

# Cannabis-Related ED Visits Rise in States With Legalized Use

Deborah Brauser | December 16, 2014

AVENTURA, Florida — Cannabis use and abuse have increased significantly during the past few years, especially in states where use of the substance is now legal, new research suggests.

A retrospective study examining data from the US Healthcare Cost and Utilization Project (HCUP) showed that emergency department (ED) visits with *International Classification of Diseases, 9th Edition* (ICD-9) coding for cannabis use grew 50.4% between 2007 and 2012 in Colorado — one of the first two states to legalize both medical and recreational use of marijuana.

A sampling of random states where marijuana is only legal for medical use also showed high increases in cannabis-related ED visits during the same period. The largest increase was found in Hawaii (by 55%), with New Jersey and Arizona having increases of 49.1% and 32%, respectively.

Interestingly, when examining states where any type of marijuana use is illegal, the investigators found that Texas also had a big increase in this type of ED visits (by 43.2%). However, Oklahoma saw only a 7.21% increase, and South Carolina only increased by 0.75%.

"Everyone's talking about Colorado, but why aren't they also talking about the states with medical use of marijuana? There appears to be a flaw in the system," lead author Abhishek Rai, MD, from the Department of Psychiatry at St. Mary Mercy Hospital in Livonia, Michigan, told *Medscape Medical News*.

"People with access to marijuana are using it and then coming to the ED," added Dr Rai.

The study was presented here at the American Academy of Addiction Psychiatry (AAAP) 25th Annual Meeting.

## Universal Urine Testing?

Wanting to evaluate the trend of cannabis use in the United States, investigators examined data from the HCUP for a sampling of states that have legalized medical marijuana use in adults, states that have not legalized the substance in any way, and Colorado — where both medical and recreational use are legal. Washington State was not included in this analysis.

ICD-9 diagnostic code 304.3, signifying cannabis use, was used to track visits to EDs, number of hospital admissions, and patient demographics. The data examined all individuals with the coding, including those with and without medical marijuana prescriptions.

Results showed that "in general, abuse of cannabis has increased over the 6-year period of 2007 to 2012, with the most significant increase...in states where cannabis use is legal," write the investigators.

When comparing the state where both types of use are legal with states where only medical use is legal, the increase in patients presenting to EDs with ICD-9 coding 304.3 was nearly the same.

Dr Rai noted that the study included patients who came into the ED for any mental health-related reason but presented with cannabis use. "This included those who came in with psychosis, secondary to cannabis. It could be for anxiety, but cannabis had to be in the universe."

He added that clinicians should "screen everyone" with a urine test. "And if it is positive for marijuana, then you need to



evaluate if it is affecting mental health."

## Public Health Impact

A second poster he presented at the AAAP meeting examined "impact on the healthcare system" and showed that 10,532,658 ED visits due to any type of substance abuse occurred between 2007 and 2011 in the United States.

During that period, cannabis-related ED visits increased 67.8%, and alcohol-related visits increased by 49%. Also increasing were visits related to opioids (by 42%), hallucinogens (40.4%), sedatives (40%), and amphetamines (20.6%).

Interestingly, the percentage of visits related to cocaine use decreased by 67.9%.

Cannabis-related hospital admissions increased by 13.3%, and mean hospital charge due to cannabis increased by 39%. Increases for alcohol abuse for each measure were 8.6% and 29.5%, respectively.

"In terms of burden to the healthcare system, cannabis...stands out in both number of hospital admissions and mean hospital charge," write the investigators.

"It should raise alarm that we need to be very vigilant and careful when it comes to the use and prescription of cannabis," they add, noting that more strict rules and policies are needed.

Dr Rai added that whether a patient is using marijuana for medical or recreational purposes does not matter, given the data. "Pay attention to any use," he said.

## Not Your Father's Marijuana

Ryan Caldeiro, MD, chief of chemical dependency services and consultative psychiatry for Group Health in Seattle, Washington, told *Medscape Medical News* that he would have liked to have seen data included for his state.

"I would suspect that it is fairly similar to Colorado. I know that previous published work that looked at Washington when it was medical only showed that it was similar to other medical-use states," said Dr Caldeiro, who was not involved with this research.

He added that there is now an incredible number of forms of cannabis out there, and a great variability in toxicity and application.

"There's a lot available in medical-only states and in recreational states that are really not available at all in states that don't have venues to produce, package, and sell those products," said Dr Caldeiro, adding that a whole subindustry focusing on oils and liquids has been created.



"Washington state has seen a rash of oil explosions, where people are creating very high-potency THC oil. And they're doing it in home labs. We've seen injuries due to explosions — basically, houses are blowing up because of the highly volatile gases that they're using."

He added that even in medical marijuana-only states, visits to a product dispensary or website will show a wide array of products.

"So it's much easier for people to get accidentally overintoxicated to the point where they might present to an emergency department," said Dr Caldeiro.

"I think another thing that's going on is that physicians are much more sensitive in these states. They are likely to be more cognizant of marijuana use being a risk factor, asking about it, and then identifying it," he added.

"This poster is definitely starting to bring out some of the real concerns that I have as a healthcare provider — that you are exposing more people to higher potency and riskier forms of the substance. This is not the shake weed that somebody smoked in the '70s. This is four times more potent. It's a much riskier proposition than a lot of people think."

*The study authors and Dr Caldeiro have reported no relevant financial disclosures.*

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