

2023

Annual Cannabis Report

Cannabis Regulation and Tax Act Evaluation



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This year's report is based on the most recently available data relevant to cannabis use and the attendant public health effects of legalizing recreational cannabis in Illinois. However, some of the effects of the COVID pandemic have continued to reverberate over the past few years in ways that affected the availability of several important data sources on which we rely for the annual statistics. Specifically, the National Survey on Drug Use and Health (NSDUH) altered its data collection methods in 2020 and 2021 by collecting data using a combination of a web-administered version of their survey as well as in-person interviews in areas of the country with low COVID infection. In prior years, NSDUH surveys have been exclusively administered using in-person interviews.

Subsequent analyses of the NSDUH data by SAMHSA showed that the web-based surveys produced lower estimates than the in-person surveys conducted in the same years, even after adjusting for demographic or socio-economic differences. Consequently, 2020 and 2021 NSDUH data were pulled from the restricted access data available through SAMHSA's online data archive. SAMHSA wanted to discourage comparison of the data from these years with past years' data owing to these methodological artifacts.

In past reports, we relied on the NSDUH-restricted data to estimate incidence and prevalence for the Illinois general population and special populations (e.g.,

LBTQ+, racial and ethnic minorities, persons with serious mental illness, and pregnant or perinatal women). While we could obtain recent estimates for the Illinois general population and youth ages 12 to 17 using published state reports, we could not do so for the special populations. In lieu of having more recent data to present, we opted to re-present the information provided in the 2022 annual report, which remains the most recently available. We plan to update the NSDUH-based estimates in an interim report in the spring if new data become available at that time.

Similarly, updated data on traffic fatalities, where the driver was found to be using cannabis, were also not available when statistics were being compiled for this report, as well as information on medical cannabis use and benefits through the Medical Cannabis Patient Program (MCP) and Opioid Alternative Pilot Program (OAPP). We opted to carry that information forward for this report as well and will update the traffic fatality statistics and medical cannabis statistics in either a brief report or as a modification to this report when and if information becomes available.

Cannabis Legalization in the US and Illinois

As of July 2023, thirty-eight states, three territories, and the District of Columbia allow the medical use of cannabis products. Since our last report in August 2022, Maryland, Missouri, and Delaware have legalized adult use, while Kentucky legalized medical cannabis use.

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Dispensary Licensing, Sales, and Revenues by Medical/Recreational

In November 2022, \$8.75 million in Direct Forgivable Loans was made available to the Conditionally approved social equity loan applicants. As of 6/28/23, twenty-seven social equity dispensaries have begun operations. The most recent social equity lottery for licenses took place on 7/13/23.

Twenty-three additional dispensaries are in operation since August 2022, three of which are located within the City of Chicago.

Similar trends across fiscal years 2022 and 2023 are seen, with the highest sales coming from cigarettes, then cannabis, and finally, liquor. For fiscal year 2023, cigarettes continue to be a greater source of revenue for IL in the fiscal year 2023, with the total revenue accounting for approximately \$781 million. Adult use cannabis sales have surpassed liquor sales, with total revenue for the fiscal year 2023 equating to \$456 million compared to \$316 million for liquor sales.

Adult Use Sales accounts for approximately 77% of total sales revenue for Cannabis in IL. 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 RSO.

The total revenue in the Cannabis Regulation Fund for FY23 was approximately \$242.2 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 decrease occurring between 2022 and 2023.

As of April 2023, there are a total of 4,257 trained budtenders within the state of Illinois, which is less than the 4,621 trained in 2022. There has been a decrease in the number of agents who have gone through budtender training from 2021-2023.

Trends in Illinois Cannabis Incidence and Prevalence

In Illinois, there was no apparent effect of legalizing recreational cannabis use on past-year initiation among those 12 or older between 2018-2019 and 2021. The initiation rates were comparable to other Midwest states and the U.S.

In Illinois, there was a decrease in past-year initiation among those 12-17 years old between 2018-2019 and 2021. This trend was seen in Michigan and across the U.S., although other contiguous states remained relatively stable.

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Among persons 12 to 17 years olds, cannabis initiation increased slightly between 2015 and 2019 and has since decreased in 2021. Incidence of initiation is greatest for 18 to 25 years olds, though initiation has remained relatively stable from 2013–2021. The incidence of cannabis initiation remains very low for persons 26 or older; however, rates have slightly increased from 2015–2021.

Illinois and Michigan, two of the states that have legalized cannabis, both had approximately 4.6% and 3.9% increases in any past year use between 2018–2019 and 2021 among residents 12 years of age or older, respectively. Other Midwest states showed a 3.7% increase over the same time, while there was only a 2% increase across all US states.

Past-year use of cannabis increased between 2018–2019 and 2021 among 18–25-year-olds and, to a greater extent among those 26 and older. Past-year use among persons 12–17 years old decreased between 2018–2019 and 2021.

Overall in 2021, the same trend was seen in Illinois, Michigan, the contiguous states, and the U.S. for any past-month cannabis use. The 18–25 year age group had a dramatically higher prevalence of any past-month cannabis use, followed by 26 years and older and 12–17 year olds, respectively. Both Illinois and Michigan had higher rates of past month use across all age groups, compared to the contiguous

states and the U.S. For Illinois, there was an approximately 3% increase in the rate for 12–17 year olds and 18–25 year olds, as compared to contiguous states and the U.S.

Between 2015–2018, any past-month cannabis use increased for all age groups with use slightly decreasing between 2018–2019. However, past-month use increased for all age groups in 2021 and to the greatest extent for the 18–25 year olds.

In 2021, among Illinois, Michigan, the contiguous states, and the U.S. 12–17 year olds and individuals 26 years and older had approximately the same rate of perceived great risk for smoking once a month, whereas the perception of great risk was dramatically lower for 18–25 year olds. For Illinois, 18–25 year olds have a higher perception of great risk for smoking once a month compared to Michigan, the contiguous states, and the U.S.

Between 2015–2019, the perception of great risk of smoking once a month decreased for all age groups. In 2021, there was a continued decrease in perceived great risk for 12–17 year olds and those 26 and older, whereas 18–25 year olds had an increase in perceived great risk.

From 2015–2021, perceived great risk of smoking once a month slowly decreased for 12–17 year olds. The decrease in perceived great risk corresponded to an increase in past month use, particularly between 2019–2021, as past month use increased by 1.8%.

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Special Populations

Males were more likely to report any past-month cannabis use and frequent cannabis use compared with females. Frequency of use increased for both males and females between 2018–2019 and 2019–2020.

Between 2017–2018 to 2019–2020, there has been a 6.3% increase in the prevalence of past-month cannabis use among pregnant women.

Self-identified sexual minorities were more likely than heterosexuals to indicate past-month cannabis use and to have used cannabis more frequently in the past month.

Persons with a past-year serious mental illness (SMI) had much higher rates of both any and frequent cannabis use compared to persons without an SMI, 14.9% and 1.9% respectively in 2019–2020.

Persons living in poverty had the highest rates of frequent monthly cannabis use compared to persons with higher incomes. They also had the largest increase in frequent cannabis use – from 6.7% to 11.8% – between 2018 and 2020.

Characteristics of Cannabis Use

Most cannabis users smoke or use edibles or vape oils or liquids. Medical users are more likely to have used a variety of other forms of cannabis compared with recreational users.

A large majority (85.9%) 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 anxiety (66.6%), depression (48.2%), and PTSD/Trauma (31.8%).

A smaller but still substantial proportion of recreational cannabis users (61.5%) also indicated they had ever used cannabis to manage mental health symptoms with anxiety (50.1%), depression (37.4%), and PTSD/Trauma (16.6%) also being the most common symptoms mentioned.

Past-year Illinois cannabis users tend to believe that legally purchased cannabis is safer to buy and use, more convenient, and is of better quality although sizable minorities (one-quarter to one-third) do not perceive differences. Both in 2021 and 2022, a majority of users indicated that legal cannabis was more expensive than illicit cannabis.

Medical Cannabis Use and Benefits

The Medical Cannabis Patient program (MCP) and the Opioid Alternative Pilot Program (OAPP) have similar program requirements and application steps; however, MCP provides the license for a greater length of time, as well as allows for expanded purchasing options.

Since 2017, enrollment in MCP has continued to increase each year. As of

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June 30, 2023, MCPP was serving a total of 138,471 active patients. In FY21, Chronic pain accounted for 31.1% of all diagnoses, PTSD for 16.4%, Migraines, 10.4%, and Osteoarthritis 10.0%.

The most common conditions in which OAPP patients report use of Cannabis for is for back, neck, joint, and musculoskeletal pain.

Medically, cannabis is most commonly used to manage pain, headaches/migraines, sleep disturbances, and lack of appetite by both medical and recreational users.

Among those who said they had ever used cannabis to manage pain, 82.1% indicated they used cannabis as a substitute for opioids.

Application denial for MCPP declined from 2017 to 2020, with 5.6% and 3.2% denial rates, respectively. The most common reason for denial was because they did not respond to multiple attempts to correct deficiencies in their application.

Cannabis Use Disorder and Treatment

The number of admissions to substance use treatment for cannabis use dropped in 2020 to 5,467 compared with over 8,000 admissions in 2018 and 2019 per the TEDS admissions data set. However, this drop occurred against an overall decline in treatment admissions in 2020. Consequently, the percentage of all

admissions where cannabis was the primary drug did not fall as sharply. In 2020, the percentage of admissions with cannabis as a primary drug was 15.1% compared with 17.2% in 2018 and 16.6% in 2019. Among all persons with a past-year CUD in 2019–2020, only 12.2% indicated they had received any kind of substance use treatment.

Individuals with a primary diagnosis of CUD were more likely to be hospitalized or have an emergency department visit if they were male, between 18–25 years old, resided in Chicago, or were on Medicaid. The number of hospitalizations where CUD was the primary or one of any secondary diagnoses appears to have peaked in 2020–2021. Whether the decrease in 2022 is real or artifactual owing to a lag in data reporting is an open issue that will be resolved in next year's report.

The number of persons hospitalized for a cannabis-related overdose as primary diagnosis peaked in 2019 and has declined since then. The number of persons hospitalized for some other reason where a cannabis-related overdose was indicated among the diagnoses assessed has remained relatively steady.

We also note the relatively small numbers of persons hospitalized for a cannabis-related overdose relative to the numbers hospitalized where CUD was among the secondary diagnoses.

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Persons hospitalized for CUD had higher odds of also having a diagnosis of a manic episode (aOR= 6.92, CIs: 2.80, 16,60). Psychotic disorder NOS (aOR=1.75 CIs: 1.29, 2.39), other mood disorder (aOR=1.97, CIs :1.44, 2.69), and major depression (aOR=1.97, CIs: 1,72, 2.25) were also found to have a higher odds of co-occurrence for persons hospitalized with a primary diagnosis of CUD.

Persons hospitalized with a primary diagnosis of other mood disorder (OR= 4.44, CIs=4.04,4.88), manic episode (aOR=4.29, CIs=3.01,6.11), major depression (aOR=3.64, CIs=3.55, 3.73), cocaine use disorder (OR=2.14, CIs=1.88, 2.43), bipolar disorder (aOR=4.26, CIs=4.16, 4.37), anxiety disorder (aOR=2.39, CIs=2.09, 2.75), and alcohol use disorder (aOR=2.54, CIs=2.44, 2.64) all had higher odds of having a secondary diagnosis of CUD.

In contrast to hospitalizations for a cannabis use disorder, ED visits appear to be increasing or holding steady since the peak year of 2020. There has been a noticeably large increase in ED visits where cannabis use disorder was not the main reason for the visit but was among secondary diagnoses assessed by discharge.

Cannabis-related overdose as primary diagnosis for an ED visit sharply increased in 2020- 2021 but appear to have declined since then. A similar pattern was found for cannabis-related overdoses as a secondary diagnosis.

Persons discharged from the emergency department for a primary diagnosis of cannabis use disorder had a higher odds of also having sedative use disorder (OR=1.13, CIs=0.98, 1.32) and cognitive disorder (OR= 1.55, CIs=1.36, 1.77).

Persons discharged from the emergency department with a primary diagnosis of other mood disorder (OR=2.09, CIs=1.81,2.41), manic episode (OR=1.15, CIs=0.95,1.39), major depression (OR=1.71, CIs=1.63,1.78), cocaine use disorder (OR=1.74, CIs=1.59,1.91), anxiety disorder (OR=1.91, CIs=2.37,2.54), and alcohol use disorder (OR=2.46, CIs=2.37,2.54) had a higher odds of also having a secondary diagnosis of cannabis use disorder.

For persons that had either a hospitalization or emergency department visit in which cannabis use disorder was the primary diagnosis, they also had 20% higher odds of having a secondary diagnosis pertaining to the digestive system (OR= 1.20, CIs= 1.15, 1.25).

For persons that were either hospitalized or had a emergency department visit for cannabis-related overdose, they also had a higher odds of having a secondary diagnosis pertaining to ear, nose, mouth, and throat (OR=1.33, CIs=1.18,1.50), the digestive system (OR=1.48, CIs=1.36,1.61), and the circulatory system (OR=1.24, CIs=1.13,1.35).

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There has been a gradual upward trend, beginning in 2020, for an increasing percentage of persons with a primary diagnosis of schizophrenia to also have a diagnosis of cannabis use disorder among the secondary conditions assessed. The age group with the most pronounced increase has been 18 to 25 year olds but this has leveled off in the past year and even declined slightly. There was a moderate increase between 2021 and 2022 among those ages 46-55 after a decline between 2021 and 2022 but they are still well below those ages 18 to 25. Reversing the diagnoses (primary cannabis use disorder and secondary diagnosis of schizophrenia) yields very low percentages (< 3.0%) across age groups.

There has been only a slight upward trend, beginning in 2020, of an increasing percentage of persons with a primary diagnosis of psychotic disorder, not otherwise specified (NOS) to also have a diagnosis of cannabis use disorder among the secondary conditions assessed. The age group with the most pronounced increase and the highest overall prevalence has been 13 to 17 year olds. Reversing the diagnoses (primary cannabis use disorder and secondary psychotic disorder, NOS) yields very low percentages (< 1.0%) across age groups.

Pediatric Cannabis Poisonings

As observed in previous reports, pediatric cannabis poisonings increased between

2020 and 2021 but decreased in 2022 for both primary and secondary diagnoses.

The number of Illinois Poison Control Center contacts where cannabis ingestion was involved leveled off in 2022 for all age groups except those 12 to 17 years old, which saw a moderate increase between 2021 and 2022. While pediatric cases ages 1 to 11 years old declined slightly from 2021, the number of such poisonings remains much higher than pre- 2020 levels.

The large majority of pediatric Poison Control Center contacts (71.0%) remain attributable to ingestion of edible cannabis products. Edible cannabis products were also responsible for a majority (54.3%) of reported 12- to 17-year-old cannabis poisonings. Older age groups were more evenly divided between dried cannabis plant-based products and edibles.

EMS Runs and Overdose Fatalities

Although the absolute numbers are small, especially compared with EMS runs for opioid overdoses, there was a relatively large increase in the number of such runs where the primary or secondary diagnosis was for cannabis poisonings (T40.7X) among those who are white. There were only slight increases among Black/African Americans and Other racial group.

In 2021, 62% of all EMS runs for cannabis poisoning occurred in Cook County, which also saw a sharp increase over the number

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of such runs in 2020. The rest of the state has seen no comparable increase with the number of runs remaining flat since 2020.

There has been a small increase in cannabis-related fatalities in Illinois from 2015–2022. Cannabis poisoning (ICD-10 code, T40.7X) 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.

Traffic Accidents and Fatalities

Illinois and Michigan, two of the states that have legalized cannabis, both had larger increases in positive cannabis drug tests among drivers in traffic accidents in 2020 where there was a fatality compared with other contiguous states and the US as a whole. The percentage of persons driving who were involved in a fatal crash and who were tested for drugs declined between 2018 and 2020 from 48% in 2018 to 41% in 2019 to 25% in 2020. Results for Illinois are based on 719 tests in 2018, 604 tests in 2019, and 413 tests in 2020.

There were similar decreases in the percentage of drivers (16 and older) in fatal accidents being drug tested in the contiguous states and Michigan.

Unlike the cannabis test results, there was not a pronounced increase in positive BAC tests for alcohol use for Illinois and Michigan nor in the contiguous states and the US.

Similar to the alcohol BAC results and also unlike the cannabis test results, there was not a pronounced increase in positive opioid tests for Illinois and Michigan nor in the contiguous states and the US.

Bivariate comparisons for potential factors associated with having a positive cannabis test result for Illinois residents (2018–2020) who were age 16 or older, driving at the time of the fatality, and with a known drug test results revealed the following factors were associated with a higher percentage of a positive test: Black-non-Hispanic, younger age group (particularly 16–34 years old) and testing positive for another drug class, particularly MDMA/ Hallucinogens.

Logistic regression analyses of testing positive for cannabis (as the driver, age 16 or older, residing in Illinois and with known drug test results) found that Black, non-Hispanics had a 50% higher odds of a positive test result (OR = 1.53, $p = .05$) compared with White non-Hispanics. Persons who tested positive for stimulants (OR = 2.4, $p < .001$, MDMA or another hallucinogen (OR = 4.3, $p = .001$), or tranquilizers (OR = 2.05, $p < .001$) also had significantly higher odds of a positive cannabis test result. Conversely, persons over the age of 45 have significantly lower odds of a positive cannabis test result (OR = .21, $p < .001$) as did persons testing positive for opioids (OR = .59, $p < .05$). There were no significant differences by gender or urban-rural location.

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Adverse Effects

Just under twenty eight percent of persons using cannabis in the past year said they experienced one or more adverse effects with nausea or vomiting (7.6%), feeling faint or dizzy (8.5%), and panic reactions (7.8%) being among the more common adverse health effects.

Of those reporting an adverse event, 17.6% experiencing one symptom and 26.5% of those experiencing 2 or more symptoms said they sought medical attention.

Criminal Justice System

The percentage of cannabis bought exclusively from a legal source increased between 2018–2019 and 2020 from 21.4% to 42.1%. Though the percentage of legally purchased cannabis did not increase appreciably (4.4%) between 2020 and 2021, the percentage of legally purchased cannabis increased significantly from 2021 to 2022 from 46.5% to 59.4%, respectively.

However, as of 2022, 40.6% of Illinois cannabis users continue to purchase some or all of their cannabis from a non-legal source.

In 2021, 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 no local dispensary or if the location of a dispensary was unknown. However, in 2022, persons who indicated there was not 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 a local dispensary or if the location of a dispensary was unknown. Between 2021 and 2022, there was a 31.2% 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 in which they lived.

For both 2021 and 2022, persons who were White-non-Hispanic were the most likely to report buying all their cannabis from a legal source compared with other racial/ethnic groups. For persons of all racial/ethnic groups, the percentage buying all their cannabis from a legal source increased from 2021 to 2022, most significantly Hispanics, who had a 24.8% increase.

Among persons who indicated they purchased at least some of their cannabis from an illicit source, the main reasons were higher prices, no prescription, it was simply less convenient, or dealer loyalty.

Between 2015 and 2017, there was a large drop in the number of statewide arrests for Cannabis Control Act (CCA) violations, from 45,358 in 2015 to 15,449 in 2017. Since then, the number of arrests for CCA violations has continued to decrease and in 2021, there were only 2,975 CCA arrests reported to the Illinois State Police. In 2021, 41 counties reported no CCA arrests.

Although the number of admissions to IDOC was up sharply in 2022 relative to

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2021, the number of persons admitted for a CCA violation also increased, but much less dramatically and remains very low (N

= 108), accounting for less than one percent of all IDOC admissions.

INTRODUCTION TO CANNABIS LEGALIZATION IN ILLINOIS AND THE U.S.



SUMMARY OF RESEARCH FINDINGS

Methods: Review of peer-reviewed studies indexed by the National Library of Medicine and published between Jan 1, 2023 and Jun 30, 2023. Emphasis given to systematic reviews, national studies, and meta-analyses.

Findings: While the findings are mixed, recent studies indicate four emerging problem areas associated with cannabis legalization: 1) increases in traffic fatalities; 2) increases in pediatric poisonings; 3) an association with schizophrenia and other psychotic disorders; 4) increases in pre-term births among infants born to mothers using cannabis while pregnant.

The effects of cannabis use among youth are unclear and appear to be modest though recreational cannabis legalization might be associated with increased use of e-cigarettes and vaping.

Benefits include: 1) decreases in arrests and incarcerations for cannabis-related offenses; 2) decreases in opioid and benzodiazepine-related fatalities but only for recreational cannabis legalization, not for medical cannabis legalization.

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 decriminalized 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 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 PA/APN/NP to providers who can certify, expand list of debilitating conditions, increase number of possible caregivers to 3, 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 to purchase cannabis products in licensed stores and allows registered medical cannabis patients to grow up to 5 cannabis plants for personal consumption. An adult Illinois resident may possess up to 30 grams of cannabis flower, 5 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 passed HB1443 and made amendments to both the Cannabis Regulation and Tax Act and Compassionate Use of Medical Cannabis Program Act (Public Act 102-0098). These changes were effective immediately. The changes to the CRTA created two new lotteries for 110 additional licenses. The first 55 licenses were available to applicants that scored at least 85% on their submission to the 75 original licenses. The second 55 licenses were available to applicants that scored at least 85% on their submission and must 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 allowed 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 amended 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

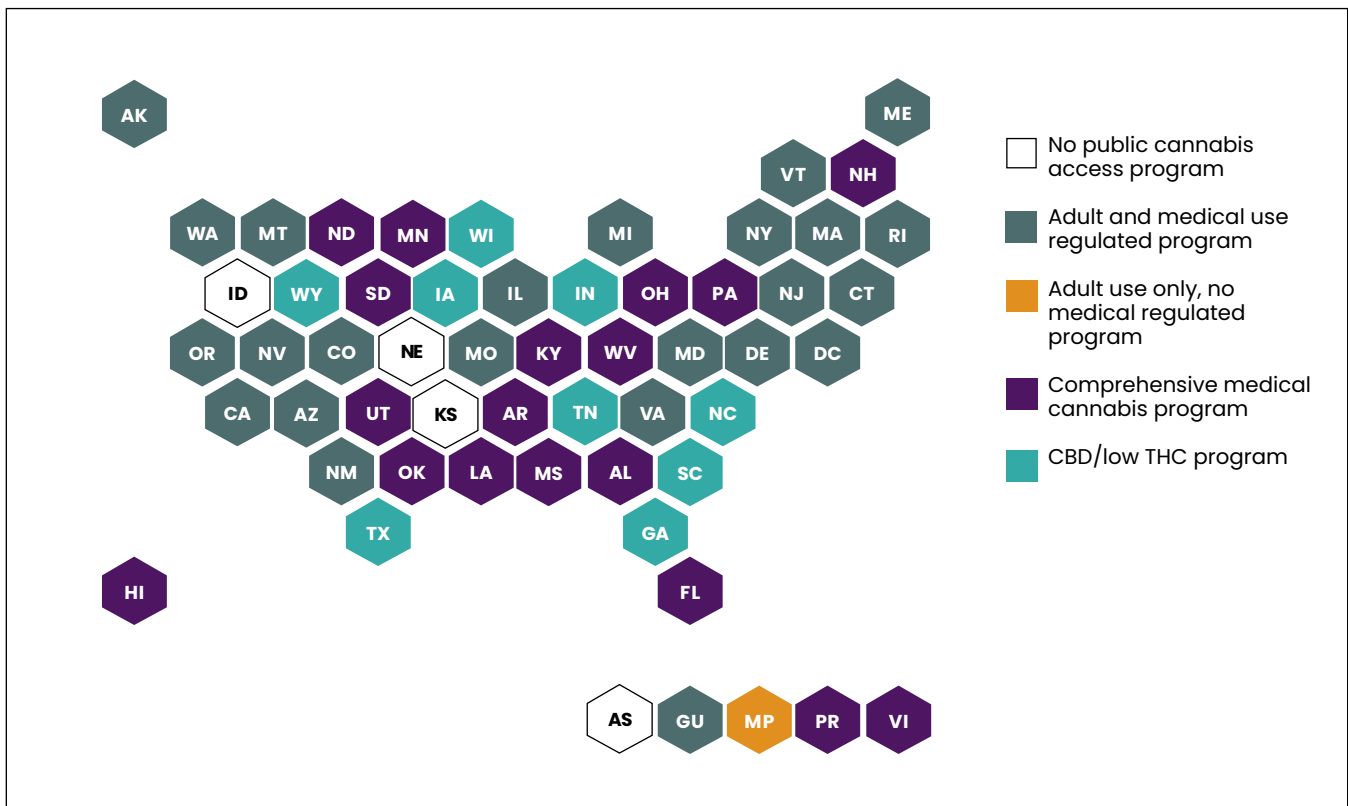
Medical-Use Update: 38 states, three territories, and the District of Columbia allow the medical use of cannabis products.

Adult-Use Update: 22 states, two territories, and the District of Columbia have a regulated Adult use program.

Low-THC Update: 9 states allow the use of “low THC, high cannabidiol (CBD)” products for medical reasons in limited situations or as a legal defense.

Since our last report in August 2022, Maryland, Missouri, and Delaware have legalized adult use, while Kentucky legalized medical cannabis use.

UNITED STATES MAP OF STATE REGULATED CANNABIS PROGRAMS



Source: <https://www.ncsl.org/health/state-medical-cannabis-laws>

ILLINOIS CANNABIS LEGALIZATION CHALLENGES

Illinois cannabis taxes are the 3rd highest within the U.S. at 27% due to the state imposing higher taxes based on the potency of the product. Taxes are applied at the wholesale and point of sale level, and the cost of production taxes are passed along to the consumer which increases the cost of the product before the consumer even sees it.

While Illinois restricts the number of licenses available, other states such as Colorado and California do not.

Consumers are driven to the illicit market due to the restriction on licenses and high tax rates, thus causing cannabis revenue to be lower than expected.

The sources of this information, Illinois Policy and CATO, indicate that it may be advantageous for Illinois to lower and simplify cannabis taxes, as well as remove the cap on licenses in order to maximize tax revenue and reduce illicit sales



Sources: <https://www.illinoispolicy.org/illinois-half-baked-marijuana-legalization-costs-state-600m/>; <https://www.cato.org/multimedia/cato-daily-podcast/illinois-experiment-legal-cannabis-so-far>

DISPENSARY LICENSING, SALES, AND REVENUES BY MEDICAL/RECREATIONAL



DISPENSARY LICENSURES UPDATE

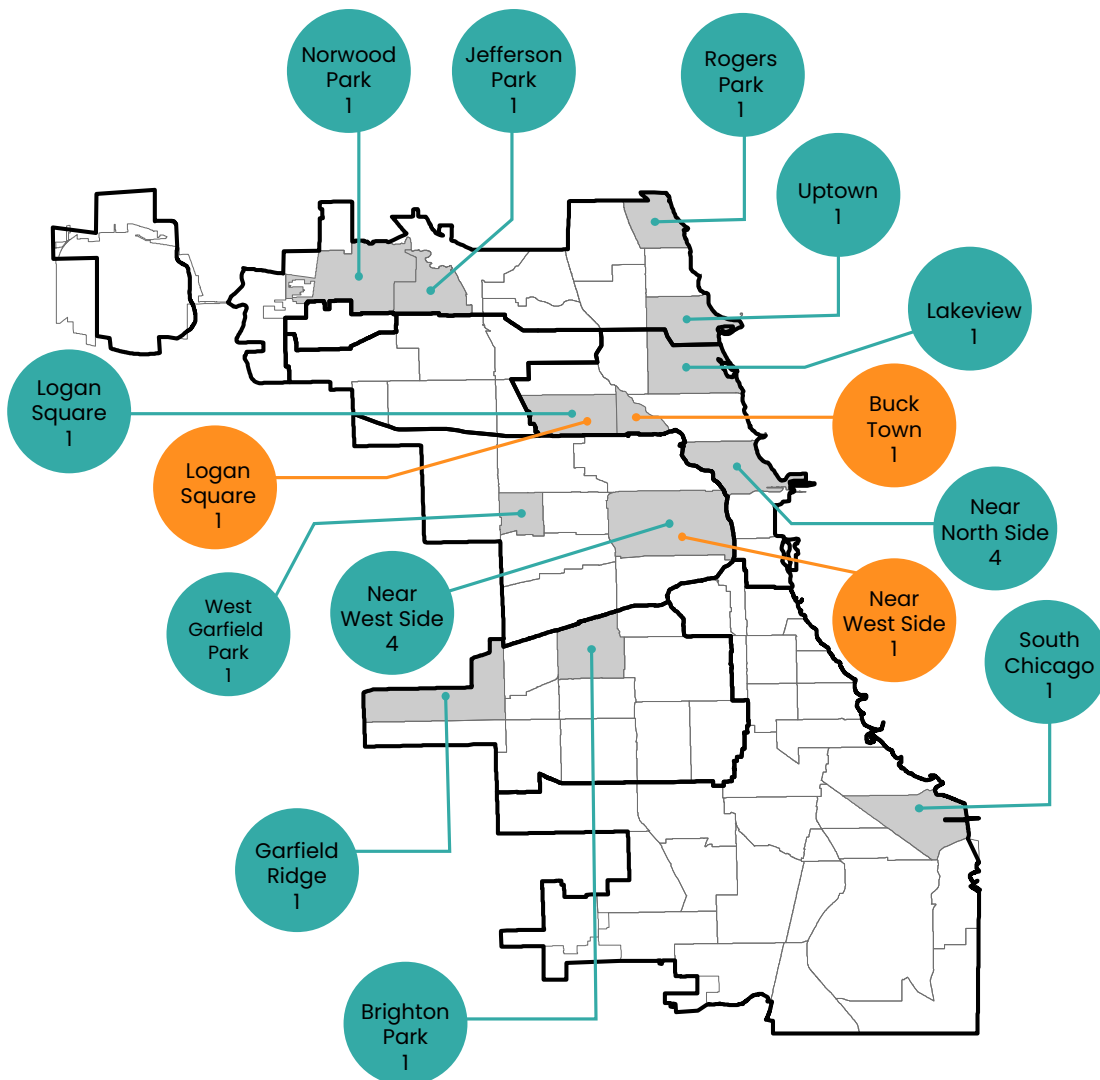
In November 2022, \$8.75 million in Direct Forgivable Loans was made available to the conditionally-approved social equity loan applicants.

As of 6/28/23, 27 social equity dispensaries have begun operations.

The most recent social equity lottery for licenses took place on 7/13/23.

LICENSED DISPENSING ORGANIZATIONS IN CHICAGO

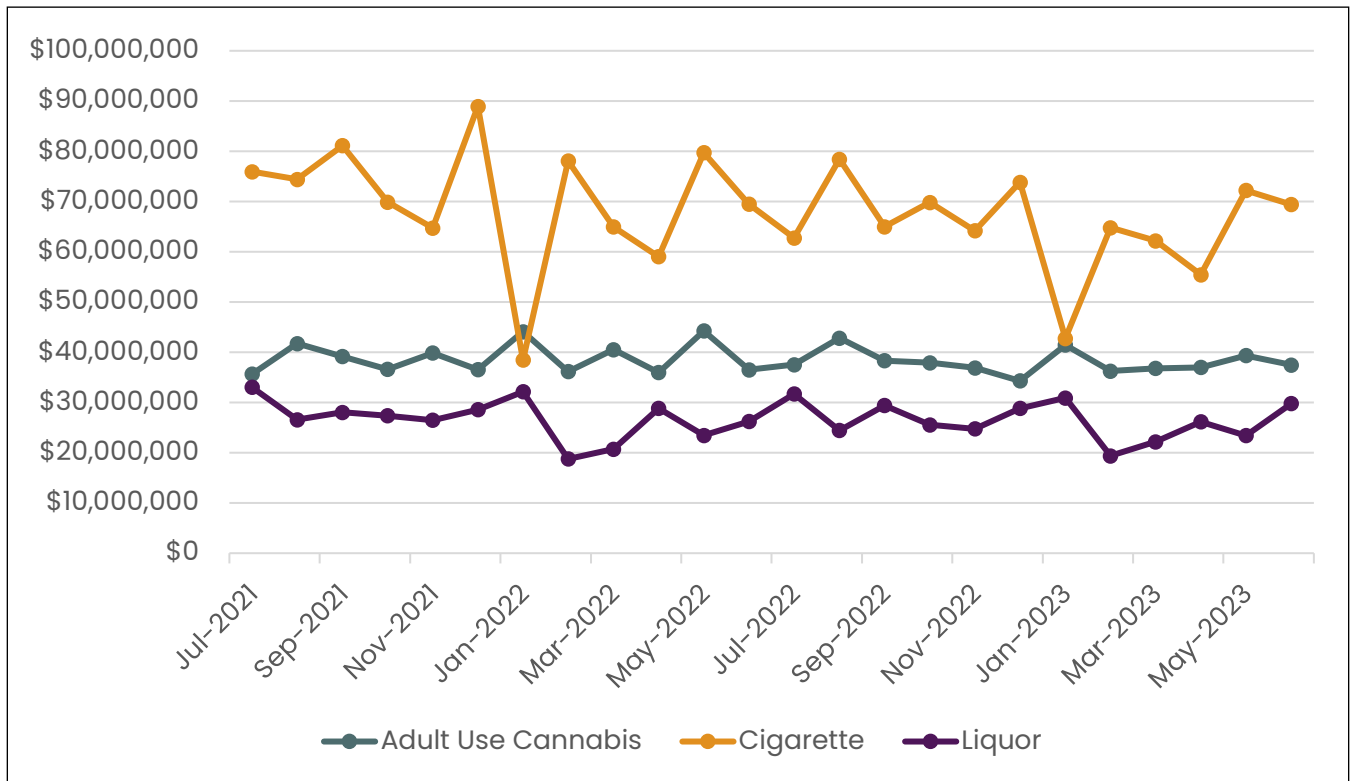
● Dispensaries Opened Prior to 2022	18
● Dispensaries Opened After 2022	3



ILLINOIS CANNABIS REVENUE OVER TIME

Observation: Similar trends across fiscal years 2022 and 2023 are seen, with the highest sales coming from cigarettes, then cannabis, and finally, liquor. For fiscal year 2023, cigarettes continue to be a greater source of revenue for IL in the fiscal year 2023, with the total revenue accounting for approximately \$781 million. Adult use cannabis sales have surpassed liquor sales, with total revenue for the fiscal year 2023 equating to \$456 million compared to \$316 million for liquor sales.

MONTHLY STATE REVENUES: FISCAL YEARS 22-23

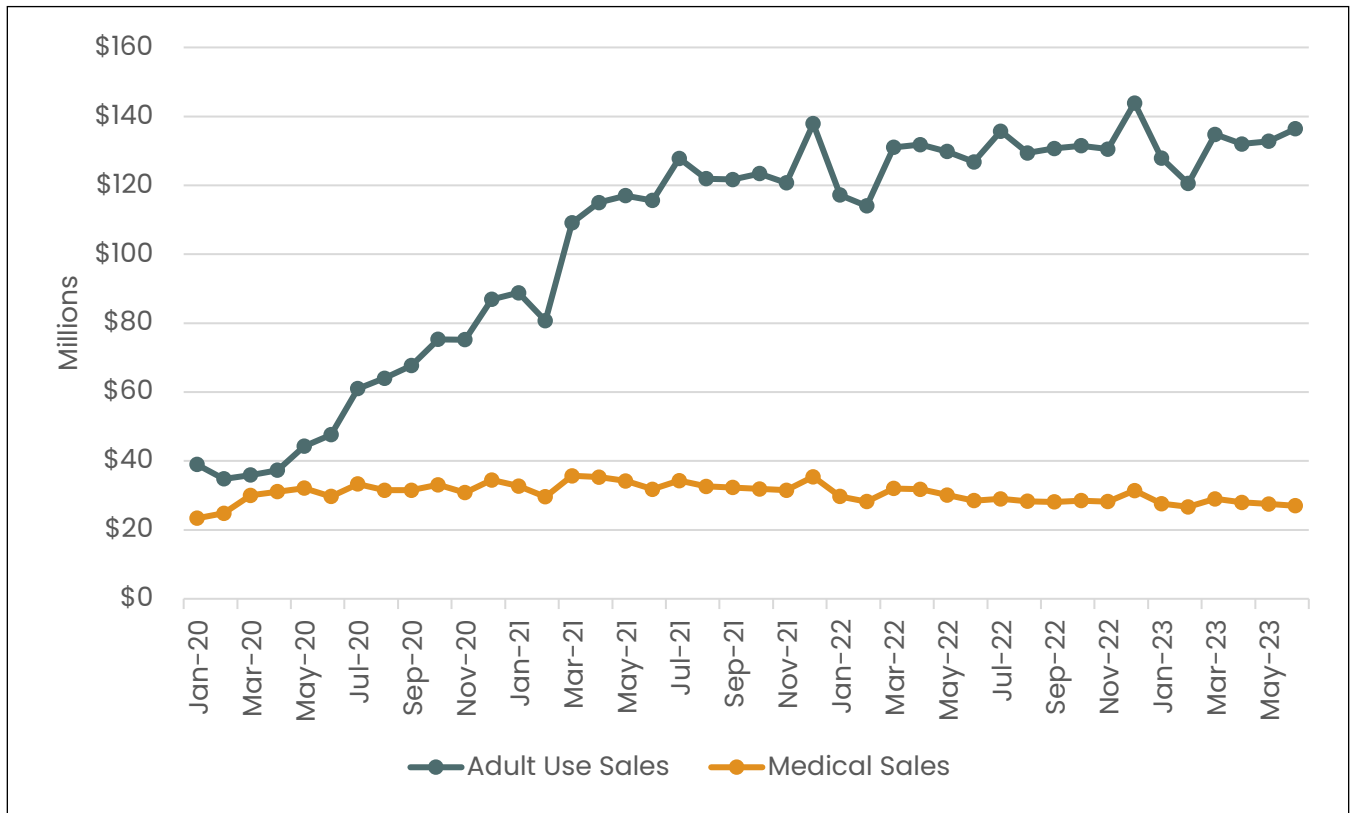


Source: Illinois CROO Cannabis Regulation Oversight Office

ILLINOIS MONTHLY RETAIL CANNABIS SALES

Observation: Adult Use Sales accounts for approximately 77% of total sales revenue for Cannabis in IL. 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 RSO.

ILLINOIS MONTHLY RETAIL CANNABIS SALES: JANUARY 2020–JUNE 2023

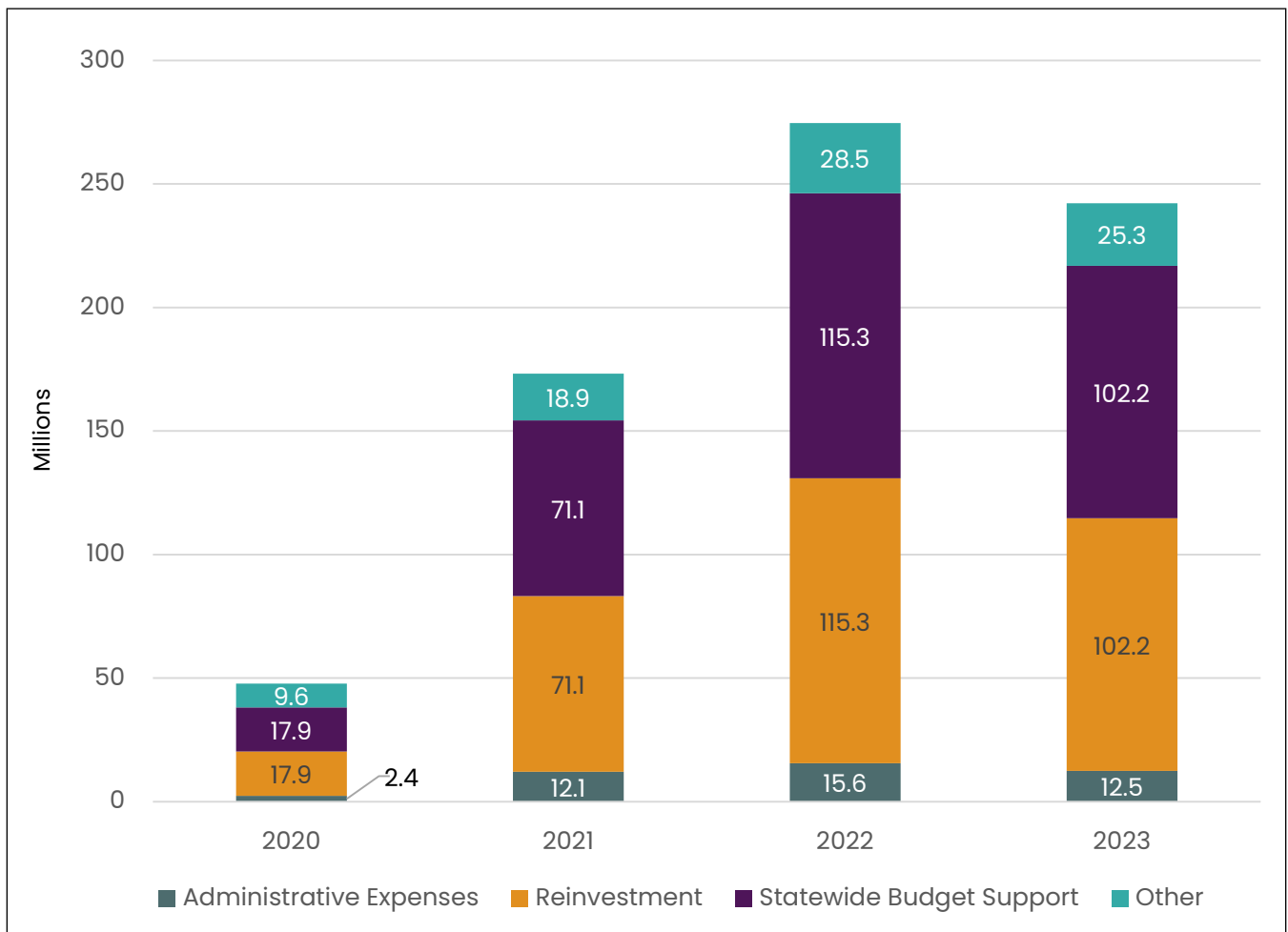


Source: Illinois CROO Cannabis Regulation Oversight Officer, <https://cannabis.illinois.gov/research-and-data/sales-figures.html>

CANNABIS REGULATION FUND ALLOTMENTS

Observation: The total revenue in the Cannabis Regulation Fund for FY23 was approximately \$242.2 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 decrease occurring between 2022 and 2023.

CANNABIS REGULATION FUND ALLOTMENTS BY FISCAL YEAR

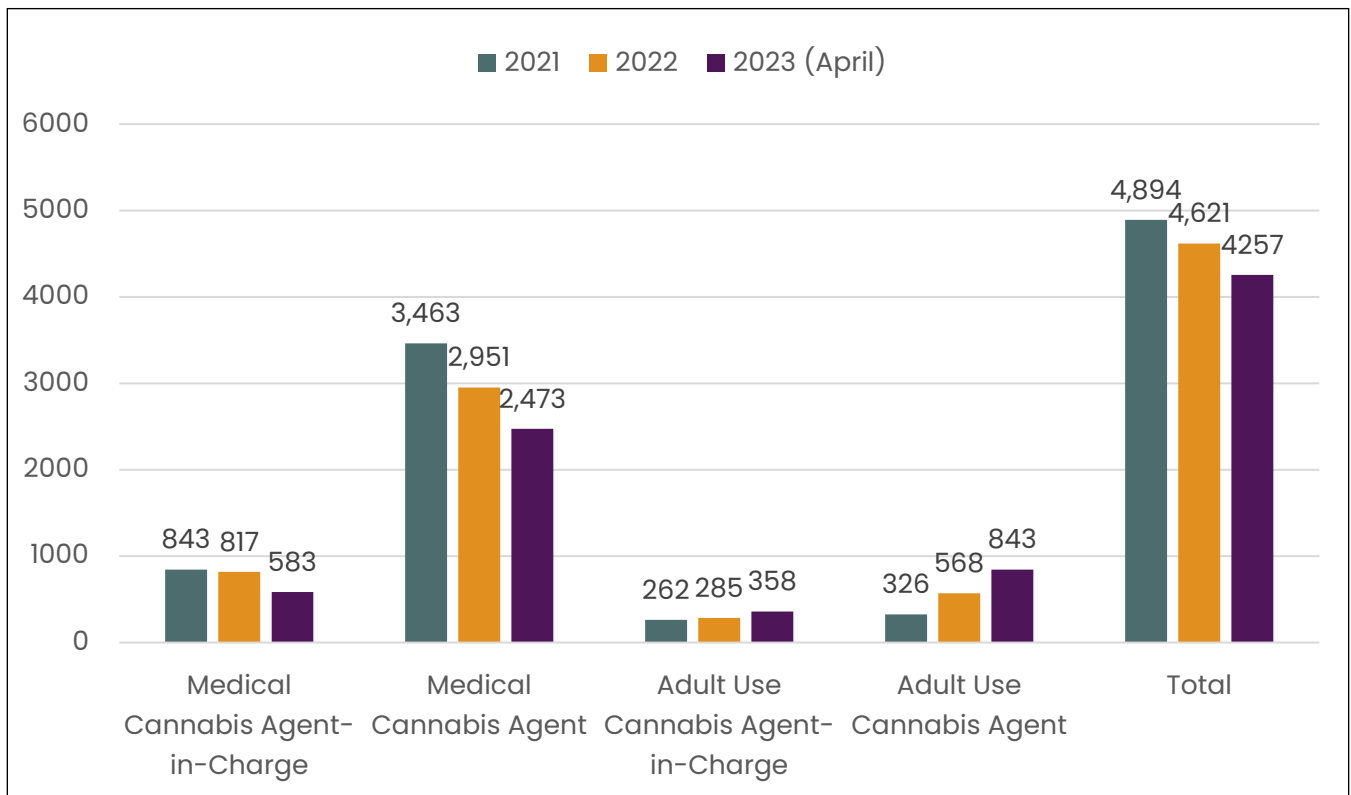


Source: Illinois CROO Cannabis Regulation Oversight Officer, <https://cannabis.illinois.gov/research-and-data/learn-how-cannabis-tax-dollars-are-spent.html>

BUDTENDER TRAINING

Observation: As of April 2023, there are a total of 4,257 trained budtenders within the state of Illinois, which is less than the 4,621 trained in 2022. There has been a decrease in the amount of agents that have gone through budtender training from 2021-2023.

BUDTENDER TRAINING: JANUARY 2020-APRIL 2023



Source: Illinois Department of Financial and Professional Regulation

TRENDS IN ILLINOIS CANNABIS USE INCIDENCE AND PREVALENCE



SUMMARY OF RESEARCH FINDINGS: POPULATION TRENDS

Methods: Review (non-systematic) of published articles in English, in peer-reviewed journals, between January 2021 to January 2023 from PubMed and Google Scholar databases to identify reports on the use of cannabis and/or other substances during changes of cannabis policy. Impacts on mental health such as psychosis, intoxication and hospitalization were not included.

Findings: Most studies found no significant association between RCL and increased prevalence of cannabis use in adolescents and young people as the prevalence was already high before the enactment of the policy.

Recent studies found higher rates of cannabis use among adults in US states with RCL or in Canada post-legalization.

Hospital encounters due to cannabis intoxication or poisonings among young children increased dramatically in both USA and Canada after legalization.

Increased cannabis use among women of reproductive age in preconception and postpartum periods was found in US states with RCL or in Canada post-legalization.

Significant association between RCL with increased alcohol use, electronic vapor product use (“vaping”), and e-cigarette use among adolescents was found.

Study/Studies: Assanangkornchaia, S., Kalayasirib, R., Ratta-aphac, W., Tanare, A. (2023). Effects of cannabis legalization on the use of cannabis and other substances. *Current Opinion in Psychiatry*, 36, 283-289. doi: 10.1097/YCO.0000000000000868

POPULATION TRENDS: CO-TWIN STUDY

Methods: Longitudinal, co-twin control design in 4,043 twins (N = 240 pairs discordant on residence), first assessed in adolescence and now age 24–49, currently residing in states with different cannabis policies (40% resided in a recreationally legal state).

Findings: In the co-twin control design accounting for earlier cannabis frequency and alcohol use disorder (AUD) symptoms respectively, the twin living in a recreational state used cannabis on average more often ($\beta_w = 0.11$, $p = 1.3 \times 10^{-3}$), and had fewer AUD symptoms ($\beta_w = -0.11$, $p = 6.7 \times 10^{-3}$) than their co-twin living in a non-recreational state.

Cannabis legalization was associated with no other adverse outcome in the co-twin design, including cannabis use disorder.

No risk factor significantly interacted with legalization status to predict any outcome.

Study/Studies: Zellers, S. M., Ross, J. M., Saunders, G. R. B., et al. (2023). Recreational cannabis legalization has had limited effects on a wide range of adult psychiatric and psychosocial outcomes. *Psychological Medicine* 1–10. doi: 10.1017/S0033291722003762

INCIDENCE AND PREVALENCE TREND HIGHLIGHTS

In Illinois, there was no apparent effect of legalizing recreational cannabis use on past-year initiation among those 12 or older between 2018–2019 and 2021. The initiation rates were comparable to other Midwest states and the U.S.

In Illinois, there was a decrease in past-year initiation among those 12–17 years old between 2018–2019 and 2021. This trend was seen in Michigan and across the U.S., although other contiguous states remained relatively stable.

Among persons 12 to 17 years olds, cannabis initiation increased slightly between 2015 and 2019 and has since decreased in 2021. Incidence of initiation is greatest for 18 to 25 years olds, though initiation has remained relatively stable from 2013–2021. The incidence of cannabis initiation remains very low for persons 26 or older; however, rates have slightly increased from 2015–2021.

Illinois and Michigan, two of the states that have legalized cannabis, both had approximately 4.6% and 3.9% increases in any past year use between 2018–2019 and 2021 among residents 12 years of age or older, respectively. Other Midwest states showed a 3.7% increase over the same time, while there was only a 2% increase across all US states.

Past-year use of cannabis increased between 2018–2019 and 2021 among 18–25 year olds and, to a greater extent among those 26 and older. Past-year use among persons 12–17 years old decreased between 2018–2019 and 2021.

Overall in 2021, the same trend was seen in Illinois, Michigan, the contiguous states, and the U.S. for any past-month cannabis use. The 18–25 year age group had a dramatically higher prevalence of any past-month cannabis use, followed by 26 years and older and 12–17 year olds, respectively. Both Illinois and Michigan had higher rates of past-month use across all age groups, compared to the contiguous states and the U.S. For Illinois, there was an approximately 3% increase in the rate for 12–17 year olds and 18–25 year olds, as compared to contiguous states and the U.S.

Between 2015–2018, any past-month cannabis use increased for all age groups with use slightly decreasing between 2018–2019. However, past-month use increased for all age groups in 2021 and to the greatest extent for the 18–25 year olds.

INCIDENCE AND PREVALENCE TREND HIGHLIGHTS

In 2021, among Illinois, Michigan, the contiguous states, and the U.S, 12-17 year olds and individuals 26 years and older had approximately the same rate of perceived great risk for smoking once a month, whereas the perception of great risk was dramatically lower for 18-25 year olds. For Illinois, 18-25 year olds have a higher perception of great risk for smoking once a month compared to Michigan, the contiguous states, and the U.S.

Between 2015-2019, the perception of great risk of smoking once a month decreased for all age groups. In 2021, there was a continued decrease in perceived great risk for 12-17 year olds and those 26 and older, whereas 18-25 year olds had an increase in perceived great risk.

From 2015-2021, perceived great risk of smoking once a month slowly decreased for 12-17 year olds. The decrease in perceived great risk corresponded to an increase in past month use, particularly between 2019-2021, as past month use increased by 1.8%.

FIVE CONTIGUOUS STATES: CANNABIS HISTORY

APPROVED ADULT-USE RECREATIONAL & MEDICAL CANNABIS PROGRAMS:

Michigan:

In 2008, Michigan legalized medical cannabis for qualifying medical patients. Cannabis dispensaries in the state remained illegal, 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 recreational cannabis use for adults.

Missouri:

In 2014, Missouri permitted only low-THC CBD for seizure disorder patients. In late 2018, Missouri legalized medical cannabis for qualifying patients. The first licenses were awarded in January 2020. **Update: In November 2022, Missouri legalized adult-use cannabis. The new law automatically expunges criminal records for nonviolent cannabis offenses.**

APPROVED CBD/LOW-THC:

Indiana:

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

Iowa:

In 2014, Iowa permitted only the use of low-THC CBD products for certain medical patients. In 2018, Iowa amended permissions to allow use of low-THC CBD for any person. There have been no changes to permissions of medical or recreational cannabis use.

Wisconsin:

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

PAST YEAR CANNABIS USE INITIATION AGES 12 AND OLDER BY STATE AND U.S.

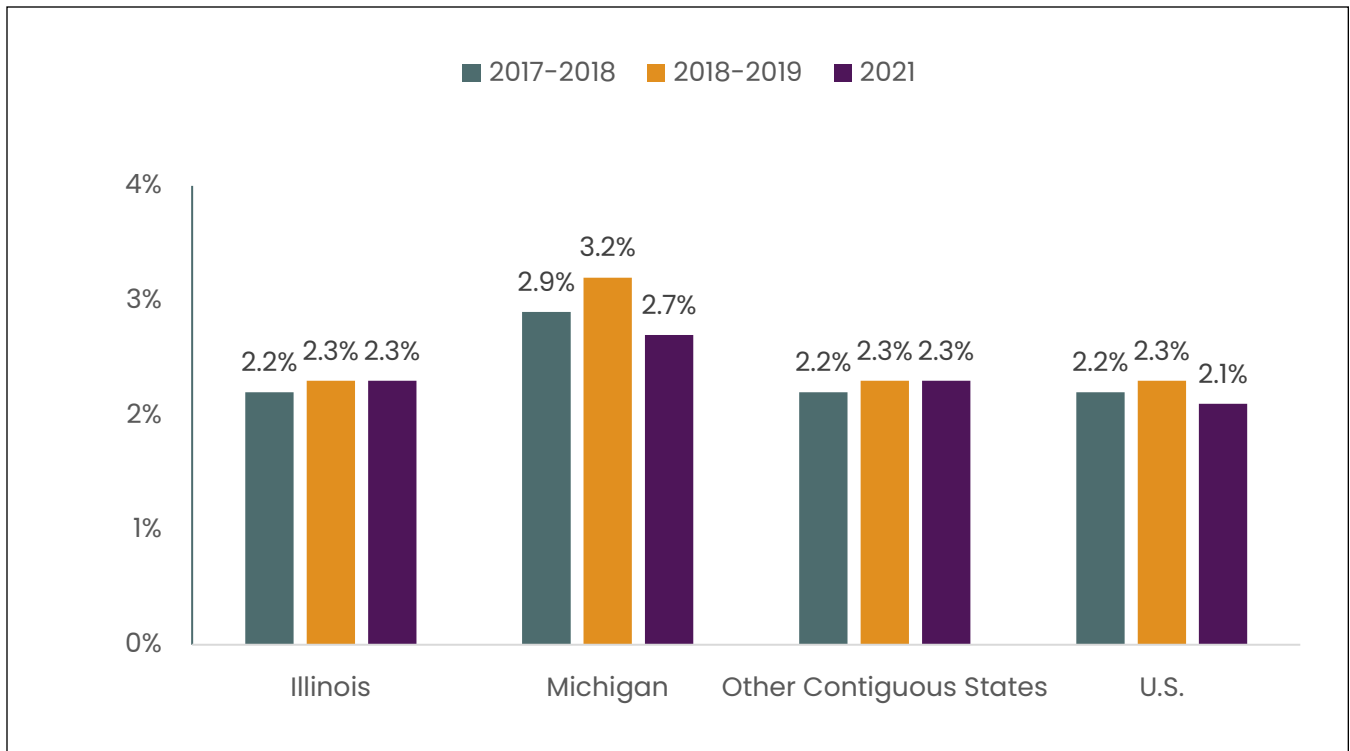
Observation: In Illinois, there was no apparent effect of legalizing recreational cannabis use on past-year initiation among those 12 or older between 2018–2019 and 2021. The initiation rates were comparable to other Midwest states and the U.S.

The 2.3% incidence rate of past-year cannabis initiation translates to 132,000 new Illinois cannabis users in 2021.

Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

PAST-YEAR CANNABIS USE INITIATION (2017 – 2021) AGES 12 OR OLDER BY STATE AND U.S.



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

PAST YEAR CANNABIS USE INITIATION AGES 12-17 BY STATE AND U.S.

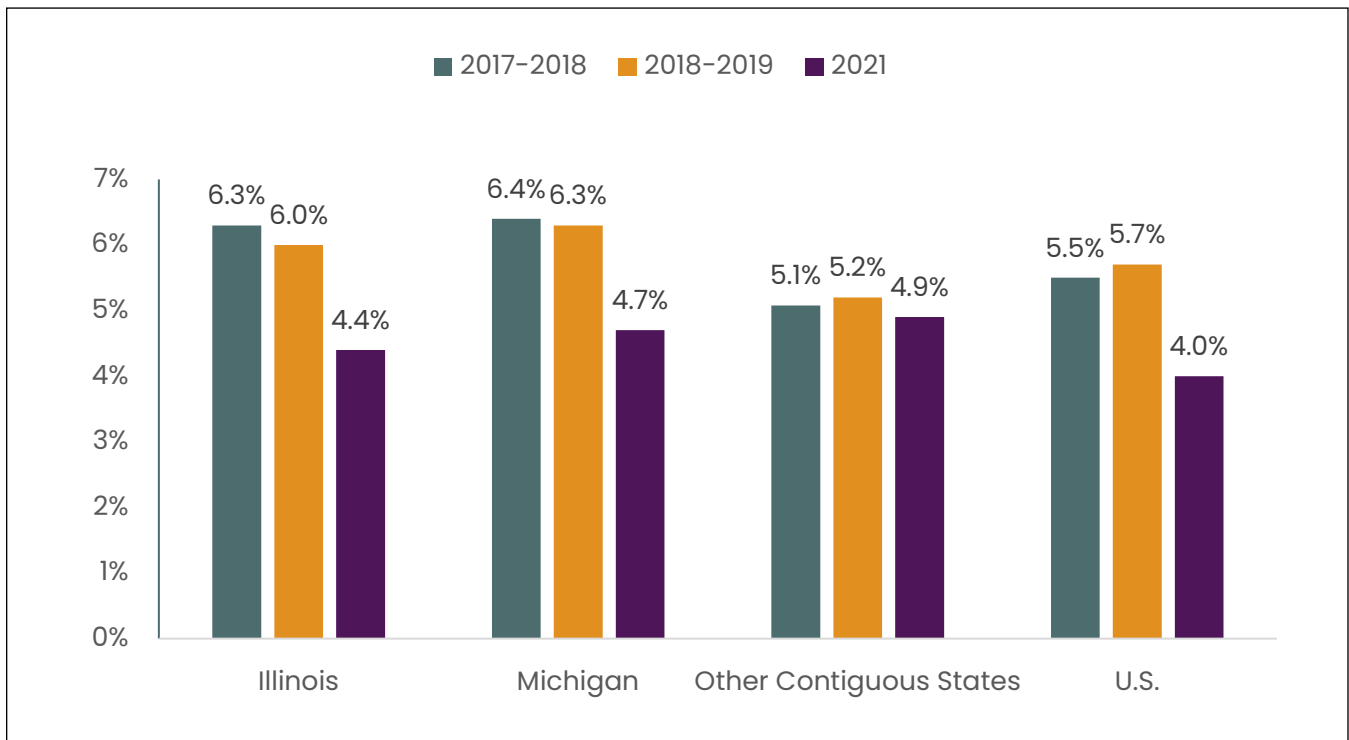
Observation: In Illinois, there was a decrease in past-year initiation among those 12-17 years old between 2018-2019 and 2021. This trend was seen in Michigan and across the U.S., although other contiguous states remained relatively stable.

The 4.4% incidence rate of past-year cannabis initiation translates to 40,000 new Illinois cannabis users ages 12 to 17 in 2021.

Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

State estimates for 2019-2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

PAST-YEAR CANNABIS USE INITIATION (2017 - 2021) AGES 12-17 BY STATE AND U.S.



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

PAST-YEAR CANNABIS INITIATION BY AGE GROUP

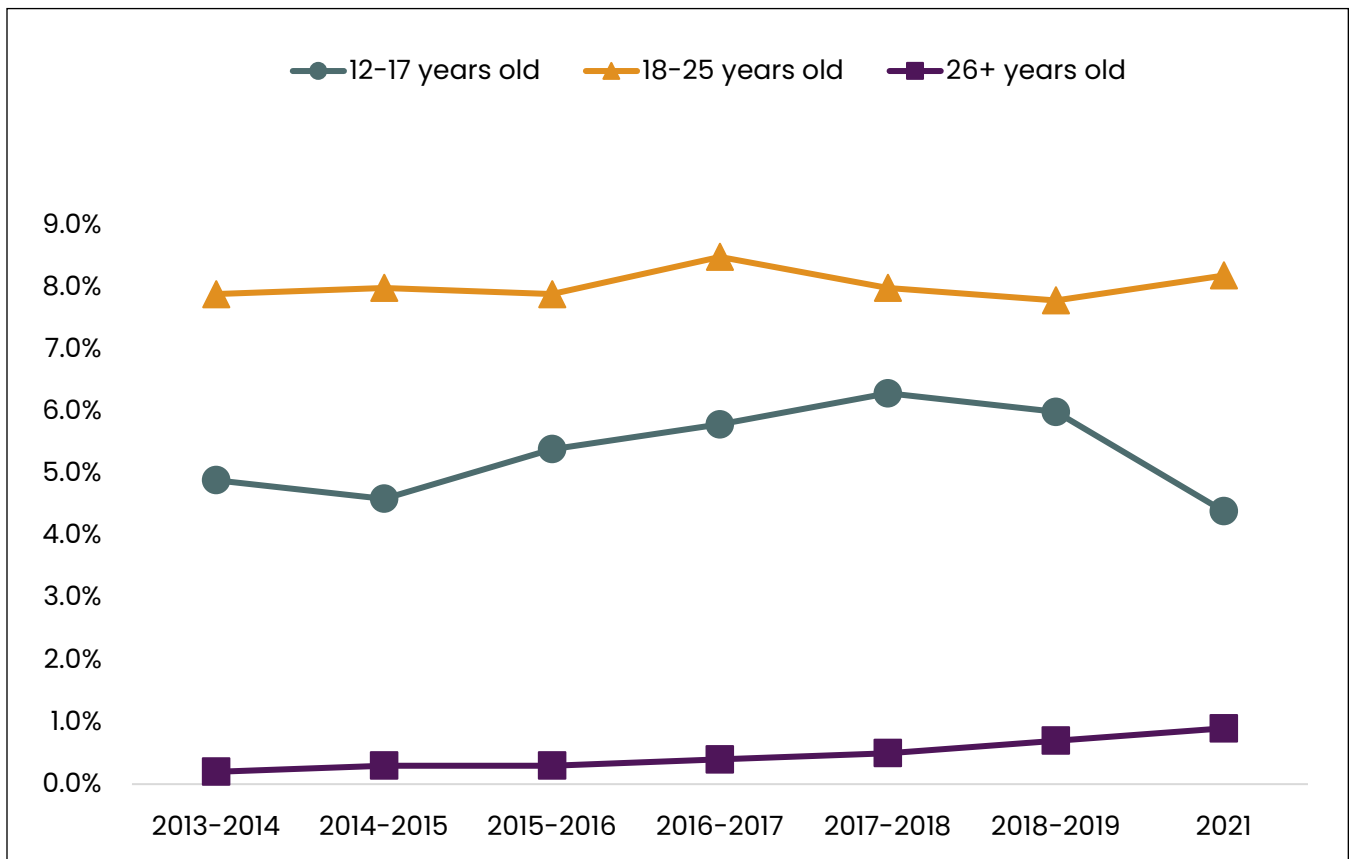
Observation: Among persons 12 to 17 years olds, cannabis initiation increased slightly between 2015 and 2019 and has since decreased in 2021.

Incidence of initiation is greatest for 18 to 25 years olds, though initiation remained relatively stable from 2013–2021. The incidence of cannabis initiation remains very low for persons 26 or older; however, rates have slightly increased from 2015–2021.

For 2021, the estimated population incidence of cannabis initiation was 40,000 for 12 to 17 year olds; 54,000 for 18 to 25 year olds; and 38,000 for Illinois residents 26 years of age or older.

State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

PAST-YEAR CANNABIS USE INITIATION BY AGE GROUP (2013–2021)



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

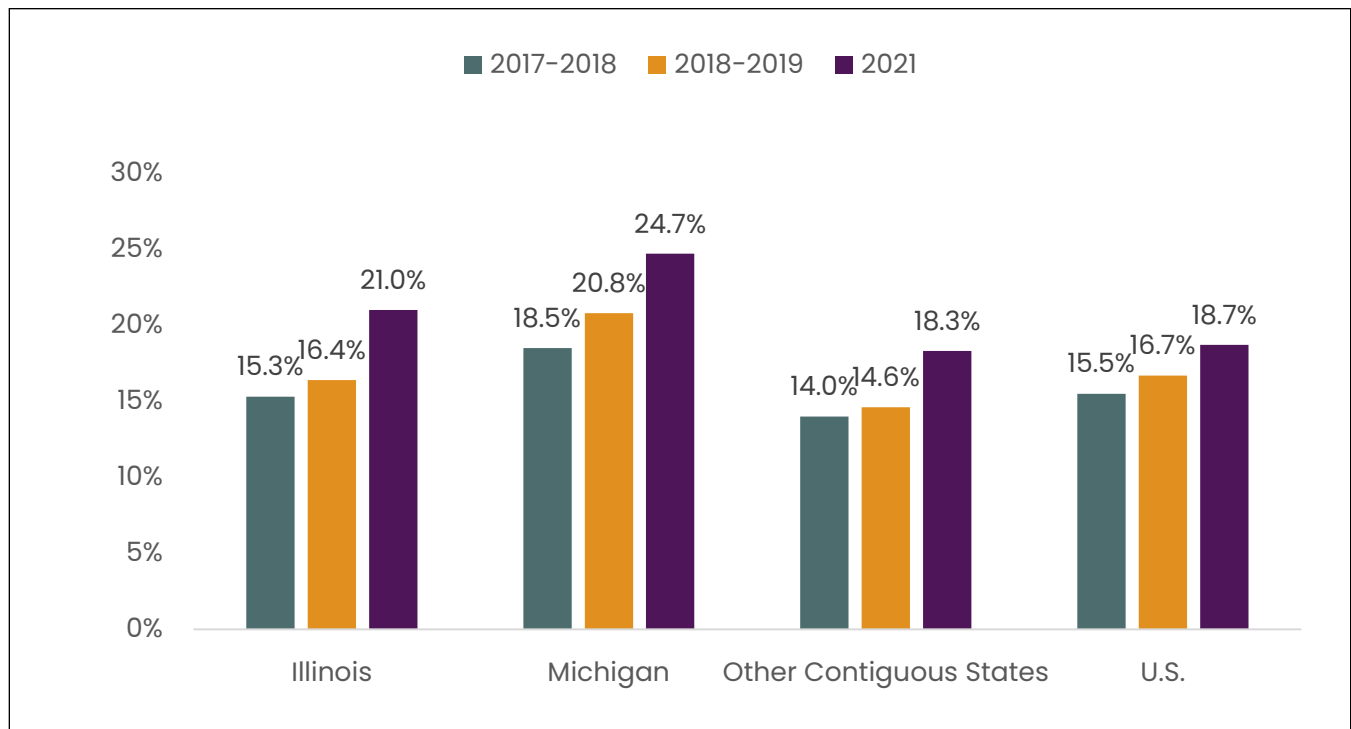
PREVALENCE OF ANY PAST-YEAR CANNABIS USE

Observation: Illinois and Michigan, two of the states that have legalized cannabis, both had approximately 4.6% and 3.9% increases in any past year use between 2018–2019 and 2021 among residents 12 years of age or older, respectively. Other Midwest states showed a 3.7% increase over the same time, while there was only a 2% increase across all US states.

Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

PREVALENCE OF ANY PAST-YEAR CANNABIS USE (2017 – 2021) AGES 12 OR OLDER BY STATE AND U.S.



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

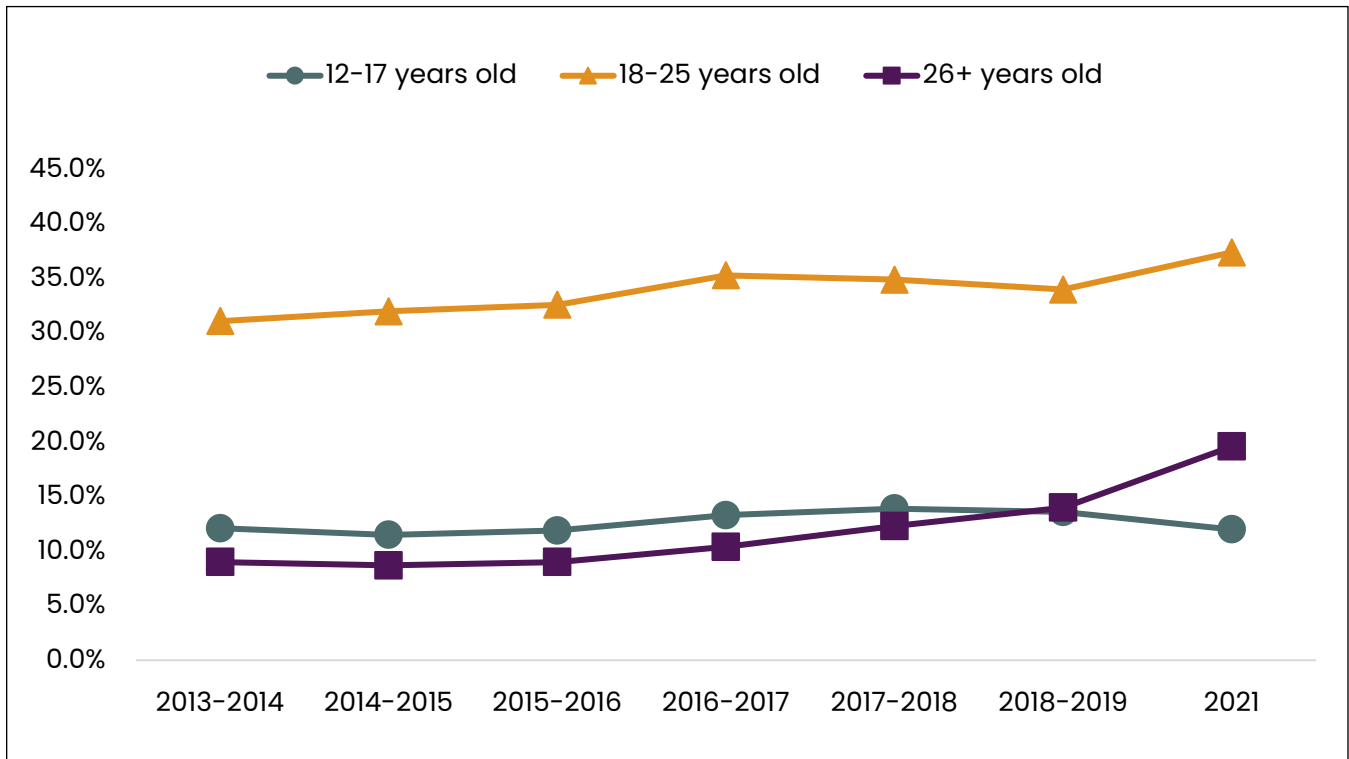
ANY PAST-YEAR CANNABIS USE BY AGE GROUP

Observation: Past-year use of cannabis increased between 2018–2019 and 2021 among 18–25 year olds and, to a greater extent among those 26 and older. Past-year use among persons 12–17 years old decreased between 2018–2019 and 2021.

For 2021, the estimated population incidence of any cannabis use was: 121,000 for 12 to 17 year olds; 477,000 for 18 to 25 year olds; and 1,649,000 for Illinois residents 26 years of age or older.

State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

ANY PAST-YEAR CANNABIS USE BY AGE GROUP (2013–2021)



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

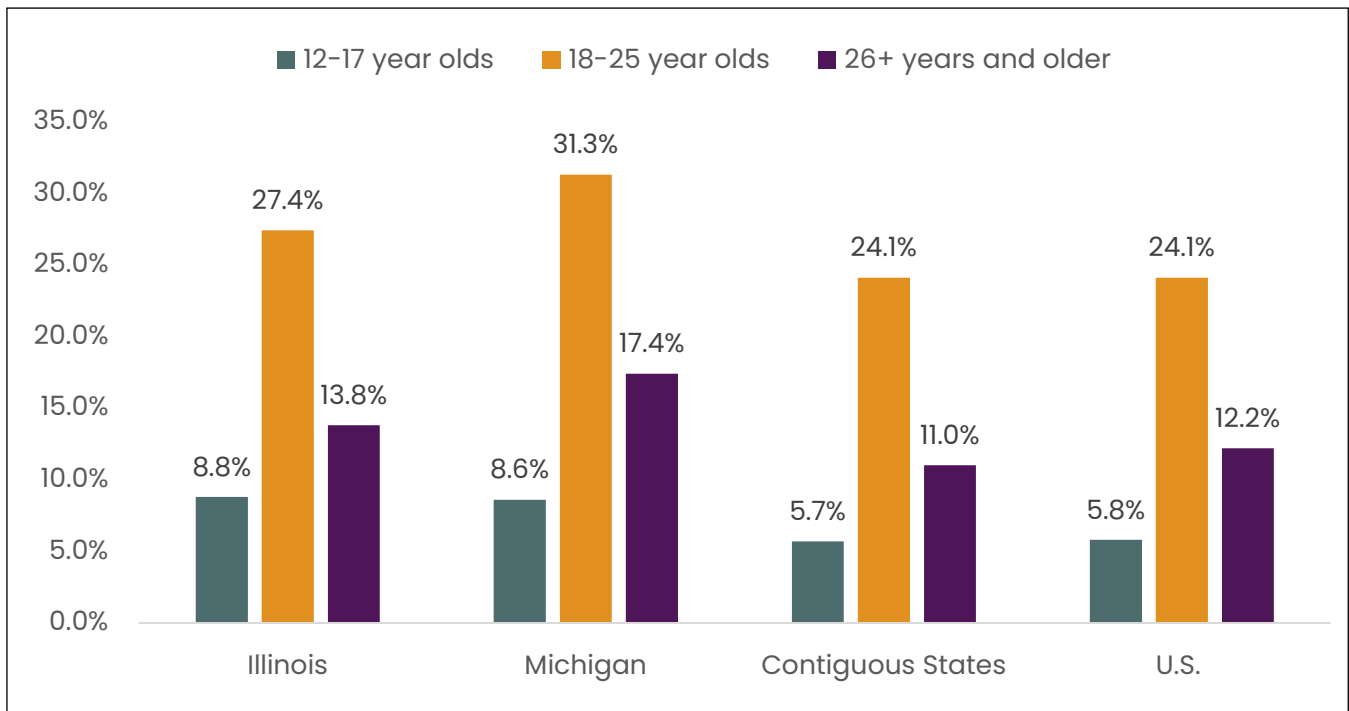
PREVALENCE OF ANY PAST-MONTH CANNABIS USE FOR EACH AGE GROUP AND BY STATE AND U.S.

Observation: Overall in 2021, the same trend is seen in Illinois, Michigan, the contiguous states, and the U.S. The 18–25 year age group had a dramatically higher prevalence of any past-month cannabis use, then followed by 26 years and older and 12–17 year olds, respectively. Both Illinois and Michigan had higher rates of past-month use across all age groups, compared to the contiguous states and the U.S. For Illinois, there was an approximately 3% increase in the rate for 12–17 year olds and 18–25 year olds, as compared to contiguous states and the U.S.

Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

PREVALENCE OF ANY PAST-MONTH CANNABIS USE FOR EACH AGE GROUP BY STATE AND U.S. (2021)



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

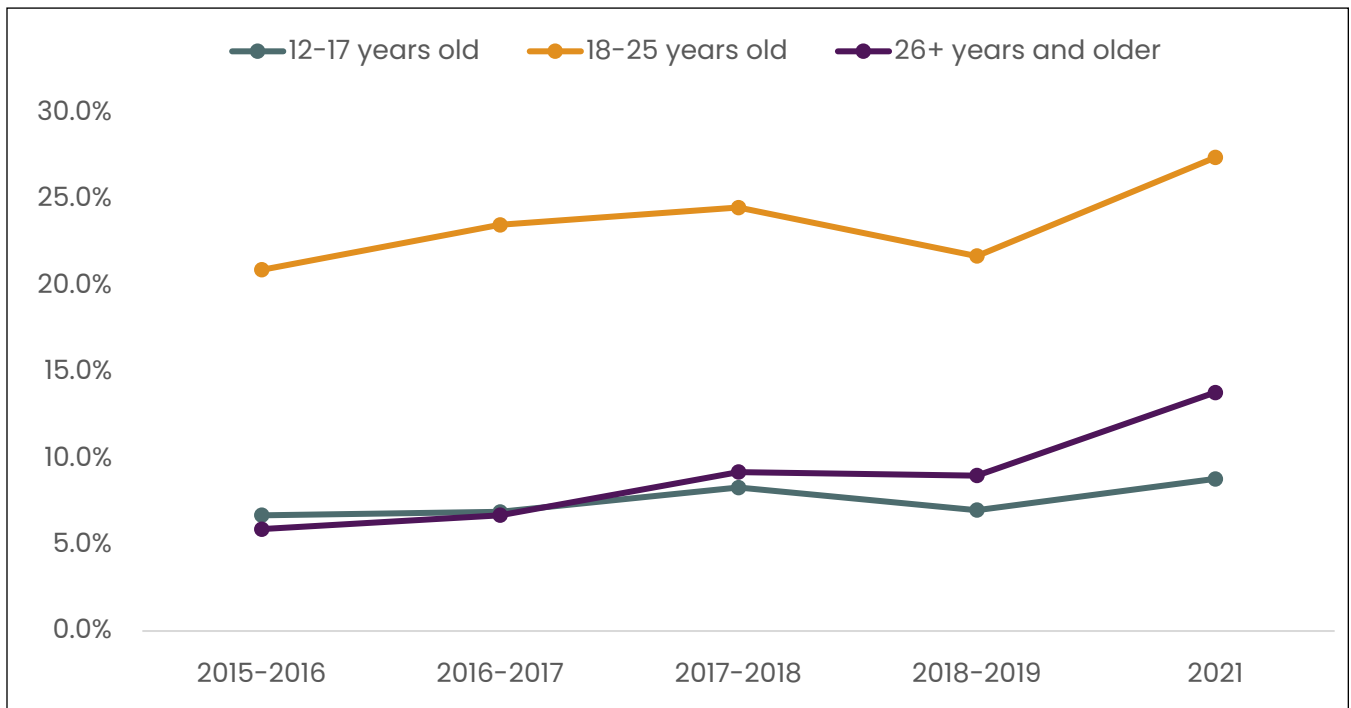
PREVALENCE OF ANY PAST-MONTH CANNABIS USE BY AGE GROUP

Observation: Between 2015–2018, any past-month cannabis use increased for all age groups with use slightly decreasing between 2018–2019. However, past-month use increased for all age groups in 2021 to the greatest extent for the 18–25 year olds.

For 2021, the estimated population prevalence of any cannabis use in the past-month was: 89,000 for 12 to 17 year olds; 350,000 for 18 to 25 year olds; and 1,158,000 for Illinois residents 26 years of age or older.

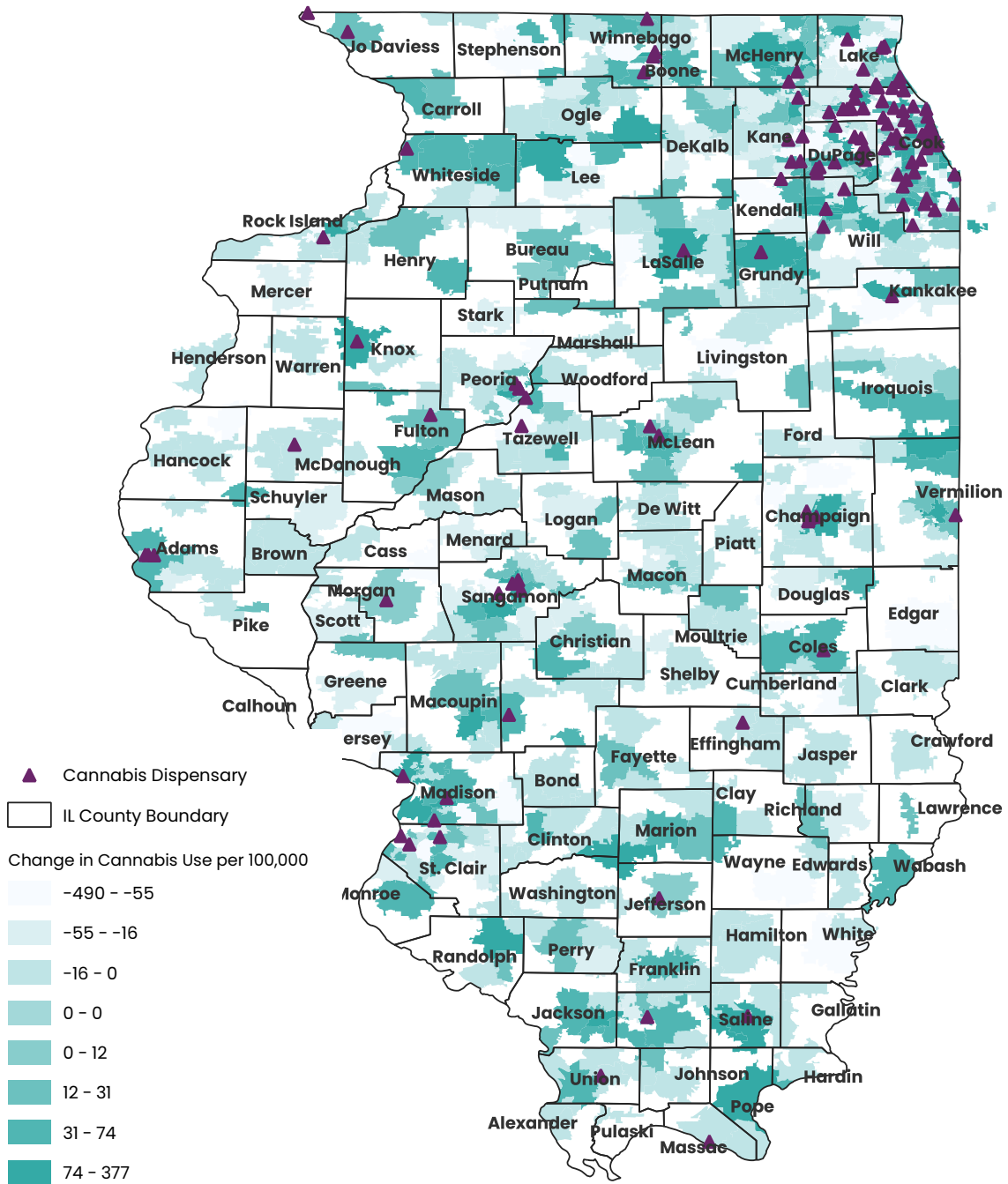
State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

ANY PAST-MONTH CANNABIS USE BY AGE GROUP (2015–2021)



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

ILLINOIS CHANGE IN CANNABIS USE RELATIVE TO DISPENSARY PROXIMITY (2020 & 2022)



Source: International Cannabis Policy Study, Illinois site data (2020; 2022) - David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

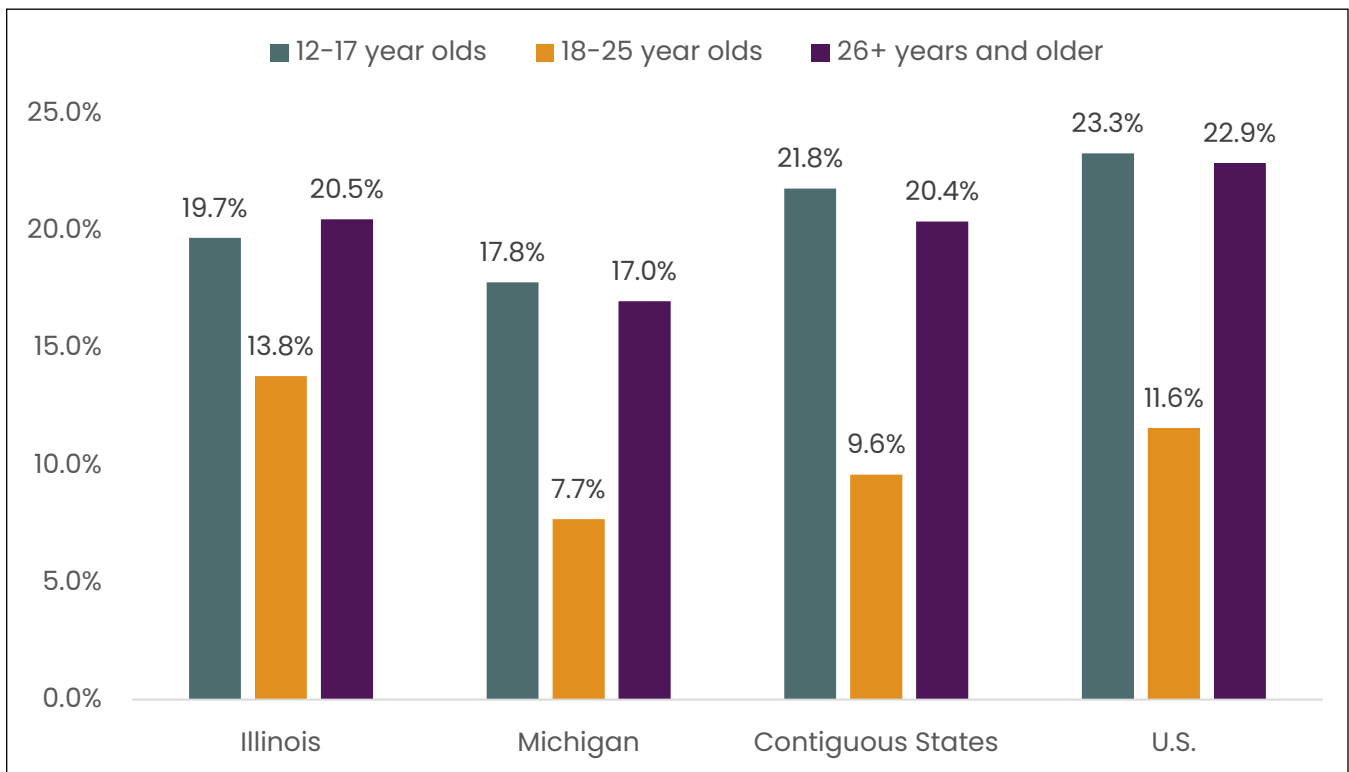
PERCEPTION OF GREAT RISK FOR SMOKING ONCE A MONTH FOR EACH AGE GROUP BY STATE AND U.S.

Observation: In 2021, among Illinois, Michigan, the contiguous states, and the U.S, 12-17 year olds and individuals 26 years and older had approximately the same rate of perceived great risk for smoking once a month, whereas the perception of great risk was dramatically lower for 18-25 year olds.

For Illinois, 18-25 year olds had a higher perception of great risk for smoking one a month compared to Michigan, the contiguous states, and the U.S. Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

State estimates for 2019-2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

PERCEPTION OF GREAT RISK FOR SMOKING ONCE A MONTH FOR EACH AGE GROUP BY STATE AND U.S. (2021)



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

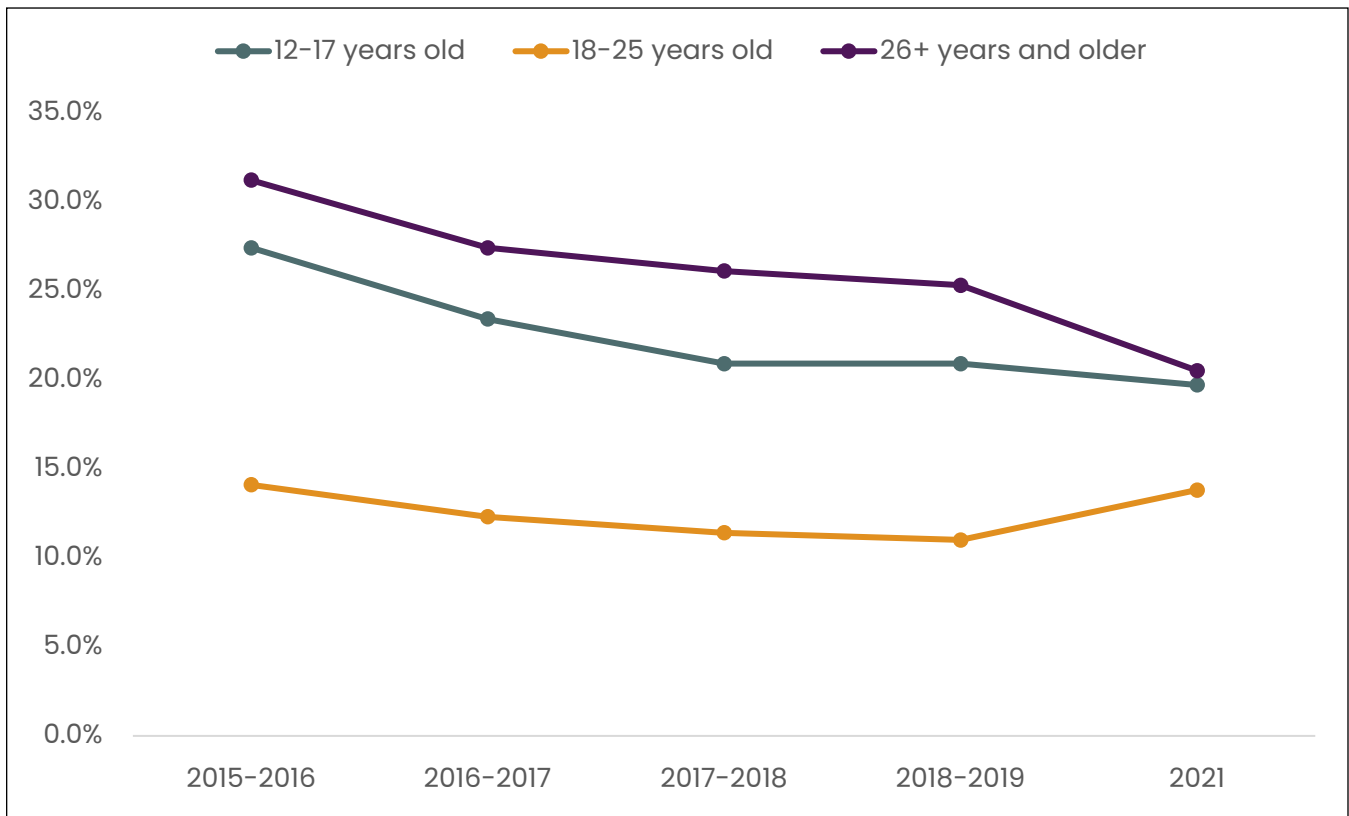
PERCEPTION OF GREAT RISK OF SMOKING ONCE A MONTH OVER TIME BY AGE GROUP

Observation: Between 2015–2019, the perception of great risk of smoking once a month decreased for all age groups. In 2021, there was a continued decrease in perceived great risk for 12–17 year olds and those 26 and older, whereas 18–25 year olds had an increase in perceived great risk.

For 2021, the estimated population prevalence of perception of great risk of smoking once a month was: 199,000 for 12 to 17 year olds; 176,000 for 18 to 25 year olds; and 1,724,000 for Illinois residents 26 years of age or older.

State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

PERCEPTION OF GREAT RISK OF SMOKING ONCE A MONTH OVER TIME BY AGE GROUP (2015–2021)



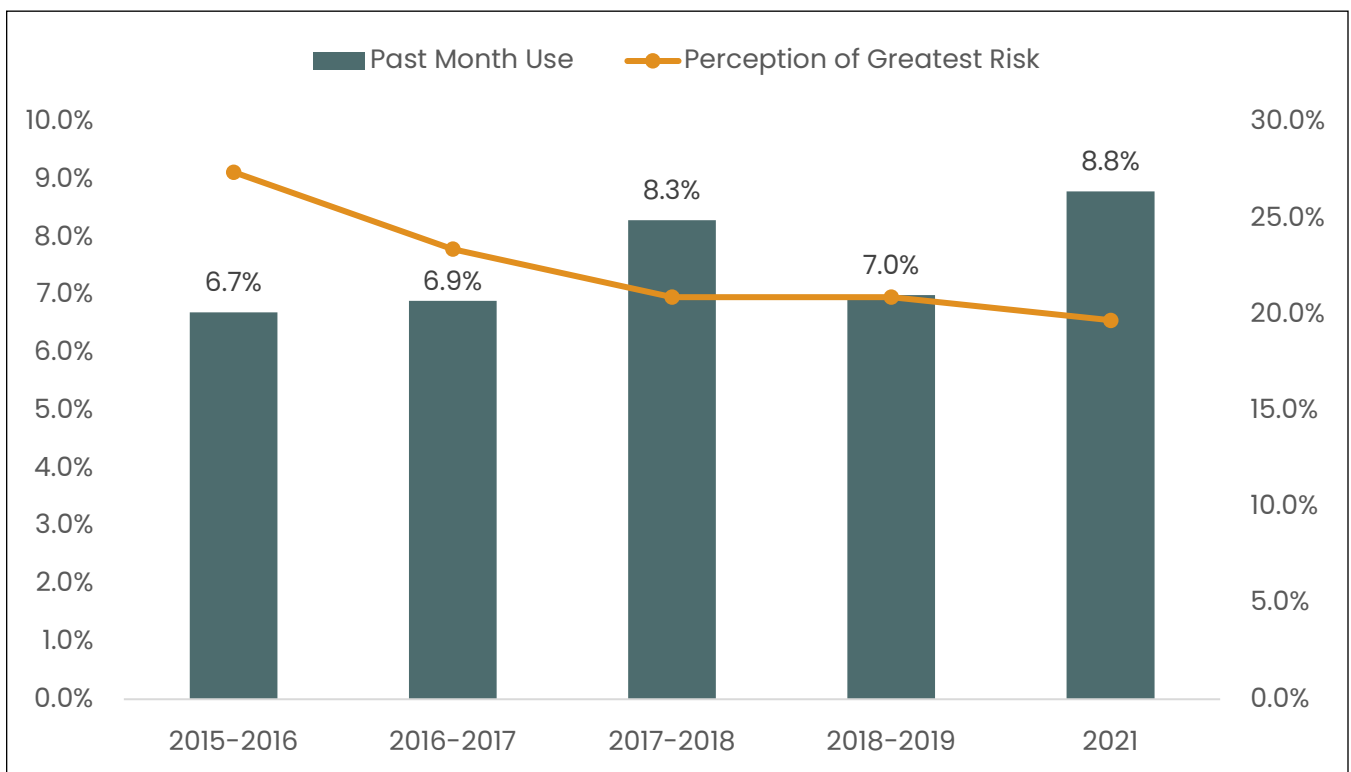
Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

CORRESPONDENCE BETWEEN PAST MONTH USE AND PERCEIVED GREAT RISK OF SMOKING ONCE A MONTH FOR 12-17 YEAR OLDS

Observation: From 2015-2021, perceived great risk of smoking once a month slowly decreased for 12-17 year olds. The decrease in perceived great risk corresponds to an increase in past month use, particularly between 2019-2021, as past month use increased by 1.8%.

State estimates for 2019-2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

CORRESPONDENCE BETWEEN PAST MONTH USE AND PERCEIVED GREAT RISK SMOKING ONCE A MONTH FOR 12-17 YEAR OLDS (2015-2021)



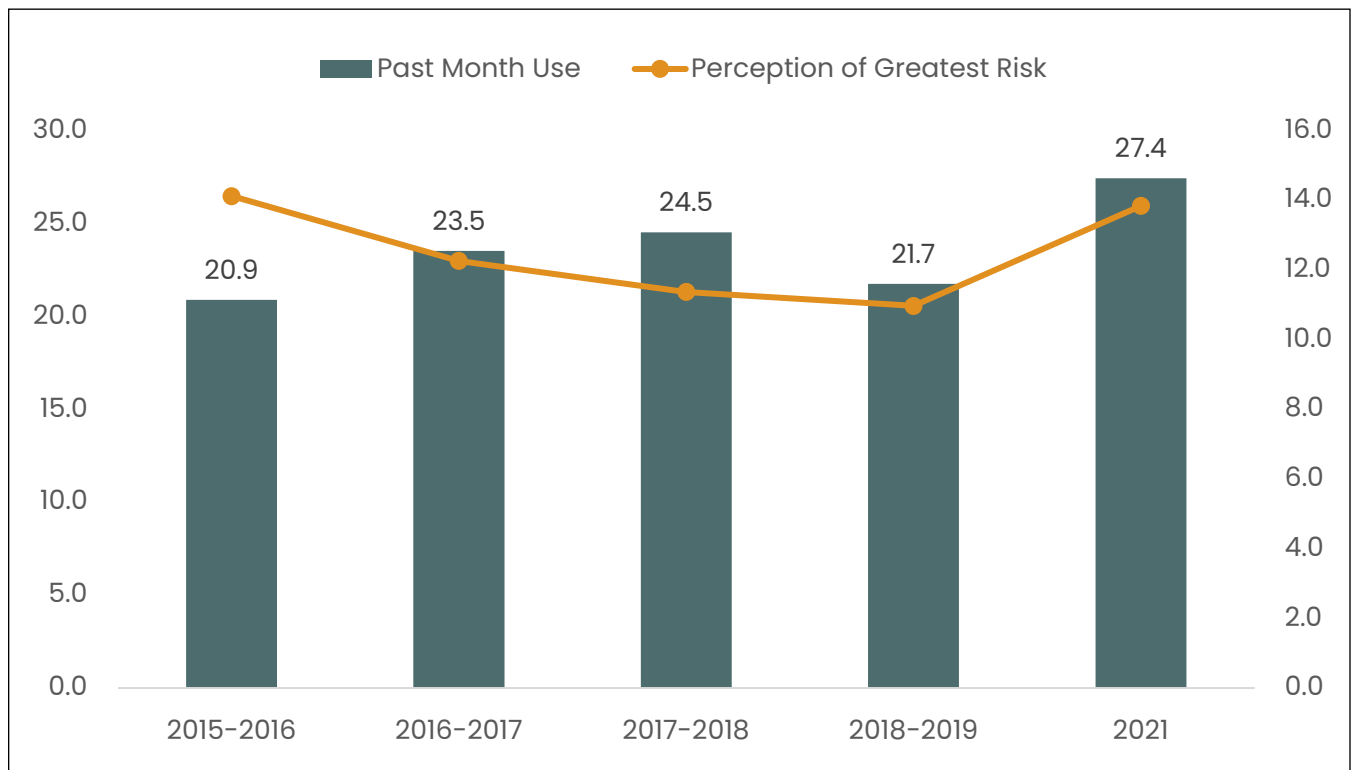
Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

CORRESPONDENCE BETWEEN PAST MONTH USE AND PERCEIVED GREAT RISK OF SMOKING ONCE A MONTH FOR 18–25 YEAR OLDS

Observation: Between 2015–2019, perceived great risk of smoking once a month decreased for 18–25 year olds with a steep increase occurring in 2021. Though perceived great risk increased in 2021, there was a 5.7% increase in past month use for this age group.

State estimates for 2019–2020 are no longer available due to methodological concerns with combining 2019 and 2020 data.

CORRESPONDENCE BETWEEN PAST MONTH USE AND PERCEIVED GREAT RISK OF SMOKING ONCE A MONTH FOR 18–25 YEAR OLDS (2015–2021)



Source: National Survey on Drug Use and Health State Data Releases, <https://www.samhsa.gov/data/nsduh/state-reports>

PREVALENCE TRENDS FOR SPECIAL POPULATIONS



SPECIAL POPULATIONS: PRENATAL AND PERINATAL CANNABIS USE

Methods: Meta-analysis of 27 peer-reviewed studies published between 1986 and 2022 where pre-term birth was an assessed outcome. Countries included US, Australia, New Zealand, Ireland, and the UK.

Retrospective cohort study of 2,380,446 patients in California using linked hospital discharge and vital statistics data. Outcomes included adverse maternal and infant outcomes including hypertension, preeclampsia, preterm delivery, severe maternal morbidity, and respiratory distress syndrome.

Findings: Maternal prenatal cannabis exposure was associated with an increased risk of preterm birth (i.e., born prior to 37 completed weeks of gestation) with a pooled aOR of 1.35, 95% CI = 1.24–1.48.

Significantly increased risk for adverse birthing person outcomes, including gestational hypertension (adjusted odds ratio [AOR], 1.19; 95% confidence interval [CI], 1.06–1.34; $P = 0.004$), preeclampsia (AOR, 1.16; 95% CI, 1.0–1.28; $P = 0.006$), preterm delivery (AOR, 1.45; 95% CI, 1.35–1.55; $P < 0.001$), and severe maternal morbidity (AOR, 1.22; 95% CI, 1.02–1.47; $P = 0.033$). Prenatal cannabis use disorder was also associated with an increased risk of neonatal outcomes including respiratory distress syndrome (AOR, 1.16; 95% CI, 1.07–1.27; $P < 0.001$), small for gestational age (AOR, 1.47; 95% CI, 1.38–1.56; $P < 0.001$), neonatal intensive care unit admission (AOR, 1.24; 95% CI, 1.16–1.33; $P < 0.001$), and infant death (AOR, 1.86; 95% CI, 1.44–2.41; $P < 0.001$).

Study/Studies: Duko, Dachew, Pereira, & Alati (2023). The effect of prenatal cannabis exposure on offspring preterm birth: cumulative meta-analysis. *Addiction*, 118(4), 607–619. doi: 10.1111/add.16072.

Prewitt, K. C., Hayer, S., Garg, B. et al. (2023). Impact of prenatal cannabis use disorder on perinatal outcomes. *Journal of Addiction Medicine*, 17(3), e192–e198. doi: 10.1097/ADM.0000000000001123.

SPECIAL POPULATIONS: SEXUAL AND GENDER MINORITY YOUTH

Methods: Secondary analysis of data collected for the 2017 LGBTQ National Teen Survey, a non-probability, US-based sample of 10,027 gender and sexual minority youth (13 - 17 years old).

Findings: The odds of lifetime marijuana use were 98% greater among youth experiencing LGBTQ victimization (AOR = 1.98; 95% CI: 1.78–2.20).

The odds of current marijuana use were 50% greater among youth living in states with legalized marijuana possession for recreational use (AOR = 1.50; 95% CI: 1.21–1.86) compared with states that prohibit any possession.

State marijuana possession laws were not statistically associated with lifetime use.

Study/Studies: Wheldon, C. W., Watson, R. J., Cunningham, C., & Fish, J. N. (2023). State marijuana laws and marijuana use among sexual and gender minority youth in the United States. *LGBT Health*, 10(2). doi: 10.1089/lgbt.2021.0419

SPECIAL POPULATIONS HIGHLIGHTS

Males were more likely to report any past-month cannabis use and frequent cannabis use compared with females. Frequency of use increased for both males and females between 2018–2019 and 2019–2020

Between 2017–2018 to 2019–2020, there has been a 6.3% increase in the prevalence of past-month cannabis use among pregnant women.

Self-identified sexual minorities were more likely than heterosexuals to indicate past-month cannabis use and to have used cannabis more frequently in the past month.

Persons with a past-year serious mental illness (SMI) had much higher rates of both any and frequent cannabis use compared to persons without an SMI, 14.9% and 1.9% respectively in 2019–2020.

Persons living in poverty had the highest rates of frequent monthly cannabis use compared to persons with higher incomes. They also had the largest increase in frequent cannabis use – from 6.7% to 11.8% – between 2018 and 2020.

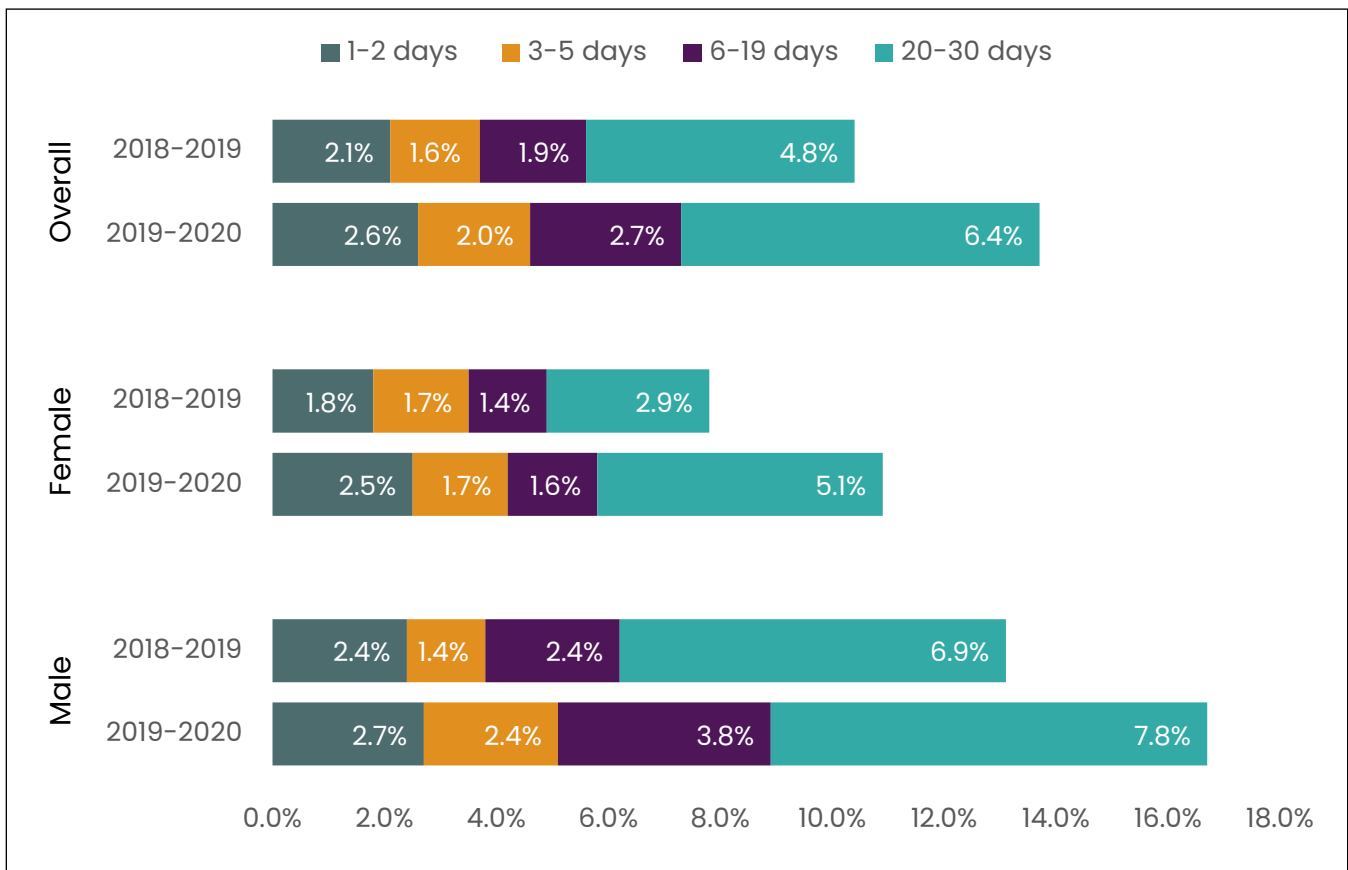
PAST-MONTH FREQUENCY OF CANNABIS USE BY GENDER

Observation: Males were more likely to report any past-month cannabis use (16.7%) compared with females (11.0%). Males were also more likely to report frequent cannabis use (> 20 days) in the past month (7.8%) compared with females (5.1%).

Past-month use increased for both genders between 2018–2019 and 2019–2020 with a larger increase in the frequent user category for females.

The prevalence rates of a frequent past-month cannabis use (> 20 days) in 2019–2020 represents 402,000 males and 282,000 females.

FREQUENCY OF PAST-MONTH CANNABIS USE (2018–2020) BY GENDER



Source: National Survey on Drug Use and Health (2018–2020) – Restricted Data Access. Substance Abuse Mental Health Data Archive available at: <https://rdas.samhsa.gov/#/>

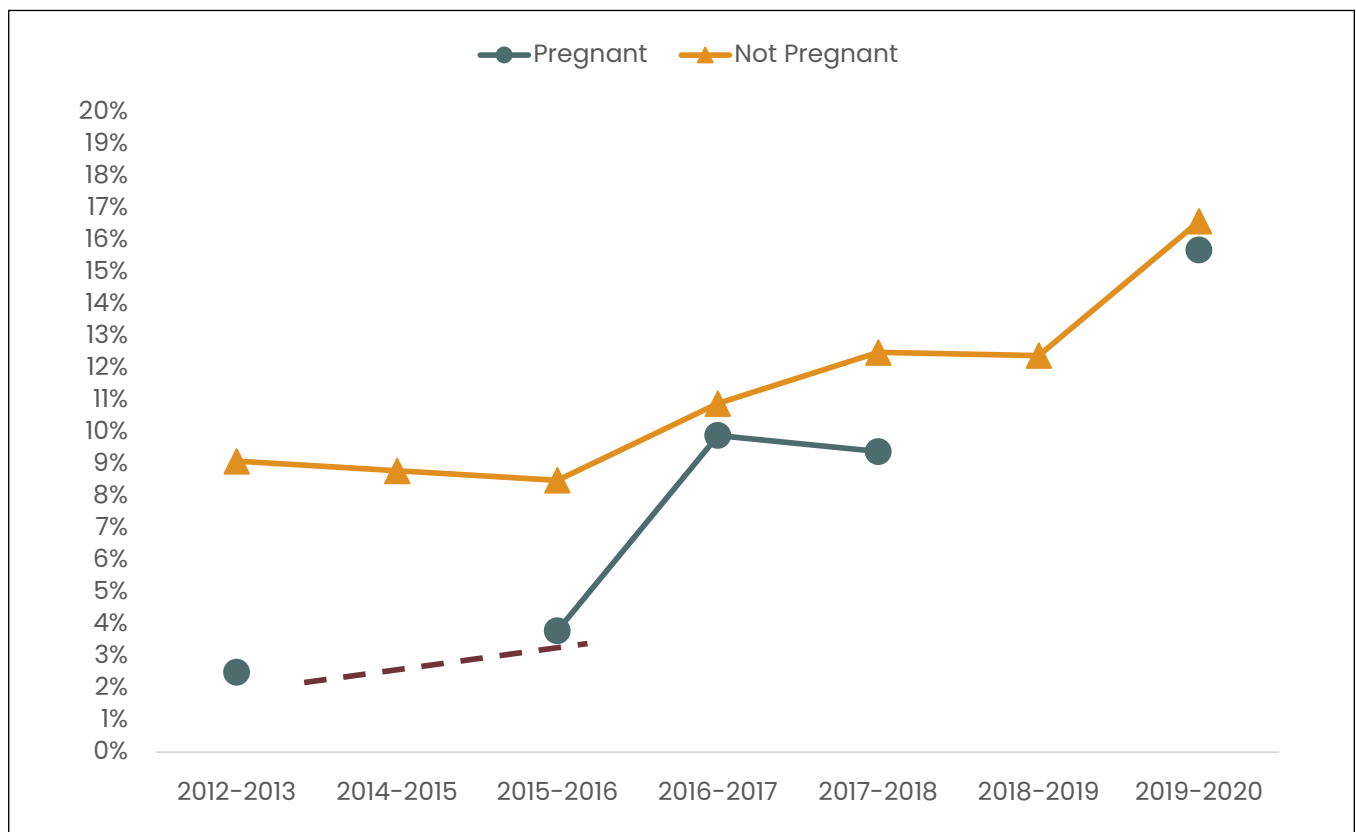
PAST-MONTH CANNABIS USE BY PREGNANCY STATUS

Observation: There has been a large increase in the prevalence of past-month cannabis use among pregnant women in Illinois. Based on available estimates, 9.4% of women pregnant at the time of the survey in 2017–2018 said they used marijuana in the past month. This increases to 15.7% in 2019–2020 and was close to the prevalence reported by non-pregnant women.

Data are for all survey participants 12 years of age or older. Estimates were unavailable for 2014–2015 and 2018–2019 for pregnant women owing to suppression rules. The dotted lines indicate interpolation between available data points.

For 2019–2020, the estimated population prevalence of any cannabis use in the past month was 11,000 for pregnant women.

PAST-MONTH CANNABIS USE BY PREGNANCY STATUS: WOMEN 12 TO 44 YEARS OLD



Source: National Survey on Drug Use and Health (2012–2020) – Restricted Data Access. Substance Abuse Mental Health Data Archive available at: <https://rdas.samhsa.gov/#/>.

FREQUENCY OF PAST-MONTH CANNABIS USE BY SEXUAL ORIENTATION

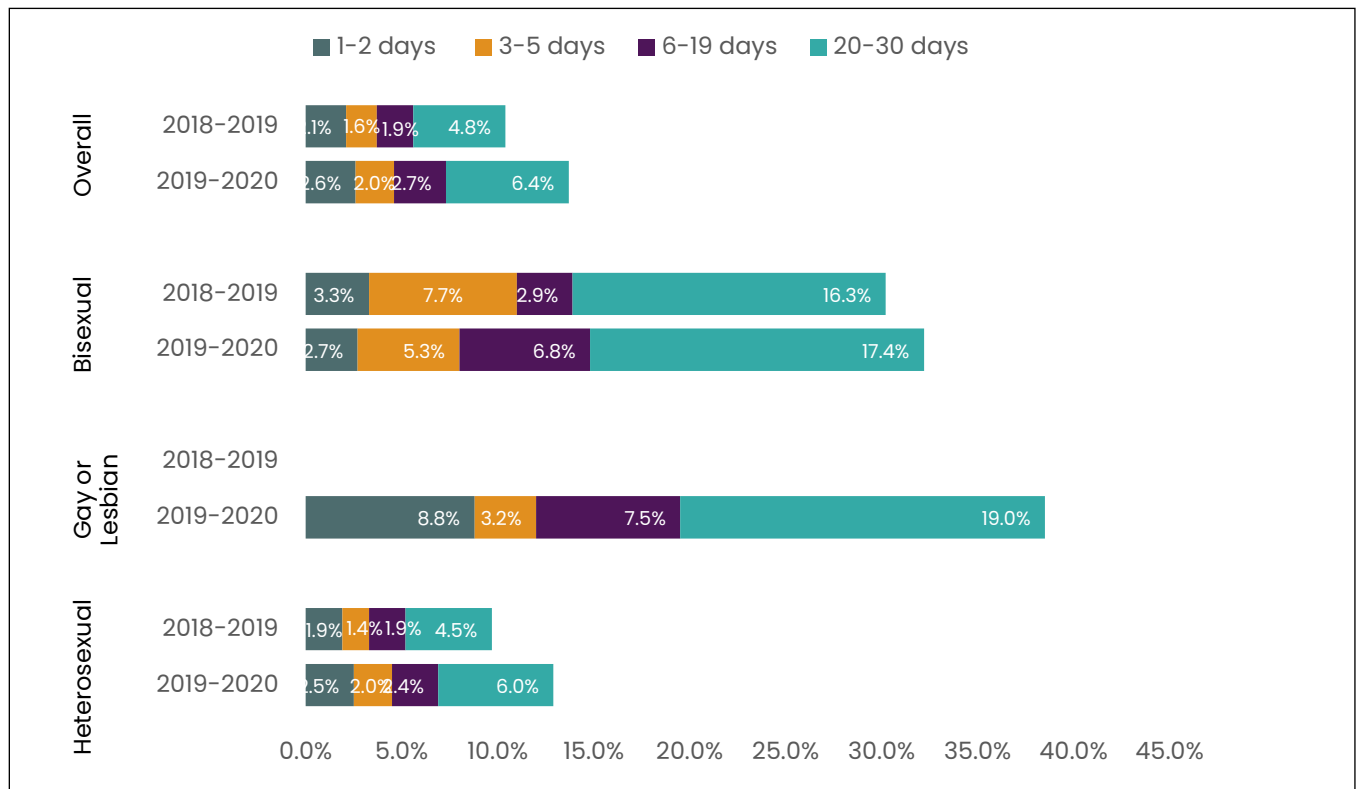
Observation: Self-identified sexual minorities were more likely than heterosexuals to indicate past-month cannabis use and to have used cannabis more frequently in the past month. Nineteen percent of gay or lesbian participants and just over seventeen percent of bisexual participants indicated they used cannabis 20 or more days in the past month.

Weighted survey data for 2019–2020 represent a population of 176,000 gay or lesbian Illinois residents and 343,000 bisexual residents. Of these, 34,000 gay or lesbian and 60,000 bisexual residents used marijuana 20 or more days in the past month.

Among gay and lesbian Illinoisan’s, 4.4% (N = 5,000) had a past-year cannabis use disorder as did 6.5% (N = 10,000) of bisexual state residents. These prevalences compare with a rate of 2.3% (N = 41,000) among heterosexual residents.

Data for 2018–2019 gay or lesbian participants are not available owing to suppression rules.

FREQUENCY OF PAST-MONTH CANNABIS USE (2018–2020) BY SEXUAL ORIENTATION



Source: National Survey on Drug Use and Health (2018–2020) – Restricted Data Access. Substance Abuse Mental Health Data Archive available at: <https://rdas.samhsa.gov/#/>

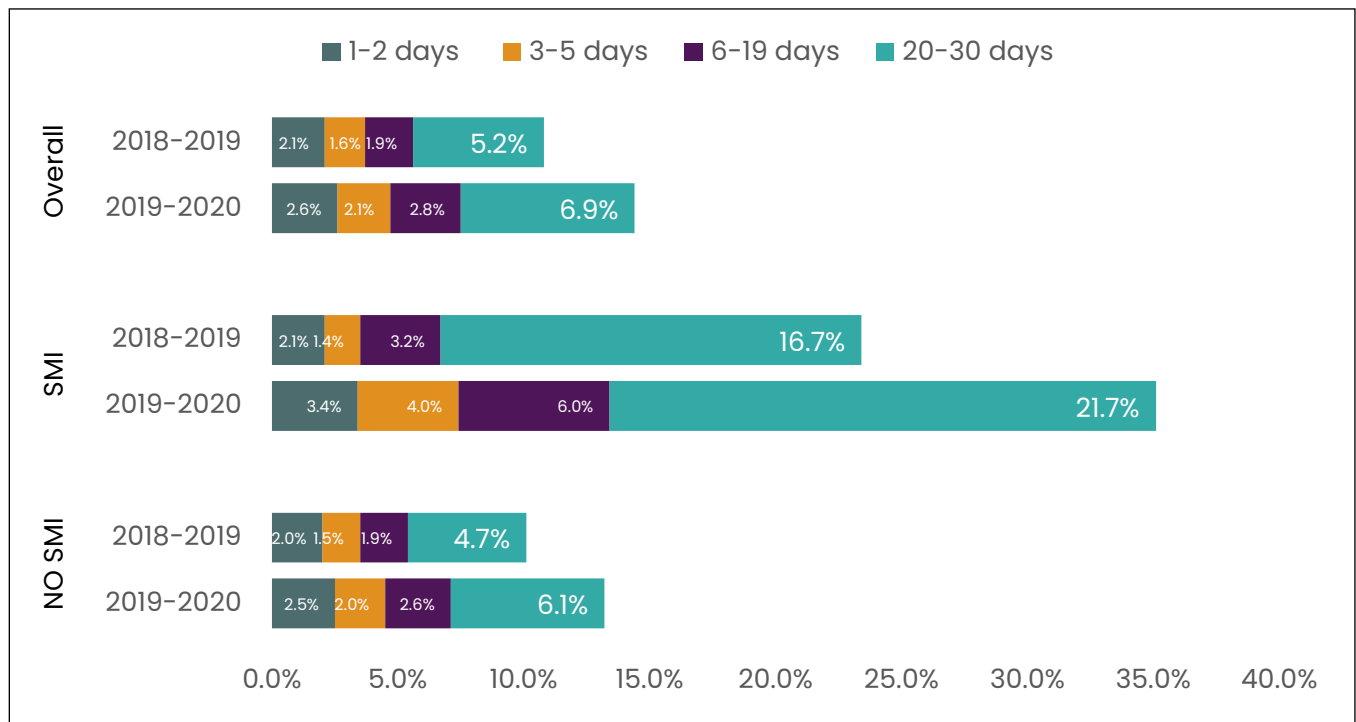
FREQUENCY OF PAST-MONTH CANNABIS USE BY SERIOUS MENTAL ILLNESS STATUS

Observation: Persons with a past-year serious mental illness (SMI) – defined as any DSM disorder with moderate or greater functional impairment – had much higher rates of both any and frequent cannabis use (i.e., ≥ 20 or more days in the past month) compared to persons without an SMI. Both persons with and without a past-year SMI increased their cannabis use and their frequency of cannabis use but the increases were larger for persons with an SMI, particularly among those who were frequent users.

Weighted survey data for 2019–2020 represent a population of 485,000 Illinois residents with a past-year SMI of which 29,000 used marijuana 20 or more days in the past month.

The prevalence of a past-year cannabis use disorder in 2019–2020 was 1.9% for persons without an SMI (N = 179,000) and 14.9% for persons with an SMI (N = 69,000).

FREQUENCY OF PAST-MONTH CANNABIS USE (2018–2020) BY SERIOUS MENTAL ILLNESS STATUS



Source: National Survey on Drug Use and Health (2018–2020) – Restricted Data Access. Substance Abuse Mental Health Data Archive available at: <https://rdas.samhsa.gov/#/>

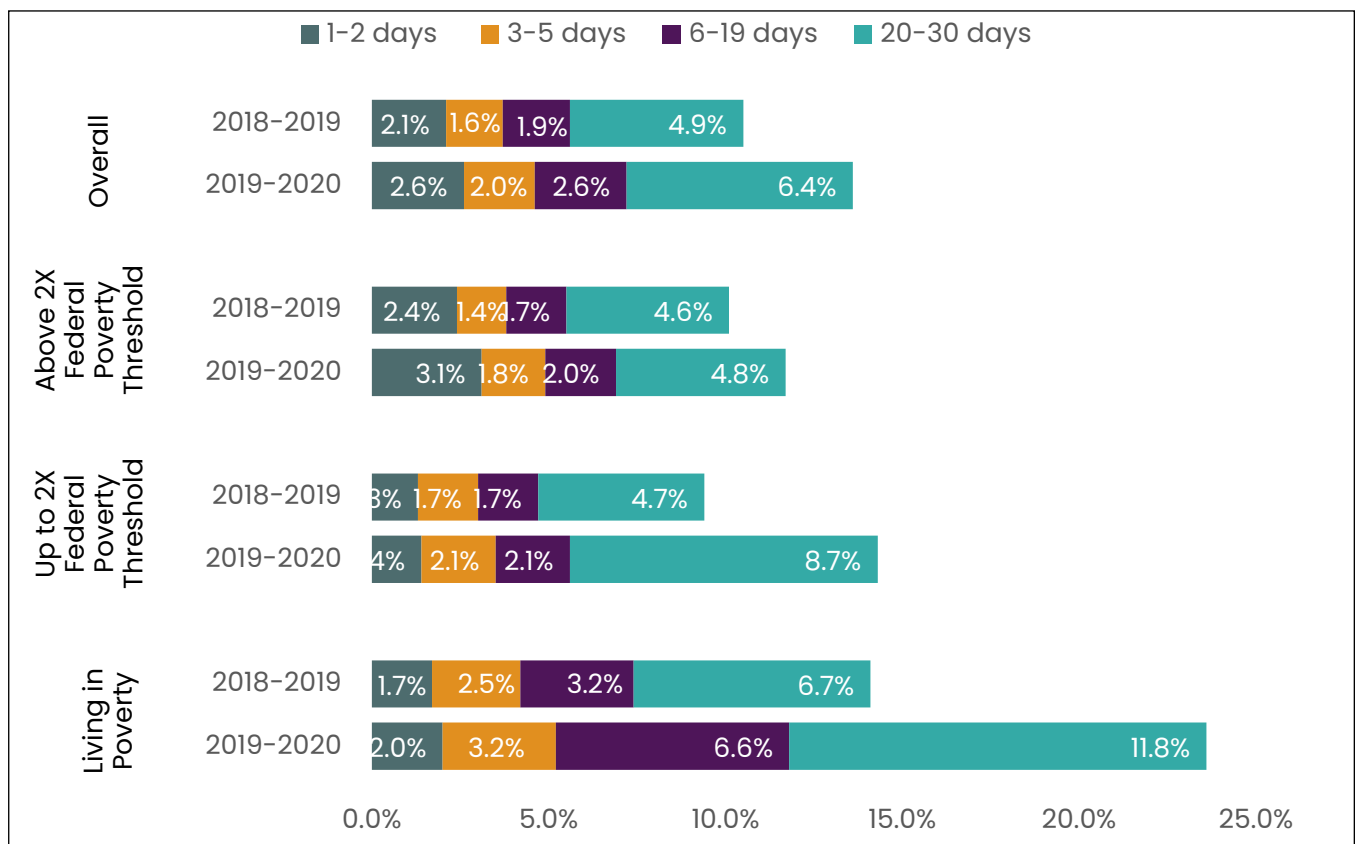
FREQUENCY OF PAST-MONTH CANNABIS USE BY FEDERAL POVERTY LEVEL

Observation: Persons living in poverty had the highest rates of frequent monthly cannabis use (20 days per month or more) compared to persons with higher incomes. They also had the largest increase in frequent cannabis use - from 6.7% to 11.8% - between 2018 and 2020.

Weighted survey data for 2019–2020 represent populations of 1,308,000 living at or under the federal poverty limit, 2,024,000 with incomes up to twice the federal poverty limit, and 7,325,000 Illinois residents reporting incomes greater than twice the federal poverty limit.

Among Illinois residents living in poverty, 2.6% (N = 34,000) had a past-year cannabis use disorder as did 2.4% (N = 49,000) of residents with up to twice the federal poverty limit. These prevalences compare with a rate of 2.0% (N = 211,000) among residents with incomes higher than twice the federal poverty limit.

FREQUENCY OF PAST-MONTH CANNABIS USE (2018–2020) BY FEDERAL POVERTY LEVEL



Source: National Survey on Drug Use and Health (2018–2020) - Restricted Data Access. Substance Abuse Mental Health Data Archive available at: <https://rdas.samhsa.gov/#/>

CHARACTERISTICS OF CURRENT CANNABIS USE IN ILLINOIS



CHARACTERISTICS OF CANNABIS USE HIGHLIGHTS

Most cannabis users smoke or use edibles or vape oils or liquids. Medical users are more likely to have used a variety of other forms of cannabis compared with recreational users.

A large majority (85.9%) 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 anxiety (66.6%), depression (48.2%), and PTSD/Trauma (31.8%).

A smaller but still substantial proportion of recreational cannabis users (61.5%) also indicated they had ever used cannabis to manage mental health symptoms with anxiety (50.1%), depression (37.4%), and PTSD/Trauma (16.6%) also being the most common symptoms mentioned.

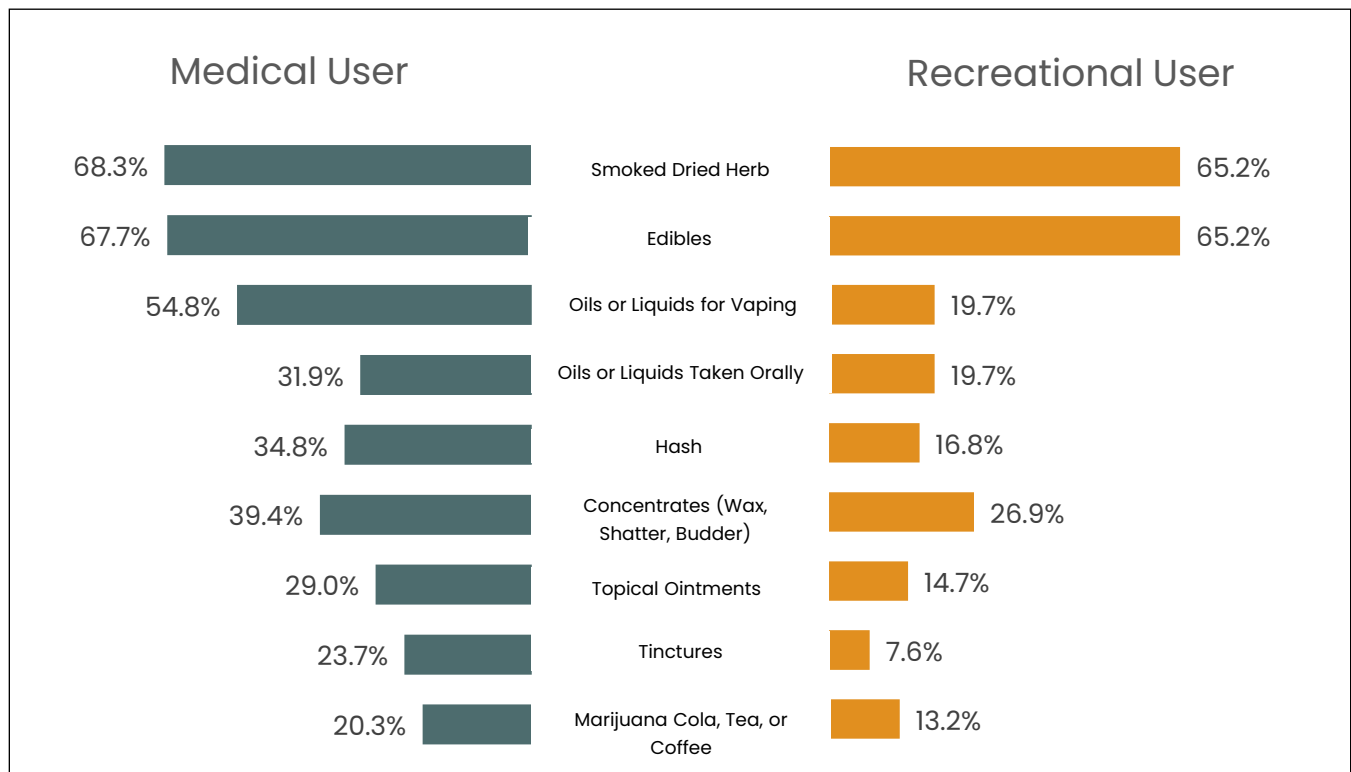
Past-year Illinois cannabis users tend to believe that legally purchased cannabis is safer to buy and use, more convenient, and is of better quality, although sizable minorities (one-quarter to one-third) do not perceive differences. Both in 2021 and 2022, a majority of users indicated that legal cannabis was more expensive than illicit cannabis.

MODES OF CANNABIS USE BY MEDICAL OR RECREATIONAL USERS (2022)

Observation: Most cannabis users smoke or use edibles or vape oils or liquids. Medical users are more likely to have used a variety of other forms of cannabis compared with recreational users.

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

MODES OF CANNABIS USE BY MEDICAL OR RECREATIONAL USERS (2022)



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

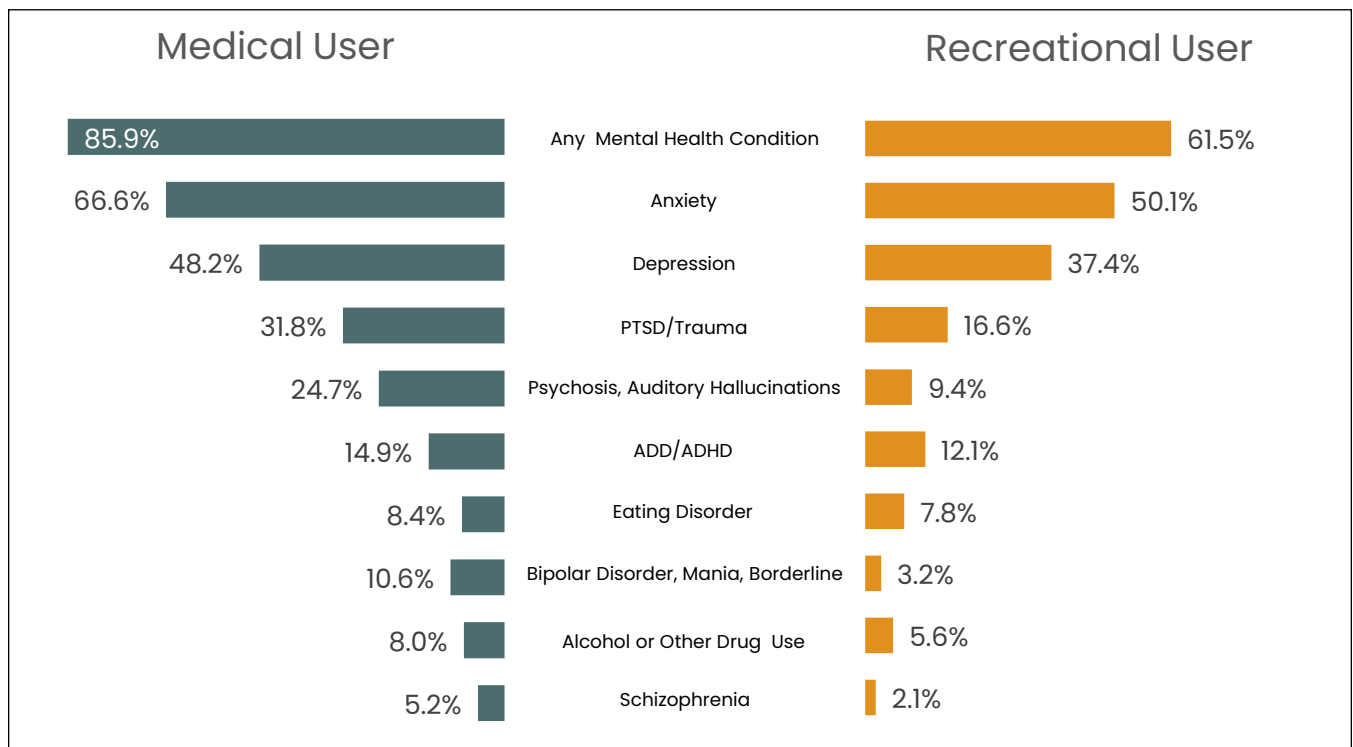
MENTAL HEALTH CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR RECREATIONAL USERS

Observation: A large majority (85.9%) 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 anxiety (66.6%), depression (48.2%), and PTSD/Trauma (31.8%).

A smaller but still substantial proportion of recreational cannabis users (61.5%) also indicated they had ever used cannabis to manage mental health symptoms with anxiety (50.1%), depression (37.4%), and PTSD/Trauma (16.6%) also being the most common symptoms mentioned.

Survey participants were classified as being a medical cannabis user if they indicated they had ever received a prescription from a health professional. Analyses shown were restricted to survey years 2021 and 2022 (ICPS waves 4 and 5) and to participants who said they had ever tried cannabis.

MENTAL HEALTH CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR RECREATIONAL USERS (2021–2022)



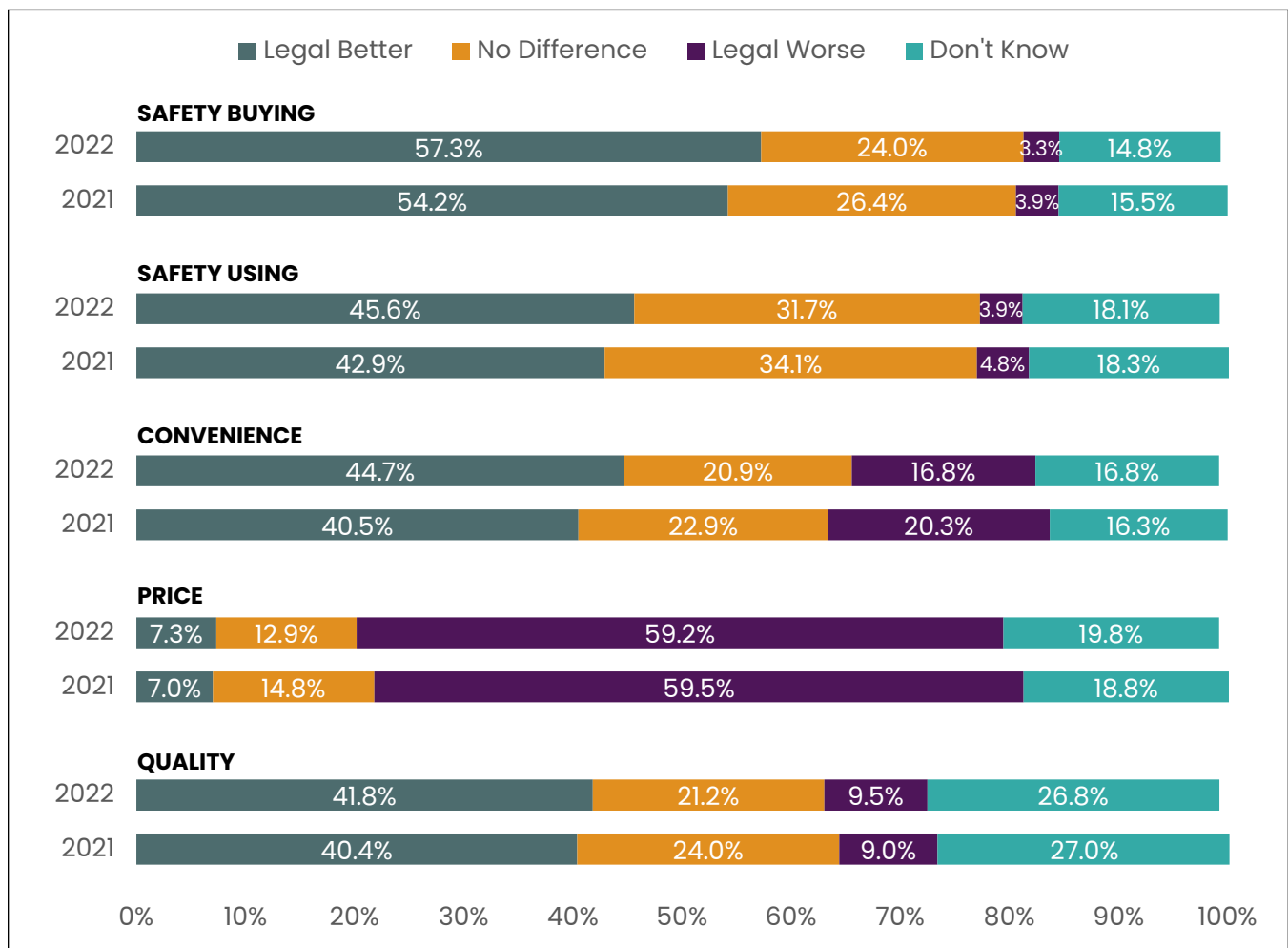
Source: International Cannabis Policy Study, Illinois site data (2021–2022) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

PAST-YEAR CANNABIS USERS PERCEPTIONS RETAIL FACTORS RELATED TO LEGAL VERSUS ILLICIT CANNABIS

Observations: Past-year Illinois cannabis users tend to believe that legally purchased cannabis is safer to buy and use, more convenient, and is of better quality, although sizable minorities (one-quarter to one-third) do not perceive differences. Both in 2021 and 2022, a majority of users indicated that legal cannabis was more expensive than illicit cannabis.

Most users indicate they are not at all (58.3%) or only a little concerned (18.7%) about government or law enforcement authorities tracking their cannabis purchases from authorized stores or websites. (not shown on chart)

PAST-YEAR CANNABIS USERS PERCEPTIONS RETAIL FACTORS RELATED TO LEGAL VERSUS ILLICIT CANNABIS (2021-2022)



Source: International Cannabis Policy Study, Illinois site data (2021-2022) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

MEDICAL CANNABIS USE AND BENEFITS



BENEFITS: OPIOID AND BENZODIAZEPINE DISTRIBUTION

Methods: Ecologic county-level, spatiotemporal study comprised 49 states. Exposures were state-level implementation of medical and recreational cannabis laws and state-level initiation of cannabis dispensary sales from 2002–2020. The study examined cause-of-death data for poisoning deaths involving any opioids, any benzodiazepines, and opioids with benzodiazepines.

Findings: Overall, the implementation of medical cannabis laws in the US was associated with higher rates of opioid and benzodiazepine-related poisonings deaths. Allowing for recreational cannabis dispensaries, on the other hand, was associated with lower rates of opioid- and benzodiazepines-related poisoning.

The results are consistent with the hypothesis that allowing increased availability of marijuana through recreational cannabis dispensaries, particularly in later years, may prevent prescription opioid users from transitioning to illicit opioids such as fentanyl and heroin, in the context of increased prescription opioid supply restriction.

Study/Studies: Castillo-Carniglia, A., Rivera-Aguirre, A., Santaella-Tenorio, J. et al. (2023). Changes in opioid and benzodiazepine poisoning deaths after cannabis legalization in the US: A county-level analysis. *Epidemiology*, 1(34), 467–475. doi: 10.1097/EDE.0000000000001609

MEDICAL CANNABIS USE AND BENEFITS HIGHLIGHTS

The Medical Cannabis Patient program (MCP) and the Opioid Alternative Pilot Program (OAPP) have similar program requirements and application steps; however, MCP provides the license for a greater length of time, as well as allows for expanded purchasing options.

Since 2017, enrollment in MCP has continued to increase each year. As of June 30, 2023, MCP was serving a total of 138,471 active patients. In FY21, Chronic pain accounted for 31.1% of all diagnoses, PTSD for 16.4%, Migraines, 10.4%, and Osteoarthritis 10.0%.

The most common conditions in which OAPP patients report use of Cannabis for is for back, neck, joint, and musculoskeletal pain.

Medically, cannabis is most commonly used to manage pain, headaches/migraines, sleep disturbances, and lack of appetite by both medical and recreational users.

Among those who said they had ever used cannabis to manage pain, 82.1% indicated they used cannabis as a substitute for opioids.

Application denial for MCP declined from 2017 to 2020, with 5.6% and 3.2% denial rates, respectively. The most common reason for denial was because they did not respond to multiple attempts to correct deficiencies in their application.

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 caregiver 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.. • Patient must purchase from single, designated dispensary. • No designated caregivers are permitted.

Source: <https://op-b.entermediadb.net/assets/emshare/>

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

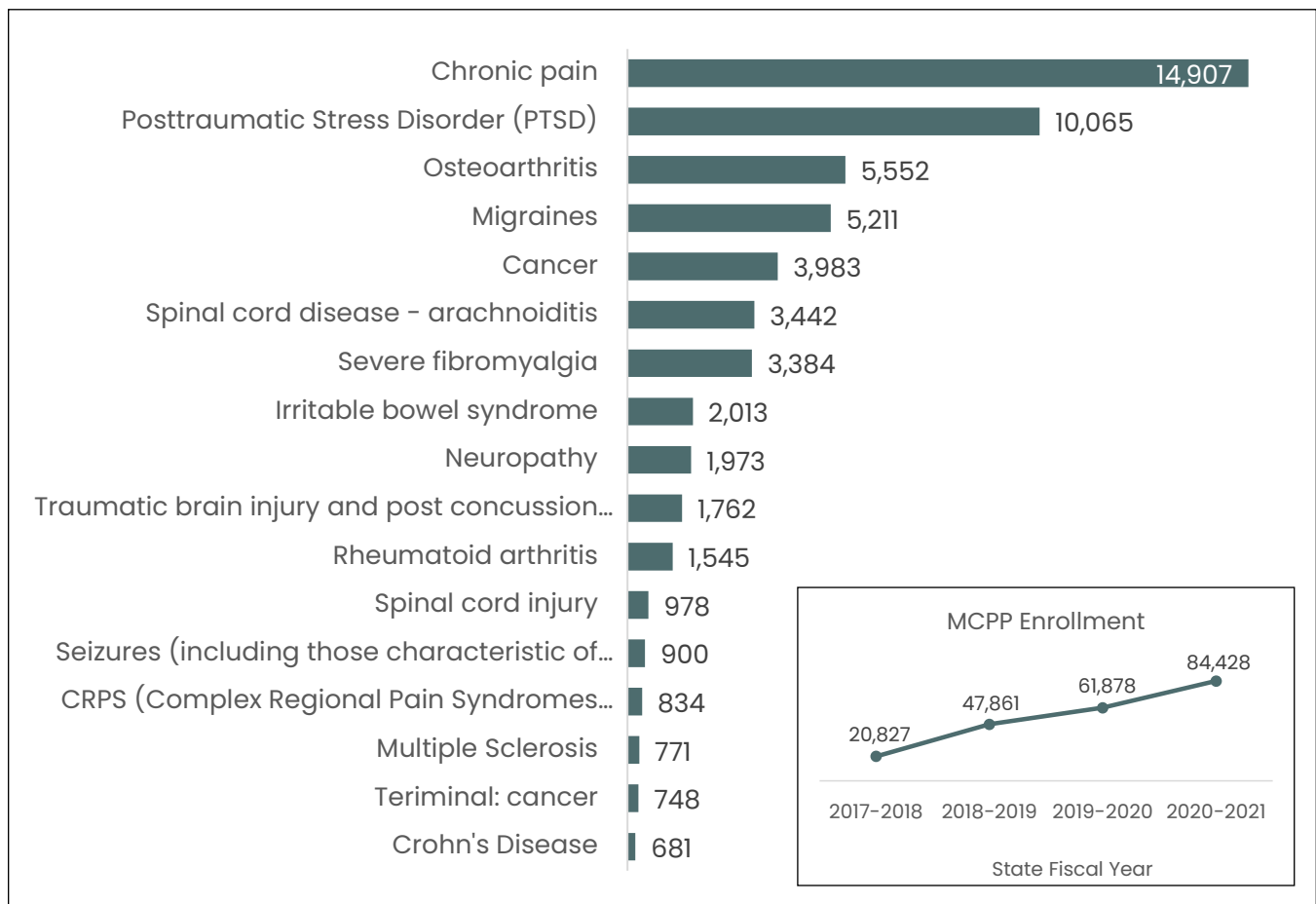
MCPD DEBILITATING CONDITIONS AND ENROLLMENT NUMBERS

Observation: As of June 30, 2023, MCPD was serving a total of 138,471 active patients, a 2% increase from last year (135,649 active patients).

For FY21, Chronic pain accounted for 31.1% of all diagnoses, PTSD for 16.4%, Migraines, 10.4%, and Osteoarthritis 10.0%.

Among minors (ages 0-17), the most common qualifying conditions were autism, PTSD, seizures, and cancer. (Data not shown on slide.)

MOST FREQUENT QUALIFYING DEBILITATING CONDITIONS ILLINOIS MEDICAL CANNABIS PATIENT PROGRAM (MCPD) 2020-2021



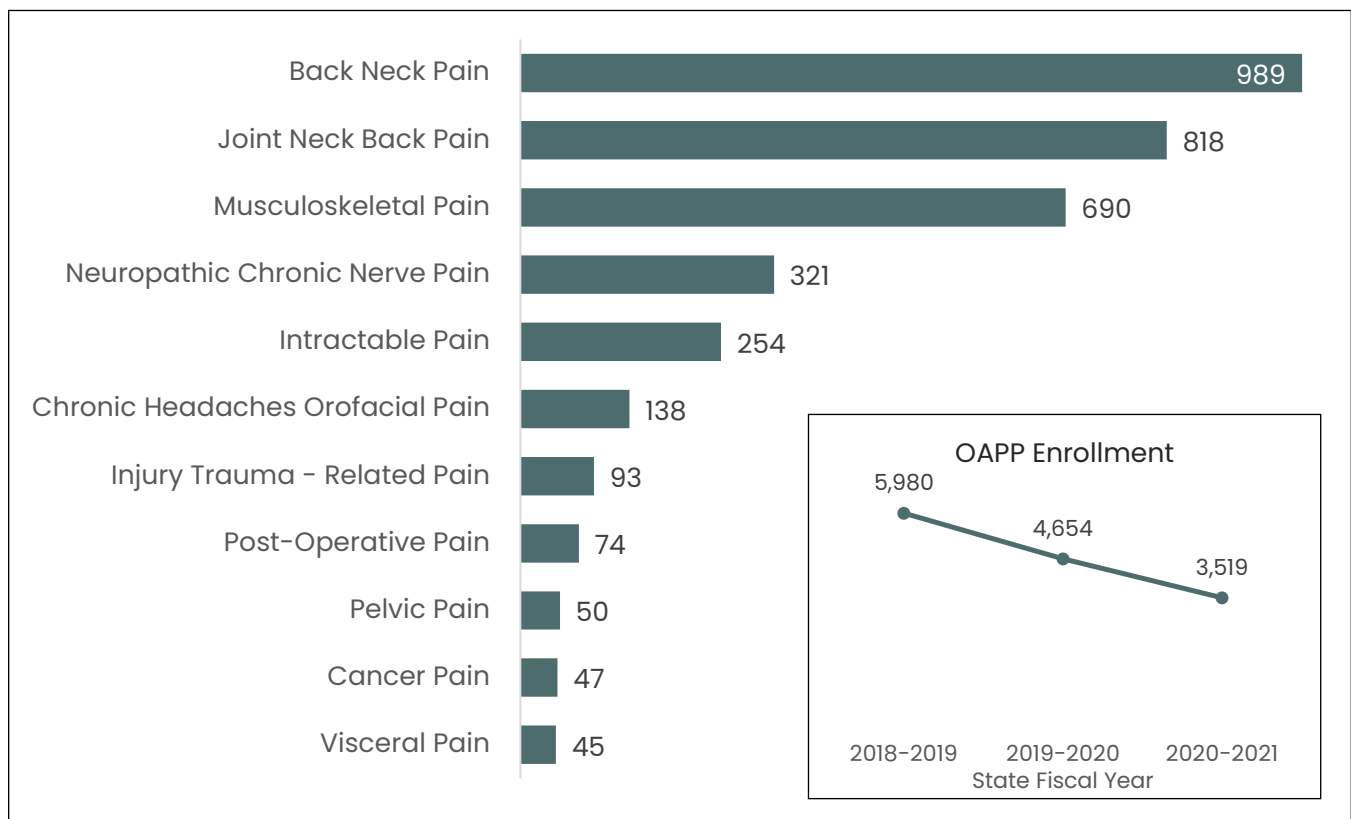
Source: Illinois Department of Public Health 2021 Annual Report Medical Cannabis Patient Program. Available at: [https://dph.illinois.gov/content/dam/soi/en/web/idph/publications/idph/topics-and-services/prevention-wellness/medical-cannabis/2021 Medical Cannabis report.pdf](https://dph.illinois.gov/content/dam/soi/en/web/idph/publications/idph/topics-and-services/prevention-wellness/medical-cannabis/2021%20Medical%20Cannabis%20report.pdf)

OAPP CONDITIONS AND ENROLLMENT NUMBERS

Observation: As of June 30, 2022, OAPP had served 3,519 registered patients.

In FY21, back neck pain accounted for 28.11% of all diagnoses, joint neck back pain for 23.25%, and musculoskeletal pain for 19.60%.

REGISTERED PATIENTS BY NATURE OF CONDITION ILLINOIS OPIOID ALTERNATIVE PILOT PROGRAM (OAPP) 2020–2021



Source: Illinois Department of Public Health 2021 Annual Report Medical Cannabis Patient Program. Available at: https://dph.illinois.gov/content/dam/soi/en/web/idph/publications/idph/topics-and-services/prevention-wellness/medical-cannabis/2021_Medical_Cannabis_report.pdf

MEDICAL CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR RECREATIONAL USER

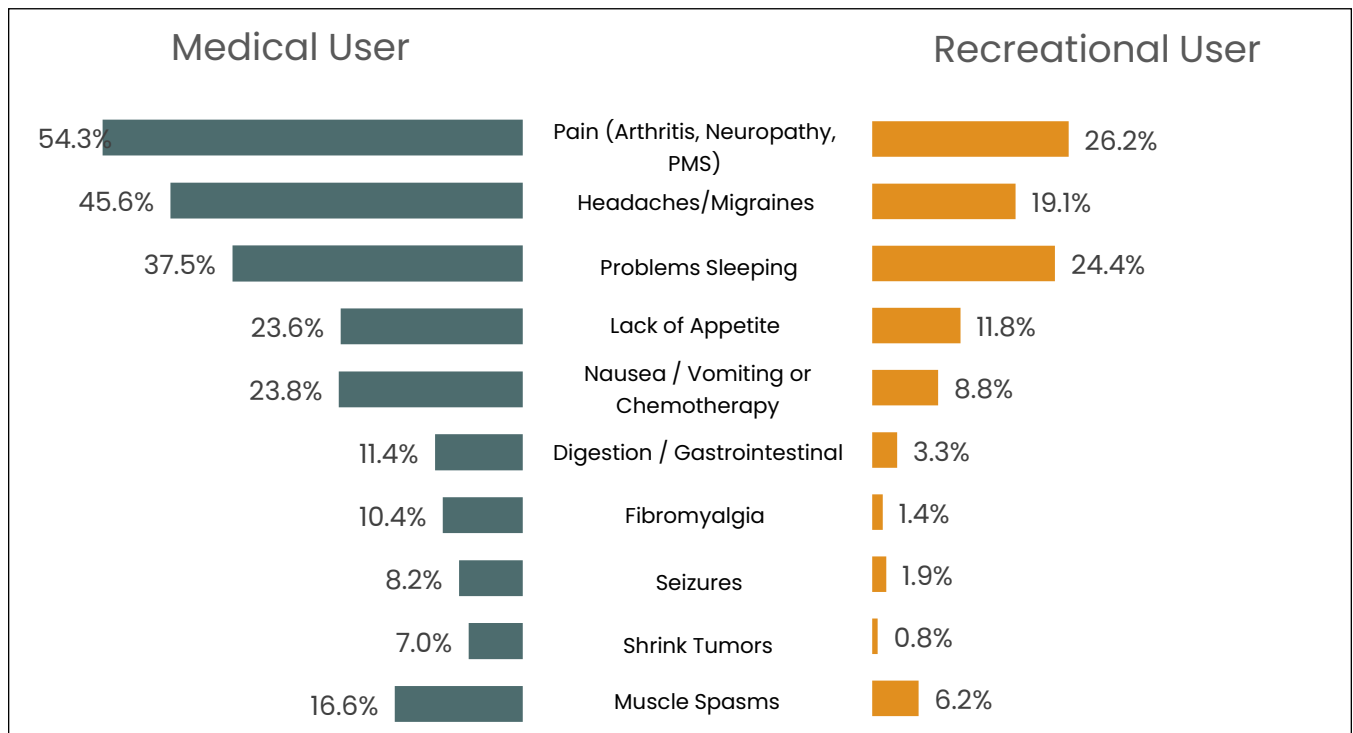
Observation: Medically, cannabis is most commonly used to manage pain, headaches/migraines, sleep disturbances, and lack of appetite by both medical and recreational users.

Among those who said they had ever used cannabis to manage pain (N = 1,166 or 17.2% of the ICPS sample), 82.1% indicated they used cannabis as a substitute for opioids.

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

Survey participants were classified as being a medical cannabis user if they indicated they had ever received a prescription from a health professional. Analyses shown were restricted to survey years 2021 and 2022 and to participants who said they had ever tried cannabis.

MEDICAL CONDITIONS FOR WHICH CANNABIS WAS USED BY MEDICAL OR RECREATIONAL USER (2021-2022)



Source: International Cannabis Policy Study, Illinois site data (2021-2022) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

MEDICAL AUTHORIZATION REFUSALS

July 2017–2018: 1,148 qualifying patients denied – “primary reason was because they did not respond to multiple attempts to correct deficiencies in their application and/or their fingerprint background check reported that the applicant had excluded criminal offenses” 20,584 people submitted applications. 5.6% of applications denied.

July 2018–2019: 1,733 qualifying patients denied – “primary reason was because they did not respond to multiple attempts to correct deficiencies in their application” 37,600 people submitted applications (the report states this is an approximate number). 4.6% of applications denied.

July 2019–2020: 1,540 qualifying patients denied – same as above. 47,400 people submitted applications (the report states this is an approximate number). 3.2% of applications denied.

CANNABIS USE DISORDER AND TREATMENT



SUMMARY OF RESEARCH: CANNABIS USE DISORDER AND TREATMENT

Methods: Systematic review of peer-reviewed studies (N = 9) based on US data and published between 2016 and 2022 related to cannabis abuse, dependence and cannabis use disorder and recreational legalization.

Findings: The five studies reviewed on CUD generally found an increase in CUD prevalence associated with legalization among adults. This finding on RCLs is similar to that of research on MCLs, which finds that medical legalization is positively associated with adult CUD prevalence.

The data on RCLs and adolescent CUD is less clear but also points to an increase in CUD prevalence associated with legalization, even when prevalence of adolescent cannabis use did not experience a similar increase.

A potential reason for the increase in adolescent CUD, even when it was not accompanied by an increase in use, could be the increasing tetrahydrocannabinol (THC) potency of cannabis products sold in states with RCLs, including vaping products and edibles.

The literature on RCLs and treatment for cannabis did not find a significant association between legalization and treatment admissions, and, in fact, cannabis-related admissions were found to decrease overall.

Study/Studies: Aletraris, L., Graves, B. D., & Ndung'u, J. J. (2023). Assessing the impact of recreational cannabis legalization on cannabis use disorder and admissions to treatment in the United States. *Current Addiction Reports*, 10, 198–209. doi: 10.1007/s40429-023-00470-x

PUBLIC HEALTH OUTCOMES: PSYCHOSES

Methods: Comprehensive review of the research literature on cannabis use and its associations with the development, course, and outcomes of psychosis. The focus was on systematic and comprehensive reviews published since 2016 through September 2022.

Findings: Associations between cannabis use and adverse mental health outcomes are generally moderate in size and probably involve complex causal pathways.

The more severe outcomes affect relatively small proportions of the population but those affected can experience chronic illness and related disability, hospitalizations, or premature death, and persons affected may require long-term treatment and care.

Prospective epidemiological studies report a consistent association between regular cannabis use, especially daily use, and rates of self-reported psychotic symptoms and diagnoses of schizophreniform psychosis.

A common (though not universal) interpretation of this evidence is that regular cannabis is a “component factor” for the development of psychotic disorder, that is, it acts in concert with other risk factors located within the individual user and their environment.

In general, cannabis use is moderately associated with an increased risk of psychosis development and appears to act as a contributing factor alongside other causal factors. In clinical high-risk individuals, the evidence is stronger that “intensive” cannabis use is a risk factor for transition to psychosis. The only certain and reliable way to eliminate cannabis-related risks of psychosis outcomes is by abstaining from use.
[Evidence Grade: Substantial to Moderate]

Having a family history of schizophrenia or a personal history of psychotic symptoms remain the clearest risk factors for psychosis development, and especially if cannabis use is characterized by other risks factors.
[Evidence Grade: Moderate]

Early onset of cannabis use (e.g., ages 16 years or younger) elevates the risk of adverse psychosis outcomes and increases their severity. Some of these dynamics may arise from effects of cannabis exposure on the developing adolescent brain. On this basis, cannabis use in adolescence should be avoided and accordingly delayed to reduce psychosis-related risks.

PUBLIC HEALTH OUTCOMES: PSYCHOSES

While data is more limited, older age users (60/65+), especially those with a family history of psychosis, may also be more susceptible to psychosis-related consequences from cannabis use and as a precaution should avoid intensive use.

[Evidence Grade: Substantial]

THC is the cannabinoid that appears to be primarily responsible for psychosis outcomes so the higher the THC-content of and exposure related to cannabis that is used, the higher the risks of experiencing psychotic symptoms or developing psychosis outcomes. In order to reduce the risk of psychosis problems, the THC content of cannabis should be as low as possible. 2) There is inconsistent data on whether CBD attenuates some of THC's psychotogenic effects.

[Evidence Grade: Substantial to Limited]

There is extensive evidence that the frequency of cannabis use shows a dose response relationship to the risk of psychosis outcomes, i.e., the greater the frequency of cannabis use, the greater the risk of psychosis outcomes. Risks may be considered lower for frequencies of use less than weekly, and when other key risk factors for psychosis outcomes are absent.

[Evidence Grade: Substantial]

Different modes of cannabis use are partially related to product types (see related section) and present different effects and risk dynamics for psychosis outcomes. While cannabis use by ingestion use generally involves lower doses of THC, the onset of psychoactive effects is delayed and may be more difficult to acutely manage than inhalation use. The latter may involve use of cannabis with substantially elevated THC-content and so increase the risks of adverse psychosis outcomes.

[Evidence Grade: Moderate to Limited]

Other substance use that commonly co-occurs with cannabis use can adversely affect the development/course/outcomes of psychosis. For example, tobacco is commonly used with cannabis (e.g., in "joints") for symptom relief or other subjective benefits but may also contribute to psychosis development. Other substance use also contributes to heightened risks of other chronic diseases (e.g., CVD, pulmonary, metabolic, other substance use disorders) and premature death in individuals with psychosis.

[Evidence Grade: Moderate to Limited]

PUBLIC HEALTH OUTCOMES: PSYCHOSES

Among those experiencing a psychosis, cannabis use is typically associated with selected worse illness course and outcomes. These persons should ideally stop their cannabis use or reduce their intensity of use as much as possible. The role of the intensity of cannabis use is not well studied but more intensive use is likely to increase risks of relapse. There is suggestive evidence that switching to or increasing the use of CBD-rich (instead of THC-rich) cannabis products may attenuate psychosis outcomes. [Evidence Grade: Substantial to Moderate]

Individuals with psychosis who are unable to stop using cannabis may in select instances experience improvements in their symptoms and course of their disorder if they substantially reduce the intensity of use or cease using cannabis for a substantial period. The potential benefits of these changes in use patterns may take some time to appear. [Evidence Grade: Limited]

Study/Studies: Fischer, B. Hall, W., Thiago M., et al. (2023). Recommendations for reducing the risk of cannabis use-related adverse psychosis outcomes: A public mental health-oriented evidence review, *Journal of Dual Diagnosis*, 17, 1-26. doi: 10.1080/15504263.2023.2226588

PUBLIC HEALTH OUTCOMES: PSYCHOSES

Methods: Review of the research literature on cannabis, cannabinoids and psychosis with summary findings and recommendations.

Findings: Cannabis and cannabinoids can induce a range of psychosis-relevant phenomena in healthy individuals and those who are at higher risk for psychosis. They also transiently exacerbate psychosis symptoms in individuals with established schizophrenia. Inter-individual variations in the intensity and symptoms profile of Cannabis Induced Psychosis (CIP) may be moderated by genetic vulnerability and cannabis composition (THC:CBD content). It remains to be established whether the experience of transient psychosis after using cannabis can produce a persistent psychosis that outlasts intoxication.

Observational and experimental studies provide converging evidence that cannabis and synthetic cannabinoids can induce psychosis shortly after exposure, which may last for days to weeks i.e. beyond the period of intoxication. These episodes often require clinical intervention and recur with continued cannabis use. Individuals with CIP are frequently later diagnosed with schizophrenia spectrum disorders during follow-up suggesting that CIP may be a harbinger of schizophrenia.

The existing evidence suggests that cannabis use plays a non-negligible causal role in the aetiology of schizophrenia.

Cannabis and cannabinoids acutely worsen psychosis symptoms. Persons at-risk and with psychosis are more sensitive to the psychotomimetic and cognitive effects of cannabinoids. The existing evidence does not support the 'self-medication' hypothesis.

Genetic predispositions to schizophrenia and heavy cannabis use additively increase the risk of psychotic disorders. Persons without high genetic risk can develop psychosis after heavy cannabis use. Persons with a high genetic predisposition to schizophrenia can be more readily pushed into psychosis by cannabis."

Study/Studies: D'Souza, C. D., DiForti, M., Ganesh, S. et al. (2022) Consensus paper of the WFSBP task force on cannabis, cannabinoids and psychosis, *The World Journal of Biological Psychiatry*, 23(10), 719–742. doi:10.1080/15622975.2022.2038797

CANNABIS USE DISORDER AND TREATMENT HIGHLIGHTS

The number of admissions to substance use treatment for cannabis use dropped in 2020 to 5,467 compared with over 8,000 admissions in 2018 and 2019. However, this drop occurred against an overall decline in treatment admissions in 2020. Consequently, the percentage of all admissions where cannabis was the primary drug did not fall as sharply. In 2020, the percentage of admissions with cannabis as a primary drug was 15.1% compared with 17.2% in 2018 and 16.6% in 2019. Among all persons with a past-year CUD in 2019–2020, only 12.2% indicated they had received any kind of substance use treatment.

Individuals with a primary diagnosis of Cannabis Use Disorder were more likely to be hospitalized or have an emergency department visits if they were male, between 18–25 years old, reside in the City of Chicago, or on Medicaid.

The number of hospitalizations where cannabis use disorder was the primary or one of any secondary diagnoses appears to have peaked in 2020–2021. Whether the decrease in 2022 is real or artifactual owing to a lag in data reporting is an open issue that will be resolved in next year's report.

The number of persons hospitalized for a cannabis-related overdose as primary diagnosis peaked in 2019 and has declined since then. The number of persons hospitalized for some other reason where a cannabis-related overdose was indicated among the diagnoses assessed has remained relatively steady.

We also note the relatively small numbers of persons hospitalized for a cannabis-related overdose relative to the numbers hospitalized where cannabis use disorder was among the secondary diagnoses.

Persons hospitalized for cannabis use disorder had a higher odds of also having a diagnosis of a manic episode (OR= 6.92, CIs: 2.80, 16.60), Psychotic disorder NOS (OR=1.75 CIs: 1.29, 2.39), other mood disorder (OR=1.97, CIs :1.44, 2.69), and major depression (OR=1.97, CIs: 1.72, 2.25) were also found to have a greater odds of co-occurrence for persons hospitalized with a primary diagnosis of cannabis use disorder.

Persons hospitalized with a primary diagnosis of other mood disorder (OR= 4.44, CIs=4.04,4.88), manic episode (OR=4.29, CIs=3.01,6.11), major depression (OR=3.64, CIs=3.55, 3.73), cocaine use disorder (OR=2.14, CIs=1.88, 2.43), bipolar disorder (OR=4.26, CIs=4.16, 4.37), anxiety disorder (OR=2.39, CIs=2.09, 2.75), and alcohol use disorder (OR=2.54, CIs=2.44, 2.64) all had a higher odds of also having a secondary diagnosis of cannabis use disorder.

CANNABIS USE DISORDER AND TREATMENT HIGHLIGHTS

In contrast to hospitalizations for a cannabis use disorder, ED visits appear to be increasing or holding steady since the peak year of 2020. There has been a noticeably large increase in ED visits where cannabis use disorder was not the main reason for the visit but was among secondary diagnoses assessed by discharge.

Cannabis-related overdose as primary diagnosis for an ED visit sharply increased in 2020-2021 but appear to have declined since then. A similar pattern was found for cannabis-related overdoses as a secondary diagnosis.

Persons discharged from the emergency department for a primary diagnosis of cannabis use disorder had a higher odds of also having sedative use disorder (OR=1.13, CIs=0.98, 1.32) and cognitive disorder (OR= 1.55, CIs=1.36, 1.77).

Persons discharged from the emergency department with a primary diagnosis of other mood disorder (OR=2.09, CIs=1.81,2.41), manic episode (OR=1.15, CIs=0.95,1.39), major depression (OR=1.71, CIs=1.63,1.78), cocaine use disorder (OR=1.74, CIs=1.59,1.91), anxiety disorder (OR=1.91, CIs=2.37,2.54), and alcohol use disorder (OR=2.46, CIs=2.37,2.54) had a higher odds of also having a secondary diagnosis of cannabis use disorder.

For persons that had either a hospitalization or emergency department visit in which cannabis use disorder was the primary diagnosis, they also had 20% higher odds of having a secondary diagnosis pertaining to the digestive system (OR= 1.20, CIs= 1.15, 1.25).

For persons that were either hospitalized or had a emergency department visit for cannabis-related overdose, they also had a higher odds of having a secondary diagnosis pertaining to ear, nose, mouth, and throat (OR=1.33, CIs=1.18,1.50), the digestive system (OR=1.48, CIs=1.36,1.61), and the circulatory system (OR=1.24, CIs=1.13,1.35).

There has been a gradual upward trend, beginning in 2020, for an increasing percentage of persons with a primary diagnosis of schizophrenia to also have a diagnosis of cannabis use disorder among the secondary conditions assessed. The age group with the most pronounced increase has been 18 to 25 year olds but this has leveled off in the past year and even declined slightly. There was a moderate increase between 2021 and 2022 among those ages 46-55 after a decline between 2021 and 2022 but they are still well below those ages 18 to 25. Reversing the diagnoses (primary cannabis use disorder and secondary diagnosis of schizophrenia) yields very low percentages (< 3.0%) across age groups.

CANNABIS USE DISORDER AND TREATMENT HIGHLIGHTS

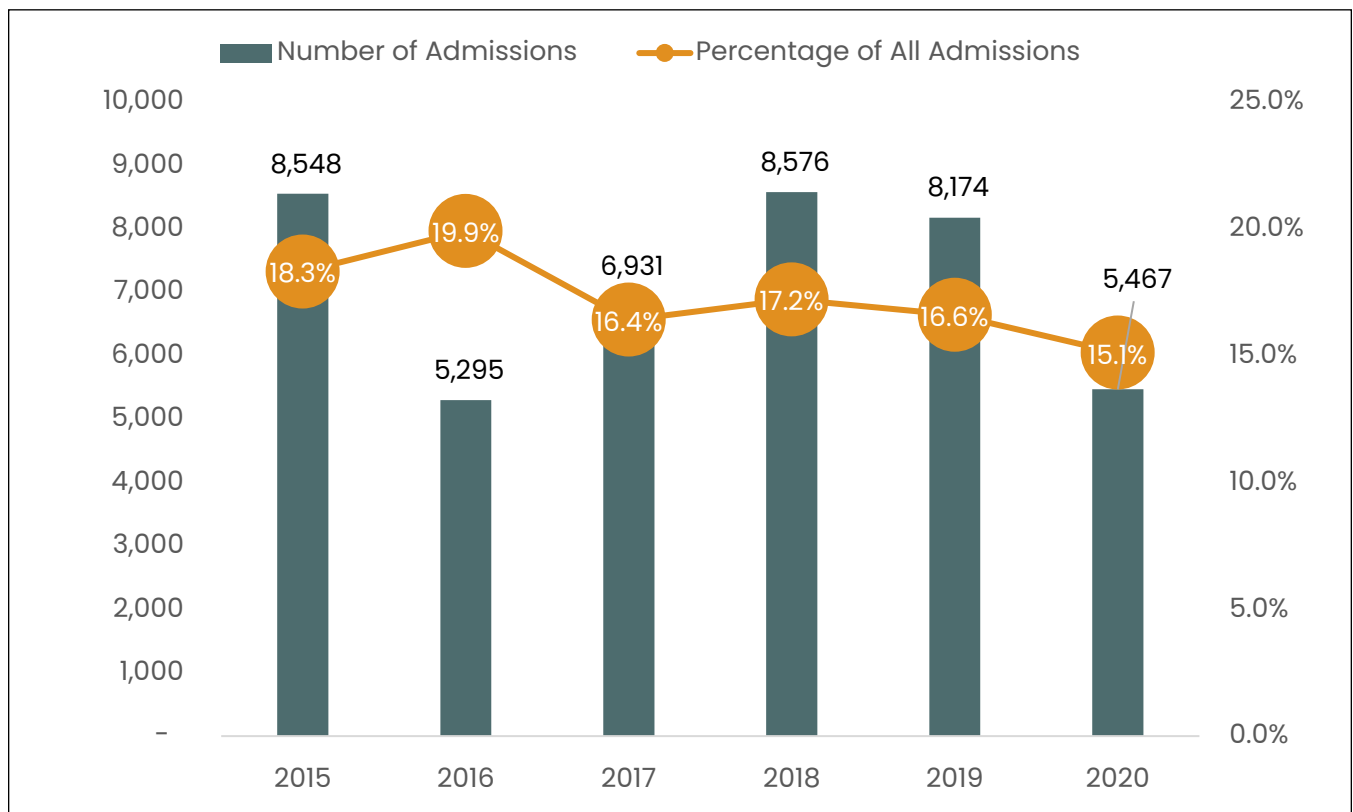
There has been only a slight upward trend, beginning in 2020, of an increasing percentage of persons with a primary diagnosis of psychotic disorder, not otherwise specified (NOS) to also have a diagnosis of cannabis use disorder among the secondary conditions assessed. The age group with the most pronounced increase and the highest overall prevalence has been 13 to 17 year olds. Reversing the diagnoses (primary cannabis use disorder and secondary psychotic disorder, NOS) yields very low percentages (< 1.0%) across age groups.

NUMBER AND PERCENTAGE OF TREATMENT ADMISSIONS FOR CUD

Observation: The number of admissions to substance use treatment for cannabis use dropped in 2020 to 5,467 compared with over 8,000 admissions in 2018 and 2019. However, this drop occurred against an overall decline in treatment admissions in 2020. Consequently, the percentage of all admissions where cannabis was the primary drug, did not fall as sharply. In 2020, the percentage of admissions with cannabis as a primary drug was 15.1% compared with 17.2% in 2018 and 16.6% in 2019.

Among all persons with a past-year CUD in 2019–2020, only 12.2% indicated they had received any kind of substance use treatment.

NUMBER AND PERCENTAGE OF CANNABIS USE DISORDER TREATMENT ADMISSIONS (2015–2020)



Sources: Treatment Episode Data Set Quick Statistics 2015–2020. Substance Abuse and Mental Health Services Agency. Available at: <https://www.samhsa.gov/data/quick-statistics>; National Survey on Drug Use and Health (2019–2020) - Restricted Data Access. Substance Abuse Mental Health Data Archive available at <https://rdas.samhsa.gov/#/>

NUMBER AND PERCENTAGE OF TREATMENT ADMISSIONS FOR CUD

Observation: Individuals with a primary diagnosis of Cannabis Use Disorder were more likely to be hospitalized or have an emergency department visits if they were male, between 18-25 years old, reside in the City of Chicago, or on Medicaid.

Bivariate statistical comparisons were calculated using chi-square tests. NS = Non-significant; * = $p < .05$; *** = $p < .001$.

Sources: Treatment Episode Data Set 2019–2020. Substance Abuse and Mental Health Services Agency. Available at: <https://www.datafiles.samhsa.gov/dataset/treatment-episode-data-set-admissions-2019-teds-2019-ds000>; Treatment Episode Data Set Quick Statistics 2015–2020. Substance Abuse and Mental Health Services Agency. Available at: <https://www.samhsa.gov/data/quick-statistics>.

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

SELECTED CLIENT CHARACTERISTICS BY HOSPITALIZATION OR ED VISIT FOR PERSONS ADMITTED FOR A PRIMARY DIAGNOSIS OF CANNABIS USE DISORDER (2018–2022)

		Hospitalization (N = 1,434)	ED Visit (N = 17,036)
Sig	Gender		
***	Male	64.0%	57.7%
	Female	36.1%	42.3%
NS	Race		
	White - non-Hispanic	38.9%	36.3%
	Black - non-Hispanic	37.1%	38.8%
	Hispanic	14.3%	16.4%
	Other	8.7%	8.5%
***	Age Group		
	0-5 years old	0.4%	0.3%
	6-12	0.2%	0.9%
	13-17	12.7%	19.3%
	18-25	37.5%	33.3%
	26-35	25.1%	22.6%
	36-45	12.3%	12.1%
	46-55	5.6%	6.1%
	56-65	4.5%	3.5%
	66+	1.9%	1.9%
	Mean Age (SD)	29.3 (13.1)	28.2 (13.2)
	Pregnancy or perinatal-related visit	0.6%	0.5%
***	Patient Strata		
	Chicago	30.9%	27.1%
	Suburban Cook County	21.1%	22.6%
	Metro	18.7%	19.0%
	Urban	17.3%	16.5%
	Rural	8.1%	11.4%
	Unknown/Out-of-State	4.0%	3.4%
*	Medicaid	52.5%	49.5%
	Medicare	8.2%	4.9%

Note: All figures shown are percentages unless otherwise indicated. Significance levels are based on the Chi-Square test statistic.

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

Source: Illinois Department of Public Health, Division of Patient Safety and Quality Hospital and ED discharge data sets.

SELECTED CLIENT CHARACTERISTICS AT TREATMENT ADMISSION BY PRIMARY DRUG (2018–2020)

		Primary Drug at Admission		
		"All Other Drugs - 2018-2019 (N = 81,355)"	"Cannabis - 2018-2019 (N = 16,649)"	"Cannabis - 2020 (N = 5,467)"
Sig				
***	Gender			
	Male	36.6%	75.7%	73.0%
	Female	63.6%	24.3%	27.0%
***	Race			
	White - non-Hispanic	52.4%	34.4%	42.0%
	Black - non-Hispanic	31.9%	42.6%	39.3%
	Hispanic	12.5%	17.6%	
	Other	3.3%	5.4%	18.7%
***	Age Group			
	12-17 years old	0.7%	20.0%	16.9%
	18-24	8.5%	32.9%	33.0%
	25-35	29.3%	30.5%	32.1%
	35-49	35.4%	13.4%	16.9%
	50+	26.1%	2.8%	3.1%
***	Pregnant	4.9%	8.1%	NA
	Administration Route			NA
	Oral	39.1%	3.4%	
	Smoking	13.7%	95.7%	
	Inhalation	28.1%	0.8%	
	Injection	19.1%	0.1%	
	Other	0.1%	0.0%	
***	Referral Source			NA
	Self	45.6%	16.2%	
	Alcohol/Drug Use Counselor	14.0%	2.4%	
	Othe Health Care Provider	5.8%	2.5%	
	Court/Criminal Justice	30.1%	70.0%	
	Other	4.6%	8.9%	
***	Service Setting			NA
	Detox, 24-hr	21.5%	1.2%	
	Short-term Residential Rehab	19.7%	9.0%	
	Long-term Residential Rehab	1.74	0.0%	
	Intensive Outpatient	11.62	16.5%	
	Outpatient	45.4%	72.8%	

Note: All figures shown are percentages unless otherwise indicated. Significance levels are based on the Chi-Square test statistic.

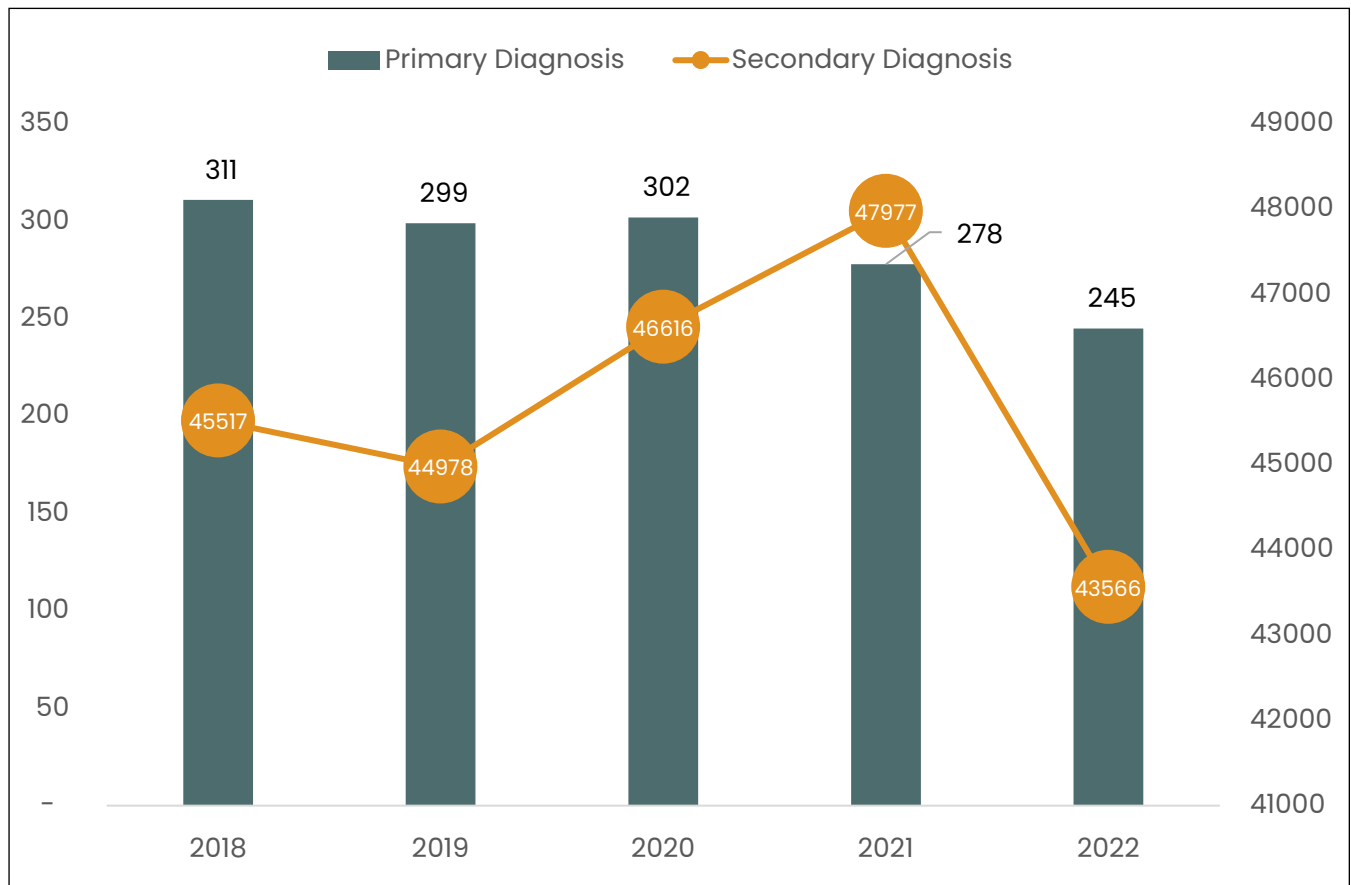
NS = Non-significant; * = $p < .05$; *** = $p < .001$

Source: Illinois Department of Public Health, Division of Patient Safety and Quality Hospital and ED discharge data sets.

CANNABIS USE DISORDER HOSPITALIZATIONS

Observation: The number of hospitalizations where cannabis use disorder was the primary or one of any secondary diagnoses appears to have peaked in 2020–2021. Whether the decrease in 2022 is real or artifactual owing to a lag in data reporting is an open issue that will be resolved in next year’s report.

NUMBER OF HOSPITALIZATIONS WITH CUD AS PRIMARY OR SECONDARY DIAGNOSIS (2018–2022)



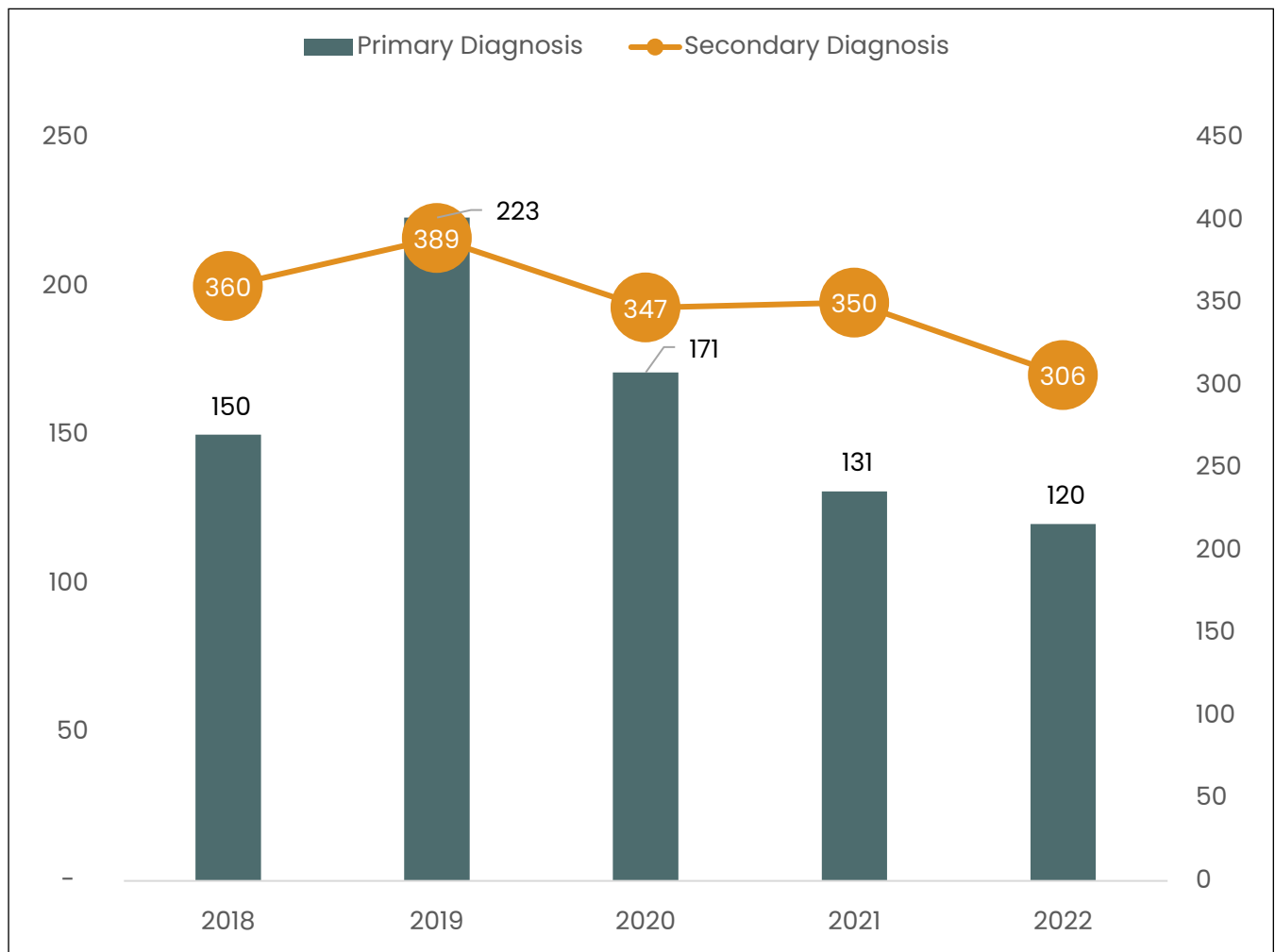
Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

CANNABIS OVERDOSE HOSPITALIZATIONS

Observation: The number of persons hospitalized for a cannabis-related overdose as primary diagnosis peaked in 2019 and has declined since then. The number of persons hospitalized for some other reason where a cannabis-related overdose was indicated among the diagnoses assessed has remained relatively steady.

We also note the relatively small numbers of persons hospitalized for a cannabis-related overdose relative to the numbers hospitalized where cannabis use disorder was among the secondary diagnoses.

NUMBER OF HOSPITALIZATIONS WITH CANNABIS OVERDOSE AS PRIMARY OR SECONDARY DIAGNOSIS (2018–2022)

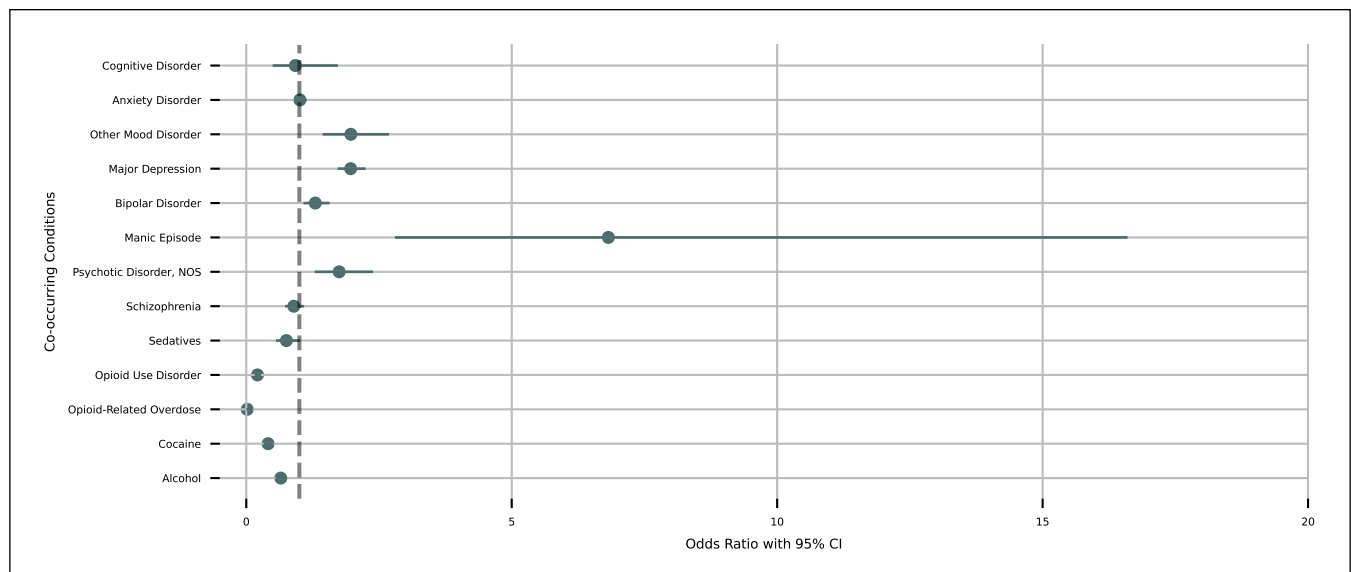


Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

HOSPITALIZATION DISCHARGES FOR CANNABIS USE DISORDER (PRIMARY DIAGNOSIS) AND CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS

Observation: Persons hospitalized for cannabis use disorder had a higher odds of also having a diagnosis of a manic episode (OR= 6.92, CIs: 2.80, 16.60). Psychotic disorder NOS (OR=1.75 CIs: 1.29, 2.39), other mood disorder (OR=1.97, CIs :1.44, 2.69), and major depression (OR=1.97, CIs: 1.72, 2.25) were also found to have a greater odds of co-occurrence for persons hospitalized with a primary diagnosis of cannabis use disorder.

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS CUD PRIMARY DIAGNOSIS – HOSPITALIZATION DISCHARGES

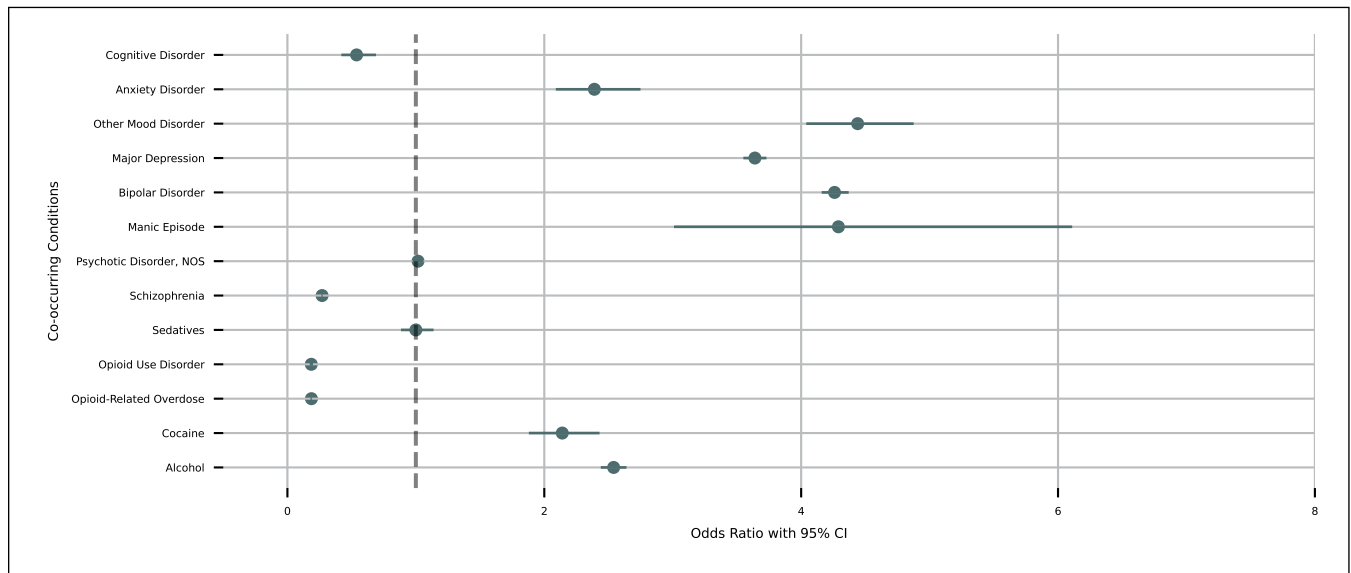


All figures shown are odds ratios, with 95% CIs, adjusted for gender, age, race, and year of discharge, for persons with a primary discharge diagnosis of cannabis use disorder.

HOSPITALIZATION DISCHARGES FOR CANNABIS USE DISORDER (SECONDARY DIAGNOSIS) AND CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS

Observation: Persons hospitalized with a primary diagnosis of other mood disorder (OR= 4.44, CIs=4.04,4.88), manic episode (OR=4.29, CIs=3.01,6.11), major depression (OR=3.64, CIs=3.55, 3.73), cocaine use disorder (OR=2.14, CIs=1.88, 2.43), bipolar disorder (OR=4.26, CIs=4.16, 4.37), anxiety disorder (OR=2.39, CIs=2.09, 2.75), and alcohol use disorder (OR=2.54, CIs=2.44, 2.64) all had a higher odds of also having a secondary diagnosis of cannabis use disorder.

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS CUD SECONDARY DIAGNOSIS - HOSPITALIZATION DISCHARGES



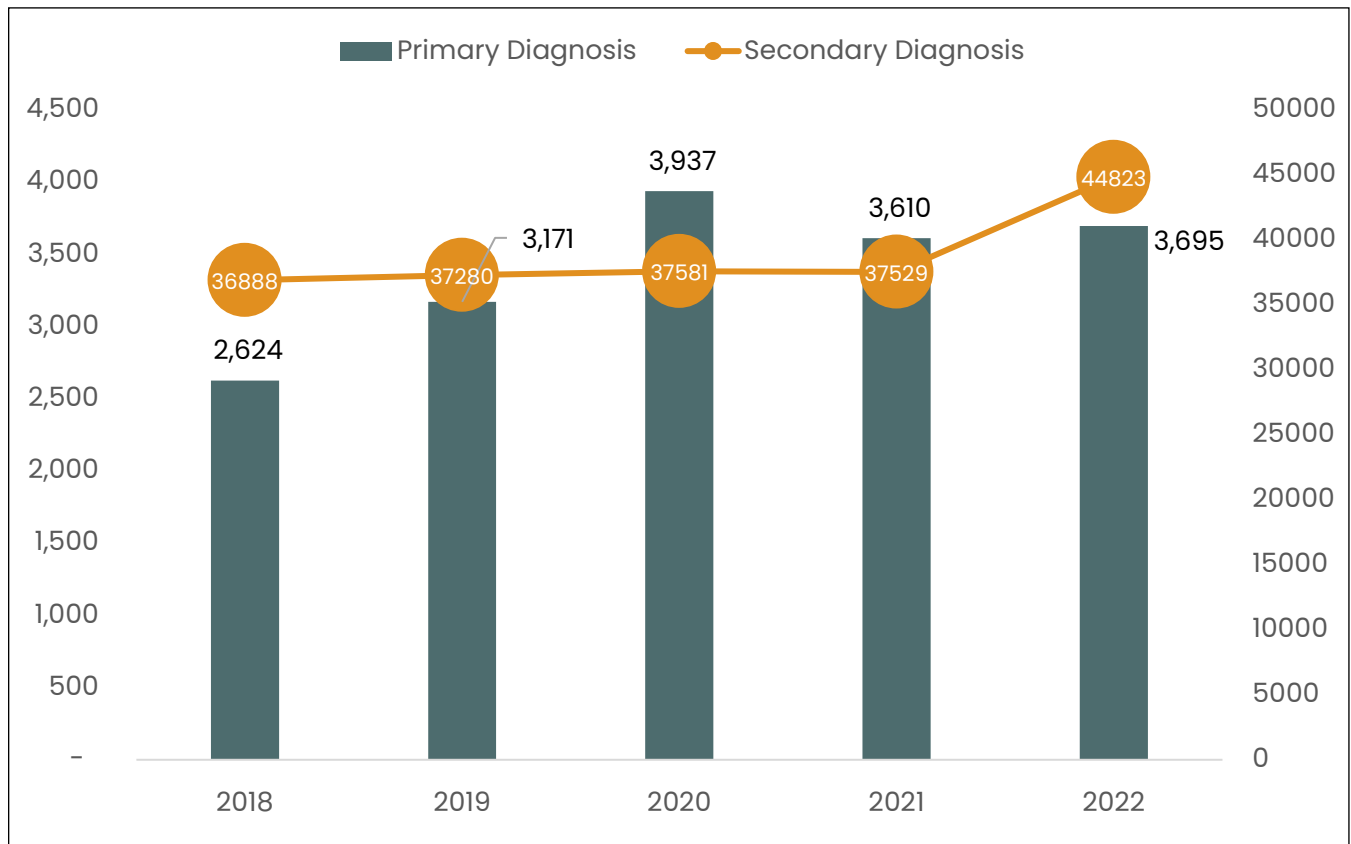
All figures shown are odds ratios, with 95% CIs, adjusted for gender, age, race, and year of discharge, for persons with a primary discharge diagnosis of cannabis use disorder.

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

CANNABIS USE DISORDER EMERGENCY DEPARTMENT VISITS

Observation: In contrast to hospitalizations for a cannabis use disorder, ED visits appear to be increasing or holding steady since the peak year of 2020. There has been a noticeably large increase in ED visits where cannabis use disorder was not the main reason for the visit but was among secondary diagnoses assessed by discharge.

NUMBER OF ED VISITS WITH CUD AS PRIMARY OR SECONDARY DIAGNOSIS (2018–2022)

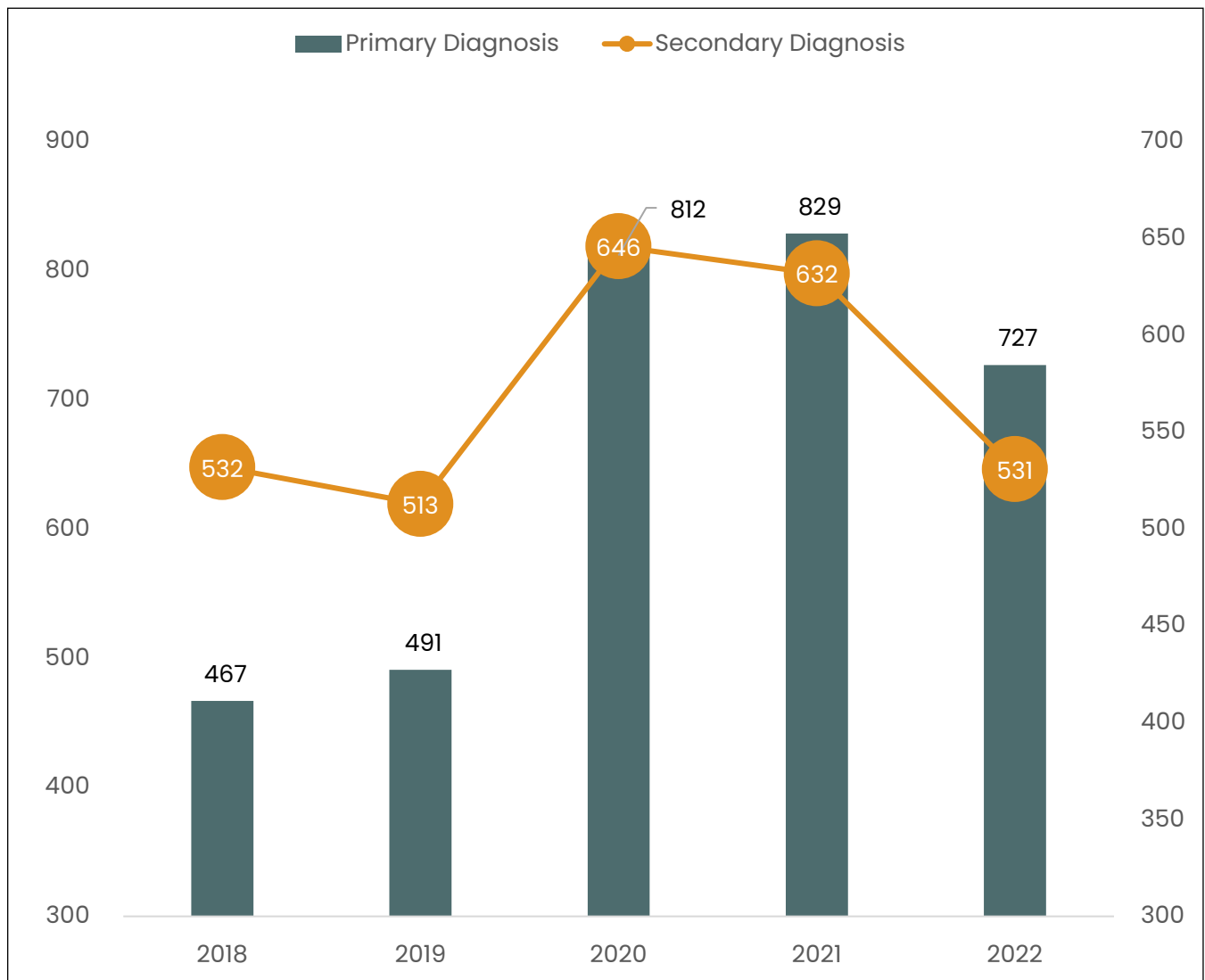


Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

CANNABIS OVERDOSE EMERGENCY DEPARTMENT VISITS

Observation: Cannabis-related overdose as primary diagnosis for an ED visit sharply increased in 2020–2021 but appears to have declined since then. A similar pattern was found for cannabis-related overdoses as a secondary diagnosis.

NUMBER OF ED VISITS WITH CANNABIS OVERDOSE AS PRIMARY OR SECONDARY DIAGNOSIS (2018–2022)

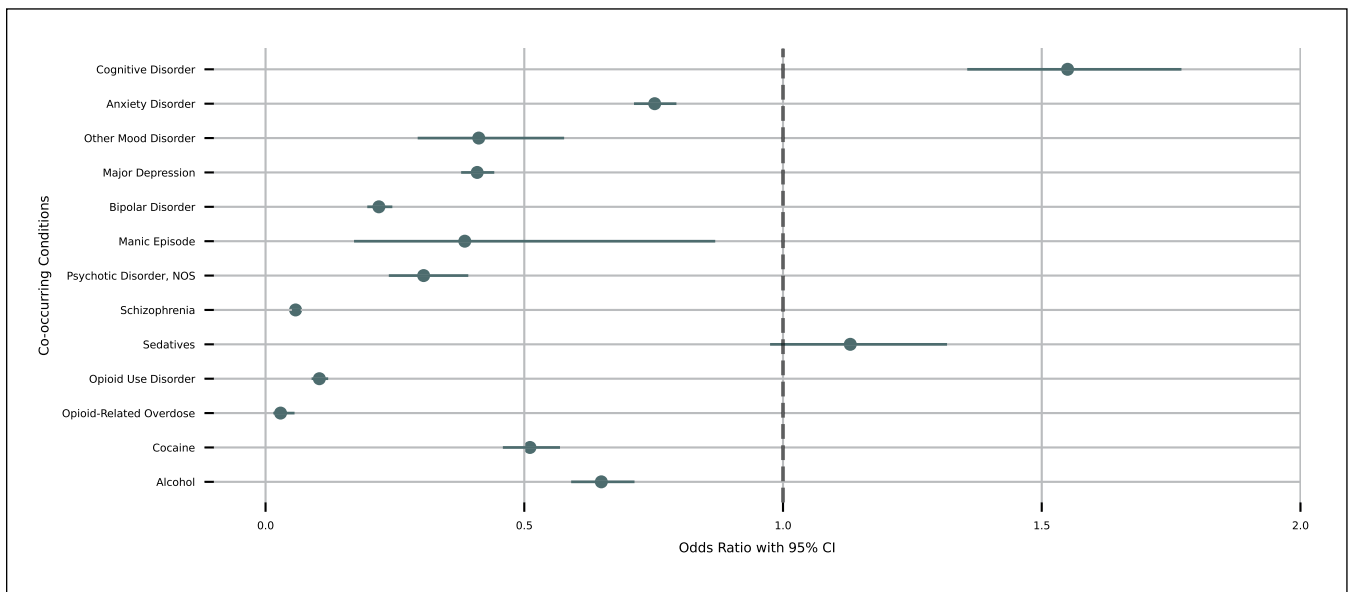


Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

EMERGENCY DEPARTMENT DISCHARGES FOR CANNABIS USE DISORDER (PRIMARY DIAGNOSIS) AND CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS

Observation: Persons discharged from the emergency department for a primary diagnosis of cannabis use disorder had a higher odds of also having sedative use disorder (OR=1.13, CIs=0.98, 1.32) and cognitive disorder (OR= 1.55, CIs=1.36, 1.77).

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS CUD PRIMARY DIAGNOSIS - ED VISIT DISCHARGES



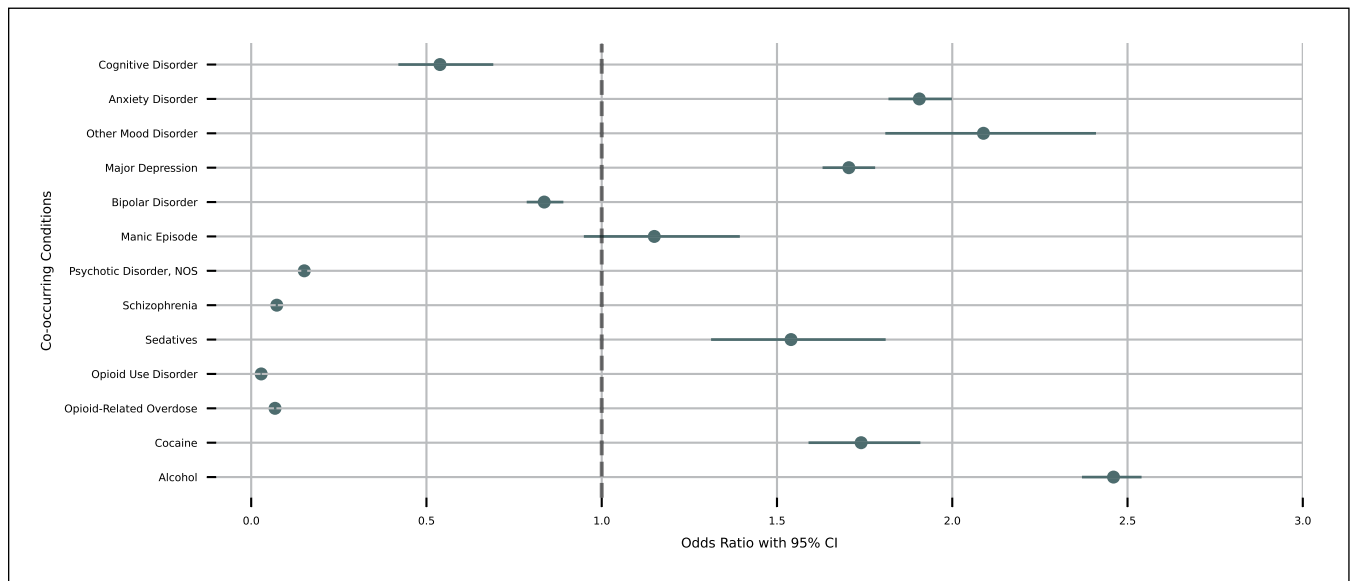
All figures shown are odds ratios, with 95% CIs, adjusted for gender, age, race, and year of discharge, for persons with a primary discharge diagnosis of cannabis use disorder.

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

EMERGENCY DEPARTMENT DISCHARGES FOR CANNABIS USE DISORDER (SECONDARY DIAGNOSIS) AND CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS

Observation: Persons discharged from the emergency department with a primary diagnosis of other mood disorder (OR=2.09, CIs=1.81,2.41), manic episode (OR=1.15, CIs=0.95,1.39), major depression (OR=1.71, CIs=1.63,1.78), cocaine use disorder (OR=1.74, CIs=1.59,1.91), anxiety disorder (OR=1.91, CIs=2.37,2.54), and alcohol use disorder (OR=2.46, CIs=2.37,2.54) had a higher odds of also having a secondary diagnosis of cannabis use disorder.

CO-OCCURRING SUBSTANCE USE AND MENTAL HEALTH CONDITIONS CUD SECONDARY DIAGNOSIS - ED VISIT DISCHARGES



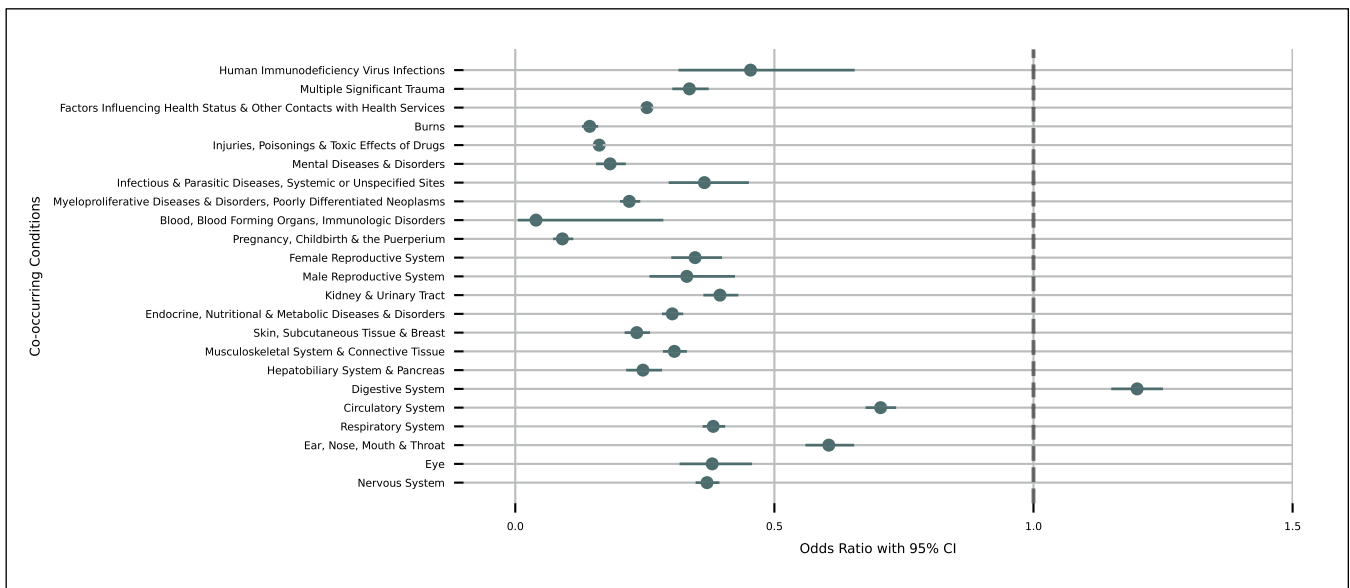
All figures shown are odds ratios, with 95% CIs, adjusted for gender, age, race, and year of discharge, for persons with a secondary discharge diagnosis of cannabis use disorder.

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

MAJOR DIAGNOSTIC CATEGORY CO-OCCURRING CONDITIONS IN WHICH CANNABIS USE DISORDER WAS THE PRIMARY DIAGNOSIS

Observation: For persons that had either a hospitalization or emergency department visit in which cannabis use disorder was the primary diagnosis, they also had 20% higher odds of having a secondary diagnosis pertaining to the digestive system (CIs=1.15,1.25) (OR=1.20, CIs=1.15,1.25).

MAJOR DIAGNOSTIC CATEGORY CO-OCCURRING CONDITIONS CANNABIS USE DISORDER AS PRIMARY CONDITION



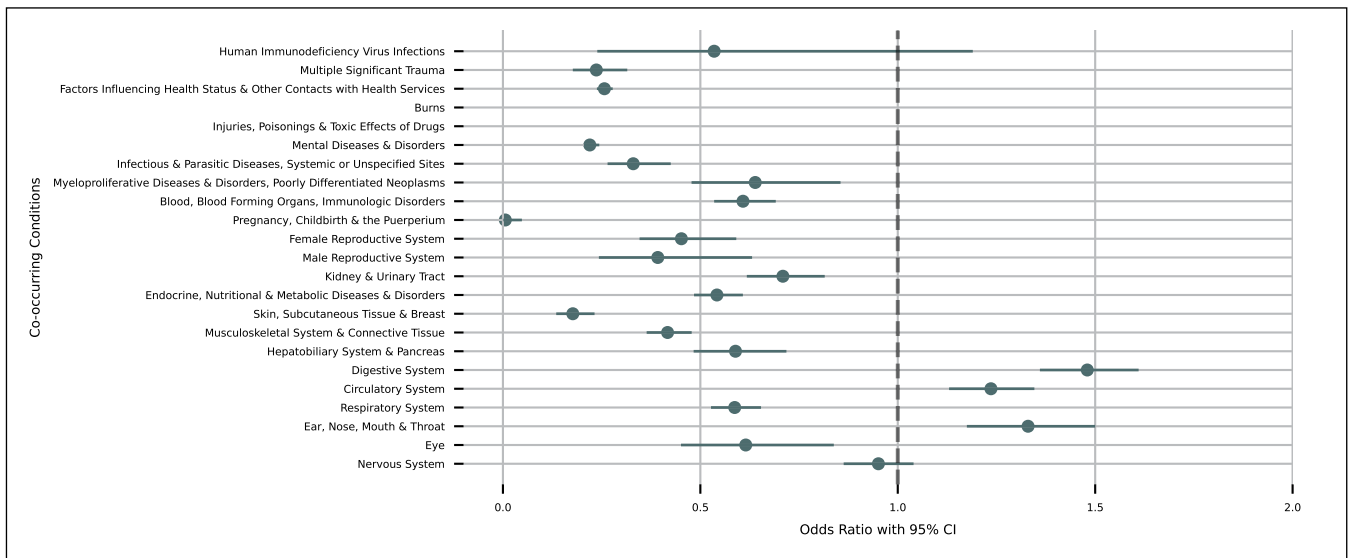
All figures shown are odds ratios, with 95% CIs, adjusted for gender, age, race, and year of discharge, for persons with a primary discharge diagnosis of cannabis use disorder.

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

MAJOR DIAGNOSTIC CATEGORY CO-OCCURRING CONDITIONS IN WHICH CANNABIS-RELATED OVERDOSE WAS THE PRIMARY DIAGNOSIS

Observation: For persons that were either hospitalized or had a emergency department visit for cannabis-related overdose, they also had a higher odds of having a secondary diagnosis pertaining to ear, nose, mouth, and throat (OR=1.33, CIs=1.18,1.50), the digestive system (OR=1.48, CIs=1.36,1.61), and the circulatory system (OR=1.24, CIs=1.13,1.35).

MAJOR DIAGNOSTIC CATEGORY CO-OCCURRING CONDITIONS CANNABIS-RELATED OVERDOSE AS PRIMARY DIAGNOSIS



All figures shown are odds ratios, with 95% CIs, adjusted for gender, age, race, and year of discharge, for persons with a primary discharge diagnosis of cannabis use disorder.

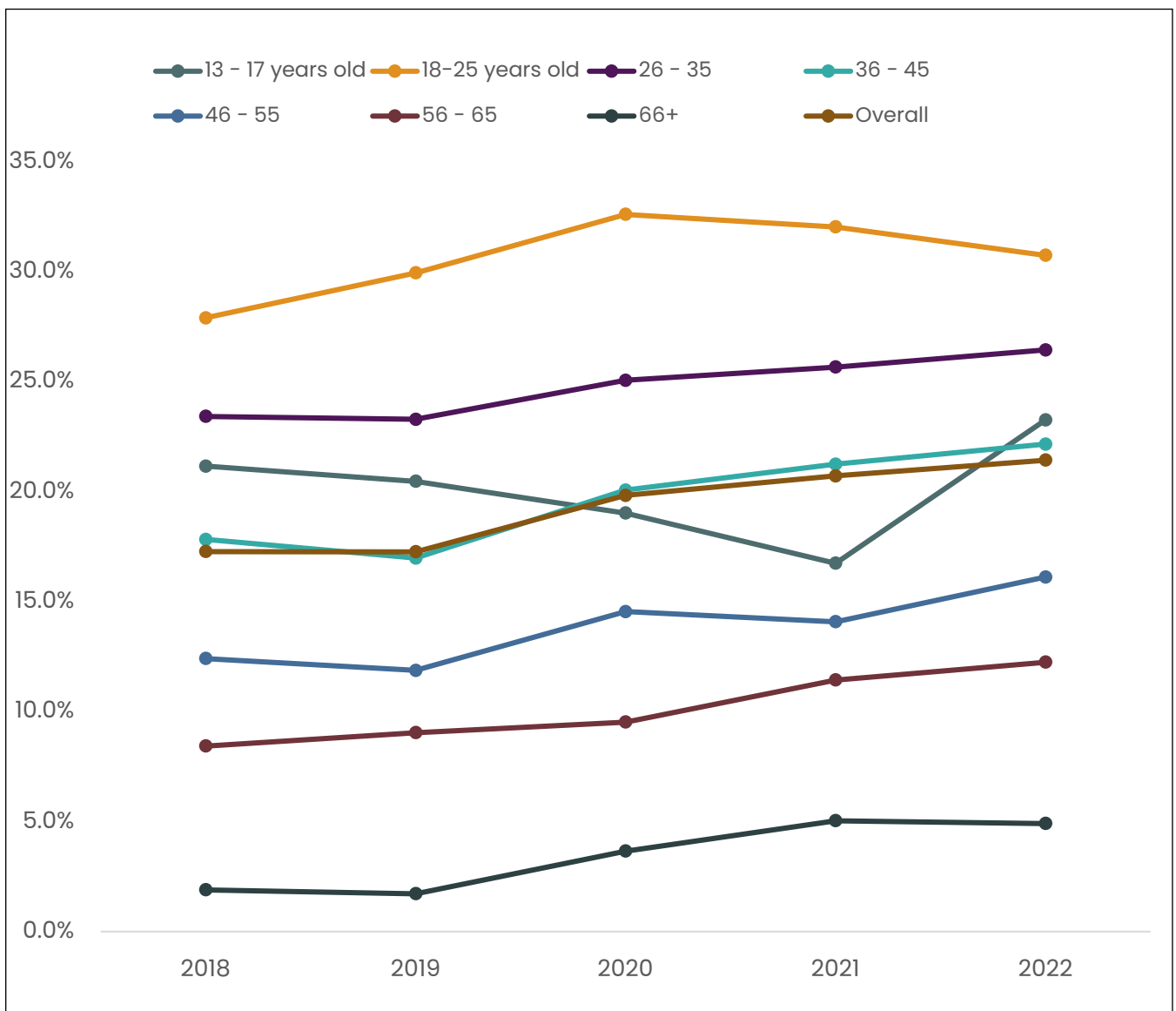
Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

PERCENTAGE OF HOSPITALIZATIONS OR ED VISITS WITH A PRIMARY DIAGNOSIS OF SCHIZOPHRENIA AND A CO-OCCURRING CANNABIS USE DISORDER BY AGE GROUP

There has been a gradual upward trend, beginning in 2020, for an increasing percentage of persons with a primary diagnosis of schizophrenia to also have a diagnosis of cannabis use disorder among the secondary conditions assessed. The age group with the most pronounced increase has been 18 to 25 year olds but this has leveled off in the past year and even declined slightly. There was a moderate increase between 2021 and 2022 among those ages 46-55 after a decline between 2021 and 2022 but they are still well below those ages 18 to 25.

Reversing the diagnoses (primary cannabis use disorder and secondary diagnosis of schizophrenia) yields very low percentages (< 3.0%) across age groups.

PERCENTAGE OF HOSPITALIZATIONS OR ED VISITS WITH A PRIMARY DIAGNOSIS OF SCHIZOPHRENIA AND A CO-OCCURRING CANNABIS USE DISORDER BY AGE GROUP (2018–2022)



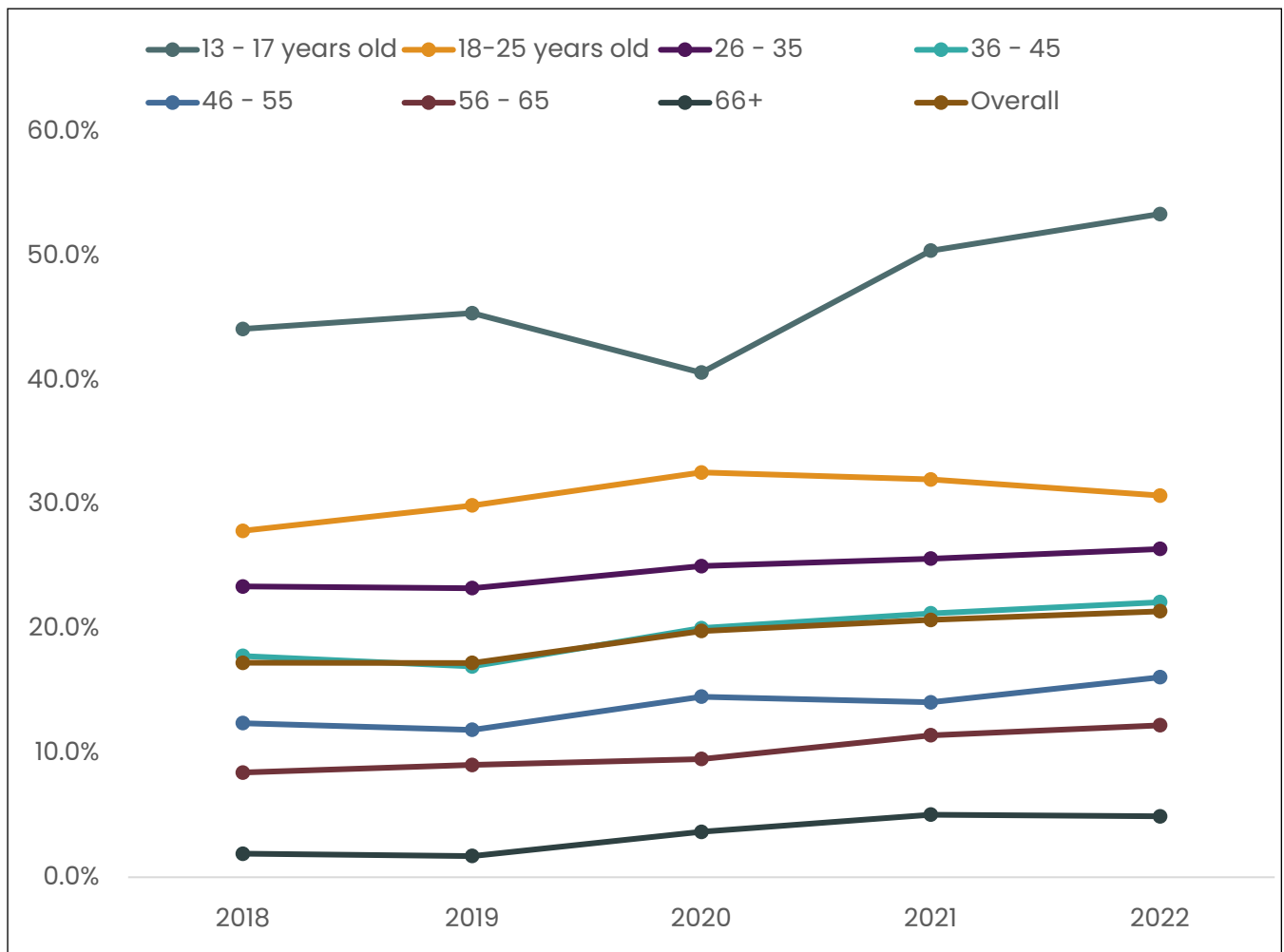
Source: Illinois Department of Public Health, Division of Patient Safety and Quality, Hospital and ED Discharges.

PERCENTAGE OF HOSPITALIZATIONS OR ED VISITS WITH A PRIMARY DIAGNOSIS OF PSYCHOTIC DISORDER, NOS AND A CO-OCCURRING CANNABIS USE DISORDER BY AGE GROUP

There has been only a slight upward trend, beginning in 2020, of an increasing percentage of persons with a primary diagnosis of psychotic disorder, not otherwise specified (NOS) to also have a diagnosis of cannabis use disorder among the secondary conditions assessed. The age group with the most pronounced increase and the highest overall prevalence has been 13 to 17 year olds.

Reversing the diagnoses (primary cannabis use disorder and secondary psychotic disorder, NOS) yields very low percentages (< 1.0%) across age groups.

PERCENTAGE OF HOSPITALIZATIONS OR ED VISITS WITH A PRIMARY DIAGNOSIS OF PSYCHOTIC DISORDER, NOS AND A CO-OCCURRING CANNABIS USE DISORDER BY AGE GROUP (2018–2022)



Source: Illinois Department of Public Health, Division of Patient Safety and Quality, Hospital and ED Discharges.

PUBLIC HEALTH EFFECTS



PUBLIC HEALTH OUTCOMES: GENERAL

Methods: Systematic review of 61 studies conducted in the US (66.2%) and other countries and published between 2016 and 2022. The studies primarily used self-report or administrative data.

Findings: Five main categories of outcomes were identified through the review: cannabis and other substance use, attitudes toward cannabis, health-care utilization, driving-related outcomes, and crime-related outcomes.

The extant literature revealed mixed findings, including some evidence of negative consequences of legalization (such as increased young adult use, cannabis-related healthcare visits, and impaired driving) and some evidence for minimal impacts (such as little change in adolescent cannabis use rates, substance use rates, and mixed evidence for changes in cannabis-related attitudes).

The existing literature reveals a number of negative consequences of legalization, although the findings are mixed and generally do not suggest large magnitude short-term impacts.

Study/Studies: Farrelly, K., N., Wardell, J. D., Marsden, E., et al. (2023). The impact of recreational cannabis legalization on cannabis use and associated outcomes: A systematic review. *Substance Abuse*, 17. doi: 10.1177/11782218231172054

PUBLIC HEALTH OUTCOMES: TRAFFIC FATALITIES

Methods: Secondary analysis of panel data collected from 2007 through 2020 for 50 states and Washington DC by the National Highway Traffic Safety Administration’s Fatality Analysis Reporting System (FARS).

Findings: Traffic fatalities increased by 2.2 per billion miles driven after retail legalization, which may account for as many as 1400 traffic fatalities annually. States that legalized earlier experienced larger traffic fatality increases.

Study/Studies: Adhikari, K., Maas, A., & Trujillo-Barrera, A. (2023). Revisiting the effect of recreational marijuana on traffic fatalities. *International Journal of Drug Policy*, 115. doi: 10.1016/j.drugpo.2023.104000

PUBLIC HEALTH EFFECTS HIGHLIGHTS

Pediatric Cannabis Poisonings

As observed in previous reports, pediatric cannabis poisonings increased between 2020 and 2021 but decreased in 2022 for both primary and secondary diagnoses.

The number of Illinois Poison Control Center contacts where cannabis ingestion was involved leveled off in 2022 for all age groups except those 12 to 17 years old, which saw a moderate increase between 2021 and 2022. While pediatric cases ages 1 to 11 years old declined slightly from 2021, the number of such poisonings remains much higher than pre-2020 levels.

The large majority of pediatric Poison Control Center contacts (71.0%) remain attributable to ingestion of edible cannabis products. Edible cannabis products were also responsible for a majority (54.3%) of reported 12 to 17 year old cannabis poisonings. Older age groups were more evenly divided between dried cannabis plant-based products and edibles.

EMS Runs and Overdose Fatalities

Although the absolute numbers are small, especially compared with EMS runs for opioid overdoses, there was a relatively large increase in the number of such runs where the primary or secondary diagnosis was for cannabis poisonings (T40.7X) among those who are white. There were only slight increases among Black/African Americans and Other racial group.

In 2021, 62% of all EMS runs for Cannabis poisoning occurred in Cook County, which also saw a sharp increase over the number of such runs in 2020. The rest of the state has seen no comparable increase with the number of runs remaining flat since 2020.

There has been a small increase in cannabis-related fatalities in Illinois from 2015–2022. 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.

Traffic Accidents and Fatalities

Illinois and Michigan, two of the states that have legalized cannabis, both had larger increases in positive cannabis drug tests among drivers in traffic accidents in 2020 where there was a fatality compared with other contiguous states and the US as a whole.

The percentage of persons driving who were involved in a fatal crash and who were tested for drugs declined between 2018 and 2020 from 48% in 2018 to 41% in 2019 to 25% in 2020. Results for Illinois are based on 719 tests in 2018, 604 tests in 2019, and 413 tests in 2020.

HIGHLIGHTS AND EFFECTS

There were similar decreases in the percentage of drivers (16 and older) in fatal accidents being drug tested in the contiguous states and Michigan.

Unlike the cannabis test results, there was not a pronounced increase in positive BAC tests for alcohol use for Illinois and Michigan nor in the contiguous states and the US.

Similar to the alcohol BAC results and also unlike the cannabis test results, there was not a pronounced increase in positive opioid tests for Illinois and Michigan nor in the contiguous states and the US.

Bivariate comparisons for potential factors associated with having a positive cannabis test result for Illinois residents (2018-2020) who were age 16 or older, driving at the time of the fatality, and with a known drug test results revealed the following factors were associated with a higher percentage of a positive test: Black-non-Hispanic, younger age group (particularly 16-34 years old) and testing positive for another drug class, particularly MDMA/Hallucinogens.

Logistic regression analyses of testing positive for cannabis (as the driver, age 16 or older, residing in Illinois and with known drug test results) found that Black, non-Hispanics had a 50% higher odds of a positive test result (OR = 1.53, $p = .05$) compared with White non-Hispanics. Persons who tested positive for stimulants (OR = 2.4, $p < .001$, MDMA or another hallucinogen (OR = 4.3, $p = .001$), or tranquilizers (OR = 2.05, $p < .001$) also had significantly higher odds of a positive cannabis test result. Conversely, persons over the age of 45 have significantly lower odds of a positive cannabis test result (OR = .21, $p < .001$) as did persons testing positive for opioids (OR = .59, $p < .05$). There were no significant differences by gender or urban-rural location.

Adverse Effects

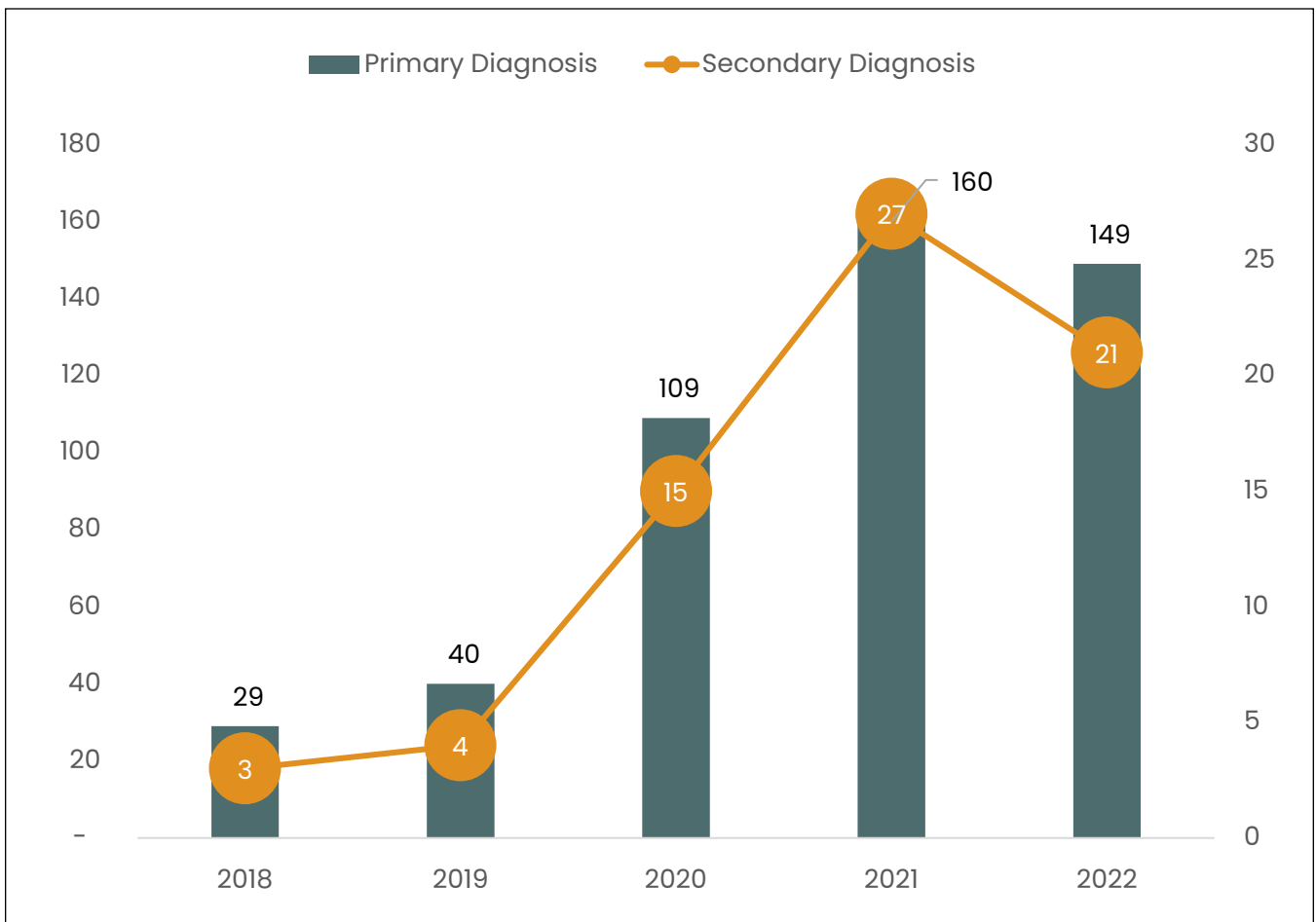
27.7% of persons using cannabis in the past year said they experienced 1 or more adverse effects with nausea or vomiting (7.6%), feeling faint or dizzy (8.5%), and panic reactions (7.8%) being among the more common adverse health effects.

Of those reporting an adverse event, 17.6% experiencing one symptom and 26.5% of those experiencing 2 or more symptoms said they sought medical attention.

PEDIATRIC EMERGENCY DEPARTMENT VISITS DUE TO CANNABIS POISONING

Observation: As observed in previous reports, pediatric cannabis poisonings increased between 2020 and 2021 but decreased in 2022 for both primary and secondary diagnoses.

NUMBER OF PEDIATRIC (AGES 0–5) ED VISITS WITH CANNABIS POISONING AS PRIMARY OR SECONDARY DIAGNOSIS (2018–2022)



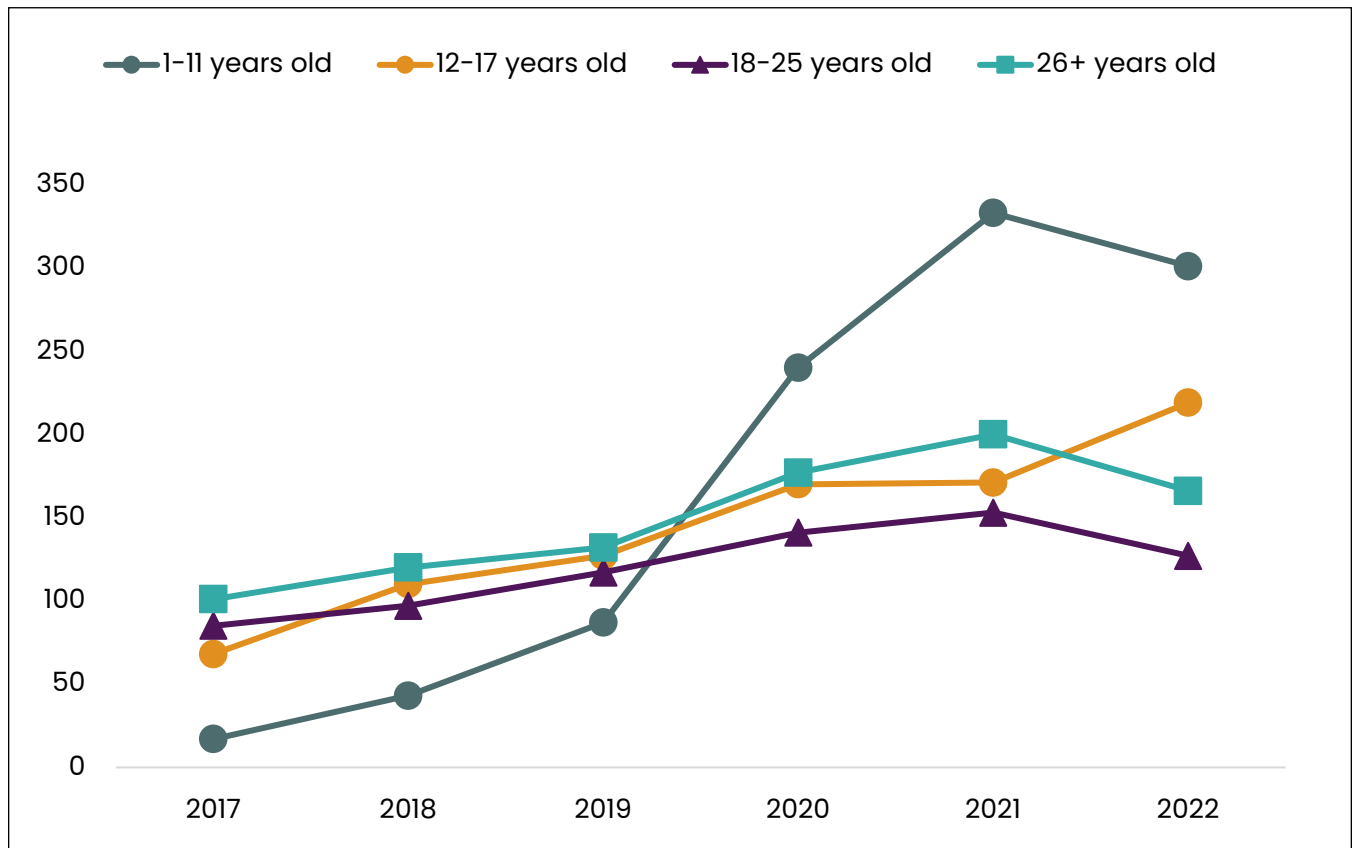
Source: Illinois Department of Public Health, Division of Patient Safety and Quality; Hospitalization and ED Visit Data Sets

POISON CONTROL CENTER CONTACTS BY AGE GROUP

Observation: The number of Illinois Poison Control Center contacts where cannabis ingestion was involved leveled off in 2022 for all age groups except those 12 to 17 years old, which saw a moderate increase between 2021 and 2022. While pediatric cases ages 1 to 11 years old declined slightly from 2021, the number of such poisonings remains much higher than pre-2020 levels.

These contacts are based on cannabis as one of the reported drugs ingested.

POISON CONTROL CENTER CONTACTS BY AGE GROUP (2016–2022)



Source: Illinois Poison Control Center: <https://www.illinoispoisoncenter.org/>

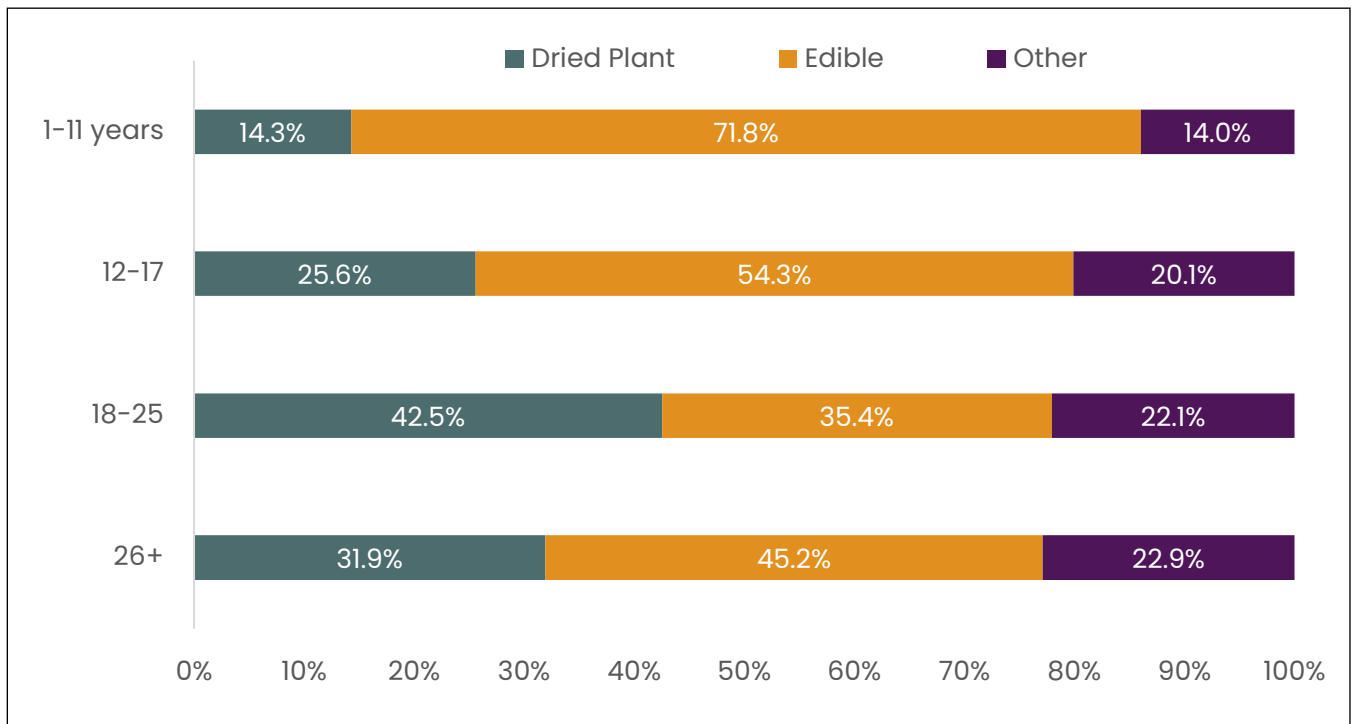
TYPE OF CANNABIS PRODUCT INGESTED FOR POISON CONTROL CONTACTS

Observation: The large majority of pediatric Poison Control Center contacts (71.0%) remain attributable to ingestion of edible cannabis products. Edible cannabis products were also responsible for a majority (54.3%) of reported 12 to 17 year old cannabis poisonings. Older age groups were more evenly divided between dried cannabis plant-based products and edibles.

Pediatric Poison Control Center cases were also much less likely to have ingested another drug (0.3%) compared with cases 12-17 years of age (16.4%), 18 - 25 years of age (38.6%) and those 26 or older (37.5%).

Across all age groups, the most frequently reported other drugs ingested with cannabis were alcohol (9.0%) and benzodiazepines (5.8%).

TYPE OF CANNABIS PRODUCT INGESTED FOR POISON CONTROL CONTACTS BY AGE GROUP (2022)

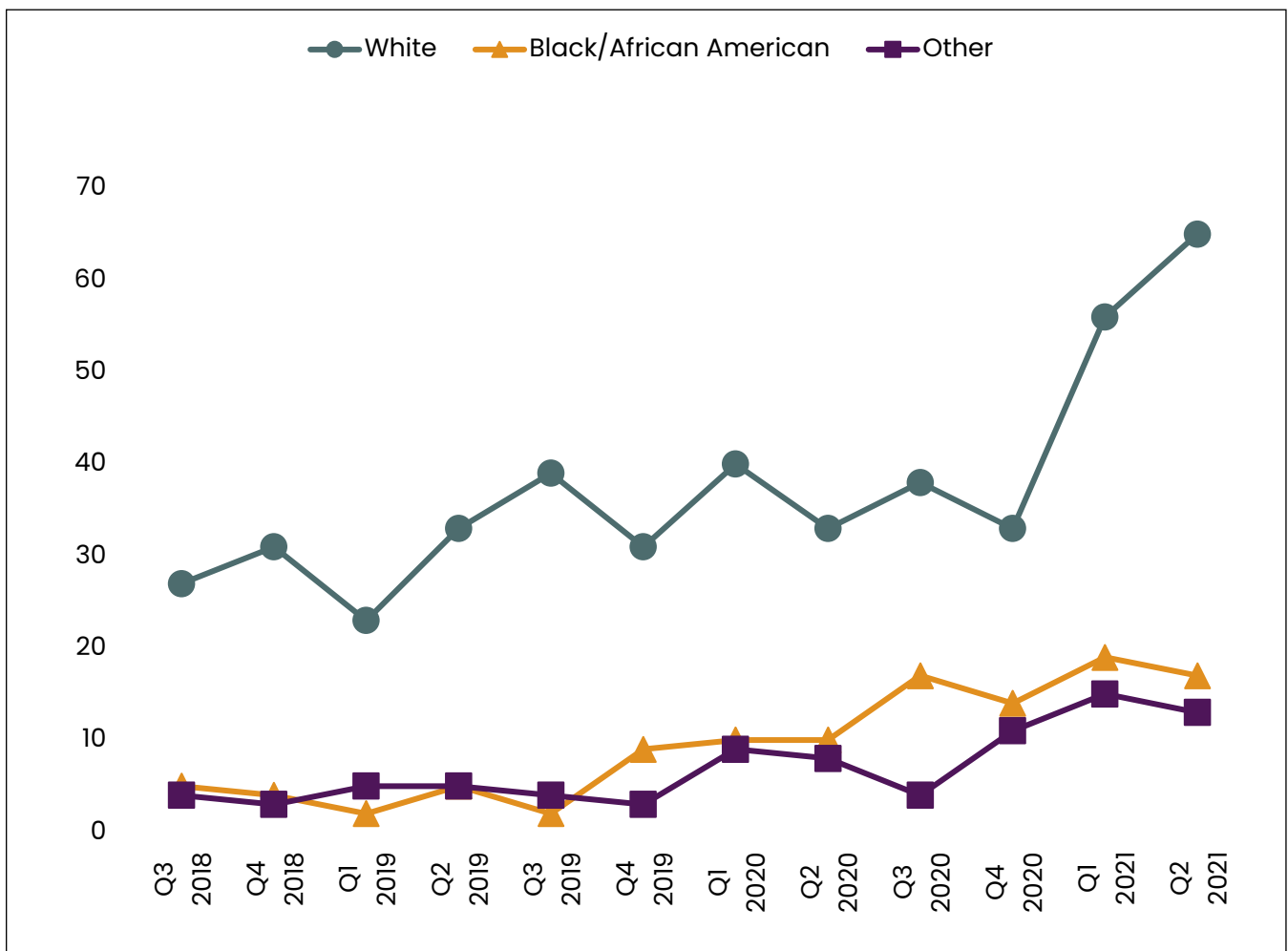


Source: Illinois Poison Control Center: <https://www.illinoispoisoncenter.org/>

EMS RUNS FOR CANNABIS POISONING BY RACE

Observation: Although the absolute numbers are small, especially compared with EMS runs for opioid overdoses, there was a relatively large increase in the number of such runs where the primary or secondary diagnosis was for cannabis poisonings (T40.7X) among those who are white. There were only slight increases among Black/African Americans and Other racial group.

EMS RUNS FOR CANNABIS POISONING BY RACE (2018–2021)

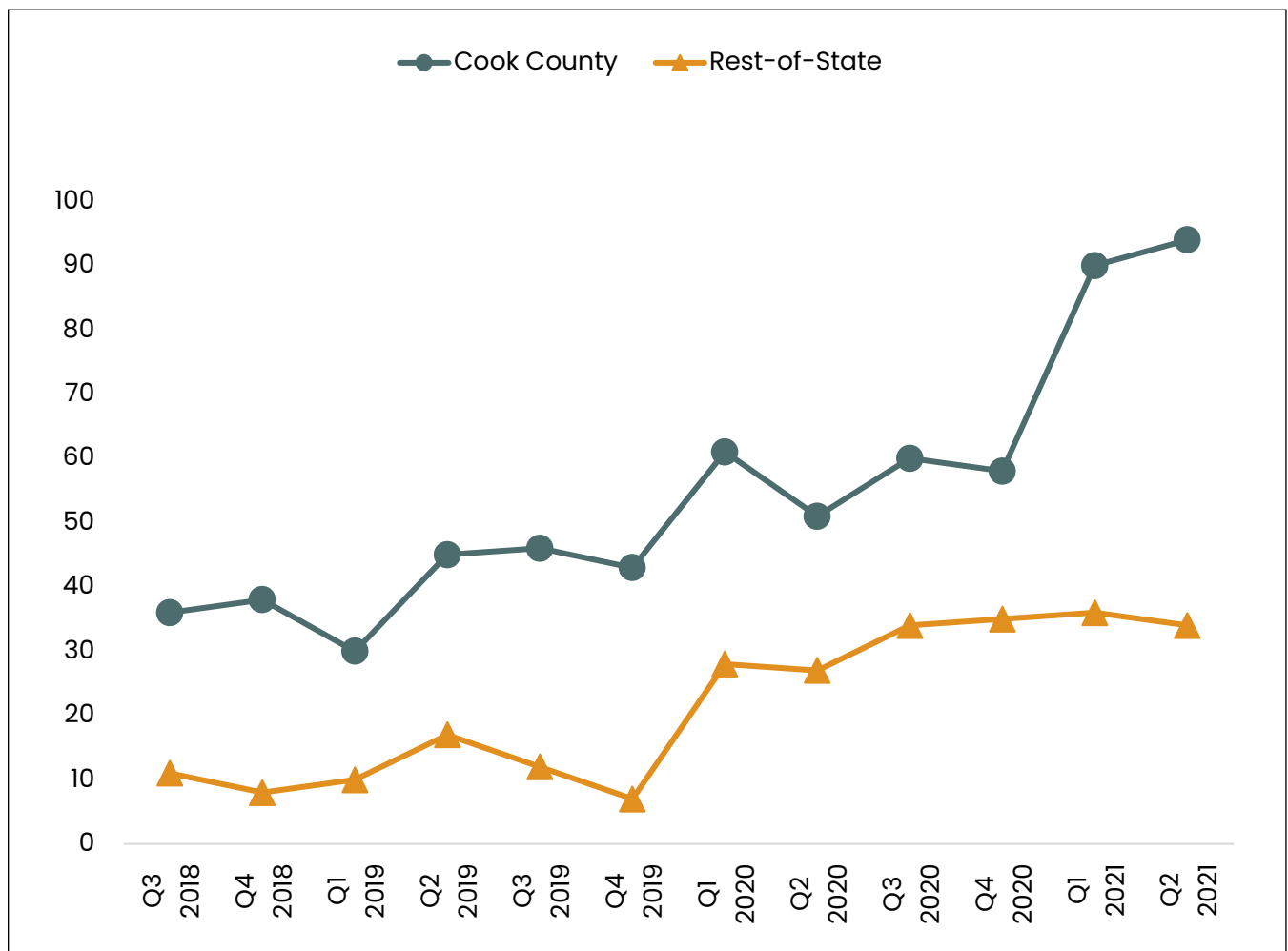


Source: Illinois Department of Public Health, Emergency Medicaid Services, Prehospital Data Program. Information available at: <https://dph.illinois.gov/topics-services/emergency-preparedness-response/ems/prehospital-data-program.html>

EMS RUNS FOR CANNABIS POISONING BY COUNTY

Observation: In 2021, 62% of all EMS runs for Cannabis poisoning occurred in Cook County, which also saw a sharp increase over the number of such runs in 2020. The rest of the state has seen no comparable increase with the number of runs remaining flat since 2020.

EMS RUNS FOR CANNABIS POISONING BY COUNTY: COOK OR REST-OF-STATE (2018–2021)

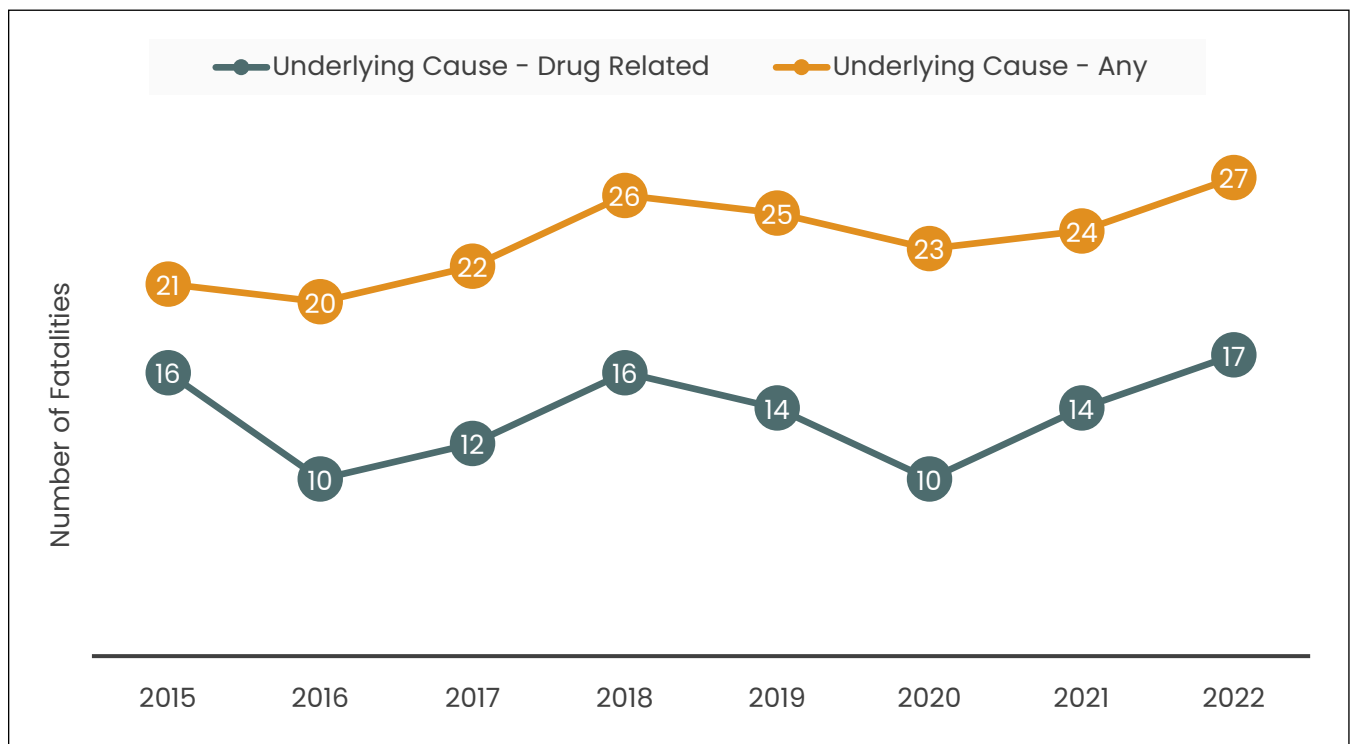


Source: Illinois Department of Public Health, Emergency Medicaid Services, Prehospital Data Program. Information available at: <https://dph.illinois.gov/topics-services/emergency-preparedness-response/ems/prehospital-data-program.html>

CANNABIS OVERDOSE FATALITIES

Observation: There has been a small increase in cannabis-related fatalities in Illinois from 2015–2022. 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.

OVERDOSE FATALITIES CITING CANNABIS AS A CONTRIBUTING CAUSE OF DEATH (2015–2022)



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

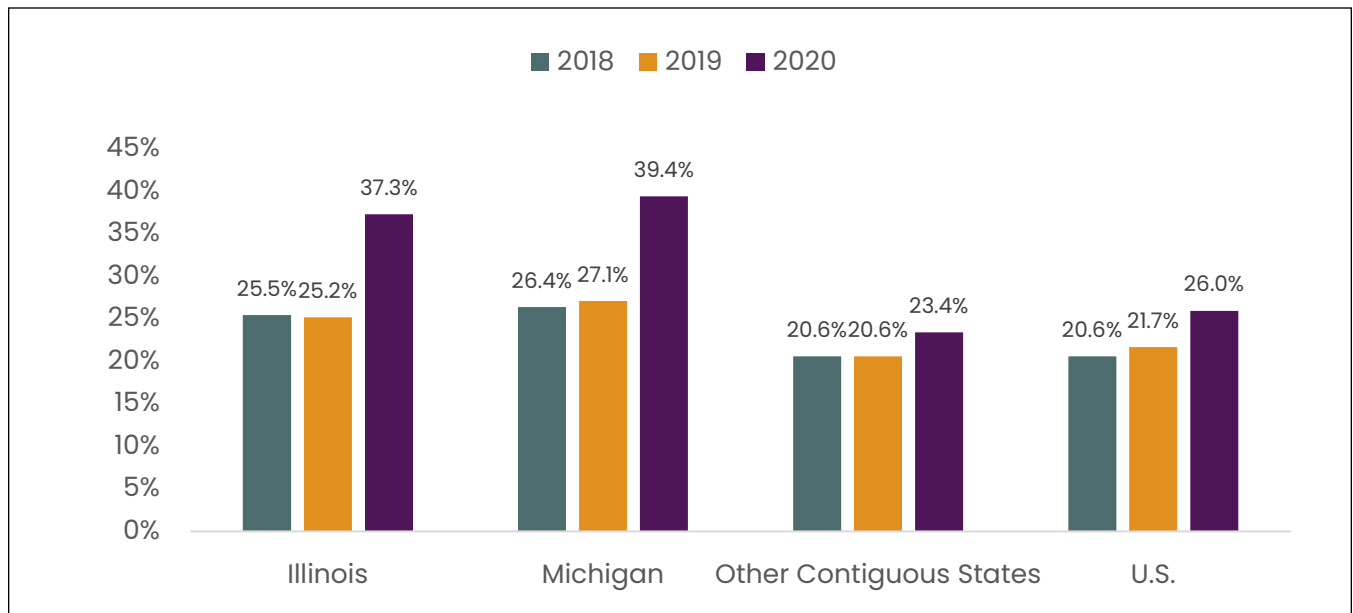
POSITIVE CANNABIS TEST RESULT, DRIVERS IN FATAL CRASHES

Observation: Illinois and Michigan, two of the states that have legalized cannabis, both had larger increases in positive cannabis drug tests among drivers in traffic accidents in 2020 where there was a fatality compared with other contiguous states and the US as a whole.

The percentage of persons driving who were involved in a fatal crash and who were tested for drugs declined between 2018 and 2020 from 48% in 2018 to 41% in 2019 to 25% in 2020. Results for Illinois are based on 719 tests in 2018, 604 tests in 2019, and 413 tests in 2020. There were similar decreases in the percentage of drivers (16 and older) in fatal accidents being drug tested in the contiguous states and Michigan.

Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

CANNABIS DRUG TESTING RESULTS FOR DRIVERS IN FATAL CRASHES BY STATE AND US (2018–2020)



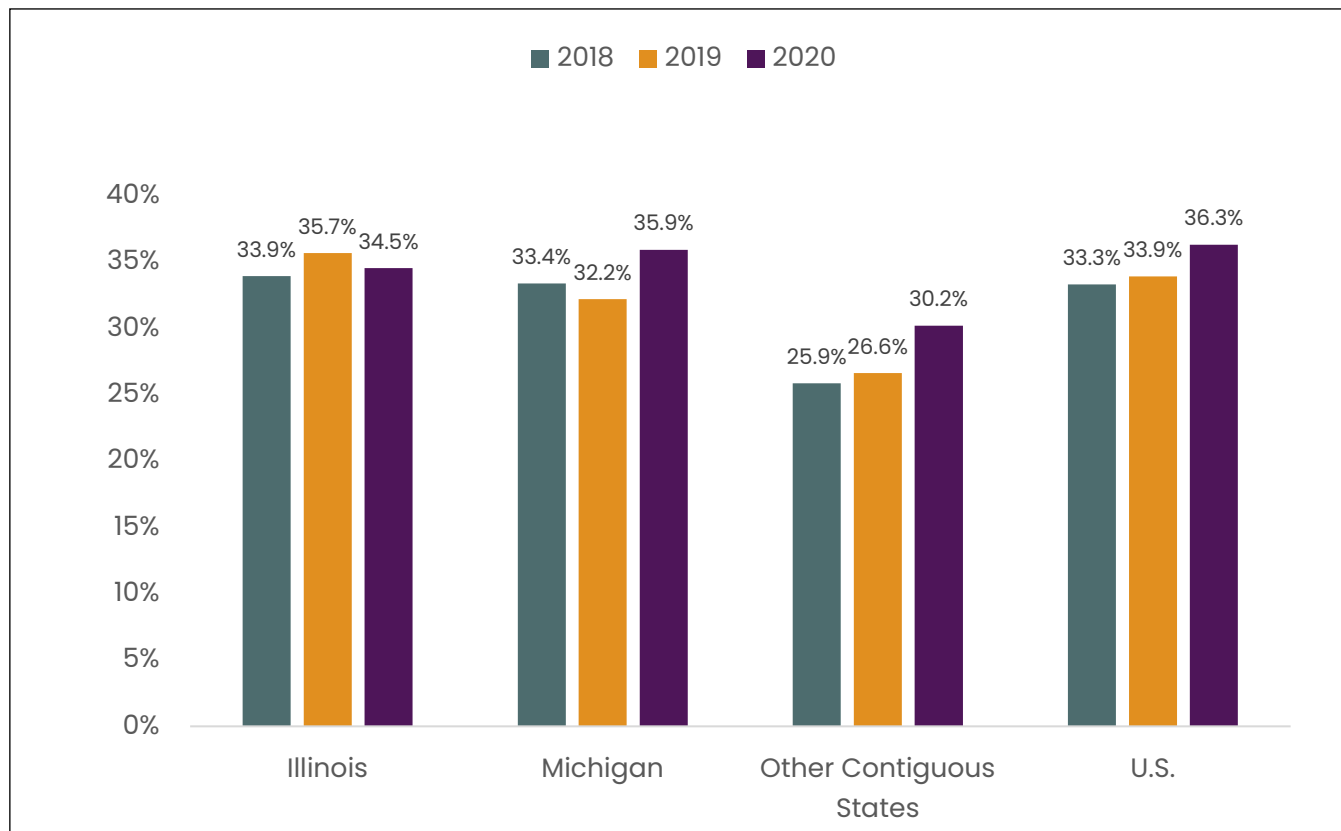
Source: National Center for Statistics and Analysis, Fatality Analysis Reporting System (2018–2020). National Highway Traffic Safety Administration. Available at: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

POSITIVE ALCOHOL BAC TEST RESULTS, DRIVERS IN FATAL CRASHES

Observation: Unlike the cannabis test results, there was not a pronounced increase in positive BAC tests for alcohol use for Illinois and Michigan nor in the contiguous states and the US.

Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

ALCOHOL BAC TEST RESULTS FOR DRIVERS IN FATAL CRASHES BY STATE AND US (2018–2020)



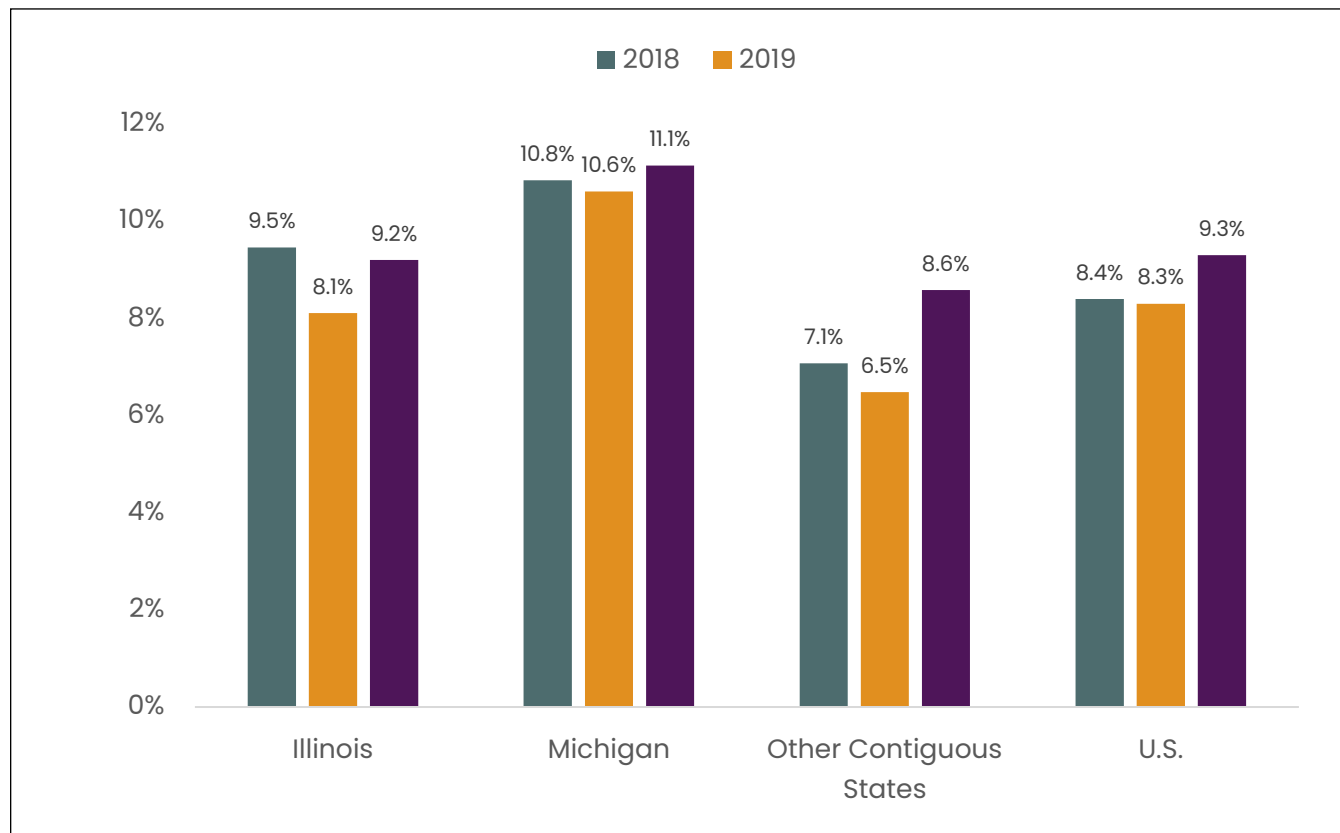
Source: National Center for Statistics and Analysis, Fatality Analysis Reporting System (2018–2020). National Highway Traffic Safety Administration. Available at: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

POSITIVE OPIOID TEST RESULTS, DRIVERS IN FATAL CRASHES

Observation: Similar to the alcohol BAC results and also unlike the cannabis test results, there was not a pronounced increase in positive opioid tests for Illinois and Michigan nor in the contiguous states and the US.

Other contiguous states include: Indiana, Iowa, Missouri, and Wisconsin.

OPIOID DRUG TESTING RESULTS FOR DRIVERS IN FATAL CRASHES BY STATE AND US (2018–2019)



Source: National Center for Statistics and Analysis, Fatality Analysis Reporting System (2018–2020). National Highway Traffic Safety Administration. Available at: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

FACTORS ASSOCIATED WITH A POSITIVE CANNABIS DRUG TEST RESULT AMONG ILLINOIS DRIVERS IN FATAL CRASHES

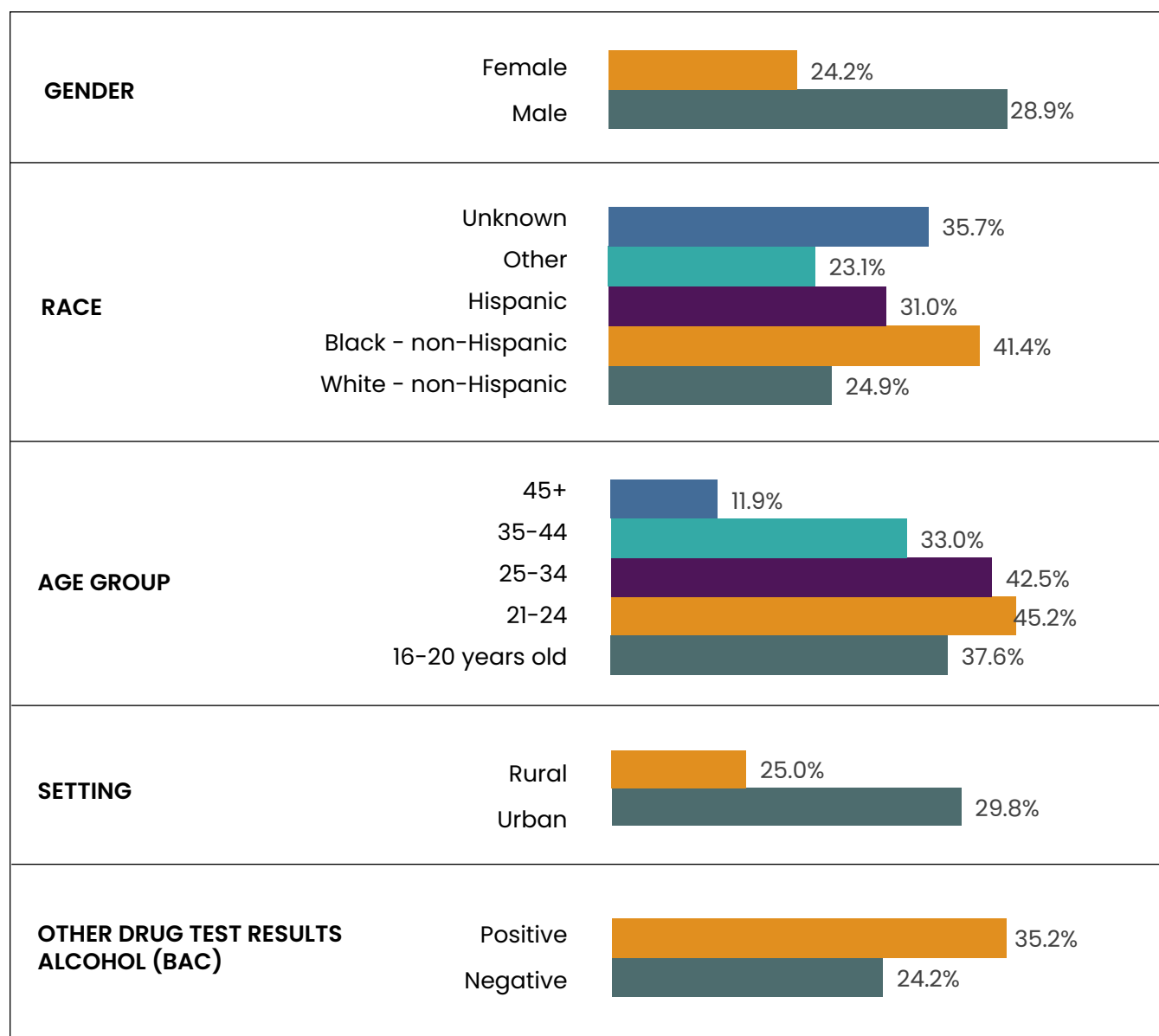
Observation: Bivariate comparisons for potential factors associated with having a positive cannabis test result for Illinois residents (2018–2020) who were age 16 or older, driving at the time of the fatality, and with a known drug test result revealed the following factors were associated with a higher percentage of a positive test: Black-non-Hispanic, younger age group (particularly 16–34 years old) and testing positive for another drug class, particularly MDMA/Hallucinogens

Logistic regression analyses of testing positive for cannabis (as the driver, age 16 or older, residing in Illinois and with known drug test results) found that Black, non-Hispanics had a 50% higher odds of a positive test result (OR = 1.53, $p = .05$) compared with White non-Hispanics. Persons who tested positive for stimulants (OR = 2.4, $p < .001$, MDMA or another hallucinogen (OR = 4.3, $p = .001$), or tranquilizers (OR = 2.05, $p < .001$) also had significantly higher odds of a positive cannabis test result. Conversely, persons over the age of 45 have significantly lower odds of a positive cannabis test result (OR = .21, $p < .001$) as did persons testing positive for opioids (OR = .59, $p < .05$). There were no significant differences by gender or urban-rural location.

Bivariate statistical comparisons were calculated using chi-square tests with a sample size of 1,703.

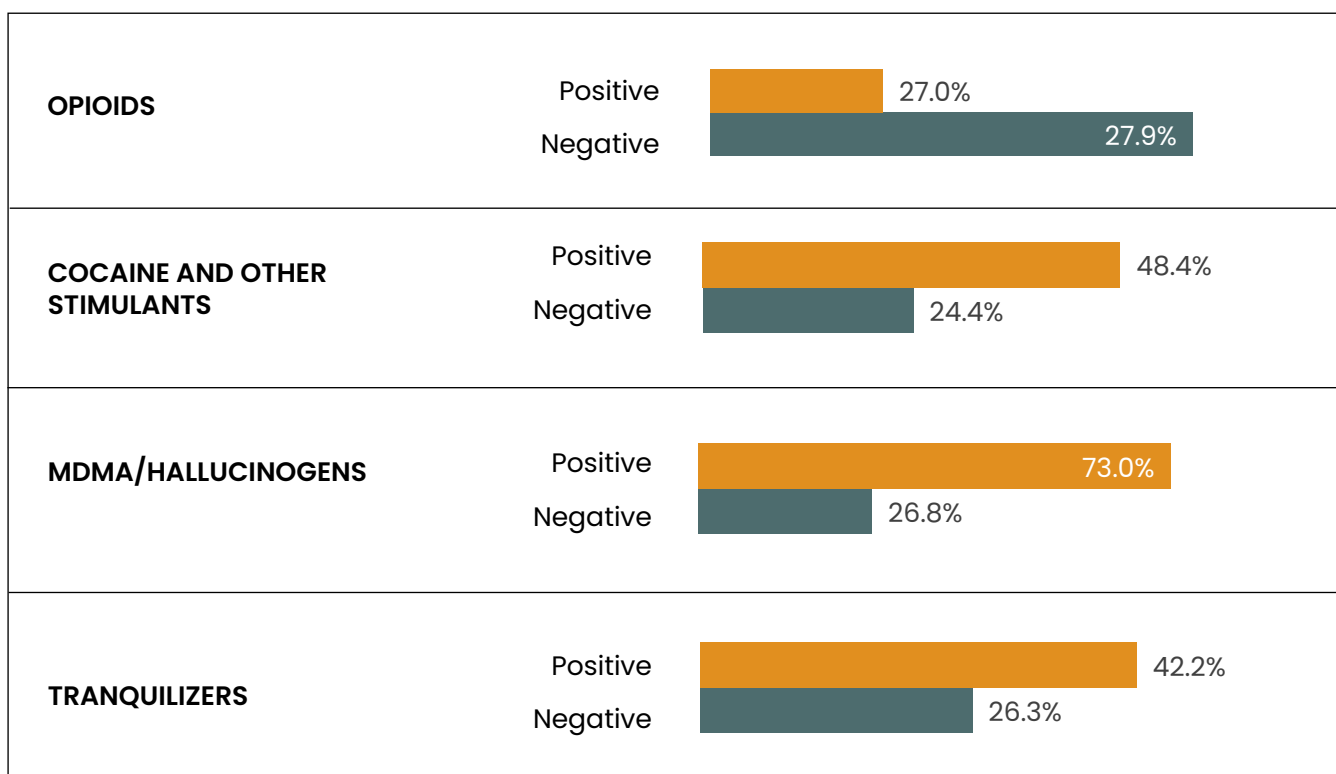
NS = Non-significant; * = $p < .05$; ** = $p < .01$; *** = $p < .001$.

FACTORS ASSOCIATED WITH A POSITIVE CANNABIS DRUG TEST RESULT AMONG ILLINOIS DRIVERS IN FATAL CRASHES (2018–2020)



Source: National Center for Statistics and Analysis, Fatality Analysis Reporting System (2018–2020). National Highway Traffic Safety Administration. Available at: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

FACTORS ASSOCIATED WITH A POSITIVE CANNABIS DRUG TEST RESULT AMONG ILLINOIS DRIVERS IN FATAL CRASHES (2018–2020)



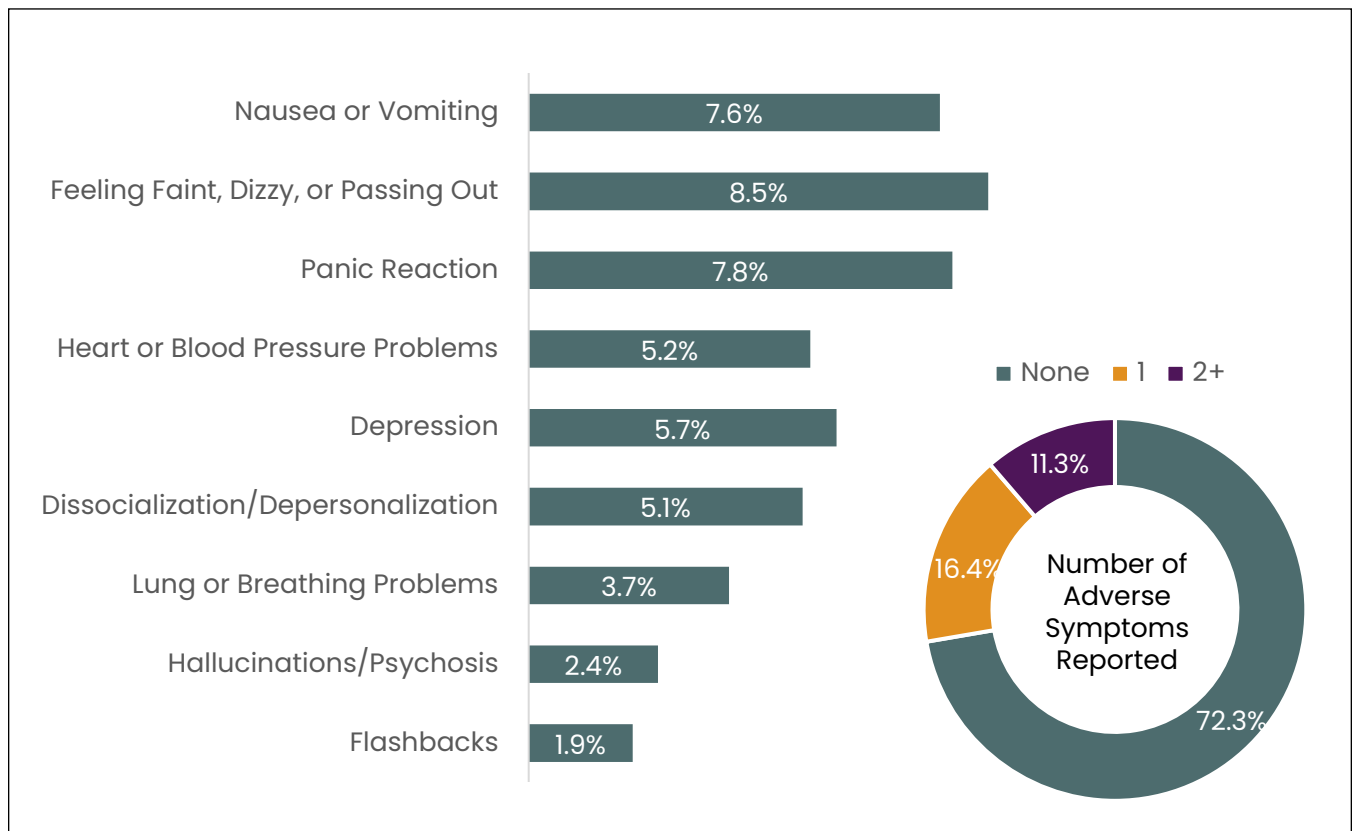
Source: National Center for Statistics and Analysis, Fatality Analysis Reporting System (2018–2020). National Highway Traffic Safety Administration. Available at: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>

PERCENTAGE OF CANNABIS USERS EXPERIENCING ANY ADVERSE EFFECTS IN THE PAST-YEAR

Observation: 27.7% of persons using cannabis in the past year said they experienced 1 or more adverse effects with nausea or vomiting (7.6%), feeling faint or dizzy (8.5%), and panic reactions (7.8%) being among the more common adverse health effects.

Of those reporting an adverse event, 17.6% experiencing one symptom and 26.5% of those experiencing 2 or more symptoms said they sought medical attention.

PERCENTAGE OF CANNABIS USERS EXPERIENCING ANY ADVERSE EFFECTS IN THE PAST YEAR (2021-2022)



Source: International Cannabis Policy Study, Illinois site data (2021-2022) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

CANNABIS AND THE CRIMINAL JUSTICE SYSTEM



CRIMINAL JUSTICE HIGHLIGHTS

The percentage of cannabis bought exclusively from a legal source increased between 2018–2019 and 2020 from 21.4% to 42.1%. Though the percentage of legally purchased cannabis did not increase appreciably (4.4%) between 2020 and 2021, the percentage of legally purchased cannabis increased significantly from 2021 to 2022 from 46.5% to 59.4%, respectively.

As of 2022, 40.6% of Illinois cannabis users continue to purchase some or all of their cannabis from a non-legal source.

In 2021, 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 no local dispensary or if the location of a dispensary was unknown. However, in 2022, persons who indicated there was not 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 a local dispensary or if the location of a dispensary was unknown. Between 2021 and 2022, there was a 31.2% 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 in which they lived.

For both 2021 and 2022, persons who were White-non-Hispanic were the most likely to report buying all of their cannabis from a legal source compared with other racial/ethnic groups. For persons of all racial/ethnic groups, the percentage buying all of their cannabis from a legal source increased from 2021 to 2022 most significantly for Hispanics, of whom had a 24.8% increase.

Among persons who indicated they purchased at least some of their cannabis from an illicit source, the main reasons were higher prices, no prescription, it was simply less convenient, or dealer loyalty.

Between 2015 and 2017, there was a large drop in the number of statewide arrests for CCA violations, from 45,358 in 2015 to 15,449 in 2017. Since then, the number of arrests for CCA violations has continued to decrease and in 2021, there were only 2,975 CCA arrests reported to the Illinois State Police. In 2021, 41 counties reported no CCA arrests.

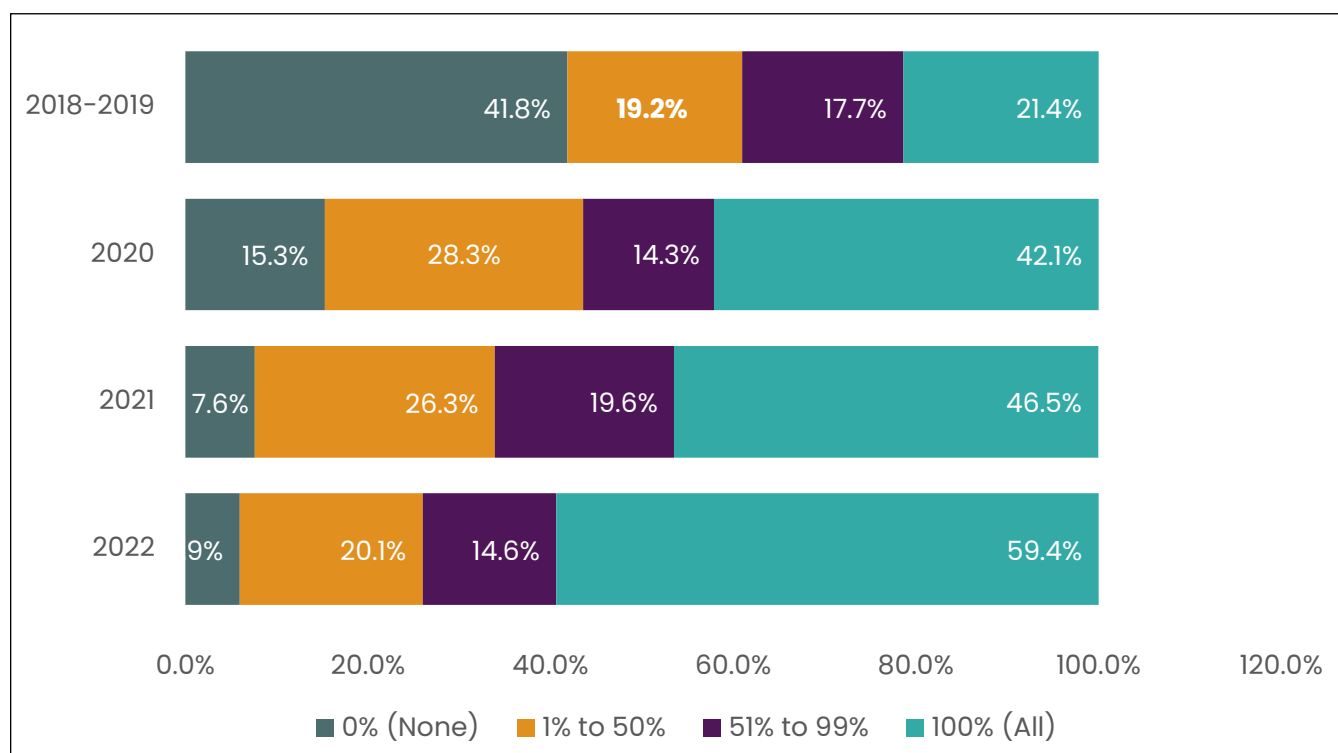
Although the number of admissions to IDOC was up sharply in 2022 relative to 2021, the number of persons admitted for a Cannabis Control Act violations also increased but much less dramatically and remains very low (N = 108), accounting for less than one percent of all admissions.

PERCENT CANNABIS PURCHASED FROM LEGAL SOURCE IN PAST-YEAR BY YEAR

Observation: The percentage of cannabis bought exclusively from a legal source increased between 2018–2019 and 2020 from 21.4% to 42.1%. Though the percentage of legally purchased cannabis did not increase appreciably (4.4%) between 2020 and 2021, the percentage of legally purchased cannabis increased significantly from 2021 to 2022 from 46.5% to 59.4%, respectively.

As of 2022, 40.6% of Illinois cannabis users continue to purchase some or all of their cannabis from a non-legal source.

PERCENT OF CANNABIS USED IN PAST-YEAR PURCHASED FROM A LEGAL SOURCE (2018–2022)

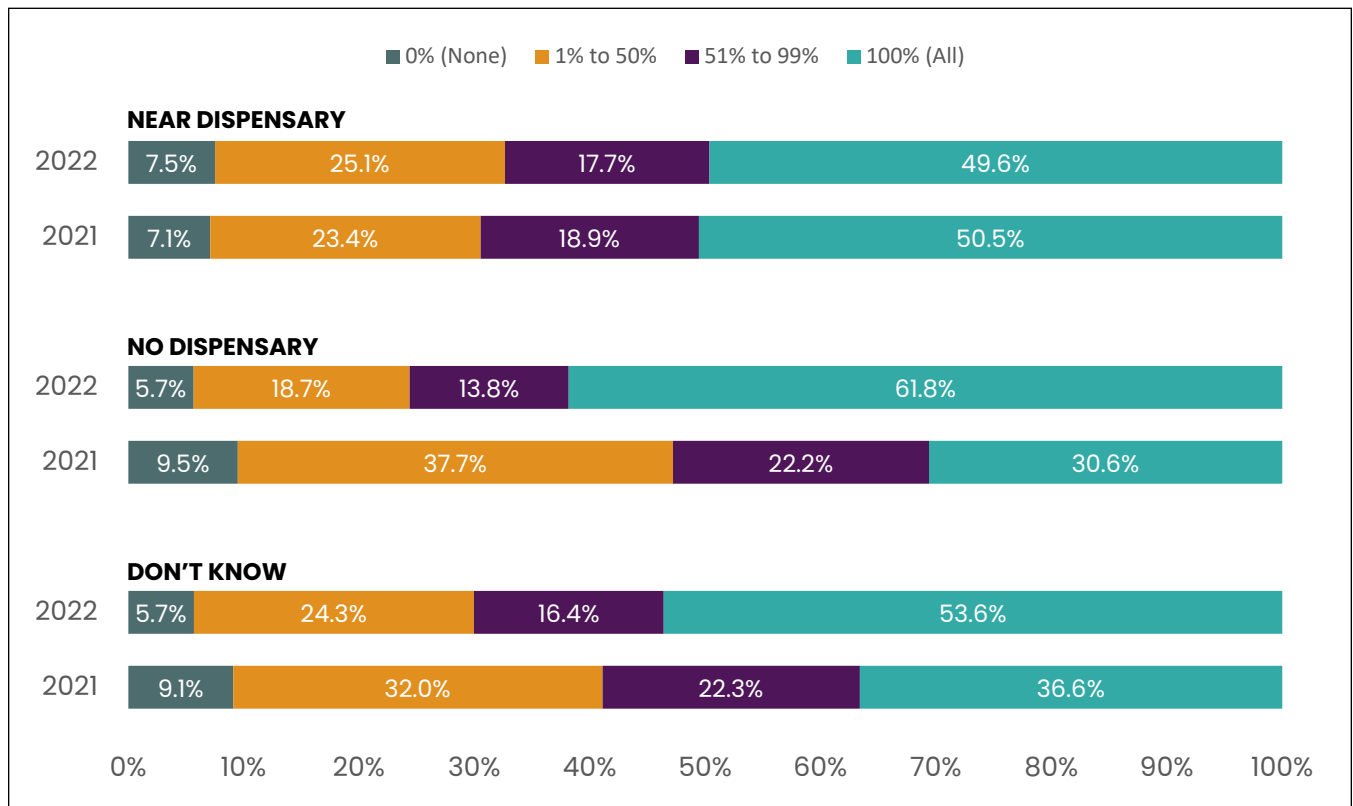


Source: International Cannabis Policy Study, Illinois site data (2018–2022) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

PERCENT LEGAL PURCHASE AND DISPENSARY PROXIMITY

Observation: In 2021, 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 no local dispensary or if the location of a dispensary was unknown. However, in 2022, persons who indicated there was not 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 a local dispensary or if the location of a dispensary was unknown. Between 2021 and 2022, there was a 31.2% increase in the percentage of cannabis purchased from a legal source for persons who indicated that their was no dispensary in the city or town in which they lived.

PERCENT OF CANNABIS USED IN PAST-YEAR PURCHASED FROM A LEGAL SOURCE BY DISPENSARY PROXIMITY (2021-2022)

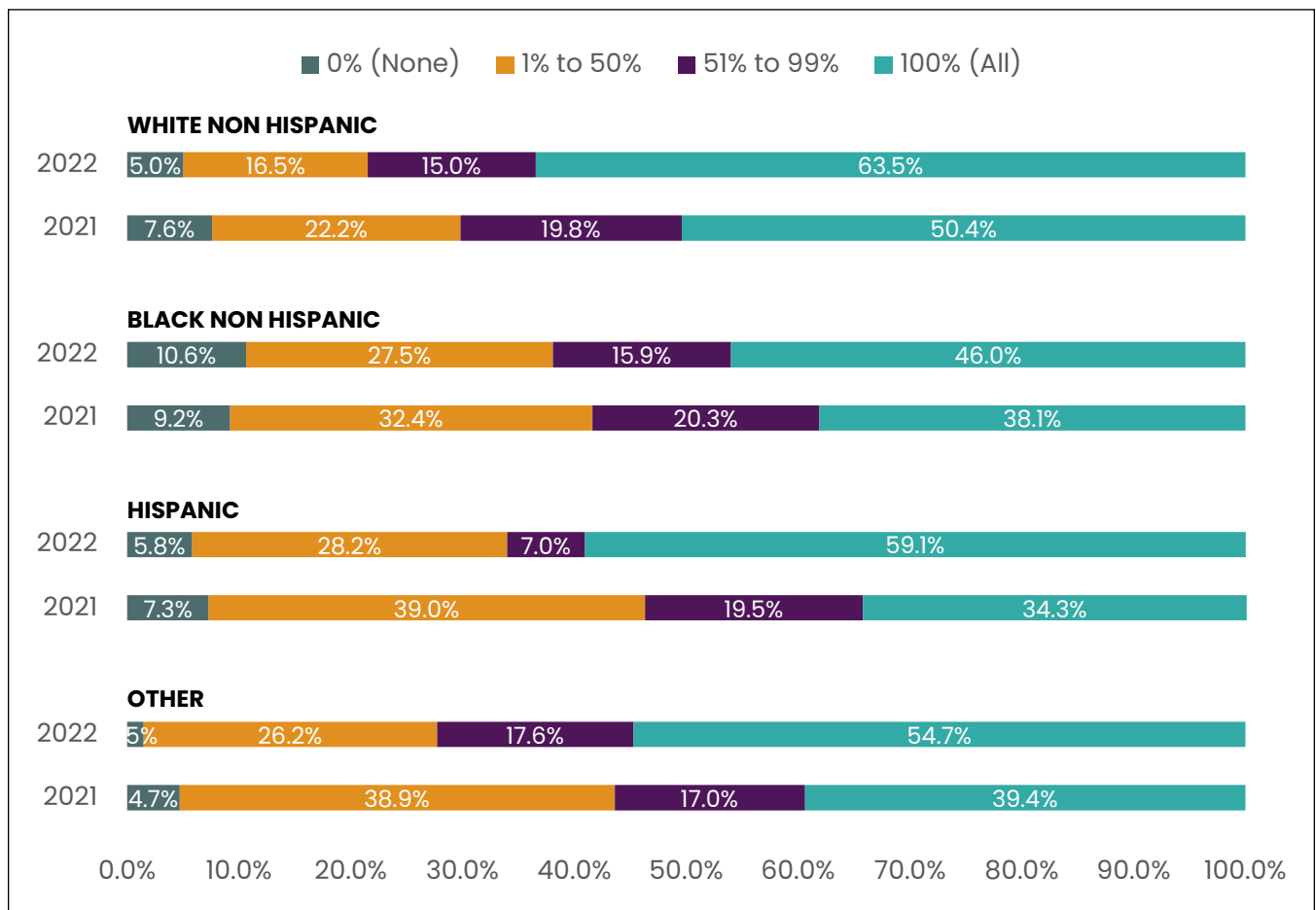


Source: International Cannabis Policy Study, Illinois site data (2021-2022) – David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

PERCENT LEGAL PURCHASE BY RACE/ETHNICITY

Observation: For both 2021 and 2022, persons who were White, non-Hispanic were the most likely to report buying all of their cannabis from a legal source compared with other racial/ethnic groups. For persons of all racial/ethnic groups, the percentage buying all of their cannabis from a legal source increased from 2021 to 2022 most significantly for Hispanics, of whom had a 24.8% increase.

PERCENT OF CANNABIS USED IN PAST-YEAR PURCHASED FROM A LEGAL SOURCE BY RACE/ETHNICITY (2021-2022)

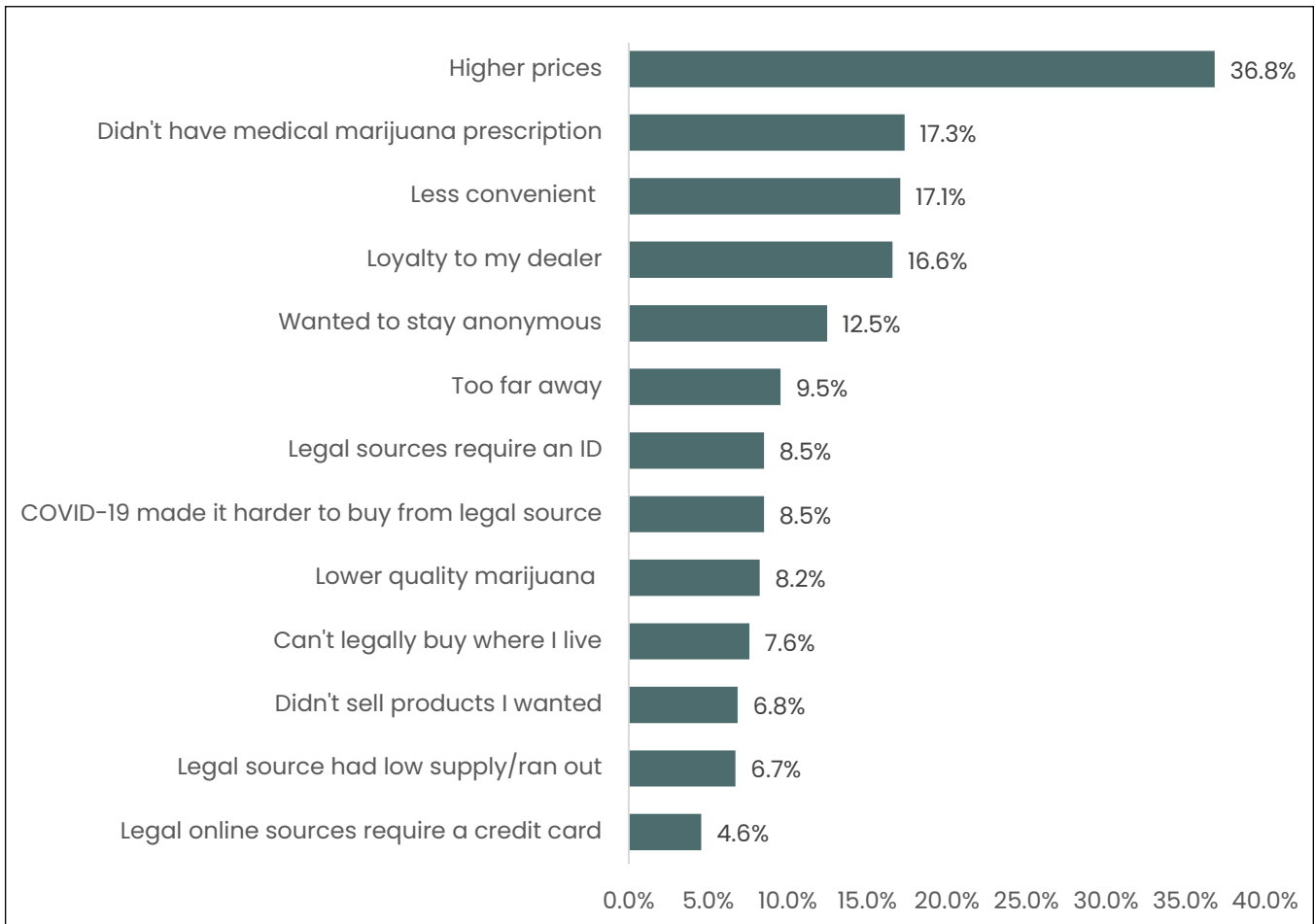


Source: International Cannabis Policy Study, Illinois site data (2021-2022) - David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

REASONS PURCHASED CANNABIS FROM AN ILLICIT SOURCE PAST-YEAR

Observation: Among persons who indicated they purchased at least some of their cannabis from an illicit source, the main reasons were higher prices, no prescription, it was simply less convenient, or dealer loyalty,

REASONS PURCHASED CANNABIS FROM AN ILLICIT SOURCE PAST-YEAR (2022)

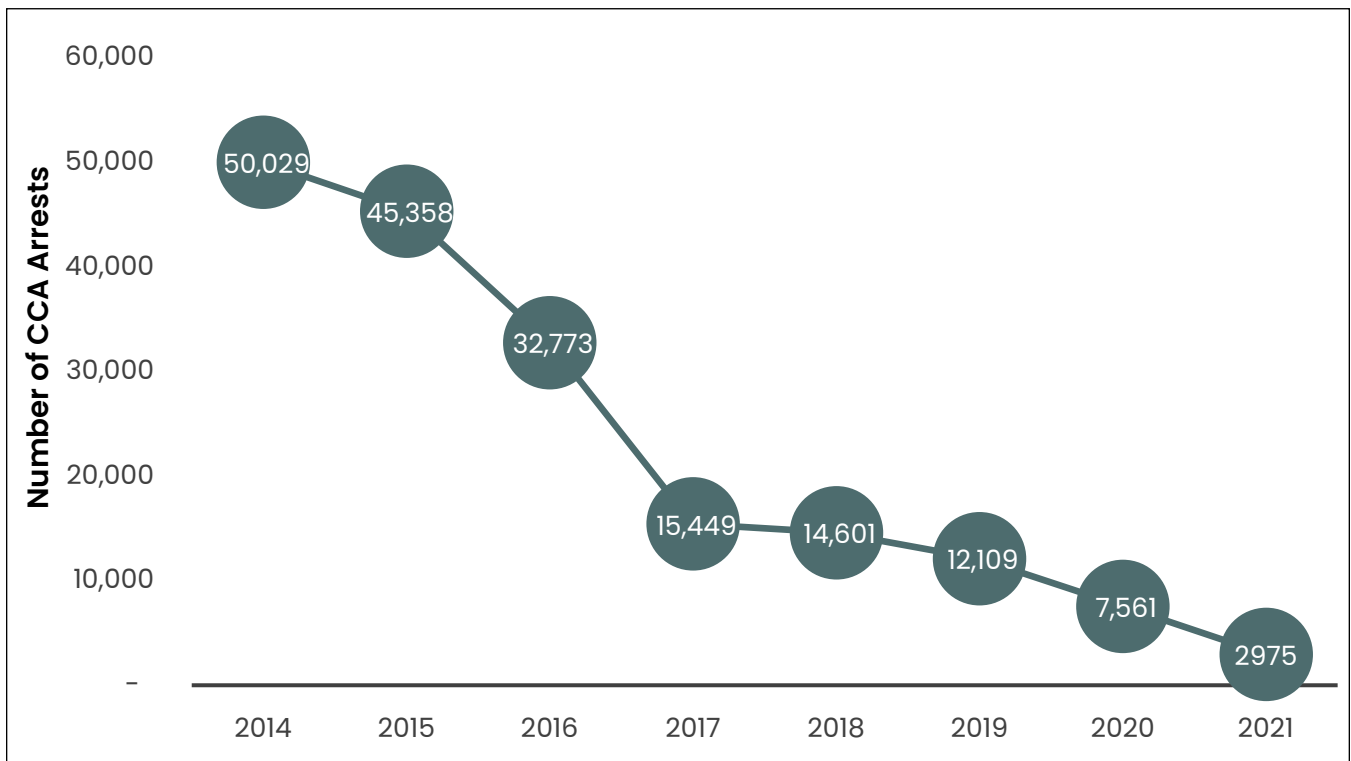


Source: International Cannabis Policy Study, Illinois site data (2022) David Hammond (PI), University of Waterloo. Codebooks, questionnaires, and methodological detail are available at <http://cannabisproject.ca/>

ILLINOIS CANNABIS CONTROL ACT STATEWIDE ARRESTS

Observation: Between 2015 and 2017, there was a large drop in the number of statewide arrests for CCA violations, from 45,358 in 2015 to 15,449 in 2017. Since then, the number of arrests for CCA violations has continued to decrease and in 2021, there were only 2,975 CCA arrests reported to the Illinois State Police. In 2021, 41 counties reported no CCA arrests.

ILLINOIS CANNABIS CONTROL ACT STATEWIDE ARREST TOTALS (2014–2021)

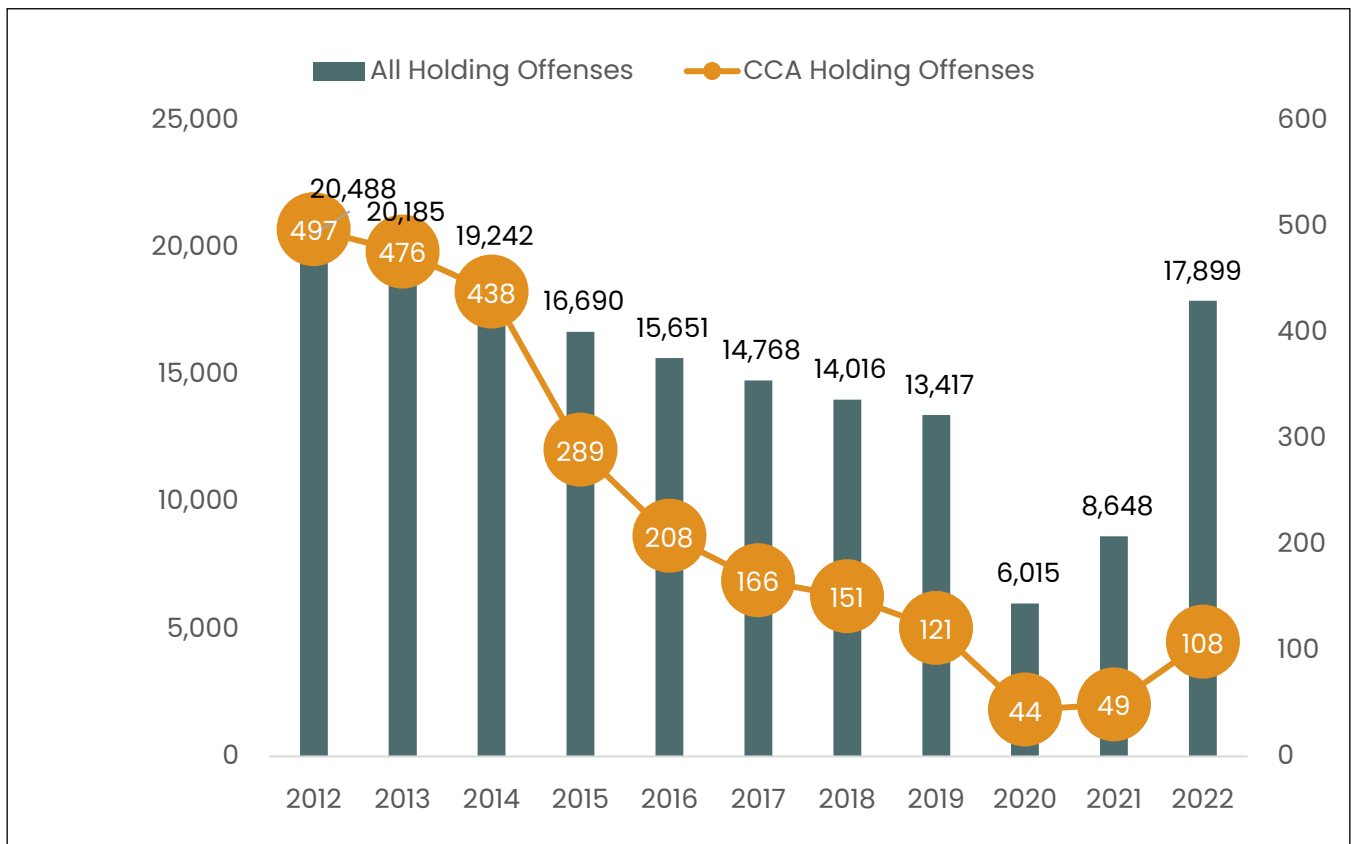


Source: Illinois State Police Crime in Illinois Annual Uniform Crime Report: Available at: <https://isp.illinois.gov/CrimeReporting/CrimeInIllinoisReports>

ILLINOIS DEPARTMENT OF CORRECTION'S PRISON ADMISSIONS AND CANNABIS CONTROL ACT OFFENSES

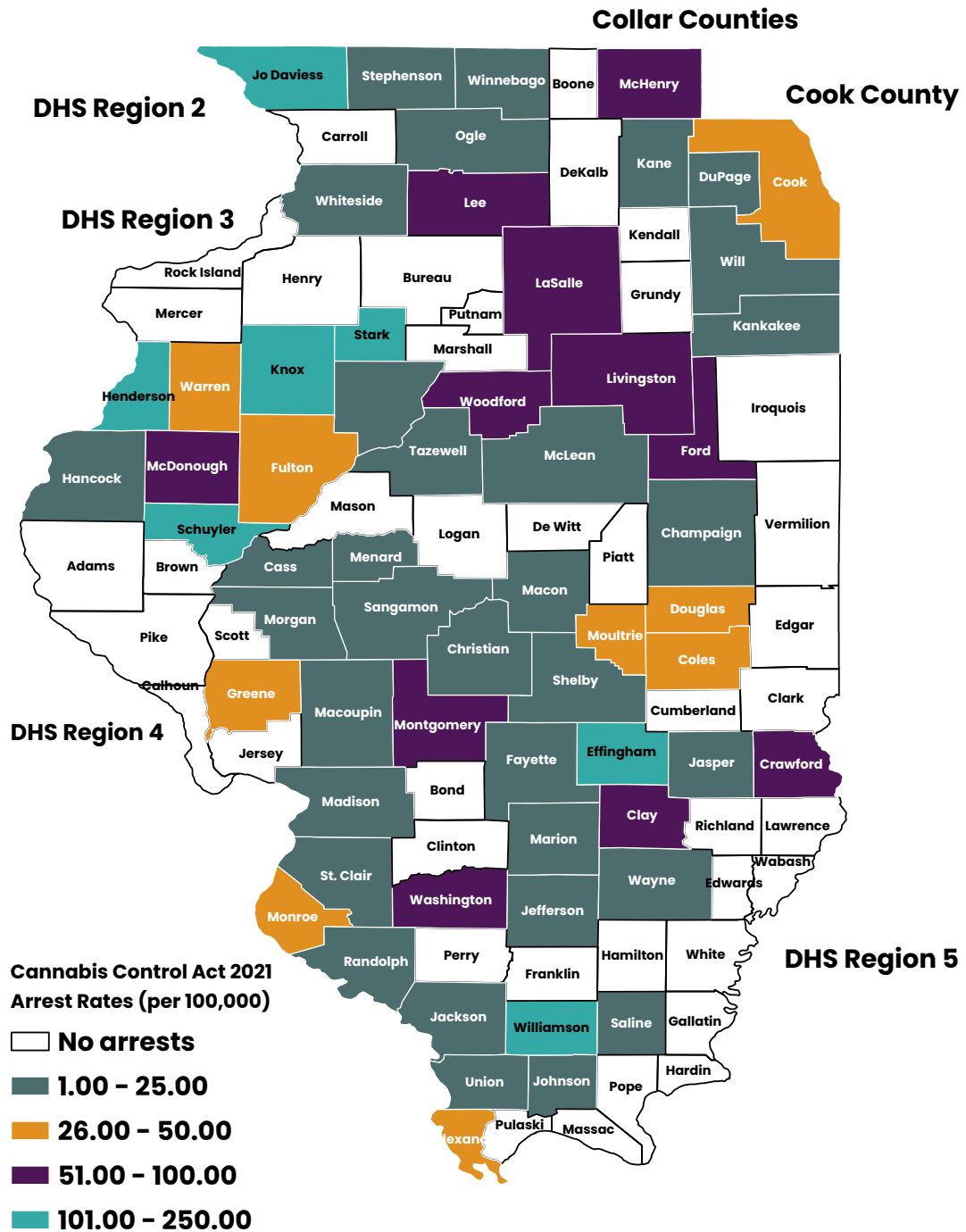
Observation: Although the number of admissions to IDOC was up sharply in 2022 relative to 2021, the number of persons admitted for a Cannabis Control Act violations also increased but much less dramatically and remains very low (N = 108), accounting for less than one percent of all admissions.

IDOC PRISON ADMISSIONS BY YEAR FOR ALL HOLDING AND CANNABIS CONTROL ACT (CCA) OFFENSES (2012–2022)



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

ILLINOIS CANNABIS CONTROL ACT ARREST RATES



CITY OF CHICAGO CHANGE IN CANNABIS USERS RELATIVE TO DISPENSARY PROXIMITY AND CCA ARRESTS

