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The Reasonable Way to View Marijuana's Risks

Cannabis has downsides, but speculation and fear should be replaced with the best evidence available.



By Aaron E. Carroll

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No one should be under the impression that marijuana is harmless, but it's safer than alcohol and tobacco.

Rick Bowmer/Associated Press

Are we underestimating the harms of legalizing marijuana?

Those who hold this view have been in the news recently, saying that research shows we are moving too far too fast without understanding the damage.

America is in the midst of a sea change in policies on pot, and we should all be a bit nervous about unintended consequences.

Vigilance is required. But it should be reasoned and thoughtful. To tackle recent claims, we should use the best

methods and evidence as a starting point.

Does Marijuana Increase Crime?

Crime has gone up in Colorado and Washington since those states legalized marijuana. It's reasonable to wonder about the connection, but it's also reasonable to be skeptical about causation.

The best method to investigate this may be synthetic controls. Researchers can use a weighted combination of similar groups (states that are like Colorado and Washington in a number of ways) to create a model of how those states might have been expected to perform with respect to crime without any changes in marijuana laws. Benjamin Hansen, a professor of economics at the University of Oregon, used this methodology to create a comparison group that most closely resembled the homicide trends and levels from 2000-12.

"I picked those years because they were after the tremendous crime drop in the early '90s and most predictive of crime today," he said. "I ended in 2012 because that's when Colorado and Washington voted to legalize marijuana."

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This model showed that we might have predicted more of an increase in Colorado or Washington just based on trends seen in comparable states, even without legalization. When he compared the two states with the synthetic control, Colorado and Washington actually had lower rates after legalization than you'd expect given trends.

This is not evidence that legalization lowers crime rates. But it does suggest that we shouldn't conclude that it increases them. A number of other studies agree.

What About Car Crashes?

A potential misperception involves automobile crashes. Drunken drivers are measurably impaired when their blood alcohol level is above a certain level. We can prove this in randomized controlled trials.

The tests we use for measuring the presence of THC, though, do not measure the level of impairment. They measure whether someone has used marijuana recently. If we legalize the drug, and more people use it, more people will register its recent use even when they are not impaired. So it should be expected that more people involved in car crashes will test positive even if no one is driving while high.

Using a synthetic control approach, Mr. Hansen and colleagues showed that marijuana-related fatality rates did not increase more after legalization than what you would expect from trends and other states.

The Concerns About Schizophrenia

Dr. Ziva Cooper is one of the authors of the National Academies of Sciences, Engineering, and Medicine's comprehensive report on cannabis.

She says some have misinterpreted the report to state that the report's committee concluded that cannabis causes schizophrenia. It did not.

"This was stated as an association, not causation," she said. "We do not yet have the supporting evidence to state the direction of this association."

Dr. Cooper, research director of the U.C.L.A. Cannabis Research Initiative, went further: "We as a committee also concluded that a history of cannabis use is associated with better cognitive outcomes in people diagnosed with psychotic disorders. The blatant omission of this conclusion exemplifies the one-sided nature of some articles. Nonetheless, the strong association between cannabis use and schizophrenia means that people with predisposing risk factors for schizophrenia should most certainly abstain from using cannabis."

[Does Marijuana Use Cause Schizophrenia?](#) Jan. 17, 2019

Marijuana Has Downsides

No one should be under the impression that marijuana is harmless. The potential downsides are well known, and I've covered them. Nor should anyone be irrationally exuberant about its upsides. It's not a wonder drug, and the proven benefits are also minimal (as I discussed here).

We should be honest about what we do and don't know. We need more research. It's true that much of the literature around marijuana focuses on the negative, but that's "largely due to funding priorities over the last several decades," Dr. Cooper said.

In the report she worked on, only 40 of the 450 pages were about the therapeutic effects of cannabis and cannabinoids, she said, while the other sections were related largely to the negative health outcomes.

She added, "With increased awareness of the clinical potential of cannabinoids, research priorities have shifted to include studying this area" in the last few years.

It's perfectly natural to be concerned that as cannabis products become legal in more states, they will affect more people.

Many of the experts who have done the work highlighted here are still nervous about how we might proceed. No one thinks that children or adolescents should use marijuana. There's little regulation right now, and there's potential for the drug to be mixed with other substances to increase its addictive properties. Advertising will probably make claims that will be out of line with reality.

We should be clear about what we're talking about here, though. Adults will make decisions on how to use it just as they do with similar products like alcohol and tobacco. Both are more dangerous than marijuana, and it's not even close.

Anecdotes can make compelling cases, but they don't necessarily lead to thoughtful outcomes.

Aaron E. Carroll is a professor of pediatrics at Indiana University School of Medicine who blogs on health research and policy at The Incidental Economist and makes videos at Healthcare Triage. He is the author of "The Bad Food Bible: How and Why to Eat Sinfully." @aaronecarroll

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