

2022 Region 1 Epidemiological Profile: Cannabis

Problem Statement

Cannabis is a term widely used to encompass all products derived from the cannabis sativa plant. Cannabinoids refer to the group of substances found in the cannabis plant, including tetrahydrocannabinol (THC) and cannabidiol (CBD). Marijuana refers to parts of or some products from the cannabis sativa plant and often contains substantial levels of THC, the major psychoactive component recognized in cannabis.¹

Federally, cannabis is still illegal. However, the Connecticut Legislature legalized cannabis use on July 1st, 2021. As a result, individuals 21 years of age or older can now possess and consume up to 1.5 ounces of cannabis. Retail sales began on January 10th, 2023. As of February 2023, there are 18 medical marijuana dispensaries and 10 retail cannabis stores throughout Connecticut (CT).²

Marijuana concentrates are popular and can have extremely high levels of THC, ranging anywhere from 40% - 80%¹ or higher. These forms of cannabis can be many times stronger in THC potency than plant forms or edibles. THC may also refer to the delta-9 isomer or the delta-8. There are a wide array of cannabis and THC products on the marketplace, including vapes, hemp, distillates, tinctures, gummies, infused food and beverages and more.³ Today's THC potency in cannabis products has increased in the most recent years and is significantly stronger and more addictive than cannabis products from decades ago.⁴

Cannabis is the most commonly used federally illegal substance in the nation, and especially with states with legal regulated use, overall use is going up. With this, the perception of how harmful cannabis can be is declining. Additionally, approximately 1 in 10 people who use cannabis will become addicted. If an individual were to use cannabis before the age of 18, the rate of cannabis dependency addiction rises to 1 in 6. These rates can only be expected to rise with the increased use of illegal and legal use of cannabis.⁵

According to the 2021 National Survey on Drug Use and Health, the percentage of people who used marijuana in the past month was highest in young adults, ages 18-25 (24.1%) followed by those aged 26 and older (12.2%) and adolescents (5.8%). In CT, past 30-day marijuana use for the state population, individuals over the age of 12 (13.5%), was slightly higher than the national percentage (13%). In young adults, ages 18-25 (22.9%), use was lower than the national percentage (24.1%). Similarly, in adolescents, ages 12-17 (4.7%), use was lower than the national percentage (5.8%).⁶

Magnitude (prevalence)

As of February 12, 2023, CT has 48,818 registered patients for medical marijuana. There are 11,651 patients registered in Fairfield County. These numbers have decreased since 2021. As of February 2023, there are 3 medical marijuana dispensaries in SW CT, 2 in

Stamford and 1 in Westport; and 3 retail cannabis stores, and 2 in Stamford.² In environmental scans of smoke shops in SW CT, conducted by Local Prevention Councils, many vape shops, gas stations and in one case, a wellness studio, were selling THC products. In some cases, these retail establishments did not realize they were breaking the law. Most of these locations sold THC products to minors.

Since 2019, the overall number of unintentional drug overdose deaths with the presence of cannabis in CT has increased. In 2019, there were 304 overdose fatalities with cannabis present, 412 in 2020 and 428 in 2021.⁷

Cannabis use in 2021 reported by young adults, ages 19 – 30, has increased significantly compared to previous years. For young adults, 43% report past-year cannabis use and 29% report past-month use. Daily use has also increased in young adults to 11%. According to the National Institute of Health (NIH), these are the highest levels of cannabis use since trends were first monitored in 1988.¹ In 2021, 5.8% (16.3 million) of people 12 years and older had a cannabis use disorder in the past year.⁸

The 2020 Monitoring the Future survey assessed cannabis use among college students across the United States and found use to be at a 35 year high among college aged adults, while remaining constant among young adults not in college.⁸ Data from the 2022 Monitoring the Future survey of middle and high school students showed a decline in youth cannabis use from 2019 to 2022, which could be largely attributed to the COVID-19 restriction where youth don't have access to their usual sources to get cannabis.⁹

Nationwide, the prevalence of adolescent cannabis use decreased during and immediately after the COVID-19 pandemic from 2020-2021 compared to pre-pandemic years. This is likely due to the inability of adolescents to access substances from others or to become socially influenced to use as well as the decreased likelihood to use substances outside of parental supervision. However, in recent studies, the use of cannabis in youth are beginning to return to pre-pandemic levels and are expected to continue to rise.⁸

In the summer of 2020, in the midst of COVID-19, Monitoring the Future conducted a survey of 12th grade students across the United States. Data indicated a 46-year record high drop in students' perceptions of cannabis availability. Despite this significant change in perception, data did not show a significant decline in past 30-day cannabis use among 12th graders, suggesting that perceived inaccessibility did not reduce use.⁸

According to a study, the percentage of youth who reported lifetime and past year marijuana use remained the same or edged slightly upward in 2021, and prevalence in 2022 remained closer to 2021 than 2020 levels. Reported prevalence of lifetime marijuana use in 2022 was 11% among 8th grade students, 24% among 10th graders, and 38% among 12th grade students.⁴ The reported cannabis use in



2022 Region 1 Epidemiological Profile: Cannabis

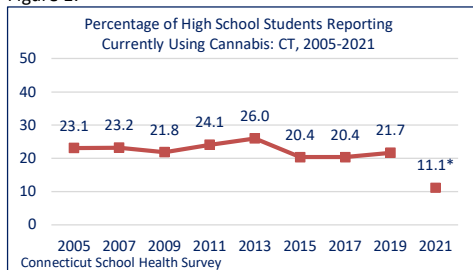
the past year was 8.3% among 8th grade students, 19.5% among 10th graders, and 30.7% among 12th grade students.⁶

Cannabis use is widespread among young adults and adolescents in CT. The 2018-2019 NSDUH showed that, for 18 to 25 year-olds, past year cannabis use was higher than the national average (43.91% in CT vs. 35.09% nationally). Similarly, past month use was also higher (27.22% in CT vs. 22.54% nationally).⁶ Among youth ages 12-17 in Connecticut, 14.08% had used within the past year, and 7.46% had used within the past month, also higher than their national peers.¹⁰ Among CT adults aged 26 and older, reported past year use (15.64%) and past month (10.52%) marijuana use were both higher than the US.

Compared to their national peers, CT youth, young adults, and adults all report a lower perception of great risk from smoking cannabis once a month than their national peers.⁶ Perception of risk has generally been decreasing among all age groups, and was lowest among CT's 18-25 year-old young adults in 2019-2020 (9.2%), followed by 12-17 year-old youth (16.8%) and adults age 26 and older (19.7%).⁶ The legalization of medical cannabis in CT and its neighboring states, as well as the decriminalization of low-level possession of cannabis in CT may contribute to the lessened perception of risk seen in the survey results. A study in California, which was conducted post-legalization of cannabis, indicated an increase in self-reported cannabis use and lessened perceptions of negative health impacts due to cannabis consumption.⁹

Moreover, the 2021 Connecticut School Health Survey (CSHS) shows that about 11.1% of Connecticut high school students report currently using cannabis.¹¹ Overall, the percentage of CT high school students reporting current use has remained relatively stable since 2005 (Figure 1). Current use nationally also appears to be relatively stable.¹² However, caution should be taken when comparing the 2021 data to that of previous years because the 2021 CSHS was collected using a different methodology and during a different semester than done in previous years.

Figure 1.



*Caution should be taken when comparing CSHS 2021 data to that of previous years due to differences in methodology in survey collection.

As the use of e-cigarettes and other electronic vaping devices has increased, the use of THC oil in vaping devices has also increased. THC oil is more potent, with the average extract containing 50-80% THC.⁸

Analyses of 2022 Monitoring the Future data showed that adolescent cannabis vaping has relatively held steady from 2019 to 2020, and a small increase in reported use among 10th graders, though reported use among 10th graders in 2022 is still significantly below pre-pandemic levels.⁹

SW CT has seen an increased level of marijuana usage among younger individuals. Rates of usage among those 12 and older are higher when compared to previous findings. Cannabis concentrates are also widely used by youth and young adults who vape them.⁶

According to local youth surveys within SW CT in 2021:¹³

- In some towns, youth as early as 8th grade are trying marijuana.
- In some towns, marijuana use in the past 30 days in high school students has increased compared to previous years, especially in 11th and 12th grade students.
- In some towns, students in 12th grade are most likely to use marijuana and report higher rates of use in the past 30 days than previous years.
- In some towns, marijuana use rates increase, and perception of risk decreases with increasing grade level.
- In some towns, more than half of 11th and 12th graders believe that it is safe to use marijuana once or twice a week.
- Marijuana has a low perception of risk, low perception of peer disapproval and low perception of parent disapproval, compared to alcohol, tobacco and other drugs (ATOD).
- Marijuana is the 2nd most likely use substance in high school students, the first being alcohol.
- Youth who are using marijuana are more likely to use in the homes of other people or public places.
- Many youth believe that marijuana is an easy substance to obtain.
- In one suburban town, more youth were using marijuana than vaping products. In one urban town, nearly half of youth who reported that they vape, were vaping THC.

2022 Region 1 Epidemiological Profile: Cannabis

According to feedback gathered from The Hub’s focus groups, key informants in SW CT report extremely low perception of harm from cannabis among youth, low perception of peer and parent disapproval, and that the majority of those who vape, are vaping cannabis—which means ingesting extremely high potency THC. There are serious concerns about young people obtaining cannabis in illegal ways, especially through social media. High potency THC is causing youth to have panic attacks or become hospitalized. There are more children mistaking cannabis edibles for candy or snacks and getting sick. Many advocates are concerned about the many gaps in the state’s cannabis law, including the late onset of prevention funding, lack of monitoring of cannabis advertisements, exemptions to the caps on THC potency for products popular with youth and lack of consequences for underage possession or illegal sales to underage youth.¹⁴

According to a community survey in one urban city, adults reported increasing their use of marijuana in 2021 for the purpose of getting high or to feel good. Within this town, 16% of residents believe that marijuana is a normal part of growing up and 25% believe it is okay to use.¹³

Risk Factors and Subpopulations at Risk

Risk factors include:

- Availability of cannabis;
- Early initiation;
- Frequency of usage;
- Family history of cannabis use;
- Favorable parental attitudes towards cannabis;
- Potency levels;
- Low academic achievement and low bonding to school environment;
- Peers who use cannabis and low peer disapproval of cannabis use;
- Low perception of harm/risk;
- Prior use of alcohol/tobacco;
- Sensation seeking behavior/impulsivity;
- Anxiety, depression, PTSD or other mental health issues;
- Childhood abuse/trauma;⁴
- Individuals with schizophrenia (whose symptoms worsen with cannabis

which can lead to an IQ drop of up to 8 points)¹⁰; decreased immunity; and increased risk of bronchitis and chronic cough. Youth who are heavy users are 3 times more likely to become dependent to heroin. Cannabis use during pregnancy also increases the risk of child development problems including low birth

- consumption);
- Several studies have linked cannabis use to increased risk for psychiatric disorders and substance use disorders. The amount used, age at first use, and genetic vulnerability are thought to influence this relationship;⁸
- Individuals with active suicide ideation are at an increased risk of a suicide attempt with cannabis use.¹
- LGBTQ+ students were more likely than their peers to engage in risky behaviors including cannabis use.¹¹

According to the 2021 Community Wellbeing Survey, past 30-day cannabis use was more widely reported among male adults ages 18-34, Hispanic population, those with some college education, and those with higher income.³ There was little difference in past 30 day use by community type.¹⁵

Similarly, use of cannabis was more often reported by males, adults ages 18-34, White and Hispanic respondents, high school students, and those with higher income. Rural communities had slightly lower reported recreational cannabis use than the other community types.⁸

The 2021 CSHS shows higher past 30 day marijuana use among girls (14.1%) compared to boys (8.2%).¹¹ Reported past 30 day use increases by grade from 4.7% of 9th graders to 16.0% of 12th graders. More Black students reported current use (14.7%) than White students (9.9%) and Hispanic students (13.9%).

Burden (consequences)

Short-term consequences include:¹¹ decreased memory and concentration; impaired attention and judgement; impaired coordination and balance; increased heart rate; and anxiety, paranoia, and sometimes psychosis

Long-term consequences include¹¹: impaired learning and coordination; sleep problems; potential for dependence to cannabis, as well as other substance and alcohol use disorders; potential loss of IQ points (particularly in those who used heavily during adolescence,

¹ DataHaven (2021) Community Wellbeing Survey



2022 Region 1 Epidemiological Profile: Cannabis

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2022 Region 1 Epidemiological Profile: Cannabis

development. Additionally, children exposed to cannabis in-utero have increased risk for problems with attention span and problem solving.⁸

In SW CT, 42.9% (2,049) of all 2021 Department of Mental Health and Addiction Services (DMHAS) treatment admissions reported marijuana use and 14.1% (672) reported marijuana as the primary drug of use. In all young adult (18 – 25 years old) admissions, 79.4% (377) reported marijuana use and 40.8% (194) reported marijuana as the primary drug of use. In 2022, DMHAS admissions involving marijuana use has decreased to 30.9% (829) in adult cases and 67.7% (151) in young adult cases. Marijuana reported as the primary drug of use has also decreased for all.¹⁶

Typically, traffic accidents, emergency room visits, and fatalities increase in states that legalize retail marijuana;¹⁷ and because marijuana use impairs motor coordination and reaction time, many studies have shown a relationship between blood THC concentration and impaired driving.⁸

In CT, hospital admissions for cannabis intoxication in adults and young adults have increased.³ Emergency room visits for cannabis-induced psychosis, cannabis overdose and overdose in children who consume cannabis edibles that look like candy are rising.¹⁷

In 2021, there was an increase in calls to CT Poison Control about small children ingesting marijuana edibles. Overall, there was a total of 3,125 cases involving marijuana.¹⁸ There has been one confirmed case in which a supply of marijuana was laced with fentanyl, leading to an overdose. It was deemed likely to have been an accidental contamination of substances and is an isolated incident.¹⁹

According to the 2022 Community Readiness Survey (CRS), marijuana/cannabis was ranked as the greatest substance of concern for individuals between the ages of 12-25.²⁰

Recent studies have also shown a strong correlation between usage of marijuana and opioids. Marijuana use, even among adults with moderate to severe pain, was associated with a substantially increased risk of non-medical prescription opioid use in conjunction with cannabis.²¹

A recent national outbreak of e-cigarette, or vaping product use-associated lung injury (EVALI) was linked to vaping THC, possibly due to the presence of Vitamin E acetate which is used as a diluent in THC-containing products.²²

According to The Hub's key informant focus groups, some local tobacco retailers have been repeatedly cited for out of compliance sales of vapes and cannabis products to minors. Additionally, there is a need for more cannabis cessation programs, especially for youth.¹⁴

Capacity and Service System Strengths

Community Readiness Survey (CRS): Mean Stage of Readiness for Substance Misuse Prevention²⁰

	CT	Region 1	Region 2	Region 3	Region 4	Region 5
2020	5.37	5.14	5.55	5.21	5.59	5.25
2022	5.31	5.72	5.36	4.89	5.25	5.12



2022 Region 1 Epidemiological Profile: Cannabis

According to the 2022 CRS, there is a statewide decrease of readiness for substance misuse prevention from 2020 to 2022 but an increase of readiness in SW CT. SW CT had the highest perceived substance use/misuse prevention readiness (5.72) of any region, and higher than the state as a whole (5.31). This indicates that SW CT has increased in the ability to be open to prevention education and strategies.²⁰

Since legislation decriminalizing cannabis and approving it for health-related purposes has reduced the perception of harm, many Local Prevention Councils (LPCs) and federally funded coalitions continue to focus on cannabis prevention, especially for youth, in their towns. LPCs have made efforts to raise awareness about the risks to young people. However, lack of funding and the state's direction to focus prevention efforts on vaping means that only communities with federal funding through the Drug-free Communities grant have been able to focus on cannabis prevention.

Coalitions have addressed the perception of low-risk use of marijuana by utilizing prevention strategies including education to community members and stakeholders, dissemination of information, increased awareness of campaigns and utilizing local subcommittees in providing common prevention language, creating social media and blog posts, and engaging with parents/professionals about the signs and symptoms of cannabis use. Many groups have also collaborated with local law enforcement for different initiatives, including environmental scans, and partnered with schools to provide resources, education and support for policies related to cannabis use and other substances.

Some education and awareness campaigns used within the region, are You Think You Know (YTYK), DrugfreeCT.org, and Beintheknow, a new DMHAS state campaign that includes resources, education, common prevention templates, and more. There is also the CT Government's Cannabis Awareness and Education Program. In Norwalk and Westport, many teens were trained as Johnny's Ambassadors to become cannabis education for their fellow peers. Many towns partnering or planning to partner with their local law enforcement for cannabis compliance checks.

In terms of advocacy, local coalition members have collaborated with statewide advocates, including CT SAM to raise awareness of the effects of cannabis use, especially in youth, for the community and policymakers. Within the region, many legislative events were dedicated to discussing cannabis. The efforts included funding for prevention, treatment and recovery not only for marijuana but for the mental health impacts. However, even with the region's prevention strategies and advocacy efforts there still is not enough community readiness or capacity to support the efforts of marijuana prevention needed in our area. According to the cannabis law, 25% of sales tax based on THC potency levels will be allocated to the Cannabis Prevention and Recovery Services Fund. However, these

funds will not start until FYs 24-26. These funds are not yet detailed in how dollars will be allocated. There is currently no line item for Local Prevention Councils or law enforcement.

There are numerous behavioral health resources available within and to SW CT including CT SAM (Smart Approaches to Marijuana), a national organization providing resources and education, that many coalitions collaboratively work with to share data and science to their municipalities.

For individuals and family members seeking support to recover from cannabis dependence, there are options such as CCAR, SMART Recovery and SMART Family & Friends programs, and treatment facilities. However, there is a lack of cannabis-focused cessation programs. See the Resources & Strengths portion of this Priority Report for more.



- ¹ National Institutes of Health (NIH), 2021
- ² Connecticut State Department of Consumer Protection, 2023
- ³ Center for Disease Control and Prevention (CDC)
- ⁴ Substance Abuse and Mental Health Services Administration (SAMHSA)
- ⁵ Department of Public Health (DPH)
- ⁶ National Institute on Drug Abuse (NIDA)
- ⁷ Gali, K, et al. "Changes in cannabis use, exposure, and health perceptions following legalization of adult recreational cannabis use in California: a prospective observational study." *Subst Abuse Treat Prev Policy* 16 (2021).
- ⁸ National Survey on Drug Use and Health (NSDUH), 2019, 2021
- ⁹ CT.gov
- ¹⁰ Connecticut School Health Survey (CSHS), 2021
- ¹¹ SAMHSA, CAPT Northeast Regional Marijuana Webinar Series: Strategies/Interventions for Reducing Marijuana Use
- ¹² Local Youth Survey Data, 2021
- ¹³ DataHaven (2021) Community Wellbeing Survey
- ¹⁴ Department of Mental Health and Addictions Services (DMHAS) Treatment Admissions, 2022
- ¹⁵ Connecticut Drug Enforcement Administration (DEA)
- ¹⁶ Connecticut Poison Control Center, 2021
- ¹⁷ Connecticut Overdose Response Strategy, 2022
- ¹⁸ Community Readiness Survey (CRS), 2022
- ¹⁹ Smart Approaches to Marijuana (SAM)
- ²⁰ Center for Disease Control and Prevention (CDC), Outbreak of Lung Injury Associated with the use of E-Cigarette, or Vaping, Products, 2020

UPDATED References (4/18/23)

- ¹ National Institutes of Health (NIH), 2021
- ² Connecticut State Department of Consumer Protection, 2023
- ³ Center for Disease Control and Prevention (CDC)
- ⁴ Substance Abuse and Mental Health Services Administration (SAMHSA)
- ⁵ Substance Abuse and Mental Health Services Administration (SAMHSA) - <https://www.samhsa.gov/marijuana>
- ⁶ National Survey on Drug Use and Health (NSDUH), 2019, 2021
- ⁷ Department of Public Health (DPH)
- ⁸ National Institute on Drug Abuse (NIDA)
- ⁹ Gali, K, et al. "Changes in cannabis use, exposure, and health perceptions following legalization of adult recreational cannabis use in California: a prospective observational study." *Substance Abuse Treat Prevention Policy* 16 (2021).
- ¹⁰ CT.gov
- ¹¹ Connecticut School Health Survey (CSHS), 2021
- ¹² SAMHSA, CAPT Northeast Regional Marijuana Webinar Series: Strategies/Interventions for Reducing Marijuana Use
- ¹³ Local Youth Survey Data, 2021
- ¹⁴ The Hub Stakeholder Focus Group, 2022
- ¹⁵ DataHaven (2021) Community Wellbeing Survey
- ¹⁶ Department of Mental Health and Addictions Services (DMHAS) Treatment Admissions, 2022
- ¹⁷ Connecticut Drug Enforcement Administration (DEA)
- ¹⁸ Connecticut Poison Control Center, 2021
- ¹⁹ Connecticut Overdose Response Strategy, 2022
- ²⁰ Community Readiness Survey (CRS), 2022
- ²¹ Smart Approaches to Marijuana (SAM)
- ²² Center for Disease Control and Prevention (CDC), Outbreak of Lung Injury Associated with the use of E-Cigarette, or Vaping, Products, 2020