



COLORADO

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Retail Marijuana Education Program

2015 Legislative Report

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Report to the Legislature Concerning the Retail Marijuana Education Program

This report, developed by the Prevention Services Division, outlines the activities pursuant to Colorado Revised Statute § 25-3.5-1001 through 25-3.5-1007 to provide education, public awareness and prevention messages for retail marijuana. This report identifies the specific responsibilities of the department and outlines the progress made to ensure all Colorado residents and visitors understand the parameters of safe, legal and responsible use of retail marijuana.

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Executive Summary

Pursuant to Colorado Revised Statutes § 25-3.5-1001 through 1007, the Colorado Department of Public Health and Environment (CDPHE) is funded to provide education, public awareness and prevention messages about retail marijuana. CDPHE is charged with creating statewide campaigns to educate Colorado residents and visitors about the parameters of safe, legal and responsible use of retail marijuana. The following describes CDPHE's progress from Jan. 1, 2015 through Sept. 30, 2015 to implement the education and prevention activities outlined in statute. Additionally, this report provides an overview of how CDPHE is collaborating across state agencies and with local communities to integrate campaign messaging statewide.

Campaigns

The CDPHE Retail Marijuana Education Program contracted with a media agency through a competitive request for proposal process and successfully launched multiple public awareness, education and prevention campaigns throughout 2015. On Jan. 5, 2015, CDPHE launched the [Good to Know](#) campaign to educate the public on the laws pertaining to legal marijuana use and included messages to prevent high-risk behaviors, such as the risks to youth brain development, over-consuming edibles and safe storage to prevent unintentional ingestions. The [Good to Know](#) campaign has been seen nearly 170 million times across Colorado.

CDPHE contracted with the Colorado School of Public Health (CSPH) to evaluate the effectiveness of these public awareness efforts. CSPH administered a survey with a sample of Colorado residents to gather a baseline of knowledge, awareness, perceptions and behaviors. CSPH re-administered this survey to monitor changes over time in the Spring of 2015 following the height of [Good to Know](#) campaign activity and analyzed whether exposure to CDPHE campaigns and materials contributed to changes. **The results found that Colorado adults surveyed who reported they were aware of the Good to Know campaign were more than twice as likely as other adults to correctly identify key retail marijuana laws.** Additionally, accurate awareness of all four of these components increased from 62.0 percent of survey respondents at baseline to 73.1 percent at follow-up. There also were moderate statistically significant increases in the knowledge of health effects and perceptions of risk of use.

Beginning Spring 2015, CDPHE provided point-of-sale materials to marijuana retailers using the [Good to Know](#) platform. Over the summer, CDPHE launched an educational campaign for parents, teachers and other “askable adults” found at [GoodtoKnowColorado.com/talk](#). CDPHE also released two new campaigns: a culturally relevant Spanish-language campaign ([Marihuana en Colorado](#)) and a youth prevention campaign ([What's Next](#)). Evaluation of on-going public awareness campaigns, such as the Spanish language campaign, youth prevention campaign and outreach to retailers, is ongoing.

Website

In Summer 2015, CDPHE redesigned and promoted the [Colorado.gov/marijuana](#) web portal as the primary resource for all Colorado residents and visitors to learn more about the laws and health impacts of retail marijuana in the state. Recent updates to the web portal include streamlined content, better user interface, migration to the state web system, the addition of new factsheets and translated

resources, training and other support, and the creation of a mirrored site in Spanish (Colorado.gov/marihuana).

Additional Activities of the Retail Marijuana Education Program

In addition to the website and campaigns, CDPHE drafted resources to prevent youth access and exposure to marijuana, including clinical prevention guidance for health care providers and educational fact sheets for parents and professionals who work with youth. CDPHE also created a guide for local level regulations with a focus on aligning regulations with researched and effective policies that prevent youth access to other substances. This guide was designed to support local governments as they considered local level implementation of retail marijuana.

CDPHE staff collaborated across state agencies to align messaging on retail marijuana with the statements of the health effects from the Retail Marijuana Public Health Advisory Committee and each of the campaigns. Additionally, CDPHE delivered eight training sessions on healthy youth development and the public health approach to marijuana throughout 2015. CSPH has evaluated the impact of collaboration, message integration, training sessions and resource dissemination efforts at the state and local level and will continue to evaluate the effectiveness of future trainings and technical assistance services.

Next Steps for the Retail Marijuana Education Program

CDPHE will continue to work with the Colorado School of Public Health to evaluate the effectiveness of these campaigns. Additionally, CDPHE will continue to monitor data and research from the Retail Marijuana Public Health Advisory Committee to identify emerging high-risk groups and accurate health effects, and staff will update campaign and resource material messages accordingly.¹ Finally, CDPHE will continue to assess and respond to the public health needs of local communities and provide relevant resources.

Introduction

Pursuant to Colorado Revised Statutes (C.R.S.) § 25-3.5-1001 through 1007, the Colorado Department of Public Health and Environment (CDPHE) is funded to provide education, public awareness and prevention messages for retail marijuana. CDPHE is charged with creating statewide campaigns to educate Colorado residents and visitors about the parameters of safe, legal and responsible use of retail marijuana. This report describes CDPHE's progress from Jan. 1 through Sept. 30, 2015, to implement the education and prevention activities outlined in statute. Additionally, this report provides an overview of how CDPHE is collaborating across state agencies and with local communities to integrate campaign messaging statewide. CDPHE's \$2,150,000 appropriation in Fiscal Year 2015-16 for these efforts includes funding for staff and operating expenses to execute the following activities as outlined in statute:

- C.R.S. § 25-3.5-1003: Continue the 18-month public awareness and education campaign, [Good to Know](#), directed at educating the public on legal use and the health effects of marijuana, including the development of fact sheets and clinical prevention guidelines for health care providers.
- C.R.S. § 25-3.5-1004: Implement ongoing targeted education and prevention efforts. This includes providing regional training sessions for local programs addressing marijuana prevention through healthy youth development strategies. It also includes the creation of sub-campaigns to educate and prevent negative health consequences among each of the following audiences:
 - General public on legal use and the health effects of marijuana
 - Retailers on the importance of preventing youth access
 - High-risk populations
 - Consumers on the risks of the overconsumption of edibles
- C.R.S. § 25-3.5-1005: Maintain the web portal for all state and local information on marijuana laws, health effects and resources; promote website to the public: Colorado.gov/marijuana.
- C.R.S. § 25-3.5-1006: Align messaging across state agencies and integrate the messages into local prevention programs. This includes providing data, training, educational materials and resources on effective prevention strategies to local community programs or coalitions addressing marijuana education and/or youth prevention.
- C.R.S. § 25-3.5-1007: Develop and implement a three-year evaluation plan on the reach and impact of the campaigns and CDPHE's effectiveness in educating Colorado residents on retail marijuana laws and preventing negative public health consequences. This includes two reports to the General Assembly on the effectiveness of the campaigns.

CDPHE received \$5,683,608 in Fiscal Year 2014-15 to launch these programmatic efforts. Due to TABOR restrictions, the program's budget was cut by more than 60 percent to a \$2,150,000 appropriation to continue these efforts into the current fiscal year. Additional funding may be available to this program through a voter initiative in November 2015. However, without that funding, CDPHE will be unable to educate the public effectively on the retail marijuana laws and health effects and prevent youth marijuana use. For more information about the impact of the budget cuts on CDPHE's ability to implement the above legislative requirements, see the Financial Report section below.

Guidance for CDPHE's Education Efforts

CDPHE used guidance from a variety of sources to increase the effectiveness of educational and public awareness efforts, including:

- Accurate research on the effects of marijuana
- Data on statewide marijuana-related concerns
- Assessments of available marijuana health education messaging
- Insight of diverse stakeholders from across the state

To ensure the accuracy and consistency of public education on the health effects of marijuana, CDPHE used researched statements provided by the Retail Marijuana Public Health Advisory Committee.¹ This committee of medical and public health experts conducted a systematic literature review of all available research on the health impacts of marijuana and shared these researched statements with the General Assembly on Jan. 30, 2015.

CDPHE used assessment results from multiple state agencies on knowledge, attitudes and behaviors surrounding retail marijuana to inform public education efforts. The departments of Transportation, Education and Human Services, and the Governor's Office of Community Partnerships shared results from past surveys to inform CDPHE's education efforts. CDPHE also conducted surveys and focus groups in partnership with the contracted media agency and evaluator to learn more about each audience.

Finally, CDPHE received feedback from the Marijuana Education Oversight Committee, a diverse group of statewide stakeholders convened pursuant to Senate Bill 13-283 and Executive Order 2013-007, to guide education efforts, including the development of campaign messages. This group has representation from the Governor's Office of Marijuana Coordination; Colorado General Assembly; Colorado departments of Revenue (DOR), Education (CDE), Human Services (CDHS), Public Health and Environment (CDPHE) and Transportation (CDOT); the marijuana industry; medical marijuana patient advocacy groups; substance abuse prevention; higher education; health care providers; local and state prevention groups; grantees from CDHS Tony Grampsas Youth Services (TGYS) program or the Office of Behavioral Health (OBH); and local government.

Effectiveness of CDPHE Retail Marijuana Education Campaigns

Public Awareness and Education Campaign Overview

To reach the educational objectives outlined in statute, CDPHE first launched the [Good to Know](#) public awareness campaign on Jan. 5, 2015. Effective substance abuse prevention strategies include media campaigns that align community attitudes about use with the laws governing that use, and with accurate information about the substances.² In order to prevent youth access to marijuana, CDPHE began initial campaign efforts focusing on adults: increasing the knowledge of retail marijuana laws among all Colorado residents and visitors as outlined in statute, and targeting parents and teachers with information about how to talk to youth about marijuana. Ultimately, CDPHE released a prevention campaign directly aimed at adolescents ages 12-20, but beginning education efforts with adult populations was important because adults who are well informed about the laws are better equipped to prevent unsafe marijuana use, use around children and underage access.

Good to Know Campaign: Public Awareness Implementation & Reach

Good to Know Campaign Message Development Process - Fall 2014

CDPHE selected Cactus as its media contractor in Fall 2014 through a request for proposal process. Cactus conducted surveys and interviews across the state to gain insight into the perspectives of stakeholders and the public



regarding marijuana consumption. Stakeholders and the public responded that Colorado residents, both users and nonusers, needed and wanted more information on the laws and health effects of marijuana. The agency used surveys and interviews with more than 400 stakeholders, 170 members of the public and the Marijuana Education Oversight Committee to develop creative messaging that resonated with the general public while educating them about safe, legal and responsible use of retail marijuana.

Cactus created the [Good to Know](#) campaign platform to reach and educate all Coloradans age 21 and older, users and non-users alike. While the content of the [Good to Know](#) campaign is clear and direct in communicating laws and safety guidelines, CDPHE and Cactus wanted to test the delivery of those messages to be sure that all Colorado residents, no matter their opinion on marijuana, found the content approachable and helpful. Cactus administered testing with nearly 450 Colorado residents to gauge their reactions to multiple creative concepts.

The [Good to Know](#) campaign neither promotes nor negatively judges marijuana use, allowing the message to resonate with a wide variety of individuals holding a wide variety of opinions about legalized marijuana. By providing helpful information about retail marijuana laws and links to more information and resources on health effects, the campaign empowers Colorado residents to discuss what safe, legal and responsible marijuana use means to them.

The [Good to Know](#) campaign launched on Jan. 5, 2015 with these key messages:

- The legal age for retail marijuana purchase, possession and use is 21.
- It is illegal to give or sell retail marijuana to anyone younger than age 21.
- It is illegal to drive while high.
- It is illegal to use marijuana in public, in your car and on federal land.
- It is illegal to take marijuana out of state.
- It is important that anyone with marijuana store it safely to prevent unintentional use.
- It is unsafe for underage youth to use marijuana because their brains are still growing.

The campaign included the [GoodToKnowColorado.com](#) campaign website, 60- and 30-second statewide television spots, radio advertisements, billboards, transit ads, digital advertising, promotion on social media channels, earned media, Denver metro area print ads, and community campaign training and materials. The campaign website links the public to the [Colorado.gov/marijuana](#) web portal, which contains information on the laws and health effects of marijuana use provided by CDPHE and other state agencies. Examples of [Good to Know](#) campaign creative elements are in Appendix A.

Due to the timing of the [Good to Know](#) campaign launch one month prior to the release of the Retail Marijuana Public Health Advisory Committee report on the health effects of marijuana and potential risks, the only health message incorporated into radio, television and billboards was the risk of underage use. After the release of the report on the health effects of marijuana, CDPHE began incorporating health messages into the digital, poster and social media advertising of *Good to Know* beginning February 2015.

Local Public Health Agency Awareness of the *Good to Know* Campaign

In an effort to educate local public health partners throughout the state, Cactus conducted four regional training sessions in February 2015. These sessions addressed the research, planning, communications strategy and final creative elements for the [Good to Know](#) campaign, as well as public relations and social media training for participants. Cactus and CDPHE also distributed materials on the campaign and instruction on continued access to materials.

Good to Know Colorado Events

Based on stakeholder recommendations, the [Good to Know](#) campaign advertised at concert venues with specific messaging on the laws covering smoking in public, taking marijuana out of state, underage use and health effects. A campaign event kit was made available to statewide event facilitators and included:

- Digital banners that could be included on event website and at the events
- Public service announcements
- Social media images and copy to be included on event pages or partner pages
- A *Frequently Asked Questions* sheet for event facilitators and staff

The outreach was specifically targeted to 26 venues across the state including City Park Jazz in the Park, Denver Fourth of July, Colorado Black Arts Festival, Denver Post Underground Music Show, Denver Flea Market, Taste of Colorado, Great American Beer Fest, Fort Collins First Friday Gallery Walk,

FORToberfest, Mesa County Fair, Fruita Fall Festival, 74th Annual Pikes Peak Rodeo, El Paso County Fair, and many more. For fiscal year 2016, these efforts will be evaluated and expanded upon to maximize budget and reach.

[Good to Know Retailer Campaign: Point-of-Sale Materials](#)

A robust marijuana retailer campaign launched March 2015 to reach retailers and customers with information and materials. CDPHE and Cactus met with representatives of the marijuana industry to inform efforts to create educational materials appropriate for point-of-sale on laws and health effects. Collaboration with retailers helps CDPHE efficiently reach resident and visitor marijuana consumers with information about safe, legal and responsible use, including effective ways to prevent youth access to marijuana and promote safe storage. C.R.S. § 25-3.5-1004 identifies retail stores and those who over-consume edibles as important campaign audiences.

Materials address the prevention of overconsumption of edibles using the research from the Retail Marijuana Public Health Advisory Committee.¹ The committee confirmed that edible marijuana products may take at least 90 minutes and as long as four hours to reach peak THC (the psychoactive component of marijuana) blood concentrations and more time to feel the full effects.¹ Marijuana users should wait at least that amount of time prior to consuming additional servings or other substances.

As of September 30, 2015, the *Good to Know* campaign had distributed 52 retailer kits throughout the state. Examples of the retailer kit creative can be found in Appendix B.

[Good to Know Campaign Reach across Colorado and the Nation](#)

Within the first nine months of the campaign launch, [Good to Know](#) reached the following numbers of Colorado residents, visitors and interested members of the public nationwide:

- 243 Colorado and national media mentions, which resulted in more than 50,779,668 media impressions (the circulation or unique monthly visitors to a publication) and added more than \$324,000 in value to the campaign.
- 18,455,000 paid television impressions.
- 17,094,000 paid radio impressions.
- 3,000,000 impressions from digital and print advertising with the Denver Post.
- 28,689,038 digital impressions.
- 44,422,752 out-of-home impressions.
- 7,008,292 impressions on social media.
- 243,783 visits (averaging about 1,000 per day) to [GoodToKnowColorado.com](#), mostly referred by social media or the press coverage of the campaign launch.

The Jimmy Kimmel Live television program covered the campaign launch and published an advertising clip on the show's popular [Facebook page](#). As of Sept. 18, 2015, the public viewed the clip 4,646,000 times, generating more than 36,000 likes, 7,050 comments and 56,000 shares.

Good to Know Campaign Effectiveness

CDPHE contracted with the Colorado School of Public Health (CSPH) to evaluate the association between campaign reach and subsequent changes in knowledge of marijuana laws, health effects, risk perceptions and prevention behaviors among a sample of Colorado residents. CDPHE identified the primary measure of effectiveness for the *Good to Know* campaign as increased accurate knowledge of the laws pertaining to marijuana use included in the campaign. The marijuana laws outlined in the *Good to Know* campaign messaging included: the legal age to purchase or possess retail marijuana (21 years old), the restriction that bans marijuana from leaving Colorado, driving under the influence of marijuana is illegal, and marijuana cannot be consumed in public. Key evaluation data from the campaign are summarized here. More information about the evaluation goals and methodology can be found in the evaluation section of this report on page 23 or in the Initial Follow-up Evaluation in Appendix F. More detailed analyses of the relationship between campaign awareness and changes in knowledge or perceptions of risk will be examined by CSPH for future publication.

Assessment of Campaign Effectiveness: Accurate Knowledge of the Laws

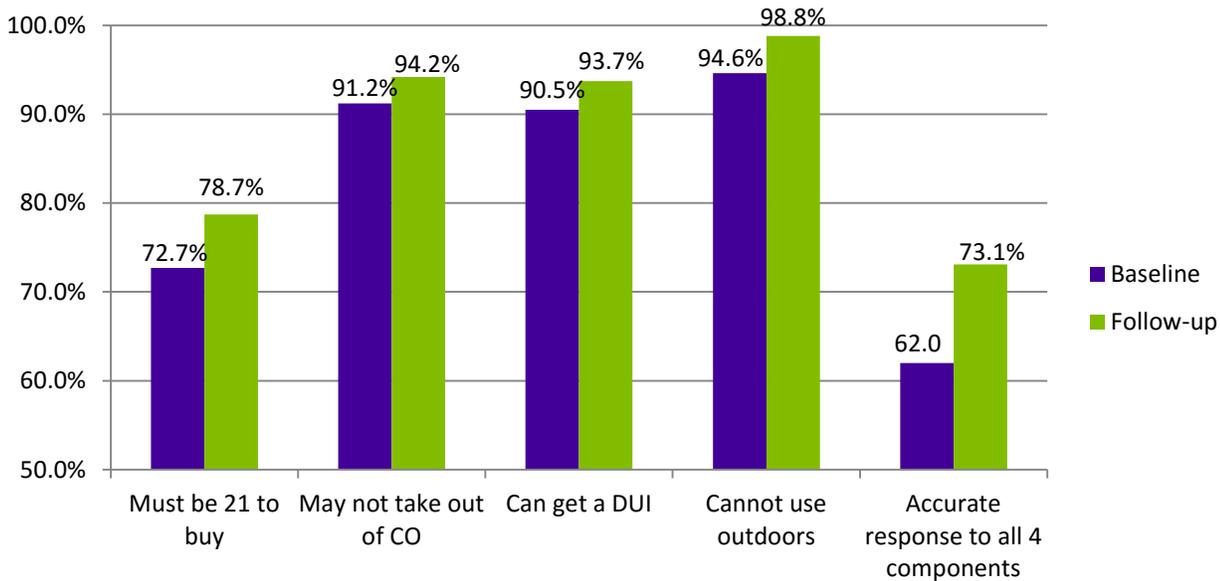
CSPH conducted a phone and mail survey in Winter 2014 prior to the campaign launch, then again with the same sample of adults in late Spring 2015 (N=798 adults over age 20). CSPH tested for significant changes in knowledge of the laws from baseline to follow-up after the *Good to Know* campaign. About 28 percent of respondents reported they had heard or seen the *Good to Know* campaign slogan in the past six months; 13.5 percent had seen or heard it once or twice and 14.5 percent had seen or heard it more than twice. There were no significant differences in recall of the slogan by gender, race/ethnicity, age category or current marijuana use status. The results demonstrated a significant increase in knowledge of the following laws: must be at least 21 years old to buy, may use marijuana in a private home, may not use marijuana in an outdoor place, may purchase one ounce, can be cited for a DUI and may not take out of state (Figure 1). Only two laws on the survey did not show statistically significant changes: may not use in a private business and may grow six plants. Neither of these laws was featured in campaign radio, web, or television messaging (Figure 1).

To better understand the impact of the *Good to Know* campaign, CSPH created a composite index of the laws included in campaign messaging, calculated an accurate response to all four of the following laws: 1) age 21 to buy, 2) may not use outdoors, 3) can get cited for DUI and 4) cannot take out of state.

There was a significant increase in accurate responses to this composite of the laws from baseline to follow-up, with 62 percent of the respondents answering all 4 indicators correctly at baseline and 73 percent answering all four correctly at follow-up. (Figure 1)

Additionally, CSPH found that **adults who reported they were aware of the *Good to Know* campaign were more than twice as likely as other adults to identify correctly the key retail marijuana laws, following the campaign.**

Figure 1: Change in knowledge of marijuana laws (unweighted percent), after the marijuana media campaign among an evaluation panel of English speaking Colorado adults (N=798)



Note. All changes are statistically significant from baseline to follow-up, $p < .05$

This significant and positive increase was seen among males, females, all respondents ages 35-54 and 55 and older, among current users and non-users of marijuana, Whites, Hispanics and those of other race ethnicity. Respondents ages 20-34 and African Americans did not show statistically significant change in knowledge of the laws, although the trend is positive and consistent with other groups. The lack of statically significant change is likely related to several factors, including relatively smaller sample size for African Americans and 20 to 34 year olds and relatively greater awareness of the law at baseline among the 20 to 34 year olds. In all instances of significant change, accurate knowledge of the law increased. Due to the tight timeline between completing the survey and the due date of this report, CSPH was only able to complete limited analysis of this exposure. More detailed analyses of this data comparing responses on health effects and perceptions of risk between those who do and do not remember seeing the campaign will be developed by CSPH for future publication.

Assessment of Campaign Effectiveness:

Accurate Knowledge of Health Effects, Perception of Risk

CSPH examined changes in knowledge of the health effects of marijuana and perception of risk before and following the *Good to Know* campaign. The radio and television *Good to Know* campaign messages were primarily directed toward increasing accurate knowledge of legal use of recreational marijuana in Colorado. However, some content was also directed at safe use of marijuana, including safe storage, keeping marijuana away from children and not driving impaired.

Pairing survey answers from respondents at baseline and follow-up, CSPH calculated the change in their agreement with the health statements or perception of risk following the *Good to Know* campaign. CSPH calculated the percent of respondents who increased in their agreement minus the percent who decreased for 15 health effects and risk statements, summarized as four composites: youth use, use around children, high risk use and use during pregnancy (Table 1). There was a statistically significant

increase in each of these composite indices with one exception: perceptions of risk associated with use during pregnancy.

Table 1: Composite index of changes in knowledge of health effects and perceptions of risky marijuana use, after the marijuana media campaign among an evaluation panel of Colorado adults

<i>Agreement with known health effects, risks of use</i>	After Campaign	% change
Youth Use: teens using daily, teens using weekly	69.8	4.5
Use around Children: child exposure to marijuana smoke, storing in open containers around children	77.6	8.2
High Risk Use: hash oil extraction, overconsumption of edibles, waiting six hours to drive	35.2	8.6
Use during Pregnancy: risk of use during pregnancy, use leading to problems in infant	59.8	7.5

Note. All bolded blue percent change numbers are statistically significant from baseline to follow-up, $p < .05$

Notably, substantial increases in perception of risk of improper storage of marijuana products occurred among both users and non-users of marijuana. While there were statistically significant increases in perceptions of risk of marijuana use from baseline to follow-up, especially with regard to youth use, use around children, and high risk use (such as hash oil extraction and overconsumption of edibles), the change was moderate. These moderate increases are not surprising, as the primary messages of the television and radio campaign ads focused more on specific components of the law than on the health effects from marijuana use.

Though radio, digital and television ads aired statewide, out-of-home advertisements, like billboards and bus ads, were limited to key communities across the state. Secondary data analyses revealed there was no additional increase in a survey respondent’s knowledge of the laws based on placement of billboards within his/her community. This lack of additional increases in knowledge in communities with billboards may be due to the statewide reach of television, digital and radio ads alone, resulting in more than 70 million media impressions among adults across the state.

Good to Know Campaign Next Steps

CDPHE and Cactus will monitor the success of messaging and reach and determine additional opportunities to educate the people of Colorado and those visiting from out-of-state. Pending additional funding from the voter initiative referenced in the introduction, CSPH will be contracted to complete follow-up surveys with marijuana retail stores to assess the impact of the retailer kits. Additionally, CSPH will complete a one-year post campaign follow up with survey respondents to examine the long-term effects of the campaign and impact of health effect messaging.

What's Next Campaign: Youth Marijuana Use Prevention, Implementation & Reach

What's Next Message Development Process - Spring 2015

Prevention of marijuana use by Colorado youth is a priority for CDPHE and the state. Trend data from the most recent Healthy Kids Colorado Survey show that 36.9 percent of Colorado high school students have ever tried marijuana and 19.7 percent have used marijuana in the past 30 days.

Levels of marijuana use among Colorado adolescents have remained statistically stable since 2005, and Colorado rates of ever use and current use of marijuana are lower than national averages. However, more than one in three (40.4 percent) high school seniors have first tried marijuana before age 15, indicating a need to support prevention or delaying use of marijuana among younger children.³



CPDHE reviewed all past youth prevention literature to better understand the types of social marketing messages that resonate with youth and have documented impact at preventing or delaying use of substances, both legal and illegal. Focus group research conducted by the Colorado Department of Human Services (CDHS) reinforced that positive role models, such as parents, are one of the strongest factors influencing youth use. Conversations with parents that focused on only the negative aspects of marijuana use or were grounded in subjective opinions tended to be ineffective.⁴ These conclusions are supported by health communications research demonstrating that fear-based messages are ineffective at changing substance use among youth.⁵

Building upon this research, findings from the Retail Marijuana Public Health Advisory Committee¹ and formative research conducted as part of youth marijuana prevention campaigns implemented by CDHS and the Governor's Office of Community Partnership's in 2013 and 2014, CDPHE and Cactus conducted additional primary research to inform the final campaign's communication strategy and creative.

This primary research included in person focus groups, on-line focus groups and in-depth interviews with nearly 400 students around the state to learn about their opinions, attitudes and beliefs about marijuana. The research revealed that it is not just what we say to youth, but how we say it that is important. Youth rejected any language that was preachy or presented as a scare tactic and were quick to judge content laced with "someone's biased point of view." Additionally, negative health claims stating "may or can" vs. "will" were called out as propaganda.

Overall, this research concluded that the number one deterrent among the youth is the knowledge that marijuana can get in the way of achieving their short-term goals; specifically goals such as a job, family relationships, and reaching full potential. Building from this insight and other research, three different creative concepts were developed and then tested with an additional 450 youth. The [What's Next](#) campaign concept was the clear winner.

The *What's Next* campaign objective is to create a culture of non-use by helping young people realize their immediate goals and dreams are easier to achieve without marijuana. One of the best ways to connect with youth is to empower them to make healthy decisions on their own. Youth want to be informed about health and in control of their decisions. Youth do not respond well to messages that are perceived as preachy, overbearing or utilize scare tactics. *What's Next* takes a direct approach by talking to youth (not at them) about the tangible goals and life milestones that are right on the horizon.

[What's Next Campaign Strategy: A Two-Sided Approach - Summer 2015](#)

Colorado adults that responded to the survey conducted by CSPH generally agree that it is risky for youth to use marijuana daily (88 percent) or weekly (75 percent) (Appendix F). While more than eight of 10 parents surveyed in the Child Health Survey report having talked to or planning to talk to their children about the risks of using marijuana,⁸ only 51.7 percent of Colorado high school students in the Healthy Kids Colorado Survey report that their parents talked to them about substance use.¹⁰ Past research on other health issues has revealed the need for “askable” adults in the lives of youth. An “askable” adult is a trusted adult youth can approach with questions about important health issues, like sex.⁶

Leveraging these research findings, two specific communication strategies were executed: the *What's Next* campaign speaks directly to youth, and a simultaneous campaign to support “askable” adults (parents, guardians, educators, coaches and other youth-serving professionals) to reinforce the important reasons youth should not use marijuana. This two-sided approach to youth prevention inspires youth to pursue their ambitions and prepares adults to have open and honest conversations that will help youth make healthy decisions.

[Side One: Communicate Directly with Youth](#)

The *What's Next* campaign tactics included:

- A mobile-friendly website: ProtectWhatsNext.com
- Social media presence on Facebook, Instagram and YouTube
- Eleven 15 second videos
- A content partnership with BuzzFeed
- Events exclusively for youth

Examples of creative from the *What's Next* campaign can be found in Appendix E.

[Side Two: Support Adults that Youth Trust](#)

The “Askable Adult” side of the campaign launched the GoodToKnowColorado.com/Talk resource portal, which includes information on the following:

- [Health Effects](#) - Information about how underage marijuana use can impair learning and memory, coordination, judgment and brain development
- [Legal Consequences](#) - Details on the legal consequences of underage marijuana use, including potential loss of financial aid, job or driver's license
- [Marijuana 101](#) - Information on common slang terms for marijuana, methods of consumption and details on safe storage
- [Talking Tips for Parents and Youth-Serving Professionals](#) - Age-specific recommendations on how to talk to youth about marijuana

Examples of the Askable Adult campaign creative can be found in Appendix C.

[What's Next Campaign Reach across Colorado and the Nation](#)

Within the first six weeks of the campaign launch, *What's Next* reached the following numbers of Colorado youth:

- 205 Colorado and national media mentions, which resulted in more than 62,028,761 media impressions (the circulation or unique monthly visitors to a publication) and added more than \$561,000 in value to the campaign.
- 7,166,035 impressions from digital buy (including BuzzFeed).
- 2,475,309 impressions on social media.
- 9,859 visits to ProtectWhatsNext.com.
- 3,986,130 video views.

Within the first seven weeks of the campaign launch, the GoodToKnowColorado.com/Talk campaign for trusted adults reached the following numbers of Coloradans:

- 22,383,765 impressions from digital display/social buy
- 13,316 visits to GoodtoKnowColorado.com/Talk
- 660,614 video views

[What's Next Campaign Effectiveness](#)

CDPHE is collaborating with the Tony Grampas Youth Services (TGYS) program to assess the association between the reach of the youth campaign and subsequent changes in the perceptions of risk or intention to use marijuana. TGYS will pose these question to youth participating in their program, approximately 30,000 adolescents in the focus age group across the state. Since the campaign was launched in mid-August 2015, data collection on impact of the campaign is going to be completed later in the fiscal year. Pending available and continued funding in the voter initiative, CDPHE will contract with CSPH to analyze the results of surveys administered by the TGYS program.

[What's Next Campaign Next Steps](#)

The campaign will continue to engage youth on social media through outreach using the campaigns videos and related messaging. The campaign will also continue its marketing to key audiences through pre-roll videos on channels such as YouTube. Additionally, the campaign will leverage existing partner agencies that work with youth to engage them in the messaging and campaign goals through statewide events.

Marihuana en Colorado: Lo Que Debes Entender Spanish-language Campaign: Public Awareness Implementation & Reach

Evaluation Insights into Spanish-speaking Populations in Colorado - Winter 2014-2015

According to the Colorado Health Access Survey, Spanish-language speakers make up 12 percent of Colorado's population and are predominately Latino (88 percent).⁹ CSPH administered a baseline survey of knowledge of laws, health effects and perceptions of risk from marijuana to 47 Spanish-language Latinos to better understand any potential differences between Spanish-language and English-language Latinos that might necessitate the development of a culturally and linguistically responsive education campaign.

Spanish-language respondents had lower accurate knowledge of laws governing permitted use of marijuana as compared to English-language Latino respondents. For example, only half (53 percent) of Spanish-language respondents reported that the legal age to purchase marijuana is 21, compared to 77 percent of English-language Latino respondents. Without exception, Spanish-language respondents reported more agreement with the presence of health effects and high perception of risk to the 15 statements presented in the survey, including youth use, high risk use, and use around children (See the Baseline Data Report published on [CDPHE's website June 2015](#)). These data reinforced the need for a separate culturally and linguistically responsive campaign to address the gap in knowledge of the laws among Spanish-language Latinos in Colorado.

Marihuana en Colorado Campaign Message Development Process - Spring 2015

A series of eight focus groups totaling 92 participants (50 first generation and 42 second generation Latinos) were conducted across Colorado to test the *Good to Know* campaign concept and evaluate its ability to resonate with both groups. Research found that Latinos are more serious about marijuana than the general population; thus communication needs to be serious in tone. Furthermore, some of the play on words and graphics that aided in the recall of the *Good to Know* campaign for the general public were confusing for bilingual and monolingual Latino audiences. This formative research revealed the need for accurate and understandable Spanish-language translation on marijuana. Focus groups and Latino leaders identified the need for influential people in the Latino community to speak about marijuana. Like all Coloradans, Latinos want to learn about the laws, health effects and consequences of marijuana use, especially for youth. CDPHE concluded that though the content of the *Good to Know* campaign is appropriate, the delivery of the content needed to be different for the Latino population.



Stemming from the research, Cactus developed three Spanish language creative directions and tested them with key Latino community members, including City of Aurora officials, Idea Marketing, El Comité de Longmont, Northern Colorado Latino Chamber of Commerce, Colorado Springs Latino Community

Luncheon and CREA Results. Based on the feedback from these individuals, *Marihuana en Colorado: Lo Que Debes Entender* was created.

The *Marihuana en Colorado: Lo Que Debes Entender* campaign launched on Aug. 3, 2015. Similar to *Good to Know*, the campaign reaches adults with information on safe, legal and responsible marijuana use. Significant emphasis was placed on starting the conversation about legal marijuana among Latino/Hispanic communities. The tagline for the campaign reinforces that “an informed community is a safer community.”

The statewide Spanish language campaign rollout included three 30-second television spots done using the style of a typical public service announcement featuring respected community leaders. The rollout also included radio, print and digital advertising, promotion on Facebook, earned media and local events. CDPHE replicated the Colorado.gov/marijuana web portal in Spanish, found at Colorado.gov/marihuana. This portal contains information on the laws and health effects of marijuana use provided by CDPHE and other state agencies.

[Marihuana en Colorado: Lo Que Debes Entender Call-in-Line and Events](#)

Per feedback from stakeholders, the Marihuana en Colorado campaign included strategies that allow for direct engagement with the program, such as community outreach and events including the following:

- CREA Results Hotline: 291 calls have been received in the first 5 weeks. This hotline will remain active throughout 2015.
- Fiestas Patrias Event: with over 90,000 estimated in attendance, an outreach team discussed the campaign and answered questions, reaching approximately 600 individuals.
- Mexican Consulate Event: with an estimated attendance of 200, this event garnered over 70 direct conversations.
- Event Sponsorship: The campaign has had signage and PSA announcements from the stage at the Adams County Fair, the Colorado State Fair and the Jose Anniversary concert.
- Continued Event Outreach: Cactus will continue outreach through additional community events, such as health fairs throughout the state.
- Community Sessions: Cactus will be conducting community sessions with organizations serving the Latino community across the state.

[Marihuana en Colorado: Lo Que Debes Entender Community-Based Outreach and Education](#)

CDPHE is providing up to \$175,000 total to community-based organizations through a competitive Request for Applications (RFA) process. Organizations that primarily serve Spanish-speaking residents in key Colorado communities were eligible to apply. The awards average \$25,000 per community, funding outreach to a total of six or seven Spanish-speaking Colorado communities. These organizations will conduct outreach and educational events within their communities using the materials from this campaign, increasing the impact of campaign messaging.

[Marihuana en Colorado: Lo Que Debes Entender Campaign Reach across Colorado and the Nation](#)

Since campaign launch through the end of September, *Marihuana en Colorado: Lo Que Debes Entender* has reached the following numbers of Colorado residents:

- 12 media mentions at launch
- 4,743,000 paid television impressions in Denver (awaiting reports from the rest of the state)
- 3,053,598 paid radio impressions in Denver (awaiting reports from the rest of the state)
- 228,000 print advertising impressions
- 2,017,071 impressions from digital
- 546,836 impressions on social media
- 4,792 visits to web pages, referred from Entravision, Facebook and Google.
- 4 events with thousands of impressions
- 291 calls to the hotline

Examples of creative from the *Marihuana en Colorado: Lo Que Debes Entender* can be found in Appendix D.

[Marihuana en Colorado: Lo Que Debes Entender Campaign Effectiveness](#)

CSPH evaluators recommend waiting approximately three months after the peak of campaign outreach to evaluate its impact on the key audience. Since the *Marihuana en Colorado: Lo Que Debes Entender* campaign launched on Aug. 3, 2015, CDPHE hopes to conduct a follow-up Spanish-language survey in late Fall of 2015. However, CPDHE does not currently have sufficient funding to administer this survey due to the more than 60 percent budget cut from the previous fiscal year. If CPDHE receives additional funding in this fiscal year per the voter initiative, this follow-up survey will be implemented. Pending this funding, CDPHE will report all results and evaluation of the *Marihuana en Colorado: Lo Que Debes Entender* campaign effectiveness in June 2016.

[Marihuana en Colorado: Lo Que Debes Entender Campaign Next Steps](#)

Statewide media for the *Marihuana en Colorado: Lo Que Debes Entender* campaign will continue to run through June 2016. In addition to the media, Cactus will continue conducting community outreach sessions with key partners in the Latino community. This outreach includes in-person meetings and supplying community organizations and leaders with educational campaign materials.

Future Prevention Campaigns and On-Going Public Awareness

Identification of High-Risk Populations

With recently released information from the Behavioral Risk Factor Surveillance System, CDPHE now has the data needed to further focus the *Good to Know* campaign to reach those populations that use marijuana at higher levels than the general population, such as young adults ages 18-24, young adults that enter the workforce immediately after high school, African-Americans, and gay, lesbian or bisexual (GLB) adults.⁷ GLB youth also reported marijuana use rates more than twice the rate of their heterosexual counterparts.³ However, due to the more than 60 percent budget cut to the Retail Marijuana Education Program this fiscal year, CDPHE must await further funding to implement focused campaign outreach to these populations.

In addition to focusing on populations with higher use rates, CDPHE staff identified pregnant or breastfeeding mothers as a population at significantly higher risk of poor health outcomes from marijuana use or exposure. Communicating the risk of the potential health effects of marijuana use during pregnancy is a top priority for future prevention campaign efforts based on the research of the Retail Marijuana Public Health Advisory Committee.¹ Additional research, creative development and testing, and execution of a campaign are dependent on future funding for CDPHE. Due to the more than 60 percent budget cut to the program, CDPHE is unable to move forward with a campaign focusing on pregnant and breastfeeding women as planned.

Additionally, the Retail Marijuana Public Health Advisory Committee's findings outlined an increase in reported marijuana-related hospitalizations and emergency department visits, particularly among children and youth.¹ The *Good To Know* and *Marihuana en Colorado* campaigns will continue to highlight the importance of safe storage of marijuana products to prevent unintentional ingestion by children and educate the public on the dangers of overconsumption.

CDPHE will continue to monitor public health trend data and Retail Marijuana Public Health Advisory Committee research statements to identify populations at higher risk of marijuana abuse or exposure.

Colorado.gov/marijuana Web Portal

To simplify access to reliable information about retail marijuana laws, regulations, health effects and relevant resources, CDPHE created the Colorado.gov/marijuana web portal to act as the single resource for accurate and timely information from each of the state agencies for retail marijuana. The Colorado.gov/marijuana web portal links to relevant information and resources from the departments of Human Services, Transportation, Revenue and Education. During the 2014-15 fiscal year, CDPHE updated the web portal to improve the usability, design and messaging, and to reflect changes in laws or regulations, inclusion of new resources, and emerging information on health effects.

Reach of Colorado.gov/marijuana

Website analytics from Jan. 1 to Sept. 30, 2015:

- Approximately 15,000 unique users visited the site and viewed pages more than 60,000 times
- Average length of time visitors spend on the site was two minutes and 30 seconds, a substantial length for government and informational websites

Since the launch of the *Good to Know* campaign in January 2015, the campaign microsite GoodToKnowColorado.com has become one of the leading referral sources to the Colorado.gov/marijuana website. Other leading referral sources include other state agency websites and search engines, a positive change since moving the site to the state platform.

Additional Activities of the Retail Marijuana Education Program

Clinical Prevention Guidelines for Health Care Providers

C.R.S. § 25-3.5-1003 requires CDPHE to create clinical prevention guidelines as a resource for health care providers dealing with patients at risk from marijuana use or exposure. Clinical prevention guidelines provide health care providers with research-based recommendations about preventive services, such as how to screen for marijuana use in the home, research-based advice to reduce risk and referrals to local resources. CDPHE hired a board-certified physician to conduct research and solicit input from health care providers to inform the development of clinical prevention guidelines.

Using research from the Retail Marijuana Public Health Advisory Committee, CDPHE identified two priorities for clinical prevention guideline development in this fiscal year: 1) preventing and reducing marijuana use and exposure among pregnant and breastfeeding women; and 2) preventing pediatric exposure to marijuana through safe storage and reducing secondhand smoke in the home.¹ CDPHE convened a development committee of health care professionals and gathered feedback from more than 350 Colorado public health workers and health care providers. CDPHE finalized a clinical guidance document to prevent marijuana use or exposure during pregnancy or while breastfeeding in March 2015 after pilot testing in area hospitals and incorporating additional health care provider feedback. CDPHE finalized two additional clinical guidance documents to prevent pediatric exposure to marijuana in June 2015, one to support health care providers as they screen, assess and make recommendations for parents of young children, and a separate document for health care providers that screen and make recommendations for care directly with adolescents. CDPHE disseminated the guidance documents via multiple channels, including webinars, presentations to health care providers that offered continuing education credits, department contacts, newsletters, advertising in clinical journals and membership organization magazines, and a mass mailing to more than 4,000 health care providers in the state. CDPHE and CSPH are evaluating the impact of these outreach efforts, pending available funding. Clinical Guidelines can be viewed in Appendix G.

Fact Sheets for Public Use

In response to a needs assessment conducted with local public health agencies, prevention programs and coalitions, and with input from other state agencies, CDPHE developed the following fact sheets:

- A fact sheet for **pregnant or breastfeeding women**, including the health effects of marijuana exposure, the importance of safe storage, preventing secondhand marijuana smoke exposure and considerations about drug testing at birth
- A general fact sheet about **youth marijuana use prevention**, including the laws that restrict youth use, health effects and talking to youth about marijuana
- Fact sheets for **parents** and another for **professionals who work with youth** on youth prevention, including laws that restrict youth use, health effects, the importance of safe storage and talking tips with youth about marijuana
- A fact sheet **answering common questions** about retail marijuana, including information about personal health, safety and driving concerns

- A fact sheet on **methods of marijuana use** and related health concerns and effect times specific to various methods
- A fact sheet on retail **marijuana health effects**, including information on mental health, respiratory effects and brain development concerns for underage youth
- A general fact sheet for **Colorado residents** on retail marijuana laws related to purchasing and using marijuana, and tips for responsible use
- A fact sheet for **Colorado tourists** that informs visitors about retail marijuana laws related to purchasing and using marijuana, safe use, driving concerns and the need for safe storage

CDPHE based all information about the health effects of marijuana on the researched statements from the Retail Marijuana Public Health Advisory Committee, converting the health effect research to a middle school reading level.¹ The fact sheets were professionally designed and made available through the Colorado.gov/marijuana website in Spring 2015. In addition, the fact sheets were translated into the six most common languages spoken by Limited English Proficiency residents across the state. CDPHE will continue to update the current documents and develop additional fact sheets based on requests from local partners and emerging research. Fact sheets can be viewed in Appendix G.

Align Messaging Across State and Local Agencies

CDPHE staff works across state agencies to align messaging on retail marijuana with the statements of the health effects from the Retail Marijuana Public Health Advisory Committee and the *Good to Know Colorado* campaign.¹ CDPHE partners with these agencies to continuously update and align information on the Colorado.gov/marijuana web portal and cross-promote resources and regulatory changes to retail marijuana. CDPHE meets regularly with CDE, CDHS, CDPS, DOR and CDOT to assure accuracy of messaging, align branding, share resources on campaign messages, and implement or promote effective strategies to prevent youth use.

Providing Resources and Support to Local Prevention Programs and Coalitions

CDPHE provides training, support and resources about retail marijuana education, youth prevention strategies and campaign materials to community agencies, community coalitions, local public health partners, and those working with youth or other high-risk groups. CDPHE developed resources and training objectives for these partners based on the results of two statewide needs assessments. In addition, CDPHE will provide regional trainings through Summer 2016 to connect local efforts with statewide initiatives and data. CDPHE will continue its technical assistance program to provide local communities the skills and information needed to integrate campaign messages and resources into prevention and education programs.

Effective Strategies to Address Risk and Protective Factors that Prevent Youth Use of Marijuana

CDPHE identified effective research-based strategies to reduce risk and increase the protective factors in the lives of youth to prevent use of marijuana. CDPHE identified these strategies in partnership with CDHS, utilizing the National Registry of Evidence-Based Programs and Practices. In addition to the registry, CDPHE and CDHS analyzed more than 50 peer-reviewed articles on evaluated marijuana youth prevention programs and strategies. These strategies can be implemented directly with youth, their families or their communities. CDPHE integrated the information about these strategies into training,

resources and support provided to state and local programs working to prevent marijuana use among youth. In addition, CDPHE is consolidating research findings and strategies into a user-friendly toolkit for community partners to use when prioritizing protective factors, selecting appropriate programs and grant writing. This toolkit will be available Fall 2015 at www.colorado.gov/cdphe/RetailMarijuanaTA.

Updating School Policies on Retail Marijuana: Resources and Support to Local Districts

CDPHE contracted with RMC Health to provide education to Colorado school districts and local public health agencies regarding updates to the Tobacco Free Schools Law, which outlaws the use of retail marijuana products on school property. RMC Health reviewed and analyzed nearly all Colorado school district policies for compliance with updated language about retail marijuana (88 percent of policies statewide). RMC Health looked for compliance with Alcohol and Drug-free Workplace, Drug and Alcohol Involvement by Students and Public Conduct on School Property policies. Approximately 30 percent of school districts were in compliance with the Alcohol and Drug-free Workplace or the Drug and Alcohol Involvement by Students policies. More than half of reviewed school districts were compliant with the Public Conduct on School Property policy guidance.

As of June 30, 2015, RMC Health provided technical assistance to more than 100 school districts on compliance with updates to the Tobacco Free Schools Law. RMC Health provided technical assistance to more than 600 individuals, primarily through email, phone calls and in-person meetings. The two leading requests for technical assistance were making recommendations to improve current policies and assisting schools in creating policy communication messages. RMC Health created a website, my.rmc.org/TFSMarijuana, with sample policy communication messages for a variety of audiences. The website includes school-related marijuana resources, including Colorado's Comprehensive Health Education Standards, and evidence-based health education curricula. The website was a success, with more 375 unique page views. RMC Health will continue to provide technical assistance on school district policies and the website remains accessible for schools, local public health agencies and administrators.

Evaluation of Collaborative and Messaging Efforts

CDPHE worked with CSPH to evaluate the impact of message integration and inter-agency collaboration efforts at the state and local level. CSPH measured this effectiveness through the following:

- The impact of collaboration across state agencies to implement effective education strategies and integrate similar messaging across state agencies
- The impact of CDPHE's efforts to integrate campaign messaging across state and local agencies by conducting regular and ongoing media scans, ending May 1, 2015

Collaboration

Collaboration is important for statewide initiatives to improve consistency and speed in providing information to the public. CSPH captured collaborative efforts through logs of collaboration events and advisory meetings, and through phone-based agency interviews. Agency interviews captured the type and frequency of collaboration activities occurring between state agencies.

State agencies collaborated in more than 90 retail marijuana activities between October 2014 and early April 2015 on education, health, safety or prevention efforts. Respondents positively rated the impact of collaboration among a number of dimensions. Agencies reported an increase in inter-agency

collaboration activities and information sharing and reported that joint projects increased their knowledge about other state organizations. Respondents agreed that the goal of collaboration was clear and opportunities available. Few barriers were identified and agencies agreed on how retail marijuana collaborative tasks should be carried out. For further information on collaboration, see the Baseline Data Report published on [CDPHE's website in June 2015](#).

Message Integration

CDPHE worked with other state agencies to integrate messaging from state-based media campaigns and website information, including health, laws, youth, edibles and safe storage. CSPH documented messaging efforts in two areas: media campaigns and state-sponsored websites. Data for both media campaigns and state-sponsored websites was gathered by a media scan conducted through a series of targeted and ongoing Internet searches and through interviews with state agency representatives.

State websites incorporated marijuana information into the messaging they provide to consumers and by referring visitors to the Colorado marijuana web portal, where visitors can find links to most state agencies actively involved with retail marijuana efforts. Many of the seven state-sponsored websites provide linkages to retail marijuana information listed on other sites. In particular, the Colorado web portal, Colorado.gov/marijuana, provides links to most other agencies web pages for marijuana information. However, as of April 2015, only three sites provide linkages to the Colorado web portal. Health information is provided on four agency sites; laws and legal information provided on seven agency sites; youth are a focus on five agency sites; edibles information is on four agency sites; and safe storage and breastfeeding or pregnancy information is covered on two agency sites.

State agencies met frequently to discuss priority areas and to plan campaign and messaging efforts. In particular, messaging alignment occurred during technical assistance activities, with CDPHE providing the public with campaign messaging materials and referral to appropriate state agencies. For further information on message integration and evaluation, see the Baseline Data Report published on [CDPHE's website in June 2015](#).

Evaluation of Trainings and Technical Assistance

CSPH also examined system-level activities related to the distribution and use of retail marijuana prevention and educational resources for training and technical assistance. CDPHE's technical assistance services were assessed using a variety of data collection mechanisms: a baseline survey needs assessment of all requestors, follow-up surveys and telephone interviews. CDPHE's trainings were assessed via attendee survey responses. The survey asked attendees to rate their familiarity with marijuana education and prevention resources before and immediately after training was completed. Attendees estimated their likelihood to use training information (i.e., the perceived value) and identify specific components of the program that can be immediately incorporated into their work with youth.

Healthy Youth Development Trainings

As outlined in C.R.S. § 25-3.5-1004, CDPHE offered six regional training sessions on positive youth development and marijuana throughout Spring and Summer 2015 for local prevention partners, public health agencies, substance abuse prevention coalitions, grantees of the Colorado Department of Human Services' Tony Grampas Youth Services (TGYS) program and Office of Behavioral Health (OBH). More

than 400 statewide youth-serving professionals were trained on retail marijuana education and prevention efforts and positive youth development strategies.

Pre-post retrospective surveys were used to evaluate the training sessions with more than 50 percent completion rate. Satisfaction ratings were high, with 71 percent of attendees rating the training as engaging. Across all training locations, attendees reported their knowledge of marijuana prevention resources improved. High ratings were also given for measures of facilitator impact. More information and data can be found in the Initial Follow-up Evaluation in Appendix F. At least seven additional training sessions will be held for community partners throughout the state from September 2015 through June 2016, most likely in Steamboat Springs, Delta, Greeley, Denver, Lamar, Limon and Pueblo.

Due to the success of these trainings, CDPHE is conducting additional regional training opportunities throughout Fall 2015 into Spring 2016 on the intersection of public health and marijuana.

The Public Health and Marijuana Workshops will focus on CDPHE's trend data collection and reporting activities, health impact research, resources and prevention messages for Colorado populations throughout the lifespan, including pregnant and breastfeeding women, young children, adolescents and adults. Workshops will introduce participants to state and regional marijuana data sources, health effects research and statewide campaigns. At least seven workshops will be held for public health professionals and prevention partners throughout the state, including Golden, Fort Collins, Colorado Springs, Granby, Grand Junction, La Junta and Salida.

Technical Assistance Services

Technical assistance is provided through online requests, telephone, direct email and in-person meetings. All technical assistance requests are categorized by type of information requested, organization, location of organization and method of support. A majority of requests are made via the Retail Marijuana Education online portal, retailmjeducation.freshdesk.com/support/tickets/new, and via direct email from Denver county organizations and prevention partners. While 24 of 90 total requests came from Denver County, at least eight other counties have requested technical assistance a total of 66 times from Nov. 15, 2014, to Aug. 10, 2015. The most common requests are for information, support and resources on marijuana education and prevention strategies, campaign resources and referrals to other state departments working on marijuana prevention.

To assess the usefulness of the technical assistance program, one-month follow-up surveys were sent to all requesters. Survey results from Nov. 15, 2014, through Jun. 1, 2015, showed that nearly all (94 percent) respondents used or planned to use the technical assistance information they received and were satisfied with the support. In addition, respondents indicated a willingness to use the technical assistance program again for future marijuana prevention and education needs. A vast majority (87 percent) of respondents shared the information or materials with others. For further information, see the Initial Follow-up Evaluation in Appendix F.

Financial Report

Retail Marijuana Education Program Funding Categories for Fiscal Year 2016

Due to the more than 60 percent funding cut to CDPHE, from \$5,683,608 in Fiscal Year 2015 to \$2,150,000 in Fiscal Year 2016, CDPHE’s ability to educate the public effectively on retail marijuana laws and health effects and prevent youth marijuana use has been significantly limited. Though CDPHE launched the “askable adult” and youth prevention campaigns in Summer 2015, the funding to sustain those prevention efforts is restricted. Recently released marijuana trend data has identified high risk populations across the state, but the state health department will not be able to fund the development of focused campaigns to reach those high risk groups^{3, 7} including cutting the planned campaigns for pregnant and breastfeeding women, low income adults, young adults, and those with lower education levels. CDPHE will not have sufficient funds to reach additional populations with language or cultural barriers to accessing information about marijuana through traditional channels. Due to limited funding, the state health department will be unable to print and supply materials for local schools and agencies across the state to disseminate within their communities. Finally, evaluation activities to assess the effectiveness of the campaigns will cease after November 2015, eliminating the state’s capacity to implement the legislatively required three-year evaluation plan. The state health department will be unable to evaluate the long-term effectiveness of the general adult education, youth prevention and Spanish-language campaigns.

The breakdown of the impact of the budget cut CDPHE’s \$2,150,000 appropriation for fiscal year 2016 is outlined in the table.

<u>FY 2015 Budget</u>	<u>FY 2016 Budget</u>	<u>Budget Category</u>
\$ 310,000	\$ 90,000	Trend Data
\$ 400,000	\$ 200,000	Program Evaluation
\$ 40,000	\$ 40,000	Regional Prevention Trainings
\$ 40,000	\$ 25,000	Materials and Resources
\$ 460,000	\$ 350,000	Operating Expenses
\$ 0	\$ 150,000	Grants for Local Communities
\$ 3,400,000	\$ 1,295,000	Campaigns Statewide
\$4,650,000	\$2,150,000	Total

- CDPHE allocated approximately \$90,000 for public health trend data collection and monitoring of marijuana exposure across the state. This cost includes increasing sample sizes and adding questions about marijuana exposure on the Pregnancy Risk Assessment Monitoring System, the Child Health Survey and Colorado Hospitalization data. This data will help to identify high-risk populations and assess evaluation results over time.

- CDPHE contracted with the Colorado Schools of Public Health for \$200,000 to evaluate the impact of all education and public awareness efforts, including those beyond the campaigns.
- CDPHE reserved \$40,000 for healthy youth development and the public health role in marijuana training across the state throughout 2015-16.
- CDPHE reserved \$25,000 for the creation, printing and translation of fact sheets into the dominant languages of Colorado residents with limited English proficiency and maintenance of the Colorado.gov/marijuana website.
- CDPHE reserved \$150,000 for grants to health education organizations conducting outreach with Spanish-speaking populations across the state.
- A total of 3.7 full time equivalent (FTE) staff (\$350,000) support all of the project activities required in statute and outlined above: 0.5 FTE project manager, 0.5 FTE substance abuse and systems change coordinator, 1.0 FTE marijuana communications specialist, 1.0 FTE marijuana education and youth prevention coordinator, 0.5 FTE fiscal and contracting support and 0.2 FTE healthy youth development trainer.
- CDPHE allocated \$1,295,000 for the development and execution of public awareness campaigns outlined in statute, building on 2015 fiscal year funding for campaign research and development.
 - Approximately \$610,000 was allocated to continue the *Good to Know* campaign throughout Fiscal Year 2015-16.
 - CDPHE reserved \$320,000 to produce and air the *Marihuana en Colorado* campaign.
 - Approximately \$365,000 for creative development, testing, production and media buys to fully execute the youth marijuana use prevention campaign, *What's Next*.

Retail Marijuana Education Program: Conclusion

CDPHE's Retail Marijuana Education program has successfully led adult education and youth prevention efforts in Colorado to mitigate or reduce negative public health consequences of legalizing marijuana. **Following the *Good to Know* campaign, adults who reported they were aware of the campaign were more than twice as likely as other adults to identify correctly the key retail marijuana laws.** CDPHE will continue to expand partnerships at the state and local level, implementing innovative and data-driven initiatives and evaluating the effectiveness of those efforts. TABOR limitations that resulted in more than 60 percent funding cuts to the Retail Marijuana Education Program in Fiscal Year 2016 limit the capacity of the program to effectively prevent any negative public health consequences in Colorado. As the first state to legalize marijuana, Colorado bears a heavy burden that demands statewide leadership for prevention and education efforts. CDPHE will continue to implement educational prevention programs and messaging based on data and research available on effective strategies to reduce public health consequences, as funding allows. CDPHE will report all data on the program impact annually.

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Appendices

Appendix A. Good to Know Campaign Creative Design Examples

Good to Know: Print Advertising Examples

TO BUY, have OR USE SOME, you must be at least 21

It's illegal to purchase, possess or use retail marijuana if you're under 21. Learn more about safe and responsible marijuana use at GoodToKnowColorado.com.

GOOD TO KNOW

Store it right:
LOCKED UP, OUT OF REACH and OUT OF SIGHT.

Keep marijuana stored safely away from those underage. Learn more about safe and responsible marijuana use at GoodToKnowColorado.com.

GOOD TO KNOW

PUBLIC SPACE is not the place.

It's illegal to use marijuana in public. Learn more about safe and responsible marijuana use at GoodToKnowColorado.com.

GOOD TO KNOW

For those under-age,
IT'S JUST NOT OKAY.
THEIR BRAINS ARE STILL GROWING,
SO KEEP IT AWAY.

Retail marijuana use is unsafe for anyone under 21. Learn more about safe and responsible marijuana use at GoodToKnowColorado.com.

GOOD TO KNOW

What you get HERE CAN'T GO OUT THERE.

It's illegal to take marijuana out of state. Learn more about safe and responsible marijuana use at GoodToKnowColorado.com.

GOOD TO KNOW

Good to Know: Social Media Messaging on Health Effects



**MAKING HASH
CAN CAUSE A FLASH**

Be safe and buy hash oil from a licensed retailer.

 GoodToKnowColorado.com

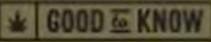


Marijuana in Colorado

With edibles,
**BE SMART.
GO SLOW
WHEN YOU START.**

 GoodToKnowColorado.com



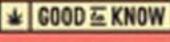


**THINK ABOUT SECONDHAND
SMOKE BEFORE YOU TOKE.**

GoodToKnowColorado.com



**THC IN ANY FORM
MAY HARM YOUR BABY.**

 GoodToKnowColorado.com

Good to Know: Retail Marijuana Education Posters



Appendix B. Good to Know Retailer Kit Campaign Creative Examples

MAKING HASH CAN CAUSE A FLASH.
 Hash is a concentrate containing THC that is more potent than most edibles. This is extremely dangerous and can result in life-threatening reactions and injury. Be sure you hash in front of someone else.

STORE IT RIGHT. LOCKED UP, OUT OF REACH AND OUT OF SIGHT.
 Always store your hash away out of reach of children. If a child eats or drinks something containing hash, they may have problems seeing or sitting or hear & hand-eye coordination. Call 911 or call the poison control center (1-800-232-4321) immediately. If a child eats, call 911 or go to an emergency room right away.

BE PREPARED FOR HOW MARIJUANA CAN AFFECT YOU.
 Marijuana affects everyone differently and varying doses, strains, and forms can lead to different lengths and intensities of impairment. It can also cause low blood pressure and affect your heart with a fast beat.

Using alcohol and marijuana at the same time is better to reach the greater impairment that occurs and drink less with caution, and remember to not a generator by smoking them.

GoodToKnowColorado.com

GOOD to KNOW



Appendix C. Good to Know Askable Adult Campaign Creative Examples

TALKING

— TO YOUR KIDS & TEENS —

UNDERAGE RETAIL MARIJUANA USE: CONVERSATION TIPS FOR PARENTS

THE BASICS

Listen carefully and stay positive. Keep the conversation open so they can come to you with questions. When youth know they can ask you questions, it creates an open dialogue where they can feel comfortable coming to you when they are in a difficult situation.

YOUR INFLUENCE MATTERS

GOOD to KNOW COLORADO Department of Public Health & Environment

ESTABLISH CLEAR RULES

GOOD to KNOW COLORADO Department of Public Health & Environment

Appendix D. Marihuana en Colorado: Lo Que Debes Entender Campaign Creative Examples



Appendix E. What's Next Campaign Creative Examples



Appendix F. *Initial Follow-Up Evaluation: Awareness of Marijuana Law, and Attitudes towards Marijuana Use in Colorado, 2015 Post-Campaign Report*

Colorado School of Public Health

Initial Follow-Up Evaluation: Awareness of Marijuana Law, and Attitudes towards Marijuana Use in Colorado, 2015

A report including findings from initial follow-up surveys with a cohort of adult Coloradans and findings from an evaluation of technical assistance and training activities statewide.

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September 2015 Report on the Marijuana Education Project

A. Executive Summary

This evaluation project supports the Retail Marijuana Prevention and Education Program, including mass media campaigns. The Colorado Department of Public Health and Environment (CDPHE) was designated the lead for implementing public education efforts and aligning messaging across state agencies through Senate Bills 13-283 and 14-215. Statewide campaign messages will include resources from many state agencies, including the Colorado Department of Education (CDE), Colorado Department of Human Services (CDHS), Colorado Department of Revenue (DOR) and the Colorado Department of Transportation (CDOT). The state will benefit from this project by increasing accurate knowledge of the retail marijuana laws in the state. CDPHE is funded through the marijuana tax cash fund to educate Colorado residents and visitors about safe, legal, and responsible use of marijuana while mitigating negative public health consequences through implementation of the following activities, dependent on funding:

1. An 18-month campaign directed at educating the public on the legal parameters of use and health effects of marijuana including fact sheets and clinical guidelines for physicians
2. An ongoing education and prevention campaign that further educates a) the public on legal use of marijuana, b) retailers on the importance of preventing youth access, c) high risk populations on safe use (to include hash oil extraction at home, pregnant/ breastfeeding women, secondhand marijuana smoke exposure among children, accidental ingestion by children, and more), and d) the public to prevent the over-consumption of edibles.
3. Provision of regional trainings and technical assistance annually for local programs that are addressing marijuana prevention.
4. Maintenance of a website portal to all state agency information on marijuana and advertise the existence of the website to the public.
5. Alignment of messaging across state agencies and integrate their information into the above campaigns/website.

The evaluation is conducted by evaluators from the Colorado School of Public Health (Colorado SPH) in accordance with the Centers for Disease Control and Prevention's Framework for Program Evaluation¹ over a 36 month period beginning September, 2014 and has two primary goals: To assess the effectiveness of CDPHE's marijuana prevention and education campaign and website; and to assess the effectiveness of regional trainings, technical assistance, system-level collaborations, and integration of campaign messaging across state agencies. During the evaluation, we will document changes in accurate knowledge of retail marijuana laws and the health impacts of marijuana use; changes in perceptions about problematic use of marijuana and awareness of specific and diverse marijuana campaigns statewide. Results are not generalizable to the population of Colorado.

Campaign activities, January 2015 through June 2015

CDPHE contracted with Cactus, an advertising agency, to develop and implement an educational campaign to increase awareness of the laws associated with recreational use of marijuana in Colorado. After conducting formative research into previous marijuana education campaigns and surveying adult members of the Colorado community, they developed a campaign entitled "Good to Know". Select campaign materials are available here: <http://goodtoknowcolorado.com/>. The "Good to Know" print and out-of-home media placement ran for 53 days

¹ <http://www.cdc.gov/eval/framework/index.htm>

starting 03-02-2015 and ending 04-24-2015. Radio media placements began 1-5-2015, TV media placements ran 2-23-2015 through 3-20-2015 and digital media from 02-23-2015 through 05-11-2015.

Goal 1 Executive Summary: Baseline and Follow-up Survey Findings



Mixed-Mode Survey Comparisons of Baseline to Follow-up awareness of retail marijuana laws

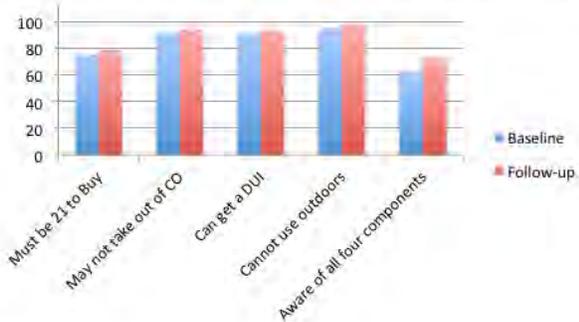
At baseline, there were 993 respondents to the survey from a cohort sample of 1523 (for a weighted response rate of 70%). At follow-up, 80% of those who responded at baseline completed a survey (N=798). The sample is statistically equivalent with regard to age, gender and race ethnicity from baseline to follow-up.

Data show that between baseline and follow-up there has been an increase in both exposure to marijuana related educational advertising and awareness among the sample related to specific elements of the Colorado retail marijuana laws. Specifically, there were increases from baseline to follow-up for four components of the law that were included in the “Good to Know” campaign messaging—that you must be 21 years old to buy retail marijuana, that you may not transport marijuana out of state, that you can be cited for driving under the influence of marijuana and that you cannot consume marijuana in public. While these increases were small, they were all statistically significant.

Figure 1: Mixed Mode Survey Sample Race/Ethnicity, Baseline and Follow-Up



Figure 2: Awareness of components of retail marijuana law, Baseline to Follow Up



When comparing accurate awareness of all four of these components from baseline to follow-up in the sample, we documented a statistically significant increase in awareness, from 62.0% of the sample aware of each of these components at baseline to 73.1% of the sample at follow-up.

There was minimal significant change from baseline to follow-up among the mixed mode sample in attitudes toward and perceptions of risk associated with marijuana use. This is expected,

given that the most prominent messages in the “Good to Know” campaign focused on raising awareness of specific components of the law rather than on changing perception of risk. The research on the risks and health effects of marijuana use was not available until one month after the launch of the “Good to Know” campaign. We observed the greatest increases in agreement among this sample that daily or near daily use of marijuana can lead to impaired memory for adults; that extracting hash oil in the home carries risk; and that storing marijuana in open containers at home poses dangers for children.

A multivariable analysis examining the relationship between awareness of the “Good to Know” campaign and awareness of multiple elements of the law is ongoing. Initial estimates are that persons familiar with the “Good to Know” Campaign are 2.25 times more likely to have awareness of the four key aspects of the law that the campaign promoted: Legal age of use for recreational marijuana is 21; you may not transport marijuana out of the state; you can be cited for a DUI for using recreational marijuana and driving; and you may not use recreational marijuana outdoors. Further details on this analysis are forthcoming.

A secondary analysis allowed a comparison of the dissemination of the “Good to Know” campaign statewide with awareness of the campaign among the mixed-mode sample. While this analysis revealed no statistically significant association between the zip codes of those indicating awareness of “Good to Know” and zip codes where “Good to Know” out-of-home advertising was more heavily disseminated, there are some patterns of overlap shown in the map presented here.

Community Survey

In addition to the mixed-mode survey described here, we also conducted a community survey in the fall of 2014 with specific audiences to generate information from specific population sub-groups, including clinicians, retail marijuana business owners and staff, retail marijuana users, youth, pregnant and breastfeeding women. By design, the information does not accurately represent these groups as a whole, but does generate more detailed information than population surveys can provide. Capturing these data allowed us to ascertain baseline understanding of laws, perception of risk and risk behavior among these groups with regard to retail marijuana use prior to implementation of more targeted campaigns intended specifically for these audiences. Once these campaigns have been implemented, we will return to the field to conduct follow-up surveys with these groups, likely in the fall of 2015. As educational and campaign efforts targeting these groups are ongoing, follow-up data collection with these groups is not yet complete. For this reason, we do not include findings related to any changes in awareness of laws, perceptions of risk and marijuana behaviors among these groups in this report. These findings will be included in the final report for this evaluation planned for June 2016.

Goal 2 Executive Summary: System level education and prevention activities

The second goal is to evaluate system-level marijuana educational and prevention activities. Colorado SPH assessed four efforts: Colorado Department of Public Health and Environment regional trainings, Colorado Department of Public Health and Environment’s Technical Assistance services, state-based collaboration activities, and State-based marijuana messaging efforts.

Regional Trainings

Preliminary findings suggest that the six *Positive Youth Development and Marijuana* regional trainings effectively delivered retail marijuana information and increased the public dissemination of training materials. Attendees’ represented a variety of State and local agencies and the material suited their professional needs. Participants reported high training and facilitator satisfaction, increased knowledge of retail marijuana resources, and stated that they were likely to incorporate the training information into their program. A four-month follow-up survey recently began to assess longer-term utilization of the *Positive Youth Development and Marijuana* training materials. *Positive Youth Development and Marijuana 201* planning is currently in progress and is slated to begin in early 2016. In partial response to attendee feedback and prior Colorado SPH

recommendations, CDPHE developed two new advanced marijuana regional training programs. *Marijuana and Public Health Workshops* began in August 2015 and targets the larger public health community.

Technical Assistance Services

From November 2014 through mid-August 2015, Technical Assistance services received 113 unique requests. The most commonly requested areas were marijuana prevention and educational materials, media campaign resources, school-based resources, laws and regulation information, and contact referrals. Requestors expressed high satisfaction and used, or intended to use the information they received. Nearly 90% of requestors shared the information. The most requested materials were the youth prevention and education materials. CDPHE will organize all materials into a more-accessible toolkit with strategies and recommendations for utilization of the materials based on the information gathered from this evaluation.

Collaboration

State agencies collaborated in over 90 retail marijuana activities between October 2014 and early April 2015 for education, health, safety, or prevention efforts. Respondents agreed that the goal of collaboration was clear and opportunities for joint work were available. Few barriers were identified and agencies appeared similar in their views about how retail marijuana collaborative tasks should be carried out. We recommend expanding the collaboration evaluation to those outside Colorado and establishing policy recommendations for other states about how to develop relationships and engage retail marijuana voices into education and prevention conversations. CDPHE has been implementing these recommendations since our initial data report.

Message integration

Message integration through multiple state-based media campaigns and website information addressed the educational priorities established by the Governor's Office including health, laws, youth, edibles and safe storage. Media campaigns geared towards Spanish-speaking populations and the use of social media would ensure the distribution of information to a wider audience. Additional information may be needed for pregnant or breastfeeding women. CDPHE has since initiated a Spanish-language campaign and is working to secure funding that will expand efforts to reach pregnant and breastfeeding women.

Overall Recommendations

Goal 1: Knowledge of Marijuana Laws, Attitudes Towards and Perceptions of Risk Associated with Use

We see evidence of increased awareness of specific components of the retail marijuana laws among the cohort sampled for this evaluation between the fall of 2014 and spring of 2015. We recommend additional analyses that will explore the relationship between awareness of laws and exposure to the "Good to Know" Campaign. If such a relationship is demonstrated, we caution that this will offer evidence only of an association, and not that exposure to the "Good to Know" campaign caused an increase in awareness about the law. Our evaluation methodology does allow for an assessment of association, but not causation. We are confident that the increases in awareness of specific components of the retail marijuana laws are due in part to efforts statewide to educate the public on the laws, and the "Good to Know" campaign is one such effort.

While ongoing reinforcement of messages from the "Good to Know" campaign may be beneficial, we also recommend that efforts for education turn now to raise awareness of known risks associated with marijuana,

including hash oil extraction, heavy and prolonged use for adults, and use during adolescence, pregnancy and breastfeeding.

Further, our research supported the need for developing culturally and linguistically responsive resources aimed at Colorado's Hispanic population. CDPHE recently developed and launched marijuana resource information in non-English languages and a Spanish-language public awareness campaign. Tailoring future materials for non-dominant groups with input from diverse communities is particularly important.

Our research also supports developing social media tools to further outreach, particularly among youth – a strategy that CDPHE is implementing in the launch of the youth-focused campaign in August 2015.

Goal 2: System Level Education and Prevention

We recommend extending longer-term data collection for the *Marijuana and Public Health* trainings to understand their impact and identify additional information needs by the public, and additional funding to carry out studies examining marijuana prevention, safety and health effects, including studies that involve groups with special informational needs such as pregnant/breastfeeding women, children, and adolescents.

Our data supports CDPHE's current efforts to compile a compendium of programs that specifically target marijuana prevention and treatment in Colorado and distribute this resource on the State marijuana website. Due to the large number of requests for retail marijuana presentations, the development of a Teach-the-Teacher type of training model could more broadly disseminate marijuana prevention and educational information to youth and groups with special information needs.

In addition to State agencies, many organizations are involved in retail marijuana efforts. We recommend expanding the collaboration evaluation to those outside the State system, such as; local health departments, health care networks, youth prevention programs, parent and public safety groups, and the retail marijuana industry. Collaborative activities often brought industry to the table, which is unique in public health activities. We recommend establishing policy recommendations for other states, focusing on how to develop relationships with the retail marijuana industry and establish roles for engaging retail marijuana voices into the conversation. We recommend reviewing media campaign efforts produced by the Industry and other public health agencies to determine if external sources of messages are similar to State efforts.

B. Program Background and Evaluation Goals

The Colorado Department of Public Health and Environment (CDPHE) was tasked in Senate Bills 13-283 (page 8) and 14-215 (pages 15-19, 26, 29-30) with implementing various aspects of the new retail marijuana system to monitor changes in use patterns, monitor and prevent negative health outcomes, educate the public, align messages across agencies, and more.

CDPHE's Prevention Services Division was funded beginning July 1, 2014 to create statewide campaigns to educate Colorado residents and visitors about safe, legal, and responsible use of marijuana. CDPHE's \$5,683,608 appropriation through Senate Bill 14-215 includes funding for 3.7 FTE and operating expenses, surveillance/data collection (more information in the next section), evaluation of the campaigns, clinical prevention guidelines development, translation, educating school districts on marijuana laws for schools, creation of fact sheets and the development and execution of the program as outlined in statute. Beginning July 1, 2015, the budget was reduced by more than 60 percent to just \$2,150,000. This cut will impact the ability of the program to evaluate its effectiveness moving forward.

CDPHE is contracting with the Colorado SPH to evaluate the effectiveness of the Retail Marijuana Education Program. Colorado SPH is a qualified evaluation partner that holds expertise, content knowledge, and demonstrated experience in the evaluation of both mass reach media campaigns to affect behavior and the evaluation of prevention programs on substance use or abuse.

C. Overview of Stakeholder Engagement

The stakeholders and primary users of this evaluation are listed below. Uses of this evaluation have the potential to be wide reaching, beyond that of traditional stakeholders such as groups and organizations involved directly with retail marijuana sales and use in Colorado. The evaluation may be beneficial to the community at large, as many community groups and individuals have an interest in improving the health and wellbeing of the Colorado population. The evaluation can also contribute to an evidence-base for the effectiveness of retail marijuana campaigns and inform parties outside of Colorado on the processes, strengths, and challenges for implementing a Retail Marijuana Education and Prevention Program at the state and local levels.

The evaluation stakeholders have been engaged throughout the development and implementation of the evaluation plan. The evaluation findings that will be communicated to the stakeholders include results specific to the evaluation goals, and progress made toward distal and proximal objectives. We will disseminate findings to those listed in as Stakeholders below, our Evaluation Advisory Workgroup, and post them to the CDPHE website. This is a mid-term report on the baseline data and initial follow-up findings related to evaluation of campaign and educational efforts.

Based on the interest of the stakeholders, the evaluation is designed to help decision makers with the following:

- Understand current level of knowledge, attitudes, and behaviors related to recreational marijuana use and whether and/or how it changes between 2014 and 2017.
- Understand the level of exposure statewide to marijuana education and prevention campaigns.
- Understand the relationship between marijuana education and prevention campaign exposure and changes in knowledge, attitudes, and behaviors related to retail marijuana use and whether and/or how it changes between 2014 and 2017.
- Prioritize future social marketing education and prevention campaigns.
- Determine the most appropriate allocation of public health and social service resources to support appropriate and legal consumption of retail marijuana.

Stakeholders in the Evaluation

- Colorado General Assembly
- CDPHE - leadership and programs
- CDPHE – Office of Planning and Partnerships (OPP)
- Colorado Association of Public Health Officials (CALPHO)
- State Agencies: Colorado Department of Human Services (CDHS); Colorado Department of Health Care Policy & Financing; Colorado Department of Transportation; Colorado Department of Education; Colorado Attorney General’s Substance Abuse Trend and Response Task Force
- Colorado Governor’s Office
- Substance abuse professionals
- Retail and Medical Marijuana Grower Associations
- Local public health agencies (LPHAs)
- Places that interact and provide services to children like schools, childcare, community groups, etc.

- Parents and Families
- Other local and state governments or other organizations with an interest in
- Retail and Medical Marijuana Industry members
- Colorado County Attorney’s Association
- Colorado District Attorney’s Association
- CDHS grantees – Tony Grampas Youth Services Program; Access to Recovery; Prevention and Intervention Programs; federal mental health and substance abuse block grants
- American Civil Liberties Union (ACLU)
- National Association for the Advancement of Colorado People (NAACP)
- National Council of La Raza (NCLR)
- Cannabis Patients Alliance
- Mothers Advocating Medical Marijuana for Autism (MAMMA); Mothers for medical marijuana treatment for autism; Cannabis for Autism
- Drug Policy Alliance
- Colorado Cannabis Collective
- Local Chambers of Commerce
- State & local tourism associations
- Cleaning/maid services (tourism industry)
- Centers for Disease Control and Prevention
- Veterans Administration

Evaluation Background

Conducting evaluation to understand the impact of CDPHE’s marijuana education and prevention campaign is a primary core activity of the Violence and Injury Prevention—Mental Health Promotion Branch of the Colorado Department of Public Health and Environment.

The focus of this evaluation project is to understand current and ongoing knowledge of, attitudes toward and behaviors related to retail marijuana, whether Coloradans are viewing education and prevention campaign materials, and whether there is a relationship between viewing the campaign and changes in retail marijuana knowledge, attitudes and behaviors.

The CDC evaluation framework was applied during the evaluation planning process and provided a guide for designing and conducting the evaluation. The following standards were applied throughout the development of the evaluation plan: utility (serve the information needs of intended users); feasibility (be realistic, prudent, diplomatic, and frugal); propriety (behave legally, ethically, and with regard for the welfare of those involved and those affected); and accuracy (reveal and convey technically accurate information). The CDC evaluation framework includes the following steps:

1. Engage stakeholders: Those persons involved in or affected by the program and primary users of the evaluation.
2. Describe the program: Need, expected effects, activities, resources, stage, context, logic model.
3. Focus the evaluation design: Purpose, users, uses, questions, methods, agreements.
4. Gather credible evidence: Indicators, sources, quality, quantity, and logistics.
5. Justify conclusions: Standards, analysis/synthesis, interpretation, judgment, recommendations.
6. Ensure use and share lessons learned: Design, preparation, feedback, follow-up, and dissemination.

Evaluation Goals

The goals of the evaluation are to (1) assess the effectiveness of CDPHE’s marijuana prevention and education campaign and website; and (2) assess the effectiveness of regional trainings, technical assistance, system-level collaborations, and integration of campaign messaging across state agencies.

Evaluation Deliverables

Evaluation of CDPHE’s marijuana education campaign will include but not be limited to the following deliverables:

1. Completed three-year evaluation plan developed with goals, objectives, timelines, and monitoring plan delivered to CDPHE.
2. Recommendations for the media-agency contractor on focus group recruitment, focus group methodology and guide, qualitative analysis, formative testing of messages, and best practices for reporting results for focus groups on message development and creative testing/response.
3. Development of evaluation tools that receive CDPHE approval prior to use.
4. Cognitive testing of surveillance questions related to marijuana use.
5. Completed baseline survey report of campaign recognition, knowledge and behavioral questions by December 31, 2014 (including recognition of CDOT, DOR, CBS, CDHS and Governor’s Office Campaigns).
6. Completed annual evaluation reports on the reach (including the gross rating points from the media/advertising agency) and effectiveness of the campaigns and other prevention efforts. Additionally, the contractor will help author two reports prepared for the general assembly due to CDPHE by February 1, 2015 and September 1, 2015.

Evaluation Methodology

Our evaluation plan includes an analysis of multiple quantitative surveys administered at four time points with a cohort/panel of respondents and with multiple cross-sectional probability samples of high-risk population groups; analyses of secondary data sets with information on marijuana education and prevention knowledge attitudes and behaviors at three time points; and an organizational assessment of the quality of technical assistance and collaboration among CDPHE supported organizations. Because this is a program evaluation with the goals of improving an educational campaign, it is not considered research and does not require review and approval by the Colorado Multiple Institutional Review Board.

The evaluation will address the following questions:

1. What is the knowledge of, attitudes towards and behaviors related to retail marijuana statewide?
2. How have these changed over time?
3. How has the retail marijuana education and prevention program contributed—if at all—to these changes?

A thorough review of all marijuana campaign evaluation action plans and logic models yielded a comprehensive list of all possible indicators for each of the evaluation questions within each of the project goals. Key stakeholders were invited to participate on an Evaluation Campaign Advisory Workgroup to critique the list of indicators for the evaluation, highlight any gaps, and prioritize the most meaningful and impactful. Following the selection of indicators, key stakeholders and evaluation staff participated in several discussions to determine the best and most feasible data sources, data collection instruments, and data analysis to collect data on the indicators.

Evaluation and Methods Design

The Retail Marijuana Education and Prevention Campaign Evaluation and Methods Design is summarized in an earlier report (see Table 1, page 14, https://www.colorado.gov/pacific/sites/default/files/MJ_RMEP_Awareness-Marijuana-Law_Final-Report.pdf) summarizes the specific indicators that will be measured in order to answer evaluation questions including different indicators to measure the evaluation questions and different sources and methodologies to collect data on the indicators. The table also includes the known limitations, timeframe and responsibility for data collection, and evaluation stakeholders for the indicators. The overall evaluation design is a mixed-method approach that combines quantitative and qualitative approaches and methods to maximize the strengths of each approach and gather the best data to measure the evaluation indicators.

Detailed specifics on the evaluation plan, including evaluation questions, design, measures, analyses and objectives is available in the baseline report submitted in June 2015. A description of methods utilized for evaluation relevant to this report follows.

D. Methodology

The evaluation outcomes reported here included a mixed-mode baseline and follow-up surveys on marijuana legal knowledge and attitudes/behaviors around marijuana access and use.

Sample design for the mixed-mode survey

Participants were a sample of respondents to The Attitudes and Behavior Survey (TABS) on Health, a periodic, population-level survey among Colorado adults. TABS on Health interviews adults who were age 18 or older when randomly selected in 2012 from among all Colorado households with telephones, including cell-phone households since 2008. Households are selected for interview by sampling all Colorado telephone exchanges with at least one known residential telephone number. In 2012, TABS on Health respondents were invited to be available for future studies; 62% agreed (n=9267 of 14,998) and were enrolled in a survey research registry. This cohort has aged over time, and age of respondents is reported in the results tables in this report. Registry volunteers and decliners are similar in sex, prevalence of self-reported diabetes or high blood pressure, body mass index (BMI), and smoking status. Registry members are more likely than decliners to report high cholesterol (33.3% vs. 29.1%) or a mental illness diagnosis (13.2% vs. 8.9%); to be white (82.4% vs. 75.7%), aged 45-64 (43.3% vs. 35.2%), a college graduate (46.0% vs. 38.0%), or self-identified gay, lesbian or bisexual (3.0% vs. 2.1%), and to have income at or above 200 percent of the federal poverty level (63.1% vs. 42.7%).

All currently active registry members at the time of sampling (n=8,670) were eligible for the baseline and follow-up mixed-mode marijuana survey. The selection process for the main sample oversampled certain population groups in order to obtain more precise information about them (age less than 35, racial and ethnic minority groups, and then-current marijuana users). The main sample consisted of 1,523 registry members. Participants were contacted first by mail and then by telephone to complete the survey.

At baseline after the main sample was drawn, all Registry members who preferred Spanish language contact were invited to participate via telephone in the same survey, translated into Spanish, except for media slogans that were read in English. A total of 186 were eligible to participate. Follow-up with the Spanish language sample will occur in 2016, pending available funding.

Instrument Development

In collaboration with CDPHE, the evaluation team created a survey with items measuring knowledge of

Colorado retail marijuana laws and knowledge of health risks associated with recreational marijuana use. Initial survey instruments were drafted using existing items from the Behavioral Risk Factor Surveillance System, the Youth Risk Behavioral Surveillance System, Monitoring the Future, and surveys used in a medical marijuana research study conducted by one of our project evaluators and funded by the National Institutes of Health. We cognitively tested all potential items among a diverse group of Colorado adults purposively composed of marijuana users and non-users; parents; a range of ages including young adults, adults in their middle years, and older adults; and diverse ethnicities. Participants read and answered the initial draft questionnaire, then described how they chose their responses, in order to identify confusing wording, unintended meanings, and gaps in questions. Items were revised, re-ordered, added and removed to address identified issues.

The final survey instrument (included in the Appendix) includes items in the following domains:

- Media Awareness
 - Exposure to ads or messages about marijuana
 - Recall of ads or messages about marijuana (*note at baseline, we did not include reference to the “Good to Know” campaign as the slogan was not yet developed; we did include reference to this campaign at follow-up*)
 - Familiarity with marijuana-related slogans promoted in Colorado
- Knowledge of Marijuana Laws
 - Minimum age to buy recreational marijuana
 - Places where marijuana can be used
 - Limits of amount possessed for recreational marijuana
 - Limits of plants grown for recreational use
 - Liability to be ticketed for driving under the influence
 - Carrying or mailing marijuana out of state
- Perceptions of harm and attitudes toward use of marijuana, including:
 - Marijuana use during pregnancy or while breastfeeding;
 - Underage use of marijuana;
 - Over Consumption of marijuana-infused products (edibles);
 - Secondhand marijuana smoke exposure;
 - Unsafe storage of marijuana products in the home;
 - Public use of marijuana products; and
 - Dangerous hash oil extractions.

Data Collection Procedures for the mixed-mode survey

At baseline, main sample participants included those with (n=1,371) and without (n=152) known mailing addresses. Advance postcards were sent to all with known addresses requesting updates to contact information via a toll free line or email address.

Mail: At baseline, participants with known mailing addresses were contacted first by mail in two waves during October - November 2014; each wave involved an initial mailed survey, cover letter, and an incentive of a \$2 bill, followed 10 days later by a second mailed survey without an incentive to non-completers. Participants with a valid phone number who had not completed a survey by one week after the second mailed survey were contacted by telephone. The follow-up administration used the same methods and occurred in late April and early May, 2015. The paper versions of the survey are available in Appendix A.

Telephone: At baseline, telephone interviews were conducted between November 6th, 2014 and December 19th, 2014 using a Computer-Assisted Telephone Interview (CATI) system. The telephone script was programmed using Sawtooth Technologies, Inc.’s Sensus 6.0 software, and the same developer’s WinCATI 6.0 software was used to manage the sample. Five interviewers attempted to contact participants during three calling periods (weekdays 9:00 am – 4:00 pm; weekdays 4:00 pm – 8:00 pm, and weekends 11:00 am- 4:00 pm), with an emphasis on evening and weekend times. Contact was attempted at least 8 times before a participant was classified as a non-responder. At least 2 attempts were made in each of the three calling periods, with the final 2 attempts occurring at any time. After completing the interviews, participants were mailed a \$10 gift card to either Kroger or WalMart, according to respondents’ preference.

Spanish-dominant participants were contacted using the same protocols from February 7th, 2015 to March 21st, 2015. The script was translated into Spanish using services provided by CDPHE. (Media slogans were read to participants in English). Two interviewers who are bilingual in Spanish and English attempted and completed the interviews.

The follow-up telephone interviews were conducted starting on May 27th through June 30th, 2015 and followed the same protocols as at baseline. Spanish-dominant participants were not contacted during the follow-up.

Weighting

Baseline data were weighted in analysis to account for each participant's likelihood of being chosen for the marijuana survey (marijuana selection probability), with an adjustment for participants who were drawn into the sample but did not complete the survey (non-response adjustment), and standardization on sex, age, and ethnicity to resemble the Colorado 2012 population on these three characteristics. The final weights were calculated as:

$$FINALWT = W_{TABS} * W_{MJ\ SAMPLE} * W_{NONRESPONSE} * W_{STD}, \text{ where}$$

W_{TABS}	= 1 / (TABS on Health selection probability)], adjusted for nonresponse and standardized on sex, age, ethnicity, education;
$W_{MJ\ SAMPLE}$	= 1/ marijuana selection probability,
$W_{NONRESPONSE}$	= 1/ marijuana survey response rate within sampling category,
W_{STD}	= adjustment on age, sex, race/ethnicity.

The W_{TABS} selection-probability component is a function of unequal stratified sampling from 1+ telephone exchanges; number of survey-eligible members in a selected household, and number of household landlines and participant's cell phones. The $W_{marijuana\ SAMPLE}$ selection probability reflects two-stage sampling, because a previous survey (first stage) affected the chance of being chosen for the Mixed-Mode Survey (second stage). More specifically, anyone who completed the first-stage survey and reported current marijuana use at that time was chosen to participate in the second-stage Mixed-Mode survey (certainty selection). About two-thirds of mixed-mode survey participants completed the first-stage survey; the other third had unknown first-stage marijuana use status, and their likelihood of having been marijuana users at that time was estimated using rates of first-stage marijuana use among second-stage users and non-users. Total probability was computed separately for the four groups of survey participants—marijuana use at both stages, marijuana nonuse at both stages, and the two groups of mixed use-status across stages.

At baseline, we weighted data to the general population of adults in Colorado, although we caution that baseline results are *not* generalizable to the adult population in Colorado due to changes to the Registry membership and the population of Colorado since the inception of the Registry. In this report, we are comparing data from

participants in the baseline survey who also completed a follow-up survey. The analyses conducted for this report use complete data from baseline and follow-up and the statistical tests pair responses from an individual. The purpose of the analyses are to test for changes in individual responses over time and not generalizability to the population, thus data are not weighted.

Response Rate

Baseline: A total of 993 participants from the main sample completed surveys or interviews, adjusted for loss of eligibility (e.g., death since previous contact), for a response rate of 70%. A total of 47 participants from the Spanish language sample completed a telephone interview for a response rate of 51% (not shown).

Follow-up: A total of 798 participants from baseline completed the survey or interview, adjusted for loss of eligibility (e.g., death since previous contact), for a response rate of 82%.

Data Cleaning

Analyses for baseline and follow-up surveys followed the same protocols. All surveys returned by mail were visually checked for stray marks, notes in the margins, and other irregularities that affect scanning. Mail and telephone surveys were checked for duplicates, (e.g., two completed mail surveys or a completed mail and phone survey) and the earliest completed survey with complete or nearly complete data was retained. Next, the mail and telephone survey data were merged. Because of differences in the scanned and the telephone (CATI) datasets and minor differences in variable names, variables were modified for one or both of the datasets to make the datasets compatible. Data were checked for inconsistencies and out of range values; however, these values are retained in the final dataset. Decisions about handling inconsistencies and out of range values were made during analysis and are reflected in the reporting of methods and tables.

Evaluation Indicators, Mixed-Mode Sample

The public media campaign, known by the tagline “Good to Know,” was evaluated with two primary indicators: (1) media reach and (2) accurate knowledge of retail marijuana laws, and a secondary indicator, accurate knowledge of risks associated with retail marijuana. Each indicator and the associated analysis plan are summarized in Table 1, shown at the end of this report.

Media Reach

Media reach was measured during June 2015, approximately six months after the launch of the “Good to Know” campaign. Using items from the mail and telephone surveys, we calculated:

1. Unprompted recall: The proportion of the main sample who recall hearing or seeing the campaign’s slogan, unprompted (Q3 on the mail version of the baseline survey)
2. Prompted recall: The proportion of the main sample who recall hearing or seeing the campaign’s slogan “Good to Know” *at least* once during the past six months
 - a. Prompted recall, adjusted for false recall: The proportion of the main sample who recall hearing or seeing the campaign’s slogan “Good to Know” at least once during the past six months, after subtracting an average recall of the two fictitious slogans

3. Frequency of message recall: The proportion of the main sample who recall hearing or seeing the campaign’s slogan “Good to Know” none, once or twice, and more than twice during the past six months

Collectively, the proportions described above describe the campaign’s reach among the sample of survey participants designed to reflect the Colorado adult population. These proportions will be evaluated for the overall sample as well as by demographic characteristics (gender, age category, and race/ethnicity).

In the absence of an *a priori* target for campaign reach, the prompted recall proportions were descriptively compared to other marijuana-related slogans queried in the survey. The campaign slogans are described by the overall budget and the timing of paid media purchases of respective campaigns. Additionally, we describe the campaign dissemination in terms of media buys and placement statewide.

Knowledge of Retail Marijuana Laws

Knowledge of marijuana laws was measured with six items. Of the six items, four are mostly likely to have been affected by campaign exposure because of the inclusion in campaign materials and messages. We examined the change in accurate knowledge of all items, with a focus on the four most likely to have changed (bolded below). We also created an index of these four items to look at the change in a composite of those laws addressed in the *Good to Know* campaign messaging. We calculated the percent change in accurate knowledge of respondents from the baseline in 2014 to the follow-up in 2015. Those participants who reported inaccurate knowledge or answer “don’t know” or “not sure” were grouped together. The six items measured are shown below, and the most relevant items to the campaign are bolded.

- 1. Must be at least age 21 to buy**
2. Places where marijuana can be used
 - a. May use in a private home
 - b. May not use in a business
 - c. May not use in outdoor place**
3. May purchase 1 oz.
4. May grow 6 plants
- 5. Can get cited for DUI**
- 6. May not take out of state**
7. Composite index of most relevant laws to the campaign: (1) age 21 to buy, (2) may not use outdoors, (3) can get cited for DUI, (4) cannot take out of state.

The percent change in each of these items was evaluated for the overall sample as well as among demographic groupings (gender, age category, race/ethnicity, and current marijuana use). As noted above, a key priority in the evaluation is to ascertain if there is an association between higher awareness of any of the laws and exposure to the Marijuana Education and Prevention Campaigns, and we recommend that this analysis take place, although it is not a part of the data presented here.

Perceptions of Risks and Health Effects Associated with Retail Marijuana

The main content of the general public media campaign is related to legal use of retail marijuana. However, some messaging relates to risks associated with use, specifically around the harm to the developing brain of children and adolescents, risks to children, high risk use, and use during pregnancy. We created four composite indices for each of these four areas that have been addressed by the campaign. We examined changes to these composites indices, as well as all individual items. We anticipated that the composite indices may have changed

significantly from baseline to post-campaign exposure and that items not included in campaign materials and messages will not change from baseline to post-campaign exposure. Thus, because not every health effect or statement of risk is incorporated into campaign messaging, there is an opportunity to compare changes in perceptions of risk for those statements that may have been affected by campaign messaging with those that out that likely will not have been affected by the campaign. In this way, those health statements that are not part of campaign messaging may serve as controls for health statements that align with campaign messaging. Specifically, we calculated the following composite indices:

1. Youth use: perceived risk for a teenager using once a week and perceived risk for a teenager using daily
2. Use around children: child exposure to smoke, storing marijuana in open containers
3. High Risk Use: hash oil, edibles, wait to drive
4. Use during pregnancy: perceived risk of use during pregnancy, use during pregnancy can lead to problems in child

The entire list of items assessed in the multimode survey is listed below:

1. Knowledge of health effects:
 - a. Regular use of marijuana can cause depression or anxiety
 - b. A person should wait at least six hours after using marijuana before driving.
 - c. Daily or near daily use of recreational marijuana can lead to addiction.
 - d. Using marijuana during pregnancy can lead to attention problems and lower IQ in the child.
 - e. Daily or near daily use of recreational marijuana can lead to lasting impaired memory.
2. Perceptions of risk:
 - a. An adult using marijuana once a week
 - b. An adult using marijuana daily or almost daily
 - c. A teenager using marijuana about once a week
 - d. A teenager using marijuana daily or almost daily
 - e. A woman using marijuana often during pregnancy
 - f. A mother using marijuana while breastfeeding
 - g. Extracting 'hash oil' in a home
 - h. Children being exposed to someone else's marijuana smoke
 - i. Consuming more than one serving of edible marijuana
 - j. Storing marijuana in open containers in a home with children

The percent change in each of these items/indices was evaluated for the overall sample as well as among demographic groups (gender, age category, race/ethnicity, and current marijuana use). The greater part of campaign messaging is related to knowledge of marijuana laws. Therefore, the analysis related to knowledge of health effects and perceptions of risk was considered secondary to the two analyses described above: media reach and accurate knowledge of marijuana laws. Our analyses related to perceptions of risk and attitudes towards use are limited to a pre and post assessment. Because the “Good to Know” radio and TV ads were focused on increasing awareness of laws but not perception of risk or attitudes toward use, we do not advocate analyses that explore relationships between exposure to “Good to Know” and risk perception and attitudes toward use, as that is beyond the scope of this evaluation and design of the methodology.

We are conducting additional analyses to explore the relationship between people who indicate having been exposed to “Good to Know” and awareness of the retail marijuana laws. This includes a logistic regression analysis.

Strengths and Limitations of this Methodology

The sample includes a cohort drawn from a probability sample and this analysis does offer repeated measures of this cohort. This sampling frame allows us a method superior to a convenience sample, whereby those included have a knowable probability of being part of the sample, which limits some of the bias inherent in a convenience sample. However, the sampling frame as designed does not allow us to fully generalize these findings to all adult Coloradans.

Having a cohort to return to from baseline to follow-up surveys allow us capacity to compare changes over time related to knowledge of laws, attitudes towards use and perceptions of risk. This is a superior method to employing multiple cross sectional surveys. The “gold-standard” for evaluation would include a comparison group assigned at random that had never had exposure to a campaign. This would allow us to determine if changes in knowledge, attitudes and perceptions of risk are *caused* by the campaign or some other external factor. However, conducting such an evaluation is substantially more complex and resource intensive than allowable under the current contract, and we were not able to do so here. Further, it was the goal of the “Good to Know” campaign to reach all Coloradans, so a control group that never had exposure to the campaign in Colorado was outside of the intent of the campaign. Thus, we can only demonstrate any *associations* between exposure to the campaign and any changes in knowledge, attitudes and perceptions of risk observed in this follow-up assessment. We underscore we cannot say if the campaign actually caused these changes. Because we do not have a control group, and persons were not randomized to view the campaign, we are not able to make such conclusions. Additionally, we cannot say that a lack of association between the campaign and these evaluation outcomes reflects a lack of campaign impact.

Out-of-Home Media Exposure and Awareness Analysis

Methods

We conducted a secondary data analysis of the dissemination of the “Good to Know” campaign using data provided by Cactus, the advertising agency contracted by CDPHE to develop and implement the campaign. The media analysis explored associations between media exposure—using data provided by Cactus-- and media awareness as reported by participants in the Mixed-Mode survey. Media exposure was at the five-digit zip code level identified through advertising campaigns on TV, radio and digital media, and through out-of-home placements such as billboards, bus ads and bar posters and coasters.

Because TV, radio and digital media were present in all zip codes for an equal amount of time, there is no variability in exposure by these types of media by zip code. Thus, we restricted this secondary data analysis to include only out of home placements of print media and billboards. Out-of-home placements had variability among the zip codes utilized, so to capture media awareness by zip code from survey respondents, they were given a media exposure score variable where 0 (did not see or hear ads) to 2 (seen/heard ads more than twice in the past 6 months) was constructed and collected for all respondents and mean aggregated by zip code. Due to the distribution of media awareness scores, they were further dichotomized at the median. Specifically, we split the responses into two groups, high and low scores, and then compared their means. Due to the consistent amount of days of advertising media exposure was classified as exposed or not for chi-square and fisher exact analyses.

E. Results Mixed-Mode Comparison of Baseline to Follow-Up Data and Secondary Analysis of Campaign Reach

Demographics

The response rate at follow-up was 82% (n=798). Table 2 presents the unweighted frequencies for demographic categories. Similar to baseline, more than half the sample was female (58%), White (68%), and aged 55 or older (60%).

Media Awareness, Mixed-Mode Sample

Unprompted recall

Survey respondents were asked, “In the past 30 days, have you seen or heard any advertisements or messages about marijuana?” and then “Think about one ad or message you heard in the past 30 days. As well as you can recall, what was it about? *Please list the theme of up to three ads or messages.*” The responses to this question were hand-written on the mailed survey or recorded verbatim by telephone interviewers. Two thirds of respondents provided any responses to this question (n=528, 66%). Of those who provided a response, 47% provided one theme (n=246), 29% provided two themes (n=153), and 24% provided three themes (n=129).

Themes varied from words or phrases that align with campaign messages, to phrases that indicated having seeing promotional advertising or news stories. A minority of respondents provided information about where they saw the message (e.g., billboard) rather than information about the content of that message.

A total of six respondents wrote the “Good to Know” campaign slogan by writing either “good to know” or “it’s good to know.” A quarter of all respondents (25%, n=198) and 38% of those who provided any theme, provided a theme that indicated they had heard or seen “Good to Know” campaign content. These themes fell into six major domains: general information about laws, particularly in Colorado; marijuana cannot be taken out of state; age to buy, possess, or use marijuana; safe storage, away from children; use in outdoor public spaces; and impaired driving. Many respondent reporting hearing messages related to impaired driving and the risk of getting a DUI. Due to the presence of the “Drive High, Get a DUI” campaign, it is difficult to determine if respondents reported this theme because of one campaign or the other, or both, except when their response was clearly related to the “Drive High, Get a DUI” campaign (e.g., “grilling high but not driving,” “trying to light a gas grill with no propane bottle,” “it is legal to install a TV high but not to get a replacement”).

Below are typical examples of what respondents provided as themes, by campaign content area.

Age to buy, possess, or use (provided 14 times):

- Must be 21
- No underage use
- Not until you are 21
- Must be 21 years old
- Must be 21 to buy and use pot

Marijuana cannot be taken out of state (provided 15 times):

- Can’t take weed out of state
- Keep it in Colorado don’t cross state lines
- Marijuana must stay in Colorado

Use in outdoor places (provided 27 times):

- Don’t consume in public spaces
- Not ok in public
- No public spaces
- Don’t use in the parks, public areas

Ok at home not in public
Smoke in lawful areas
Proper place to use
Keep marijuana use at home
Not allowed on government property
Don't do pot in public

General information about laws (provided 36 times);

Keep it legal follow laws
Laws in Colorado
To know the law
Colorado marijuana laws
Get to know laws about it
We've got a great state follow the rules and keep it that way
Need to know laws
Billboard saying get your facts right and know the laws on marijuana
Laws for use

Safe storage, away from children (provided 37 times):

Keep pot away from kids
Not for use by anyone under 18
Safety - keep away from children
Lock it up keep from kids
Don't give to kids their brains are still forming
Edibles keep away from kids
Secure storage
Don't let kids use
Keeping marijuana safe from kids
Lock up all pot/edibles
Safe storage
Danger to children

Impaired driving (provided 133 times):

Don't drive high
Driving high is driving impaired
Drive high get a dui
Don't drive stoned
To be informed it's not legal to drive
Buzzed driving is drunk driving
Don't smoke and drive
Driving high same as DUI

When prompted about the “Good to Know” slogan and asked what it means respondents provided explanations in their own words. The following are examples of responses of what “Good to Know” means from respondents who reported they had seen or heard the campaign:

Facts about the law
What not to do when you smoke
Factual- stay out of trouble

Know what is legal
What you can and can't do
About getting a dui

About health
 Know the laws
 The effects of marijuana
 What the laws re: pot are
 Marijuana rules of use
 Colorado laws on how to use marijuana
 Safe usage of marijuana
 Ok to use as long as follow law
 Good to know facts about it
 21 and up
 Laws about marijuana Rules and laws you should follow
 Facts you need to know but may not
 Pot is legal in Colorado
 Explain laws in Colorado
 Dos and don'ts of usage
 Where you can smoke marijuana
 Health consequence of using
 Learn the law
 Just information
 Useful facts about marijuana

Keep marijuana out of the reach of kids
 Be educated
 Education
 Something about pregnancy
 Preventative
 Facts
 Be smart
 Age of legal use of marijuana
 Information is important
 Things about weed being legal in CO
 Know laws and health issues
 Telling us about pot
 Informational
 Know the law
 Where you can use
 Explains the rules of pot
 Good information
 Info about marijuana laws
 Where to buy pot
 Informing public about smoking

Prompted recall

About 3 in 10 (28%) of respondents reported they had heard or seen the “Good to Know” campaign slogan in the last six months; 13.5% had seen or heard it once or twice and 14.5% had seen/heard it more than twice. There were no significant differences in recall of the slogan by gender, race/ethnicity, age category, or current marijuana use status.

The slogan that had the highest prompted recall was “Drive high, get a DUI” (74%), followed by “Consume Responsibly” (43%), the foil “Home OK, in the park no way!” (43%) and “Don’t be a lab rat” (34%); less commonly recalled was “Start low, go slow” (16%) and “Did you know?” (15%). The remaining slogans had levels of recall similar or lower than the fake slogans.

False recall was estimated by taking the average recall of the two false slogans, and prompted recall was adjusted for false recall by subtracting non-negative values from the level of recall of “Good to Know.” This results in a conservative estimate of recall, in which 18% of respondents are estimated to have heard/seen the “Good to Know” campaign. The foil “Home OK, in the park no way!” was created before the “Good to Know” campaign, and before knowing the theme and content of the campaign. There is substantial overlap of the foil slogan and the “Good to Know” campaign, which makes the adjusted recall estimate less useful than it otherwise might be, and arguably overly conservative in reducing the recall. In fact, it is possible some respondents may have mistaken the foil slogan for the “Good to Know” slogan.

Knowledge of Laws, Mixed-Mode Sample

We tested for significant changes in knowledge of the laws. The analyses used data from individuals who responded to the survey at both baseline and follow-up so that comparisons are made within an individual’s responses using paired tests, specifically McNemar’s test. There was a significant increase in knowledge of the laws from baseline to follow-up for the following laws: must be at least

21 years old to buy, may use marijuana in a private home, may not use marijuana in an outdoor place, may purchase 1 oz., can get cited for a DUI, and may not take out of state (Table 4). Thus, the only two laws without statistically significant changes are (1) may not use in a private business, and (2) may grow six plants.

We created a composite index of the laws most relevant to the campaign's content, which was calculated an accurate response to the following four indicators: (1) age 21 to buy, (2) may not use outdoors, (3) can get cited for DUI, (4) cannot take out of state. There was a significant increase in this index from baseline to follow-up with 62% of the respondents answering all four indicators correctly at baseline and 73% answering all four correctly at follow-up (Table 4). This significant and positive increase was seen among males, females, ages 35-54 and 55 and older, among current users and non-users of marijuana, Whites, Hispanics, and those of other race ethnicity. Respondent's ages 20-34 and African Americans did not show statistically significant change in knowledge of the laws, although the trend is positive and consistent with other groups. The lack of statically significant change is likely related to (1) relatively smaller sample size for African Americans and 20 to 34 year olds (2) relatively greater awareness of the law at baseline among the 20 to 34 year olds, and (3) less actual change among the 20 to 34 year olds. There were differences across gender, age, race/ethnicity, and current marijuana use status for which law indicators had significant change from baseline to follow-up (Tables 3 and 4). The two groups that showed an increase in knowledge across the most indicators were non-users of marijuana and Whites. In all instances of significant change, accurate knowledge of the law increased.

A multivariable analysis examining the relationship between exposure to the "Good to Know" Campaign and awareness of multiple elements of the law is ongoing. Initial estimates are that persons familiar with the "Good to Know" Campaign are 2.25 times more likely to have awareness of the four key aspects of the law that the campaign promoted: Legal age of use for recreational marijuana is 21; you may not transport marijuana out of the state; you can be cited for a DUI for using recreational marijuana and driving; and you may not use recreational marijuana outdoors. Further details on this analysis are forthcoming.

Results from the secondary analysis comparing campaign distribution to campaign awareness

The "Good to Know" print media ran for 53 days starting 03-02-2015 and ending 04-24-2015. Radio media began 1-5-2015, TV media ran 2-23-2015 through 3-20-2015 and Internet based media from 02-23-2015 through 05-11-2015. Media awareness score by zip code ranged from 0 to 2 where zero indicates not exposed and two indicates exposed to both public print media and print media in bars. There was a mean of 0.49 and median of 0.25 on this score. Twenty-one zip codes were exposed to print media in various public locations, 65 zip codes had print media exposure in bars, and 5 zip codes had print media exposure in public locations and in bars. Figure 3 illustrates on the map of Colorado the locations of the campaign superimposed on those regions statewide (shown by county as well as Public Health region).

There were no significant differences in awareness identified where various public print media ($X^2 = 0.11$, $df=1$, $p=0.7$), print media in bars ($X^2 = 0.03$, $df=1$, $p=0.9$), and media in both (fisher $p=0.7$) were not significant. We consider that this is because people would have been exposed not only to campaign materials in the neighborhoods where they live, but also in other zip codes as they travel

outside of their home neighborhoods for work and recreation. As noted in the description of the methodology for this analysis, there was no variability in the distribution of TV and Radio by zip code, so we did not analyze the relationship between zip code and TV and Radio exposure. Additionally, this lack of difference may be due to the consistent Radio and TV exposure throughout the state.

Perceptions of Risk and Health Effects, Mixed-Mode Sample

The “Good to Know” campaign content was primarily directed toward increasing accurate knowledge of legal use of recreational marijuana in Colorado. However, some content was also directed at safe use of marijuana, including safe storage and storage away from children, keeping marijuana away from children, and not driving impaired. We asked respondents at baseline and follow-up about a series of possible health effects and perceptions of harm from using recreational marijuana. Using paired response from individuals who responded to the survey at baseline and follow-up, we calculated the change in their agreement with the statements or perception of risk from baseline to follow-up and tested if this change was different from zero (no change). This was calculated for each of the indicators and for four composite indices, comprised of the following indicators:

1. Youth use: perceived risk for a teenager using once a week and perceived risk for a teenager using daily
2. Use around children: child exposure to smoke, storing marijuana in open containers
3. High Risk Use: hash oil, edibles, wait to drive
4. Use during pregnancy: perceived risk of use during pregnancy, use during pregnancy can lead to problems in child

Table 5 presents the level of agreement with each statement at the time of the follow-up survey and the percent of respondents who increased (or decreased) in their level of agreement. The percent change was calculated at the percent of respondents who increased in their agreement minus the percent who decreased. Thus, if the estimate is positive this indicates a net increase. Significant changes are bolded and indicated by an arrow. All significant changes were positive meaning that more respondents increased their agreement with the statement or their perception of risk of harm than those who decreased.

There was a statistically significant positive increase in each of these composite indices with one exception: perceptions of risk associated with use during pregnancy. The index for health effects of use during pregnancy was in the same direction as the other indices, but the increase was not statistically significant. Females showed significant positive change for all four indices, and Whites and non-users of marijuana had significant increases in three of the four indices (Table 5). Overall the changes were generally small, with approximately 5% to 10% of respondents increasing their perception of risk. This level of change is expected for just five months post campaign launch prior to assessing change.

F. Results Goal 2, Evaluation of Technical Assistance

Evaluation Secondary Goals (Goal 2)

Goal 2 Evaluation Overview

The focus for Goal 2 of the program evaluation is to examine system-level activities related to the distribution and utilization of retail marijuana prevention and educational resources.

Background

During the initial phase of Colorado SPH's retail marijuana program evaluation (September 2014-June 2015), Goal 2 focused on four main system-level objectives:

Objective 2.1) Document the distribution and assess the utility and implementation of retail marijuana prevention and educational resources provided at Colorado Department of Public Health and Environment's (CDPHE's) Regional Trainings.

Objective 2.2) Document the distribution and assess the utility and implementation of retail marijuana prevention and educational resources provided by CDPHE's Technical Assistance services.

Objective 2.3) Document and assess the impact of retail marijuana collaboration activities between CDPHE and other State agencies. (Modified July 1, 2015)

Objective 2.4) Document and evaluate the alignment of retail marijuana messaging efforts across State agencies. (Modified July 1, 2015)

On July 1, 2015, CDPHE modified the evaluation priorities of Goal 2 to focus only on the first two objectives moving forward (i.e., Regional Trainings and CDPHE's Technical Assistance services). In addition, programmatic changes were made to the Regional Trainings and evaluation activities. Most notably, a new training (Marijuana and Public Health) will be offered in late August 2015, a 4-month post-training participant survey was developed and feedback for technical assistance was extended. More specific changes are noted within the report.

CDPHE Regional Training

Objective

Document the distribution and assess the utility and implementation of retail marijuana prevention and educational resources provided at Colorado Department of Public Health and Environment (CDPHE) regional trainings.

Regional Trainings Overview

Two regional trainings are noted in this report: 1) *Positive Youth Development and Marijuana* and 2) *Marijuana and Public Health*. CDPHE is developing an additional *Marijuana 201* training for 2016 but information about this effort is not yet available.

Positive Youth Development and Marijuana Training

Training synopsis, priorities and audience

Positive Youth Development and Marijuana trainings target professionals who work with youth. The trainings integrate information about retail marijuana and the Positive Youth Development framework, which focuses on collaborative work with children and adolescents. For the purposes of the evaluation, this report summarizes the portion of the training curriculum that focused only on retail marijuana. The *Positive Youth Development and Marijuana* training is intended to provide a broad overview of marijuana laws and State education, regulation and prevention efforts. The trainings are a collaborative effort between CDPHE, Colorado 9 to 25, and the Omni Institute.

As shown in Figure 4; Location of *Positive Youth Development and Marijuana Trainings*, a total of 6 full-day regional trainings were held throughout Colorado in the State Fiscal Year (FY) 2015 (July 1, 2014 – June 30, 2015), an additional 5-6 trainings are slated for FY 2016 (July 1, 2015 – June 30, 2016). Last year's sites included Denver, Boulder, Alamosa, Glenwood Springs, Durango, and Golden. New trainings will outreach to rural areas such as Steamboat Springs, Delta, Pueblo, Limon, Burlington, Greeley and Lamar. Currently, FY16 trainings are in their planning stage so site locations have yet to be solidified. Because of high interest in Denver, it is likely that the metro area will serve as an additional training site.

Training curriculum

Positive Youth Development and Marijuana trainings provide attendees with a general overview of Colorado's Amendment 64. Presenters outline the legislative components of the bill and introduce marijuana resources and supports that can be incorporated into participants' current work efforts. The trainings include a discussion and viewing of Colorado's primary resources for marijuana information including the State of Colorado's marijuana website portal and CDPHE's technical assistance services (<https://retailmjeduction.freshdesk.com/support/tickets/new>). Participants also view CDPHE's 2015 retail marijuana media campaign, *Good to Know*. Attendees receive instructions about how they can access media campaign materials for their personal use and distribution. In addition to reviewing marijuana educational resources, attendees participate in breakout sessions so that individuals can inform one another about the marijuana activities occurring at their respective organizations and discuss ways to incorporate marijuana education and prevention information using the *Positive Youth Development* approach. All participants receive take-home materials including: Substance Abuse and Mental Health Services Administration's *Strategies/Interventions for Reducing Marijuana Use*, retail marijuana factsheets (*Tips for Parents, Youth and Marijuana, Tips for Youth-Serving Professionals*) and the results from *Healthy Kids Colorado Survey - Marijuana Use and Beliefs* and a listing of local marijuana prevention resources.

FY2016 training modifications

In response to attendee feedback and Colorado SPH recommendations, CDPHE modified the *Positive Youth Development and Marijuana* curriculum and procedures. Information about evidence-based data and best practices was enhanced during the FY2015 training and, for audiences needing more specialized information, the *Marijuana and Public Health* trainings were developed (see next section). In addition, Colorado SPH and CDPHE created a 4-month evaluation follow up survey to assess the implementation of the training materials by attendees.

Marijuana and Public Health Training

Training synopsis, priorities and audience

The *Marijuana and Public Health* training began late August 2015. While CDPHE gears the *Positive Youth Development* training towards professionals working with youth, this training is directed towards local public health agencies (LPHAs) and other public health professionals. The objectives of the *Marijuana and Public Health Training* are to increase participants' knowledge and access to marijuana trend data, research, and prevention or education resources and to outline a plan of action to use regional data to inform and network with local prevention efforts. Seven trainings are scheduled for FY2016.

Training curriculum

Content for the *Public Health* curriculum was partly determined based on answers from a need assessment survey CDPHE issued to LPHAs. The training curriculum summarizes current marijuana legislation (including differences in medical and retail laws) and presents the *Retail Marijuana Public Health Advisory Committee's* literature review process and results. In addition, information pertaining to the States high-priority populations (pregnant or breastfeeding women) and specific age groups is provided. The curriculum includes clinical guidelines, results from the *Behavioral Risk Factor Surveillance System* (BRFSS) and the *National Survey on Drug Use and Health* (NSDUH), medical marijuana registry information and public awareness/prevention campaign materials.

Assessment Processes and Procedures

The evaluation objective for both regional trainings is to capture their appropriateness and impact. The assessment procedures vary slightly by training.

Positive Youth Development and Marijuana Training

Programmatic and participant information is pulled from administrative data by the evaluator and facilitator. At the training, attendees receive a survey to assess their marijuana knowledge and current use of marijuana resources. The survey asks attendees to rate their familiarity with marijuana education and prevention resources before and immediately after training is completed. Attendees estimate their likelihood to use the training information (i.e., the perceived value) and identify

specific components of the program that can be immediately incorporated into their work with youth. Four months after the training, attendees receive a request to complete a follow-up survey via an online Internet link. In the 4-month follow-up assessment, attendees report which, if any, of the training materials/resources they used and identify any additional information needs.

Marijuana and Public Health Training

Program and attendee information is pulled from administrative data by the evaluator and facilitator. At the training, attendees receive a survey to assess change in their understanding of marijuana and public resources. Attendees identify which information they are most likely to use at work and areas where more information is needed. In addition, attendees rate the quality of the presenters and are able to suggest ideas to improve future trainings or identify additional information needs.

Data Collection Tools and Development

Pre-Post Retrospective Evaluation-Positive Youth Development & MJ: captures the attendees' impression of the training and their implementation of retail marijuana prevention and education efforts since the event.

Pre-Post Retrospective Evaluation-Marijuana & Public Health: captures the attendees' impression of the training and their implementation of retail marijuana prevention and education efforts since the event.

4-Month Post-Regional Training Survey: captures attendees' use of the Regional Training materials/resources 4 months after the event.

Evaluation Findings: Regional Trainings

Positive Youth Development and Marijuana Training

Data Collection Dates: February 2015-June 2015 (6 trainings in FY2015, new trainings will resume in September)

Attendee characteristics

Nearly 400 people attended the *Positive Youth Development and Marijuana* trainings, representing a variety of organizations such as local health departments, community health organizations, non-profit youth-serving organizations and public safety organizations. The response rate for training evaluations varied by location: 68% for Denver, 67% for Boulder, 80% for Alamosa, 73% for Glenwood Springs, 75% for Durango and 67% for Golden (Table 6: Regional Training Location & Attendee Affiliations).

Nearly all attendees worked with organizations that interacted with youth, while the majority worked with adolescents nine to 17 years old (Table 7: Age Distribution of Youth Involved with Attendee Organizations). This suggests that the *Positive Youth Development and Marijuana* trainings effectively drew in members of their target demographic and the needs of the attendees'

organizations appeared suited to the training material, at least in terms of the age of the populations they served.

Attendee satisfaction

Satisfaction ratings for regional trainings were high. Seventy-one percent of respondents rated the facilitator's engagement style as very engaging, the uppermost option of three response choices. High ratings were also given for measures of facilitator impact, including "use of a variety of effective facilitation strategies" (average 3.7/4.0), "effectively acknowledged/answered questions and concerns" (average 3.7/4.0), and "created an effective learning environment" (average 3.6/4.0). This information indicates that the *Positive Youth Development and Marijuana* trainings effectively delivered information to their audience and potentially served as a good resource for attendees who wish to use or to disseminate the information. (Table 8: Attendee Reports of Facilitator Engagement and Satisfaction).

Immediate impact

In order to evaluate the impact of the regional trainings we asked attendees to rate their ability to identify marijuana prevention resources or programs before and after the training and their subsequent likelihood to use the information. Prior to the event attendees rated their knowledge of marijuana prevention resources or programs between "not very skilled" and "somewhat skilled." After training, attendees reported that their knowledge improved, rating their skill level between "somewhat skilled" and "very skilled". This pattern was similar across training sites (Table 9: Attendees' Knowledge of marijuana Prevention Resources/Programs).

Attendees rated their likelihood to use the marijuana resources they received at the *Positive Youth Development and Marijuana* trainings between "likely" or "highly likely" (Figure 5 - *Likelihood of utilizing the Regional Training Information*). In open-ended comments, attendees noted that they could use marijuana fact sheets and the Colorado State marijuana website immediately with their target populations. The ratings suggest that information distributed at the regional trainings improved attendees' knowledge of State resources, that the material was appropriate to the needs of the audience and there was information that could be readily incorporated into their programs.

Use of training information after 4 months

As of Aug. 15, 2015, 25 individuals (15% of respondents who had 4 or more months following their training) responded to the follow-up survey. Respondents' primary role with youth included organizations responsible for direct care (educators, counselors, and after-school staff), leadership/administration, policy makers, funders, and other functions. Of these, 92% reported using and 88% shared components of the curriculum 4-months post-training. As shown in Table 10: Attendees' Use of Training Materials, over half of respondents used the Healthy Kids Colorado survey results, followed by the Good to Know media campaign resources, retail marijuana factsheets, and the CDPHE website. Ninety-six percent of survey respondents said they might or would use the training information again. Thirteen (52%) of respondents reported using the information they received in breakout sessions.

Additional information/materials requested

Positive Youth Development and Marijuana attendees had the opportunity to specify additional retail marijuana materials or educational information needed to support their work with youth at two time points (immediately and 4 months after training). We identified five themes from respondents' requests (Table 11: Attendees' Requests for Additional Information (4-Months Post-Training)). Attendees wanted to receive evidence-based information about marijuana prevention programming, best practices from youth-focused marijuana education and prevention programs, social media tools, information about talking to kids/peer pressure, and information about edibles. Although not specifically stated, these themes suggest that agencies working with youth desired more formal evidence demonstrating successful youth-oriented marijuana programming efforts.

Next Steps and Recommendations

1. In response to feedback, longer-term data collection was implemented to assess attendees' use of training information. This effort should continue and be extended for the *Marijuana and Public Health* meetings. Such feedback allows CDPHE to understand the impact of these events and identify additional information needs by the public.
2. *Positive Youth Development and Marijuana* participants requested additional evidence-based data specifically targeting marijuana youth prevention. In response, CDPHE enhanced their coverage of this information throughout FY2015 and it remains a focus in 2016. Evidence-based information is a particular emphasis in the *Marijuana and Public Health* trainings. This area is hampered, however, by a relative lack of published scientific data at present. Funding for such scientific endeavors are likely to of interest to the community. The evaluation effort will continue to monitor regional training participants' requests for information to track trends in information requests. To further enhance this effort, a broad survey to assess the informational needs among various stakeholders (e.g., LPHAs, clinicians, patient safety advocacy groups, marijuana industry) is warranted.
3. Attendees requested best practice data about programs currently and successfully implementing marijuana prevention and education information with youth. CDPHE enhanced their coverage of this information throughout FY2015 and it remains a focus in FY2016. In addition, CDPHE planned networking time for *Marijuana and Public Health* trainings to allow attendees the opportunity to exchange ideas about this and other information. It is probable that the need for promising practice information is a common concern for others in the field. CDPHE developed and distributed a table summarizing local and state policy or environmental change that have the best evidence of preventing marijuana use or abuse directly or have evidence of reducing youth use or abuse of other legal substance, such as alcohol or tobacco. Additionally, CDPHE is developing a guide to the research on the factors that may put a youth at risk for marijuana use or that may serve as a protective factor. This guide will also summarize programs and interventions that have a strong evidence base for preventing the risk or enhancing the protective factors. In addition to those resources, a compendium of those programs that specifically target marijuana prevention and treatment in Colorado could be a beneficial resource and easily distributable on the CDPHE and

State marijuana website. Further, evaluating the impact of prevention programs targeting youth and other groups with special information needs (e.g., pregnant and breastfeeding women) would be a key step in determining effectiveness.

4. The State previously identified a need to outreach to Coloradans of Hispanic decent in retail marijuana messaging efforts. CDPHE is currently developing such materials, although additional resources may be necessary. Once these materials are available, understanding their appropriateness and utilization among organizations working with Hispanic populations is needed.

Technical Assistance Services

Objective

Document the distribution and assess the utility and implementation of retail marijuana prevention and educational resources provided through CDPHE’s technical assistance service

Technical Assistance Overview

In September 2014, CDPHE formalized technical assistance services to provide information and resources to the public about retail marijuana. While technical assistance services are open to the public, the promotion of these services is geared towards audiences such as community agencies, community coalitions, State partners and those working with youth or other groups with special informational needs. Technical assistance may include, but is not limited to, the distribution of retail marijuana campaign materials and toolkits, State and local policy and legislation information, updates on State retail marijuana activities, and youth prevention strategies. The service can be requested via an online portal ([Retail Marijuana Technical Assistance](#)), by phone or in-person.

Technical Assistance Modifications

The evaluation of technical assistance services was modified slightly for FY2016. First, we removed a question from the baseline needs assessment tool (“*Primary focus of organization*”) to streamline the technical assistance request and because it yielded little useable data. Second, we made delivery and content changes to the follow-up survey. In Colorado SPH’s initial year-end evaluation report, we recommended adjusting the time in which we gathered feedback from technical assistance requestors. Accordingly, rather than following up with individuals two weeks after their first contact with CDPHE, we outreached to clients one month post-request. In addition, we eliminated questions from the follow-up survey that did not yield valuable feedback in order to streamline the tool and encourage requestors complete the survey. Among the items eliminated was a question about receiving information from other sources, 3 satisfaction questions (two such questions remain) and five questions examining the value of the technical assistance materials (three such questions remain). A two-month request for feedback (identical to the initial follow-up survey) was dropped

because few individuals responded. Telephone-based follow-up surveys (also identical to the initial follow-up survey) were also eliminated due to fiscal considerations.

Assessment Processes and Procedures

CDPHE's technical assistance services were assessed using a variety of data collection mechanisms; a baseline survey needs assessment of all requestors, follow-up surveys, and telephone interviews. The baseline survey documented clients' needs and affiliation and was collected for every individual. The follow-up and telephone interviews were alike but served as different avenues for gathering information. The follow-up survey and telephone interviews assessed clients' satisfaction and utilization of technical assistance information. Everybody who submitted a request for technical assistance was invited to complete a follow-up survey, which were delivered online via the Survey Monkey platform. In 2015, everybody received a request for a telephone interview although, due to question overlap, only those who had not completed the baseline or two month survey were allowed to participate.

Data Collection Tools and Development

Phase 2 Baseline Survey Needs Assessment: documented requestors' satisfaction and implementation of technical assistance material, the Colorado SPH developed two follow-up surveys.

Phase 2 Post TA Survey: captured requestors' perception about the appropriateness and utility of the technical assistance, their satisfaction with technical assistance services, and their subsequent implementation of technical assistance information.

Evaluation Findings: Technical Assistance Services

Requestor Needs

Requestor Affiliation

From November 15, 2014 through August 10, 2015, the technical assistance service received 113 unique requests for information. Most contacts were initiated by the online portal (73%), followed by phone calls (17%). The majority (80%) of organizations resided in Colorado. Denver County agencies made most requests (21%), although a substantial number came from other Colorado counties (Table 12: Requestors' Organization Information). There were eight requests from other US states and one from Canada.

As seen in Figure 6, (*Primary Focus of Requestor's Organization*) the focus of organizations requesting technical assistance spanned many domains but was primarily represented by public health (33%) and schools (31%).

Information Areas

Participants requested a large variety of information and often more than one type of data (Table 13: Information Requested). In order of popularity, the five most requested items included; marijuana prevention and education information (38%), information about marijuana media campaigns (17%), school-based resources (13%), laws and regulation information (10%), and contact referrals (10%), and Several requestors asked about marijuana information that retailers needed to know. Among all technical assistance requests, 32% wanted information about working with or talking to youth.

TA Use and Dissemination

A total of 62 individuals, out of a possible 113, responded to the online initial, one month, two month or telephone-based survey yielding a response rate of 55%.

Use of Information

All but one individual (94%) reported using, or intending to use, the information they received. Information was used to increase personal or organizational knowledge about marijuana laws (49%), in presentations (48%), to develop or modify existing programs (31%), in workplace or school-based policies (11%), to increase personal or organizational knowledge about marijuana health research (21%), or in papers, manuscripts or reports (8%). Many participants used the information for multiple uses (Table 14: Use (or Intended Use) of Information). Among the “other” uses of the data, respondents said they have or would implement the information in local political advocacy, for Boy Scouts Citizenship Merit Badge activities and in pitches for advertising sales.

Dissemination of Information

The use of information was not siloed; 87% of respondents shared the information or materials with others. Respondents said that they provided information with colleagues, coworkers or in the workplace (48%), students (21%), the public (27%), community coalitions (23%), parent groups (13%), and the legislature (7%) (Table 15: Information Sharing). Given the large number of individuals who shared the information, it seems clear that the marijuana information was distributed well beyond the initial requestor.

Other Information Sources

CDPHE was not the only State agency to provide marijuana information to the requestors. Among the 24 respondents who received information from other sources, the Colorado Department of Human Services (13%) and the Department of Education (11%) provided the most information. Additionally, information was provided by the Department of Revenue, the Governor's Office and the Department of Transportation (Table 16: Additional marijuana Information).

As noted previously, slight survey modifications were made in July 2015, thus the following two sections (satisfaction and effectiveness) detail some slightly data points.

Respondent Satisfaction

Respondents reported high satisfaction of the technical assistance information. From *November through June*, respondents used a five-point scale (5 = high) to rate three dimensions of satisfaction: ease of requests (average: 4.4), TA response time (average: 4.4), and likeliness to use the service again (average: 4.4). From *November thru mid-August*, respondents rated their likeliness to recommend the service to others (average: 4.3). (See Table 17: Satisfaction with Technical Assistance Service).

Effectiveness of TA Service/Information

The effectiveness of the technical assistance information also scored highly. From *November through June*, using the same 5-point scale (5 = high), respondents felt the information they received was helpful (average: 4.3), appropriate to their audience (average: 4.1) and improved requestors' current knowledge of marijuana research and laws (4.0). Average scores were slightly lower regarding the information's ability to expand beyond what had been previously seen/published (3.9) and understanding how the state is responding to changes in marijuana legislation (3.9). From *November through mid-August*, requestors judged the technical assistance information as easy to understand (average: 4.2) and met the needs of their request (average: 4.3). (See Table 18: Effectiveness of Technical Assistance Service). From *July through mid-August*, respondents rated their improvement in knowledge about current marijuana education and prevention (average: 4.3).

Requests for Additional Information

Respondents provided several suggestions that they would like to see developed for the technical assistance service, as shown in Table 19: Requests/Suggestions for Additional Information. Recommendations centered on increasing access to resources, developing additional resources for youth prevention and education.

Information Not Yet Available

Information requested through the technical assistance services that has not yet been developed includes model policy recommendations at the county and municipality level. Individuals requested data detailing recommendations for: the number of retail marijuana shops per county and municipality, retail sales tax dollars, language for prevention efforts with considerations for population differences, municipality layout, and urban versus rural differences. Model policies are typically based on researched results demonstrating effectiveness, an area of research that has not yet been addressed in communities where marijuana is legal. Research from alcohol prevention demonstrates the effectiveness of limiting density of retail outlets. However, in the absence of research on the impact of marijuana retail stores, CDPHE has not been able to develop model policies for limiting outlet density.

CDPHE also fielded requests for a self-paced online educational tool for students who are caught breaking school district policies regarding marijuana on school property, similar to tobacco cessation programs for youth such as *NOT on Tobacco or Second Chance*. Lastly, the department noted multiple requests for presentations to parents, schools, high school student groups and teacher meetings. At present, these types of public presentations are not the outreach priority of the department, nor is there the resource capacity available to meet the needs of all requests.

Next Steps and Recommendations

1. Due to the large number of requests for retail marijuana presentations, the development of a Teach-the-Teacher type of training model could more broadly disseminate marijuana prevention and educational information to youth and groups with special information needs.

Collaboration Activities

Many Colorado State agencies are involved in retail marijuana efforts addressing the public's regulatory, prevention or educational needs: To help meet their respective mission's agencies frequently work together to share information and pool their knowledge and expertise. Collaboration occurs in many forms. For example, State agencies may participate in; inter-organization advisory meetings, workgroups or joint presentations, share data and resources, or make referrals to other State agencies for information. Collaboration is important for state-wide initiatives because it can align the consistency and speed in which information that is provided to the public. For the purposes of this evaluation we were only interested in collaboration between CDPHE and other organizations: therefore, the extent to which agencies collaborated with other organizations without Colorado Department of Public Health and Environment cannot be assessed here. Evaluation activities by Colorado SPH ended in Fiscal Year 2015.

Next Steps and Recommendations from Fiscal Year 2015

1. Because many organizations besides State agencies are involved in retail marijuana efforts we recommend expanding the collaboration evaluation to those outside the state system, such as; local health departments, health care networks, youth prevention programs, parent and public safety groups, and the retail marijuana industry.

2. Collaborative activities often brought industry to the table, which is unique in public health activities. We recommend establishing policy recommendations for other states, focusing on how to develop relationships with the retail marijuana industry and establish roles for engaging retail marijuana voices into the conversation.

Messaging Efforts

The Colorado legislature tasked CDPHE with aligning State-based messaging efforts that educate the public on; the safe and legal use of marijuana, the importance of preventing youth access, groups with special information needs, and the over-consumption of edibles. For this component of the evaluation messaging refers to any media effort targeting the educational priorities of the State, namely; health, laws, youth, edibles, safe storage and pregnant or breastfeeding women. Mediums of messaging efforts include, but are not limited to; television and radio commercials, pamphlets, newspaper and billboard advertisements, or web-based information designed to provide the public with information about retail marijuana in Colorado. Evaluation activities by Colorado SPH ended in Fiscal Year 2015.

Next Steps and Recommendations from Fiscal Year 2015

- 1) Agencies can improve the alignment of messaging by listing the state marijuana portal on all sites currently offering marijuana information.
- 2) Additional information may be needed on websites for pregnant or breastfeeding women and Spanish-speaking communities (efforts in development by CDPHE).
- 3) We recommend reviewing media campaign efforts produced by the Industry and other public health agencies to determine if external sources of message are similar to State efforts.

G. Conclusions

Goal 1: Knowledge of Marijuana Laws, attitudes towards and perceptions of risk associated with use

We see evidence of increased awareness of the retail marijuana laws among the cohort sampled for this evaluation between the fall of 2014 and spring of 2015, and that awareness is stronger among those that report awareness of the campaign. We saw no specific evidence that awareness of laws is associated with exposure to the out-of-home advertising of the “Good to Know” campaign. We

caution that demonstrating such an association is very difficult given the evaluation design, recall bias and limited capacity to sample pre and post campaign survey respondents statewide. We are confident that the increases in awareness of specific components of the retail marijuana laws are due in part to efforts statewide to educate the public on the laws, and the “Good to Know” campaign is one such effort.

While ongoing reinforcement of messages from the “Good to Know” campaign may be beneficial, we also recommend that efforts for education turn now to raise awareness of known risks associated with marijuana, including hash oil extraction, heavy and prolonged use for adults, and use during adolescence, pregnancy and breastfeeding.

Goal 2: System Level Education and Prevention Activities

The second goal is to evaluate system-level marijuana educational and prevention activities. Colorado SPH assessed four efforts: Colorado Department of Public Health and Environment regional trainings, Colorado Department of Public Health and Environment’s Technical Assistance services, state-based collaboration activities, and State-based marijuana messaging efforts. Preliminary findings suggest that the six *Positive Youth Development and Marijuana regional trainings* effectively delivered retail marijuana information and increased the public dissemination of training materials. Attendees’ represented a variety of State and local agencies and the material suited to their professional needs. Participants reported high training and facilitator satisfaction, increased knowledge of retail marijuana resources, and stated that they were likely to incorporate the training information into their program. A four-month follow-up survey recently began to assess longer-term utilization of the *Positive Youth Development and Marijuana* training material. In partial response to attendee feedback and prior Colorado SPH recommendations, CDPHE developed two new advanced marijuana regional training programs. *Marijuana and Public Health* began in August 2015 and targets the larger public health community. *Marijuana 201* planning is currently in progress and is slated to begin in early 2016.

From November 2014 through mid-August 2015, Technical Assistance services received 113 unique requests. The most commonly requested areas were marijuana prevention and educational materials, media campaign resources, school-based resources, laws and regulation information, and contact referrals. Requestors expressed high satisfaction and used, or intended to use the information they received. Nearly 90% of requestors shared the information. The most requested materials were the youth prevention and education materials.

H. Interpretations

There are limitations to this evaluation that should be reiterated. The mixed-mode sample is a probability cohort sample and data in this evaluation are from the same panel, which strengthens our confidence that these finding reflect a true increase in knowledge of the retail marijuana laws. However these results are not representative of the Colorado adult population, so results cannot be

generalized to all Colorado adults. Additionally, we are not able to specifically make pre and post comparisons linking exposure to the “Good to Know” campaign with the geographic distribution of print and out of home tactics of the campaign. In considering these limitations, we refer to guidelines for interpretation of evidence, that suggest three levels—level 1 evidence is the gold standard, with application of the highest possible scientific rigor; level 2 evidence uses strong but limited scientific methodology; and level 3 evidence represents reports not based on accepted scientific criteria (e.g. case reports, anecdotes). Our estimation is that these findings represent level 2 evidence, but do not meet the full quality criteria for level 1 evidence.

I. Next Steps

Goal 1: Knowledge of Marijuana Laws, attitudes towards and perceptions of risk associated with use

A total of 28% of adults reporting hearing or seeing the “Good to Know” campaign in the past six months. While relatively few respondents provided the exact tagline for the campaign, between a quarter and a third of respondents provided an unprompted responses that indicates they had heard or seen campaign content. We see evidence of increased awareness of specific components of the retail marijuana laws among the cohort sampled for this evaluation between the fall of 2014 and spring of 2015, most notably with the four laws most relevant to the campaign. There was a 10% increase in the accurate knowledge of all four laws (age 21 to buy, may not use outdoors, can get cited for DUI, and cannot take out of state). Additionally, a multivariable analysis found that those that were aware of the “Good to Know” Campaign were 2.25 times more likely to have awareness of multiple elements of the law. Future analyses will examine the relationship between self-reported campaign exposure and change in knowledge of laws addressed by the campaign. Regardless of the results of future analyses, we also caution that demonstrating such an association is very difficult given recall bias and substantial overlap in multiple campaign messages (e.g., “Drive High, Get a DUI”) as well as other media exposure (e.g., new reporting) which may also lead to increased knowledge of the law. The evaluation employed a cohort design without a comparison group of individuals not exposure to the campaign and limited capacity to sample survey respondents from the specific geographic areas reached and not reached by the campaign. However, given the substantial campaign recall and statistically significant increases in awareness of specific components of the retail marijuana laws, we are confident that the change in knowledge of the laws is due in part to efforts statewide to educate the public on the laws, and the “Good to Know” campaign is one such effort.

While ongoing reinforcement of messages from the “Good to Know” campaign may be beneficial, we also recommend that efforts for education turn now to raise awareness of known risks associated with marijuana, including hash oil extraction, heavy and prolonged use for adults, and use during

adolescence, pregnancy and breastfeeding. CDPHE is planning to address some of these concerns in future campaigns, pending available funding.

Summary of Goal 2 Recommendations

Regional Trainings. We recommend continuing longer-term (4-month) attendee feedback for *Positive Youth Development and Marijuana* and implementing this effort for *Marijuana and Public Health* meetings. Such feedback allows CDPHE to understand the impact of these events and identify additional information needs by the public. *Positive Youth Development and Marijuana* participants requested additional evidence-based data and promising practice information specifically targeting marijuana youth prevention. Funding for such endeavors are likely to of interest to the community. A compendium of promising practice programs that targeting marijuana prevention and treatment in Colorado could be a beneficial resource and easily distributable on the CDPHE and State marijuana website. Further, evaluating the impact of prevention programs targeting youth and other groups with special information needs (e.g., pregnant and breastfeeding women) would be a key step in determining effectiveness. Additional Spanish-language resources may be needed and we recommend evaluating these resources to determine their appropriateness and utilization. To monitor regional training participants' requests for information, a broad survey to assess the informational needs among various stakeholders (e.g., LPHAs, clinicians, patient safety advocacy groups, marijuana industry) is warranted.

Technical Assistance. Due to the large number of requests for retail MJ presentations, the development of a Teach-the-Teacher type of training model could more broadly disseminate MJ prevention and educational information to youth and groups with special information needs. The evaluation showed high satisfaction of the service and several recommendations for additional information needs. To ensure the quality and appropriateness of services, continued assessment of Technical Assistance information is recommended.

J. Tables and Figures

Table 1. Indicators for Evaluation Questions			
Evaluation Questions	Indicators	Survey Item(s)	Data analysis
Media Reach			
To what extent has the population of Colorado been exposed to the RMEP Campaigns?	Awareness of RMEP Campaign elements, prompted and unprompted, and frequency	Q3-Q4, baseline paper survey; corresponding items on follow-up survey	% reporting awareness of slogan, prompted and unprompted; overall and by gender, age, race/ethnicity, and current marijuana use
Accurate knowledge of retail marijuana laws			
To what extent does the RMEP campaign help to increase the general public's (age 21 and older) accurate knowledge of the retail marijuana laws in CO?	Accurate knowledge of the laws (individual items and an index of accurate knowledge of laws)	Q7-Q12 baseline paper survey; corresponding items on follow-up survey Index of accurate knowledge of laws: (1) age to buy, (2) may not use outdoors, (3) can get cited for a DUI, and (4) cannot take out of state.	% change in accurate knowledge; overall and by gender, age, race/ethnicity, and current marijuana use for both individual items and composite index % change in accurate knowledge by prompted campaign recall (e.g., regression of awareness of laws on familiarity with campaign)
Accurate knowledge of risks associated with retail marijuana			
To what extent does the RMEP campaign help to increase the general public's (age 21 and older) accurate knowledge of the risks associated with retail marijuana use?	Agreement with and perception of health risks associated with marijuana use (individual items and indices)	Q14a-e, Q15 a-j on baseline paper survey; corresponding items on follow-up survey Indices: 1. Youth use: perceived risk for a teenager using once a week and 2. perceived risk for a teenager using daily 2. Use around children: child exposure to smoke, storing marijuana in open containers 3. High Risk Use: hash oil, edibles, wait to drive 4. Use during pregnancy: perceived risk of use during pregnancy, use during pregnancy can lead to problems in child	% change in knowledge of health effects and perceptions of risk (specific and summary items); overall and by gender, age, race/ethnicity, and current marijuana use for individual items and composite indices % change in indices by prompted campaign recall (e.g., regression of change in perception of risky on familiarity with campaign)

Table 2. Unweighted Demographic Characteristics, Marijuana Media Evaluation Mixed-Mode Sample, Follow-up, April – June 2015 (n=798)

	Gender		
	Total % (95% CI)	Male % (95% CI)	Female % (95% CI)
Total		42.0 (38.5, 45.4)	58.0 (54.6, 61.5)
Age			
20-34	14.2 (11.7, 16.6)	14.3 (10.6, 18.1)	14.0 (10.9, 17.2)
35-54	25.4 (22.4, 28.5)	24.2 (19.6, 28.8)	26.3 (22.3, 30.4)
55+	60.4 (57.0, 63.8)	61.5 (56.3, 66.7)	59.6 (55.1, 64.1)
Race/Ethnicity			
White	68.4 (65.2, 71.7)	72.8 (68.1, 77.6)	65.2 (60.9, 69.6)
Hispanic	13.7 (11.3, 16.0)	11.9 (8.45, 15.4)	14.9 (11.7, 18.2)
African American	15.0 (12.6, 17.5)	12.2 (8.7, 15.8)	17.1 (13.6, 20.5)
Other	2.9 (1.7, 4.0)	3.0 (1.2, 4.8)	2.8 (1.3, 4.3)
Current marijuana use			
Yes	23.6 (20.7, 26.6)	32.0 (27.0, 37.1)	17.5 (14.0, 21.0)
No	76.4 (73.4, 79.3)	68.0 (63.0, 73.0)	82.5 (79.0, 86.0)

Table 3. Media Awareness (unweighted percent) after the marijuana media campaign among an evaluation panel of English speaking Colorado adults

	Total % (95% CI)	Gender		Race/Ethnicity			
		Male % (95% CI)	Female % (95% CI)	White % (95% CI)	Hispanic % (95% CI)	Black % (95% CI)	Other % (95% CI)
Seen/heard ads about marijuana in past 30 days	72.0 (68.8, 75.1)	71.4 (66.5, 76.3)	72.4 (68.3, 76.5)	71.9 (68.1, 75.7)	69.4 (60.7, 78.2)	75.9 (68.1, 83.7)	65.2 (45.7, 84.7)
Seen/heard ads for products in last 30 days (once or more)	49.9 (46.4, 53.4)	48.2 (42.8, 53.6)	51.2 (46.6, 55.8)	49.1 (44.8, 53.3)	56.9 (47.6, 66.2)	49.6 (40.5, 58.7)	39.1 (19.1, 59.1)
Slogans (prompted: seen once or more)							
Good to Know	28.0 (24.7, 31.2)	26.8 (21.8, 31.8)	28.8 (24.5, 33.1)	26.4 (22.5, 30.2)	37.0 (27.5, 46.5)	27.4 (18.9, 35.9)	26.1 (8.1, 44.1)
Adjusted for false recall: Good to Know (less the average of the 2 foils)	17.6 (14.9, 20.4)	17.2 (13.0, 21.5)	17.9 (14.3, 21.6)	17.1 (13.8, 20.4)	22.0 (13.9, 30.1)	15.1 (8.3, 21.9)	21.7 (4.8, 38.6)
Drive high, get a DUI	74.2 (71.1, 77.3)	75.6 (70.9, 80.3)	73.2 (69.1, 77.3)	73.2 (69.5, 77.0)	85.7 (79.0, 92.4)	69.0 (60.5, 77.6)	69.6 (50.7, 88.4)
Marijuana and you ^a	11.6 (9.3, 14.0)	14.0 (10.1, 17.8)	10.0 (7.1, 12.8)	10.2 (7.6, 12.9)	13.0 (6.4, 19.6)	18.3 (11.1, 25.6)	4.3 (0.0, 12.7)
Don't be a lab rat	34.2 (30.8, 37.7)	37.6 (32.2, 43.0)	31.8 (27.3, 36.2)	34.4 (30.2, 38.5)	37.8 (28.1, 47.4)	31.2 (22.5, 39.9)	30.4 (11.6, 49.3)
Speak now	5.3 (3.7, 7.0)	4.9 (2.5, 7.3)	5.7 (3.5, 7.9)	3.4 (1.8, 5.0)	13.1 (6.5, 19.8)	7.5 (2.5, 12.5)	4.3 (0.0, 12.7)
First time five	4.3 (2.8, 5.8)	5.2 (2.7, 7.8)	3.6 (1.8, 5.4)	4.2 (2.5, 6.0)	4.0 (0.2, 7.9)	5.7 (1.3, 10.1)	. (., .)
Start low, go slow	15.7 (13.1, 18.4)	17.5 (13.2, 21.7)	14.4 (11.1, 17.8)	16.3 (13.1, 19.5)	18.0 (10.5, 25.5)	12.3 (6.0, 18.5)	8.7 (0.0, 20.2)
Consume responsibly	46.3 (42.7, 49.9)	47.2 (41.6, 52.8)	45.7 (40.9, 50.4)	44.4 (40.1, 48.8)	57.6 (47.8, 67.3)	47.2 (37.6, 56.7)	34.8 (15.3, 54.3)
Home OK, in the park no way! ^a	42.6 (39.1, 46.2)	41.8 (36.3, 47.3)	43.3 (38.6, 47.9)	43.1 (38.8, 47.4)	43.6 (33.9, 53.3)	43.1 (33.8, 52.4)	26.1 (8.1, 44.1)
Did you know?	15.0 (12.3, 17.6)	12.8 (9.0, 16.7)	16.5 (12.9, 20.1)	13.1 (10.1, 16.1)	27.1 (18.2, 36.0)	15.4 (8.4, 22.3)	. (., .)

Note. Bolding indicated significant differences with demographic category, p<.05



Table 3 continued. Media Awareness (unweighted percent) after the marijuana media campaign among an evaluation panel of English speaking Colorado adults

	Total % (95% CI)	Current Marijuana use		Age group		
		Yes % (95% CI)	No % (95% CI)	20-34 % (95% CI)	35-54 % (95% CI)	55+ % (95% CI)
Seen/heard ads about marijuana in past 30 days	72.0 (68.8, 75.1)	76.9 (70.8, 83.1)	70.6 (66.9, 74.3)	64.6 (55.8, 73.4)	70.9 (64.7, 77.2)	74.2 (70.2, 78.2)
Seen/heard ads for products in last 30 days (once or more)	49.9 (46.4, 53.4)	61.4 (54.4, 68.5)	46.7 (42.7, 50.7)	54.9 (45.7, 64.1)	50.7 (43.8, 57.6)	48.4 (43.9, 52.9)
Slogans (prompted: seen once or more)						
Good to Know	28.0 (24.7, 31.2)	32.7 (25.6, 39.9)	26.7 (23.0, 30.4)	34.8 (26.0, 43.7)	31.5 (25.0, 38.0)	24.5 (20.3, 28.6)
Adjusted for false recall: Good to Know (less the average of the 2 foils)	17.6 (14.9, 20.4)	20.8 (14.7, 27.0)	16.9 (13.8, 20.0)	22.3 (14.6, 30.1)	19.8 (14.2, 25.4)	15.3 (11.9, 18.8)
Drive high, get a DUI	74.2 (71.1, 77.3)	79.9 (74.0, 85.8)	72.8 (69.1, 76.4)	74.3 (66.3, 82.4)	74.8 (68.7, 80.8)	74.0 (69.9, 78.0)
Marijuana and you ^a	11.6 (9.3, 14.0)	12.7 (7.6, 17.7)	11.0 (8.4, 13.6)	10.8 (5.0, 16.6)	12.7 (8.0, 17.3)	11.4 (8.3, 14.4)
Don't be a lab rat	34.2 (30.8, 37.7)	40.6 (33.2, 48.0)	32.4 (28.5, 36.3)	33.6 (24.8, 42.5)	33.0 (26.5, 39.5)	35.0 (30.4, 39.5)
Speak now	5.3 (3.7, 7.0)	3.6 (0.8, 6.5)	5.6 (3.7, 7.5)	9.0 (3.7, 14.3)	3.0 (0.6, 5.4)	5.5 (3.3, 7.7)
First time five	4.3 (2.8, 5.8)	4.3 (1.2, 7.4)	4.3 (2.6, 6.1)	4.5 (0.6, 8.4)	4.5 (1.6, 7.4)	4.1 (2.2, 6.0)
Start low, go slow	15.7 (13.1, 18.4)	26.6 (19.9, 33.3)	12.6 (9.8, 15.4)	22.5 (14.7, 30.3)	17.5 (12.2, 22.8)	13.1 (9.8, 16.3)
Consume responsibly	46.3 (42.7, 49.9)	63.0 (55.6, 70.4)	41.5 (37.4, 45.6)	59.5 (50.3, 68.6)	45.7 (38.8, 52.7)	43.1 (38.4, 47.9)
Home OK, in the park no way! ^a	42.6 (39.1, 46.2)	50.0 (42.5, 57.5)	40.7 (36.6, 44.7)	38.7 (29.7, 47.8)	41.9 (35.0, 48.8)	44.0 (39.3, 48.7)
Did you know?	15.0 (12.3, 17.6)	15.2 (9.7, 20.8)	15.1 (12.0, 18.1)	19.4 (12.0, 26.9)	14.5 (9.5, 19.5)	14.0 (10.6, 17.3)

Note. Bolding indicated significant differences with demographic category, p<.05

Table 4. Change in knowledge of marijuana laws (unweighted percent), after the marijuana media campaign among an evaluation panel of English speaking Colorado adults

Correct response	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
	Total % (95% CI)		Male % (95% CI)		Female % (95% CI)		20-34 % (95% CI)		35-54 % (95% CI)		55+ % (95% CI)	
% correct for: age, outdoors, DUI, out of state	62.0 (58.6, 65.4)	73.1 ↑ (69.9, 76.3)	67.9 (62.8, 73.0)	77.6 (72.9, 82.2)	57.7 (53.1, 62.3)	70.0 (65.6, 74.3)	77.7 (69.9, 85.4)	80.0 (72.5, 87.5)	66.3 (59.8, 72.9)	81.8 (76.4, 87.2)	56.3 (51.8, 60.9)	67.5 (63.1, 71.9)
Must be at least 21 to buy	72.7 (69.6, 75.8)	78.7 ↑ (75.8, 81.6)	78.3 (73.9, 82.8)	82.3 (78.2, 86.5)	68.6 (64.4, 72.9)	76.1 (72.1, 80.0)	88.5 (82.6, 94.4)	90.0 (84.4, 95.6)	72.8 (66.6, 78.9)	84.6 (79.6, 89.6)	68.9 (64.7, 73.1)	73.5 (69.5, 77.5)
May use in a private home	89.0 (86.8, 91.2)	92.8 ↑ (90.9, 94.6)	91.5 (88.5, 94.5)	94.6 (92.2, 97.1)	87.2 (84.1, 90.3)	91.4 (88.8, 94.0)	96.4 (93.0, 99.9)	93.7 (89.2, 98.2)	93.0 (89.4, 96.5)	96.5 (93.9, 99.0)	85.5 (82.3, 88.7)	90.9 (88.2, 93.6)
May <u>not</u> use in a business	81.0 (78.3, 83.8)	83.2 (80.5, 85.8)	80.9 (76.6, 85.1)	82.3 (78.1, 86.5)	81.2 (77.6, 84.8)	83.8 (80.3, 87.2)	79.5 (72.0, 87.0)	77.5 (69.7, 85.3)	79.4 (73.8, 85.0)	79.4 (73.8, 85.0)	82.1 (78.7, 85.6)	86.3 (83.1, 89.4)
May <u>not</u> use in outdoor place	94.6 (93.0, 96.2)	97.8 ↑ (96.7, 98.8)	95.4 (93.2, 97.7)	97.5 (95.7, 99.2)	94.0 (91.8, 96.2)	98.0 (96.7, 99.3)	95.5 (91.7, 99.4)	97.3 (94.3, 100.0)	93.0 (89.4, 96.5)	97.5 (95.3, 99.7)	95.1 (93.2, 97.1)	98.0 (96.7, 99.3)
May purchase 1 oz.	31.0 (27.7, 34.2)	34.1 ↑ (30.7, 37.4)	36.6 (31.5, 41.8)	37.0 (31.8, 42.2)	26.9 (22.8, 30.9)	32.0 (27.7, 36.2)	34.5 (25.7, 43.3)	34.8 (26.0, 43.7)	39.8 (33.0, 46.6)	43.3 (36.5, 50.2)	26.4 (22.5, 30.4)	29.9 (25.7, 34.0)
May grow 6 plants	25.5 (22.5, 28.6)	26.6 (23.5, 29.7)	33.0 (28.0, 38.1)	33.9 (28.8, 39.1)	20.1 (16.4, 23.8)	21.2 (17.4, 25.0)	31.9 (23.2, 40.5)	29.2 (20.8, 37.6)	31.2 (24.8, 37.6)	29.0 (22.7, 35.3)	21.6 (17.9, 25.3)	24.9 (21.0, 28.8)
Can get cited for DUI	90.5 (88.5, 92.6)	93.7 ↑ (92.0, 95.4)	91.9 (89.0, 94.8)	96.7 (94.8, 98.6)	89.5 (86.7, 92.3)	91.5 (88.9, 94.1)	92.9 (88.2, 97.7)	96.5 (93.0, 99.9)	95.1 (92.1, 98.1)	96.0 (93.3, 98.7)	88.0 (85.1, 90.9)	92.0 (89.6, 94.5)
May <u>not</u> take out of state	91.2 (89.2, 93.2)	94.2 ↑ (92.6, 95.8)	92.8 (90.0, 95.6)	97.3 (95.5, 99.0)	90.0 (87.2, 92.7)	92.0 (89.5, 94.5)	92.0 (87.0, 97.0)	92.9 (88.2, 97.7)	93.6 (90.2, 97.0)	98.5 (96.9, 100.0)	89.9 (87.2, 92.6)	92.6 (90.3, 95.0)

Note. Comparisons are from before to after campaign, within category. Bolding represent significant change from before to after, p<.05

Table 4 continued. Change in knowledge of marijuana laws (unweighted percent), after the marijuana media campaign among an evaluation panel of English speaking Colorado adults

Correct response	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
	Current marijuana use: Yes % (95% CI)		Current marijuana use: No % (95% CI)		White % (95% CI)		Hispanic % (95% CI)		African American % (95% CI)		Other % (95% CI)	
% correct for: age, outdoors, DUI, out of state	83.5 (78.2, 88.8)	89.9 (85.5, 94.4)	55.1 (51.1, 59.2)	68.0 (64.1, 71.9)	63.8 (59.7, 67.9)	74.5 (70.7, 78.3)	61.7 (52.5, 70.9)	73.3 (64.6, 81.9)	56.5 (47.4, 65.6)	65.5 (56.7, 74.3)	47.8 (27.4, 68.3)	80.0 (62.4, 97.6)
Must be at least 21 to buy	90.4 (86.2, 94.6)	92.4 (88.6, 96.2)	67.2 (63.4, 71.0)	74.7 (71.2, 78.2)	72.6 (68.8, 76.4)	78.4 (74.9, 81.9)	76.1 (68.1, 84.2)	78.3 (70.4, 86.2)	69.7 (61.5, 78.0)	78.4 (70.9, 85.9)	73.9 (55.9, 91.9)	90.5 (77.9, 100.0)
May use in a private home	98.4 (96.6, 100.0)	96.7 (94.0, 99.3)	86.2 (83.5, 89.0)	91.8 (89.5, 94.0)	89.2 (86.5, 91.8)	94.1 (92.0, 96.1)	93.5 (88.8, 98.2)	93.2 (88.3, 98.1)	86.1 (79.7, 92.4)	87.7 (81.7, 93.8)	78.3 (61.4, 95.2)	85.7 (70.7, 100.0)
May <u>not</u> use in a business	78.2 (72.3, 84.1)	81.7 (76.0, 87.3)	81.8 (78.7, 85.0)	83.9 (80.9, 86.9)	80.4 (77.0, 83.8)	82.6 (79.3, 85.9)	85.0 (78.3, 91.8)	82.5 (75.2, 89.9)	82.6 (75.7, 89.6)	85.1 (78.5, 91.6)	69.6 (50.7, 88.4)	90.5 (77.9, 100.0)
May <u>not</u> use in outdoor place	96.8 (94.3, 99.3)	99.4 (98.4, 100.0)	93.9 (91.9, 95.8)	97.4 (96.1, 98.7)	95.9 (94.2, 97.6)	98.3 (97.2, 99.4)	93.5 (88.8, 98.2)	98.1 (95.4, 100.0)	93.0 (88.4, 97.7)	95.6 (91.8, 99.4)	78.3 (61.4, 95.2)	95.2 (86.1, 100.0)
May purchase 1 oz.	52.1 (45.0, 59.3)	51.4 (44.1, 58.6)	24.4 (21.0, 27.9)	28.8 (25.1, 32.4)	30.9 (27.0, 34.8)	33.4 (29.4, 37.4)	33.9 (25.0, 42.9)	40.7 (31.5, 50.0)	28.0 (19.9, 36.1)	30.0 (21.8, 38.2)	34.8 (15.3, 54.3)	39.1 (19.1, 59.1)
May grow 6 plants	53.2 (46.0, 60.3)	54.3 (47.1, 61.5)	16.9 (13.9, 19.9)	17.7 (14.6, 20.8)	26.5 (22.8, 30.2)	27.6 (23.9, 31.4)	28.4 (20.0, 36.9)	28.6 (19.9, 37.2)	17.6 (10.8, 24.5)	17.2 (10.4, 24.1)	30.4 (11.6, 49.3)	39.1 (19.1, 59.1)
Can get cited for DUI	95.7 (92.9, 98.6)	96.2 (93.5, 99.0)	88.8 (86.3, 91.3)	92.8 (90.7, 94.9)	91.5 (89.1, 93.9)	94.3 (92.3, 96.2)	89.9 (84.2, 95.6)	94.4 (90.1, 98.8)	87.4 (81.4, 93.4)	89.9 (84.5, 95.3)	87.0 (73.2, 100.0)	95.7 (87.3, 100.0)
May <u>not</u> take out of state	96.3 (93.6, 99.0)	99.5 (98.4, 100.0)	89.5 (87.0, 91.9)	92.6 (90.5, 94.7)	93.0 (90.8, 95.1)	95.4 (93.6, 97.1)	90.8 (85.4, 96.3)	91.7 (86.6, 96.9)	84.0 (77.4, 90.6)	91.7 (86.7, 96.6)	87.0 (73.2, 100.0)	91.3 (79.8, 100.0)

Note. Comparisons are from before to after campaign, within category. Bolding represents significant change from before to after, p<.05

Table 5. Perceptions of risk and health effects (unweighted percent), after the marijuana media campaign among an evaluation panel of Colorado Adults

Known health effects and risks based on literature reviews.	Follow-up	% change	Follow-up	% change	Follow-up	% change	Follow-up	% change	Follow-up	% change	Follow-up	% change
	Total % (95% CI)		Male % (95% CI)		Female % (95% CI)		20-34 % (95% CI)		35-54 % (95% CI)		55+ % (95% CI)	
Health Effects	% agree/strongly agree with changes in											
Regular use of marijuana can cause depression or anxiety	45.0 (41.5, 48.4)	2.4	40.7 (35.3, 46.0)	-5.5	48.0 (43.4, 52.6)	8.1↑	42.5 (33.3, 51.6)	12.4↑	46.8 (39.9, 53.7)	2.5	44.8 (40.3, 49.3)	0.0
A person should wait at least six hours after using marijuana before driving.	54.0 (50.5, 57.5)	2.5	54.8 (49.3, 60.2)	0.0	53.5 (48.9, 58.1)	4.4	69.0 (60.5, 77.6)	16.8↑	52.3 (45.3, 59.2)	-6.0	51.2 (46.6, 55.7)	2.8
Daily or near daily use of recreational marijuana can lead to addiction.	54.3 (50.8, 57.8)	0.4	46.3 (40.9, 51.7)	-4.3	60.0 (55.5, 64.5)	3.8	59.3 (50.2, 68.4)	0.9	55.7 (48.8, 62.6)	-3.5	52.4 (47.9, 57.0)	1.9
Using marijuana during pregnancy can lead to attention problems and lower IQ in the child.	62.3 (58.9, 65.7)	8.2↑	56.7 (51.4, 62.1)	4.9	66.3 (62.0, 70.6)	10.5↑	64.9 (56.0, 73.8)	9.9	63.9 (57.2, 70.5)	1.0	61.1 (56.6, 65.5)	10.9↑
Daily or near daily use of recreational marijuana can lead to lasting impaired memory.	59.0 (55.6, 62.5)	7.4↑	55.0 (49.6, 60.4)	5.4	61.9 (57.5, 66.4)	8.8↑	60.2 (51.1, 69.2)	8.9	63.4 (56.7, 70.0)	6.9	56.9 (52.4, 61.4)	7.2↑
Perceptions of Risk	% moderate/a lot of risk											
An adult using marijuana once a week	28.5 (25.3, 31.6)	1.2	24.0 (19.4, 28.6)	-1.5	31.7 (27.4, 36.0)	3.3	22.1 (14.5, 29.8)	14.2↑	35.0 (28.4, 41.6)	5.5	27.2 (23.2, 31.2)	-3.6
An adult using marijuana daily or almost daily	66.5 (63.2, 69.9)	6.9↑	62.5 (57.2, 67.8)	4.0	69.4 (65.1, 73.7)	9.0↑	67.9 (59.2, 76.5)	13.4↑	69.7 (63.3, 76.1)	5.6	64.8 (60.5, 69.2)	5.9
A teenager using marijuana about once a week	71.0 (67.8, 74.2)	5.3	63.4 (58.1, 68.6)	3.7	76.5 (72.6, 80.4)	6.5↑	68.8 (60.1, 77.4)	10.7	76.5 (70.6, 82.4)	7.5	69.1 (64.9, 73.4)	3.1
A teenager using marijuana daily or almost daily	87.0 (84.6, 89.4)	3.7	86.0 (82.2, 89.7)	-0.6	87.7 (84.7, 90.8)	6.9↑	91.1 (85.8, 96.4)	15.2↑	88.0 (83.5, 92.5)	1.5	85.6 (82.4, 88.8)	1.9
A woman using marijuana often during pregnancy	83.7 (81.0, 86.3)	-0.8	79.8 (75.5, 84.2)	-5.2	86.4 (83.3, 89.6)	2.4	86.7 (80.5, 93.0)	-2.7	86.9 (82.2, 91.6)	-1.0	81.5 (78.0, 85.0)	-0.3
A mother using marijuana	81.5 (78.8, 84.2)	4.2↑	76.5 (71.9, 81.1)	4.2	85.1 (81.9, 88.4)	4.3	84.1 (77.3, 90.8)	-0.8	83.0 (77.8, 88.2)	7.0	80.3 (76.6, 83.9)	4.3



while breastfeeding									88.2)			
Extracting 'hash oil' in a home	77.7 (74.7, 80.6)	9.2↑	79.4 (75.0, 83.8)	10.5↑	76.4 (72.5, 80.4)	8.2↑	68.1 (59.5, 76.8)	12.4↑	73.5 (67.4, 79.6)	9.5↑	81.8 (78.3, 85.3)	8.2↑
Children being exposed to someone else's marijuana smoke	81.8 (79.1, 84.5)	3.1	77.2 (72.6, 81.7)	3.1	85.2 (81.9, 88.5)	3.1	85.7 (79.2, 92.2)	12.5	79.4 (73.8, 85.0)	2.5	81.9 (78.4, 85.4)	1.1
Consuming more than one serving of edible marijuana	68.7 (65.5, 72.0)	2.9	62.7 (57.4, 67.9)	0.0	73.1 (69.0, 77.2)	5.1	67.0 (58.2, 75.7)	0.9	67.3 (60.8, 73.9)	4.5	69.7 (65.6, 73.9)	2.8
Storing marijuana in open containers in a home with children	90.7 (88.7, 92.8)	7.7↑	87.2 (83.5, 90.8)	5.8	93.3 (91.0, 95.6)	9.1↑	86.6 (80.3, 92.9)	3.5	89.9 (85.7, 94.1)	11.2↑	92.1 (89.6, 94.5)	7.2↑
Composite scores	% agree/strongly agree or moderate/a lot of risk											
1. Youth use: teen using daily, teen using weekly	69.8 (66.5, 73.0)	4.5↑	61.9 (56.6, 67.2)	0.0	75.5 (71.5, 79.5)	7.8↑	68.8 (60.1, 77.4)	14.3↑	75.0 (69.0, 81.0)	5.5	67.7 (63.5, 72.0)	1.7
2. Use around children: child exposure to smoking, storing in open containers	77.6 (74.6, 80.5)	8.2↑	71.1 (66.2, 76.0)	6.7	82.3 (78.7, 85.8)	9.4↑	77.0 (69.2, 84.8)	10.6	76.5 (70.6, 82.4)	9.0	78.2 (74.4, 81.9)	7.3
3. High Risk Use: hash oil, edibles, wait to drive	35.2 (31.9, 38.6)	8.6↑	33.2 (28.2, 38.3)	6.0	36.7 (32.3, 41.1)	10.4↑	39.8 (30.8, 48.9)	15.0	28.6 (22.3, 34.8)	3.9	37.0 (32.6, 41.3)	9.0↑
4. Use during pregnancy: risk of use during pregnancy; use during pregnancy lead to problems in child	59.8 (56.4, 63.2)	7.5	52.9 (47.5, 58.2)	1.2	64.8 (60.5, 69.2)	12.0↑	63.7 (54.8, 72.6)	8.0↑	61.6 (54.9, 68.3)	-1.0	58.1 (53.7, 62.6)	11.0↑

Note. Bolding and arrow indicates a significant change in perception of health effects or risk

Table 5 continued. Perceptions of risk and health effects (unweighted percent), after the marijuana media campaign among an evaluation panel of Colorado Adults

Known health effects and risks based on literature reviews.	Follow-up	% change	Follow-up	% change	Follow-up	% change	Follow-up	% change	Follow-up	% change	Follow-up	% change
	Current use % (95% CI)		No current use % (95% CI)		White % (95% CI)		Hispanic % (95% CI)		Black % (95% CI)		Other % (95% CI)	
Health Effects	% agree/strongly agree with changes in											
Regular use of marijuana can cause depression or anxiety	24.5 (18.2, 30.7)	2.2	51.3 (47.2, 55.3)	2.7	44.8 (40.6, 49.1)	0.9	44.4 (35.1, 53.8)	2.8	48.7 (39.7, 57.7)	10.9	30.4 (11.6, 49.3)	-8.7
A person should wait at least six hours after using marijuana before driving.	47.0 (39.7, 54.2)	0.5	56.1 (52.1, 60.1)	3.3	56.4 (52.2, 60.6)	4.3	55.1 (45.7, 64.6)	-1.9	44.9 (35.9, 53.9)	0.9	40.9 (20.3, 61.5)	-9.1
Daily or near daily use of recreational marijuana can lead to addiction.	19.0 (13.3, 24.7)	-5.4	65.3 (61.5, 69.2)	2.7	52.7 (48.5, 57.0)	0.7	58.3 (49.0, 67.7)	2.8	58.0 (49.1, 66.9)	-4.2	52.2 (31.7, 72.6)	4.3
Using marijuana during pregnancy can lead to attention problems and lower IQ in the child.	42.9 (35.7, 50.1)	4.4	68.5 (64.8, 72.3)	9.9↑	63.3 (59.2, 67.4)	11.2↑	66.1 (57.1, 75.0)	3.7	58.0 (49.1, 66.9)	1.7	43.5 (23.2, 63.8)	-8.7
Daily or near daily use of recreational marijuana can lead to lasting impaired memory.	32.4 (25.7, 39.2)	4.9	67.7 (63.9, 71.5)	8.8↑	59.3 (55.1, 63.4)	4.3	58.7 (49.5, 68.0)	9.2	59.7 (50.8, 68.5)	19.4↑	52.2 (31.7, 72.6)	8.7
Perceptions of Risk	% moderate/a lot of risk											
An adult using marijuana once a week	4.9 (1.8, 8.0)	-1.6	35.6 (31.7, 39.5)	2.0	27.7 (23.9, 31.5)	-1.5	32.4 (23.6, 41.3)	21.3↑	28.1 (19.8, 36.3)	-5.2	30.4 (11.6, 49.3)	4.4
An adult using marijuana daily or almost daily	35.4 (28.4, 42.3)	7.8	76.2 (72.8, 79.7)	6.2↑	67.7 (63.7, 71.7)	6.3↑	67.9 (59.0, 76.8)	14.1	61.6 (52.6, 70.6)	1.8	56.5 (36.2, 76.8)	13.0
A teenager using marijuana about once a week	52.5 (45.2, 59.8)	10.5	76.6 (73.1, 80.0)	3.2	71.6 (67.8, 75.5)	4.7	72.0 (63.4, 80.5)	10.3	69.0 (60.5, 77.6)	1.8	60.9 (40.9, 80.9)	13.0
A teenager using marijuana daily or almost daily	81.0 (75.3, 86.7)	8.1	89.1 (86.5, 91.6)	2.4	89.5 (86.8, 92.1)	3.2	81.5 (74.1, 88.8)	2.7	80.7 (73.4, 88.0)	4.4	87.0 (73.2, 100.0)	17.4
A woman using marijuana often during pregnancy	68.3 (61.5, 75.1)	-8.2	88.3 (85.7, 90.9)	1.5	84.8 (81.7, 87.9)	-0.5	85.0 (78.3, 91.8)	-2.9	79.8 (72.4, 87.2)	2.6	69.6 (50.7, 88.4)	-13.1

A mother using marijuana while breastfeeding	67.9 (61.2, 74.7)	9.2↑	85.6 (82.7, 88.4)	2.5	82.0 (78.7, 85.3)	5.3↑	85.2 (78.5, 91.9)	6.5	79.1 (71.7, 86.6)	-4.4	65.2 (45.7, 84.7)	13.1
Extracting 'hash oil' in a home	79.3 (73.5, 85.2)	11.4↑	77.1 (73.7, 80.5)	8.7↑	79.4 (76.0, 82.9)	12.1↑	77.6 (69.6, 85.5)	5.6	72.2 (64.0, 80.4)	-1.7	65.2 (45.7, 84.7)	13.1
Children being exposed to someone else's marijuana smoke	67.8 (61.0, 74.5)	2.1	86.1 (83.2, 88.9)	2.9	83.1 (79.9, 86.3)	3.8	83.3 (76.3, 90.4)	5.6	76.8 (68.9, 84.6)	-3.6	69.6 (50.7, 88.4)	8.7
Consuming more than one serving of edible marijuana	53.8 (46.6, 61.1)	-3.8	73.7 (70.1, 77.2)	5.6	70.7 (66.8, 74.6)	4.1	68.2 (59.4, 77.1)	2.8	59.1 (50.1, 68.1)	-8.7	73.9 (55.9, 91.9)	34.8↑
Storing marijuana in open containers in a home with children	88.5 (83.8, 93.1)	9.9	91.3 (89.1, 93.6)	7.0↑	92.1 (89.8, 94.4)	8.4↑	89.7 (84.0, 95.5)	2.8	87.7 (81.7, 93.8)	9.6	78.3 (61.4, 95.2)	4.3
Composite scores	% agree/strongly agree or moderate/a lot of risk											
1. Youth use: teen using daily, teen using weekly	51.1 (43.8, 58.3)	8.7	75.6 (72.2, 79.1)	2.9	71.4 (67.5, 75.2)	4.3	67.6 (58.7, 76.4)	5.5	66.1 (57.4, 74.8)	0.0	60.9 (40.9, 80.9)	26.1
2. Use around children: child exposure to smoking, storing in open containers	64.1 (57.2, 71.1)	8.7	81.5 (78.4, 84.7)	7.6↑	79.6 (76.2, 83.0)	9.6↑	78.7 (71.0, 86.4)	8.4	69.6 (61.1, 78.0)	0.0	65.2 (45.7, 84.7)	17.4
3. High Risk Use: hash oil, edibles, wait to drive	25.8 (19.5, 32.1)	0.5	38.4 (34.5, 42.3)	11.6↑	37.3 (33.3, 41.4)	11.5↑	33.0 (24.2, 41.9)	1.9	28.6 (20.4, 36.7)	0.0	30.4 (11.6, 49.3)	17.4
4. Use during pregnancy: risk of use during pregnancy; use during pregnancy lead to problems in child	40.9 (33.8, 47.9)	-2.6	66.1 (62.2, 69.9)	11.2↑	61.1 (57.0, 65.2)	10.2↑	62.4 (53.3, 71.5)	3.6	54.6 (45.7, 63.6)	4.2	43.5 (23.2, 63.8)	-21.7

Note. Bolding and arrow indicates a significant change in perception of health effects or risk.

GOAL 2 TABLES/FIGURES

Table 6. Regional Training Location & Attendee Affiliations					
Date	Location	# of People Attending	# of Surveys Returned	Return Rate	Example of Attendee Organizations
2/26/15	Denver	72	49	58%	Army National Guard
					Children's Hospital Colorado
					CO Dept of Human Services
					Office of the Attorney General
					Boulder Valley School District
					Cannabis Patients Alliance
3/16/15	Boulder	116	78	67%	Division of Child Welfare
					Colorado Springs Fire Department
					Center High School
					Mountain Valley School District
4/15/15	Alamosa	49	39	80%	Posada
					Tu Casa
					Craig Police Department
					Head Start
4/24/15	Glenwood Springs	60	44	73%	Teller County Public Health
					Boys & Girls Club of La Plata County
					Hinsdale County Public Health
5/29/15	Durango	20	15	75%	Jefferson County Public Schools
					Jefferson County Public Health
6/5/15	Golden	75	50	67%	Boys & Girls Club of La Plata County
					Americorps Boys and Girls Club

5/29/15	Durango	20	15	75%	Americorps Boys and Girls Club
					Americorps Boys and Girls Club

Nearly all 400 attendees worked with organizations that interacted with youth with a large variety of organizations represented, including nonprofit foundations, Boys and Girls Clubs, school districts, and human services.

	#	%
Children (ages 8 or younger)	110	40%
Early adolescents (ages 9 -13)	195	71%
Adolescents (ages 14-17)	228	83%
Young adults (ages 18-25)	144	52%
<i>*Multiple responses allowed</i>		

Most organizations attending the trainings worked with early adolescents and adolescents 9- to 17-years-old. This suggests that the regional trainings effectively drew in members of their target demographic and the needs of the attendees' organizations appeared appropriately suited to the training material, at least in terms of age.

	#	%
Rated training as "very engaging"	144	71%
Facilitator Impact Rating Scale 1-Strongly Disagree 2-Disagree 3-Agree 4-Strongly Agree	Average	Standard Deviation
Used a variety of effective facilitation strategies	3.7	0.5
Effectively acknowledged and answered questions and concerns	3.7	0.5
Created an effective learning environment	3.6	0.6

Satisfaction ratings for Regional Trainings were high, indicating that the events effectively delivered information to their audience.

Table 9. Attendees' Knowledge of Marijuana Prevention Resources/Programs

Rating Scale 1-Not at all skilled 2-Not very skilled 3-Somewhat skilled 4-Very Skilled	Pre-Training Knowledge Average	Post-Training Knowledge Average	T	p-value
All sites	2.1	3.5	-10.135	<.001
Denver	2.6	3.6	-10.202	<.001
Boulder	2.4	3.7	-8.753	<.001
Alamosa	2.6	3.6	-9.347	<.001
Glenwood Springs	2.8	3.7	-3.627	.005
Durango	2.1	3.6	-4.391	<.001
Golden	2.1	3.5	-10.135	<.001

Across sites, regional training attendees' reported that their knowledge of marijuana prevention resources improved.

Table 10. Attendees' Use of Training Materials (4-Months Post-Training)

Materials	#	%
Good to Know media campaign information or videos	16	64
CDPHE Marijuana Website	13	52
State of Colorado Marijuana Website	11	44
CDPHE's Technical Assistance service	5	20
SAMHSA's <i>Strategies/Interventions for Reducing Marijuana Use</i>	10	40
Retail Marijuana Factsheets	14	56
Healthy Kids Colorado Survey results	17	68

Over half of respondents used the Healthy Kids Colorado survey results, followed by the Good to Know media campaign resources, retail marijuana factsheets, and the CDPHE website.

Table 11. Attendees' Requests for Additional Information (4-Months Post-Training)

Materials	#	%
Promising practices for working with youth	15	60
Best practice guidelines for working with youth	18	72
Social Media	15	60
Materials in Spanish	13	52
Information about Talking to Kids	16	64
Information about Edibles	14	56
Information about Peer Pressure and Marijuana	16	64
Information about Driving and Marijuana	8	32
Marijuana Laws	10	40

Four-months after training, over half of respondents asked for promising practices information, best practice guidelines, social media tools, materials in Spanish, information about talking to kids/peer pressure, and edibles information. Other information requested initially included materials for talking to the community, presentation/training requests, funding opportunities, Responsible Vendor Program details, program evaluation activities and information about safe storage.

	#	%
Colorado-Based Requests	90	80%
Colorado Counties		
Denver	24	31%
Lake	3	3%
Adams	5	4%
El Paso	5	4%
Pueblo	3	3%
Grand	4	4%
Fremont	2	2%
Broomfield	2	2%

Jefferson	4	4%
other	15	40%

The majority of requests came from Denver County, although 34/68 requests came from other Colorado counties.

	#	%
Prevention/education	45	40
Campaign resources	20	17
School resources	15	13
Laws/regulation	20	17
Referrals	17	15
Presentation/training request	10	8
Health effects	17	15
Talking to the community	12	11
Opportunities for involvement	10	9
Safe storage	4	4
Talking to children	4	4
Responsible Vendor Program details	3	3
Funding opportunities	3	3
Edibles labeling	2	2
Program evaluation activities	2	2
other	13	11
*Multiple responses allowed, frequency may exceed 100%. Missing data for 7 requests.		

Other information requested at the initial training included materials for talking to the community, presentation/training requests, funding opportunities, Responsible Vendor Program details, information about safe storage, and program evaluation activities.

Table 14. Use (or Intended Use) of Information		
	#	%
Any Use (or intended use) of Information	58	94%
How Information Was/Will Be Used		
In a presentation	30	48%
Increase knowledge about marijuana laws	20	49%
Develop/modify existing program	19	31%
Workplace or school policies	7	11%
Increase knowledge about marijuana health research	13	21%
Papers, manuscripts, or reports	5	8%
Other	13	21%
*Multiple responses allowed, frequency may exceed 100%		

Nearly all respondents said they have (or planned to) utilize the Technical Assistance information. Nearly half of participants said they would use the information to increase their personal or workplace knowledge about marijuana laws and in presentations.

Table 15. Information Sharing		
	#	%
Any Information Sharing	54	87%
How Information was Shared		
Colleagues, coworkers, workplace	30	48%
Students	13	21%
General public	17	27%
Community coalition	14	23%
Parent group	8	13%
Legislature	4	7%
Other	15	24%
*Multiple responses allowed, frequency may exceed 100%		

The majority of respondents reported sharing the information with others and many shared it with more than one person or group. This indicates that the information was distributed well beyond the initial requestor.

Table 16. Additional marijuana Information: NOVEMBER-JUNE ONLY*

	#	%
Any Info received from other state agencies	24	39%
Frequency of Other Sources		
Colorado Department of Human Services	8	13%
Colorado Department of Education	7	11%
Colorado Department of Revenue	1	2%
Governor's Office	2	3%
Colorado Department of Transportation	1	2%
Unknown	7	11%

**Data collection for this item ended June 30, 2015, multiple source of additional data allowed.*

Table 17. Satisfaction with Technical Assistance Service

<i>Scale: 5=Strongly Agree 4=Agree 3=Neither Agree nor Disagree 2=Disagree 1=Strongly Disagree</i>	average	standard deviation
I would recommend CDPHE's Technical Assistance services to others.	4.4	0.7

Respondents' willingness to recommend the TA service to other showed satisfaction with the service. Other satisfaction measures taken at various time points support this conclusion.

Table 18. Effectiveness of Technical Assistance Service

The information I received...	average	standard deviation
<i>Scale: 5=Strongly Agree 4=Agree 3=Neither Agree nor Disagree 2=Disagree 1=Strongly disagree</i>		
...was easy to understand.	4.2	1.0
...met the needs of my request.	4.3	1

Respondents rated the CDPHE Technical Assistance services highly. Other effectiveness measures taken at various time points support this conclusion.

Table 19. Requests/Suggestions for Additional Information

Increased access to information/resources

- Offer a webcast for information
- Create online resource library
- Links to studies, regulations, and best practices
- Education and prevention information on a portable device
- MJ informational podcasts

Youth-focused Requests

Information about the impact of legalized MJ on youth use

Patient education materials on Cannabinoid Hyperemesis and for teens (not just for parents of teens)

More messaging- campaigns with posters, stickers, "swag" directed at youth prevention.

Other

Current and continually updated information about marijuana ordinances by city/map of city ordinances

Research about short-term (social, legal) consequences of legalized MJ

Funding information

Q&A about common legal questions (e.g., Can you smoke pot on your porch? Can you have pot and guns in your house at the same time?)

Figure 1

Figure 1: Mixed Mode Survey Sample Race/Ethnicity, Baseline and Follow-Up



Figure 2: Awareness of components of retail marijuana law, Baseline to Follow Up

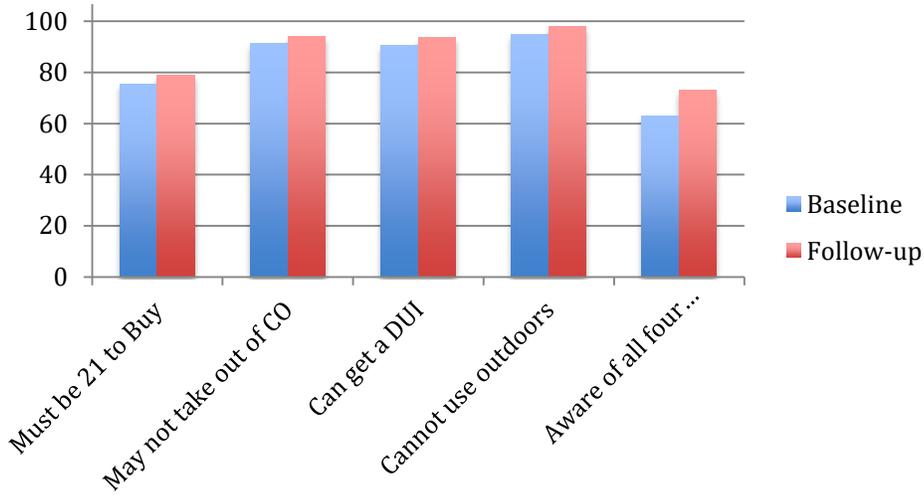


Figure 3

Figure 3: Location and Exposure of "Good to Know" Marijuana Campaign in Colorado, 2015

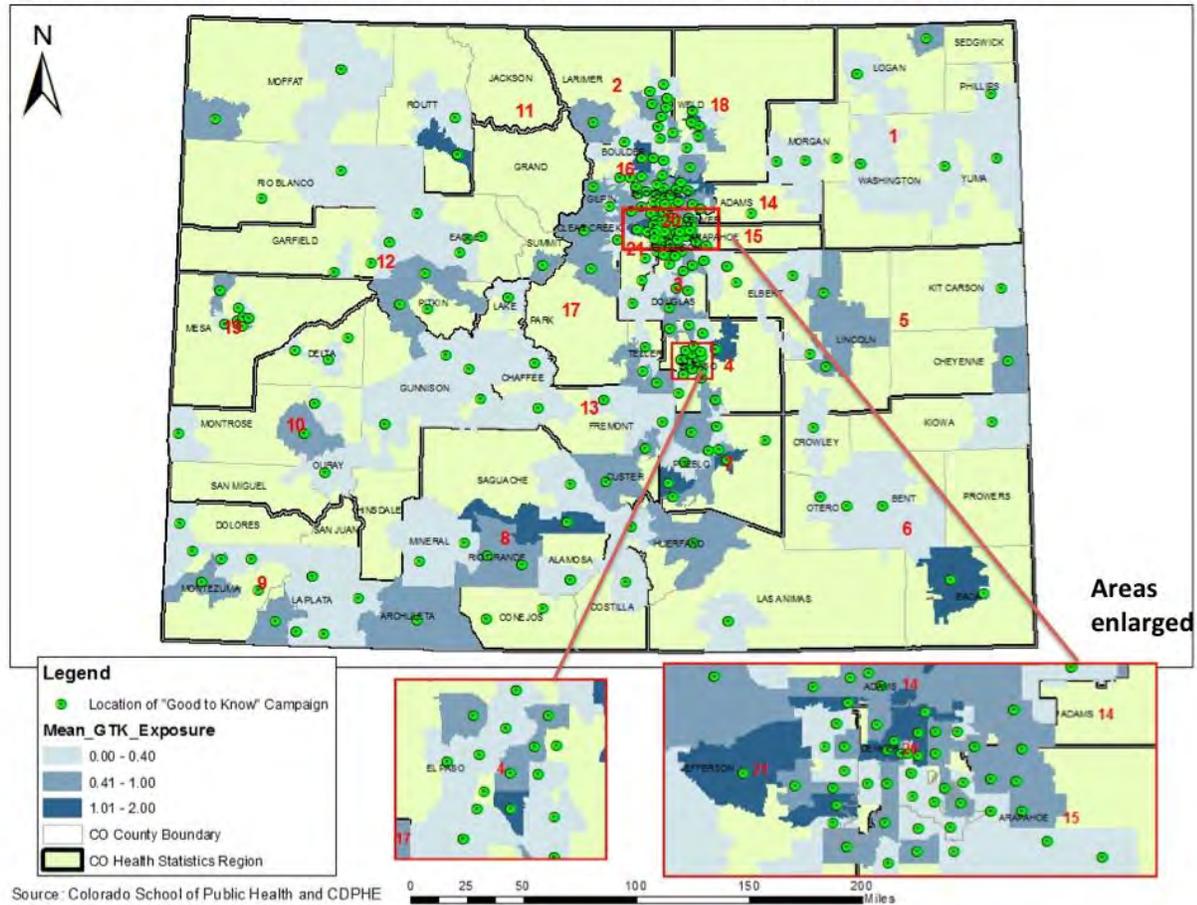


Figure 4: Location of Positive Youth Development and Marijuana trainings, FY 2015

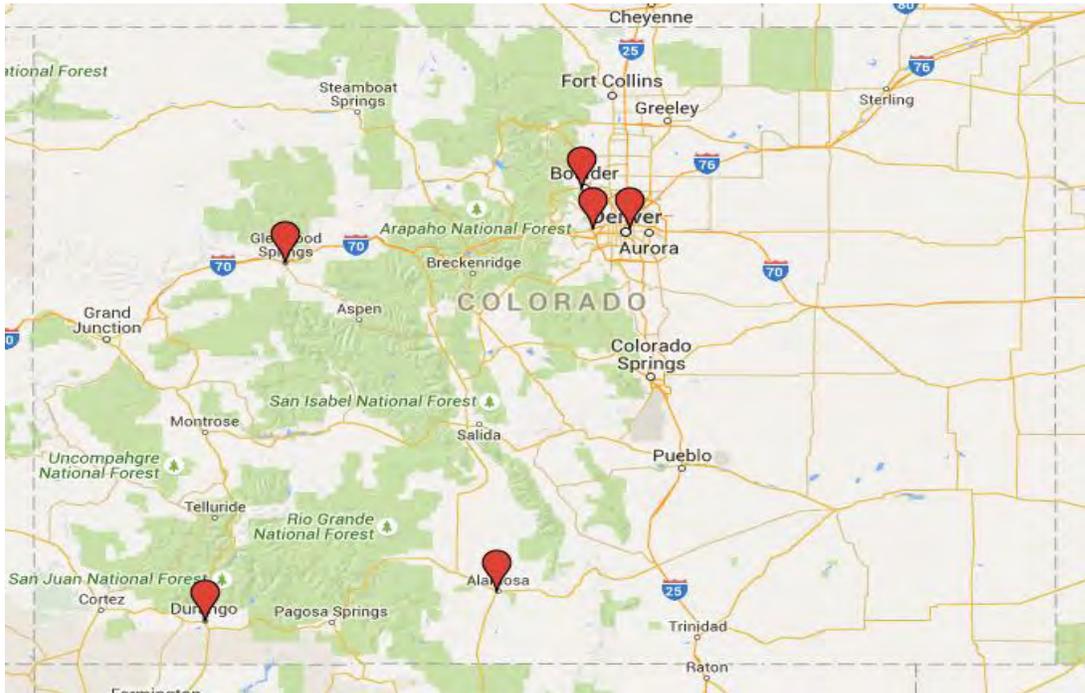
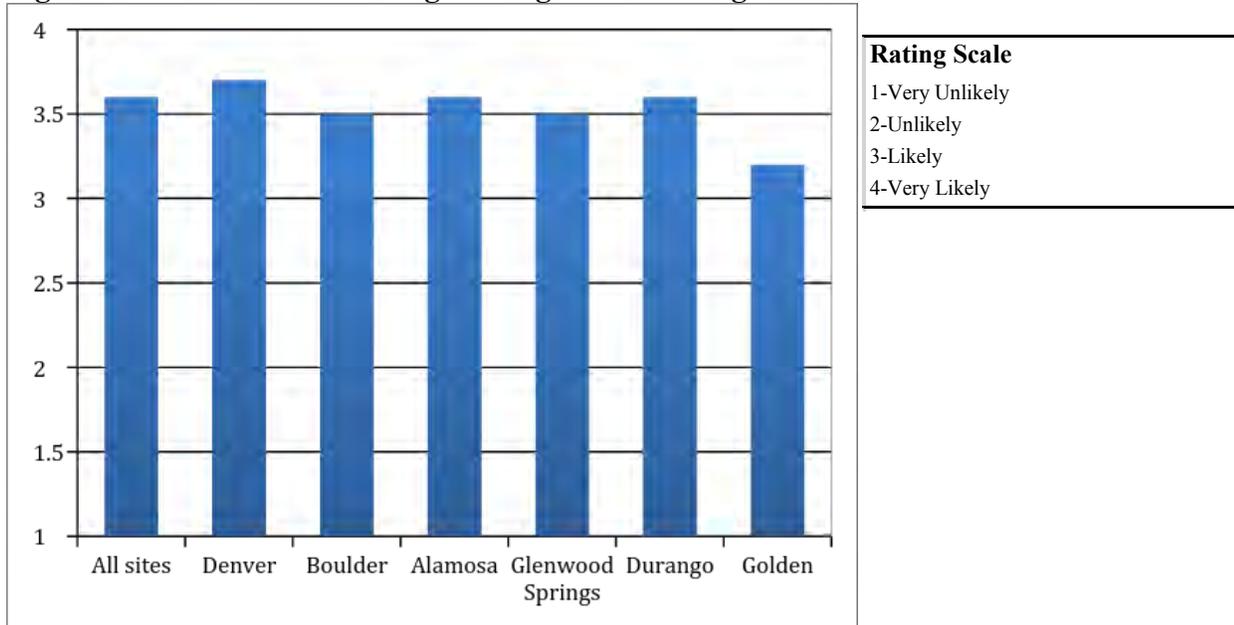
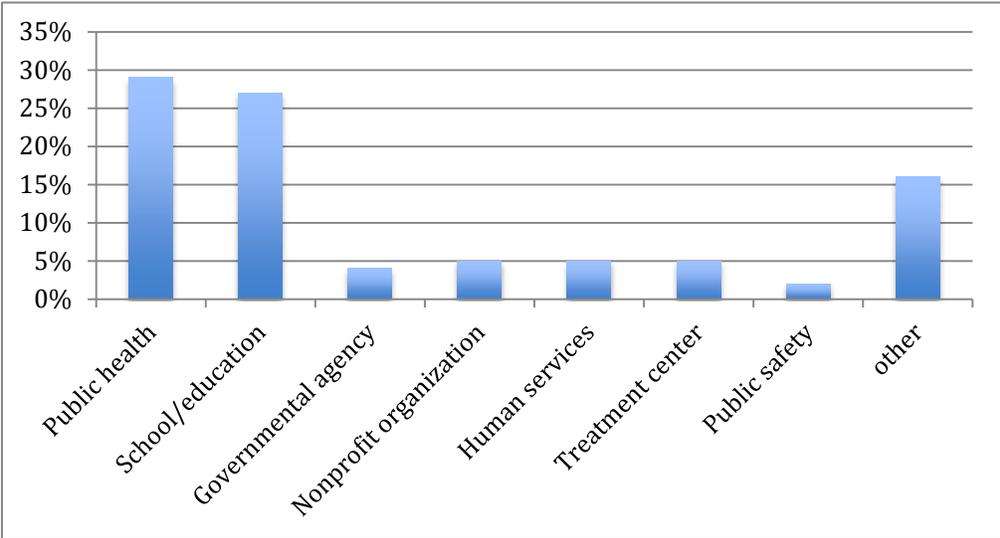


Figure 5: Likelihood of utilizing the Regional Training Information



Attendees reported a high likelihood of utilizing the Regional Training information; CDPHE began a four-month follow-up assessment of actual usage in July 2015.

Figure 6: Primary Focus of Requestor's Organization



Appendix G. Retail Marijuana Education Program Materials: Fact Sheets and Clinical Prevention Guidance

- Marijuana and Your Baby: overview of marijuana-related concerns for pregnant/breastfeeding women.
- Youth and Marijuana: overview of youth marijuana use in Colorado and the health or legal consequences of use.
- Tips for Parents: for families and guardians to learn more about protecting children and youth from marijuana and talking to them about marijuana.
- Tips for Youth-serving Professionals: for teachers or community organizations to learn more about organizational policies and talking with youth or parents about marijuana use.
- Answers to Common Questions About Marijuana: Use this information to answer questions and help start conversations.
- Retail Marijuana: Methods of Use: overview of methods of marijuana use, effects of use and health concerns.
- Retail Marijuana: Health Effects: overview of the research on known health effects of marijuana on adults and youth.
- Retail Marijuana: Laws and Responsible Use: overview of the retail marijuana laws in Colorado and tips to stay safe and use responsibly.
- Retail Marijuana: Info for Visitors: overview for tourists to our state to learn more about the laws in Colorado and tips for using responsibly.
- Marijuana Pregnancy and Breastfeeding guidance for talking to patients/clients about marijuana use
- Marijuana Pediatric Exposure Prevention Guidance for discussions with parents or guardians of children and adolescents ages 0-20
- Marijuana Pediatric Exposure Prevention Guidance for discussions with children and adolescents ages 9-20

MARIJUANA AND YOUR BABY



April 9, 2015

Marijuana is now legal for adults over 21. But this doesn't mean it is safe for pregnant or breastfeeding moms and babies.

There is no known safe amount of marijuana use during pregnancy.

You should not use marijuana while you are pregnant, just like you should

not use alcohol and tobacco.

Tetrahydrocannabinol (THC) is the chemical in marijuana that makes you feel "high."

Using marijuana while you are pregnant passes THC to your baby.

KNOW THE FACTS

MARIJUANA AND PREGNANCY

Using marijuana while pregnant may harm your baby. Marijuana that passes to your baby during pregnancy may make it hard for your child to pay attention and learn, especially as your child grows older. This would make it harder for your child to do well in school.

Some hospitals test babies after birth for drugs. If your baby tests positive for THC at birth, Colorado law says child protective services must be notified. Talk to your doctor early in your pregnancy about any marijuana use.

MARIJUANA AND BREASTFEEDING

The American Academy of Pediatrics says that mothers who are breastfeeding their babies should not use marijuana.

Breastfeeding has many health benefits for both the baby and the mother. But THC in marijuana gets into breast milk and may affect your baby.

Because THC is stored in body fat, it stays in your body for a long time. A baby's brain and body are made with a lot of fat. Since your baby's brain and body may store THC for a long time, you should not use marijuana while you are pregnant or breastfeeding.

Breast milk also contains a lot of fat. This means that "pumping and dumping" your breast milk may not work the same way it does with alcohol. Alcohol is not stored in fat, so it leaves your body faster.

IS SMOKING MARIJUANA BAD FOR MY BABY?

Yes. Breathing marijuana smoke is bad for you and your baby. Marijuana smoke has many of the same chemicals as tobacco smoke. Some of these chemicals can cause cancer. Do not allow anyone to smoke in your home or around your baby.

WHAT IF I USE MARIJUANA WITH- OUT SMOKING IT?

THC in any form of marijuana may be bad for your baby. Some people think that using a vape pen or eating marijuana (like cookies or brownies) is safer than smoking marijuana. Even though these forms do not have harmful smoke, they still contain THC.

**Talk to your doctor if you are pregnant or breastfeeding and need help to stop using marijuana.
Or call 1-800-CHILDREN for help.**

HOW CAN I STORE MARIJUANA SAFELY?

Store all marijuana products in a locked area. Make sure your children cannot see or reach the locked area. Keep marijuana in the child-resistant packaging from the store.

WHAT HAPPENS IF MY CHILD EATS OR DRINKS MARIJUANA BY ACCIDENT?

Marijuana can make children very sick. Look for problems walking or sitting up, starting to be sleepy or having a hard time breathing.



If you are worried, call the poison control hotline as soon as possible. Calling is free and you will be helped quickly: 1-800-222-1222.

If symptoms seem bad, call 911 or go to an emergency room right away.

WHAT ELSE SHOULD I KNOW TO KEEP MY BABY SAFE?

Being high or buzzed while doing some activities can be risky. Being high while caring for a baby is not safe. Do not let anyone who is high take care of your baby.

Some marijuana can make people feel very sleepy when they are high. Marijuana can make you sleep harder. It is not safe for your baby to sleep with you, especially if you are high.

If you plan to use marijuana, make sure there is another person who can safely care for your baby.

It is not safe to drive a car while high. Do not let your baby ride in a car if the driver is high.

RESOURCES

Be sure you know Colorado's marijuana laws: Go to GoodToKnowColorado.com.

Go to Colorado.gov/Marijuana to find more information.

Call 1-800-CHILDREN for free to connect to statewide resources for parents with any concerns, including substance use.

Learn how to talk to your kids about substance use at: SpeakNowColorado.org.

MYTHS ABOUT MARIJUANA

MYTH: Marijuana is safe to use while pregnant or breastfeeding.

FACT: You cannot eat or use some foods and medicines while pregnant or breastfeeding. This is because they might harm the baby. This includes marijuana.

MYTH: Since it is legal, it must be safe.

FACT: Using marijuana during pregnancy may harm your baby, just like alcohol or tobacco. Being legal does not make it safe.

MYTH: Since it is natural, it must be safe.

FACT: Not all natural substances or plants are safe. Tobacco and poisonous berries are great examples. Marijuana contains THC, which may harm a baby.

MYTH: Since some people use marijuana as a medicine, it must be safe.

FACT: Marijuana can be recommended by a doctor in special cases. A doctor decides whether the benefits are greater than the risks. It is unsafe to use any medicines while pregnant or breastfeeding that are not recommended by a doctor. This includes marijuana. Talk to your doctor about safer choices that do not risk harming your baby.

All information on the health effects of marijuana comes from the Monitoring Health Concerns Related to Marijuana in Colorado: 2014 Report.

VISIT: colorado.gov/pacific/cdphe/retail-marijuana-public-health-advisory-committee



COLORADO
Department of Public
Health & Environment

YOUTH AND MARIJUANA

August 31, 2015

MARIJUANA USE BY COLORADO YOUTH



Four out of five high school students do not use marijuana.

In 2013, 19.7 percent of Colorado high school students used marijuana in the last 30 days.¹



Be sure to talk early and often with youth about the risks of using marijuana.

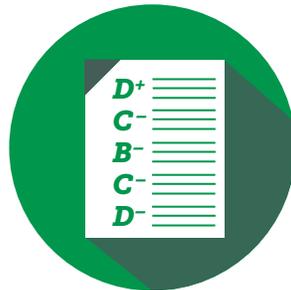
Of Colorado high school seniors who have used marijuana, more than **one out of three** started before age 15.²

It is easier for youth to say no to peer pressure if they do not think "everyone" is doing it.

YOUTH ARE AT SPECIAL RISK FOR HARM²



Brain development is not complete until age 25. For the best chance to reach their full potential, youth should not use marijuana.



Youth who use marijuana regularly are more likely to have a **hard time learning, problems remembering and lower math and reading scores.**



Marijuana is addictive. It is harder to stop using marijuana if started at a young age.



Youth who use marijuana – even occasionally – may be **more likely to do risky things later in life.** This may include use of alcohol, tobacco and other drugs.

CONSEQUENCES FOR YOUTH

It is illegal for youth under the age of 21 to purchase, possess or use retail marijuana.

There are serious consequences for youth, like...



Breaking family and community rules: Set clear rules for youth. Share that younger siblings and neighbors see them as role models, so they should not use marijuana.



Breaking school or after school activity rules: Youth may have to take drug counseling or be suspended, expelled or charged with breaking the law.



Breaking Colorado laws: Youth may get a minor in possession charge. This can mean fines, public service, substance abuse education, loss of a driver's license and misdemeanor or felony charges.



Breaking federal laws: Since marijuana is not legal in all states, youth with marijuana charges may not get financial aid to help pay for college.

Visit Colorado.gov/Marijuana for more information on retail marijuana laws and health risks.

TALKING TIPS FOR ADULTS: HELP YOUTH BETTER UNDERSTAND THE RISKS

Only about half of Colorado high school students think that regularly using marijuana is harmful.¹

Listen carefully and stay positive. Keep the conversation open so youth can come to you with questions. Knowing they can ask questions helps youth make good choices.

➡ *Talking with youth about their dreams helps them feel more connected to caring adults.*

Be honest. Explain how staying out of trouble and doing well in school can help them reach their goals.

➡ *Youth who think marijuana is risky are much less likely to use marijuana regularly.³*

Visit SpeakNowColorado.org for warning signs of high-risk behavior and useful talking tips to help youth make healthy choices.

References

¹ Colorado Department of Education, Colorado Department of Public Health and Environment, Colorado Department of Human Services- Office of Behavioral Health. Healthy Kids Colorado Survey: Marijuana Overview of 2013 HKCS data.

² Colorado Department of Public Health and Environment. Monitoring Health Concerns Related to Marijuana in Colorado: 2014. January 2015.

³ US Department of Health and Human Services. Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health, 2011 Data, Trends in Adolescent Substance Use and Perception of Risk from Substance Use.



COLORADO
Department of Public
Health & Environment

TIPS FOR PARENTS

May 21, 2015

No matter their age, here are some steps to keep children safe around marijuana.

WHAT SHOULD I KNOW TO KEEP CHILDREN SAFE, EVEN IF THERE IS NO MARIJUANA IN MY HOME?

Talk to young children about not eating or drinking anything without permission. This is important for when they are at other people's homes.

WHAT SHOULD I KNOW TO KEEP CHILDREN SAFE IF I PLAN TO USE MARIJUANA?

Make sure there is another person who can safely care for children. It is not safe for anyone who is high to take care of children.

Do not allow smoking in your home or around children. Marijuana smoke is not healthy. It has many of the same cancer-causing chemicals as tobacco smoke.

Being high or even buzzed can make some activities more dangerous.

- Driving a car while high is not safe for the driver or passengers. Tell children and teens not to ride in a car if the driver is high.
- It is not safe for young children to sleep in bed with you, especially if you are high.

HOW CAN I STORE MARIJUANA SAFELY?

Store all marijuana products in a locked area. Make sure children cannot see or reach the locked area. Keep marijuana in the child-resistant packaging from the store.

How you store marijuana should change as children get older. Safe storage around young children may not stop older children or teens.

WHAT HAPPENS IF CHILDREN EAT OR DRINK MARIJUANA BY ACCIDENT?



Marijuana can make children very sick. Look for problems walking or sitting up, starting to be sleepy or having a hard time breathing.

If you are worried, call the poison control hotline as soon as possible. Calling is free and you will be helped quickly.

If symptoms seem bad, call 911 or go to an emergency room right away.

BE A GOOD ROLE MODEL FOR CHILDREN.

Set a good example and create a safe environment.

Actions speak louder than words. Do not use marijuana, alcohol or other substances around children.



NEED TIPS ANSWERING TOUGH QUESTIONS ABOUT YOUR OWN USE?

VISIT:
[SPEAKNOW
COLORADO.ORG](http://SPEAKNOW.COLORADO.ORG)

TALK TO YOUTH ABOUT MARIJUANA TO HELP THEM BETTER UNDERSTAND THE RISKS

Listen carefully and stay positive. Keep the conversation open so they can come to you with questions. Knowing they can ask you questions helps youth make good decisions for their future.

What you talk about may depend on how old they are.

TALK ABOUT HOW MARIJUANA DAMAGES THEIR GROWING BRAINS

- Marijuana can make it harder to learn, sometimes weeks after quitting.
- Problems with learning increase as more marijuana is used.
- Youth who start using marijuana are more likely to become addicted in the future.

Encourage youth to protect their brains by not using marijuana.

TALK ABOUT HOW MARIJUANA CAN GET IN THE WAY OF THEIR GOALS

Ask about their dreams and help them connect with what they need to achieve them.

Be honest. Explain how doing well in school and staying out of trouble can help them reach their goals.

Talk about how marijuana can get youth in trouble:

- **Breaking family and community rules:** Set clear rules for youth. Share that younger siblings and neighbors see them as role models, so they should not use marijuana.
- **Breaking school or after school activity rules:** Youth may be referred for drug counseling, suspended, expelled or face prosecution.
- **Breaking Colorado laws:** Youth may get a Minor in Possession charge. This can lead to fines, public service, substance abuse education, loss of a driver's license and misdemeanor or felony charges.
- **Breaking federal laws:** Since marijuana is still illegal outside Colorado, youth with marijuana charges may not get financial aid to help pay for college.

Visit SpeakNowColorado.org for warning signs of high-risk behavior and useful talking tips to help youth make healthy choices.

RESOURCES:

- For more information on marijuana in Colorado, including laws, methods of use and health effects, visit Colorado.gov/Marijuana.
- For specific tips on age-appropriate ways to talk to youth, suggested talking points and how to spot high-risk behaviors, visit SpeakNowColorado.org.
- To access Colorado substance abuse treatment professionals, visit LinkingCare.org, or call 1-800-CHILDREN for additional resources.
- For more information on the laws and consequences for youth marijuana use, visit bit.ly/CDE_under21penalties.



COLORADO
Department of Public
Health & Environment

TIPS FOR YOUTH-SERVING PROFESSIONALS

May 21, 2015

Prevention information for educators, administrators and other youth-serving professionals.

WHAT STEPS CAN PREVENT YOUTH USE OF AND ACCESS TO MARIJUANA?

REVIEW AND ALIGN POLICIES

The Tobacco Free Schools law (C.R.S. 25-14-103.5) requires that school districts **prohibit marijuana use on school property**.

This promotes a safe environment that helps students make healthy choices and protects them from secondhand smoke.

STRENGTHEN POLICIES AND PROGRAMS

- ➔ **Ban possession** of all marijuana products in addition to marijuana use.
- ➔ **Include consequences for violations.** Promote alternatives to suspension that improve educational outcomes, like restorative justice approaches or in-school suspension.
- ➔ **Define smoking** in your policy to include vaping and electronic smoking devices.
- ➔ **Promote evidence-based substance abuse prevention curricula** or programs available in resources section. Engage youth to help select the program.

All youth-serving organizations are encouraged to adopt similar policies and programs that promote healthy environments.

RESOURCES FOR YOUTH-SERVING PROFESSIONALS

For more information on marijuana in Colorado, including methods of use and health risks, visit Colorado.gov/Marijuana.

POLICY AND PROGRAM SUPPORT

For school district policy support and evidence-based health education curricula for marijuana prevention, visit bit.ly/RMC_MJ.

For instructional units and evidence-based programs that prevent or reduce youth marijuana use, visit bit.ly/students_mj.

CONCERNS ABOUT YOUTH USING MARIJUANA

For specific tips on age-appropriate ways to talk to youth, suggested talking points and how to spot high-risk behavior, visit SpeakNowColorado.org.

For more information on the laws and consequences for youth marijuana use, visit bit.ly/CDE_under21penalties.

To access Colorado substance abuse treatment professionals, visit LinkingCare.org.

TALK TO YOUTH ABOUT MARIJUANA TO HELP THEM BETTER UNDERSTAND THE RISKS

Listen carefully and stay positive. Keep the conversation open so they can come to you with questions. Knowing they can ask you questions helps youth make good decisions for their future.

What you talk about may depend on how old they are.

MARIJUANA DAMAGES THEIR GROWING BRAINS

- Marijuana can make it harder to learn, sometimes weeks after quitting.
- Problems with learning increase as more marijuana is used.
- Youth who start using marijuana are more likely to become addicted in the future.

Encourage youth to protect their brains by not using marijuana.

MARIJUANA CAN GET IN THE WAY OF THEIR GOALS

- Ask about their dreams and help them connect with what they need to achieve their goals.
- Be honest. Explain how doing well in school and staying out of trouble can help them reach their goals.

MARIJUANA CAN GET THEM IN TROUBLE

- **Breaking family and community rules:** Set clear rules for youth. Share that younger siblings and neighbors see them as role models, so they should not use marijuana.
- **Breaking school or after school activity rules:** Youth may be referred for drug counseling, suspended, expelled or face prosecution.
- **Breaking Colorado laws:** Youth may get a Minor in Possession charge. This can lead to fines, public service, substance abuse education, loss of a driver's license and misdemeanor or felony charges.
- **Breaking federal laws:** Since marijuana is still illegal outside Colorado, youth with marijuana charges may not get financial aid to help pay for college.

TALK TO PARENTS

Encourage them to be good role models and to talk with youth about the risks of using marijuana.

Visit Colorado.gov/Marijuana for parent-specific resources.

CONCERNED ABOUT PARENTS USING MARIJUANA?

Talk to them about your concerns. Remind them to provide a safe, smoke-free environment and to store marijuana in a locked area that children cannot see or reach.

If you are unsure if marijuana use is a concern for the welfare of a child, contact your local Department of Human Services.

If you suspect child abuse or neglect (i.e. that the health or welfare of a child is threatened), report your concerns to the Colorado Child Abuse and Neglect Hotline: 1-844-CO-4-KIDS.

You can learn more about the signs of child abuse and neglect from the Colorado Department of Human Services.

For Colorado mandatory reporter trainings, visit coloradocwts.com/community-training.



ANSWERS TO COMMON QUESTIONS

ABOUT MARIJUANA

May 21, 2015

Many Colorado residents and visitors have questions about retail marijuana. Use this information to answer some common questions and to help start conversations.

YOUR HEALTH AND SAFETY

Natural products can be dangerous or poisonous.

Marijuana, like other plants such as tobacco or poisonous berries, can harm people. The chemical in marijuana that makes you feel “high,” tetrahydrocannabinol (THC) can have negative effects on the brain, including memory problems that last up to a week and the risk of symptoms, like hallucinations or paranoia immediately after use.

Legal does not mean safe.

Think about alcohol or cigarettes. Both are legal to use, but have risks. Marijuana also has risks even though it is now legal for adults 21 years and older. Being legal does not make marijuana safe.

Many medicines, including medicinal marijuana, may have harmful side effects.

Doctors can recommend medical marijuana in special cases when they decide the benefit is greater than the risk for side effects. Talk to your doctor about treatment choices that have the lowest risks.

Smoke is smoke.

Breathing any smoke is bad for your health, whether the smoke comes from campfires, tobacco or marijuana. Marijuana smoke has the same chemicals as tobacco smoke. Some of these chemicals can cause cancer.

Driving while high doubles your risk of a crash.

It is illegal to drive under the influence of marijuana. Marijuana makes driving more dangerous because it slows your reaction time and makes it harder to tell distances or time. Wait at least 6 hours after smoking or at least 8 hours after eating or drinking marijuana before driving, biking, or performing other safety-sensitive activities.

Vaped, eaten or smoked – THC is still THC.

Though smoking marijuana has the added risk of harmful smoke exposure, using marijuana edibles or a vaporizer still exposes you to THC. For more on the health risks of THC, visit Colorado.gov/Marijuana.

The natural cannabinoid balance in your body can be upset by THC.

While some cannabinoids occur naturally in the body and in breast milk to help nerve cells work, the cannabinoid from marijuana, THC, is much stronger. THC can upset the natural balance in your body and make it difficult for your nerve cells to work normally. This is worse for youth and pregnant or breastfeeding women.

YOUR HOME AND FAMILY

Safely store marijuana away from youth.

Young children may confuse marijuana products for regular food or candy. Be sure all marijuana products are kept in child-resistant packaging, clearly labeled and locked up. Youth may get into items you think are safely stored.

Talk early and often with youth about marijuana.

Safe storage is not always enough. Have open conversations with youth about the risks to their developing brain. Set clear household rules together.

Pregnant or breastfeeding women should not use marijuana.

There are some medicines and foods, like lunchmeat or sushi, that pregnant or breastfeeding women should not have to prevent harming their baby. This is also true for marijuana.

Marijuana is not a safe treatment for nausea during pregnancy.

THC in marijuana passes to the baby through the placenta. This may make it harder for the child to pay attention and learn, especially as they grow. Pregnant women should talk to their doctor about safer choices to treat nausea that do not risk harming the baby.

A smoke-free environment is safest for your family.

Breathing any smoke is bad for your health. Do not allow smoking in your home or around your family.



Marijuana can make children very sick. Look for problems walking or sitting up, starting to be sleepy or having a hard time breathing.

If you are worried, call the poison control hotline as soon as possible. Calling is free and you will be helped quickly: 1-800-222-1222.

If symptoms seem bad, call 911 or go to an emergency room right away.



All references are from the systematic literature review and data analysis from the Retail Marijuana Public Health Advisory Committee's Monitoring Health Concerns Related to Marijuana in Colorado: 2014 report.

Access the report at:
bit.ly/CDPHE_RMPHAC



For information about the retail marijuana laws in Colorado, go to:
Colorado.gov/Marijuana.



COLORADO
Department of Public
Health & Environment

RETAIL MARIJUANA: METHODS OF USE

May 21, 2015

Retail marijuana is legal for adults over 21 and can be used in many ways and can have different levels of tetrahydrocannabinol (THC). But no matter how marijuana is used- smoked, eaten, vaped

or dabbed- THC can make you feel high. Being high hurts your ability to do everyday activities safely. **Be aware of how much marijuana you use and how different forms may affect you.**



SMOKING

METHOD: joints, pipes, blunts.

HOW IT WORKS: Bud from the marijuana plant is burned and the smoke is inhaled.

METHOD: waterpipes, bongs.

HOW IT WORKS: Smoke goes through water before it is inhaled.

TIME TO TAKE EFFECT: Seconds to minutes. Effects can last up to 6 hours.

HEALTH EFFECTS: Breathing marijuana smoke is not healthy. Using waterpipes and bongs does not make smoke less harmful. Marijuana smoke of any kind irritates the lungs.

Smoking around others exposes them to secondhand smoke. Marijuana smoke contains the same cancer-causing chemicals as tobacco smoke.



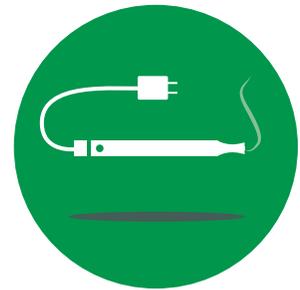
EATING or DRINKING

METHOD: marijuana-infused edibles or drinks.

HOW IT WORKS: THC extract from marijuana is added to food or drink to be digested.

TIME TO TAKE EFFECT: 90 minutes to 4 hours to feel effect. Effects can last up to 8 hours.

HEALTH EFFECTS: Since the body digests edibles like regular food, it can take much longer to feel the effect. It is not safe to eat or drink additional servings right away. Use caution when consuming more than one serving.



VAPING

METHOD: e-cigarettes, vape pens, vaporizers.

HOW IT WORKS: THC extract from marijuana is heated and the vapor is inhaled.

TIME TO TAKE EFFECT: Seconds to minutes.

HEALTH EFFECTS: Vaporized marijuana can have high levels of THC and other chemicals. High levels of THC can be dangerous. Tools used for vaporizing are not regulated for health or safety. At this time we do not know the safety of vaporizing marijuana.

A SINGLE SERVING OF RETAIL MARIJUANA CONTAINS 10 MG OF THC.

For occasional users, 10 mg or more of THC is likely to hurt your ability to drive, bike or do other activities. As of February 2015, all edible retail marijuana products must have clear single servings of 10 mg THC, with no more than 100 mg per product. Servings can be individually wrapped pieces, bottled drinks or sections that are easy to break off.

CONSIDERATIONS FOR USING MARIJUANA IN COLORADO

THE EFFECTS OF USING MARIJUANA CAN LAST UP TO 8 HOURS.

Use caution after using any form of marijuana.

Being high or buzzed can make some activities more dangerous. It is not safe for anyone who is high to take care of children or drive. Make sure there is another person who can do important activities if you plan to use marijuana.

USING MARIJUANA WITH OTHER SUBSTANCES IS NOT SAFE

It is not safe to mix alcohol and marijuana

Drinking alcohol and using marijuana at the same time is more dangerous than using either alone.

Talk to your health care provider about marijuana and your medication.

Use caution when taking medication and using marijuana. There may be interactions with marijuana that have not yet been identified. Talk to your health care provider.

ANYONE MAY CONFUSE EDIBLES FOR REGULAR FOOD OR DRINK

Always store marijuana safely.

Products purchased from retail or medical marijuana stores are required by law to have child-resistant packaging. Keep marijuana in this packaging and in a locked area.

RESOURCES

For more information on marijuana in Colorado, including laws, health effects and resources for youth prevention, visit Colorado.gov/Marijuana.



If you are worried that you used too much marijuana, call the poison control hotline as soon as possible. Calling is free and you will be helped quickly: 1-800-222-1222. If symptoms seem bad, call 911 or go to an emergency room right away.



DABBING

METHOD: hash oil, dab, wax or earwax, shatter.

HOW IT WORKS: THC extract from marijuana is heated and the vapor is inhaled.

TIME TO TAKE EFFECT: Seconds to minutes.

HEALTH EFFECTS: THC extract from marijuana, also called hash oil, can contain up to 60-80% THC. High levels of THC can be dangerous. At this time, we do not know the safety of dabbing.



TOPICAL

METHOD: Non-edibles like lotions, oils, balms, salves.

HOW IT WORKS: THC extract from marijuana is added to products and applied to the skin.

TIME TO TAKE EFFECT: not tested.

HEALTH EFFECTS: Topical products may treat skin problems or pain relief, but do not make the user feel high.



RETAIL MARIJUANA IN COLORADO

HEALTH EFFECTS

June 13, 2015

The Retail Marijuana Public Health Advisory Committee systematically reviewed the literature on the health effects of marijuana. This is a summary of the high-level findings from *Monitoring Health Concerns Related to Marijuana in Colorado: 2014*. **For a complete report on their findings, visit bit.ly/CDPHE_RMPHAC.**



IMMEDIATE EFFECTS

Being high or even buzzed can make some activities more dangerous. For occasional users, a single serving (10 mg THC) of marijuana is enough to hurt your ability to drive or do other activities safely.

People often feel the effects from smoking or vaping marijuana within minutes, while it may take hours to feel effects from edibles. The effects and the time before effects are felt can be different for everyone.

Wait at least 6 hours after smoking or at least 8 hours after eating/drinking marijuana before driving, biking, skiing or doing other activities.

Marijuana may make your heart beat faster, up to twice as quickly, after use.

The chemical in marijuana that makes you feel “high,” tetrahydrocannabinol (THC), can cause temporary psychotic symptoms. These symptoms, like not knowing what is real and paranoia, are more common with large doses of THC.



BRAIN AND MENTAL HEALTH EFFECTS

Heavy use of marijuana can have a negative effect on your memory.

This damage can last a week or more after the last time you used.

Regular use of marijuana is associated with depression. Other mental health problems like anxiety may also be associated with marijuana use.



RESPIRATORY EFFECTS

Both firsthand and secondhand smoke contains the same cancer-causing chemicals as tobacco smoke.

People who heavily smoke marijuana (daily or near daily use) can have some of the same health problems as tobacco smokers.

These include coughing, wheezing and chronic symptoms like bronchitis.



INTERACTIONS WITH OTHER SUBSTANCES

Using alcohol and marijuana at the same time is more dangerous than using either alone and increases the risk of a car crash.

Use caution when taking medication and marijuana at the same time. There may be drug interactions that are not yet identified.

Talk to your healthcare provider about marijuana use if you are taking prescription medications.



USE DURING PREGNANCY AND BREASTFEEDING

There is no known safe amount of marijuana use during pregnancy or if breastfeeding.

Using marijuana while pregnant may harm the baby. THC in marijuana passes to the baby, which may make it harder for the child to pay attention and learn, especially as they grow.

For more information on health effects for pregnant or breastfeeding women and their babies, visit bit.ly/MJ_Mothers.



MARIJUANA EDIBLES

Since the body slowly digests edibles like regular food, marijuana-infused products can take up to 4 hours to take full effect.

As of February 2015, all edible retail marijuana products must have clear single servings of 10 mg THC, with no more than 100 mg per product.

Use caution when consuming any marijuana. Start with up to one serving, then wait until you feel the effect before deciding to use more.

Marijuana products can be confused for regular food or candy. Be sure to keep all marijuana products in child-resistant packaging, clearly labeled and locked up.



CHILDREN AND ACCIDENTAL MARIJUANA USE

More children accidentally get into marijuana in states with legal marijuana. Marijuana can make children very sick, sometimes needing hospitalization.

Child-resistant packaging can help stop accidental poisoning.

Marijuana products purchased from retail or medical marijuana stores are required by law to have child-resistant packaging. Keep marijuana in this packaging and store it in a locked area children cannot see or reach.



USE AMONG ADOLESCENTS AND YOUNG ADULTS

Brain development is not complete until age 25. For the best chance to reach their full potential, youth should not use marijuana.

Youth who use marijuana regularly are more likely to have a hard time learning, problems remembering and lower math and reading scores.

For more information and tips for youth prevention, visit bit.ly/MJ_Youth.

Talk to your doctor if you have concerns about marijuana and your health.

RESOURCES

For more information on marijuana in Colorado, including laws, health effects and resources for youth prevention, visit Colorado.gov/Marijuana.

If you are worried that you used too much marijuana, call the poison control hotline as soon as possible. Calling is free and you will be helped quickly: 1-800-222-1222. If symptoms seem bad, call 911 or go to an emergency room right away.



COLORADO
Department of Public
Health & Environment

RETAIL MARIJUANA IN COLORADO

LAWS AND RESPONSIBLE USE

June 10, 2015

Now that retail marijuana is legal in Colorado, we all have a few things to know.

LAWS OVERVIEW

BUYING | SELLING | GROWING

Must be 21.

It is illegal for people under 21 to buy, have or use retail marijuana. It is a felony for adults to give, sell or share marijuana with anyone under 21.

Limits to buying.

Only buy retail marijuana from licensed retail stores. Colorado residents age 21 and older can buy and possess up to one ounce of marijuana at a time.

Limits to selling.

Only licensed retailers can sell their product. Adults over age 21 may give up to one ounce of marijuana to another adult 21 or older, but may not sell marijuana. This includes homegrown product.

Follow grow rules.

Coloradans may grow up to six marijuana plants per person in an enclosed, locked area. Check with your local laws before you grow – they may have stricter rules on growing.

CITY | COUNTY | ORGANIZATIONS

Check local marijuana laws and policies.

Cities, counties, schools, universities and employers may set their own rules and consequences. Check before you use.

Know workplace policies.

Even though it is legal here, your employer can still drug test for marijuana. Find out your work policies before you use.

Some hospitals drug test newborns.

If a baby tests positive for marijuana at birth, Colorado law requires hospitals notify child protective services.

USING | HAVING | TRANSPORTING

No more than 1 ounce.

Adults age 21 and older may have up to 1 ounce of marijuana. Having more may result in legal charges and fines.

Illegal to use in public.

No matter how you use marijuana - smoked, eaten, or vaped- it is not allowed in public places.

This includes:?

Outdoor spaces like national and local parks, ski resorts, concert venues and indoor areas like restaurants, bars and common areas of apartment buildings is also illegal.

Keep it in Colorado.

It is illegal to take marijuana out of the state. You cannot bring marijuana to the Denver International Airport. Leaving Colorado with any marijuana product is against the law.

Do not drive high.

It is illegal to drive under the influence of marijuana and you can get a DUI. It is also illegal to have an open marijuana package inside a car if some of the product is gone and it seems like it was used in the car.

**FOR MORE ON THE RETAIL
MARIJUANA LAWS AND
REGULATIONS IN COLORADO,
VISIT Colorado.gov/Marijuana.**

TIPS FOR SAFE AND RESPONSIBLE USE



DRIVING WHILE HIGH MAY DOUBLE YOUR RISK OF A CRASH.

Marijuana makes driving more dangerous because it slows your reaction time and makes it harder to tell distances.

Wait at least 6 hours after smoking or at least 8 hours after eating/drinking marijuana before driving, biking, skiing or doing other activities.



DO NOT MIX MARIJUANA AND ALCOHOL.

Using alcohol and marijuana at the same time is more dangerous than using either alone.



BE CAREFUL IF YOU TAKE MEDICATION.

There may be drug interactions between marijuana and your medication.



START SLOW.

A single 10 mg serving of THC is likely enough to hurt your ability to drive, bike or do other activities, especially for occasional users.

While you quickly feel the effects from smoked or vaped marijuana, edibles can take up to 4 hours to take full effect. Start with less than one serving and wait before using more.



STORE IT SAFELY.

Marijuana products can be confused for regular food or candy.

Store all marijuana products in a locked area. Make sure children cannot see or reach the locked area. Keep marijuana in the child-resistant packaging from the store.

Ask the marijuana retailer for more information if you are not sure about how to use a product safely and responsibly.

SOME PEOPLE SHOULD NOT USE MARIJUANA.

Pregnant or breastfeeding women should not use marijuana since it can harm their baby.

Young people should protect their growing brain by not using marijuana.

CONSIDER LONG-TERM EFFECTS.

Marijuana can hurt your memory, even a week after using.

HAVING A BAD TIME?

If you are worried that you or someone else used too much marijuana, call the poison control hotline as soon as possible. Calling is free and you will get help quickly: 1-800-222-1222. If symptoms seem bad, call 911 or go to an emergency room right away.

Calling for help in case of any drug or alcohol emergency can save lives. Colorado law protects people from some criminal charges, such as low level drug possession and use charges or minor in possession, if they call 911 or seek help for a medical emergency. Stay with the person and cooperate with police and emergency medical responders.



COLORADO
Department of Public Health & Environment

RETAIL MARIJUANA IN COLORADO

INFO FOR VISITORS

June 10, 2015

Now that retail marijuana is legal in Colorado, we all have a few things to know.

LAWS OVERVIEW

BUYING OR SELLING MARIJUANA

Must be 21.

It is illegal for people under 21 to buy, have or use retail marijuana. It is a felony for adults to give, sell or share marijuana with anyone under 21.

Only buy from licensed retail stores.

From Colorado?

Colorado residents 21 years and older can buy up to one ounce of retail marijuana at a time.

From out-of-state?

Non-residents can buy up to 1/4 ounce of retail marijuana.

Do not sell it.

It is illegal to sell marijuana if you are not a licensed retailer.

USING OR HAVING MARIJUANA

No more than 1 ounce.

Adults age 21 and older may have up to 1 ounce of marijuana. Having more may result in legal charges or fines.

Illegal to use in public.

No matter how you use marijuana - smoked, eaten, or vaped- it is not allowed in public places.

This includes:

Outdoor spaces like national and local parks, ski resorts, concert venues and indoor areas like restaurants and bars.

Check hotel or vacation rental policies.

Many properties do not allow smoking of any kind in private rooms, hallways, patios or porches. Policies may be different, so check before you use.

GETTING AROUND COLORADO

Do not drive high.

It is illegal to drive under the influence of marijuana and you can get a DUI.

Do not use in a car.

It is illegal to use marijuana or have open packages in a car. Additionally, rental car companies may charge fees if the car smells like marijuana.

Keep it in Colorado.

It is illegal to take marijuana out of the state or to Denver International Airport. Dispose of unwanted marijuana before leaving the state.

Unwanted marijuana?

Trash unwanted marijuana where no one can see it, like in a large dumpster or sealed in an empty jar and thrown out. Do not leave leftover marijuana in hotel rooms or rental cars when you go home.

FOR MORE ON THE RETAIL MARIJUANA LAWS AND REGULATIONS IN COLORADO, VISIT Colorado.gov/Marijuana.

TIPS FOR SAFE AND RESPONSIBLE USE



DRIVING WHILE HIGH MAY DOUBLE YOUR RISK OF A CRASH.

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Wait at least 6 hours after smoking or at least 8 hours after eating/drinking marijuana before driving, biking, skiing or doing other activities.



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Using alcohol and marijuana at the same time is more dangerous than using either alone.



BE CAREFUL IF YOU TAKE MEDICATION.

There may be drug interactions between marijuana and your medication.



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Calling for help in case of any drug or alcohol emergency can save lives. Colorado law protects people from some criminal charges, such as low level drug possession and use charges or minor in possession, if they call 911 or seek help for a medical emergency. Stay with the person and cooperate with police and emergency medical responders.





June 19, 2015

SCREENING QUESTIONS

In addition to asking about alcohol, tobacco, and other drug use (including prescription drugs), now that marijuana is legal in Colorado, we recommend asking all teens and women who could become pregnant about marijuana use.

1. *Have you used marijuana in the last year?*

If no: Go to question 2

If yes: *When was the last time you used marijuana? How do you use marijuana? What form of marijuana do you use? How often do you use and how much?*

If pregnant: *How has your use of marijuana changed since finding out you are pregnant?*

If concerned about substance abuse: Use the Cannabis Use Disorder Identification Test (CUDIT) and referral recommendations found in the resources section.

2. *Does anyone use marijuana in your home?*

If yes or no: *It is important to ensure that your home is safe for your child. Make sure that any potentially harmful substances are out of reach of your child, including marijuana, alcohol, prescription drugs or household substances.*

If yes: Provide additional education on avoidance of secondhand smoke and safe storage, more information below.

TIPS FOR USING THIS GUIDANCE:

All information in italics is scripted talking points to share with your patients, written at about a middle school reading level.



PRENATAL VISITS

It is important to reassess substance use at each visit, because many women continue using substances throughout the pregnancy or may begin or resume using substances during pregnancy.

Discuss importance of cessation of marijuana and other potentially harmful substances during pregnancy and breastfeeding and offer support if needed, found in the resource section.

Discuss patient's plan for marijuana use after pregnancy. ***Tell me about whether you intend to use marijuana after delivering your baby.***

Discuss breastfeeding and marijuana: ***Are you planning to breastfeed your child?*** If yes, see breastfeeding section for more information.

Please inform your patient: ***Marijuana is now legal for adults over 21. But this doesn't mean it is safe for pregnant moms or babies. Some hospitals test babies after birth for drugs. If your baby tests positive for THC at birth, Colorado law says child protective services must be notified.***

As a prenatal care provider, if you are concerned about a patient's substance use, you can recommend testing of mother during prenatal care and/or at delivery or testing of the newborn at birth.

Newborn testing information:

- Meconium testing generally identifies maternal marijuana use after 24 weeks gestation.
- Urine testing generally identifies maternal marijuana use after 32 weeks gestation.
- Umbilical cord testing generally identifies maternal marijuana use after 24 weeks gestation.

WELL WOMAN VISITS:

Discuss contraception options if patient wants to continue recreational or medical marijuana, alcohol or other substance use and/or does not desire pregnancy.

If patient desires a pregnancy, discuss importance of cessation of marijuana and other potentially harmful substances. Consider use of contraception while the patient is working towards cessation of substances.

AT DELIVERY:

- Use marijuana screening questions at delivery.
- Be aware of your facility's guidelines regarding drug testing of mothers and newborns and issues of consent.
- Urine drugs screens (maternal or newborn) can be falsely positive. A positive test in the absence of reported maternal drug use should be confirmed

by gas chromatography/mass spectrometry (GC/MS) or liquid chromatography/mass spectrometry (LC/MS/MS).

- Alternative newborn testing includes meconium or umbilical cord sampling.
- Discuss risks regarding marijuana use after pregnancy and/or during breastfeeding with your patient.

TALKING TO YOUR PATIENTS:

ABOUT MARIJUANA:

Can you tell me about why you are using marijuana? How does marijuana help you?

If using marijuana to treat a medical issue: **Talk to your prenatal health care provider about the use of other treatments for medical issues during pregnancy.**

If patient is using for nausea, anxiety or sleep: **There are other options that are safe ways to deal with these issues during pregnancy.**

Address potential alternative treatments, if appropriate, and talk about transitioning to alternative treatments or cessation. **Do you want to stop using marijuana? How difficult do you think it will be to stop using marijuana? Do you think you can stop? If you need help, assistance is available.**

Health care providers can use the HealthTeamWorks' Screening, Brief Intervention, Referral to Treatment tool found at healthteamworks.org/guidelines/sbirt.html or provide the patient with additional referrals from the resources section. **For your health and your baby's health, I will ask you about this at your next visit/ appointment.**

ABOUT MEDICAL MARIJUANA:

The decision to continue medical marijuana use (as with any medication) during pregnancy and/or breastfeeding is based on whether the benefits of the treatment outweigh the potential risks to the baby. That is something we should discuss (or you can discuss further with your prenatal health care provider).

Providers: Discuss risks/benefits of marijuana use and potential alternatives, as appropriate.

TALKING TO YOUR PATIENTS: EFFECTS OF MARIJUANA

Language for patients: There is no known safe amount of marijuana use during pregnancy.

Tetrahydrocannabinol (THC) can pass from the mother to the unborn child through the placenta. The unborn child is exposed to THC used by the mother.

Language for patients: THC is the chemical in marijuana that makes you feel "high." Using marijuana while you are pregnant passes THC to your baby.

Use of marijuana during pregnancy is associated with negative effects on exposed children, no matter when it is used during pregnancy. The negative effects include decreased academic ability, cognitive function and attention. These effects may not appear until adolescence.

Language for patients: Using marijuana while pregnant may harm your baby. It may make it hard for your child to pay attention and learn. This also may make it harder for your child to do well in school.

Smoking marijuana has the added risk to the mother and baby of harmful smoke exposure. However, using marijuana in edible or vaporized form still exposes the baby to THC. There is no known safe amount of marijuana use in pregnancy. The safety of vaporizing marijuana (or tobacco) is unknown.

Language for patients: Some people think that using a vape pen or eating marijuana is safer than smoking marijuana. But marijuana in any form may be harmful. THC in marijuana may be bad for your baby.

TALKING TO YOUR PATIENTS: MYTHS ABOUT MARIJUANA

Myth: Marijuana is safe to use while pregnant or breastfeeding. You cannot eat or use some foods and medicines while pregnant or breastfeeding. This is because they might harm the baby. This includes marijuana.

Myth: Since it is legal, it must be safe. Using marijuana during pregnancy can harm your baby, just like alcohol or tobacco. Being legal does not make it safe.

Myth: Since marijuana is natural, it must be safe. Not all natural substances or plants are safe. Tobacco and poisonous berries are

great examples. Marijuana contains THC, which may harm a baby.

Myth: Since some people use marijuana as a medicine, it must be safe. Marijuana can be recommended by a doctor in special cases. A doctor decides whether the benefits are greater than the risks. It is unsafe to use any medicines while pregnant or breastfeeding that are not recommended by a health care provider. This includes marijuana. Talk to your health care provider about safer choices that do not risk harming your baby.

Myth: Marijuana can be good for your baby.

Some researchers found that marijuana may be bad for children whose moms used marijuana during pregnancy. Some children did not do well in school when they were older. It may also make it hard for your child to pay attention and learn.

Myth: Marijuana-like (cannabinoid) chemicals occur in the body, so it must be safe. Some cannabinoids, called endocannabinoids, occur naturally in the body and in breast milk. These endocannabinoids help

your nerve cells communicate better. However, THC from marijuana is much stronger than your natural endocannabinoids. THC can upset the natural endocannabinoid system in your body. Pregnant and breastfeeding mothers should not use marijuana to avoid any risks of THC.

Myth: Marijuana is a safe treatment for nausea during pregnancy. THC in marijuana may harm your baby. Talk to your health care provider about safer choices that do not risk harming your baby.

MANDATORY REPORTERS:

Marijuana is legal for those over age 21, just like alcohol, but it is important to make sure patients with children are aware of responsible use of marijuana and other legal substances.

If you as a health care provider have a suspicion of abuse or neglect (i.e. that the health or welfare of a child is threatened), it is your duty as a mandatory reporter to report child abuse or neglect. You can access the mandatory reporter training at coloradocwts.com/community-training.

Colorado Child Abuse and Neglect Hotline: 1-844-CO-4-KIDS.

In Colorado, reports about child abuse or neglect are handled at the county level. Procedures can be different from county to county. If you have questions about how your county social services department addresses these reports, please contact them directly.

TALKING TO YOUR PATIENTS: LAWS

If pregnant women report their substance use to their prenatal health care provider and/or have a positive drug test during a prenatal care visit, Colorado law prevents that information from being used in criminal prosecution. (C.R.S. § 13-25-136)

Tetrahydrocannabinol (THC), both recreational and medical, is considered a Schedule 1 drug under federal and Colorado law. (C.R.S. § 18-18-203)

Current Colorado law defines a baby testing positive at birth for a Schedule I substance (including recreational or medical THC or other drugs) as an instance of child neglect, which requires a report to social services. (C.R.S. § 19-3-102)

Please inform your patient: Marijuana is now legal for adults over 21. But this doesn't mean it is safe for pregnant moms or babies. Some hospitals test babies after birth for drugs. If your baby tests positive for THC at birth, Colorado law says child protective services must be notified.

POSTPARTUM SCREENING

Please inform your patient: *Now that marijuana is legal for adult use (21 years and older) in Colorado, we are asking all parents about marijuana because we want to help keep your kids safe.*

- **Before you knew you were pregnant how much marijuana did you use?**
- **How much marijuana did you use during your pregnancy?**
- **How much marijuana have you used since the birth of your child?**
- **Does anyone use marijuana in your home?**
- **Are you currently breastfeeding?**

BREASTFEEDING AND MARIJUANA

Marijuana use should be addressed in a discussion of breastfeeding plans, especially if the mother used prior to pregnancy or during pregnancy.

Language for patients: *Breastfeeding has many health benefits for both the baby and the mother.*

However, any THC consumed by the mother enters her breast milk and can be passed from the mother's milk to her baby, potentially affecting the baby.

Language for patients: *THC in marijuana gets into breast milk and may affect your baby.*

THC is stored in the body in fat, and babies have a high percentage of body fat, including in their developing brains. Because THC is stored in fat, it remains in the body for a long time.

Language for patients: *THC is stored in body fat. A baby's brain and body are made with a lot of fat. Since your baby's brain and body may store THC for a long time, you should not use marijuana while you are breastfeeding.*

Because of the potential risks to the baby, the American Academy of Pediatrics states that marijuana should not be used while breastfeeding.

If a mother wishes to breastfeed, use the referral options outlined in the resources section to help her stop using marijuana.

At this time, there is limited research on breastfeeding and marijuana use, including: the amount of THC in breast milk, the length of time THC remains in breast milk and effects on the infant.

It is unknown how long after any use of marijuana that it is safe to breastfeed or how long THC remains in breast milk after occasional marijuana use as compared to regular use.

We don't know how long it takes for THC to clear from the breast milk. Some mothers may be motivated to "pump and dump" their breast milk in order to maintain milk production while waiting for THC to be eliminated from breast milk.

Language for patients: *Because THC is stored in body fat, it stays in your body for a long time. This means that "pumping and dumping" your breast milk will not work the same way it does with alcohol. Alcohol is not stored in fat so it leaves the body faster.*

Some facilities test a mother's urine to determine drug use in order to inform breastfeeding advice. The link between THC levels in maternal urine and breast milk is unknown.

PARENTING AND MARIJUANA

Marijuana use can affect a person's ability to care for a baby. It is appropriate to ask about marijuana or other substance use before letting a person care for a baby.

Language for patients: *Being high while caring for a baby is not safe. Do not let anyone who is high take care of your baby. It is not safe for your baby to sleep with you, especially if you are high.*

Language for patients: *Be sure you know Colorado's marijuana laws if you choose to use. Go to GoodToKnowColorado.com.*

SAFE STORAGE

Language for patients: *Many edible marijuana products look similar to candy or baked goods that appeal to children.*

Language for patients: *All marijuana containing products and other potentially harmful substances should be kept in a locked area. Make sure your children cannot see or reach the locked area. Locked up is safest, but substances should be out of reach and out of sight of your child. Keep marijuana in the child-resistant packaging from the store.*

Language for patients: *Child-resistant packaging is designed to be effective for children under age 5 years of age. All marijuana-containing products purchased from a dispensary or store must leave the store in child-resistant packaging. Keep your marijuana-containing products in their original packaging.*

Language for patients: *If you have homemade products, ensure they are labeled or marked to distinguish them from similar products in the home and stored out of reach of children.*

Language for patients: *If there are children present in the home, Colorado law requires that any retail marijuana grow be located in a separate, enclosed and locked area. (C.R.S. §18-18-406(3)(b)). It is recommended that if children are present in the home of a medical marijuana grower, that the grow site be restricted to prevent access by a child.*

SECONDHAND SMOKE

Marijuana is included in the Colorado Clean Indoor Air Act, which requires indoor areas such as workplaces, restaurants, bars and hospitals and common areas of apartment buildings to be smoke-free. (C.R.S. § 25-14-204)

Language for patients: *Second-hand smoke from marijuana has many of the same cancer causing chemicals as smoke from tobacco. A smoke-free environment is safest and healthiest. Do not allow smoking in your home or around your baby.*

DRIVING AND MARIJUANA

Colorado law specifies that drivers with five nanograms/ml of active THC in their whole blood are considered to be driving under the influence (DUI). (C.R.S. § 42-4-1301(6)(a)(IV))

In Colorado, it is illegal to use marijuana in a vehicle, and the open container law applies to marijuana. (C.R.S. § 42-4-1305.5)

Language for patients: *It is not safe to drive a car while high. Do not let your baby ride in a car if the driver is high.*

ACCIDENTAL INGESTION

If a child accidentally ingests a marijuana product and is experiencing symptoms, call the poison control hotline for free, fast, expert help: 1-800-222-1222. If the symptoms are severe, call 911 or go to an emergency room.

Symptoms may include drowsiness, unsteady walking, difficulty sitting up or irregular breathing.



June 19, 2015

FOR HEALTH CARE PROVIDERS

If Concerned about Substance Use Disorder:

SBIRT Colorado Screening, Brief Intervention, Referral to Treatment Guidance
ImprovingHealthColorado.org/clinical-guidelines-healthcare-providers/

Cannabis Use Disorders Identification Test (CUDIT-R)
bpac.org.nz/BPJ/2010/June/docs/addiction_CUDIT-R.pdf

Referrals for Substance Use Treatment:

1-800-CHILDREN or 1-866-LAS FAMILIAS (Spanish Language)

linkingcare.org

Other Resources:

Retail Marijuana Public Health Advisory Committee; Monitoring Health Concerns Related to Marijuana in Colorado: 2014
colorado.gov/pacific/cdphe/retail-marijuana-public-health-advisory-committee

Colorado Mandatory Reporter Training
ColoradoCWTS.com/community-training

Colorado Child Abuse and Neglect Hotline: 1-844-CO-4-KIDS.

FOR PATIENTS/FAMILIES:

Colorado.gov/marijuana, which includes fact sheets for pregnant and breastfeeding moms and for parents of older children. Colorado.gov/marijuana includes Spanish language information and links to Spanish language resources.

GoodtoKnowColorado.com

1-800-CHILDREN or 1-866-LAS FAMILIAS (Spanish Language)

REFERENCES:

Retail Marijuana Public Health Advisory Committee; Monitoring Health Concerns Related to Marijuana in Colorado: 2014
Colorado.gov/pacific/cdphe/retail-marijuana-public-health-advisory-committee

American Academy of Pediatrics, Policy statement in Pediatrics 2012, Breastfeeding and the Use of Human Milk Pediatrics:
AAPPublications.org/content/129/3/e827.full.html

FOR DISCUSSIONS WITH PARENTS OR GUARDIANS OF CHILDREN AND ADOLESCENTS AGES 0-20

In Colorado, it is illegal for youth under the age of 21 to purchase, possess or use retail marijuana. Despite serious consequences for youth if they break the law, a recent survey found that about 5% of middle school students and 20% of high school students in Colorado report using marijuana in the last 30 days.

This same survey found that more than one-third of high school seniors that have ever used marijuana first tried it before age 15. Because some youth try marijuana at an early age, it is important for parents and health care providers to talk to youth early and often about the risks of using marijuana and other substances.

SCREENING QUESTIONS:

Now that marijuana is legal in Colorado, we recommend asking all adolescents and young adults about marijuana use. This should be done in addition to asking about alcohol, tobacco and other drug use (including prescription drugs), as well as other safety measures such as seat belt or bike helmet use.

Language for parents: *Now that marijuana is legal in Colorado, we would like to talk with you about it to help you keep kids safe.*

How do you store substances that may harm a child in your home? Such substances include alcohol, marijuana, tobacco, prescription drugs, over the counter medicines, cleaning products or other potentially harmful chemicals.

Does anyone smoke in your home (marijuana or tobacco)?

Does anyone in your home use any other form of marijuana, such as vaping, edibles or tinctures?

Does anyone else who cares for your child use marijuana or have it in their home?

If there is marijuana in the child's environment, provide additional education on avoidance of secondhand smoke and safe storage. If parents choose to use marijuana, they need to be educated on responsible marijuana use to protect their children's health and safety. Conversations with parents will depend on the age of the child.

TIPS FOR USING THIS GUIDANCE:

All information in italics is scripted talking points to share with your parents, written at a middle school reading level.

ANSWERS TO COMMON QUESTIONS ABOUT MARIJUANA

Even though marijuana is natural, natural products can be dangerous or poisonous.

Marijuana, like other plants such as tobacco or poisonous berries, can harm people. The chemical in marijuana that makes you feel "high," tetrahydrocannabinol or THC, can have harmful effects on brain development in youth, including problems with learning, memory and school performance.

Legal does not mean safe. Think about alcohol or cigarettes. Both are legal to use for adults, but can have serious health risks. Marijuana use also has risks, even though it is now legal for adults 21 years and older. Being legal does not make marijuana safe, especially for youth.

Many medicines, including medicinal marijuana, may have harmful side effects. Doctors can recommend medical marijuana for certain medical conditions when they decide the benefit of treatment is greater than the risk for side effects. Discuss treatment choices that have the lowest risks and side effects.

SAFE STORAGE:

Educate parents on safe storage practices for marijuana, medications, alcohol and other potentially harmful substances. Note that as children get older, safe storage alone may not be enough to prevent adolescents and young adults from accessing substances in the home. This is why it is important for parents and guardians to have open, honest conversations with children as they get older.

Language for parents of children 0-8: *Remember that kids can get into all kinds of things that you assume are out of reach or not of interest.*

Like household chemicals or bleach, marijuana, alcohol and some medications are dangerous for children.

Keep all potentially harmful substances in a locked area, out of sight and out of reach of children.

- *Lock boxes or locked cabinets are examples of safe storage options.*
- *If you don't have a locked area, make sure products are out of reach and out of sight of children.*
- *Keep in mind, safe storage for young children may not stop older children or teens.*

Language for parents of children 9-20: *Make sure to store any marijuana, alcohol or prescription drugs in a locked area so your child cannot get to them.*

Be sure those items are securely locked, not just out-of-sight. Lock boxes or locked cabinets are examples of safe storage options.

As youth get older, they may get into items you think are safely stored. This is why it is also important to talk to youth about the risks of using those substances.

Evidence shows that use of child-resistant packaging reduces unintentional pediatric poisonings from a

wide range of hazardous household products, including pharmaceutical products. In Colorado, all marijuana products are required to leave the store in child-resistant packaging. However, child-resistant packaging is not child-proof. It is meant to keep children up to age 5 from accessing potentially hazardous substances.

Language for parents of children 0-8: *Research shows that child-resistant packaging can protect young children from dangerous items like medication.*

- *If you buy marijuana products and bring them into your home, keep them in the child-resistant packaging from the store to help prevent accidents.*

Child-resistant packaging is not child-proof. Be sure to keep marijuana products in the child-resistant package and stored in a locked area, out of reach and out of sight of children.

- *If your child is 5 years or older, child-resistant packaging will not keep them away from marijuana. This is why it is important to store all marijuana products in a locked area out of sight and reach of children.*

Other information for all parents: *If you have homemade marijuana products, make sure it is clear they contain marijuana (ex. labeled) and keep them locked up and out of reach of children. If you are making edibles in your home, make sure the process takes place away from children.*

Colorado law has rules if you grow marijuana in your home.

- *If children are in the home, the retail (recreational) marijuana grow must be in a separate, enclosed and locked area (C.R.S. §18-18-406(3)(b)). Medical marijuana growers should follow the same precautions to prevent access by a child.*

SECONDHAND SMOKE:

Marijuana is included in the Colorado Clean Indoor Air Act, which requires indoor areas such as workplaces, restaurants, bars, hospitals and common areas of apartment buildings to be smoke-free. (C.R.S. § 25-14-204)

Language for all parents: *Secondhand smoke from marijuana has many of the same cancer-causing chemicals as tobacco smoke. A smoke-free environment is safest and healthiest for you and your child. Do not allow anyone to smoke in your home or around your child.*

ACCIDENTAL OR INTENTIONAL INGESTION:

Evidence shows that more unintentional marijuana exposures of children occur in states with increased legal access to marijuana and that the exposures can lead to significant clinical effects requiring medical attention.

If a child accidentally ingests a marijuana-infused product, symptoms may include drowsiness, unsteady walking, difficulty sitting up or irregular breathing. If an older individual accidentally ingests a marijuana-infused product or uses too much marijuana, symptoms may include extreme confusion, anxiety, panic or paranoia, fast heart rate, hallucinations or delusions or severe nausea or vomiting.

If an individual accidentally ingests a marijuana-infused product or uses too much marijuana and experiences symptoms, call the Poison Control Hotline for free, fast, expert help: 1-800-222-1222. If the symptoms are severe, call 911 or send them to an emergency room.

Language for parents of children 0-8: *Now that marijuana is legal, it is more common in homes. This means children are more likely to accidentally eat or drink marijuana.*

Children may be curious and confuse marijuana products for regular food or candy. If a child eats or drinks marijuana by accident, it can make them sick. Some may even need to go to the hospital.

- **Children that eat or drink marijuana may have problems walking or sitting up and they may start to be sleepy. Sometimes they can become so sleepy that they may start to have trouble breathing.**

If you are worried or your child is acting differently, call the Poison Control Hotline as soon as possible. Calling is free and you will be helped quickly: 1-800-222-1222. If the symptoms are bad, call 911 or go to an emergency room right away.

Language for parents of children 9-20: *If a child or teen eats or drinks marijuana by accident or on purpose, it can make them feel sick. They may seem confused, anxious, panicked or feel paranoid. They also may have a faster than normal heart rate, have hallucinations or delusions or nausea or vomiting.*

If you are worried, call the Poison Control Hotline as soon as possible. Calling is free and you will be helped quickly: 1-800-222-1222. If symptoms seem bad, call 911 or go to an emergency room right away.

TALK WITH PARENTS ABOUT SAFE ENVIRONMENTS:

Research has shown that some accidental ingestions of marijuana occur when the child gets into marijuana that belongs to a grandparent or other family member. It is important to educate parents about safe storage, but also talk to them about creating safe spaces for children.

Language for parents of children 0-8: *Lots of times, children are not at home when they get into medications or marijuana. For example, they may be at a family member's home or a friend's house. Ask anyone who takes care of your child if substances like alcohol or marijuana are in their home and how they store them.*

Encourage parents to talk with their child about how to deal with issues like peer pressure, what to do if they are offered a substance or if their friends are using. Refer parents to SpeakNowColorado.org (HableAhoraColorado.org in Spanish) for age-specific tips on talking to youth about these issues.

Language for parents of children 9-20: *Older children often start to spend more time out of the home with friends, like at sleepovers or overnight events. They may be curious and think about experimenting with marijuana, alcohol or drugs. Talk to your teen about what to do if they are offered marijuana, alcohol or drugs or if a friend is using.*

Go to SpeakNowColorado.org (HableAhoraColorado.org in Spanish) for age-specific tips on how to talk to your teen about these issues.

For more information, refer parents to CDPHE Marijuana Factsheets "Youth and Marijuana" and "Tips for Parents."

TALKING WITH PARENTS:

EFFECTS OF MARIJUANA USE BY YOUTH:

Adolescents and young adults who regularly use marijuana are more likely than non-users to have impairment of cognitive and academic abilities for at least 28 days after last use.

Language for all parents: *Youth who use marijuana regularly are more likely to have problems with learning and memory as well as lower math and reading scores. Marijuana can make it harder to learn, sometimes for weeks after quitting.*

Adolescent and young adult marijuana users are more likely than non-users to increase their use and to become addicted to marijuana in adulthood.

Language for all parents: *Youth who start using marijuana are more likely to become addicted in the future. It is harder to stop using marijuana if started at a young age.*

Adolescent and young adult marijuana users are more likely than non-users to use and be addicted to alcohol, tobacco or illicit drugs in adulthood.

Language for all parents: *Youth who use marijuana — even occasionally — may be more likely to do risky things later in life. This may include use of alcohol, tobacco and other drugs.*

Adolescent who regularly use marijuana are less likely than non-users to graduate from high school.

Language for all parents: *Youth who use marijuana regularly may be less likely to graduate from high school.*

DISCUSSING MARIJUANA WITH THEIR CHILDREN:

Language for all parents: *The brain is still developing and growing until about age 25.*

Tetrahydrocannabinol (THC) is the chemical in marijuana that makes a person feel “high.” THC is psychoactive, meaning it affects the brain.

Because marijuana affects the brain, it can have harmful effects on youth brain development. For the best chance of healthy brain development and to allow youth to reach their full potential, youth of any age should not use marijuana.

It is illegal to give retail or recreational marijuana to anyone under the age of 21.

For parents of children age 0-8: Encourage parents to talk to their children about safe habits when visiting another person’s home.

Language for parents of children 0-8: *Talk to your children about not accepting candy or food from strangers.*

Talk to your children about checking with an adult before eating or drinking something when they are not at home.

For parents of children age 9-20: Encourage parents to talk to their adolescent early and often about the risks of using marijuana and other substances. Of Colorado high school seniors who have ever used marijuana, more than one-third first tried marijuana before age 15. For more information, refer them to SpeakNowColorado.org (HableAhoraColorado.org in Spanish).

Language for parents of children 9-20: *It is important to talk with your teen about marijuana, alcohol, prescription drugs and illicit drugs early and often. For age specific tips and talking points, go to SpeakNowColorado.org (HableAhoraColorado.org in Spanish).*

MEDICAL MARIJUANA:

Medical marijuana is legal for anyone over age 18 in Colorado that has the appropriate documented diagnosis of one of the approved medical conditions. If a youth under the age of 21 has a medical marijuana card, let parents know that there may be other options that are safer ways to treat these medical conditions. Discuss the risks/benefits of marijuana use by youth and potential alternatives, as appropriate.

Learn more about approved conditions for medical marijuana and how the laws differ for receiving a card if the patient is under age 18 at: colorado.gov/cdphe/medicalmarijuana.

Language for all parents of medical marijuana patients: *Can you tell me about why you are using medical marijuana to treat your child? How does medical marijuana help your child? How do you feel about your son or daughter using medical marijuana? Has your son or daughter’s health condition improved with medical marijuana use? Have there been any problems with his or her medical marijuana use? The decision to use medical marijuana (as with any medication) is based on if the benefits of the treatment outweigh the potential risks to the young person. That is something we should discuss (or you can further discuss with your child’s primary health care provider).*

DRIVING AND MARIJUANA:

Colorado law specifies that drivers with five nanograms/ml of active THC in their whole blood are considered to be driving under the influence (DUI). (C.R.S. § 42-4-1301(6)(a)(IV)). In Colorado, it is illegal to use marijuana in a vehicle and the open container law applies to marijuana. (C.R.S. § 42-4-1305.5)

Language for all parents: Marijuana can affect your ability to make decisions. These effects can last 8 hours or more after use, even if you don't feel high anymore.

Being high or buzzed can make some activities more dangerous. Driving a car while under the influence of marijuana is illegal and is not safe for the driver or the passengers.

Language for parents of children 0-8: Do not let your child ride in a car if the driver is high or before the effects of marijuana have worn off.

Language for parents of children 9-20: Do not let youth ride in a car if the driver is high or has recently used marijuana.

- **Tell children and teens not to ride in a car if the driver is high or has recently used marijuana.**

- **Talk to them about planning a safe ride home instead of getting into a car with a driver who has used marijuana, alcohol or other drugs.**

When your teen starts to drive, let them know that if they use marijuana and drive, they can get a DUI or lose their license. The consequences are the same if they use marijuana before riding a scooter or bike.

- **Talk to teens about planning a safe way to get home if they have used marijuana, alcohol or other drugs.**

CONCERNS ABOUT PARENT USE AND MANDATORY REPORTING:

Marijuana is legal for those over age 21, like alcohol, but it is important to be sure all adults are aware of the responsible use of marijuana and other legal substances.

Are you concerned about parents using marijuana? Talk to them about your concerns and remind them to provide a safe, smoke-free environment for their child and to store marijuana in a locked area that children cannot see or reach.

If you as a health care provider have a suspicion of abuse or neglect (i.e. that the health or welfare of a child is threatened), it is your duty as a mandatory reporter to report child abuse or neglect. Report any concerns to the Colorado Child Abuse and Neglect Hotline 1-844-CO-4-KIDS

- You can access the Colorado mandatory reporter training at coloradocwts.com/community-training.

In Colorado, reports to social services are handled at a county level. Procedures can be different from county to county. If you have questions about how your county addresses reports, please contact them directly.

PARENTING AND MARIJUANA USE:

Marijuana use can affect a person's ability to make decisions. This can affect a person's ability to care for a child. It is important to know that the acute effects of marijuana use can last 8 hours or more. It is appropriate for parents to ask about marijuana or other substance use before letting a person care for a child.

Language for all parents: Marijuana can affect your ability to make decisions for 8 hours or more after use. So even if you don't still feel high, marijuana may affect your judgment.

Being high or even buzzed while caring for a child is not safe. Do not let anyone who is under the influence of marijuana take care of your child.

Language for parents of children 0-8: It is not safe for a baby or young child to sleep with an adult, especially if they are high or are under the influence of marijuana.

Talk to parents about being a good role model for their child.

Language for all parents: Set a good example and create a safe environment for your child. Actions speak louder than words. Do not use marijuana, alcohol or other drugs around children. If they see you using these things, they may think that it is ok for them to use too.

PEDIATRIC EXPOSURE PREVENTION CLINICAL GUIDANCE

FOR COLORADO HEALTH CARE PROVIDERS

August 31, 2015

FOR HEALTH CARE PROVIDERS

If Concerned about Substance Use Disorder:

SBIRT Colorado Screening, Brief Intervention, Referral to Treatment Guidance:
ImprovingHealthColorado.org/clinical-guidelines-healthcare-providers/

Cannabis Use Disorders Identification Test (CUDIT-R):
bpac.org.nz/BPJ/2010/June/docs/addiction_CUDIT-R.pdf

Referrals for Substance Use Treatment:

1-800-CHILDREN or 1-866-LAS FAMILIAS (Spanish Language)

linkingcare.org

Other Resources:

Retail Marijuana Public Health Advisory Committee; Monitoring Health Concerns Related to Marijuana in Colorado: 2014

Colorado.gov/pacific/cdphe/retail-marijuana-public-health-advisory-committee

Colorado Mandatory Reporter Training:
ColoradoCWTS.com/community-training

For age specific tips on talking to youth and example talking points:
SpeakNowColorado.org (HableAhoraColorado.org in Spanish)

CDPHE Marijuana Health Care Provider Resources page for marijuana patient factsheets and clinical guidance documents, including pregnancy and breastfeeding clinical guidance:
Colorado.gov/cdphe/marijuana-clinical-guidelines

FOR PATIENTS/FAMILIES:

Be sure you know Colorado's marijuana laws:
GoodToKnowColorado.com

For more information on marijuana in Colorado:
Colorado.gov/marijuana (Colorado.gov/marihuana in Spanish)

For age specific tips on talking to youth ages 9-20 and example talking points:
SpeakNowColorado.org (HableAhoraColorado.org in Spanish)

For more information on keeping kids safe from alcohol, marijuana, tobacco, prescription medications and other drugs:
SmartChoicesSafeKids.org

Call 1-800-CHILDREN/1-866-LAS-FAMILIAS for free:
Connect to statewide resources for parents with any concerns, including substance use.

REFERENCES:

Colorado Department of Public Health and Environment: Retail Marijuana Public Health Advisory Committee's Report: Monitoring the Health Concerns Related to Marijuana: 2014
Colorado.gov/pacific/cdphe/retail-marijuana-public-health-advisory-committee

Wang, G.S., G. Roosevelt, and K. Heard. Pediatric marijuana exposures in a medical marijuana state. *JAMA Pediatr*, 2013. 167(7): p. 630-3.

PEDIATRIC EXPOSURE PREVENTION CLINICAL GUIDANCE

FOR COLORADO HEALTH CARE PROVIDERS

August 31, 2015

FOR DISCUSSIONS WITH CHILDREN AND ADOLESCENTS AGES 9-20

In Colorado, it is illegal for youth under the age of 21 to purchase, possess or use retail marijuana. Despite serious consequences for youth if they break the law, a recent survey found that about 5% of middle school students and 20% of high school students in Colorado report using marijuana in the last 30 days.

This same survey found that more than one-third of high school seniors that have ever used marijuana first tried it before age 15. Because some youth try marijuana at an early age, it is important for parents and health care providers to talk to youth early and often about the risks of using marijuana and other substances.

SCREENING QUESTIONS:

Now that marijuana is legal in Colorado, we recommend asking all adolescents and young adults about marijuana use. This should be done in addition to asking about alcohol, tobacco and other drug use (including prescription drugs), as well as other safety measures such as seat belt or bike helmet use.

Language for patients: *Do any of your friends, classmates or anyone in your home use marijuana? Have you ever thought about trying marijuana? Have you ever used marijuana?*

If yes: When was the last time you used? What form of marijuana do you use (smoking, edibles, vaping)? How often do you use and how much? How does marijuana help you?

If concerned about substance use disorder:

Use an appropriate screening tool, such as the Cannabis Use Disorder Identification Test (CUDIT-R) or the CRAFFT, and referral recommendations found in the Health Care Provider Resources section.

Some youth may self-medicate with marijuana, alcohol or other drugs. If youth report regular marijuana, alcohol or drug use, consider screening them for mental or behavioral health issues and refer for treatment as appropriate.

TIPS FOR USING THIS GUIDANCE:

All information in italics is scripted talking points to share with your patients, written at a middle school reading level.

For more information, refer to CDPHE's Marijuana Factsheets "Youth and Marijuana" and "Tips for Parents."

SECONDHAND SMOKE:

Marijuana is included in the Colorado Clean Indoor Air Act, which requires indoor areas such as workplaces, restaurants, bars and hospitals to be smoke-free. (C.R.S. § 25-14-204)

Language for patients: *Smoke is not good for your lungs. Smoke from marijuana has many of the same cancer-causing chemicals as tobacco smoke.*

A smoke-free environment is safest and healthiest for everyone. Do not allow anyone to smoke in your home or around you.

TIPS FOR PROVIDERS:

Start the conversation about marijuana use early with young adolescents and continue to address it with them as they get older. Of Colorado high school seniors who say they ever used marijuana, more than one-third first tried it before age 15.

Four out of five high school students do not use marijuana. It is easier for youth to say no to peer pressure if they do not think "everyone" is doing it. Tell youth that most kids do not use marijuana.

Engage youth in open conversations. Engage youth in an open conversation about marijuana. Listen carefully and non-judgmentally and provide age-appropriate and fact-based answers. Building a positive rapport while discussing risk behaviors with youth can help them make healthier decisions.

How you talk to youth is important. Consider using motivational interviewing or Screening, Brief Intervention, Referral to Treatment (SBIRT) techniques in your conversations with adolescents. For more information on these techniques, please see the Health Care Provider Resources section.



TALK WITH PATIENTS ABOUT MARIJUANA USE:

BRAIN DEVELOPMENT

Talk about how marijuana can harm their developing brains.

Language for patients: *Tetrahydrocannabinol, or THC, is the chemical in marijuana that makes you “high.” THC affects your brain.*

Your brain is still growing (until you are 25), so protect it from marijuana.

Different forms of marijuana, including vaping, dabbing and edibles, also contain THC that can harm the developing brain.

Language for patients: *Some people think that using a vape pen or eating marijuana is safer than smoking marijuana. But marijuana in any form contains THC, which can be harmful to your brain.*

Adolescents and young adults who regularly use marijuana are more likely than non-users to have impairment of cognitive and academic abilities for at least 28 days after last use.

Language for patients: *Marijuana can make it harder for you to learn, even weeks after quitting use. Problems with learning are worse the more marijuana you use.*

If you use marijuana regularly you are more likely to have problems with learning and memory, as well as lower math and reading scores.

Adolescents who regularly use marijuana are less likely than non-users to graduate from high school.

Language for patients: *If you use marijuana regularly, you may be less likely to graduate from high school.*

MARIJUANA AND OTHER SUBSTANCES

Adolescent and young adult marijuana users are more likely than non-users to increase their use and to become addicted to marijuana in adulthood.

Language for patients: *If you start using marijuana now you are more likely to become addicted in the future and it will be harder to stop using marijuana.*

Adolescent and young adult marijuana users are more likely than non-users to use and be addicted to alcohol, tobacco or other illicit drugs in adulthood.

Language for patients: *If you use marijuana — even occasionally — you may be more likely to do other risky things, too. This may include use of alcohol, tobacco and other drugs.*

Talk to patients about the dangers of mixing alcohol and marijuana.

Language for patients: *It is not safe to mix alcohol and marijuana. Drinking alcohol and using marijuana at the same time is more dangerous than using either on its own.*

MARIJUANA CAN GET IN THE WAY OF THEIR GOALS.

Ask about their dreams and help them connect with what they need to achieve their goals. Be honest. Explain how doing well in school and staying out of trouble can help them reach their goals.

Language for patients: *Marijuana can make it harder for you to do well in school, play sports or do anything else that requires your brain. Because marijuana is illegal for anyone under the age of 21, it can also make it harder to get (or keep) a job or your driver's license. This can make it harder for you to reach your goals.*

CONSEQUENCES OF YOUTH USE

It is illegal for youth under the age of 21 to purchase, possess or use retail (recreational) marijuana. Youth can get a Minor in Possession charge (C.R.S. § 18-13-122(3)(b) and (13)(a)), which can lead to fines, public service, required substance abuse education, loss of driver's license and misdemeanor or felony charges. Many employers do drug testing, so marijuana use can make it difficult for youth to find employment. Because marijuana is still illegal outside of Colorado, marijuana charges also can affect their ability to get federal financial aid to help pay for college.

Language for patients: *Marijuana is illegal for anyone under the age of 21. There can be criminal consequences for marijuana possession or use by anyone under the age of 21.*

You should also know that many employers still do drug tests, and if you test positive for marijuana or any other drug, it could hurt your ability to get or keep a job.

If you use marijuana and drive, you could get a DUI or lose your driver's license.

CALLING FOR HELP IN CASE OF ANY DRUG OR ALCOHOL EMERGENCY CAN SAVE LIVES.

Colorado law protects people from some criminal charges, such as low level drug possession, use charges or minor in possession, if they call 911 or seek help in a medical emergency (C.R.S. § 18-1-711). Stay with the person and cooperate with police and emergency medical responders.

DRIVING AND MARIJUANA:

Colorado law specifies that drivers with five nanograms/ml of active THC in their whole blood are considered to be driving under the influence (DUI) (C.R.S. § 42-4-1301(6)(a)(IV)). In Colorado, it is illegal to use marijuana in a vehicle and the open container law applies to marijuana. (C.R.S. § 42-4-1305.5)

Language for patients: *Marijuana can affect your ability to make decisions. These effects can last 8 hours or longer after using, even if you don't feel high anymore.*

Being high or even buzzed can make some activities more dangerous. Driving a car while high or buzzed is not safe for the

driver or the passengers.

• Do not drive if you are high, buzzed or under the influence of marijuana, alcohol or other drugs. You can get a DUI if you use marijuana and drive.

• Do not ride in a car if the driver is under the influence of marijuana, alcohol or other drugs.

• Even activities like riding a bike or scooter while high or buzzed are not safe. You can also get a DUI if you use marijuana before riding a bike or scooter.

Make a plan with a parent or an adult you trust to always have a safe ride available if you need one.

ACCIDENTAL INGESTION/ USING TOO MUCH:

Adolescents or young adults may choose to experiment with marijuana, use it regularly or be given it unknowingly by peers. If an individual accidentally ingests a marijuana-infused product or uses too much marijuana, symptoms may include: extreme confusion, anxiety, panic or paranoia, fast heart rate, hallucinations or delusions or severe nausea or vomiting.

It is important to consider the possibility of recent marijuana use if you are seeing a teen with altered mental status or any of the above symptoms.

If a patient experiences symptoms, call the Poison Control Hotline for free, fast, expert help: 1-800-222-1222. If the symptoms are severe, call 911 or send them to an emergency room.

Language for patients: *If you or someone you know eats or drinks marijuana by accident or on purpose, it can make you feel sick. You may feel very confused, anxious, panicked or feel paranoid. You may also have a faster than normal heart rate, nausea or vomiting or have hallucinations or delusions.*

If you are worried or feeling sick, talk to an adult and call the Poison Control Hotline as soon as possible. Calling is free and you will be helped quickly: 1-800-222-1222. If symptoms seem bad, call 911 or go to an emergency room right away.

ANSWERS TO COMMON QUESTIONS ABOUT MARIJUANA

Even though marijuana is natural, natural products can be dangerous or poisonous. Marijuana, like other plants such as tobacco or poisonous berries, can harm people. The chemical in marijuana that makes you feel "high," tetrahydrocannabinol or THC, can have harmful effects on brain development in youth, including problems with learning, memory and school performance.

Legal does not mean safe.

Think about alcohol or cigarettes. Both are legal to use for adults, but can have serious health risks. Marijuana use also has risks, even though it is now legal for adults 21 years and older. Being legal does not make marijuana safe, especially for youth.

Many medicines, including medicinal marijuana, may have harmful side effects.

Doctors can recommend medical marijuana for certain medical conditions when they decide the benefit of treatment is greater than the risk for side effects. Discuss treatment choices that have the lowest risks and side effects.

FOR HEALTH CARE PROVIDERS

If Concerned about Substance Use Disorder:

SBIRT Colorado Screening, Brief Intervention, Referral to Treatment Guidance:
improvinghealthcolorado.org/clinical-guidelines-healthcare-providers/

Cannabis Use Disorders Identification Test (CUDIT-R):

bpac.org.nz/BPJ/2010/June/docs/addiction_CUDIT-R.pdf

CRAFFT Screening Tool:

Ceasar-Boston.org/CRAFFT/

For more information on motivational interviewing and resources:

MotivationalInterviewing.org

Referrals for Substance Use Treatment:

1-800-CHILDREN or 1-866-LAS FAMILIAS (Spanish Language)

LinkingCare.org

Other Resources:

Retail Marijuana Public Health Advisory Committee; Monitoring Health Concerns Related to Marijuana in Colorado: 2014

Colorado.gov/pacific/cdphe/retail-marijuana-public-health-advisory-committee

Colorado Mandatory Reporter Training:

ColoradoCWTS.com/community-training

For age specific tips on talking to youth and example talking points:

SpeakNowColorado.org (HableAhoraColorado.org in Spanish)

CDPHE Marijuana Health Care Provider Resources for marijuana patient factsheets and clinical guidance documents, including pregnancy and breastfeeding clinical guidance:

Colorado.gov/cdphe/marijuana-clinical-guidelines

FOR PARENTS/GUARDIANS:

Be sure you know Colorado's marijuana laws:
GoodToKnowColorado.com

For more information on marijuana in Colorado:
Colorado.gov/marijuana (Colorado.gov/marihuana in Spanish)

For age specific tips on talking to youth ages 9-20 and example talking points:

SpeakNowColorado.org
(HableAhoraColorado.org in Spanish)

For more information on keeping kids safe from alcohol, marijuana, tobacco, prescription medications and other drugs:

SmartChoicesSafeKids.org

Call 1-800-CHILDREN/1-866-LAS-FAMILIAS for free:
Connect to statewide resources for parents with any concerns, including substance use.

FOR ADOLESCENTS:

Be sure you know Colorado's marijuana laws:
GoodToKnowColorado.com.

For more information on marijuana in Colorado:
Colorado.gov/marijuana (Colorado.gov/marihuana in Spanish)

For more information about marijuana for teens, visit the National Institute on Drug Abuse Website:

DrugAbuse.gov/publications/marijuana-facts-teens/letter-to-teens

REFERENCES:

Colorado Department of Public Health and Environment: Retail Marijuana Public Health Advisory Committee's Report: Monitoring the Health Concerns Related to Marijuana: 2014
colorado.gov/pacific/cdphe/retail-marijuana-public-health-advisory-committee