



## Marijuana Pediatric Exposure Prevention: A Summary of the Evidence and Resources for Colorado Health Care Providers

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## Objectives

- Brief review of CDPHE Retail Marijuana Public Health Advisory Committee Marijuana Use Among Adolescents and Young Adults and Findings
- Provide an overview of Pediatric Exposure Prevention Clinical Guidance Document Development and Content.
- Describe the marijuana education resources available from CDPHE for health care providers.



## Marijuana Use by Colorado Youth

- Healthy Kids Colorado Survey
- Administered in Fall 2013 to over 40,000 middle and high school students.
- Middle school:
  - 8.8% reported ever trying marijuana
  - 5.1% reported marijuana use in past 30 days
- High school:
  - 36.9% reported trying marijuana one or more times
  - 19.7% reported marijuana use in past 30 days



## CDPHE: Marijuana and Public Health

- Monitor health effects of marijuana use
  - Questions on marijuana use added to: BRFSS, PRAMS, YRBS/Healthy Kids Colorado survey
  - Data collection/analysis, including Colorado ER and hospitalization data, Rocky Mountain Poison Control data
  - Retail Marijuana Public Health Advisory Committee
- Medical Marijuana Registry and Research Grant Program
- Retail Marijuana Education Team
  - Prevention campaign
  - Clinical guidelines
  - Youth prevention



## Retail Marijuana Public Health Advisory Committee

- 13 members representing public health, multiple medical specialties, epidemiology, toxicology
- Review the scientific literature currently available on health effects of marijuana
  - Developed a literature review process including rating quality of each study
  - Translate science into public health messages
  - Recommend public health related policies, surveillance activities and research gaps
- [Monitoring Health Concerns Related to Marijuana in Colorado: 2014](#)



## Literature Review Topics

- Marijuana Use During Pregnancy and Breastfeeding
- Neurological and Mental Health Effects
- Effects on Youth and Unintentional Poisonings
- Marijuana Dose and Drug Interactions
- Extra-pulmonary Effects and Injuries
- Respiratory Effects and Lung Cancer



The clinical guidance content in this presentation is draft language. The final document will be available this summer.

### Findings Summary: Health effects in adolescents and young adults

Substantial evidence	Moderate evidence	Limited evidence	Insufficient evidence	Mixed evidence
Other illicit drug use and addiction after adolescence	Impaired cognitive abilities and academic performance after 28 days abstinence	Lower IQ after short abstinence		Anxiety after adolescence
Psychotic symptoms or disorders like schizophrenia	Less high school graduation	Less likely to earn college degree		Depression after adolescence
	Increased MJ use and addiction after adolescence			Suicidal thoughts or attempts
	Alcohol or tobacco use and addiction after adolescence			
	Quitting lowers risk of cognitive and mental health effects			



### Examples of Public Health Statements

- Regular marijuana use by adolescents and young adults is associated with impaired learning, memory, math and reading achievement, even 28 days after last use.
  - These impairments increase with more frequent marijuana use.
- Marijuana use by adolescents and young adults - even occasional use - is associated with future high-risk use of alcohol, tobacco, and other drugs like cocaine, ecstasy, opioids and methamphetamine.
- Starting marijuana use during adolescence or young adulthood is associated with future marijuana addiction.



### Examples of Research Gaps:

- Evaluate effects of occasional marijuana use vs. regular/heavy use
- More studies with varied time periods of abstinence to assess the duration of cognitive impact of marijuana use
- Evaluate effect of marijuana use on males vs. females
- Compare factors associated with initiation of use by adolescents in states with different legal status
- Assess causality rather than only reported associations



### Marijuana Clinical Guidelines

- SB 14-215: Contract for the creation of clinical guidelines as a resource for health care providers when they recognize that a person is at risk from marijuana use or exposure.
- To develop evidence-based guidance for Colorado health care providers to talk with patients about marijuana exposure
- Challenges: limitation in evidence, avoid overstating the available evidence



### Guidance Development Process

- Review Retail Marijuana Public Health Advisory Committee findings summaries
- Healthcare Provider Survey
- Engaged multiple, diverse stakeholders
- Guidance Development Committee
- Focus group input
- Formatting and pilot testing



### Guidance Document

- Encourages providers to talk with parents/patients about marijuana along with other substance use.
- Many statements have associated middle school reading level language to use with parents/patients.
- It is not intended as a read through document.
  - Ideally, providers will familiarize themselves with the information and use the document as a reference when needed.
  - Providers can choose what information that they want to share with their patient based on the patient type/situation.
- It is also not intended to replace your facility's policies or guidelines.
- [colorado.gov/cdphe/marijuana-clinical-guidelines](http://colorado.gov/cdphe/marijuana-clinical-guidelines)



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## 2 Pediatric Guidance Documents:

- Discussions with parents/guardians, including age specific talking points to use with parents/guardians of children age 0-8 and 9-20
- Discussions with adolescents/young adults age 9-20



## Pediatric Exposure Prevention Guidance

- Screening questions
- Talking points: Safe storage, safe environments, health effects, medical marijuana
- Secondhand smoke
- Breastfeeding
- Mandatory reporters
- Parenting and safety: driving
- Accidental Ingestion/Using Too Much
- Common myths about marijuana
- Resources for health care providers and patients



## Key Points

- Screen for marijuana use at all visits
- Talk about potential risks of marijuana use by youth
- Talk about marijuana safety with parents and youth



## DISCUSSIONS WITH PARENTS

Age specific talking points to use with parents of children age 0-8 and 9-20



## Screening Questions for Parents

Language for all 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?*



## Talking to parents: Safe Storage

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.



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## Talking to parents: Safe Storage

Language for parents 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.*



## Talking to parents: Effects of 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.*



## Talking to parents: 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 issues. 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/cdph/medicalmarijuana](http://colorado.gov/cdph/medicalmarijuana).



## Talking to parents: Medical marijuana

**Language for 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).*



## Talking to parents: About MJ

- *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.*



## Talking to Parents: Safety

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.*



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## 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.



## DISCUSSIONS WITH OLDER CHILDREN AND ADOLESCENTS

Age specific talking points to use with youth ages 9-20



## 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.

*Do any of your friends or 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?*



## 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.

**Engage youth in open conversations.** 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.



## Talking to adolescents

- Brain development continues until age 25. 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.*
- Talk about how using marijuana can get in the way of their goals.
- There are consequences if youth use marijuana.
  - Language for patients:
    - *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.*



## Talking to adolescents: Driving

- *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.*



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## Health Care Provider Resources:

- If concern for substance use disorder:
  - Cannabis Use Disorders Identification Test (CUDIT-R) [http://www.bpac.org.nz/BPJ/2010/June/docs/addiction\\_CUDIT-R.pdf](http://www.bpac.org.nz/BPJ/2010/June/docs/addiction_CUDIT-R.pdf) or the CRAFFT <http://www.ceasar-boston.org/CRAFFT/>
- Screening, Brief Intervention, Referral to Treatment Guidance from SBIRT Colorado <http://improvinghealthcolorado.org/clinical-guidelines-healthcare-providers/>
- For more information on motivational interviewing and resources <http://www.motivationalinterviewing.org>
- For Colorado substance use disorder referral information:
  - 1-800-CHILDREN/1-866-LAS FAMILIAS (Spanish Language)
  - [www.linkincare.org](http://www.linkincare.org)



## Health Care Provider Resources

- Retail Marijuana Public Health Advisory Committee Report [Monitoring Health Concerns Related to Marijuana in Colorado: 2014](#)
- Colorado Mandatory Reporter Training [coloradocwts.com/community-training](http://coloradocwts.com/community-training)
- For age specific tips on talking to youth and example talking points, visit [SpeakNowColorado.org](http://SpeakNowColorado.org) ([HableAhoraColorado.org](http://HableAhoraColorado.org))
- For marijuana patient factsheets and clinical guidance documents, visit the CDPHE Marijuana Health Care Provider page: [colorado.gov/cdphe/marijuana-clinical-guidelines](http://colorado.gov/cdphe/marijuana-clinical-guidelines)



## Parent/Patient Resources:

- Be sure you know Colorado's marijuana laws, visit [GoodToKnowColorado.com](http://GoodToKnowColorado.com)
- For more information including factsheets on marijuana in Colorado, visit [Colorado.gov/marijuana](http://Colorado.gov/marijuana) (includes Spanish language resources at [bit.ly/MJ\\_EnEspaol](http://bit.ly/MJ_EnEspaol))
- For age specific tips on talking to youth and example talking points, visit [SpeakNowColorado.org](http://SpeakNowColorado.org) ([HableAhoraColorado.org](http://HableAhoraColorado.org))
- For more information on keeping kids safe from alcohol, marijuana, tobacco, prescription medications and other drugs, visit [SmartChoicesSafeKids.org](http://SmartChoicesSafeKids.org)
- Call 1-800-CHILDREN/1-866-LAS-FAMILIAS for free to connect to statewide resources for parents with any concerns, including substance use.



## Fact Sheets

- Tips for Parents\*\*
- Youth and Marijuana\*\*
- Marijuana and Your Baby\*\*
- Tips for Youth-Serving Professionals
- Answers to Common Questions about Marijuana
- Retail Marijuana: Methods of Use
- Retail Marijuana: Laws and Responsible Use
- Retail Marijuana: Information for Visitors
- Health Effects of Retail Marijuana (coming soon)

**\*\*now available in Spanish**



## Bottom Line

- We need to talk to parents and patients early and educate them about the potential risks of marijuana use by youth.
- Resources are available for health care providers: [colorado.gov/cdphe/marijuana-clinical-guidelines](http://colorado.gov/cdphe/marijuana-clinical-guidelines)



## Thank you!

A big thank you to all who participated in this guidance development process (health care provider survey, draft guidance feedback, focus group participants and our Guidance Development Committee).

### Guidance Development Committee:

Lalit Bajaj, MD, MPH  
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 Michael Kosnett, MD, MPH  
 Amy Sass, MD, MPH  
 Sam Wang, MD, FAAP  
 Kathryn Wells, MD, FAAP



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## References

- *Adolescent Health Data, Healthy Kids Colorado Survey*. Colorado Health and Environmental Data 2013 [cited 2014; Available from: [http://www.chd.dphe.state.co.us/topics.aspx?q=Adolescent\\_Health\\_Data](http://www.chd.dphe.state.co.us/topics.aspx?q=Adolescent_Health_Data)]
- Colorado Department of Public Health and Environment: Retail Marijuana Public Health Advisory Committee Report: [Monitoring Health Concerns Related to Marijuana in Colorado: 2014](#).



## Retail Marijuana Education Program



Ali Maffey, Retail Marijuana Education Program Manager



## General Education and Awareness Campaign

- **Purpose:** Inform and ensure all Colorado residents and visitors understand the parameters of safe, legal, and responsible marijuana use
  - Launched 1/5/2015
  - Multiple media avenues for delivery
  - Social media
  - GoodToKnowColorado.com



- Campaign resources
- Webcast recording of regional trainings

Toolkits for local efforts



## On-going Campaign Efforts

### Targeted education and prevention campaign

- Continue to educate the public on legal use
- Retailers
- Edibles
- High risk groups: **Youth**, Pregnant/breastfeeding women, tourists
- Safe storage



## Youth Prevention Message

- **Purpose:** Reinforce the reasons not to engage in underage marijuana use and deter youth from trying it.
- **Target audience:** Colorado youth age 12-20
- **Message medium:** heavy video, digital, social media
- **Strategy:** Message based on formative research, focus group triads, Youth Public Health Council and askable adults
- **Production Stage:** Recording video, developing website and preparing for launch



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## Scare tactics

### Insights from youth prevention research:

- Young people rejected language that was preachy or presented as a scare tactic

### Research shows:

- Fear appeals and scare tactics do not line up with personal experiences
- Leads to lack of trust in prevention

Source: Prevention First (2008). *Ineffectiveness of fear appeals in youth, alcohol, tobacco and other drug (ATOD) prevention*. Springfield, IL: Prevention First.



## Youth-focused messaging

### Video, digital, social media

- A message young people want to promote
- An interactive platform for young people to share digitally
- Emotional level
- Something they can own

An aspirational message: *Young people want to make choices that lead to happiness today and in the future- but they need skills and askable adults*



## Adult education to support youth

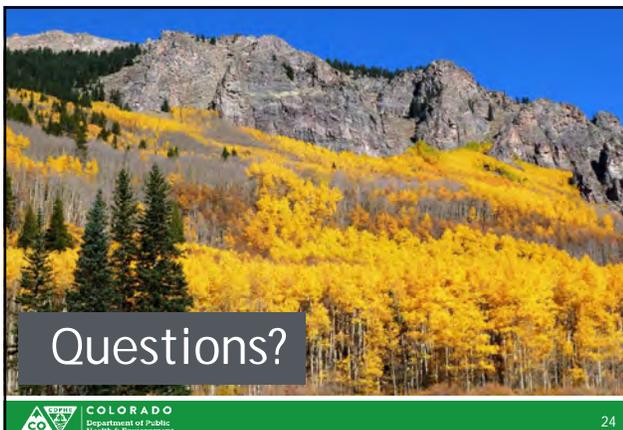
### Askable Adults

- Trust
- Open, honest conversations about the risks
- Reinforce messaging
- Provide more in-depth information



## Resources for You

- Marijuana website portal: [colorado.gov/marijuana](http://colorado.gov/marijuana)
- Spanish: [colorado.gov/marihuana](http://colorado.gov/marihuana)
- Find more information
- Print and share fact sheets



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