



Laws limiting the prescribing or dispensing of opioids for acute pain in the United States: A national systematic legal review

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ABSTRACT

Background: Opioid overdose is a continuing public health crisis. In response to an increasing recognition of the negative outcomes sometimes associated with the use of opioid analgesics, states have taken a number of steps attempting to reduce inappropriate prescribing of these medications. These include the imposition of strict legal limitations on the amount or duration that opioid analgesics may be prescribed or dispensed to patients with acute pain.

Methods: We conducted a systematic, multi-source legal review of state laws that impose mandatory limits on the ability of medical professionals to prescribe or dispense opioids for the treatment of acute pain. We also systematically searched for and examined publicly available documents on state legislative and regulatory bodies' websites. All relevant laws were downloaded and systematically coded.

Results: By the end of 2017, twenty-six states had passed laws that impose mandatory limits on the prescribing or dispensing of opioids for acute pain. The oldest of these laws became effective as early as 1989, but most are much newer: approximately 65% (17/26) were passed in 2017. There is wide variation in the characteristics of these laws.

Conclusion: Just over half of all states have enacted laws that restrict the prescribing or dispensing of opioids for acute pain. To date, there is no data on whether and to what extent these laws mediate opioid-related morbidity and mortality, as well as whether they are associated with negative unintended outcomes. Research into these questions is urgently needed.

1. Introduction

Overdose is a continuing public health crisis. According to the Centers for Disease Control and Prevention, nearly 64,000 Americans died from drug overdose in 2016 – nearly 175 every day (Hedegaard et al., 2017). Drug overdose deaths – the majority of which are caused by opioids, either alone or in combination with other substances – now kill more Americans than did HIV/AIDS at the peak of that epidemic (Dowell et al., 2017).

At the same time, untreated and inadequately treated pain is a serious medical, ethical, and economic concern (Institute of Medicine, 2011). Pain is prevalent in the United States and is correlated with numerous other health conditions including depression and anxiety (Bair et al., 2010; Kennedy et al., 2014; Mansfield et al., 2016; Reddi and Curran, 2014). In addition to its physical and emotional effects, pain is responsible for hundreds of billions of dollars annually in lost productivity and other costs (Gaskin and Richard, 2012; Hopp et al.,

2014; Smith et al., 2013).

Reducing the human suffering and economic burden associated with untreated or poorly managed pain is both a moral imperative and an ongoing challenge (Anderson and Davis, 2010; Institute of Medicine, 2011). In the United States, prescribers have increasingly relied on opioid analgesics (“OA”) to attempt to reduce their patients’ pain. (Solanki et al., 2011). Unfortunately, while the causes of the unprecedented increase in overdose morbidity and mortality over the past two decades are varied and complex, it is clear that the approximately 300% increase in opioid prescribing from 1999 to 2015 has been a key driver (Dasgupta et al., 2018; Guy et al., 2017; Webster et al., 2011).

In response to an increasing recognition of the negative outcomes sometimes associated with OAs, states have taken a number of steps to attempt to reduce inappropriate prescribing of OA medications (Parker et al., 2018). These efforts have included mandates that prescribers access state prescription drug monitoring programs or obtain education regarding evidence-based opioid prescribing, as well as law

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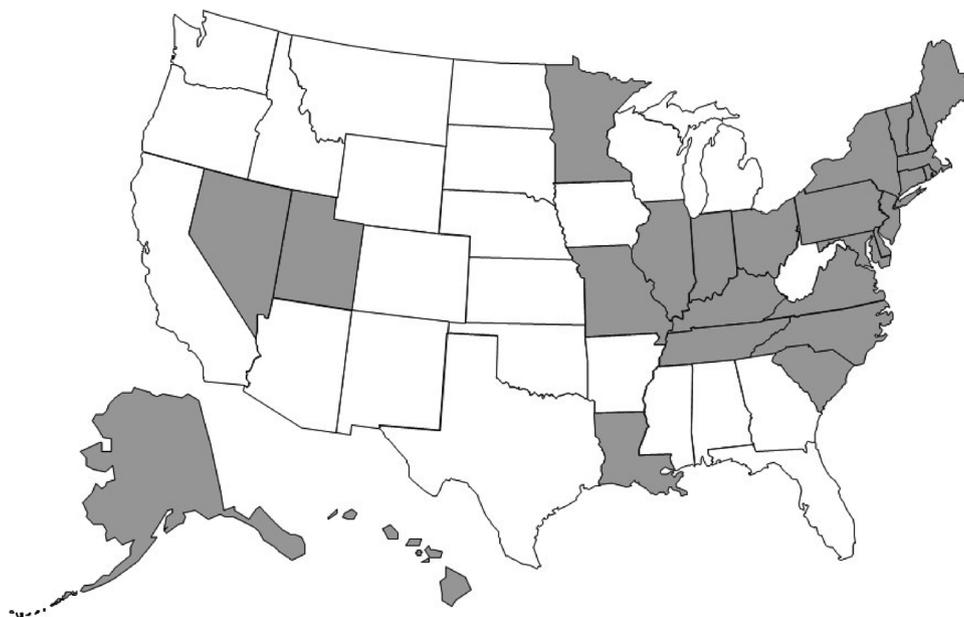


Fig. 1. States with Laws Limiting Opioid Prescriptions for Acute Pain, 2017.

enforcement efforts targeting the small number of prescribers who operated ‘pill mills’ that prescribed opioids and other controlled substances without medical justification (Barth et al., 2017; Davis and Carr, 2016, 2017; Pardo, 2016).

More recently, a number of states have undertaken an even more dramatic and direct means of regulating opioid prescribing: imposing strict legal limitations on the amount or duration of opioids that may be prescribed or dispensed to patients with acute pain. These limitations, most of which have been enacted since January 2017, vary dramatically between states. Perhaps in part because most of these limitations are new or because there is no systematic compendium of these rapidly spreading legal and regulatory restrictions, there have been no analyses of their effects on prescribing behavior, patient pain burden, or opioid-related harm. To help inform such efforts and to provide an overview of the state of the law in this area, we present here the first published systematic legal review of this emerging response to the opioid overdose epidemic.

2. Methods

First, two trained legal researchers (AJL and CSD) systematically searched the Westlaw legal database for all statutes and regulations (hereafter referred to as “laws”) in each of the 50 United States and the District of Columbia that impose mandatory limits on the amount or duration for which medical professionals may prescribe or dispense opioid analgesics (Wagenaar and Burris, 2013). Specifically, each researcher independently searched each state’s statutes and regulations for all laws enacted by December 31, 2017, for terms including “opi! and prescri!”, “controlled and prescri!”, “limit and prescri!”, “day and opi!”, “opi! and pain”, and “pain and prescri!.” We also conducted Internet searches for “[state] prescription limit,” “[state] prescribing limit,” and “[state] opioid limit” for each of the 50 states and the District of Columbia, and reviewed state legislative and regulatory bodies’ websites for any resulting relevant documents.

All identified laws were downloaded for review. Each researcher then made an initial determination as to whether each law identified through this search met the study inclusion criteria. Inclusion criteria were set *a priori* to include only those laws that explicitly noted that they applied to prescriptions for acute pain, or that would differentially impact acute pain by limiting opioid prescriptions to 31 days or less. Laws that explicitly apply only to chronic pain were excluded, as were

laws that apply only to medications or classes of drugs that exclude opioids. Laws limiting OA prescribing or dispensing of general application were included even if they also address chronic pain or other uses of opioids so long as they otherwise met the inclusion criteria.

Many states have laws that govern the prescribing or dispensing of controlled substances in specific, limited situations. To limit the scope of this research and improve comparability, we excluded state laws that apply only to very limited types of prescriptions, such as those issued via telephone and those dispensed directly by the prescribing practitioner. Where researchers disagreed on whether a law met the inclusion criteria, we erred on the side of inclusion. For example, one state law (MN) was included despite applying only to pain related to dental or refractive surgery, and laws in NH and PA were included even though they apply only to prescriptions issued in specific venues such as emergency departments and urgent care clinics. Finally, laws that limit insurance coverage but do not otherwise constrain prescribing or dispensing were excluded. Disagreements regarding inclusion were minor and were resolved by consensus of the research team.

AJL then reviewed each included law and recorded its characteristics. Initial characteristics were set *a priori* based on the researchers’ prior knowledge of relevant laws and included the classes of medications covered, the specifics of the limitations imposed, the providers to whom the requirements apply, and any exclusions from the limitations. Two additional characteristics (whether the law provides additional restrictions on OA prescriptions issued to minors and whether the restrictions are limited to the initial prescription) were added after review and consultation with CSD. Where the law was unclear on one or more of these characteristics, AJL and CSD made a determination by consensus.

3. Results

By the end of 2017, twenty-six states had passed laws that impose mandatory limits on initial prescriptions for acute pain. The oldest of these laws became effective as early as 1989, but most are much newer: approximately 65% (17/26) were passed in 2017. North Carolina’s law went into effect on January 1, 2018, but met our inclusion criteria because it was passed in 2017. These laws do not appear to be randomly distributed: every state in the Northeastern United States has such a law, as do most states in the Mid-Atlantic region. Very few states in the West and Midwest had passed a relevant law by the end of 2017

Table 1
Characteristics of State Laws Limiting Opioid Prescriptions for Acute Pain.

State	Effective Date	Duration Limit	Amount Limit	Medications Covered	Additional Restrictions for Minors	Professional Judgment Exception	Surgical Pain Exception	Applies to Initial Rx Only
AL	-	-	-	-	-	-	-	-
AK	July 26, 2017	7-day supply (4 days for optometrists)	None	Opioids	Yes	Yes	No	Adults Yes; Minors no
AZ	-	-	-	-	-	-	-	-
AR	-	-	-	-	-	-	-	-
CA	-	-	-	-	-	-	-	-
CO	-	-	-	-	-	-	-	-
CT	July 1, 2016	7-day supply (5 days for minors ^a)	None	Opioid Drug	Yes	Yes	No	Adults Yes; Minors no
DC	-	-	-	-	-	-	-	-
DE	April 1, 2017	7-day supply	None	Opioid Analgesic	Yes	Yes	No	Adults Yes; Minors No
FL	-	-	-	-	-	-	-	-
GA	-	-	-	-	-	-	-	-
HI ^b	July 1, 2016	30-day supply	None	Schedule II narcotic controlled substance	No	No	No	No
IA	-	-	-	-	-	-	-	-
ID	-	-	-	-	-	-	-	-
IL	January 1, 2012	30-day supply	None	Schedule II controlled substance	No	No	No	No
IN	July 1, 2017	7-day supply	None	Opioid	Yes	Yes	No	Adults Yes; Minors no
KS	-	-	-	-	-	-	-	-
KY	June 29, 2017	3-day supply	None	Schedule II controlled substance	-	-	-	-
LA	August 1, 2017	7-day supply	None	Opioid	Yes	Yes	No	Adults Yes; Minors No
MA	March 14, 2016	7-day supply	None	Opiate	Yes	Yes	No	Adults Yes; Minors No
MD	May 25, 2017	None	Lowest effective dose	Opioid	No	No	No	No
ME	January 1, 2017	7-day supply	100 MME per day	Opioid Medication	No	No	No	No
MI	-	-	-	-	-	-	-	-
MN	July 1, 2017	4-day supply (dental or refractive surgery pain only)	None	Opiate or Narcotic Pain Relievers, Schedule II-IV	No	Yes	No	No
MO	Pre-1989	30-day supply	None	Schedule II controlled substances	No	No	No	No
MS	-	-	-	-	-	-	-	-
MT	-	-	-	-	-	-	-	-
NC	January 1, 2018	5-day supply	None	Targeted Controlled Substance	No	No	Yes (7 day supply)	Yes
ND	-	-	-	-	-	-	-	-
NE	-	-	-	-	-	-	-	-
NH	January 1, 2017	Limited duration (all opioids); 7-day supply (ED, urgent care, walk-in clinic only)	Lowest effective dose	Opioids	No	Yes	No	No
NJ	May 16, 2017	5-day supply	Lowest effective dose	Opioid Drug	No	No	No	Yes
NM	-	-	-	-	-	-	-	-
NV	June 16, 2017	14-day supply	90 MME per day	Schedules II-IV	-	-	-	-
NY	July 22, 2016	7-day supply	None	Schedule II-IV opioids	No	No	No	Yes
OH	August 31, 2017	7-day supply (5 days for minors)	30 MME per day	Opioid Analgesics	Yes	Yes	Yes	Yes
OK	-	-	-	-	-	-	-	-
OR	-	-	-	-	-	-	-	-
PA	January 3, 2017	7-day supply (Adults: ED, urgent care, and hospital observation patients only; all minors) 20 doses maximum	None	Opioid Drug Product	Yes	Yes	No	No
RI	March 22, 2017	20 doses maximum	30 MME per day	Opioids	No	No	No	Yes

(continued on next page)

Table 1 (continued)

State	Effective Date	Duration Limit	Amount Limit	Medications Covered	Additional Restrictions for Minors	Professional Judgment Exception	Surgical Pain Exception	Applies to Initial Rx Only
SC	June 13, 2007	31-day supply	None	Schedule II except transdermal	-	-	-	No
SD	-	-	-	-	-	-	-	-
TN	October 1, 2013	30-day supply ^c	None	Opioids or benzodiazepines	No	No	No	No
TX	-	-	-	-	-	-	-	-
UT	March 22, 2017	7-day supply ^c	None	Schedule II & III opiate	Yes	Yes	Yes	No
VA	March 15, 2017	7-day supply	None	Schedule II-IV containing an Opioid	No	Yes	Yes	No
VT	July 1, 2017	Varies by Pain Level	Varies by Pain Level	Schedule II, III, IV	Yes	Yes	Yes	Yes
WA	-	-	-	-	-	-	-	-
WI	-	-	-	-	-	-	-	-
WV	-	-	-	-	-	-	-	-
WY	-	-	-	-	-	-	-	-

^a The 5-day restriction for minors was added July 1, 2017.

^b As of July 1, 2017, Hawaii limits concurrent opioid/ benzodiazepine prescription to 7 days, with certain exceptions.

^c The restrictions in TN and UT law fall on dispensers but not prescribers.

(Fig. 1).

There is wide variation among the states in the characteristics of these laws. In some states, the restrictions vary between initial prescriptions and subsequent prescriptions and between those issued to adults and minors. Unless otherwise noted, the limitations reported in this section are for initial opioid prescriptions issued to adults. Further details are presented in Table 1.

3.1. Limitations on duration of opioid prescriptions

Four states impose a limit of less than seven days for prescriptions issued to adults, although one of these applies only to prescriptions issued for certain types of pain. Kentucky imposes the strictest limit at three days, while New Jersey and North Carolina impose a five-day limit. Minnesota imposes a four-day limit on Schedule II-IV controlled substances only in the context of acute dental pain and pain related to refractive surgery; there are no restrictions on opioid prescriptions for other types of pain.

Thirteen states limit prescriptions to a seven-day supply, although in Pennsylvania and New Hampshire this limit only applies to prescriptions written in specific venues (emergency departments, urgent care clinics, and walk-in clinics for New Hampshire; emergency departments, urgent care clinics, and hospital observation for Pennsylvania). Pennsylvania has no limit for other prescriptions issued to adults, and New Hampshire’s law only instructs that other prescriptions should be for a “limited duration.” In Alaska, while opioid prescriptions issued by other medical professionals are limited to a seven-day supply, optometrists are limited to prescribing a four-day supply. Vermont’s law imposes limitations that vary depending on pain level, with a five-day supply for moderate or severe pain and a seven-day limit for extreme pain.

Six states have limits above a seven-day supply. Nevada imposes a limit of fourteen days, while Hawaii, Illinois, Missouri, and Tennessee impose thirty-day limits, although Hawaii limits concurrent prescriptions of opioids and benzodiazepines to a seven-day supply. South Carolina limits prescriptions of Schedule II substances to 31 days. Rhode Island’s law expresses the limit in terms of “doses” instead of days. Maryland is the only state in the dataset that imposes no limits on the duration of the initial opioid prescription.

3.2. Limitations on amount of opioids prescribed or dispensed

Some states impose limitations on the dose of OAs that may be prescribed or dispensed, in addition to or instead of limitations on number of pills or day supply. There is wide variation in these limits. Ohio and Rhode Island restrict the daily dosage to thirty morphine milligram equivalents (MME), in addition to imposing day limits. Nevada limits to ninety MME per day and a fourteen-day supply, while Maine restricts the daily dosage to 100 MME, which can be prescribed for a maximum of seven days. Vermont’s MME limitations vary by pain level, ranging from 24 MME per day for moderate pain to 50 MME for extreme pain.

New Jersey law limits prescribing to the “lowest effective dose” of an immediate release opioid, limited to a five-day supply. New Hampshire limits the prescriber to the “lowest effective dose for a limited duration” but does not further define either term. Finally, Maryland limits the prescriber to the “lowest effective dose” but the law places no time limit on the prescription other than it “shall be based on an evidence-based clinical guideline” appropriate for the patient.

3.3. Medications covered

The medications covered by these restrictions vary between states as well. Laws in over half of the states (16/26) apply to only opioid medications, although these are described using numerous terms including “opioids,” opioid drugs,” “opioid analgesics,” and “opiates.” In

the other ten states, these limitations apply to other substances in addition to opioids. Three states (IL, KY, MO) limit prescriptions for all Schedule II medications, while four states expand this limitation to Schedule III and/or IV. South Carolina's limit applies to Schedule II medications except transdermal patches. Hawaii limits Schedule II "narcotic controlled substance[s]," which in that state includes both opioid-related substances and coca-related substances, and Minnesota includes Schedule II-IV opioids as well as "narcotic pain relievers," which are not defined in the statute. In Tennessee, the restrictions apply to opioids and benzodiazepines, and in North Carolina, they apply to many, but not all, controlled substances.

3.4. Exceptions, exemptions, and variations

In a number of states, the law imposes additional restrictions for minors. While most of these consist of requirements that the prescriber discuss with or obtain consent from the minor's parent or guardian before issuing the prescription, in some cases opioid analgesic access is more limited for minors than for adults. For example, Connecticut imposes a seven-day limit for adults but a five-day limit for minors. In Pennsylvania, a seven-day supply limit applies to adults in only some situations but is applicable to all OA prescriptions issued to minors.

Laws in fifteen states permit the prescribing practitioner to deviate from otherwise applicable restrictions if the practitioner, in their professional judgment, determines that such deviation is necessary based on the patient's condition. Typically, the law requires the practitioner to document in the record the reason for not adhering to the generally applicable rule. None of these exceptions explicitly permit the practitioner to take financial considerations (such as the expense of an additional office visit) into account when making this determination.

There are also differences between the states as to whether the restrictions apply to all opioid prescriptions or only the initial prescription. Specifically, in thirteen states, the restrictions apply only to initial prescriptions for adults, with no restrictions or more limited restrictions on subsequent prescriptions. In six of those thirteen states the restrictions apply to all prescriptions issued to minors. In twelve states, the restrictions apply to both initial and subsequent prescriptions (Table 1).

Finally, although most laws regulate prescribers, in two states, Tennessee and Utah, the laws regulate the quantity of opioid prescription medication that can be dispensed to a patient. In Hawaii, the limitation applies to both prescribing and dispensing.

4. Discussion

This comprehensive, systematic legal review found that just over half of US states impose legally binding restrictions on the prescribing or dispensing of opioids for treatment of acute pain, with most of these laws having been passed in 2017. There is a large amount of variation in these laws, ranging from the substances covered to the amount or duration of the restriction to the authority of the prescriber to override the limit. These variations, together with differences in the effective dates of the laws, may have important effects on the impact of these laws on prescribing patterns and health outcomes and are a promising area for future research.

While we assume these laws to be well-intentioned, it is not clear whether they will be effective in reducing opioid-related harm, and it is possible that they will increase preventable suffering among some individuals by leaving pain untreated or encouraging some individuals with opioid use disorder to transition from OAs to potentially more dangerous illicit substances (Beletsky and Davis, 2017; Mars et al., 2014). It is also not clear that, even if restrictions on prescribing are indicated, these laws are the most appropriate way to accomplish that end (Samet and Kertesz, 2018). Research is urgently needed to attempt to determine the effects, if any, these laws have on prescribing behavior and health outcomes.

4.1. Potential benefits

At least some of these laws may have been driven in part by guidelines and recommendations issued by governmental agencies and professional associations that attempt to better align opioid prescribing with the existing evidence of the effectiveness of opioid therapy. For example, the Centers for Disease Control and Prevention released guidelines for the treatment of chronic pain in early 2016 which note that "three days or less" of opioid therapy for acute pain will "often be sufficient," and that "more than seven days will rarely be needed" (Dowell et al., 2016). The CDC guidelines also recommend using the lowest effective dose of an opioid and avoiding doses over 90 MME per day. These guidelines are specifically referenced in the text of several of the laws examined, including those from Alaska, Connecticut, and Kentucky, and the requirement to use the "lowest effective dose" imposed by Maryland, New Jersey, and New Hampshire mirrors that of the guidelines.

Similarly, a seven-day limit on the prescribing of opioids for acute pain has recently been endorsed by the Pharmaceutical Research and Manufacturers of America (PhRMA), a powerful lobbying group (Pharmaceutical Research and Manufacturers of America, 2018). The American Dental Association also supports a seven-day limit on dentists' prescription of opioids (American Dental Association, 2018). Additionally, a proposed rule would forbid Medicare from paying for opioid prescriptions of more than seven days or more than ninety MME (Centers for Medicare and Medicaid Services, 2018).

These recommendations are based, in part, on research that demonstrates that several characteristics of initial opioid prescriptions including the number of prescription refills, the length of the prescription, and the MME prescribed are associated with long-term opioid use in some patients (Deyo et al., 2017; Jeffery et al., 2018; Shah et al., 2017). It is, therefore, plausible that limiting the length or amount of initial opioid prescribing will reduce the unintended continuation of prescription opioid use, potentially reducing opioid-related harm.

There is also some reason to believe that reducing the amount of opioids in circulation may reduce OA misuse and related harm. According to the National Survey on Drug Use and Health, many non-medical users of prescription opioids obtain the medication free from their friends and family (Substance Abuse and Mental Health Services Administration, 2017). Since at least some of these medications were not taken because of lack of need, reducing unnecessary OA prescriptions may be effective in reducing the volume of opioids available for such misuse (As-Sanie et al., 2017).

4.2. Potential pitfalls

However, inflexible limits on the amount or duration of OAs that a patient may access will, by their nature, often fail to address the particular needs of the specific patient being treated. While most of these laws permit the prescriber to deviate from the imposed limits under certain circumstances, they often provide little guidance as to when such exemptions are appropriate, and when they may open the prescriber to potential disciplinary action. While more difficult to set out in law, it is likely that a regulatory approach that takes into account prescriber intent and patient-specific factors that influence prescribing may be more effective than a strict limitation on the amount or duration of opioid prescribing (Mundkur et al., 2017; Samet and Kertesz, 2018). The probability of unintended long-term opioid use and development of opioid use disorder are, of course, partially dependent on many variables unrelated to the initial opioid prescription. Many factors including the presence of depression, anxiety, tobacco use, and previous substance use disorder have been shown to be associated with the probability of long-term prescription opioid use following an initial prescription, as have various sociodemographic indicators (Harbaugh et al., 2018; Hooten et al., 2017; Johnson et al., 2016; Marcusa et al., 2017). None of these laws take such factors into account.

Further, these laws do not directly affect what is likely the more important clinical decision point: whether or not to prescribe an OA at all. The receipt of any opioid prescription increases the probability of both long-term opioid use and opioid use disorder (Brummett et al., 2017; Guy et al., 2017) and the prescription of opioids for acute pain has been associated in several studies with progression to longer-term opioid use (Alam et al., 2012; Sun et al., 2016; Webster et al., 2007). While rates of addiction associated with OAs are relatively low at the population level, that risk necessarily increases with the number of individuals exposed to OAs (Vowles et al., 2015). It is therefore reasonable to reduce the number of opioid-naïve individuals exposed to prescription opioids where such decisions are clinically appropriate.

Evidence continues to emerge that non-opioid therapy may be as effective as OA therapy in many situations. According to research published by the Cochrane Collaborative, the over-the-counter medications ibuprofen, acetaminophen, and naproxen, either alone or in combination, are more effective than oxycodone for the treatment of some acute post-operative pain (Derry et al., 2009, 2013; Gaskell et al., 2009). Similar results have recently been reported for acute extremity pain in the emergency department (Chang et al., 2017). A systematic review of pain relief following third molar extractions similarly found that a combination of acetaminophen and ibuprofen “appeared to provide analgesia at least equivalent to those of commonly prescribed opioid combination formulations” (Moore and Hersh, 2013). For moderate to severe chronic back pain, hip or knee osteoarthritis pain, OA treatment was found to be non-superior to non-opioid medication treatment in improving pain-related function over twelve months (Krebs et al., 2018). None of these laws, however, require that prescribers first prescribe non-opioid therapy or take overt steps to incentivize such therapy.

Further, laws limiting opioid prescription or dispensing may lead to unintended consequences in particular for low-income individuals (Grol-Prokopczyk, 2017). Because these laws create the need for additional prescriptions and office visits, they may result in an increase in out-of-pocket costs. Patients in need of opioid medications may have to pay additional copayments or coinsurance at the prescriber’s office as well as at point-of-sale at the pharmacy dispensing the medication. Similarly, an increase in utilization may lead to higher premiums for Marketplace plans, thus resulting in higher federal spending in the form of increased premium tax credits.

Finally, it is possible that lack of access to opioids may drive some patients to the black market, where they may be exposed to more potent opioids and opioid analogs (Barnett et al., 2017). This phenomenon is now well established among some patients prescribed opioids for chronic pain, and it is possible that strict prescribing limits may encourage individuals with acute pain to attempt to access OAs through non-legitimate channels (Dasgupta et al., 2014). Although the laws examined in this research only restrict acute pain prescriptions, it is possible that they may change prescribing for chronic pain as well. While this may be beneficial to some patients in some cases, it may also make it difficult for patients with chronic pain to find a medical professional who is willing to prescribe the amounts they are currently taking, leading to either more pain or illicit opioid use. Finally, these laws are limited to one discrete potential driver of opioid-related harm and do not act on any of the many other correlates of opioid use disorder and related harm (Dasgupta et al., 2017).

4.3. Limitations

The analysis has several limitations. We examined only state statutes and regulations that restrict the prescription or dispensing of opioids for acute pain. Guidelines, best practices documents, statements from professional associations and similar non-legally-binding sources were excluded from the analysis. Although these efforts do not have the force of law, there is evidence that some may affect opioid prescribing (Franklin et al., 2015; Fulton-Kehoe et al., 2015; Sullivan et al., 2016).

Similarly, several states have adopted restrictions on the amount or duration of opioids that will be covered by state Medicaid programs, which may have differential effects for Medicaid enrollees. Some private insurers have also implemented limits on coverage for opioids, which may differentially affect individuals enrolled in affected plans.

Additionally, this analysis does not capture all variations in these laws. For example, there are variations in the circumstances in which providers are permitted to deviate from the restrictions imposed, and the requirements that must be made to document those circumstances. There are also differences between states in how these restrictions may be enforced, and in some cases the exact mechanism is unclear. Further research may be useful in fully documenting the differences between state laws and any changes in their provisions over time.

5. Conclusion

We found that just over half of all states have enacted laws that restrict the prescription or dispensing of opioids for acute pain. Most of these laws were passed in 2017, suggesting that many states will adopt such restrictions in the near future. To date, there is no data on whether and to what extent these laws mediate opioid-related morbidity and mortality, as well as whether they are associated with negative unintended outcomes. In the absence of more evidence, it is premature to rely on prescription limitation laws to make the type of impact on the opioid epidemic that is desperately needed to save lives.

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Contributors

C. Davis conceptualized the article, supervised and conducted research, and led the writing. H. Hernandez-Delgado supervised and conducted research. A. Liebermann and C. Suba conducted research, created graphs and tables, and contributed to the writing. All authors reviewed and approved the submitted manuscript.

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Conflicts of interest

No conflict declared.

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