Not blowing smoke: Research finds medical marijuana lowers prescription drug use

July 6 2016

David Bradford is the Busbee Chair in Public Policy in the University of Georgia School of Public and International Affairs. Credit: Andrew Davis Tucker/University of Georgia

Medical marijuana is having a positive impact on the bottom line of

Medicare's prescription drug benefit program in states that have legalized its use for medicinal purposes, according to University of Georgia researchers in a study published today in the July issue of *Health Affairs*.

The savings, due to lower prescription drug use, were estimated to be $165.2 million in 2013, a year when 17 states and the District of Columbia had implemented medical marijuana laws. The results suggest that if all states had implemented medical marijuana the overall savings to Medicare would have been around $468 million.

Compared to Medicare Part D's 2013 budget of $103 billion, those savings would have been 0.5 percent. But it's enough of a difference to show that, in states where it's legal, some people are turning to the drug as an alternative to prescription medications for ailments that range from pain to sleep disorders.

Because medical marijuana is such a hot-button issue, explained study co-author W. David Bradford, who is the Busbee Chair in Public Policy in the UGA School of Public and International Affairs, their findings can give policymakers and others another tool to evaluate the pros and cons of medical marijuana legalization.

"We realized this question was an important one that nobody had yet attacked," he said.

"The results suggest people are really using marijuana as medicine and not just using it for recreational purposes," said the study's lead author Ashley Bradford, who completed her bachelor's degree in sociology in May and will start her master's degree in public administration at UGA this fall.

To obtain the results, they combed through data on all prescriptions

filled by Medicare Part D enrollees from 2010 to 2013, a total of over 87 million physician-drug-year observations.

They then narrowed down the results to only include conditions for which marijuana might serve as an alternative treatment, selecting nine categories in which the Food and Drug Administration had already approved at least one medication. These were anxiety, depression, glaucoma, nausea, pain, psychosis, seizures, sleep disorders and spasticity.

They chose glaucoma in particular because while marijuana does decrease eye pressure caused by the disease by about 25 percent, its effects only last an hour. With this disorder, they expected marijuana laws—as a result of demand stimulation—to send more people to the doctor looking for relief. And because taking marijuana once an hour is unrealistic, they expected to see the number of daily doses prescribed for glaucoma medication increase.

They were not disappointed. While fewer prescriptions were written for the rest of categories—dropping by 1,826 daily doses in the pain category and 265 in the depression category, for instance—the number of daily doses for glaucoma medication increased by 35.

"It turns out that glaucoma is one of the most Googled searches linked to marijuana, right after pain," David Bradford said. "Glaucoma is an extremely serious condition" that can lead quickly to blindness. "The patient then goes into the doctor, the doctor diagnoses the patient with glaucoma, and no doctor is going to let the patient walk out without being treated."

Marijuana is classified federally as a "Schedule 1" under the Controlled Substances Act. With its placement in this most restrictive of drug categories, it means that the federal government has determined it has

high abuse potential, no medical use and severe safety concerns. Several states don't agree with this assessment, and, in 1996, California became the first to legalize it for medical purposes, followed by Alaska, Oregon and Washington in 1998. As recently as June of this year, Pennsylvania and Ohio passed laws allowing its medical use.

Each of the 25 states plus the District of Columbia with a medical marijuana law has different guidelines for its use and possession limits. Also, physicians in these states may only recommend its use; it remains illegal for them to prescribe the medication.

Patients also can't walk up to their neighborhood pharmacy to pick up a marijuana prescription; they have to either go to a dispensary or grow it themselves—and the legality of having marijuana plants differs by state. This lack of patient oversight by a trained health care profession, in particular, worries David Bradford.

"Doctors can recommend marijuana and in some states can sign a form to help you get a card, but at that point you go out of the medical system and into the dispensaries," he said. "What does this mean? Do you then go less frequently to the doctor and maybe your non-symptomatic hypertension, elevated blood sugar and elevated cholesterol go unmanaged? If that's the case, that could be a negative consequence to this."

The researchers will explore these consequences further in their next study, Ashley Bradford said, which will look at medical marijuana's effects on Medicaid, a joint federal and state program that helps with medical costs and typically serves an older population.

They expect the cost savings seen in their current study to be repeated when they look at Medicaid, saying their findings suggests a more widespread state approval of medical marijuana could provide modest

budgetary relief. Their current study suggests total spending by Medicare Part D would have been $468.1 million less in 2013 if all states were to have adopted medical marijuana laws by that year, an amount just under 0.5 percent of the prescription drug benefit program's spending.

More information: "Medical Marijuana Laws Reduce Prescription Medication Use in Medicare Part D," content.healthaffairs.org/cont … t/35/7/1230.abstract , DOI: 10.1377/hlthaff.2015.1551

Provided by University of Georgia