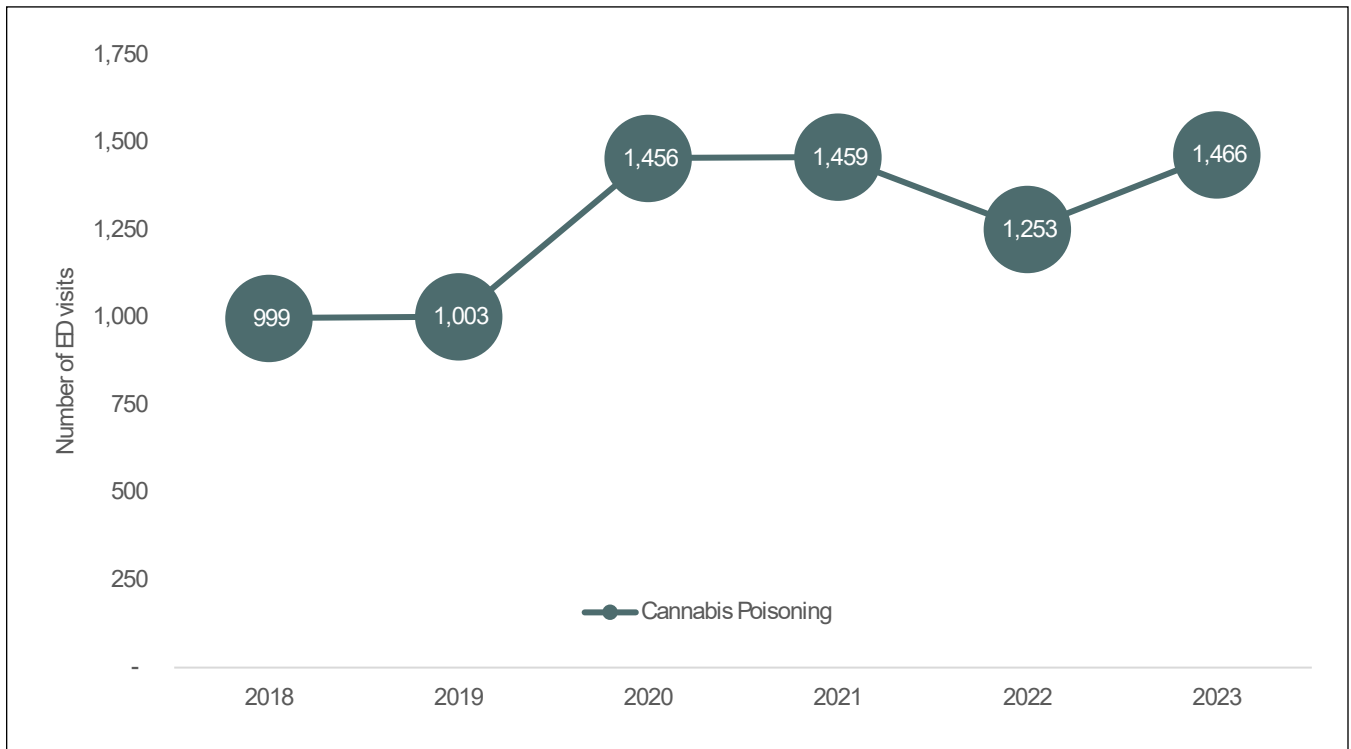
ILLINOIS HOSPITALIZATIONS: CANNABIS POISONING AS ADMITTING OR OTHER DIAGNOSIS (2018–2023)



Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

Observations and Notes: Hospitalizations for cannabis poisoning (i.e., overdose), whether as an admitting or co-occurring diagnosis, remain relatively rare. There is no indication of a large increase in such hospitalizations since adult use cannabis legalization in Illinois in 2020. It appears that the majority of cases presenting with cannabis poisoning are treated in the ED and released without requiring hospitalization.

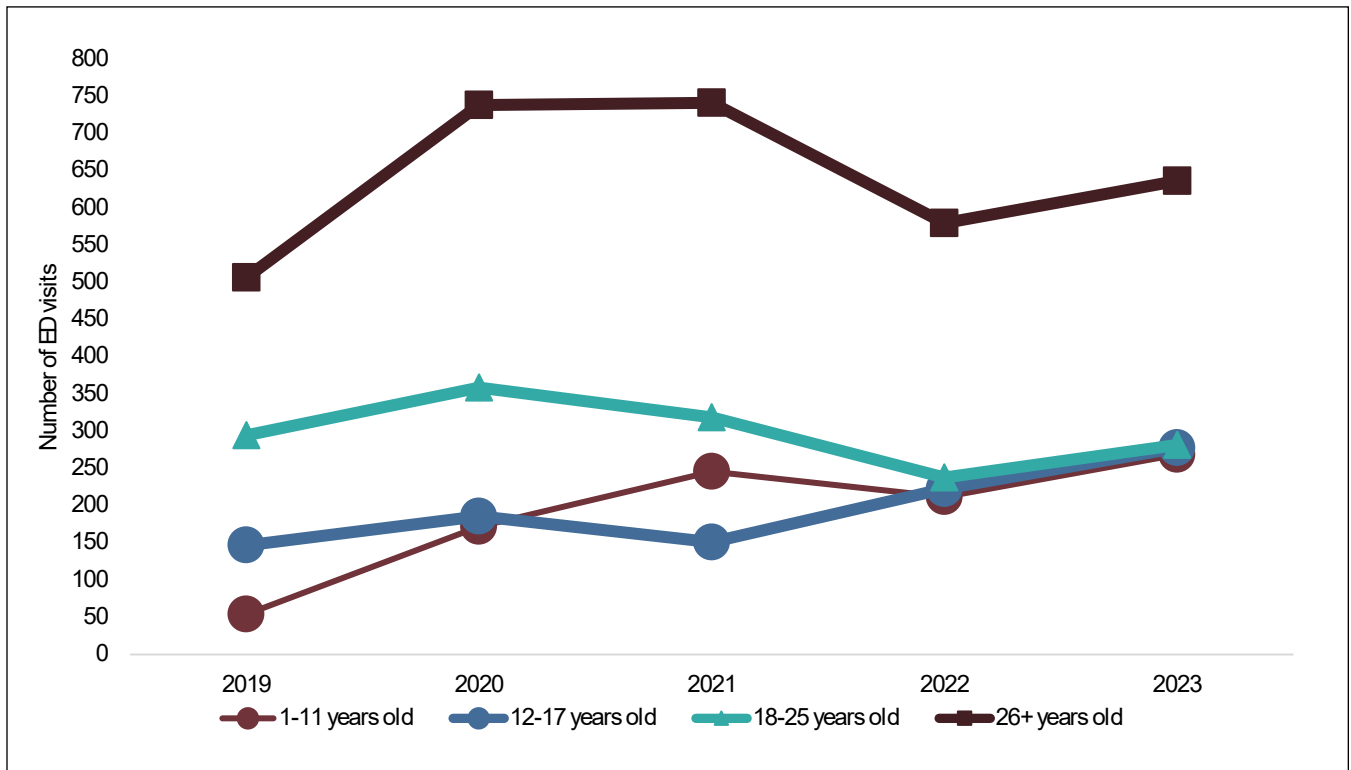
ILLINOIS ED VISITS: CANNABIS POISONING AMONG ALL DIAGNOSES (2018–2023)



Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

Observations and Notes: In contrast to hospitalizations and ED visits for a cannabis use disorder, ED visits appear to be continuing at an increased level since 2020 for cannabis poisoning. Compared with 2019, when there were 1,003 ED visits that included a diagnosis of cannabis poisoning (ICD-10 code T40.7X), the 1,466 such ED visits in 2023 reflects a 46.2% increase.

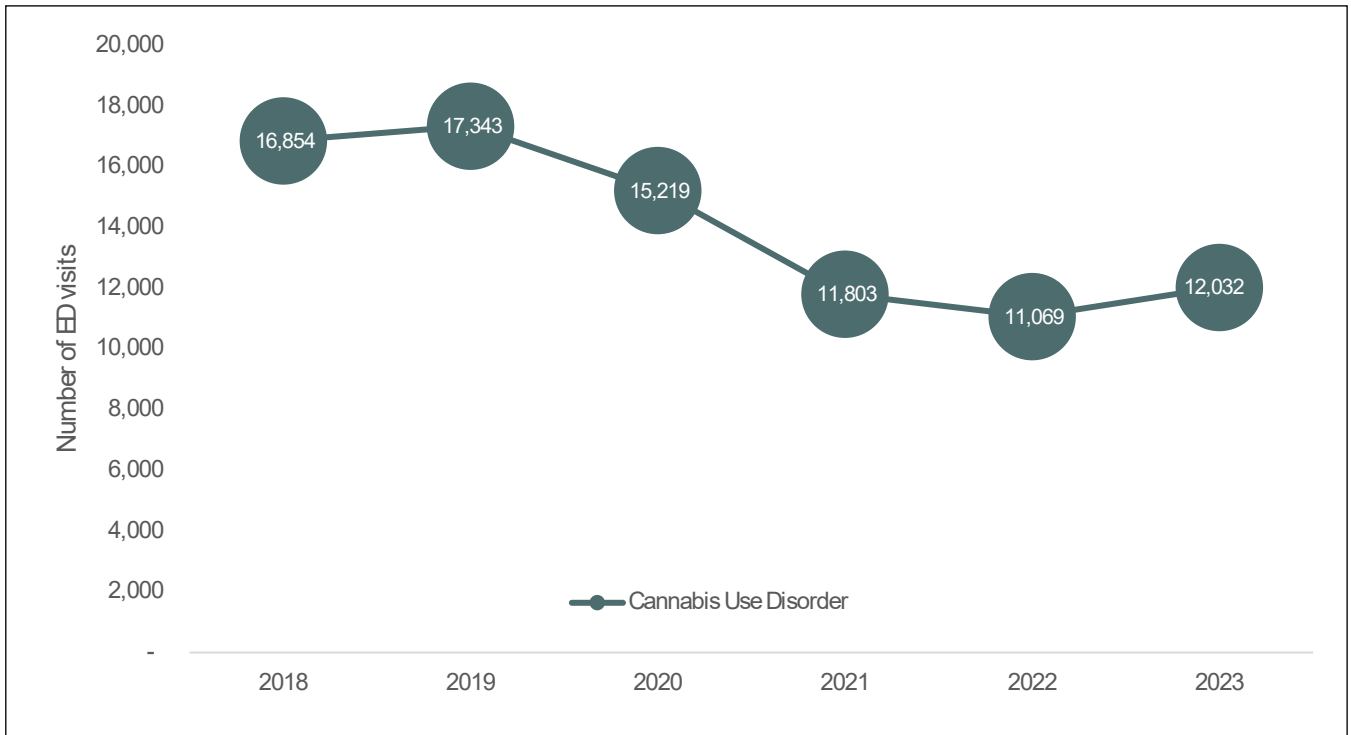
ED VISITS WITH CANNABIS POISONING AMONG ALL DIAGNOSES BY AGE GROUP (2019–2023)



Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

Observations and Notes: Across all age groups, the largest number of persons presenting to the ED with cannabis poisoning appear to be in the 26 years of age or older group. The number of such persons presenting to the ED for treatment of cannabis poisonings appears to have been fairly level since 2019. This contrasts with the results shown below for cannabis poisonings reported to the poison control center where the number of pediatric cases has increased between 2022 and 2023.

ILLINOIS ED VISITS: CANNABIS USE DISORDER AMONG ALL DIAGNOSES (2018–2023)



Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

Observations and Notes: Cannabis use disorder (i.e., abuse or dependence) as a diagnosis during an ED visit has not increased since adult use cannabis legalization in 2020 and, in fact, decreased since then.

DEMOGRAPHICS BY HIERARCHICAL CANNABIS-RELATED DIAGNOSES FOR ED VISITS (2023)

	Cannabis Use Only (N = 32,263) %/M(SD)	Cannabis Intoxication (N = 1,771) % / M(SD)	Cannabis Poisoning (N = 1,421) % / M(SD)	Cannabis Use Disorder (N = 12,032) % / M(SD)"	Total (N = 47,487) % / M(SD)	Sig	Cramers' V
Gender at Birth						***	0.04
Male	50.6	44.6	49.0	56.8	52.3		
Female	49.4	55.4	51.0	43.2	47.7		
Race/Ethnicity						***	0.07
White	50.3	40.4	37.0	46.3	48.9		
Black / African American	35.4	30.5	32.3	34.2	34.8		
Latino	9.9	19.9	19.5	14.5	11.8		
Other	4.4	9.2	11.2	5.1	4.9		
Age in years (mean/sd)	36.7 (15.4)	31.9 (17.5)	27.0 (19.0)	35.7 (15.1)	35.9 (15.6)	***	NA
Pregnancy, incidental	< 1.0	0	0	< 1.0	< 1.0	NS	0.006
Pediatric	< 1.0	4.1	20.6	< 1.0	< 1.0	***	0.37
Insurance							
Medicaid	58.9	46.9	51.8	61.1	58.8	***	0.06
Medicare	11.6	8.9	7.7	10.1	11.0	***	0.03
Private		31.8	35.1	31.0	28.0	***	0.04
Cannabis Hyperemesis Syndrome	18.4	10.7	1.2	19.1	17.8	***	0.09

Note: Results shown are based on 2023 Illinois ED discharge data. A cannabis-related diagnostic grouping was applied based on the following hierarchy: 1) Cannabis use diagnosed but not other cannabis-related diagnosis present; 2) Cannabis intoxication diagnosed but no diagnosis for cannabis poisoning or cannabis use disorder; 3) Cannabis poisoning diagnosed but no diagnosis for cannabis use disorder; and 4) Cannabis use disorder (i.e., abuse/dependence) diagnosed. Cannabis hyperemesis syndrome was determined present if there was a co-occurring diagnosis of nausea (R11.XX) or hyperemesis gravidarum (O21.1) in addition to the cannabis-related diagnosis. All figures shown are percentages unless otherwise indicated. Results less than 1.0% are suppressed.

Statistical significance was determined using the chi-square test for all categorical variables with one-way ANOVA used for the one interval level measure (age in years). Cramer's V provides additional information on the strength of the association for the categorical variables. $V < .2$ = weak association; $.2 < V < .6$ = moderate association; $V > .6$ = strong association. Most of the associations shown in this table are weak, with the exception of pediatric cases where $V = .37$, reflecting a moderate association. Pediatric cases were more likely to present to the ED with a diagnosis of cannabis poisoning than with any other cannabis-related diagnosis.

*** = $p < .001$; NS = non-significant; NA = not applicable

NS = non-significant; * = $p < .05$; ** = $p < .01$; *** = $p < .001$

Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS BY HIERARCHICAL CANNABIS-RELATED DIAGNOSES FOR ED VISITS (2023)

	Cannabis Use Only (N = 32,263) %/M(SD)	Cannabis Intoxication (N = 1,771) % / M(SD)	Cannabis Poisoning (N = 1,421) % / M(SD)	Cannabis Use Disorder (N = 12,032) % / M(SD)"	Total (N = 47,487) % / M(SD)	Sig	Cramers' V
Substance Use Diagnoses							
Alcohol Use	4.5	3.6	< 1.0	1.6	3.6	***	0.07
Cocaine Use	2.5	1.1	< 1.0	< 1.0	1.8	***	0.07
Opioid Use	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	***	0.04
Alcohol-related Intoxication	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	***	0.02
Cocaine-related intoxication	< 1.0	< 1.0	2.9	< 1.0	< 1.0	***	0.12
Opioid-related intoxication	< 1.0	< 1.0	2.0	< 1.0	< 1.0	***	0.04
Alcohol Use Disorder	5.0	6.6	< 1.0	12.5	6.9	***	0.13
Cocaine Use Disorder	1.0	< 1.0	< 1.0	11.8	3.7	***	0.25
Opioid Use Disorder	< 1.0	< 1.0	< 1.0	6.3	2.1	***	0.17

Note. Results shown are based on 2023 Illinois ED discharge data. A cannabis-related diagnostic grouping was applied based on the following hierarchy: 1) Cannabis use diagnosed but not other cannabis-related diagnosis present; 2) Cannabis intoxication diagnosed but no diagnosis for cannabis poisoning or cannabis use disorder; 3) Cannabis poisoning diagnosed but no diagnosis for cannabis use disorder; and 4) Cannabis use disorder (i.e., abuse/dependence) diagnosed. All figures shown are percentages. Results less than 1.0% are suppressed.

Statistical significance was determined using the chi-square test. Cramer's V provides additional information on the strength of the association for the categorical variables. $V < .2$ = weak association; $.2 < V < .6$ = moderate association; $V > .6$ = strong association. Most of the associations shown in this table are weak, with the exceptions of cocaine-related intoxication and alcohol, cocaine, and opioid use disorders, which were moderately associated with the hierarchically determined cannabis-related diagnostic groupings.

*** = $p < .001$; NS = non-significant; NA = not applicable"

Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS BY HIERARCHICAL CANNABIS-RELATED DIAGNOSES FOR ED VISITS (2023)

	Cannabis Use Only (N = 32,263) %/M(SD)	Cannabis Intoxication (N = 1,771) % / M(SD)	Cannabis Poisoning (N = 1,421) % / M(SD)	Cannabis Use Disorder (N = 12,032) % / M(SD)"	Total (N = 47,487) % / M(SD)	Sig	Cramers' V
Mental Illness Diagnoses							
Schizophrenia	2.4	1	< 1.0	3.6	2.6	***	0.04
Bipolar Disorder	4.7	1.9	1.1	5.2	4.6	***	0.04
Manic Episode	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NS	0.01
Psychotic Disorder Not Otherwise Specified	< 1.0	< 1.0	< 1.0	1.6	1.0	***	0.03
Major Depression	9.3	3.5	2.5	9.9	9.0	***	0.06
Anxiety Disorder	14.7	11.5	11.3	14.4	14.4	***	0.02
PTSD	1.6	< 1.0	< 1.0	2.0	1.6	***	0.03

Note. Results shown are based on 2023 Illinois ED discharge data. A cannabis-related diagnostic grouping was applied based on the following hierarchy: 1) Cannabis use diagnosed but not other cannabis-related diagnosis present; 2) Cannabis intoxication diagnosed but no diagnosis for cannabis poisoning or cannabis use disorder; 3) Cannabis poisoning diagnosed but no diagnosis for cannabis use disorder; and 4) Cannabis use disorder (i.e., abuse/dependence) diagnosed. All figures shown are percentages. Results less than 1.0% are suppressed.

Statistical significance was determined using the chi-square test. Cramer's V provides additional information on the strength of the association for the categorical variables. $V < .2$ = weak association; $.2 < V < .6$ = moderate association; $V > .6$ = strong association. Most of the associations shown in this table are weak, with the exceptions of cocaine-related intoxication and alcohol, cocaine, and opioid use disorders, which were moderately associated with the hierarchically determined cannabis-related diagnostic groupings.

*** = $p < .001$; NS = non-significant; NA = not applicable"

Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH DISORDERS BY CANNABIS-RELATED ADMITTING DIAGNOSIS: ILLINOIS HOSPITAL DISCHARGE DATA (2018–2023)

	Cannabis Use/ Intoxication (N = 533)			Cannabis Use Disorder (N = 1,133)			Cannabis Poisoning (N = 946)		
	Risk Ratio	95% CI		Risk Ratio	95% CI		Risk Ratio	95% CI	
Substance Use Disorders									
Alcohol Use	1.7	[0.76, 3.84]	NS	0.5	[0.20, 1.44]	NS	1.0	[0.43, 2.14]	NS
Alcohol Use Disorder	0.3	[0.20, 0.45]	***	0.8	[0.67, 0.96]	*	0.4	[0.32, 0.55]	***
Cocaine Use	1.0	[0.57, 1.80]	NS	0.4	[0.19, 0.69]	**	0.1	[0.05, 0.46]	**
Cocaine Use Disorder	0.1	[0.01, 0.15]	***	0.6	[0.46, 0.75]	***	0.2	[0.15, 0.35]	***
Opioid Use	1.8	[1.03, 3.11]	*	0.1	[0.03, 0.54]	**	0.3	[0.08, 0.78]	*
Opioid Use Disorder	0.1	[0.03, 0.16]	***	0.2	[0.18, 0.34]	***	0.2	[0.11, 0.26]	***
Mental Health Disorders									
Schizophrenia	0.9	[0.68, 1.30]	NS	1.0	[0.83, 1.30]	NS	0.2	[0.16, 0.38]	***
Other Psychotic Disorder	2.0	[1.29, 3.14]	**	1.4	[1.00, 2.04]	*	0.7	[0.38, 1.19]	NS
Bipolar Disorder	1.1	[0.79, 1.53]	NS	1.6	[1.28, 1.91]	***	0.9	[0.70, 1.19]	NS
Depressive Disorder or Episode	1.7	[1.39, 2.17]	***	2.0	[1.70, 2.29]	***	1.2	[1.00, 1.47]	*
Other Mood Disorder	1.4	[0.81, 2.54]	NS	2.3	[2.69, 3.13]	***	0.4	[0.17, 0.83]	*
Anxiety Disorder	0.9	[0.71, 1.06]	NS	1.1	[0.92, 1.20]	NS	0.6	[0.48, 0.67]	***
Post-Traumatic Stress Disorder	0.7	[0.47, 0.98]	*	0.7	[0.55, 0.90]	**	0.2	[0.10, 0.27]	***

Note: Results are based on Illinois hospital data for patients discharged from 2018 to 2023 (N = 663,508). Estimated effects are based on generalized linear models with a log link function, binomial error distribution and maximum likelihood estimation. All models control for gender, age, race/ethnicity, Medicare or Medicaid insurance, and year of admission. Risk ratios greater than 1.0 indicate an increased risk a person with a given cannabis-related admitting diagnosis will also be diagnosed with another substance use or mental health disorder whereas relative risks below 1.0 indicate a decreased risk. Significance levels are based on a Z-test of the estimated risk ratio.

Cannabis-related diagnoses were determined from the admitting diagnosis. All other disorders were determined from up to 24 additional possible diagnoses per hospital stay. ICD 10 diagnostic codes used to identify each disorder are as follows: cannabis use/intoxication (F12.9X); cannabis use disorder (F12.1X or F12.2X); cocaine poisoning (T40.7X); alcohol use (F10.9X); alcohol use disorder (F10.1X or F10.2X); cocaine use (F14.9X); cocaine use disorder (F14.1X or F14.2X); opioid use (F11.9X); opioid use disorder (F11.1X or F11.2X); schizophrenia (F20.XX or F25.XX); other psychotic disorder (F23.XX or F24.XX or F28.XX or F29.XX); bipolar disorder (F31.XX); depressive disorder or episode (F32.XX or F33.XX); other mood disorder (F34.XX or F39.XX); anxiety disorder (F41.XX); PTSD (F43.1X).

NS = non-significant; * = $p < .05$; ** = $p < .01$; *** = $p < .001$

Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH DISORDERS BY CANNABIS-RELATED DIAGNOSIS: ILLINOIS EMERGENCY DEPARTMENT DISCHARGE DATA (2018–2023)

	Cannabis Use/ Intoxication			Cannabis Use Disorder			Cannabis Poisoning		
	(N = 172,975)			(N = 84,320)			(N = 7,636)		
Substance Use and Disorders	Risk Ratio	95% CI		Risk Ratio	95% CI		Risk Ratio	95% CI	
Alcohol Use	1.9	[1.88, 1.86]	***	0.9	[0.86, 0.97]	**	0.3	[0.24, 0.48]	***
Alcohol Use Disorder	1.2	[1.10, 1.13]	***	2.3	[2.22, 2.30]	***	0.3	[0.29, 0.40]	***
Cocaine Use	2.2	[2.20, 2.29]	***	0.4	[0.34, 0.41]	***	0.2	[0.12, 0.31]	***
Cocaine Use Disorder	0.4	[0.33, 0.36]	***	3.5	[3.40, 3.51]	***	0.2	[0.16, 0.28]	***
Opioid Use	0.3	[0.30, 0.33]	***	0.1	[0.06, 0.86]	***	0.1	[0.03, 0.10]	***
Opioid Use Disorder	0.1	[0.05, 0.06]	***	0.3	[0.33, 0.35]	***	0.1	[0.04, 0.07]	***
Mental Health Disorders									
Schizophrenia	0.1	[0.07, 0.08]	***	0.1	[0.13, 0.14]	***	0.2	[0.01, 0.03]	***
Other Psychotic Disorder	0.2	[0.22, 0.24]	***	0.3	[0.32, 0.36]	***	0.0	[0.04, 0.07]	***
Bipolar Disorder	0.6	[0.55, 0.67]	***	0.7	[0.70, 0.73]	***	0.2	[0.17, 0.24]	***
Depressive Disorder or Episode	1.0	[1.01, 1.03]	**	1.3	[1.23, 1.27]	***	0.4	[0.36, 0.44]	***
Other Mood Disorder	1.0	[0.91, 1.01]	NS	1.6	[1.47, 1.65]	***	0.2	[0.09, 0.35]	***
Anxiety Disorder	1.0	[1.09, 1.11]	***	1.3	[1.25, 1.29]	***	1.0	[0.97, 1.10]	NS
Post-Traumatic Stress Disorder	0.9	[0.91, 0.96]	***	1.2	[1.13, 1.22]	***	0.3	[0.24, 0.41]	***

Note: Results are based on Illinois emergency department data for patients discharged from 2018 to 2023 (N = 670,427). Estimated effects are based on generalized linear models with a log link function, Poisson error distribution, and maximum likelihood estimation. All models control for gender, age, race/ethnicity, Medicare or Medicaid insurance, and year of admission. Risk ratios greater than 1.0 indicate an increased risk a person with a given cannabis-related admitting diagnosis will also be diagnosed with another substance use or mental health disorder whereas relative risks below 1.0 indicate a decreased risk. Significance levels are based on a Z-test of the estimated risk ratio.

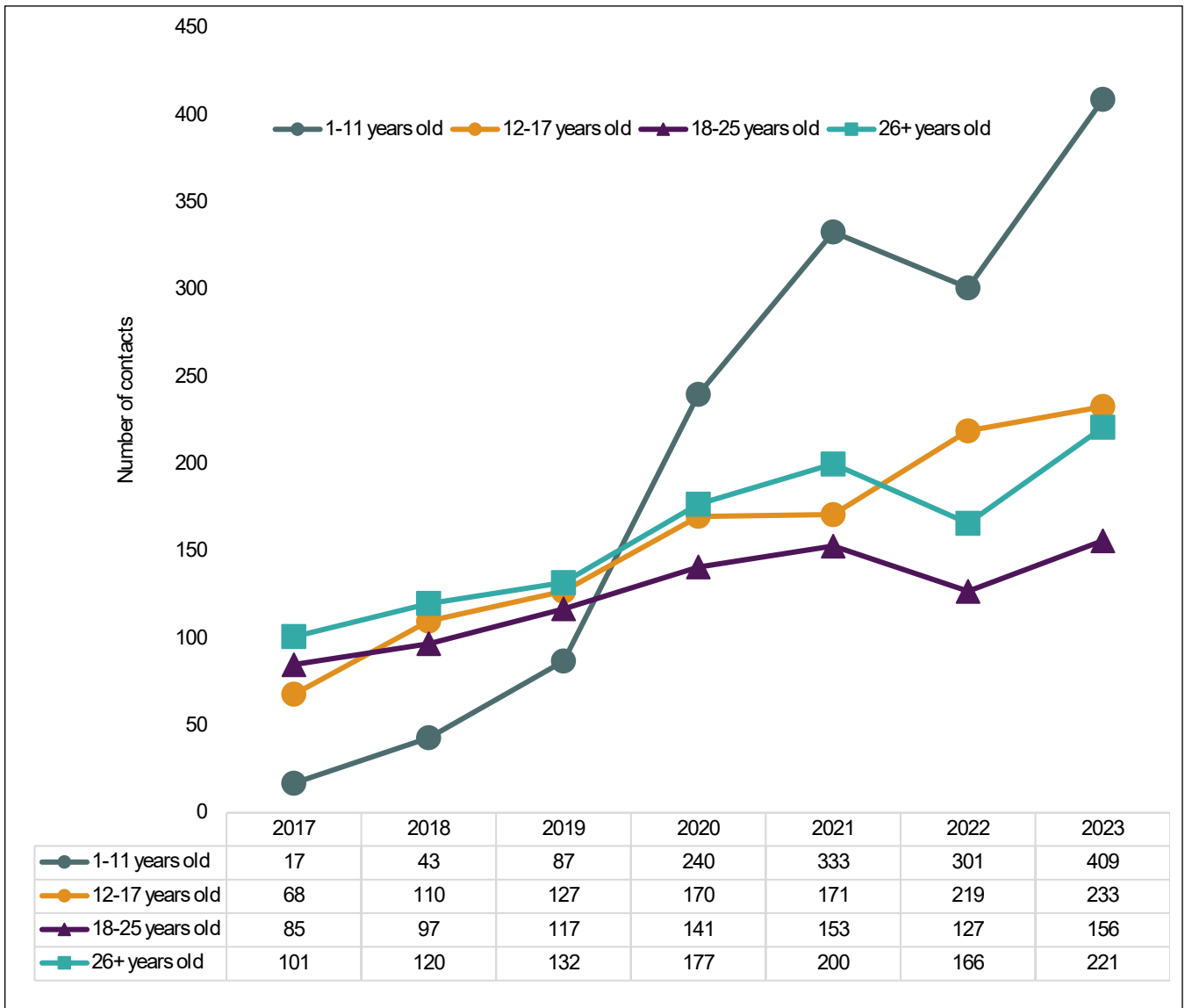
Cannabis related disorders as well as all other represented disorders were determined from up to 25 possible diagnoses per ED visit. ICD 10 diagnostic codes used to identify each disorder are as follows: cannabis use/intoxication (F12.9X); cannabis use disorder (F12.1X or F12.2X); cocaine poisoning (T40.7X); alcohol use (F10.9X); alcohol use disorder (F10.1X or F10.2X); cocaine use (F14.9X); cocaine use disorder (F14.1X or F14.2X); opioid use (F11.9X); opioid use disorder (F11.1X or F11.2X); schizophrenia (F20.XX or F25.XX); other psychotic disorder (F23.XX or F24.XX or F28.XX or F29.XX); bipolar disorder (F31.XX); depressive disorder or episode (F32.XX or F33.XX); other mood disorder (F34.XX or F39.XX); anxiety disorder (F41.XX); PTSD (F43.1X).

NS = non-significant; * = $p < .05$; ** = $p < .01$; *** = $p < .001$

PUBLIC HEALTH EFFECTS



POISON CONTROL CENTER CONTACTS BY AGE GROUP (2017–2023)



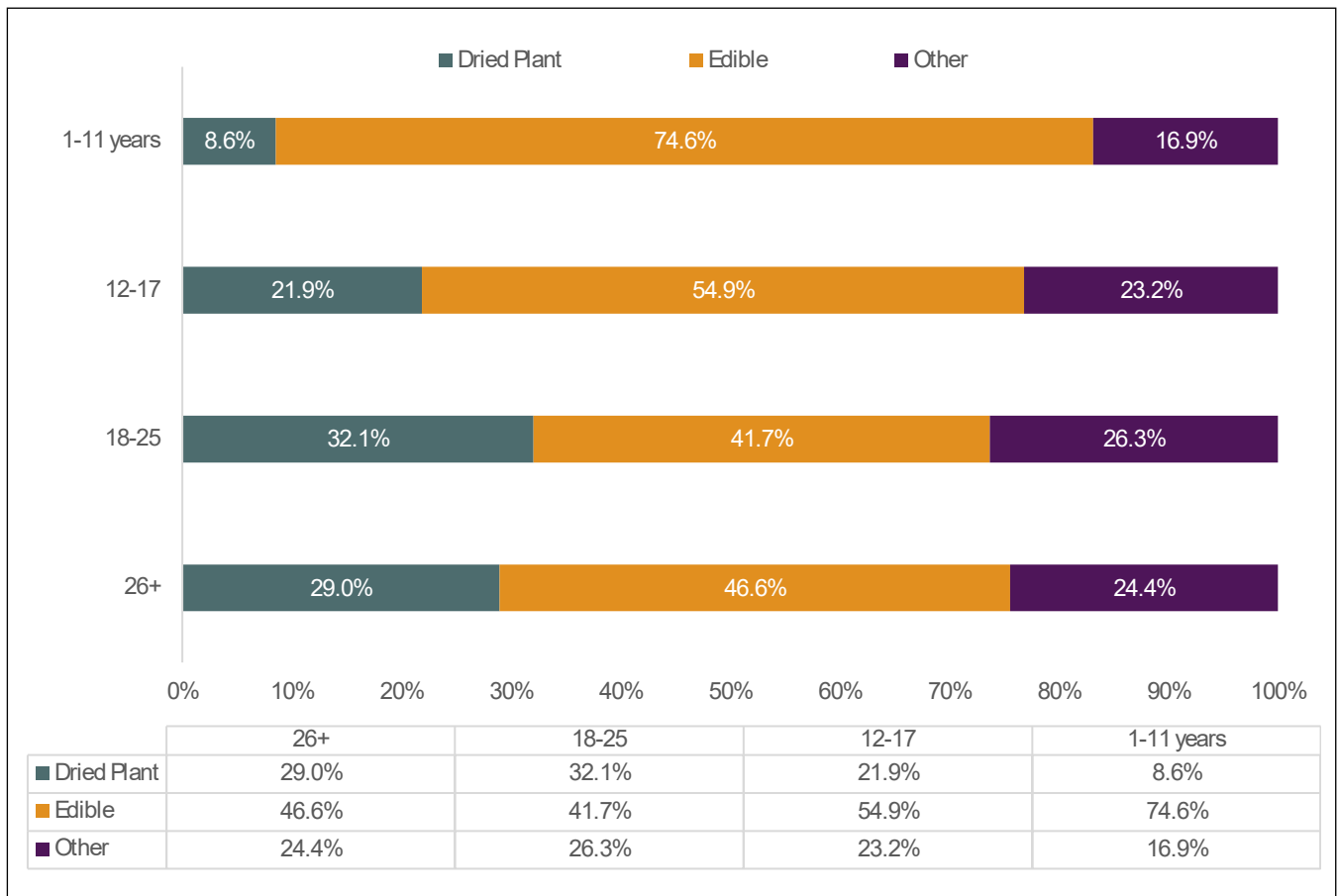
Source: National Poison Data System. Information available at: <https://www.aapcc.org/national-poison-data-system>

POISON CONTROL CENTER CONTACTS BY AGE GROUP (2017–2023) (CONTINUED)

Observations and Notes: After 2022, when cannabis poisonings among pediatric cases appeared to be leveling off and had declined slightly from the previous year, there was again a large increase in 2023 among children ages 1 to 11 years old. There were 409 cases in 2023 compared with 301 in 2022, representing a 35.9% increase. The average age of children in this category was 4.7 years (95% CI = 4.4, 5.0), reflecting a slight though not statistically significant decrease since 2016–2018 when the mean age of pediatric poisonings was just over 5.0 years ($F(df = 7, 1,446) = 0.5, p = 0.83$). There were also increased numbers of poisonings among other age groups in 2023, but these were much smaller than the increase among pediatric cases.

The most reported clinical effects of cannabis poisoning in 2023 were: CNS depression (53.5%), tachycardia (17.3%), vomiting (13.3%), and agitation (9.2%). Among pediatric cases, the most common clinical effects were: CNS depression (63.8%), vomiting (9.5%), tachycardia (6.6%), and ataxia (6.1%).

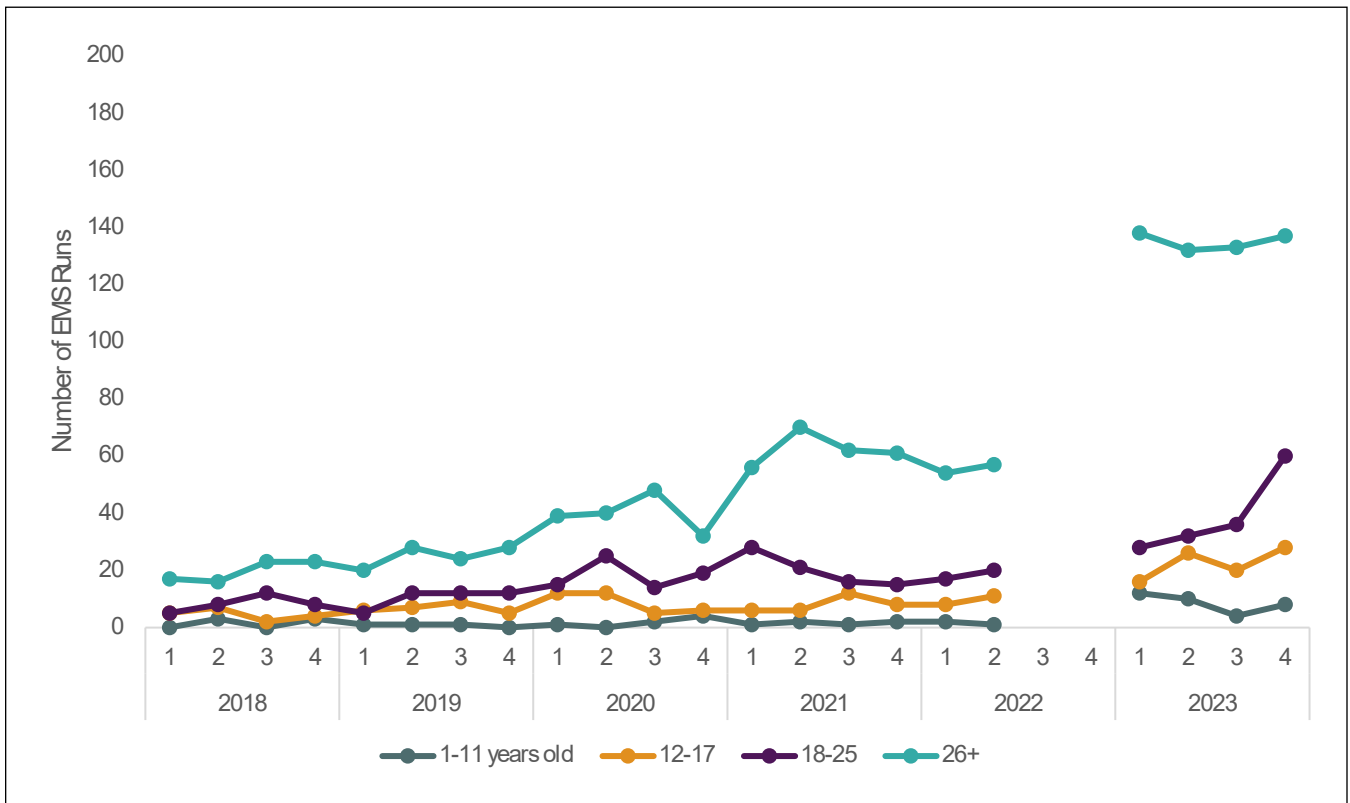
POISON CONTROL CONTACTS TYPE OF CANNABIS PRODUCT INGESTED BY AGE GROUP (2023)



Source: National Poison Data System. Information available at: <https://www.aapcc.org/national-poison-data-system>.

Observations and Notes: Most pediatric poison control center contacts (77.0%) were owing to ingestion of edible cannabis products whereas other age groups were more evenly divided between dried cannabis plant-based products and edibles. Pediatric poisoning cases were also much less likely to have ingested another drug (0.4%) compared with cases 12–17 years of age (21.8%), 18–25 years of age (38.5%), and those 26 or older (38.7%). Across all age groups, the most frequently reported other drugs ingested with cannabis were alcohol (9.5%) and benzodiazepines (7.8%).

NUMBER OF EMS RUNS FOR CANNABIS POISONING AS PRIMARY OR SECONDARY IMPRESSION BY AGE GROUP (2018–2023)

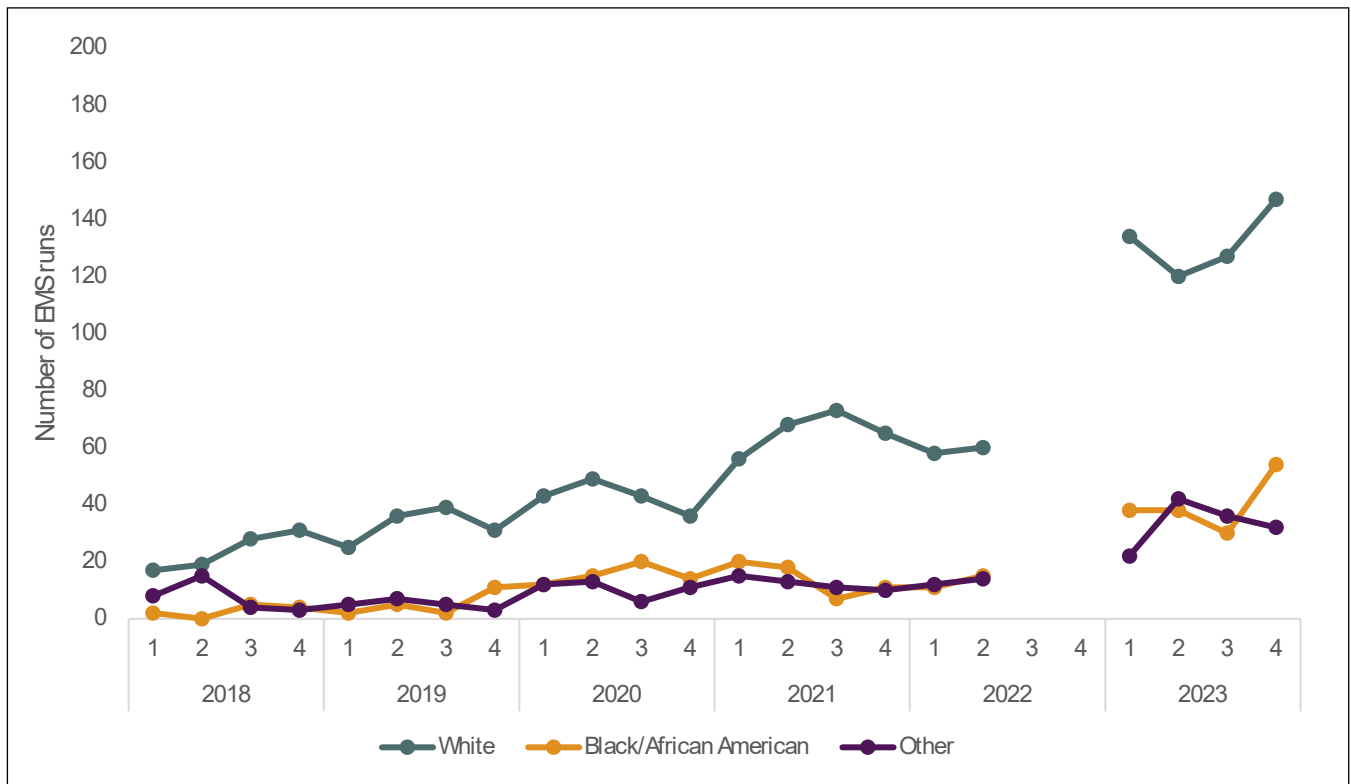


Source: Illinois Department of Public Health, Emergency Medical Services, Prehospital Data Program. Information available at: <https://dph.illinois.gov/topics-services/emergency-preparedness-response/ems/prehospital-data-program.html>

Observations and Notes: By age group, the increase in EMS runs where the provider’s primary or secondary impression included cannabis poisoning (ICD-10 T40.7X) was predominantly among persons 26 years of age or older. The next largest increase, albeit much smaller than the increase among adults 26 and older, was among children 1 to 11 years of age.

Data for the third and fourth quarters of 2022 were not available for this report.

NUMBER OF EMS RUNS FOR CANNABIS POISONING AS PRIMARY OR SECONDARY IMPRESSION BY RACE (2018–2023)

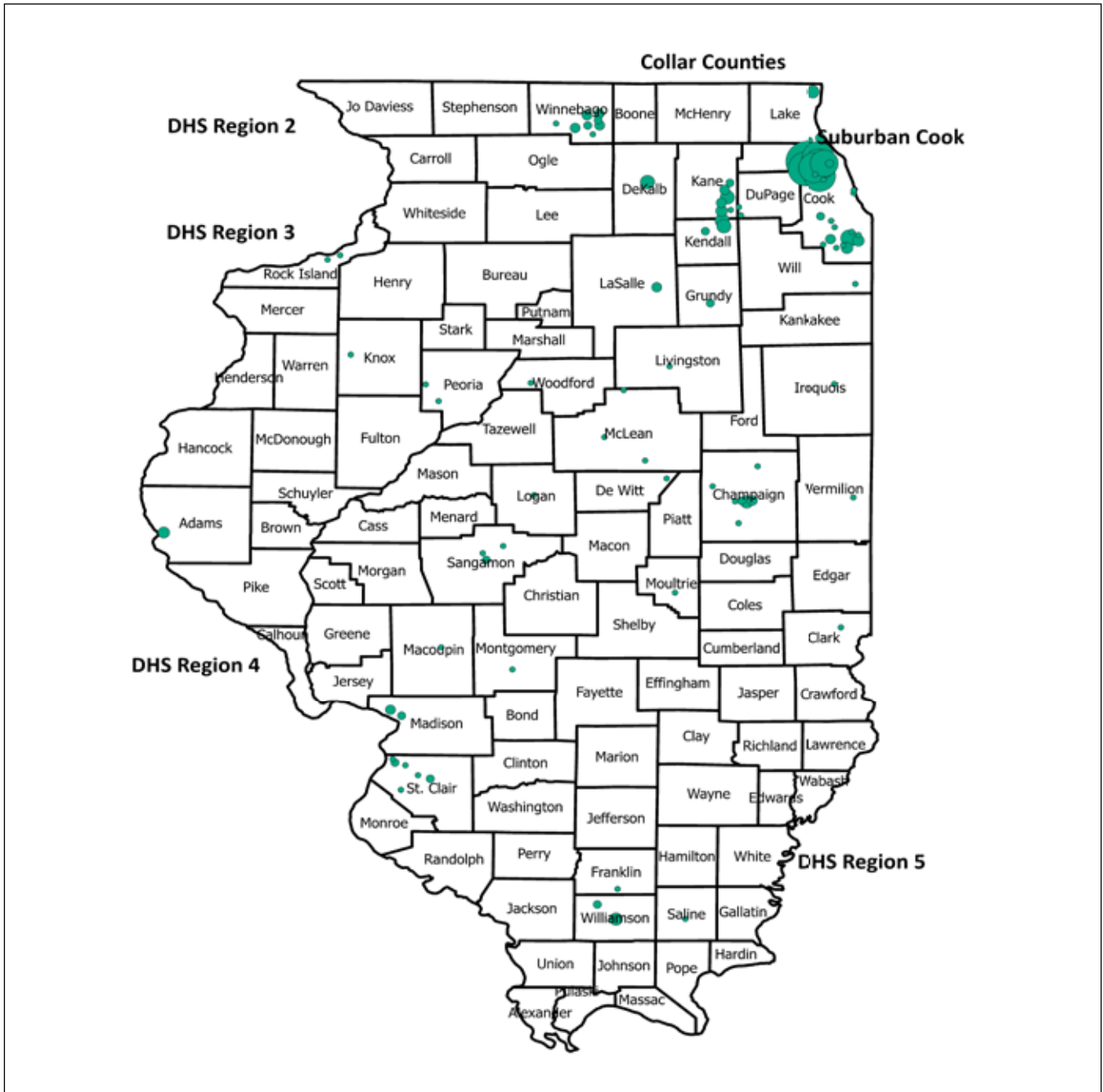


Source: Illinois Department of Public Health, Emergency Medical Services, Prehospital Data Program. Information available at: <https://dph.illinois.gov/topics-services/emergency-preparedness-response/ems/prehospital-data-program.html>

Observations and Notes: Although the absolute numbers have remained small, especially compared with EMS runs for opioid overdoses, there was a relatively large increase in the number of such runs where the provider’s primary or secondary impression included cannabis poisoning (ICD-10 T40.7X). The majority of the increase was among whites with most such EMS runs occurring in northern suburban Cook, Kane, or Winnebago Counties. There were also increases among Black/African Americans and Other racial groups, but these were much smaller than the increase for whites.

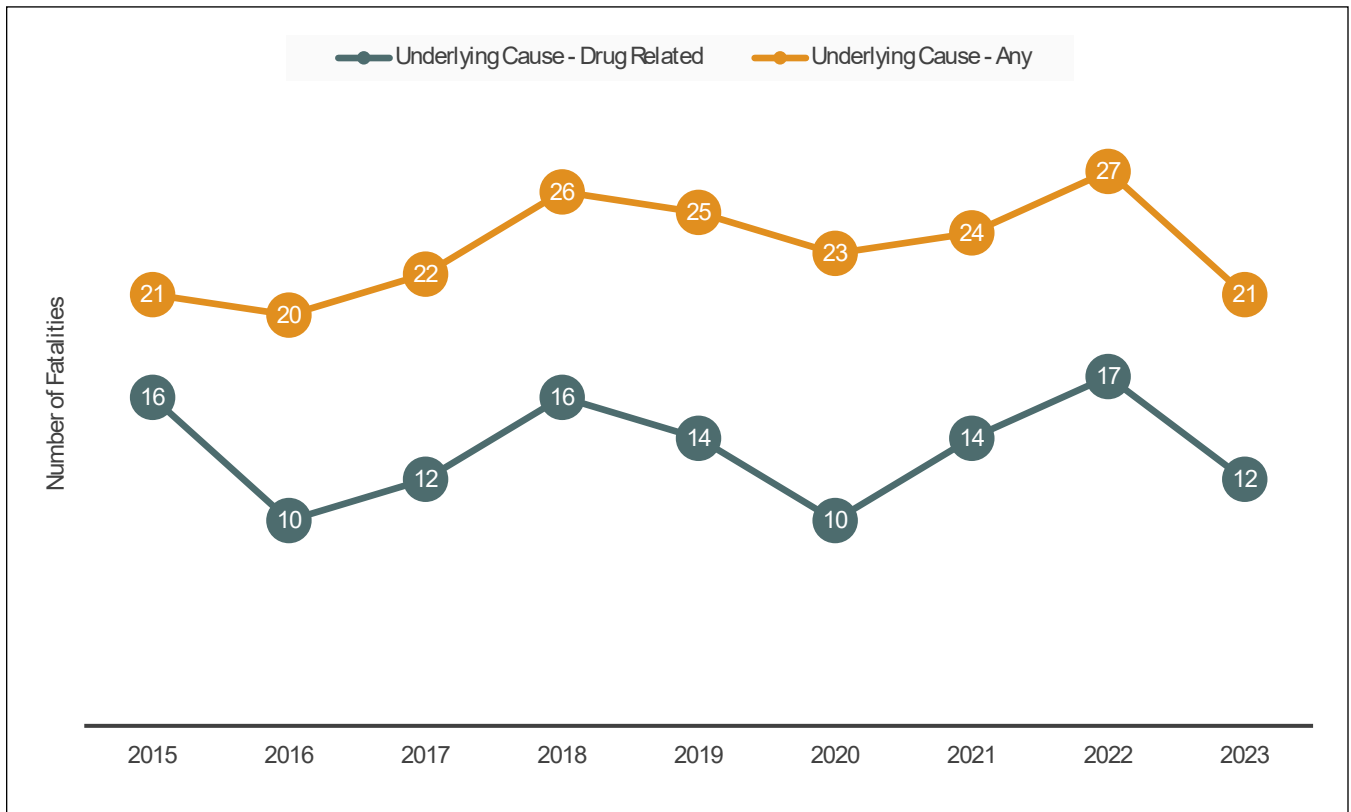
Data for the third and fourth quarters of 2022 were not available nor was information on ethnicity, which precluded assessment of runs involving Hispanic persons.

EMS RUNS INVOLVING CANNABIS POISONING AS PROVIDER PRIMARY OR SECONDARY IMPRESSIONS (2023)



Source: Illinois Department of Public Health, Emergency Medical Services, Prehospital Data Program. Information available at: <https://dph.illinois.gov/topics-services/emergency-preparedness-response/ems/prehospital-data-program.html>

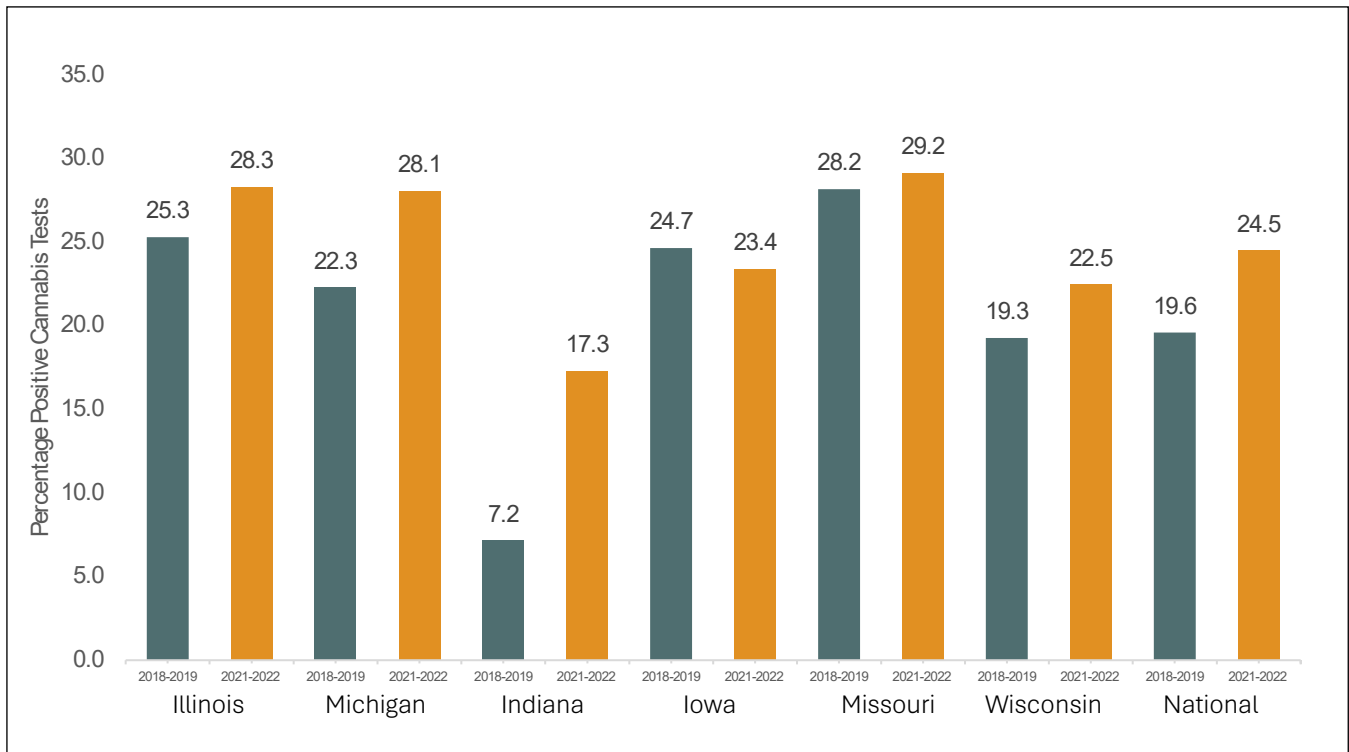
OVERDOSE FATALITIES CITING CANNABIS AS A CONTRIBUTING CAUSE OF DEATH (2015–2023)



Source: CDC Wide-Ranging Online Database for Epidemiological Research (WONDER) 1999–2022: Available at <https://wonder.cdc.gov/mcd-icd10.html>

Observations and Notes: There was a decrease in cannabis-related fatalities in Illinois from 2022–2023. Cannabis poisoning (ICD-10 code, T40.7) as a contributing cause of death remains low whether counted as a contributing cause where the underlying cause was drug-related or for any underlying cause.

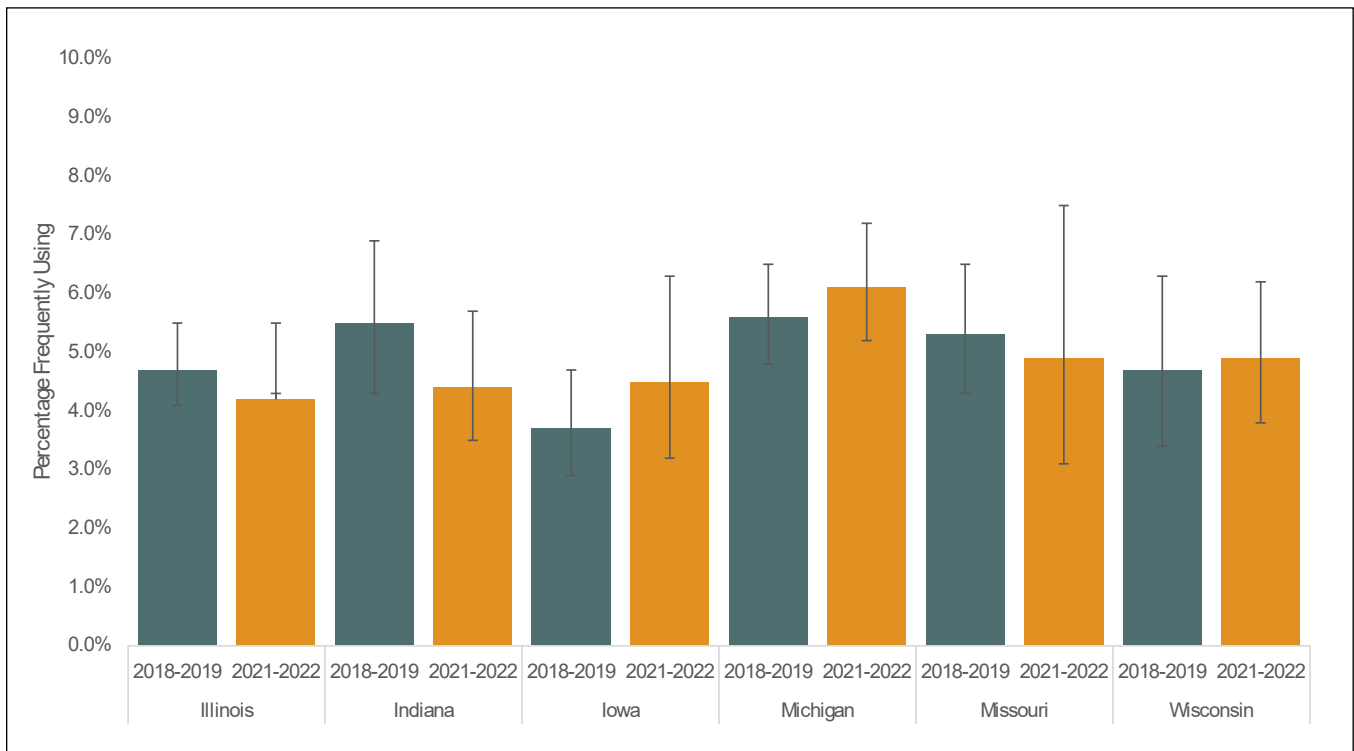
POSITIVE CANNABIS TESTS FOR DRIVERS IN FATAL TRAFFIC ACCIDENTS (2018–2022)



Source: National Highway Traffic Safety Administration: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

Observations and Notes: The data shown reflect the percentage of drug tests that were positive for any form of cannabis by state and year. The test results shown are for vehicle drivers only. For some fatal crashes, drivers of both vehicles involved were tested. Illinois's 2018–2019 results are based on 1,939 fatal crashes and 1,324 drug tests. The 2021–2022 results are based on 2,458 fatal crashes and 1,244 tests. Most neighboring Midwest states, with the exception of Iowa, as well as nationally, had a higher percentage of drug tests that were positive for any form of cannabis (i.e., synthetic or delta-9). Only one of the positive cannabis tests was for synthetic cannabis. In Illinois, the percentage increase in positive tests was 11.8%, and the point-percentage increase was 3.0%. This increase was not statistically significant ($\chi^2(df=1) = 2.93, p = .09$).

PAST-YEAR DRIVING WHILE UNDER THE INFLUENCE OF CANNABIS BY MIDWEST STATE (2018–2022)



Source: National Survey on Drug Use and Health Restricted Access Data Online – <https://datatools.samhsa.gov/>

Observations and Notes: Data shown reflect the percentage of NSDUH participants who indicated they had driven a vehicle while under the influence of marijuana in the past year. Illinois, Indiana, and Missouri all saw small decreases in driving while using cannabis, whereas Iowa, Michigan, and Wisconsin had increases. In Illinois, the 0.5 percentage-point decline in motorists driving while under the influence of cannabis reflects a 10.6% decrease. Illinois had the lowest percentage of positive cannabis tests among all of the Midwestern states, but it was not a statistically significant difference.

The 4.2% of Illinois participants reporting cannabis-related DUI is the same as the national percentage for 2021–2022.

CANNABIS TEST RESULTS FOR DRIVERS IN ILLINOIS FATAL TRAFFIC ACCIDENTS AND DRUGS MOST FREQUENTLY USED WITH CANNABIS IN ILLINOIS FATAL TRAFFIC ACCIDENTS (2018–2022)

	Total Drivers in Fatal Accidents	Drivers Tested with Known Results	Percent Drivers Tested	Percent Tests Positive for Cannabis	One or More Drugs Plus Positive Cannabis Test (incl. Alcohol)
2018	1,469	719	49%	25.5%	54.1%
2019	1,454	605	42%	25.1%	53.9%
2020	1,662	417	25%	36.9%	53.2%
2021	1,891	666	35%	30.2%	65.8%
2022	1,726	578	33%	26.1%	48.3%
Totals	8,202	2,985	36%	28.2%	55.7%

Source: National Highway Traffic Safety Administration: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

Observations and Notes: Among Illinois drivers in fatal traffic accidents who were drug tested and for whom the test results were reported, 28.2% were positive for any cannabis use from 2018–2022. Relative to 2022, there was a slight decline in the percentage of drug tests that were positive for cannabis (26.1% versus 30.2%). However, because the percentage of drivers tested fluctuates yearly, it is hard to draw firm conclusions based on year-to-year comparisons. To date, however, there does not seem to be a trend of increased cannabis use in fatal crashes following the increases seen in 2020 and 2021.

The most commonly used drugs along with cannabis were alcohol, positive in 41.4% of the drug tests that were also positive for any cannabis use, and stimulants, which were positive in 25.92% of the known positive cannabis drug test results. The most commonly used stimulants in order of decreasing number of positive tests were: caffeine, methamphetamine, amphetamine, cotinine (nicotine), and cocaine.

Drug test results include synthetic cannabis. However, as of 2022, there has only been one positive test for synthetic cannabis products that contain, for example, delta-8 THC.

CANNABIS TEST RESULTS FOR DRIVERS IN ILLINOIS FATAL TRAFFIC ACCIDENTS AND DRUGS MOST FREQUENTLY USED WITH CANNABIS IN ILLINOIS FATAL TRAFFIC ACCIDENTS (2018–2022)

	Alcohol	Narcotics/ Opioids	Stimulants	Hallucinogens	Depressants/ Tranquilizers
2018	39.3%	9.8%	23.0%	4.4%	15.9%
2019	40.8%	7.9%	26.3%	7.9%	17.8%
2020	42.9%	9.1%	25.3%	5.2%	9.7%
2021	42.8%	12.9%	23.9%	3.5%	11.4%
2022	41.1%	8.6%	32.5%	2.7%	17.2%
Across All Years (Totals)	41.4%	9.9%	25.9%	5.7%	14.3%

Source: National Highway Traffic Safety Administration: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

LOGISTIC REGRESSION MODEL OF FACTORS ASSOCIATED WITH A POSITIVE CANNABIS DRUG TEST IN ILLINOIS FATAL TRAFFIC ACCIDENTS (2018–2022)

	Odds Ratio	95% CI	Sig
Sex			
Female [Ref Category]			
Male	1.29	[1.04, 1.60]	*
Race/Ethnicity			
White, non-Hispanic [Ref Category]			
Black/African American, non-Hispanic	1.90	[1.44, 2.50]	***
Hispanic	0.75	[0.53, 1.07]	NS
Other, non-Hispanic	0.87	[0.46, 1.65]	NS
Unknown	0.86	[0.69, 1.07]	NS
Age Group			
16 - 20 [Ref Category]			
21 - 24	1.22	[0.85, 1.74]	NS
25 - 34	0.85	[0.63, 1.16]	NS
35 - 44	0.59	[0.43, 0.81]	**
45 - 54	0.27	[0.19, 0.39]	***
55 - 64	0.22	[0.15, 0.33]	***
66 - 74	0.17	[0.10, 0.27]	***
> 74	0.02	[0.01, 0.79]	***
Rural/Urban			
Rural [Ref Category]			
Urban	1.06	[0.88, 1.27]	NS
Alcohol BAC Test Results			
Not tested/Unknown Results [Ref Category]			
No Alcohol	0.93	[0.63, 1.38]	NS
Positive BAC	1.24	[0.83, 1.87]	NS
Narcotics/Opioids Test Results			
Negative [Ref Category]			
Positive	1.17	[0.86, 1.59]	NS
Stimulant Test Results			
Negative [Ref Category]			
Positive	1.72	[1.39, 2.13]	***

LOGISTIC REGRESSION MODEL OF FACTORS ASSOCIATED WITH A POSITIVE CANNABIS DRUG TEST IN ILLINOIS FATAL TRAFFIC ACCIDENTS (2018–2022) (CONTINUED)

	Odds Ratio	95% CI	Sig
Hallucinogen Test Results			
Negative [Ref Category]			
Positive	2.25	[1.32, 3.81]	**
Tranquilizers/Depressants			
Negative [Ref Category]			
Positive	1.85	[0.28, 0.76]	***

Source: National Highway Traffic Safety Administration: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

Observations and Notes: Logistic regression results are based on 2,968 Illinois traffic fatalities from 2018–2022 with known drug test results. The dependent variable is drug test positive for cannabis use (No/Yes). The model is statistically significant (LR Chi-Square (df = 19) = 447.4, $p < .001$) with a pseudo $R^2 = .12$. Significant factors with an odds-ratio greater than one indicate an increased chance of testing positive for cannabis following a fatal crash compared with the reference group for that factor. Significant factors with an odds ratio of less than one indicate a decreased chance of a drug test positive for cannabis.

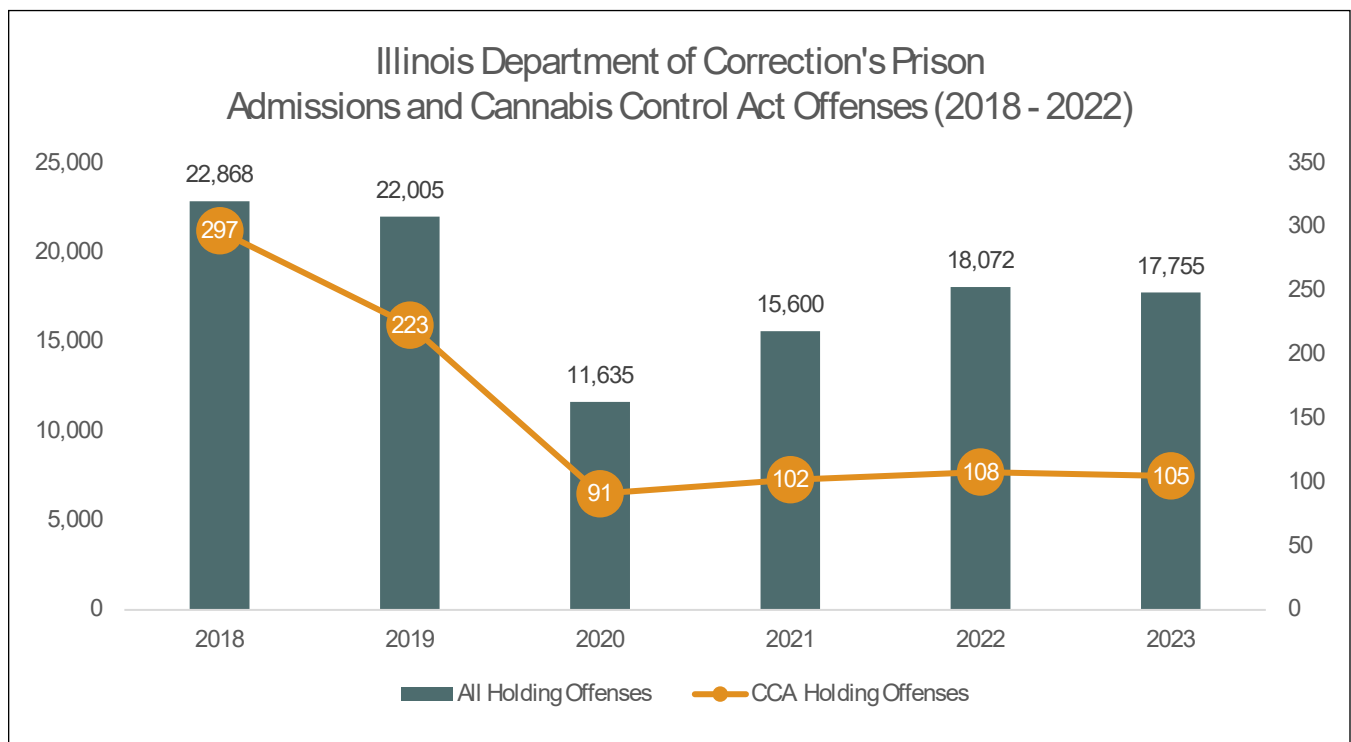
Factors associated with an increased probability of a positive cannabis drug test are: being male; Black/African American, non-Hispanic; under the age of 35; and also testing positive for stimulants, hallucinogens, or tranquilizers/depressants.

* = $p < .05$; ** = $p < .01$; *** = $p < .001$; NS = non-significant

CANNABIS AND THE CRIMINAL JUSTICE SYSTEM



ILLINOIS DEPARTMENT OF CORRECTIONS PRISON ADMISSIONS AND CANNABIS CONTROL ACT OFFENSES (2018–2023)

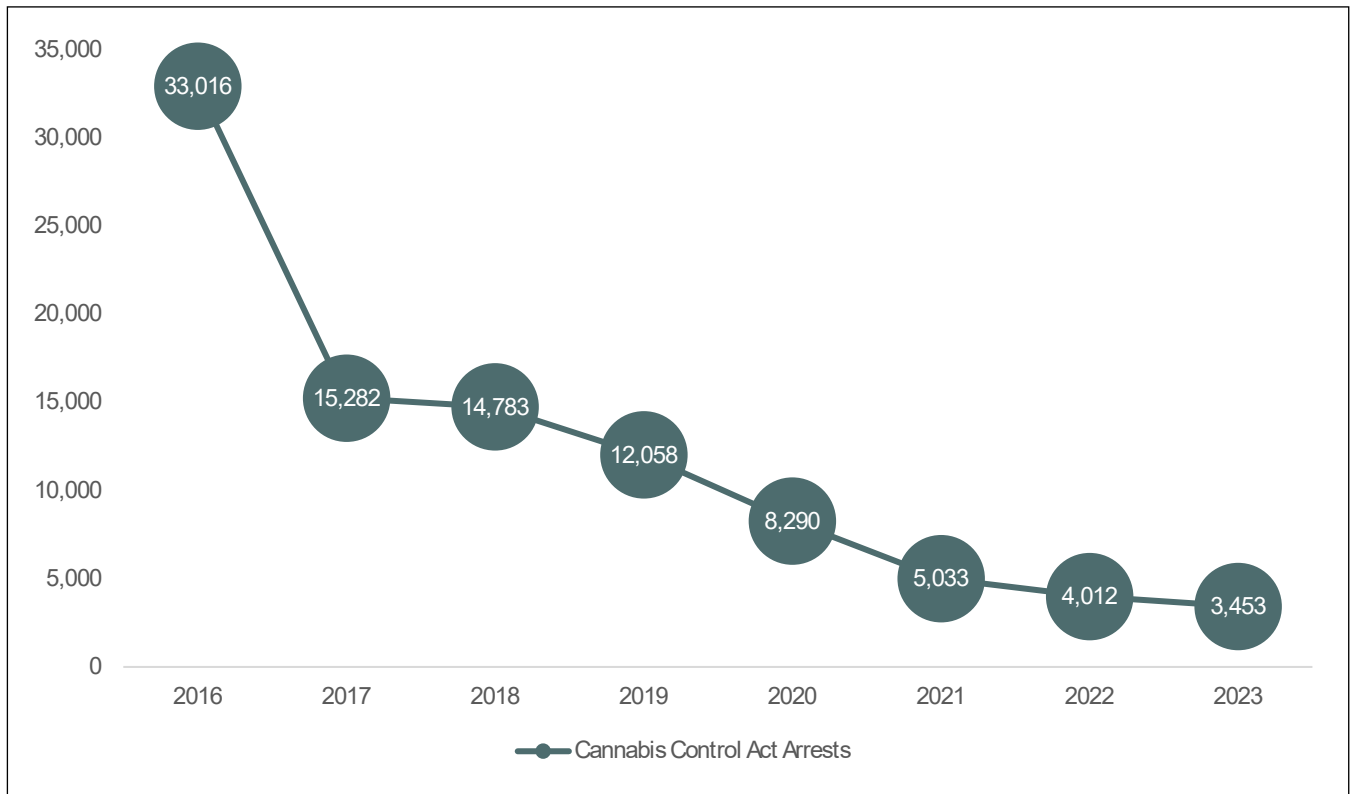


Source: Illinois Department of Corrections Prison Admissions Data Sets - <https://idoc.illinois.gov/reportsandstatistics/prison-admission-data-sets.html>

Observations and Notes: The number of IDOC admissions for a cannabis-related holding offense has held steady since 2020–2021, with just over 100 such admissions per year. This reflects about one-third of the number of such admissions in 2018 and about half of the number in 2019. In 2023, the five most common specific holding offenses in descending order were: 1) Manufacturing/Delivery of cannabis 30–500 grams (N = 23); 2) Manufacturing/Delivery of cannabis 2000 < 5000 grams (N = 14); 3) Manufacturing/Delivery of cannabis 10 < 30 grams (N = 13); 4) Manufacturing/Delivery of cannabis > 500 grams (N = 12); 5) Possession of cannabis 30–500 grams first offense (N = 11).

There were no statistically significant differences by race or gender among those incarcerated for cannabis-related offenses versus other offenses. However, those charged with a cannabis-related holding offense were significantly younger (mean = 33.6, 95% CI = 32.0 - 35.2) than those charged with any other type of holding offense (mean = 36.4, 95% CI = 36.3 - 36.6); $f(df=17,754, 104) = 1.8, p < .001$.

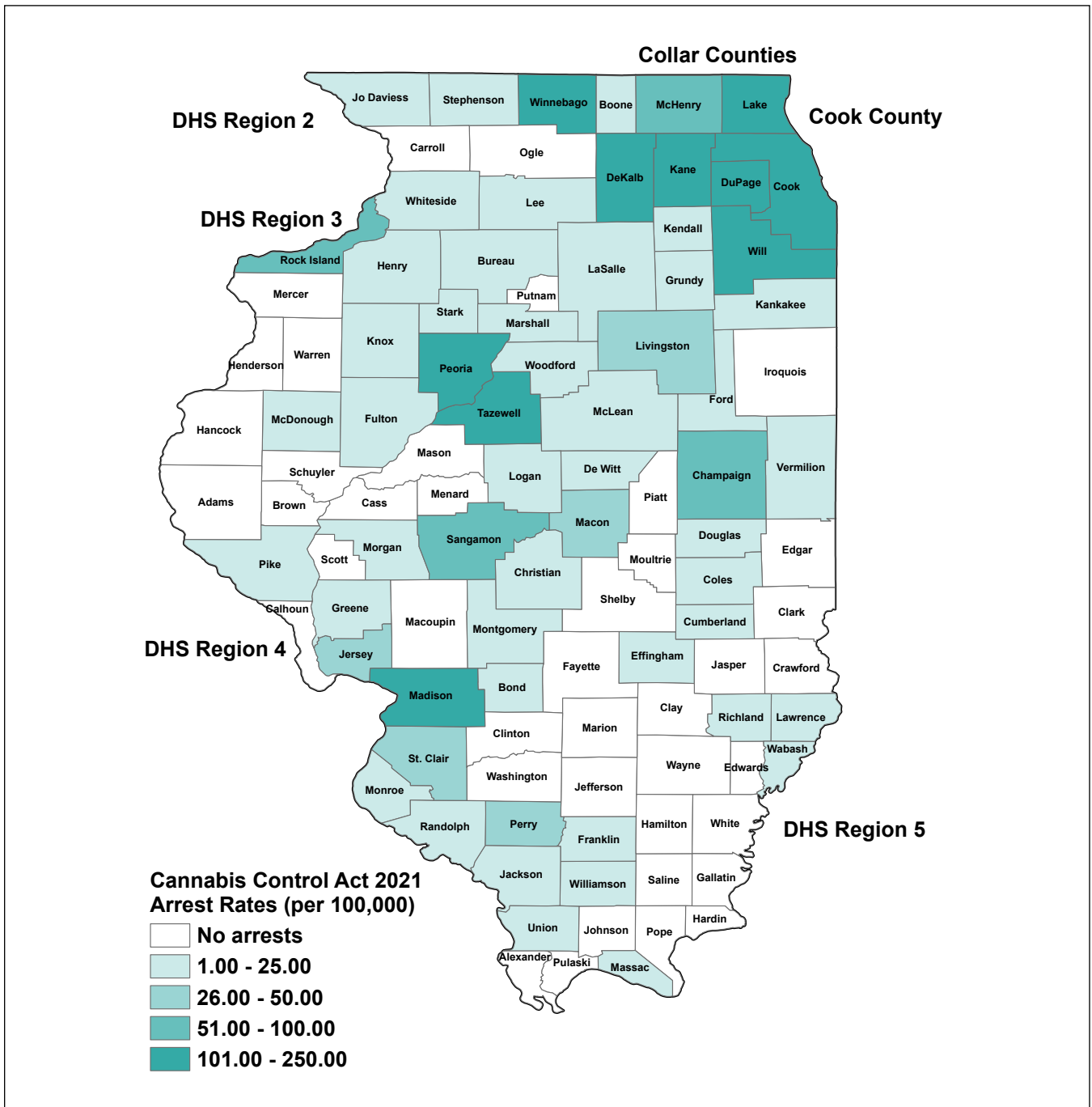
ILLINOIS CANNABIS CONTROL ACT ARRESTS BY YEAR (2016–2023)



Source: Illinois State Police, Illinois Uniform Crime Reporting at <https://ilucr.nibrs.com/Report/PerCountyOffenseAndArrestAnnualComparison>

Observations and Notes: The number of arrests for Cannabis Control Act violations has been steadily declining since 2016 with the sharpest decline between 2016 and 2017. In 2023 there were 3,453 CCA arrests down from 4,012 in 2022 or a 14 percent decrease.

ILLINOIS CANNABIS CONTROL ACT ARREST RATES (2023)



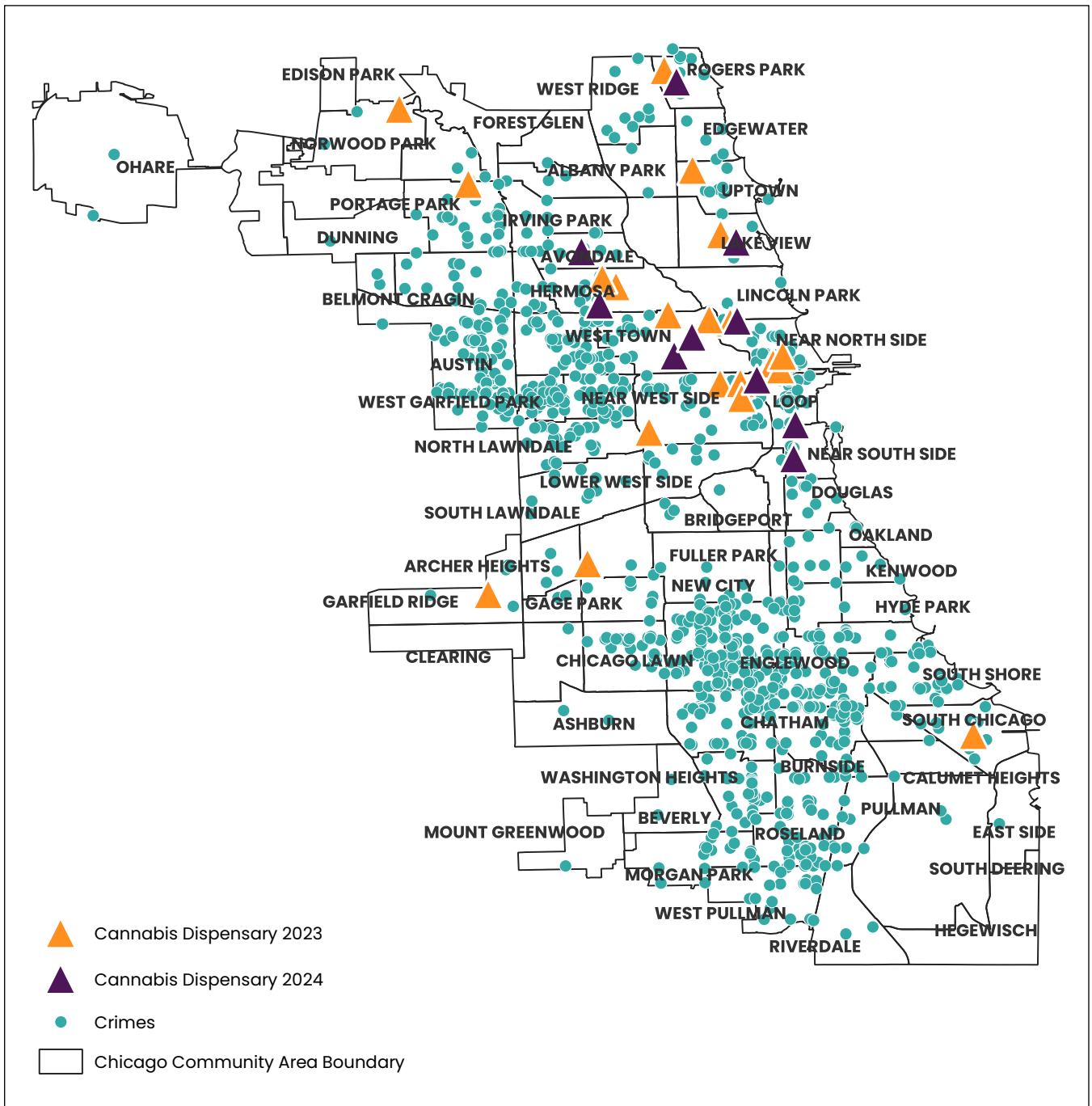
Source: Illinois State Police, Illinois Uniform Crime Reporting at <https://ilucr.nibrs.com/Report/PerCountyOffenseAndArrestAnnualComparison>

ILLINOIS CANNABIS CONTROL ACT ARREST RATES (2023)

Observations and Notes: There were a total of 3,453 reported arrests for Cannabis Control Act (CCA) violations in 2023. Rates per 100,000 population were calculated using U.S. Census data from the 2022 American Community Survey for county residents ages 18 or older and the number of CCA arrests per county as reported by the Illinois State Police. The seven counties with arrest rates over 100 per 100,000 in 2023 were: Perry (188.9); DeKalb (156.8); Jersey (156.5); Winnebago (127.5); Livingston (107.3); Madison (105.9); and Tazewell (103.9). Forty-one Illinois counties reported zero CCA arrests in 2023.

Arrests for Cannabis Control Act (CCA) offenses were predominantly for possessing more than 30 grams of cannabis (i.e., slightly over an ounce), for manufacturing and delivering over 10 grams of cannabis, or possessing 30 grams or less of cannabis. This data suggests CCA arrests were of people selling or intending to sell cannabis. As a gram of marijuana can sell for \$10 to \$15 or higher depending on quality, 30 grams would sell for \$300 to \$450 on the street and possibly more.

CITY OF CHICAGO CCA ARRESTS RELATIVE TO DISPENSARY LOCATION



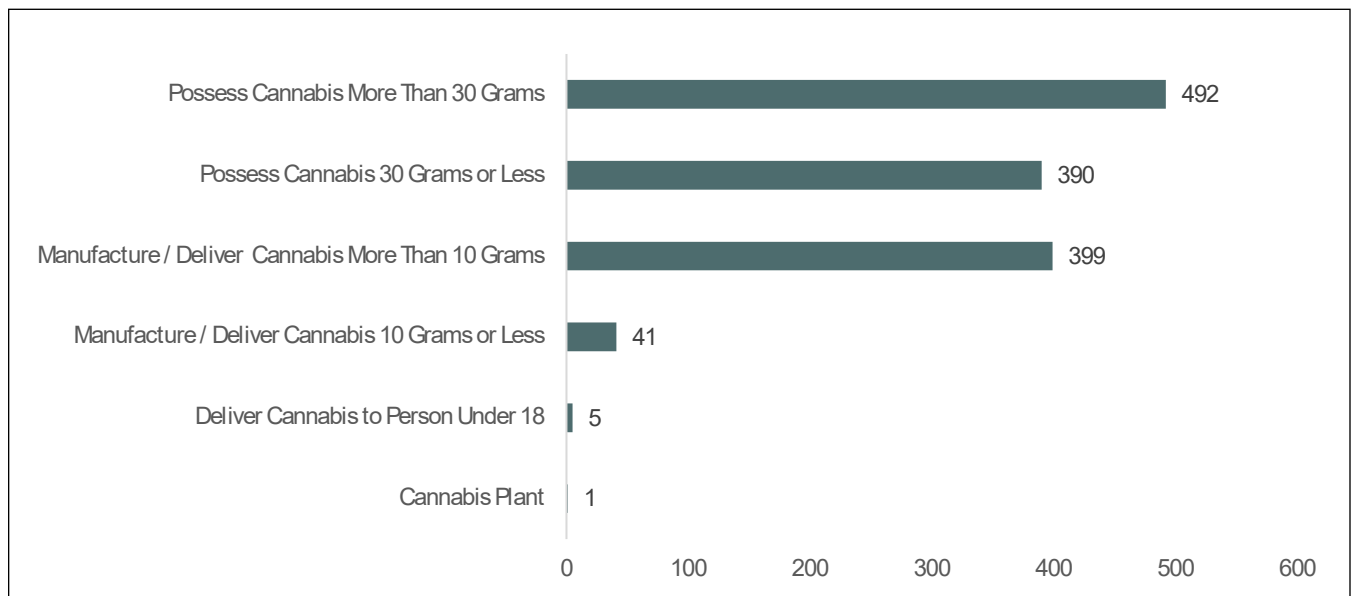
Source: <https://data.cityofchicago.org/Public-Safety/Crimes-Map/dfnk-7re6>

CITY OF CHICAGO CCA ARRESTS RELATIVE TO DISPENSARY LOCATION

Observations and Notes: By mid-2024, 20 new dispensaries were licensed to operate in Chicago. There are now a total of 30 licensed cannabis dispensaries operating in Chicago. A number of the new dispensaries have opened in Chicago community areas where none had previously operated. Communities with their first cannabis dispensary include: Uptown, Norwood Park, Brighton Park, Garfield Ridge, and South Chicago. However, as shown on the map of Cannabis Control Act (CCA) arrests in 2023-2024, many of the communities with the highest numbers of CCA arrests continued to have no licensed cannabis dispensaries. Examples of Chicago community areas with currently no dispensaries but a high number of CCA arrests include: West Garfield Park, Humboldt Park, Austin, East Garfield Park on the city's west side and Englewood, West Englewood, Chicago Lawn, Auburn Gresham, Chatham, Roseland, and Burnside on the city's south side. A statistical analysis comparing communities with and without dispensaries in mid-2024 revealed a statistically significant association (point-biserial correlation = -2.9, $p=0.02$).

This means that communities with a cannabis dispensary had, on average, 8% fewer CCA arrests than communities without a dispensary.

SPECIFIC CANNABIS CONTROL ACT ARREST CHARGES FOR CHICAGO (2023-2024)



Source: <https://data.cityofchicago.org/Public-Safety/Crimes-Map/dfnk-7re6>

APPENDICES

This Appendix provides additional results obtained from the perinatal cannabis use survey



EXPOSURE TO CANNABIS MARKETING (2024)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Knowledgeable About Cannabis					***
Strongly agree	47.3	42.2	48.5	46.8	
Agree	24.2	43.9	27.0	29.2	
Neutral	15.8	11.7	17.4	15.7	
Disagree	8.5	1.7	5.1	5.7	
Strongly Disagree	4.2	0.5	2.0	2.6	
Seen Marketing Promoting Perinatal Cannabis Use					NS
No	75.8	72.2	79.1	76.5	
Yes	6.8	7.8	4.6	6	
Unsure	17.5	20.0	16.3	17.5	
Seen Marketing Discouraging Perinatal Cannabis Use					***
No	59.2	51.1	42.1	50.4	
Yes	21.4	32.8	39.0	31.1	
Unsure	19.4	16.1	18.9	18.6	
Marketing Frequency					***
Never	55.8	11.7	24.2	33.9	
Less than once a week	15.5	21.7	32.1	23.7	
Once a week	15.8	35.0	17.9	20.4	
Several times per week	9.0	21.7	21.7	16.8	
Once a day	2.8	9.4	2.6	4.0	
Several times per day	1.1	0.5	1.5	1.2	

EXPOSURE TO CANNABIS MARKETING (2024) (CONTINUED)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Whether They Have Seen the <i>Let's Talk Cannabis</i> Prevention Campaign Marketing					***
No	62.8	78.9	45.9	45.6	
Yes	25.4	17.8	42.9	44.5	
Unsure	11.8	3.3	11.2	9.9	
Received Information on Perinatal Cannabis Use From Social Media					**
No	48.7	32.8	44.9	44.0	
Yes	51.3	67.2	55.1	56.0	
Received Information on Perinatal Cannabis Use From TV					***
No	71.3	79.4	84.2	78.3	
Yes	28.7	20.6	15.8	21.7	
Received Information on Perinatal Cannabis Use From Family/Friends/Peers					**
No	63.4	65.0	75.0	68.6	
Yes	36.6	35.0	25.0	31.4	
Received Information on Perinatal Cannabis Based Organizations					***
No	86.2	81.7	71.9	68.6	
Yes	13.8	18.3	28.1	31.4	

EXPOSURE TO CANNABIS MARKETING (2024) (CONTINUED)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Received Information on Perinatal Cannabis Use From Other Platforms					NS
No	69.9	73.3	73.5	72.1	
Yes	30.1	26.7	26.5	27.9	

Source: Franceschini, D. & Swartz, J. (2024). Prevalence and Perceptions of Cannabis Use Among Pregnant and Breastfeeding Women. [Unpublished data]

Observations and Notes: Perinatal cannabis users with medical cards tended to self-report being knowledgeable about cannabis and had received information on perinatal cannabis use from social media. Perinatal cannabis users, both with and without medical cards, tended to have seen marketing discouraging perinatal cannabis use and reported viewing marketing more frequently compared to respondents who did not use cannabis. Perinatal cannabis users without medical cards tended to have seen the Let's Talk Cannabis campaign and received information on perinatal cannabis use from community-based organizations. Perinatal women who did not use cannabis received information on cannabis use from the television. Perinatal cannabis users with medical cards and perinatal women who did not use cannabis both tended to receive information on perinatal cannabis use from family, friends, and peers.

Results are based on the perinatal cannabis survey administered by UIC evaluators. Statistical significance was determined using the chi-square test for all categorical variables. **= $p < 0.01$; *** = $p < .001$; NS = non-significant

LIFETIME SUBSTANCE USE AND FREQUENCY (2024)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Lifetime Alcohol Use					***
No	37.2	23.8	22.7	28.5	
Yes	62.8	76.1	77.3	71.5	
Alcohol Use Frequency					***
More than 12 months ago	30.4	7.2	17.3	20.4	
More than 30 days but less than 12 months ago	24.8	30.6	20.7	24.2	
Within the past 30 days	17.8	57.8	48.2	38.4	
Never Used	27.0	4.4	13.8	17.0	
Lifetime Tobacco Use					***
No	65.1	56.1	73.2	66.8	
Yes	34.9	43.9	26.8	33.2	
Tobacco Use Frequency					***
More than 12 months ago	23.1	8.9	7.7	13.8	
More than 30 days but less than 12 months ago	8.5	21.1	10.7	11.8	
Within the past 30 days	8.7	35.0	20.1	18.7	
Never Used	59.7	35.0	61.5	55.7	
Lifetime Cocaine Use					***
No	86.8	74.4	93.4	87.2	
Yes	13.2	25.6	6.6	12.8	
Cocaine Use Frequency					***
More than 12 months ago	6.5	11.1	8.7	8.3	
More than 30 days but less than 12 months ago	8.7	22.8	6.6	10.6	
Within the past 30 days	3.9	20.0	4.6	7.3	
Never Used	80.9	46.1	80.1	73.8	

LIFETIME SUBSTANCE USE AND FREQUENCY (2024) (CONTINUED)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Lifetime Methamphetamine Use					***
No	88.7	83.3	94.6	90.2	
Yes	11.3	16.7	5.4	9.8	
Methamphetamine Use Frequency					***
More than 12 months ago	5.1	7.8	4.9	5.5	
More than 30 days but less than 12 months ago	8.5	18.3	5.9	9.3	
Within the past 30 days	4.8	22.2	4.6	8.1	
Never Used	81.7	51.7	84.7	77.1	
Lifetime Hallucinogen Use					*
No	87.6	80.0	87.7	86.2	
Yes	12.4	20.0	12.2	13.8	
Hallucinogen Use Frequency					***
More than 12 months ago	6.5	10.6	8.9	8.3	
More than 30 days but less than 12 months ago	9.3	27.8	11.5	13.8	
Within the past 30 days	3.1	13.3	2.8	4.9	
Never Used	81.1	48.3	76.8	72.9	
Inhalant Use					**
No	88.2	90.0	95.4	91.6	
Yes	11.8	10.0	4.6	8.4	

LIFETIME SUBSTANCE USE AND FREQUENCY (2024) (CONTINUED)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Inhalant Use Frequency					***
More than 12 months ago	6.5	10.0	4.3	6.3	
More than 30 days but less than 12 months ago	7.9	22.8	5.4	9.7	
Within the past 30 days	3.9	13.3	4.8	6.1	
Never Used	81.7	53.9	85.5	77.9	
Lifetime Heroin Use					NS
No	89.9	88.3	90.6	9.0	
Yes	10.1	11.7	9.4	10.0	
Heroin Use Frequency					***
More than 12 months ago	5.6	15.6	5.6	7.5	
More than 30 days but less than 12 months ago	8.5	22.8	9.5	11.7	
Within the past 30 days	2.8	13.3	2.5	4.7	
Never Used	83.1	48.3	82.4	76.1	
Other Opioid Use					*
No	89.0	95.6	93.6	92.2	
Yes	11.0	4.4	6.4	7.8	
Other Opioid Use Frequency					***
More than 12 months ago	8.7	16.1	7.1	9.5	
More than 30 days but less than 12 months ago	7.9	20.5	7.1	10.0	
Within the past 30 days	3.4	11.7	5.1	5.7	
Never Used	80	51.7	80.6	74.8	
Ecstasy/MDMA Use					NS
No	91.8	95.6	93.6	93.3	
Yes	8.2	4.4	6.4	6.7	

LIFETIME SUBSTANCE USE AND FREQUENCY (2024) (CONTINUED)

	No Perinatal Cannabis Use (N=355)	Perinatal Cannabis Use with Medical Cards (N=180)	Perinatal Cannabis Use with Medical Cards (N=392)	Total (N=927)	Sig
	Percent	Percent	Percent	Percent	
Ecstasy/MDMA Use Frequency					***
More than 12 months ago	5.9	10.0	7.6	7.4	
More than 30 days but less than 12 months ago	8.2	18.9	6.9	9.7	
Within the past 30 days	4.8	17.2	4.1	6.9	
Never Used	81.1	53.9	81.4	75.9	
Amphetamine Use					**
No	92.7	98.9	96.4	95.5	
Yes	7.3	1.1	3.6	4.5	
Amphetamine Use Frequency					***
More than 12 months ago	4.2	11.7	2.0	5.1	
More than 30 days but less than 12 months ago	8.2	21.1	5.6	9.6	
Within the past 30 days	5.6	10.0	5.9	6.6	
Never Used	82	57.2	85.7	78.8	