

# Policy Brief: Recreational Cannabis Laws and Medicaid Rx Drug Utilization

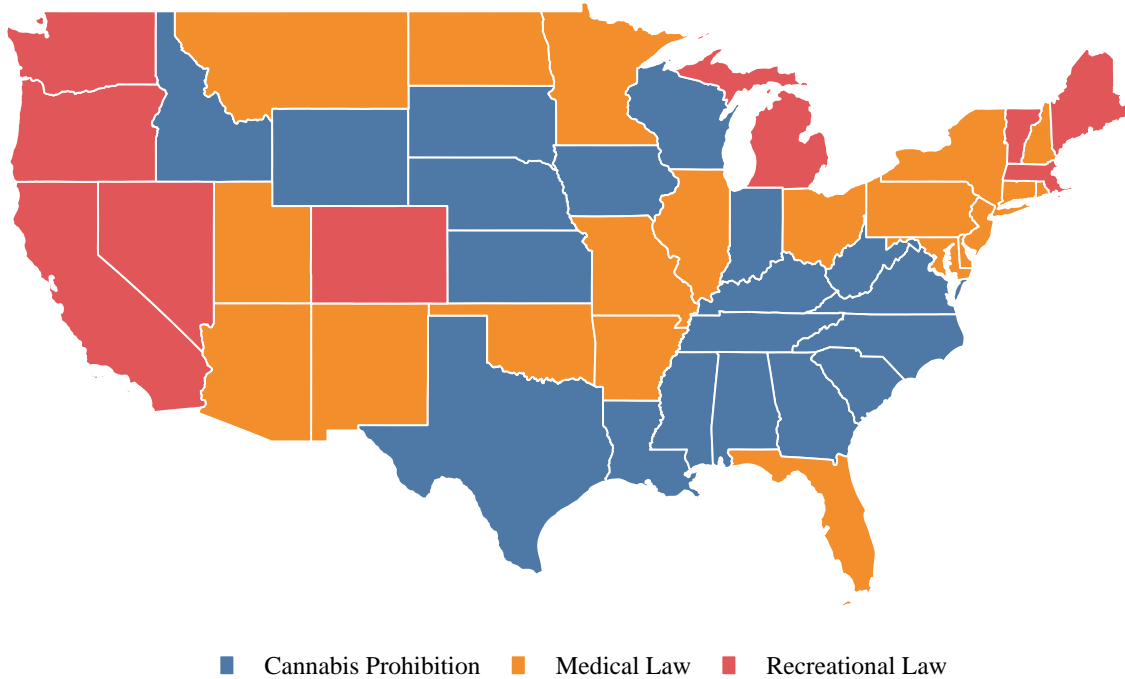
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## Cannabis Legalization Status in the United States – 2019



### Policy & Problem

Although cannabis (marijuana) is still federally illegal, individual states have adopted laws that contradict the national policy of strict cannabis prohibition for possession and use. Since 2012, 18 states and the District of Columbia have passed recreational cannabis laws (RCLs) which allow for the legal consumption of personal-use cannabis for all adults over the age of 21. While RCLs are not intended to facilitate the use of cannabis for medical purposes, it is possible that the broad access that such laws generate may lead to aggregate shifts in pharmaceutical drug utilization.

### What We Study

In this study, we evaluate the impact of RCLs on the utilization of prescription drugs among Medicaid enrollees from 2011-2019. We identify nine condition-specific drug classes (depression, anxiety, nausea, pain, seizures, psychosis, spasticity, and sleep) and estimate changes in these drug classes attributable to the implementation of an RCL.

We do this by comparing drug utilization in states with an RCL – “treated states” – to those without an RCL in place – “control states.” The estimates we discuss below represent the percent change in the utilization of drugs in treated states **compared to** control states in the years following RCLs.

## What We Find

Our findings show significant reductions in the Medicaid prescribing rate relative to implementation of an RCL in 6 of our 9 condition-specific drug classes (depression, anxiety, pain, seizures, psychosis, and sleep). We highlight the specific percent changes for these 6 drug classes in the table below:

Drug Class	% Change in Prescribing	95% CI	Difference in Rx Volume
Indicated for Depression	-11.1%	-18.2 to -4.1	-55,211
Indicated for Anxiety	-12.2%	-19.5 to -4.8	-54,505
Indicated for Pain	-8%	-15.4 to -0.6	-96,309
Indicated for Seizures	-9.5%	-16.6 to -2.5	-42,546
Indicated for Psychosis	-10.7%	-17.8 to -3.6	-60,058
Indicated for Sleep	-10.8%	-16.1 to -5.4	-38,401

The percent change in column (2) reflects the estimated change in prescribing per Medicaid enrollee from our main analysis, column (3) provides the 95% confidence interval for the estimate. The change in column (4) reflects the difference in the average number of annual prescriptions written for treated states with an RCL compared to control states.

## Why We Trust Our Results

The regression model we use to estimate our percent changes above adjusts for national changes in prescribing. For example, prescriptions for benzodiazepines and pain management drugs have been decreasing nationally in the last decade but our estimates factor in these broader trends to isolate the change attributable to the implementation of an RCL. We also use an “event study” design to see if we are capturing the effect of an RCL or just general differences in prescribing – for the 6 drug classes above, we do not find evidence that these reductions are because of pre-existing differences. Finally, our results do not appear to be driven by a single state in the sample – this would be a concern if, say, California was driving the reductions we report. This is not the case for our study.

## Why It Matters

This study adds to the growing body of literature surrounding the effects of RCLs on pharmaceutical utilization. Our findings reflect a reduction in Medicaid prescription drug utilization associated with RCL implementation, which provide additional information about potential cost savings for state Medicaid programs. Our results align with the existing literature as well, which finds similar reductions in opioid prescribing following recreational and medical cannabis laws. The results also indicate a potential harm reduction opportunity. Although cannabis use is not without harm, pharmaceutical drugs often come with dangerous side effects or – as with opioids – potential for misuse.

Read our full study here: [Raman & Bradford \(Health Economics, 2022\)](#)