

# Marijuana and Opioids

March 2018

Given medical marijuana's pain-relieving benefits, it presents a promising solution to reducing opioid misuse, dependence and overdose in the United States.



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**Recent research shows access to legal marijuana is associated with fewer overdose deaths – data show a 25 percent drop in deadly overdoses<sup>1</sup> -- pointing to marijuana as a potential tool for people struggling to end opioid use. Studies have also shown that patients see marijuana as a viable alternative to prescription opioid pain medication, with fewer side effects and lower potential for problematic use.<sup>2</sup>**

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## National Overdose Emergency

Rates of opioid overdose are reaching epidemic-level proportions. Nationally, there were 500,000 opioid-related deaths between 2000 and 2015.<sup>3</sup>

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**Overdose rates have now surpassed motor vehicle accidents as the leading cause of accidental death in the country.<sup>4</sup>**

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In 2016 alone, opioid and heroin overdoses killed 64,000 people in the United States<sup>5</sup>--more than traffic accidents and homicides combined.<sup>6</sup> And in 2016, the overdose death toll in the U.S. surpassed American deaths during the entire Vietnam War<sup>7</sup> and lives lost at the peak of the AIDS crisis.<sup>8</sup>



Source: [www.yestoscs.org](http://www.yestoscs.org)

The increase in drug overdose deaths between 2015 and 2016 is the largest annual jump ever recorded in the United States.<sup>9</sup> Furthermore, preliminary data indicates that overdose rates accelerated in 2017.<sup>10</sup>

This trend holds true in New York State, where despite increased spending on treatment, deaths from drug overdoses increased 71 percent between 2010 and 2015.<sup>11</sup> In 2016, there were an estimated 2,185 overdose deaths statewide;<sup>12</sup> New York City saw more than 1,300 overdose deaths in 2016 alone--a 46 percent increase from 2015. Emergency departments across the state saw 37,347 opioid-related outpatient visits (a 73.1 percent increase from 2010) and 75,110 opioid-related inpatient hospital admissions in 2014.<sup>13</sup>

With the striking increase in opioid overdoses nationwide and in New York, the conversation has shifted to alternative treatments not only for the condition for which pain medication is needed, but to help those dependent on opioids reduce or eliminate their use. Many people do not want to take opioids and many doctors would prefer not to prescribe opioids, given the side effects and risks associated with their use.<sup>14, 15</sup> Research has suggested that some patients have turned to marijuana as a safer alternative to their previous medications, especially opioids.<sup>16</sup>

Marijuana's pain-relieving benefits mean legal access to marijuana presents a promising solution to reducing the risks for misuse, dependence, overdose associated with opioid use.

## Medical Marijuana for Reducing Opioid Use and Misuse

Since California became the first state to legalize medical marijuana in 1996, the landscape of marijuana law in the United States has evolved dramatically. Within the past five years alone, the number of states that have adopted medical marijuana laws has ballooned from sixteen—plus the District of Columbia—to twenty-nine. Now, 200 million Americans live in states that allow access to medical marijuana for qualifying patients.<sup>17</sup>

A recent article published in the *Harm Reduction Journal* suggests there are at least three major ways marijuana can play a role in reducing opioid use and misuse:

1. as a treatment for chronic pain before turning to opioids;
2. as part of an opioid reduction strategy for patients already using opioids;
3. in conjunction with methadone treatment to increase success rates.<sup>18</sup>

Medical marijuana alone will not be the answer to the country's problem with opioid misuse and overdose deaths. However, available evidence indicates that marijuana could be used along with other harm reduction strategies – such as expanding naloxone access, establishing safer consumption sites, and decriminalizing all substance use – as part of a necessarily diverse and innovative approach to this combatting this crisis.<sup>19</sup>

### Marijuana Is a Promising Treatment for Pain

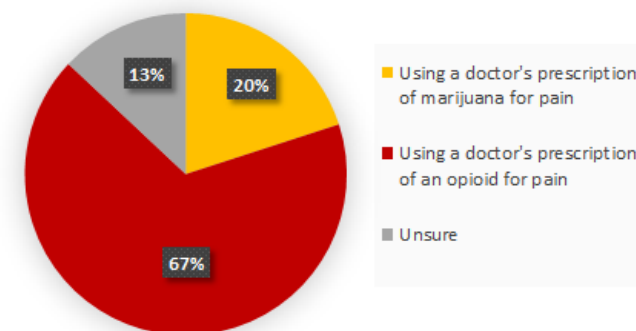
Marijuana's medical safety and efficacy is well supported – particularly for the treatment of various types of severe and chronic pain and thus affords new options for pain management.<sup>20, 21, 22</sup>

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### Two-thirds of Americans polled in 2017 view marijuana as being safer than opioids.<sup>23</sup>

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#### Which one do you think is more of a health risk?



Source: Associated Press poll. April 17, 2017

In February 2010, the University of California Center for Medicinal Cannabis Research released a report of its findings after a decade of randomized, double-blind, placebo-controlled clinical trials on the medical utility of inhaled marijuana. The studies concluded that marijuana should be a “first line treatment” for patients with painful neuropathy and other serious and debilitating symptoms, who often do not respond to other available medications.<sup>24</sup>

Another trial assessed the use of marijuana as a treatment for patients with multiple sclerosis (MS). It determined that “smoked marijuana was superior to placebo in reducing spasticity and pain in patients with MS, and provided some benefit beyond currently prescribed treatments.”<sup>25</sup>

This evidence is supported by previous research. A literature review of 38 studies evaluating medical marijuana's efficacy for treating pain found that “71 percent concluded that cannabinoids had empirically demonstrable and statistically significant pain relieving effects.”<sup>26</sup> The review found that marijuana may be helpful for difficult to treat pain conditions such as HIV neuropathy. And, that for some conditions, marijuana was the only treatment that provided relief.

More recently, a 2015 meta-analysis of 79 studies found a 30 percent or greater reduction of pain with the use of cannabinoids compared to placebos.<sup>27</sup>

A third authoritative review article summarizing the state of the research found that smoked marijuana reduces symptoms of chronic/neuropathic pain, spasticity associated with MS, and other conditions – and does so with an acceptable safety profile.<sup>28</sup>

In its comprehensive 2017 study of recent research on the health effects of marijuana for legal and adult use, the National Academies of Sciences, Engineering and Medicine affirmed that there is conclusive or substantial evidence that cannabis or cannabinoids are effective for the treatment for chronic pain in adults.<sup>29</sup>

Despite the growing evidence, many doctors are still wary of recommending marijuana as an alternative to opiate-based therapies. Researchers suggest that this hesitation is related to the Schedule I status of marijuana, saying, “The classification of marijuana as a Schedule I drug as well as the continuing controversy as to whether or not marijuana is of medical value are obstacles to medical progress in this area.”<sup>30</sup> Doctors should be allowed to weigh the benefits against risks of medical marijuana therapy – just as they do with any other medicine.

### Marijuana Can Enhance Opioid Pain Treatment

Not only is medical marijuana effective for treating chronic and intractable pain, but inhaled marijuana has also been found to complement prescription opioid pain medicines well, enhancing the efficacy of – and importantly, safely interacting with – these more powerful medications and easing withdrawal symptoms.<sup>31</sup>

Cannabinoids and opioids share many similar therapeutic properties including their analgesic effects.<sup>32</sup> When used in combination with opioid pain medications, marijuana can lower opioid side-effects, cravings, and withdrawal severity as well as enhance the analgesic effects of opioids, allowing for lower doses and less risk of overdose.<sup>33,34</sup>

An important recent study reported that their subjects' pain "was significantly decreased after the addition of vaporized marijuana," and suggested that marijuana treatment "may allow for opioid treatment at lower doses with fewer [patient] side effects." The authors concluded that their results "demonstrate that inhaled marijuana safely augments the analgesic effects of opioids."<sup>35</sup>

### **Marijuana As a Substitute Treatment for Opioids and an Overdose Prevention Tool**

Research published in 2015 found 80 percent of medical marijuana users reported substituting marijuana for prescription medications, particularly among patients with pain-related conditions.<sup>36</sup>

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**In 2016, a University of Michigan study reported that opioid use decreased 64 percent among chronic pain patients who used medical marijuana.<sup>37</sup>**

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Access to a legal marijuana market has also been associated with dramatically lower overdose rates compared to prohibitionist states. A working paper from the RAND BING Center for Health Economics notes that "states permitting medical marijuana dispensaries experienced a 15 to 35 percent decrease in substance abuse admissions and opiate overdose deaths."<sup>38</sup>

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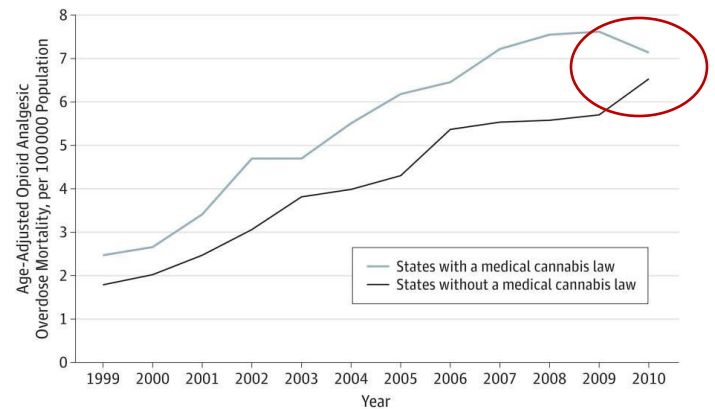
**A study published in the Journal of the American Medical Association found that states with medical marijuana laws are associated with a significant reduction in mortality from opioid abuse; these states saw a 25 percent reduction in opioid overdose deaths, compared to states without such laws, resulting in 1,700 fewer deaths in 2010 alone.<sup>39</sup>**

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Further, a recent study by RAND researchers who conducted a detailed analysis of overdose death data in states with medical marijuana found that it is not just the existence of medical marijuana laws alone that impact overdose deaths, but rather the existence of *liberal laws with easier access* that have most impact.<sup>40</sup>

These findings were further bolstered by a Johns Hopkins study that found 25 percent fewer opioid overdose deaths in medical marijuana states than in non-medical marijuana states.<sup>41</sup>

### **States with medical cannabis laws compared with states without such laws in the United States, 1999–2010**



Source: JAMA Intern Med. 2014 Nov;174(11):1875.

Legal marijuana access also has the potential to decrease rates of opioid misuse, helping to prevent situations that can lead to overdose. A recent report by Castlight Health, an employee health benefits platform provider, found almost double the rate of opioid misuse in states that did not permit access to medical marijuana. Specifically, in states without medical marijuana, 5.4 percent of individuals with an opioid prescription qualified as misusing the drug, whereas only half or 2.8 percent of individuals with an opioid prescription living in medical marijuana states qualified as misusing opioids.<sup>42</sup>

Given these findings, elected officials, including Senator Elizabeth Warren<sup>43</sup> and Congressman Earl Blumenauer,<sup>44</sup> have expressed their support for the use of medical marijuana to treat chronic pain as a way to help address the opioid crisis.

### **Marijuana Can Help People Reduce or Quit Opioids**

Significant evidence points to marijuana as an important tool that could help people who struggle with opioid use disorder to stop using problematically – making it more of an exit drug for at-risk populations.

For example, 67 percent of the patients surveyed in a recently conducted study reported that gaining access to medical marijuana helped enable them to stop using their opioid medications altogether. An additional 29 percent described finally being able to reduce their use of opioids, and merely 1 out of 25 patients – 4 percent – said their opioid use was unaffected.<sup>45</sup> Earlier this year, the International Journal of Drug Policy published the results of a separate survey in which 30 percent of respondents reported that they used marijuana as a substitute for opiates.<sup>46, 47</sup>

Previously, the findings of a 2011 study conducted by researchers at the University of California, San Francisco suggested that doctors may facilitate more relief for their patients battling chronic pain by adding cannabinoids to an opiates-only treatment. Further, the researchers concluded that the increased effectiveness of this approach to therapy may allow opioid dosages to be decreased.<sup>48</sup>

Additional research shows the potential for marijuana to help reduce opioid withdrawal symptoms and therefore ease patients away from opioid use.<sup>49</sup>

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**Dr. Mark Wallace, Chairman of the Division of Pain Medicine in the University of California, San Diego's Department of Anesthesia, testified that he has used marijuana to help several hundred patients transition off of opiates in the past five years alone.<sup>50</sup>**

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Some rehab programs that take a harm reduction approach allow patients to use marijuana – the “cannabis-inclusive” approach – which shows promise for people who are not well served by abstinence-based treatment. This model could serve as a useful way to help people transition away from problematic opioid use even if they aren't at a place to engage in complete sobriety.

Additionally, studies report that among individuals who have a history of heroin misuse, those who use marijuana are more likely to be committed to abstinence in the future,<sup>51</sup> and those who consume it occasionally are more likely to complete a treatment program than those who don't.<sup>52</sup>

### **Policy Recommendations**

There are several policy changes at the state and federal level that can support the use of marijuana in conjunction with opioid therapy.

#### *Change Schedule I Status of Marijuana*

At the federal level, the Schedule I status of marijuana should be lifted so that more rigorous research can be done and doctors can more freely learn about and recommend marijuana for their patients dealing with pain. The limited research available hinders the ability of doctors to determine the best ways to use marijuana – optimal dosages, frequency, etc. – to best serve each of their patient's unique, individual needs.<sup>53</sup>

In a promising development, the National Institutes of Health recently awarded a five-year, \$3.8 million grant to researchers for the first long-term investigation to see if

medical marijuana reduces opioid use among adults with chronic pain.<sup>54</sup> Given the scope of the overdose crisis, additional research on how marijuana can help people struggling with substance use disorder is urgently needed.

#### *Include Opioid Dependence as Qualifying Condition for Medical Marijuana*

While state medical marijuana programs differ from one another in significant ways, most, including New York allow medical marijuana for the treatment of severe, intractable pain. The New York State Department of Health, which oversees the medical marijuana program, should heed research and ensure that opioid dependence is a qualifying condition for becoming a medical marijuana patient. This would allow doctors to recommend marijuana for patients who are currently struggling with opioids or as an alternative for patients who are at risk of becoming dependent on opioid pain medication. Patients seeking to detox from opioid use should also be qualified for the medical marijuana program, per research findings.

#### *Include Medical Marijuana as a Fundable Treatment by Insurance Companies*

Given the evidence of marijuana's effectiveness in pain management and reducing opioid use, marijuana should be viewed as a viable treatment alternative for pain by insurance companies and should be utilized in substance dependence treatment to assist those experiencing withdrawals from opioids or other substances.

Currently, the high price point of medical marijuana in New York combined with the lack of coverage by federally funded insurers (who serve our most vulnerable populations) has resulted in a two-tiered system in which a potentially life-saving alternative for pain treatment exists as a luxury only available to individuals who can afford to pay out of pocket.<sup>55</sup>

#### *Increase Affordability and Access*

New York Department of Health should expand the medical marijuana program to include smokeable forms, per research on the effectiveness for MS and other conditions. The medical marijuana program should also focus on increasing the number of approved sources of marijuana and the number of dispensaries accessible to rural and suburban parts of the state, many of which lack viable access for residents to obtain their medicine.<sup>56</sup>

#### *Legalize Marijuana for Adult Use*

Given the protective factors associated with legal marijuana access, and research showing sizeable

populations of people who would use marijuana to treat chronic conditions but do not participate in existing medical marijuana programs, New York should create a system to tax and regulate marijuana for adult use. This approach would allow the state to save funds on enforcement and also create revenue from legal sales, contributing resources that could be used for treatment, drug education, and public health research.

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<sup>11</sup> "Drug Overdose and Chronic Drug Abuse Deaths on the Rise in New York State: The rise of heroin, prescription drugs,

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<sup>19</sup> *Ibid*.  
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