

Medical Cannabis Legalization Leads to Fewer Opioid Prescriptions

Medical Cannabis Legalization Leads to Significant Reductions in Opioid Prescriptions, Major Study Finds

A Landmark Analysis of Over a Decade of Data Shows That Legal Access to Cannabis May Help Curb the Nation's Opioid Crisis

A new study from researchers at the University of Georgia and the University of Colorado provides compelling evidence that legalizing medical marijuana is associated with significant reductions in opioid prescribing across the United States. Published in the *American Journal of Health Economics*, the analysis examined prescription claims from 15 to 20 million insured Americans annually between 2007 and 2020, offering one of the most comprehensive assessments of the relationship between cannabis laws and opioid use to date.

A 16 Percent Average Drop in Opioid Prescriptions Following Medical Cannabis Legalization

The study found that, on average, states that implemented medical cannabis laws (MCLs) experienced a 16 percent decline in the number of patients receiving opioid prescriptions compared to pre-legalization levels. In some states, such as Minnesota and New York, the reductions exceeded 20 percent, while other states, including Illinois, saw smaller but still meaningful declines.

These results suggest that medical marijuana access may serve as a viable public health intervention capable of mitigating the ongoing opioid crisis, which has claimed hundreds of thousands of American lives over the past two decades.

The authors wrote, "We find that medical cannabis laws are associated with significant reductions in opioid prescribing. Among treated states, the rate of patients receiving opioid prescriptions fell by 16 percent on average, masking substantial heterogeneity across states."

Cannabis Legalization Leads to Broader Changes in Pain Management Practices

Beyond the reduction in opioid prescriptions, the researchers observed increases in the use of nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen and naproxen, suggesting that patients and healthcare providers may be substituting cannabis and safer medications in place of opioids for pain relief.

The study also found declines in both daily opioid supply and prescriptions per patient, meaning patients not only received fewer opioid prescriptions overall but also were prescribed lower quantities when they did receive them.

The decreases were relatively consistent across age, sex, and race, though certain groups—particularly cancer patients and non-cancer Black patients experienced greater than 20 percent reductions in opioid prescribing rates.

“These findings support the potential of MCLs as a policy tool for reducing opioid use and promoting safer pain management,” the authors concluded.

Patient-Level Data Reveals More Nuanced Effects Across States and Demographics

What makes this study particularly significant is its use of patient-level data, allowing for a more precise understanding of how legalization impacts individual prescription behaviors rather than broad population averages.

According to the authors, this approach enabled them to capture variation across states and patient demographics, uncovering meaningful patterns in how medical marijuana access reshapes pain management.

They noted, “Our results are in line with, albeit slightly larger than, prior estimates. Decreases in the rate of patients with opioid prescriptions of 15.8 percent following MCL adoption are consistent with earlier findings, but our use of patient-level data allows us to document variation across implementing states and subgroups.”

Reinforcing a Growing Body of Evidence Linking Cannabis to Declining Opioid Use

The findings add to a growing body of scientific evidence showing that expanding access to medical or adult-use cannabis correlates with lower opioid prescription rates, fewer overdoses, and reduced dependence on painkillers.

For instance, an Australian study published in August reported similar outcomes, concluding that cannabis can serve as an effective substitute for opioids in chronic pain management. Likewise, research published in the *Drug and Alcohol Review* earlier this year found that daily cannabis users with chronic pain were more likely to quit opioids altogether, particularly among men.

A separate analysis published late last year revealed that medical marijuana legalization significantly reduced financial payments from opioid manufacturers to pain specialists, suggesting that doctors may be prescribing fewer opioids as cannabis becomes more accessible.

Moreover, other recent studies have shown that states with legal marijuana have experienced declines in fatal opioid overdoses, with one report finding that recreational cannabis legalization was associated with a 3.5-per-100,000-person decrease in overdose deaths—a statistically significant improvement during the peak of the opioid crisis.

Evidence of Substitution and Safer Pain Management Alternatives

The researchers behind the latest study argue that their findings demonstrate how medical cannabis can be safely integrated into pain management strategies to reduce reliance on highly addictive opioid medications.

The increase in NSAID prescriptions observed following medical cannabis legalization supports the notion that patients are turning toward less dangerous and non-addictive alternatives.

“In addition, our results contribute to the larger discussion about the role of MCLs in pain management and how medical cannabis may be a viable alternative to riskier or more dangerous medications such as prescription opioid analgesics,” the study said.

Robust and Consistent Results Across Multiple Sensitivity Checks

Importantly, the authors emphasized that their results remained robust across multiple testing methods and model specifications. They confirmed that the reductions in opioid prescribing held up under various “placebo” and cross-validation analyses, as well as when using alternative definitions of policy timing to ensure accuracy.

“Opioid reductions were widespread across demographic subgroups but especially pronounced among cancer patients and non-cancer Black patients, where reductions in the opioid prescription rate were larger than 20 percent,” the researchers noted.

The study also pointed out that these declines were statistically significant in nearly all states that adopted medical cannabis laws during the study period.

Broader Implications for Policymakers and Public Health Officials

As policymakers continue to grapple with the dual crises of opioid addiction and chronic pain management, this research offers valuable insights into how medical marijuana can serve as a practical harm reduction tool.

The evidence suggests that when patients are given legal access to cannabis, they are less likely to seek or be prescribed opioids. This trend could help reduce addiction rates, overdose deaths, and healthcare costs associated with opioid misuse.

The study’s authors encourage lawmakers to view medical cannabis laws as complementary to existing pain management strategies, not as replacements for traditional medicine but as part of a diversified and safer treatment framework.

Supporting Evidence From Other Studies Around the World

The new findings align with numerous recent studies showing similar patterns across different populations and regions.

In Utah, for example, researchers discovered that medical marijuana availability reduced both opioid prescriptions and overdose deaths, while in Oregon, proximity to retail cannabis stores corresponded with lower rates of prescribed opioids.

A report in *BMJ Open* found that medical marijuana may provide similar levels of pain relief as opioids, but with fewer side effects and discontinuations. Another study reported that 57 percent of patients with chronic musculoskeletal pain found cannabis more effective than traditional analgesics, with 40 percent reducing their use of other painkillers after starting cannabis treatment.

Together, these studies reinforce the conclusion that cannabis legalization—particularly for medical use—can play a meaningful role in reducing opioid dependency and promoting safer, evidence-based approaches to pain care.

Conclusion: Cannabis Reform as a Public Health Opportunity

The University of Georgia and University of Colorado study marks one of the most extensive analyses yet of how medical marijuana laws affect opioid prescribing behavior. The results are clear: where medical cannabis is legal, opioid use declines—often substantially.

As states continue to expand access to legal cannabis, these findings provide strong support for integrating medical marijuana into mainstream healthcare as a safer, non-addictive alternative for managing pain.

If embraced as part of a comprehensive strategy, cannabis legalization could represent a turning point in the fight against the opioid epidemic, offering both patients and physicians a path toward more responsible, effective, and compassionate care.

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