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**Testimony to the Senate Public Health and Welfare Committee
In Opposition to SB489
March 10, 2016**

Chairman O'Donnell and Committee Members,

Our associations are opposed to proposals to legalize medical use of cannabis in the manner provided in SB489. We do support sound medical research and dispensing of products, including those that are cannabis based, scientifically found to have medical value if manufactured and distributed as provided in state and federal pharmaceutical law.

The concept of "medical hemp" as presented in this bill is a façade to the inevitable expansion to legalization of stronger cannabis. In other states these laws have been a mere platform to full recreational use of marijuana. This bill provides some evidence of such expansion. Since last year the definition of "qualifying medical condition" has expanded from only seizures in HB2049 as it passed the House, to now also include "Alzheimer's disease, cancer, multiple sclerosis or post-traumatic stress disorder." This is similar to expansion patterns used in other states for medical marijuana. We also found it interesting during the hearings in the House last year on HB2282, when proponents were asked what their ultimate goal related to marijuana an immediate response of "the full legalization of marijuana" was given. Even more interesting was those responses came from parents of epileptic children.

It is logical to first focus on the "hemp" label as used in this bill. This is very clearly not really a hemp bill but a medical marijuana bill with THC limits. Hemp is a part of the cannabis plant.

"Hemp" and marijuana are actually separate parts of the species of plant known as cannabis. Under federal law, Congress defined marijuana to focus on those parts of the cannabis plant that are the source of tetrahydrocannabinols (THC). THC is the hallucinogenic substance in marijuana that causes the psychoactive effect or "high." The marijuana portions of the cannabis plant include the flowering tops (buds), the leaves, and the resin of the cannabis plant. The remainder of the plant — stalks and sterilized seeds — is what some people refer to as "hemp." ". . .hemp and marijuana are both parts of the same plant and hemp cannot be produced without producing marijuana."¹

Other states that have low-THC marijuana laws do not refer to it as "medical hemp." They call it "low-THC marijuana." The "hemp" label is just a disguise. Most states also specify a minimum amount of cannabidiol (CBD), the chemical from the marijuana plant considered to have potential of benefit. The reference to hemp in this bill, in our opinion, is a wolf in sheep's clothing. To illustrate this point, consider the provision allowing up to 3% THC levels in this bill. In Florida, their THC limit is 0.8% and

¹ DEA News Release. *DEA Clarifies Status of Hemp in the Federal Register*. 10/9/2001

their CBD minimum is 10%.² Mississippi requires no more than 0.5% THC and no less than 15% CBD.³ Missouri requires no more than 0.3% THC and no less than 5% CBD.⁴ North Carolina requires 0.3% THC and at least 10% CBD. South Carolina requires no more than 0.9% THC and more than 15 % CBD.⁵ And the list goes on.

Some states have passed laws that do not create the head shop sales culture or the problematic physician “prescription” process that circumvents established prescription drug laws.⁶ Some states such as Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Tennessee only provide for research in state university hospitals.⁷ This assures the handling of these scheduled drugs in a safe and controlled research and medical environment. I have attached a copy of the notice by the Drug Enforcement Agency on December 23, 2015, about easing the requirements for FDA-approved clinical trials on cannabidiol.

SB489 proposes a high THC content, no CBD requirement, creates non-pharmaceutical headshop type store fronts, and a new “prescription” process specific to this product. All of this is unnecessary. Scheduled chemicals and compounds used for medical treatment should all flow through the established pharmaceutical or research avenues, not through backdoor experimentation.

As further evidence to encourage you to not recommend SB489 for passage, please consider carefully the information from a letter to the Governor of Idaho from the American Epilepsy Society dated July 13, 2015, stating their position, and concerns, with marijuana as a treatment for epilepsy. Those include: Artisanal “high CBD” oils resulted in no significant reduction in seizures in the majority of patients.” “. . . for those whom the parents reported improvements, these improvements were not associated with improvement in electroencephalograms (EEFs), the gold standard monitoring test for people with epilepsy.” “In 13% of the cases reviewed seizures worsened with use of cannabis and in some patients there were significant adverse events.” Their summation: “there simply is no clinical, controlled research to support the adoption of new CBD legislation for epilepsy such as your state is considering. The anecdotal results of a few families. . . should not be the basis of law making.”

Along with the American Epilepsy Society letter to the Governor of Idaho mentioned above I have attached a three page document from the same society dated 12/4/14 outlining some of the studies and stating **“We cannot recommend CBD treatment based on the limited evidence available at this time.”** Other quotes from that document include:

- From study number 1: “Adverse effects occurred in 47% of patients, with increased seizures or new seizures in 21%.”
- From Study number 2: “The majority of respondents reported using a CBD preparation with a CBD:THC ratio of at least 15:1.” (NOTE: This is no requirement in this bill of any CBD minimum level.)
- From study number 2: “Although this study suggests a potential role for CBD in the treatment of IS and LGS, it is important to note that this study does not represent compelling evidence of efficacy or safety.”

² Florida Department of Health, FAQ on low-THC Cannabis. (http://www.floridahealth.gov/programs-and-services/office-of-compassionate-use/_documents/faq.pdf#search=%22faq%20low-thc%22)

³ National Conference of State Legislatures; *State Medical Marijuana Laws*. 1/8/16.

<http://www.ncsl.org/research/health/state-medical-marijuana-laws.aspx>

⁴ Same.

⁵ Same.

⁶ Same.

⁷ Same.

Aside from those obvious efforts to minimize control of abuse of these substances, there are direct law enforcement concerns:

LAW ENFORCEMENT OPERATIONAL CONSIDERATIONS

The legalization of cannabis in any form has tremendous implications for law enforcement.

1. Law enforcement must retrain, develop new policy and formulate new investigative techniques to enforce remaining laws relating to cannabis. State legalization creates a conflict between state and federal laws on cannabis. But enforcement must continue on violations that do not fall under the new legalized parameters. These investigations are complicated as some possession is legal while others are not.
2. Probable cause for searches and arrests become clouded requiring error on the side of caution by not arresting or not searching unless clarity exists. New standards and procedures must be developed by law enforcement leaders, district and city attorneys and policymakers clarifying the criteria for determining an illegal marijuana operation and providing guidance for acceptable criteria for marijuana based search warrants
3. Once marijuana is seized, if later investigation reveals the possession did not violate state law, a dilemma is created for law enforcement in returning the property to the person from whom it was seized which would still violate federal law.
4. Drug dogs have to be retrained or replaced. Drug dogs are trained to “hit” on various drugs. Unfortunately, they can’t tell us what drug they smell. So dogs that have been trained to detect drugs including marijuana are rendered useless since the mere detection of marijuana may not indicate a criminal violation. This will result in not only an expense, but also a degradation of our ability to locate and seize other illegal drugs.
5. Enforcement of marijuana violations under the newly created laws and regulations will require a multi-team approach involving law enforcement, prosecutors, zoning professionals, fire inspectors, building inspectors, food inspectors, code compliance inspectors, medical professionals and others.
6. Liability issues will be difficult as law enforcement walks a thin line between potential violations of the rights of those who can legally possess and being liable for not taking action which may lead to harm to others when encountering a person who is not legally authorized to possess marijuana.
7. Law requirement analysis of percentage content of THC and CBD create an enormous burden on crime labs. Quantitative analysis requires 7 times longer to analyze and requires additional equipment and training. The additional cost is very significant.

There is also growing evidence of the damage legalized recreational and medical marijuana availability presents for our youth and for public safety. The following data is from the Colorado experience. I have intentionally not provided post 2014 data in this discussion because that is when Colorado passed their recreational marijuana law. Medical marijuana was first allowed in Colorado in 2010 and the data shows the effect of medical marijuana legalization, not recreational marijuana legalization.

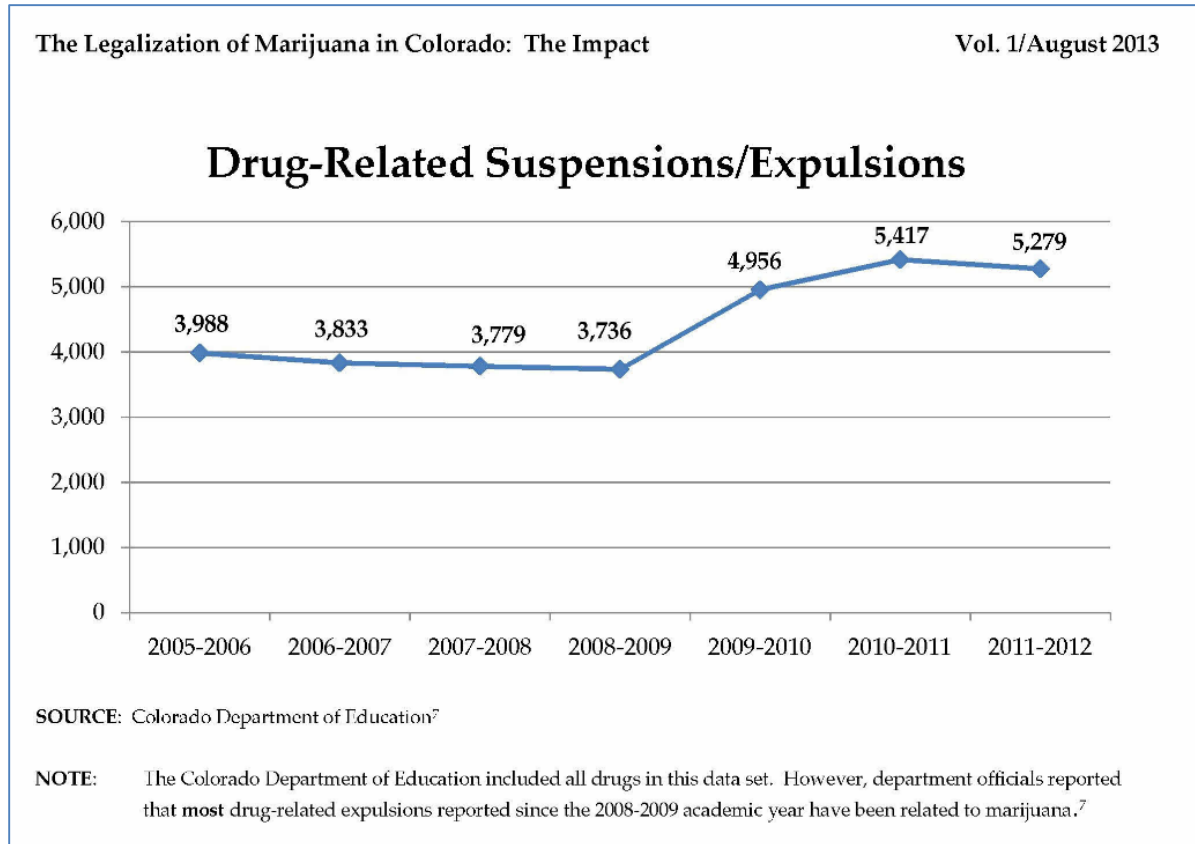
PUBLIC SAFETY CONSIDERATIONS

In the following discussion, keep in mind Colorado commercialized medical marijuana (dispensaries started opening) in 2010 and legalized commercialization of marijuana (recreational use) began January 1, 2014.

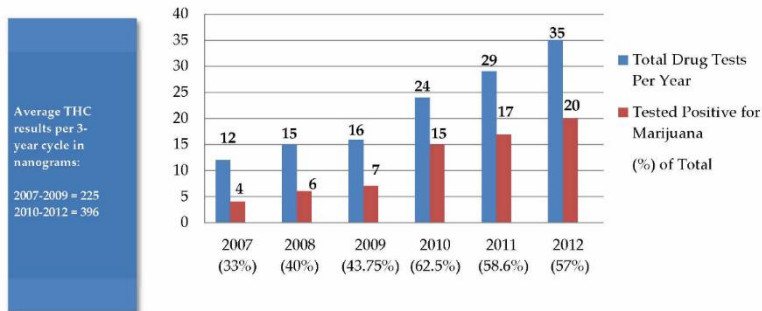
1. How will legalization for either medical or recreational use effect our children?

I learned in Colorado the data does indicate an increase in drug use over the same years marijuana was legal for medical purposes. It is too early to see an impact from legalization for recreational purposes, but there doesn’t seem to be any signs legalization has no impact or a positive impact on use by children.

2. **Colorado Youth Marijuana Use:** In 2011, the national average for youth 12 to 17 years old considered “current” marijuana users was 7.64 percent which was the highest average since 1981. The Colorado average percent was 10.



Conspire! Drug Testing Summary



SOURCE: Conspire! Colorado Springs Drug Testing Summary

NOTE: The majority of the data was collected from high school students in the Colorado Springs, CO area sent for drug testing due to behavior issues.

Comments:

"Drug violations shot up dramatically in Colorado schools during the 2009-2010 school year, reversing a decade of steady decline..."⁹

Rebecca Jones, reporter, EdNews Colorado

"If Denver Public High Schools were considered a state, that state would have the highest past month marijuana use rate in the United States, behind New Hampshire. Denver has more marijuana dispensaries than liquor stores or licensed pharmacies."

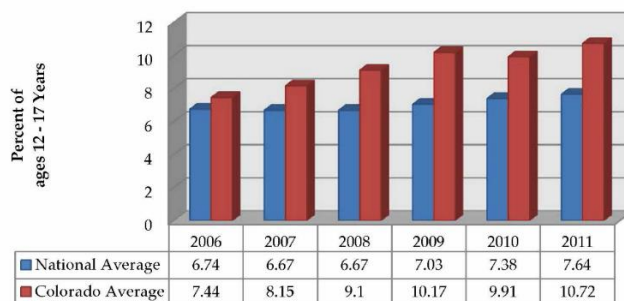
Christian Thurstone, M.D., attending physician, Denver Health Medical Center

"A typical kid (is) between 50 and 100 nanograms. Now we're seeing these (test results in nanograms) up in the over 500, 700, 800 and climbing."⁸

Jo McGuire, director, Compliance and Corporate Training, Conspire!

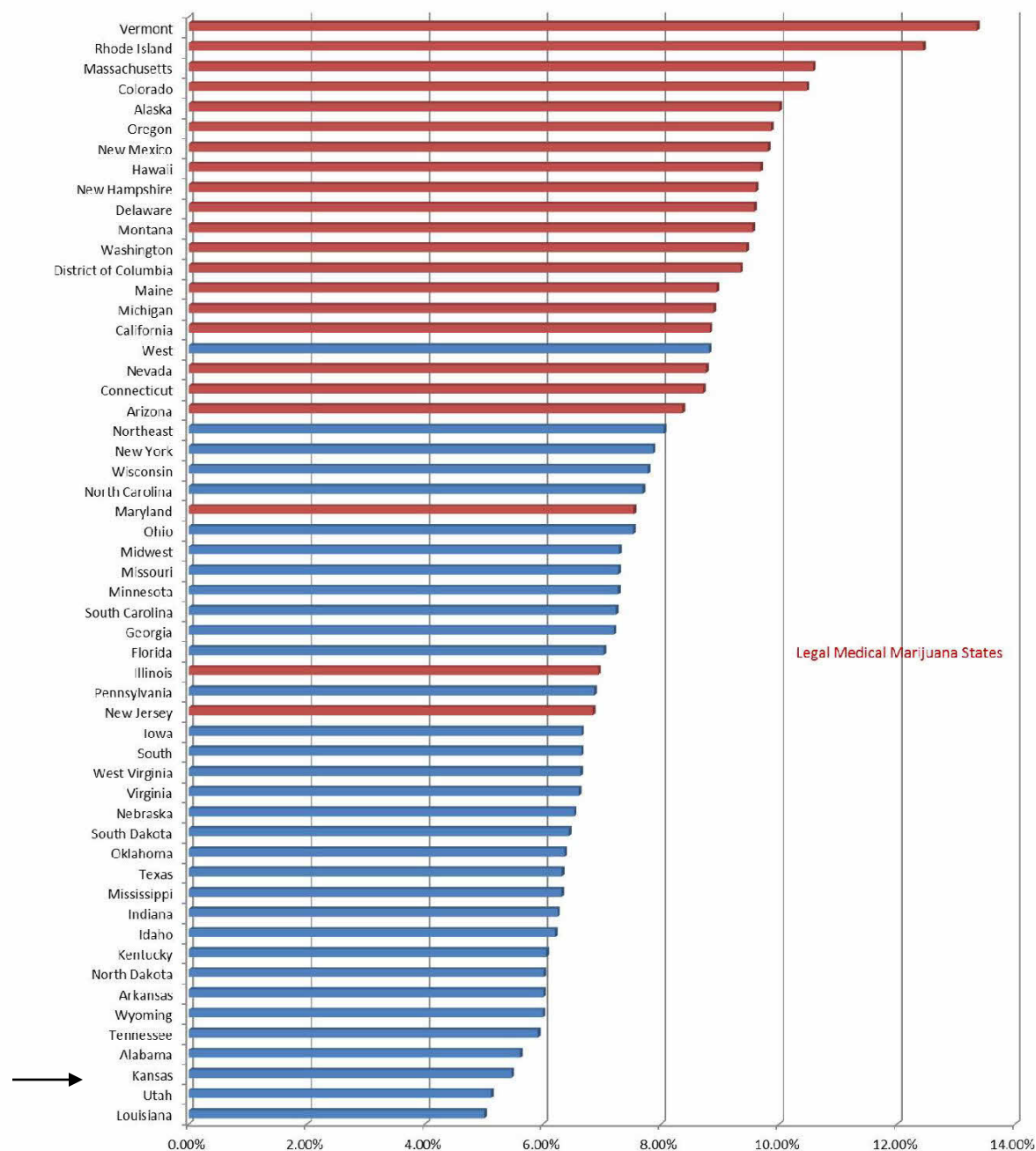
Data:

Past Month Usage of Marijuana - National v. Colorado



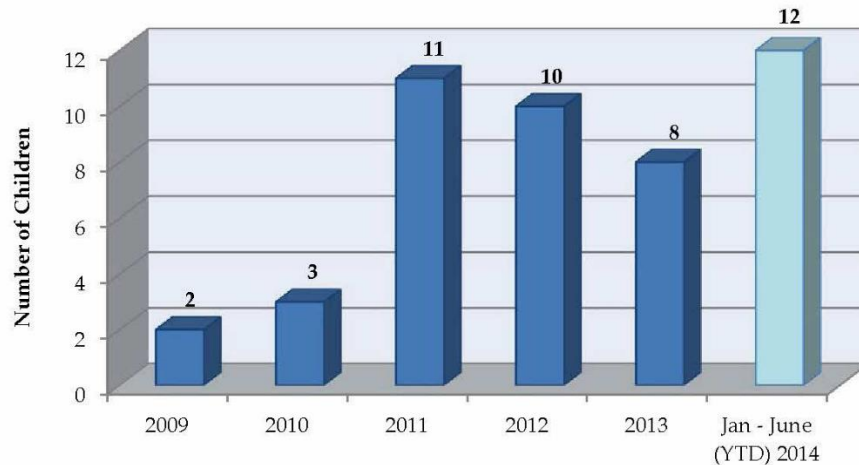
SOURCE: Data from SAMHSA.gov, National Survey on Drug Use and Health

Past Month Usage by 12 to 17-Year-Olds in Medical Marijuana States, 2012



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health, 2013

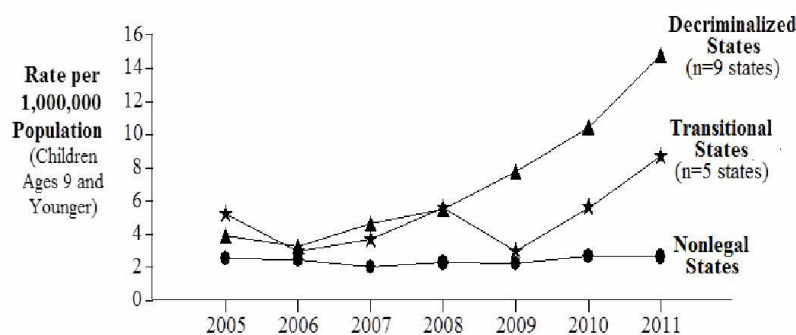
Marijuana Ingestion Among Children Under 12 Years-of-Age



SOURCE: Dr. George Sam Wang, pediatric emergency physician, Children's Hospital Colorado, July 8, 2014

Rate (per 1,000,000 population) of Unintentional Pediatric Marijuana Exposure Poison Center Calls, by Marijuana Legalization States*, 2005-2011²

(n=985 single substance, unintentional exposures in children ages 9 and younger)



* *Decriminalized States*: Passed marijuana decriminalization legislation (for medical and/or recreational purposes) before 2005 (AK, CA, CO, HI, ME, NV, OR, VT, and WA).

* *Transitional States*: Enacted legislation between 2005 and 2011 (AZ, MI, MT, NM, RI). *Nonlegal States*: Had not passed legislation as of December 31, 2011.²

3. How will it affect highway safety? Advocates often site the decrease in fatalities in Colorado since legalization for medical purposes and again in 2014 with commercial recreational legalization. What they don't usually reveal is that traffic fatalities have been dropping in most states even those that haven't legalized commercialization of marijuana. They also usually don't mention that while the number of total fatalities is dropping, the number of drug related fatalities is increasing.

Colorado Driving Fatalities: From 2006 to 2011, traffic fatalities decreased in Colorado 16 percent, but fatalities involving drivers testing positive for marijuana increased 114 percent.

Definitions in Reviewing Fatality Data:

- **Marijuana:** Also called "marijuana mentions," is any time marijuana shows up in the toxicology report. It could be marijuana only or marijuana with other drugs and/or alcohol.
- **Fatalities:** A fatal injury resulting from a traffic crash involving a motor vehicle.
- **Operators:** Anyone in control of their movements such as a driver, pedestrian or bicyclist.

Fatalities Involving Operators Testing Positive for Marijuana

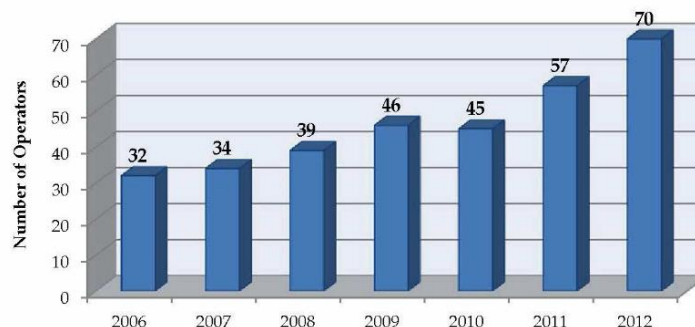
Crash Year	Total Statewide Fatalities	Fatalities with Operators Testing Positive for Cannabis	Percentage Total Fatalities (Cannabis)
2006	535	37	6.92%
2007	554	39	7.04%
2008	548	43	7.85%
2009	465	47	10.1%
2010	450	49	10.89%
2011	447	63	14.09%
2012	472	78	16.53%

SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

The Legalization of Marijuana in Colorado: The Impact

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Operators Involved in Fatalities Testing Positive for Marijuana



SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

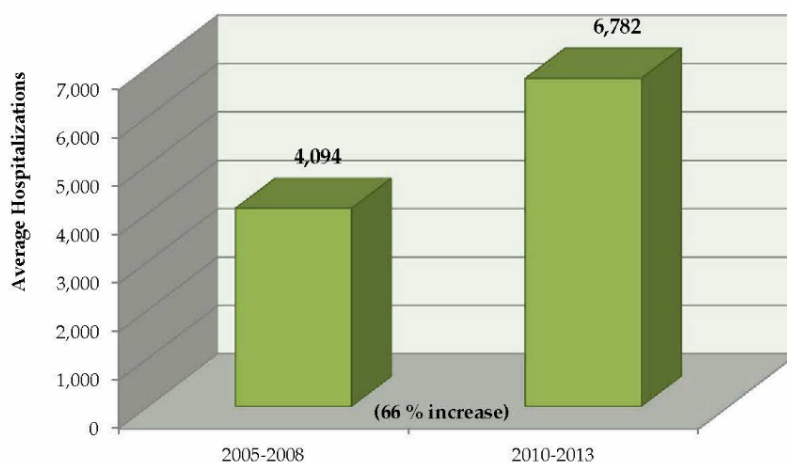
4. Does marijuana legalization create more health emergencies?

Colorado Emergency Room – Marijuana Admissions: From 2005 through 2008 there was an average of 741 visits per year to the emergency room in Colorado for marijuana-related incidents involving youth. That number increased to 800 visits per year between 2009 and 2011.

The Legalization of Marijuana in Colorado: The Impact

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Average Marijuana-Related Hospitalizations Pre- and Post-Medical Marijuana Commercialization Year (2009)

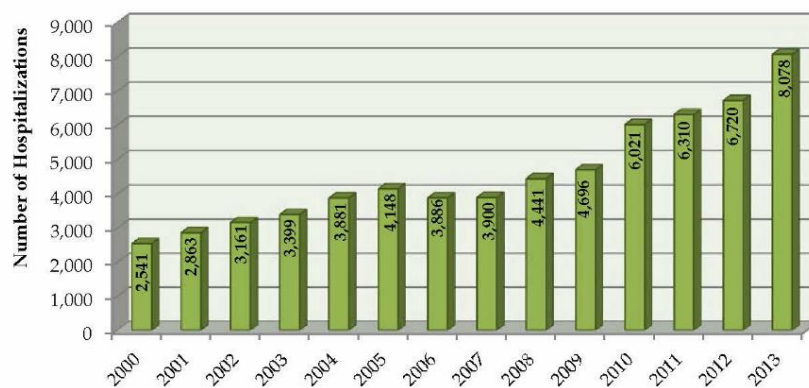


SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment (CDPHE)

The Legalization of Marijuana in Colorado: The Impact

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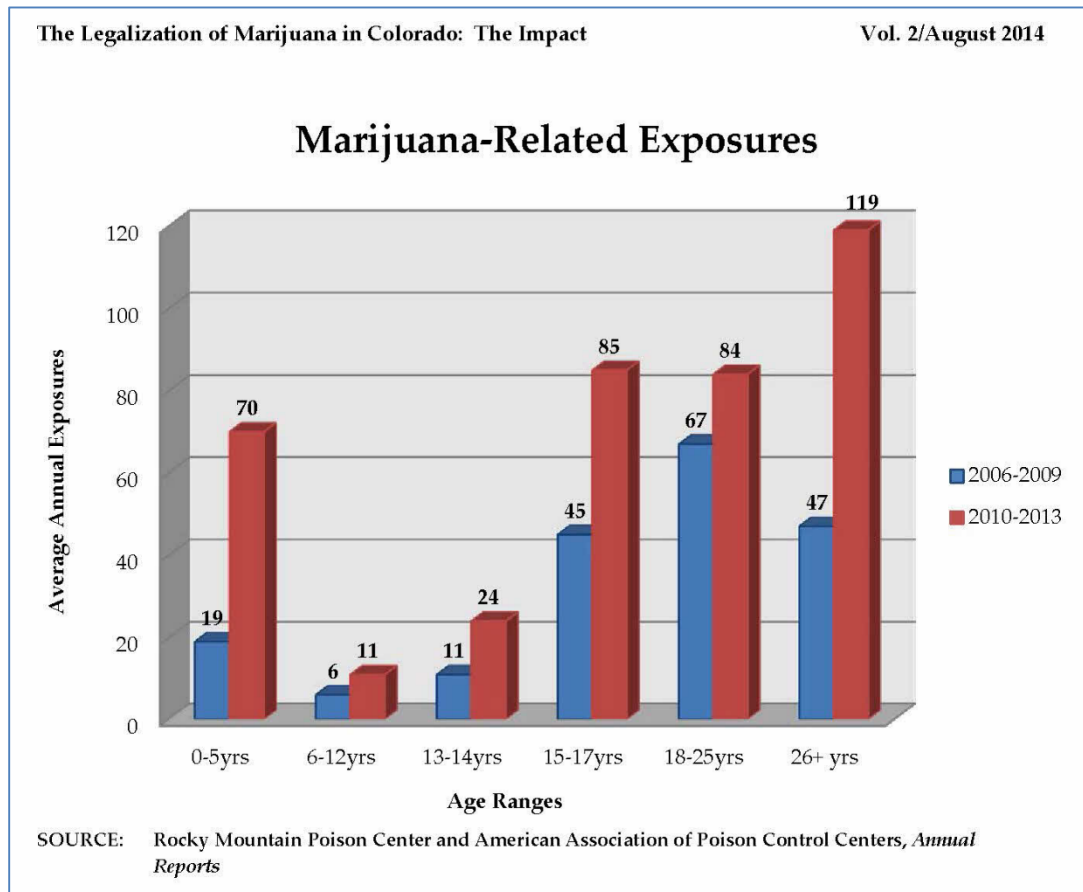
Hospitalizations Related to Marijuana



SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment (CDPHE)

5. Does legalization create more unintentional drug poisoning?

Colorado Marijuana-Related Exposure Cases: From 2005 through 2008, the yearly average number of marijuana-related exposures for children ages 0 to 5 years was 4. For 2009 through 2012, that number increased 200 percent to an average of 12 per year.



Ed Klumpp

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HEADQUARTERS NEWS

December 23, 2015
Contact: DEA Public Affairs
(202) 307-7977

DEA Eases Requirements for FDA-Approved Clinical Trials on Cannabidiol

DEC 23 (WASHINGTON) - The United States Drug Enforcement Administration (DEA) recently eased some of the regulatory requirements imposed by the [Controlled Substances Act \(CSA\)](#) for those who are conducting FDA-approved clinical trials on cannabidiol (CBD), an extract of the marijuana plant. These modifications will streamline the research process regarding CBD's possible medicinal value and help foster ongoing scientific studies. The DEA notified affected researchers by letter of the changes, which take effect immediately.

Federal Regulation ([21 CFR 1301.18](#)) requires researchers conducting CBD-based clinical trials under an [FDA Investigational New Drug Application](#) to have a DEA research registration. This registration permits the possession of an approved amount of CBD for a specific research protocol. Prior to now, researchers who expanded the scope of their studies and needed more CBD than initially approved for had to request, in writing, a modification to their DEA research registrations – potentially delaying that research while the modification underwent an approval process that includes both the DEA and the Food and Drug Administration (FDA). Under these changes, a previously registered CBD clinical researcher who is granted a waiver can readily modify their protocol and continue their research seamlessly. This waiver effectively removes a step from the approval process.

Marijuana is a [Schedule I](#) controlled substance because of the presence of [tetrahydrocannabinol \(THC\)](#), marijuana's psychoactive ingredient. Because CBD contains less than 1 percent THC and has shown some potential medicinal value, there is great interest in studying it for medical applications. Currently, CBD is a Schedule I controlled substance as defined under the CSA. Though the FDA approves drugs for medical use in the United States, the DEA regulates the handling of all controlled substances, including those being used by researchers to conduct studies.



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July 13, 2015

Governor Butch Otter
State of Idaho
Office of the Governor
P.O. Box 83720
Boise, ID 83720

Dear Governor Otter,

As Idaho reconsiders enacting new cannabis legislation, I write to offer the perspective of the American Epilepsy Society (AES), the leading U.S. organization of clinical and research professionals specializing in the treatment and care of people with epilepsy.

Epilepsy is the most common and potentially devastating neurological disease that affects people across the lifespan. In America, one in 26 people will be diagnosed with epilepsy at some time in the course of their life - more will experience an isolated seizure. Epilepsy is associated with significant morbidity and mortality and is associated with many co-morbidities including depression, cognitive dysfunction, and autism. Today between 2.2 and 3 million Americans, including almost 400,000 children, live with epilepsy, with one third living with treatment-resistant seizures that do not respond to current medications.

The American Epilepsy Society [position](#) on medical marijuana as a treatment option for people with epilepsy is informed by the current research and supported by the position statements from the American Academy of Neurology, the American Academy of Pediatrics and the American Medical Association. Additionally, a 2014 survey of practitioners published in the journal *Epilepsy Currents* found that the majority of epilepsy practitioners agreed with and supported the AES position.

Specifically, AES has called for more research, for the rescheduling of marijuana by the DEA to ease access for clinical studies, and has supported the compassionate use program of GW Pharmaceuticals, where a purified and uniform preparation of cannabidiol (CBD) called Epidiolex is being administered under the guidance and close monitoring of an appropriate medical professional. AES has also been highly supportive of the double-blind clinical trial now underway by GW Pharmaceuticals and of the forthcoming clinical trial by INSYS Therapeutics.

These clinical trials utilize a vastly different substance than the artisanal cannabis products that are being considered for use in Idaho, and that have been used in Colorado. As you likely know, medical marijuana and its derivatives are legal in Colorado, but you may not realize that the content of these products is not regulated for purity or uniformity. A study by a team from Children's Hospital Colorado that was presented during the AES Annual Meeting in December 2014 and has recently been accepted for publication in the journal *Epilepsy & Behavior*, found that artisanal "high CBD" oils resulted in no significant reduction in seizures in the majority of patients



and in those for whom the parents reported improvements, these improvements were not associated with improvement in electroencephalograms (EEGs), the gold standard monitoring test for people with epilepsy.

Additionally, in 13% of cases reviewed seizures worsened with use of cannabis and in some patients there were significant adverse events. These are not the stories that you have likely heard in your public hearings, but they are the reality of practitioners at Children's Hospital Colorado who have cared for the largest number of cases of children with epilepsy treated with cannabis in the U.S.

The families and children coming to Colorado are receiving unregulated, highly variable artisanal preparations of cannabis oil prescribed, in most cases, by physicians with no training in pediatrics, neurology or epilepsy. As a result, the epilepsy specialists in Colorado have been at the bedside of children having severe dystonic reactions and other movement disorders, developmental regression, intractable vomiting and worsening seizures that can be so severe they have to put the child into a coma to get the seizures to stop. Because these products are unregulated, it is impossible to know if these dangerous adverse reactions are due to the CBD or because of contaminants found in these artisanal preparations. The Colorado team has also seen families who have gone into significant debt, paying hundreds of dollars a month for oils that do not appear to work for the vast majority. For all these reasons not a single pediatric neurologist in Colorado recommends the use of artisanal cannabis preparations. Possibly of most concern is that some families are now opting out of proven treatments, such as surgery or the ketogenic diet, or newer antiseizure medications because they have put all their hope in CBD oils.

AES is sympathetic to the desperation parents of children with severe, treatment-resistant epilepsy feel, and understand the need for compassionate or promising new therapies in appropriate and controlled circumstances. We are however opposed to the use of artisanal preparations of unregulated compounds of cannabis that contain unverified content and are produced by people with no experience in pharmaceutical production. That is what is currently happening in Colorado and may soon be happening in multiple states across the country as they legalize the use of medical marijuana products.

The products currently provided in Colorado do not meet the [FDA definition](#) of expanded or compassionate use. The FDA requires compassionate use therapies to meet the same criteria as an investigational new drug which require standard purity, content and content uniformity testing of the product. None of these criteria are met in the products being given to people with epilepsy in Colorado and we are seeing the distressing results noted above. And yet, these and other similar products are being considered for use in Idaho.

It is also worth noting that in late February 2015, the FDA issued several [warning letters](#) to firms that claim that their products contain CBD. The FDA has tested those products and, in some of them, did not detect any CBD as claimed on the label. Because there is no standard for these products, the market is increasingly flooded with a wide variation of products and states which



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approve access to these preparations will bear the burden of monitoring for quality and controlling for the continuity of supply.

In sum, **there simply is no clinical, controlled research to support the adoption of new CBD legislation for epilepsy such as your state is considering.** The anecdotal results of a few families in Colorado, shared in the media, should not be the basis for law making. The rush by states to pass CBD legislation has created an unusual situation where people with epilepsy and their families are demanding access to a highly variable homegrown substance that may or may not be beneficial and the medical and scientific community lacks the necessary efficacy and safety data to make good treatment decisions regarding cannabis for people with epilepsy, especially in children.

The new legislation in most states places epilepsy practitioners in an untenable situation where they are expected, or in some states directed by law, to respond to requests for these highly variable artisanal products with no protocols, no research and no clinical guidelines regarding dosing or side-effects, and no assurance that the cannabis products that are to be recommended are pure, safe or uniform, making it nearly impossible to know if we are truly "Doing No Harm." We need to accelerate the clinical research and wait to act until we have results to support decisions. If there are components of cannabis with specific therapeutic values we need to know this and we need to develop pharmacy grade compounds that utilize these components to help the nearly one million people living with drug resistant epilepsy. And if the harmful aspects of cannabis outweigh the therapeutic benefits, we need to find out now, before more medically fragile children have been exposed to cannabis products that are not effective and may risk damage to vital organs, brain development, or worse.

We urge you and your fellow committee members to delay adoption of new cannabis legislation and to continue to support and encourage new research. If we can be of additional help please contact our Executive Director, Eileen Murray, at emurray@aesnet.org. Thank you for your consideration of our position.

Sincerely,

Amy Brooks-Kayal, MD
President, American Epilepsy Society
Chief and Ponzio Family Chair, Children's Hospital Colorado
Professor of Pediatrics and Neurology, University of Colorado School of Medicine

Patient Use of Cannabis in Epilepsy Featured in Three New Studies

Embargoed for release until December 8, 2014 11:00 AM PT / 2:00 PM ET

SEATTLE, December 8, 2014 – There may have been many anecdotal reports about cannabis and its derivative cannabidiol (CBD) in the treatment of people with epilepsy, especially in very young children who have catastrophic forms of epilepsy such as Lennox Gastaut Syndrome (LGS) or Dravet Syndrome (DS). Despite all the media and legislative attention, there is little scientific evidence about its effectiveness. Three studies presented at the American Epilepsy Society's (AES) 68th Annual Meeting offer new insights into diverse patient experiences with CBD.

The first of three studies (Poster 1.326) is from Colorado, where much of the nation's attention has been captured by issues surrounding cannabis. The physicians and researchers at Children's Hospital Colorado and the University of Colorado have a unique perspective on CBD given the large number of cases they have treated. In addition to the many children already in their care, these professionals are now caring for many of the patients who have ventured to Colorado in search of cannabis treatment.

Dr. Kevin Chapman, associate professor of pediatrics and neurology at the University of Colorado, and his colleagues conducted a retrospective review of the 58 children and adolescents (average age of 7) with catastrophic forms of epilepsy who were receiving artisanal oral cannabis extracts when they came under the care of the hospital-based team. Chapman's team found that in only one-third of patients did the parents report a seizure reduction of 50% or more, and this did not correlate with an improvement in their electroencephalograms (EEGs). Of the sixteen patients who had baseline EEGs prior to and during treatment with cannabis, only two showed any signs of improvement. The researchers also noted that the response rate did not change with various strains of cannabis. Notably, families who moved to Colorado for CBD treatment were three times as likely to report a reduction greater than 50% than families who were already in Colorado.

Adverse effects occurred in 47% of patients, with increased seizures or new seizures in 21%, somnolence/fatigue in 14%, and rare adverse events of developmental regression in 10% with one patient needing intubation, and one death.

"This substantial gap between the clinical observations and various anecdotal reports highlighted in popular media underscores the desperate need shared by the entire epilepsy community for robust scientific evidence regarding the potential benefit and risks of marijuana in people with epilepsy," said Dr. Chapman.

A second study (Poster 2.372) documents the experiences reported by parents of children with infantile spasms (IS) or LGS who were treated with artisanal CBD-enriched cannabis preparations. Through a survey of 53 parents whose children had IS and/or LGS (n = 53), the UCLA based researchers found that 92% of parents reported a reduction in seizures and 13% reported complete seizure-freedom. The majority of respondents reported using a CBD preparation with a CBD:THC ratio of at least 15:1. Prior to starting CBD, the parents reported that their children (median age for 3.6 years) had typically tried and failed 8 medications prior to CBD. Most patients with IS had failed both hormonal therapy (prednisolone and/or ACTH) and vagabtrin. The median length of other therapies was 6.9 months. The survey

participants reported that side effects of treatment were also less than those with other medications. Benefits reported included improvements in sleep, alertness and mood during the CBD treatment.

“Although this study suggests a potential role for CBD in the treatment of IS and LGS, it is important to note that this study does not represent compelling evidence of efficacy or safety,” said Raymond Zhou, research associate, UCLA Infantile Spasms Project. “From a methodological standpoint, this study is extraordinarily vulnerable to participation bias and placebo effect as our data is self-reported by parents and did not use objective measures such as EEG. Our hope in presenting this data is to emphasize the need for controlled clinical trials to establish safety and efficacy.”

A third study (Poster 2.104) is a single case of a child with Doose Syndrome whose family initiated independent CBD treatment. A child aged 4 experiencing multiple seizure types tried several medications with various and limited benefits. Baseline video EEG showed that the child had at least 10 seizures per day while awake and asleep. Immediately after starting on CBD the child continued to have seizures and Valproic acid levels increased substantially. When the dosage of Valproic acid was reduced the blood level returned to the previous range, and over 4 months seizures disappeared clinically and a repeat EEG was normal in both awake and asleep periods.

“We cannot recommend CBD treatment based on the limited evidence at this time, but do hope that families who independently seek CBD treatment will continue conventional therapies and remain in close contact with their healthcare providers,” said Jeffery Gold, MD, Ph.D., Rady Children’s Hospital of San Diego. “Establishing EEG measures before and after CBD treatment will provide the best possible insight into the benefits of the treatment. Further, since the effect of CBD treatment on other medications is undetermined, we recommend that physicians work with families to determine if adjustments to other medications are necessary.”

All three research studies will be provided in full at the American Epilepsy Society Annual Meeting in Seattle, December 5-9. Abstracts referenced above can be found on the American Epilepsy Society’s [Annual Meeting Page](#).

Editor’s Note: The authors of the second study will be available at a press briefing on **December 8, 2014 at 11:00 AM (PT)/ 2:00 PM (ET)**, and the authors of the other studies will be available on **December 8, 2014 at 1:30 PM (PT)/ 4:30 PM (ET)** in the onsite press room, Room 304, Level 3 of the Washington State Convention Center. The call-in number for off-site journalists is 1-605-475-4000, passcode 521653#.

About the American Epilepsy Society

The American Epilepsy Society (AES) is a non-profit medical and scientific society. Our individual members are professionals engaged in both research and clinical care for people with epilepsy from private practice, academia and government. For more than 75 years, AES has been unlocking the potential of the clinical and research community by creating a dynamic global forum where professionals can share, learn and grow. AES champions the use of sound science and clinical care through the exchange of knowledge, by providing education and by furthering the advancement of the profession.

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