



MARIJUANA USE IMPACTING CHILDREN AND TEENS

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Framework for Children's Hospital Colorado's Engagement on Marijuana Issues

We view marijuana use within a broader context of other risky adolescent behaviors

- Motor vehicle safety
- Injury and violence prevention
- Healthy growth and development
- Substance use prevention

Since legalization, we have worked on marijuana issues in multiple domains

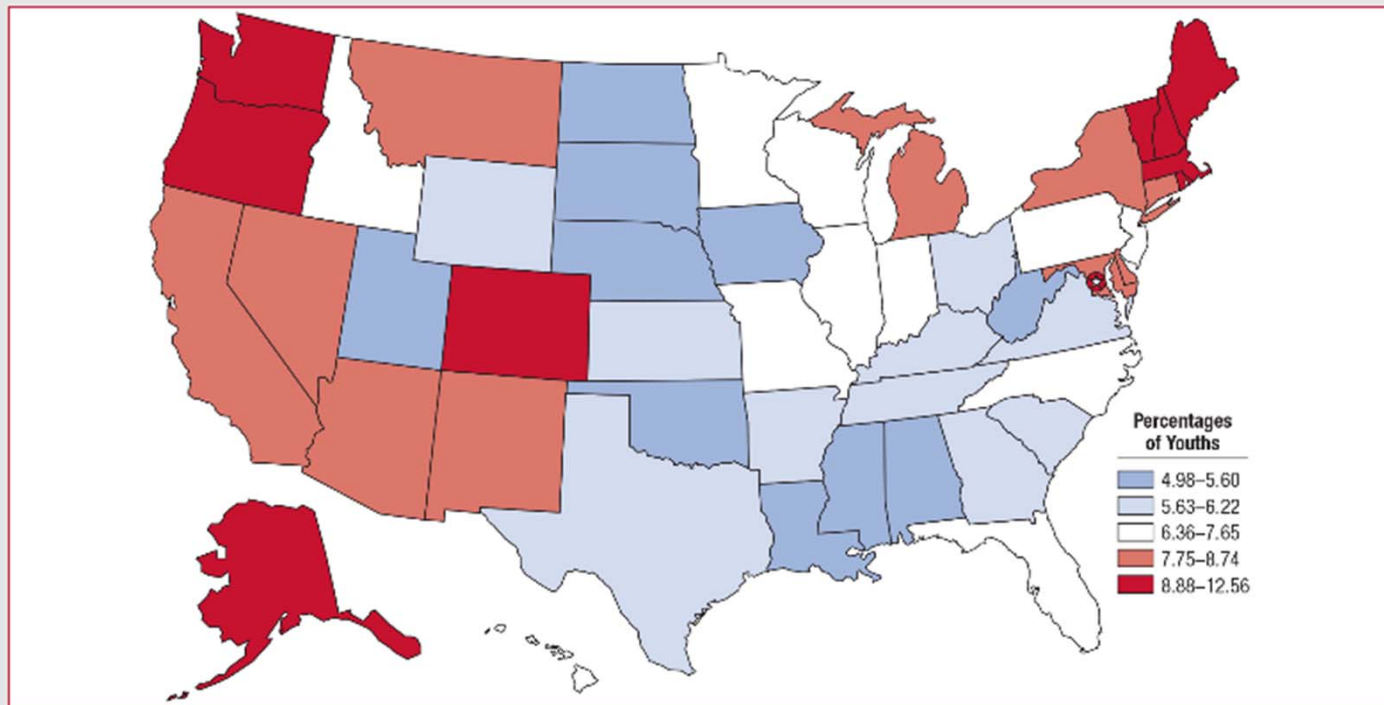
- Public policy
- Clinical care
- Research



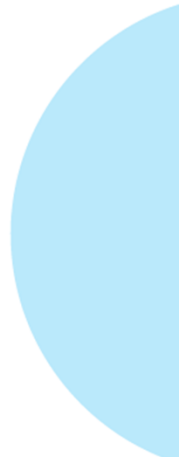


Adolescent Marijuana Use in the United States

Figure 1. Marijuana use in the past month among youths aged 12 to 17, by state: percentages, annual averages, 2013–2014



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2013 and 2014.





Adolescent Marijuana Use

- **Regular use and long-term developmental effects** (i.e. respiratory, cognitive, educational attainment, and memory)
- Risk of **dependence and potential for future addiction** to illegal substances
- Marijuana use may mask adolescents' **potential need for mental health services** and support

Children's Hospital Colorado Recommendation:

The legislature should continue to monitor data about adolescent use and normalization/perception of risk, upholding current funding streams to support strong public health campaigns that target prevention of youth substance use and funding mental health and substance use treatment for all ages.



Maternal Marijuana Use

- Most common illicit drug used in pregnancy
 - 3% to 30% use prevalence
- Freely crosses the placenta and is found in breast milk
- May have negative effects on both perinatal outcomes and fetal neurodevelopment, yet existing studies are imperfect
 - Fetal growth restriction
 - Premature birth
 - Stillbirth
- **No known safe amount of marijuana use while pregnant or breastfeeding**

Children's Hospital Colorado Recommendation:

The legislature should continue to appropriate marijuana tax cash funds that support public awareness and community-clinical linkages that educate mothers about the potential risks of marijuana use during pregnancy and while breastfeeding.

Caregiver Use & Sudden Unexpected Infant Death

Figure 3. Proportion of SUID by history of substance use among supervisors, 2010-2014 (n=244)

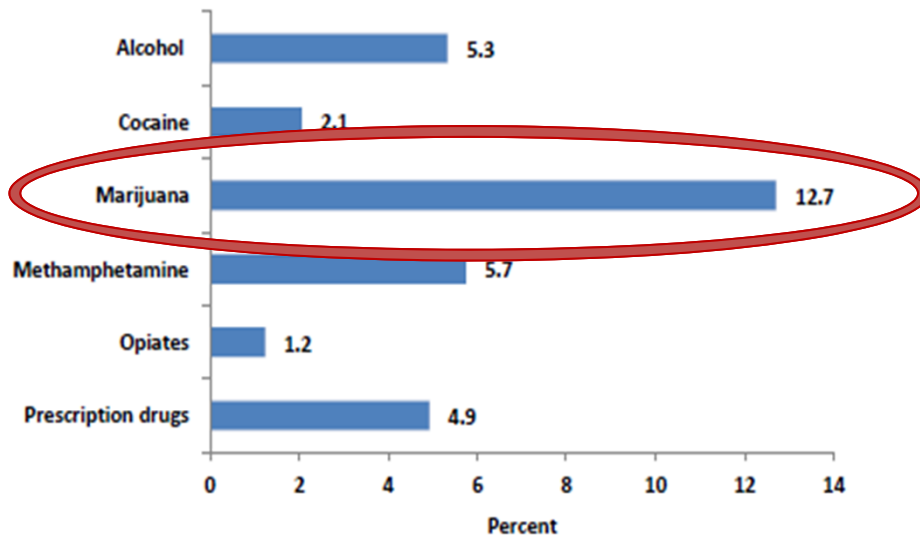
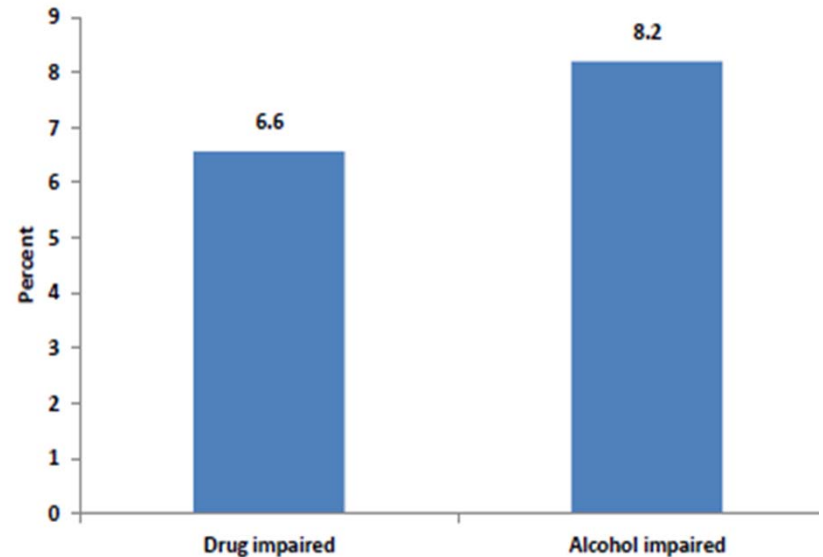


Figure 1. Proportion of SUID where supervisors were impaired by drugs or alcohol at the time of incident, 2010-2014 (n=244)



Source: CDPHE, 2016. "Sudden Unexpected Infant Death and Substance Impairment, 2010-2014."

Children's Hospital Colorado Recommendation:

CDPHE and CDHS (child welfare) should continue to monitor child fatality trends and determine preventative measures and interventions that may reduce SUIDs where there are potential links to marijuana and other substance use.



Unintentional Marijuana Ingestions

- Average rate of marijuana-related visits to CHCO increased from 1.2 per 100,000 to 2.3 per 100,000 population within two years of legalization
- Most pediatric marijuana exposures involved **infused edible products**
 - Many exposures occurred with products not in child-resistant containers or under poor child supervision
 - Sources of marijuana were a parent, grandparent, neighbor, friend, babysitter or other family
- Clinical effects of marijuana exposure:
 - Drowsiness, dizziness, agitation, vomiting, tachycardia, muscle rigidity, slow or stopped breathing, slow heart rate, low blood pressure, and seizures

Source: Wang, G.S. et al. (2016). Unintentional Pediatric Exposures to Marijuana in Colorado, 2009-2015, JAMA Pediatrics.

Children's Hospital Colorado Recommendation:

The legislature and the Department of Revenue should uphold current packaging and warning label standards to ensure consumer awareness that protects young children from unintentional ingestions.



Medicinal Marijuana Research

Four observational research studies funded by CDPHE underway at Children's Hospital Colorado.

- Pediatric epilepsy
- Pediatric brain tumors and palliative care
- Adolescents with inflammatory bowel disease

Children's Hospital Colorado Recommendation:

In light of the recent federal action to expand access to medicinal marijuana research, the Colorado legislature could consider subsequent research funding allocations.



QUESTIONS?