

MARIJUANA



Colorado
State Epidemiological
Outcomes Workgroup

In early 2021, the Colorado State Epidemiological Outcomes Workgroup (SEOW) published this five-part document as an overview of opioid, marijuana, alcohol, and tobacco use and related harms in Colorado. Each substance is presented in its own profile, with a demographics profile provided for additional state context. The profiles were designed to be readily usable to all people working in fields related to substance use. They include many data sources and aim to present the most current and actionable findings.

This profile is a snapshot of marijuana consumption and health effects among Coloradans. Data are presented for adults and youth, with a special section on youth protective factors against marijuana use.

Certain considerations were taken into account in compiling these data, including time frame and the intended audience. First, the profiles contain all publicly available data. This ensures that anyone can access the original source for more information on any data point in the profile. It was also important to use a timespan in which the most complete data could be found within and across substances. Lag-time for data to become publicly available can vary widely. While the profiles were in development during the summer and fall of 2020, the most complete data were found and used for calendar year 2019. Exceptions include figures/charts featuring trend data prior to 2019, data collected biennially for which 2018 was the most recent year, and aggregate data when no single year yields a large enough sample size to make definitive statements. All Healthy Kids Colorado Survey (HKCS) data presented are for high school students, grades 9th - 12th. Each page includes data sources and years. For

more detailed information on references, please see the [references page](#).

The SEOW compiled the profiles with deliberate attention to our intended audience. They were designed to be practical and useful for all Coloradans who are interested in talking to others in their communities about substance use and related harms. This includes anyone from youth groups and community organizations to school superintendents and state legislators. The five profiles can be used as stand-alone products or in conjunction with each other, as hard copy hand-outs or as a part of presentations.

WE STRONGLY RECOMMEND REVIEWING AND USING THE **DEMOGRAPHICS PROFILE** TO PROVIDE IMPORTANT CONTEXT TO DATA PRESENTED IN THE SUBSTANCE PROFILES.

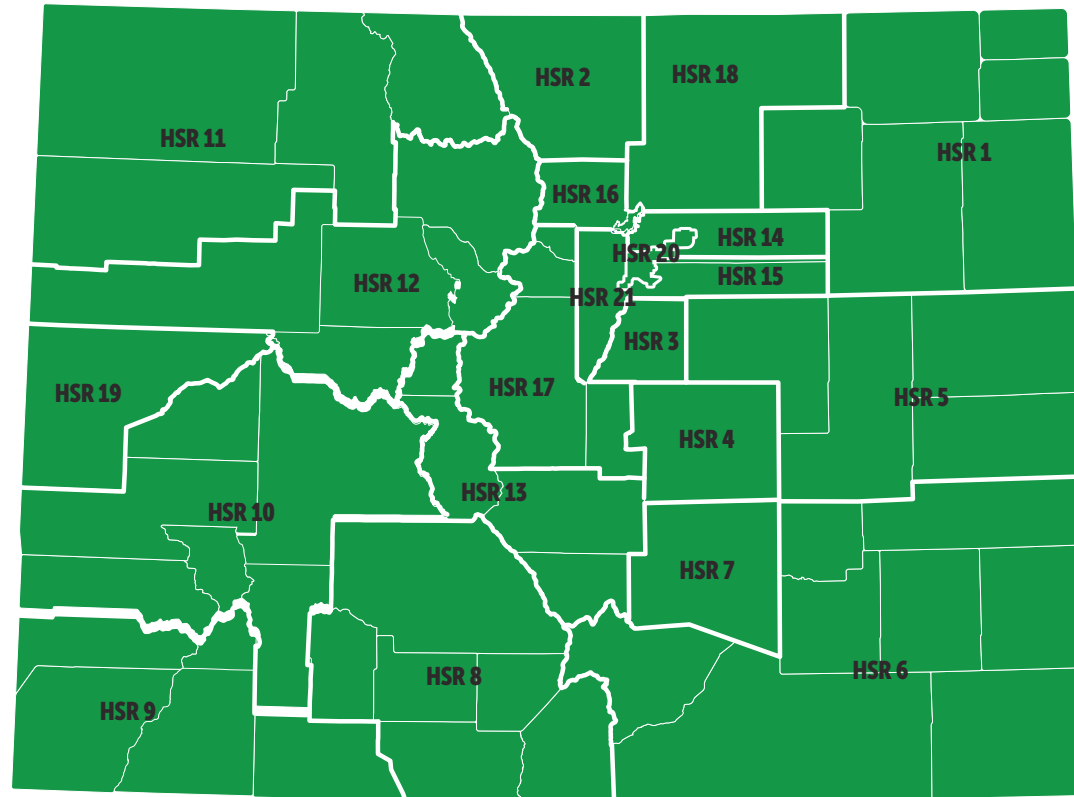
We hope the profiles facilitate conversation among Coloradans about the state of our state. For this reason, the profiles feature data from a variety of sources, include regional data when available, and introduce easily relatable use of benchmarks, such as national comparisons.

The SEOW partnered with The Evaluation Center – University of Colorado Denver on the development of the profiles, including the interpretation and visualization of data.

For more information, contact SEOW representative Sharon Liu (sharon.liu1@state.co.us) at the Colorado Department of Human Services, Office of Behavioral Health.

Colorado is divided into 21 Health Statistics Regions (HSR)

The boundaries of these regions were developed by the Colorado Department of Public Health and Environment and local public health professionals and agencies based on demographic and statistical criteria. Data within Colorado are frequently collected and presented at the HSR level.



HSR Key

HSR 1: Logan, Morgan, Phillips, Sedgwick, Washington, Yuma

HSR 2: Larimer

HSR 3: Douglas

HSR 4: El Paso

HSR 5: Cheyenne, Elbert, Kit Carson, Lincoln

HSR 6: Baca, Bent, Crowley, Huerfano, Kiowa, Las Animas, Otero, Prowers

HSR 7: Pueblo

HSR 8: Alamosa, Conejos, Costilla, Mineral, Rio Grande, Saguache

HSR 9: Archuleta, Dolores, La Plata, Montezuma, San Juan

HSR 10: Delta, Gunnison, Hinsdale, Montrose, Ouray, San Miguel

HSR 11: Jackson, Moffat, Rio Blanco, Routt

HSR 12: Eagle, Garfield, Grand, Pitkin, Summit

HSR 13: Chaffee, Custer, Fremont, Lake

HSR 14: Adams

HSR 15: Arapahoe

HSR 16: Boulder, Broomfield

HSR 17: Clear Creek, Gilpin, Park, Teller

HSR 18: Weld

HSR 19: Mesa

HSR 20: Denver

HSR 21: Jefferson

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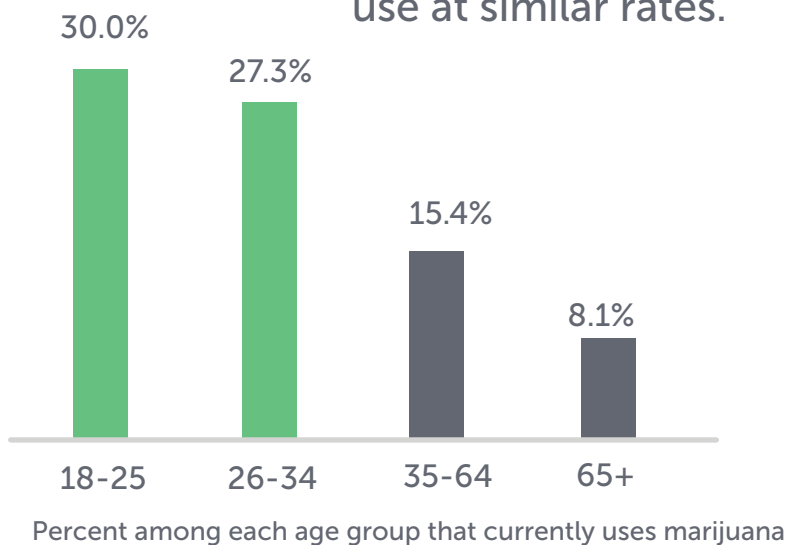


ADULT CONSUMPTION

**17.5%**

of adults (age 18+) in Colorado used marijuana in the past 30 days.

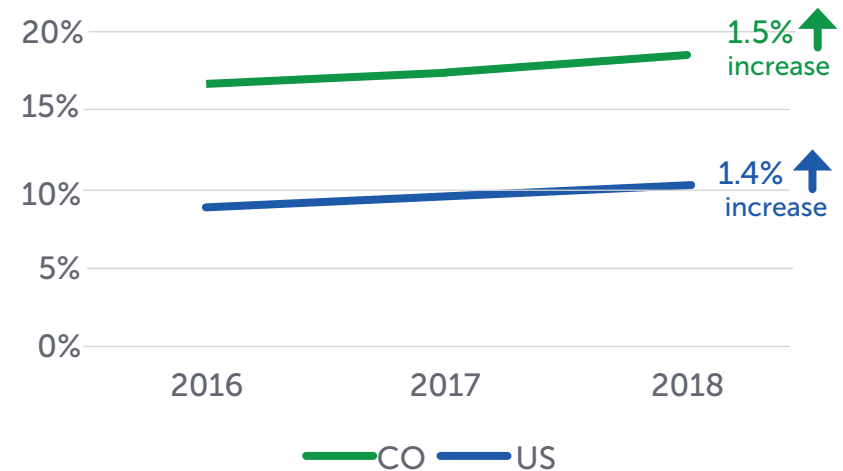
Use remains higher among younger Coloradans. **18-25** and **26-34** year olds use at similar rates.



While prevalence of use is lower in older age groups, use among older Coloradans (35+) continues to increase since 2016.

According to the National Survey on Drug Use and Health,

Past 30-day use in Colorado increased since 2016, similar to the national trend.



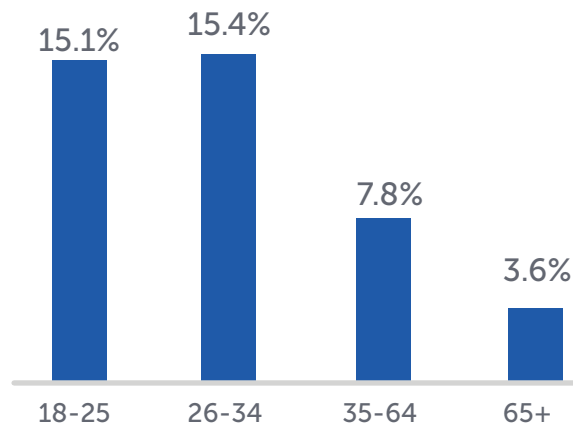
FROM 2016 TO 2018 MARIJUANA USE NATIONALLY INCREASED 1.4% WHILE COLORADO SAW A 1.5% INCREASE OVER THE SAME TIME PERIOD.

Daily/near-daily use is increasing among Colorado adults.

Since 2016, the percent of Colorado adults who use marijuana daily/near daily

SIGNIFICANTLY INCREASED TO 9%.

Daily or near daily use is highest among adults ages 18-34, however **ages 35+ showed a significant increase** from 2017-2018.



AMONG ADULTS WHO CURRENTLY USE,

51.5%

**USE DAILY/
NEAR DAILY**

15.4%

**PERCEIVE DAILY/NEAR DAILY USE AS
HAVING MODERATE OR GREAT
RISK OF HARM**

SUBSTANTIAL EVIDENCE INDICATES HEALTH EFFECTS OF DAILY/NEAR-DAILY MARIJUANA USE:

DAILY OR NEAR-DAILY MARIJUANA SMOKING IS ASSOCIATED WITH:

- pre-malignant lesions in the airway
- chronic bronchitis, including chronic cough, sputum production, and wheezing

ADULTS WHO USE MARIJUANA DAILY OR NEAR-DAILY ARE MORE LIKELY THAN NON-USERS:

- to have memory impairments for at least seven days after last use.
- to be diagnosed with a psychotic disorder, such as schizophrenia

INDIVIDUALS WHO USE MARIJUANA DAILY OR NEAR-DAILY:

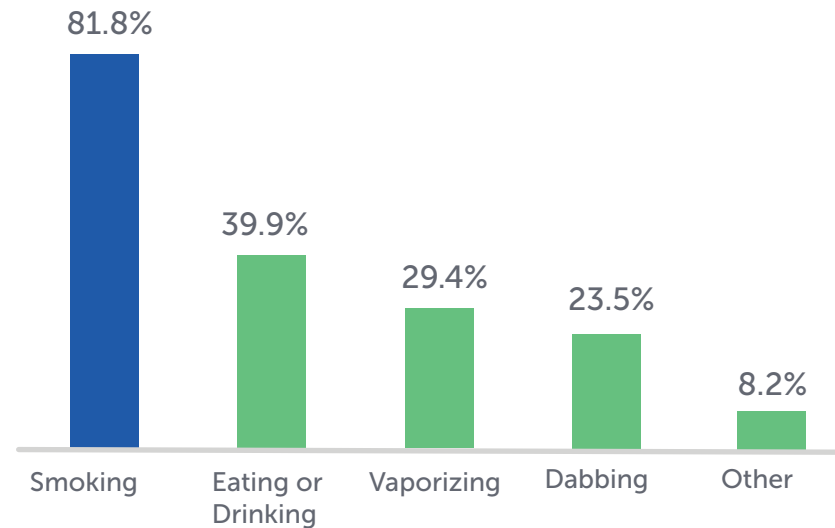
- can experience withdrawal symptoms when abstaining from marijuana

ADOLESCENTS AND YOUNG ADULTS WHO USE MARIJUANA DAILY OR NEAR-DAILY:

- are more likely than non-users to develop psychotic disorders like schizophrenia in adulthood

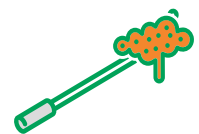
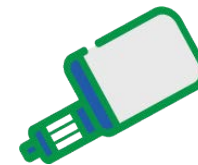
SMOKING REMAINS THE MOST COMMON METHOD OF MARIJUANA USE

AMONG COLORADO ADULTS WHO CURRENTLY USE.



Among adults who use marijuana

49.8%
use via multiple methods.



SMOKING: Marijuana can be smoked using a joint, pipe, or bong. This is the most common way people use marijuana.

EDIBLES: The effects of edibles, teas, and sodas can take longer to peak and last longer than smoking. Sometimes this can cause people to take too much. It can take up to four hours to feel the full effects, and effects can last up to ten hours. A serving size is 10 milligrams of THC.

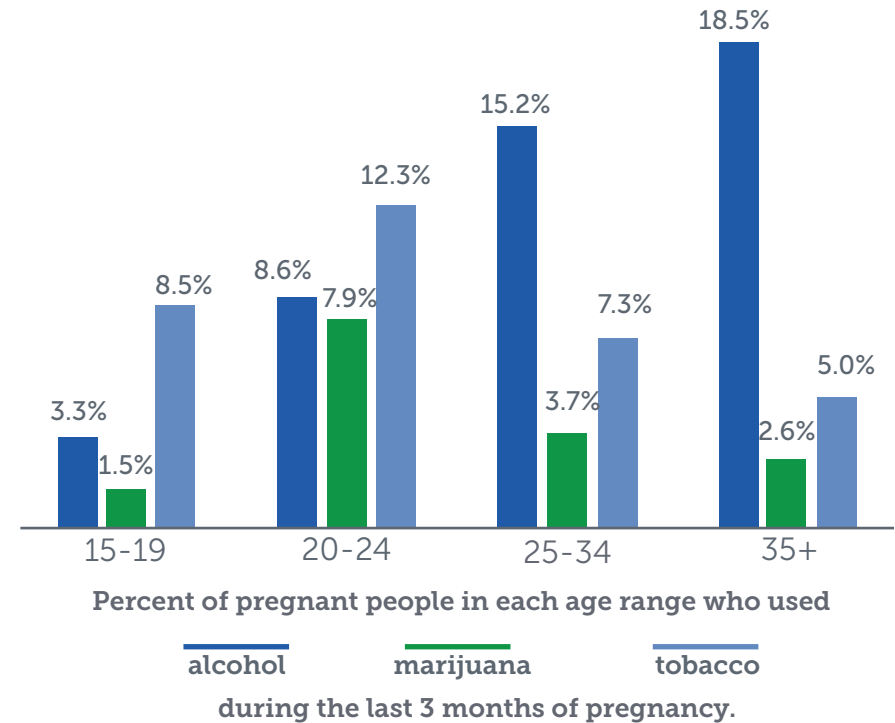
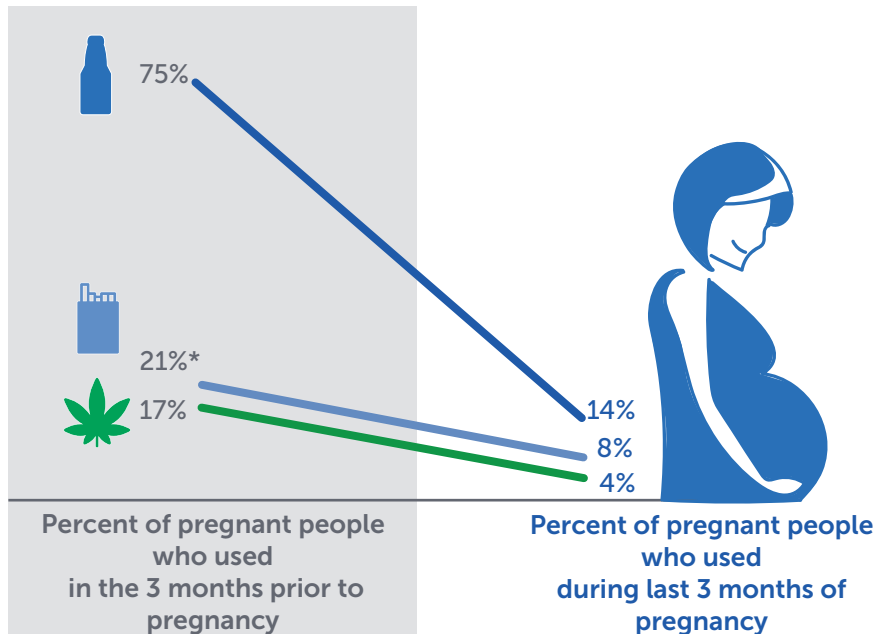
VAPING: Vaporizers heat marijuana to release THC, the active ingredients in marijuana, and the vapor is inhaled. Vape products can contain nicotine, marijuana (THC or CBD), or other substances like flavoring agents and additional chemicals.

DABBING/HASH OIL: THC extract from marijuana, also called hash oil, shatter or concentrates, can contain up to 60-80% THC and may take effect very quickly. When dabbing, the oil is heated and the vapor is inhaled. We don't know much about how safe dabbing is, but we do know it's extremely potent and shouldn't be used by anyone who hasn't used marijuana before.

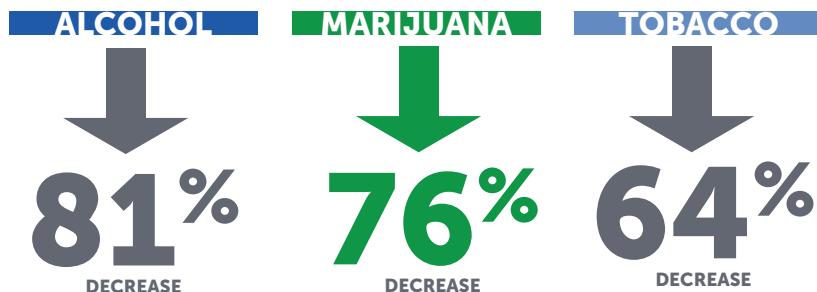
TOPICALS: Infused lotions, salves, and balms are sold for localized pain and inflammation related to skin problems or pain, but do not make the user feel high.

SOURCE: RESPONSIBILITYGROWHERE.COM

Most pregnant people in Colorado did not use any substance during the last 3 months of pregnancy.



ALL THREE SUBSTANCES SEE LARGE DECREASES DURING PREGNANCY.



According to the Health eMoms survey, among pregnant people who used marijuana at any time during pregnancy (4.7%), the majority (65.3%) used 3 to 7 times a week. Most common reasons for use were nausea or vomiting, anxiety, and sleep.

*TOBACCO USE INCLUDES CIGARETTES OR E-CIGARETTES.

8% of households report **using** marijuana in the home.

OF THAT 8% OF HOUSEHOLDS

71.4%

SMOKED, VAPORIZED OR DABBED.



14% of households report marijuana **present** inside or around the home.

OF THAT 14% OF HOUSEHOLDS

10.4%

STORED IT POTENTIALLY UNSAFELY.*

The percentage of homes in Colorado with children ages 1-14 that report marijuana being present in or around the home continues to increase significantly since legalization.

*Safe storage options for marijuana include the following: keeping all marijuana products in child-resistant packaging; clearly labeling and locking marijuana products up; keeping marijuana in the child-resistant packaging from the store; and, making sure your children can't see or reach the locked cabinet or box. Storage options should change as children get older. Safe storage around young children may not stop older children or teens.



YOUTH CONSUMPTION

4 out of 5 youth are NOT currently using marijuana.

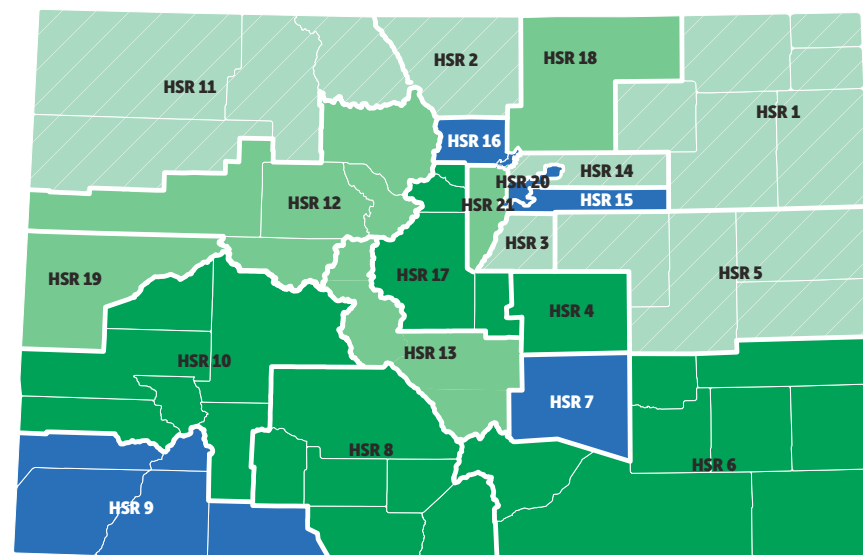
Youth marijuana usage rates have remained virtually unchanged since legalization, and are similar to national rates.

20.6%
of high school students
use marijuana currently.

**WHITE, BLACK OR AFRICAN AMERICAN,
AND HISPANIC OR LATINX YOUTH
CONSUME AT SIMILAR RATES.**

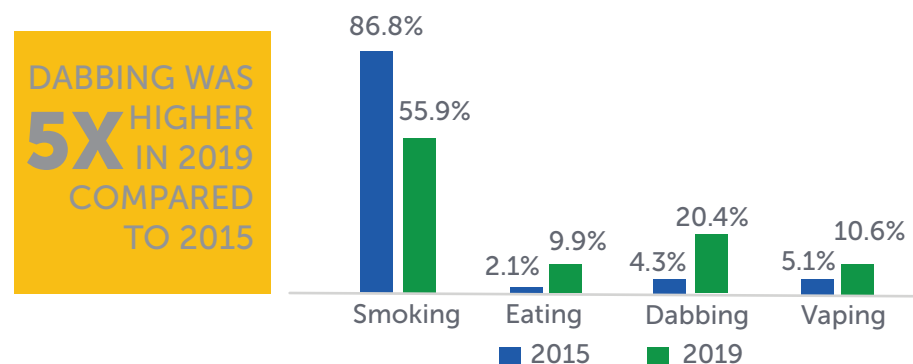
The use rates of youth who identify as bisexual and gay or lesbian are significantly higher than rates for youth who identify as heterosexual.

Neither race nor sexual orientation determines a propensity to use illegal substances. Rather, the environments in which young people grow up shape their behaviors. Many young people of color and youth who identify as bisexual, gay, and lesbian do not have access to the same protective factors that their peers benefit from, increasing their risk of susceptibility to substance use.



Percent of youth who currently use marijuana

Method of usual use* among youth who currently use has changed since legalization.



*The usual method used for marijuana consumption in the past 30-days.

Early initiation

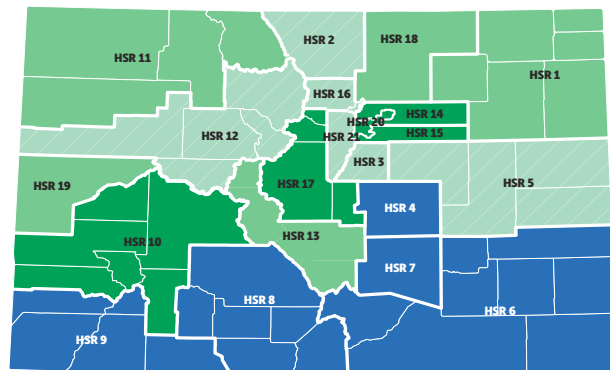
USE BEFORE 13:

6.7%

of students tried marijuana before age 13.

The percentage nationally is virtually the same.*

Any early marijuana use is significantly associated with higher rates of addiction, psychosis, and lower school achievement.**



Percent of students who tried marijuana before age 13

According to the National Institute on Drug Abuse, research suggests that adolescence (at about age 13) is a risky period for drug abuse due to the challenges youth face at this age, coupled with the greater exposure to drugs.

Access

EASY TO GET MARIJUANA:

51.4%

of students report that it would be “sort of easy” or “very easy” to get marijuana if they wanted.

MOST COMMON ACCESS

35%

BOUGHT IT FROM SOMEONE ELSE

31%

GOT IT FROM SOMEONE UNDER 21

13%

A FRIEND OLDER THAN 21 GAVE IT TO ME

Perception of peer use

INACCURATE PERCEPTIONS:

89%

of students overestimate how many of their peers use marijuana.



Students who overestimate how many of their peers use marijuana are significantly less likely to consider limited use risky and more likely to use themselves.

* YOUTH RISK BEHAVIOR SURVEY (2019)
** COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE), 2020

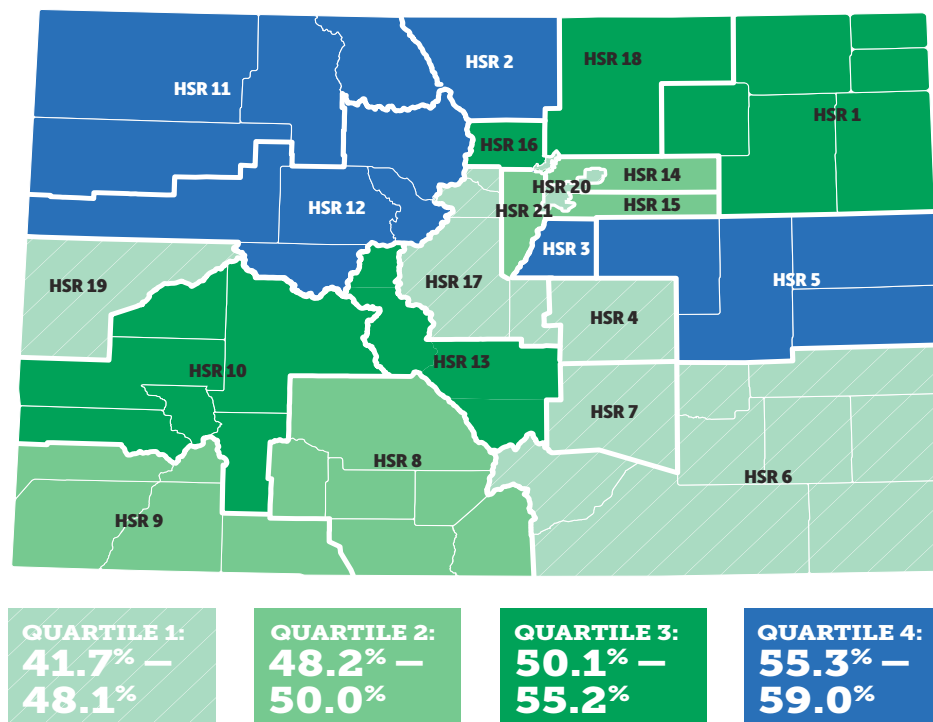
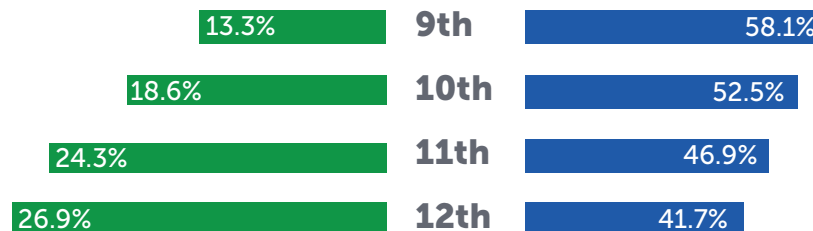
86% OF COLORADO STUDENTS
**THINK THEIR PARENT
OR GUARDIAN
WOULD FEEL IT IS
WRONG**
IF THEY USE MARIJUANA.

59% OF COLORADO STUDENTS
**THINK IT IS WRONG
FOR SOMEONE THEIR
AGE TO USE
MARIJUANA.**

50% OF COLORADO STUDENTS
**THINK PEOPLE WHO
USE MARIJUANA
REGULARLY**
HAVE MODERATE OR GREAT
RISK OF HARM.



As Colorado students reach older grades,
PERCEPTION OF HARM decreases,
and **current use increases.**



Percent of students who think people who use marijuana regularly have a moderate or great risk of harm

USE OF MARIJUANA DIFFERS AMONG YOUTH WHO REPORT THE PRESENCE OF PROTECTIVE FACTORS IN THEIR LIFE.

AMONG STUDENTS WHO:

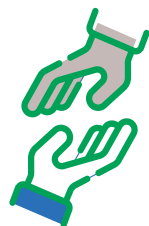
have an adult to go to for help with a serious problem,

18.0% use marijuana

COMPARED TO

27.4%

who do not report this protective factor.



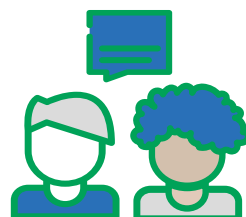
think family has clear rules about alcohol and drug use,

18.0% use marijuana

COMPARED TO

36.3%

who do not report this protective factor.



when not home, their parents/guardians know where they are and who they are with,

18.0% use marijuana

COMPARED TO

43.6%

who do not report this protective factor.



participate in extracurricular activities,

17.7% use marijuana

COMPARED TO

24.8%

who do not report this protective factor.

feel safe at school,

18.8% use marijuana

COMPARED TO

27.7%

who do not report this protective factor.

think their teacher notices when they're doing a good job and lets them know,

17.1% use marijuana

COMPARED TO

22.7%

who do not report this protective factor.



HARMFUL EFFECTS

The number of marijuana exposures reported to the Poison Center has steadily risen since 2010, with a large increase occurring in 2014 when retail marijuana became available.

Since 2017, two thirds of marijuana exposures reported to the Poison Center have been in the form of **edibles** (ingestible cookie, drink) and **plant** (smokeable dried).

MARIJUANA EXPOSURES AMONG CHILDREN AGES 0-5 BEGAN INCREASING IN 2012 WITH THE HIGHEST NUMBER OF CASES IN 2019.

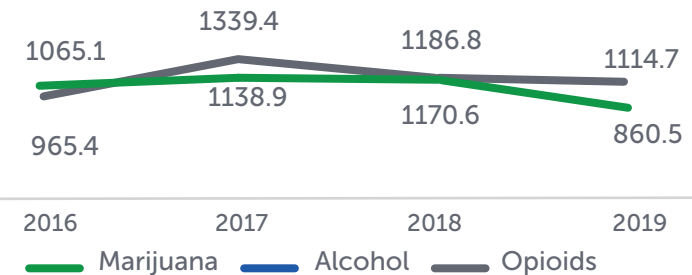
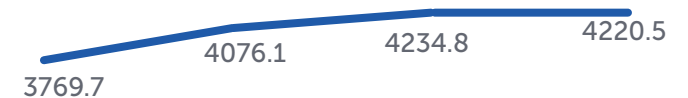
Among all exposures from
marijuana edibles
in 2019

46%
were for
CHILDREN AGES 0-5.



According to the Colorado Hospital Association,
Marijuana-related emergency department visits significantly decreased in 2019.

However, visits for poisoning or adverse events related to marijuana have increased since 2016.



Annual crude rate of emergency department visits with all marijuana-related billing codes per 100,000 discharges.

ED visits related to marijuana are most common among **18-25 YEAR OLDS** and **MALES.**



In 2019
there were

596

MOTOR VEHICLE
FATALITIES

in Colorado and out of
this total,

12%

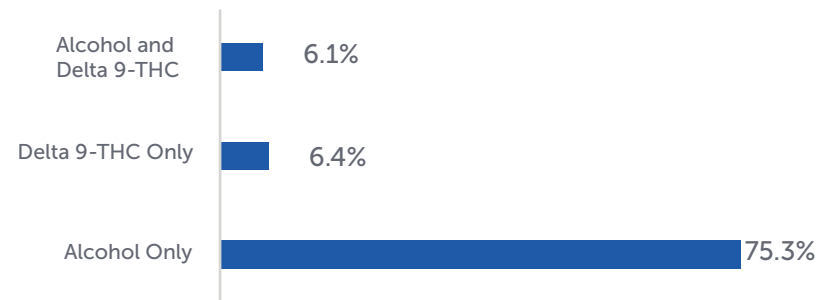
(49) were caused by
marijuana-impaired
drivers.

Marijuana impairment is
defined as drivers who tested
at or above the 5 ng/ml level
established as a permissible
inference of impairment.

2,900

people charged with a DUI
tested positive for Delta-9 THC
in 2018.

Among people charged with a DUI
who has Delta-9 THC detected,
alcohol in combination with marijuana
was almost as common as marijuana
alone.

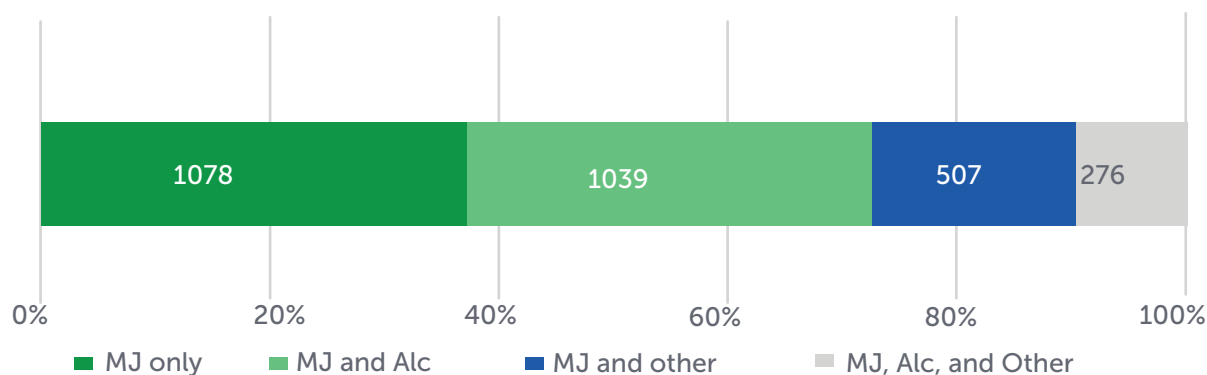


Among the 2,900 people charged with a DUI that
tested positive for Delta-9 THC

THE MAJORITY

62.8%

involved a substance
in addition to marijuana.



11.2%

of high school students report

driving after using marijuana.

THIS IS A SIGNIFICANT INCREASE SINCE 2017.

Among high school students who **have ever used marijuana**, the percent who have driven after use is

26%

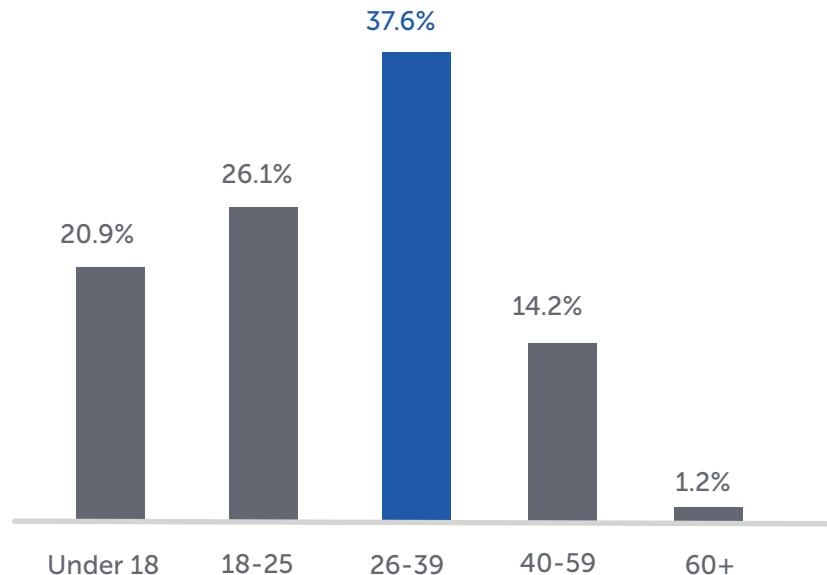
Less high school students drive after using alcohol than after using marijuana, indicating that they better understand the risks associated with driving under the influence of alcohol than marijuana.



DRIVING AFTER USING MARIJUANA IS MORE COMMON AMONG MALE HIGH SCHOOL STUDENTS (13.1%) THAN FEMALE HIGH SCHOOL STUDENTS (9.1%).

TREATMENT ADMISSIONS IN COLORADO FOR MARIJUANA DECREASED BY 17.5%.

Of the
5,404
treatment
admissions
for
marijuana
MOST WERE
AMONG THE AGE
GROUP 26-39.



Marijuana is the primary substance for 12.4% of all treatment admissions.

Among those seeking treatment, marijuana has the youngest age of first use (14.2 years old).

On average, people seeking treatment for marijuana had used for 14 years prior.

While males are overrepresented in the treatment population (63% compared to 50% in the general Colorado population),

74% of people seeking treatment for marijuana are male, indicating that **males seek treatment for marijuana more than females.**

Treatment admissions refer to the 594 facilities licensed by the Colorado Department of Human Services, Office of Behavioral Health. They do not include clients who received service through private pay or third party insurance providers, or non-OBH licensed facilities.

KEY TERMS

Aggregate	A mathematical computation using a set of values rather than a single value
Average	A calculated central value of a set of numbers
Cisgender	Denoting a person whose sense of personal identity and gender corresponds with their assigned birth sex
Dabbing	A method of marijuana use where a small amount of marijuana concentrate is placed on a pre-heated surface, creating a concentrated marijuana vapor to be inhaled
Daily/Near Daily Use	The prevalence of all adults 18 years and older in Colorado that used marijuana or cannabis between 20 and 30 days in the past 30 days
Delta-9 THC	A cannabinoid molecule in marijuana that is the main psychoactive ingredient, or the ingredient which causes people who use the substance to feel high
Edible	Short for marijuana edible; any product containing tetrahydrocannabinol (THC) that is fit to be eaten
Health Statistics Region	A geographic grouping based on demographic profiles and statistical criteria. Colorado has 21 Health Statistics Regions which correspond with existing county boundaries
Legalization	Recreational marijuana use became legal in Colorado in 2014. https://www.colorado.gov/marijuana
Per capita	Per unit of population
Prevalence	The proportion of a population who have specific characteristics in a given time period. Prevalence may be reported as a percentage (5%, or 5 people out of 100), or as the number of cases per 10,000 or 100,000 people
Proportion	Two ratios that have been set equal to each other
Protective Factors	Characteristics within the individual or conditions in the family, school or community that help someone cope successfully with life challenges
Quartile	A group that contains 25% of the data set
Ranking	Relative position
Rate	The ratio between two related quantities
Risk Factors	Characteristics within the individual or conditions in the family, school, or community that increase the likelihood someone will engage in unhealthy behaviors
Safe storage	Storing in a childproof container or packaging
Significance	The probability is less than .05 that the difference or relationship happened by chance
Vaping	A method of marijuana use where marijuana vapor, rather than smoke, is inhaled



We appreciate your feedback!

[Click here](#) or scan above to take a one-minute survey.

For more information
on the Colorado SEOW and additional
publications, please visit our website:
www.coloradoseow.org