



PRESCRIPTION NATION **2016**

ADDRESSING
AMERICA'S
DRUG
EPIDEMIC



making our world safer®



TABLE OF CONTENTS

Executive Summary	3
The Deadliest Drug Epidemic on Record in Our Nation's History	7
Americans are at Greater Risk for Addiction than They Realize	8
The Transition to Heroin	9
Deadly Emergence of Fentanyl	11
State Progress	13
INDICATOR 1: Mandatory Prescriber Education	16
INDICATOR 2: Opioid Prescribing Guidelines	17
INDICATOR 3: Eliminating Pill Mills	19
INDICATOR 4: Prescription Drug Monitoring Programs (PDMPs)	21
INDICATOR 5: Increased Access to Naloxone	23
INDICATOR 6: Availability of Opioid Use Disorder (OUD) Treatment	25
Recommendations	28
About the National Safety Council	29



EXECUTIVE SUMMARY

This is the most fatal drug crisis on record in United States history, and too many families and communities are left to suffer in its path. These highly addictive medicines have been incorrectly marketed as the most effective method for treating pain and, subsequently, liberally prescribed. Prescription opioids also serve as gateway drugs to heroin, which has a nearly identical chemical makeup and is cheaper and sometimes easier to obtain.

The facts are clear:

- ✓ More than 259 million opioid prescriptions were written in 2012
- ✓ 1.9 million Americans are addicted to opioid painkillers
- ✓ The U.S. makes up 4.6 percent of the world's populations but consumes 81 percent of the world supply of oxycodone
- ✓ 4.3 million adolescents and adults reported non-medical use of prescription opioids in 2014
- ✓ 4 out of 5 heroin users started on prescription opioids

The National Safety Council is committed to ending unintentional injuries and death in our lifetime and has been fighting this drug epidemic for years. State governments also play a significant role in this fight, with state legislators, Governors, and public health officials dictating the strategy.

This report identifies four key actions states can take that could have immediate and sustained impact:

- ✓ Require and expand prescriber education
- ✓ Develop and implement prescriber guidelines
- ✓ Increase access to naloxone, an overdose antidote
- ✓ Expand access to treatment

Prescription opioid overdoses kill 52 people every day.

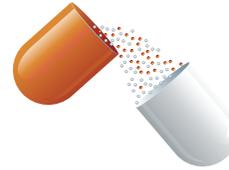
In 2014, the most recent annual statistics available, 18,893 people died as a result of a prescription opioid overdose.

4 Key Actions:

- Require and expand prescriber education
- Develop and implement prescriber guidelines
- Increase access to naloxone, an overdose antidote
- Expand access to treatment

Some states have made significant progress. Others have much more to do while each day people suffer from addiction and die from this epidemic. States were given a rating of “Making Progress”, “Lagging Behind” or “Failing” based on careful evaluation of efforts in six key indicators:

6 KEY INDICATORS



1. Mandatory Prescriber Education

Mandatory prescriber education helps providers make well-informed decisions on medical treatment based on best practice and the latest research, carefully weighing the benefits and risks of opioids and their alternatives. The Centers for Disease Control and Prevention (CDC) has shown that the increase in opioid prescribing has resulted in increased admissions for treatment of opioid use disorder and overdose deaths, despite a lack of a corresponding decrease in reported pain. Additionally, physicians report receiving limited education on pain treatment.



2. Opioid Prescribing Guidelines

Sound, evidence-based prescribing guidelines encourage physicians to incorporate alternative, non-opioid treatments for pain and provide the lowest effective doses and the fewest number of pills when prescribing dangerous opioid medications. The recently released CDC guideline on opioid treatment for chronic pain should be adopted as the state prescribing guideline, but states should also consider the risks for acute pain patients. If followed, NSC believes guidelines that address acute and chronic pain could reduce the number of opioid overdose deaths in the United States.



3. Eliminating Pill Mills

“Pill mills” are a doctor’s office, clinic or health care facility that routinely prescribes controlled substances outside the scope of standard medical practice and often in violation of state laws and greatly increases the risk of abuse and overdose. States should pass legislation that regulates pain clinics and pain management services, requiring such actions as following prescribing guidelines, defining ownership, restricting dispensing of controlled substances and requiring use of state prescription drug monitoring programs.



6 KEY INDICATORS



4. Prescription Drug Monitoring Programs (PDMPs)

PDMPs play an important role in any effective approach to the prescription opioid epidemic. Doctor shopping, or going to multiple providers for prescriptions, and providers who prescribe controlled substances outside the scope of standard medical practice will continue to fuel the opioid epidemic. PDMPs directly address these issues. Nearly every state has an operating PDMP, and states should take steps to simplify registration and utilization, improve reporting response times and upgrade technology to allow data integration into clinical workflows.

5. Increased Access to Naloxone

Naloxone is an opioid antagonist that saves lives by reversing an opioid overdose, with no negative side effects. Naloxone is not a controlled substance and has no abuse potential. States should ensure that naloxone is widely available without a prescription under standing orders and covered by insurance plans, both public and private.

6. Availability of Opioid Use Disorder (OUD) Treatment

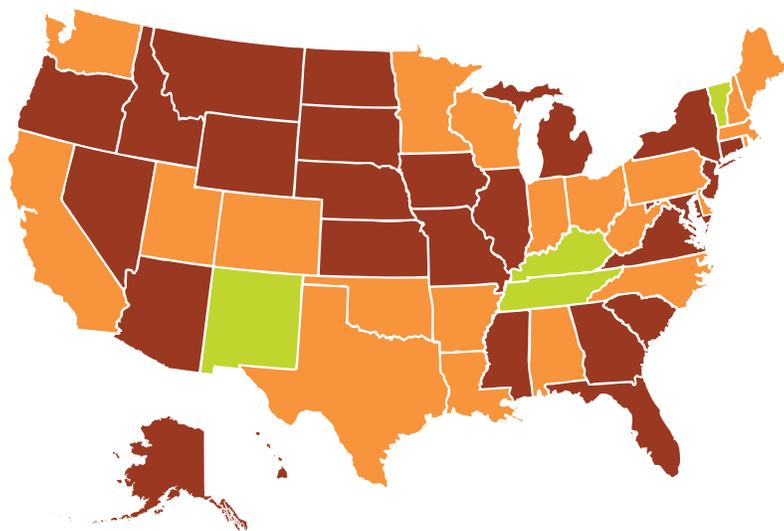
Access to treatment is key to helping those with a substance use disorder. In order to increase this access, states must expand capacity for treatment, including medication-assisted treatments and require both public and private health insurers to cover medication-assisted treatment and remove caps on duration of treatment.



States were evaluated on each of these indicators which are critical to effectively and comprehensively fighting this growing epidemic.

This report provides a roadmap for strengthening laws and regulations. NSC is prepared to assist states with implementation of these evidence-based strategies which can save thousands of lives every year.

A ROADMAP FOR STRENGTHENING LAWS & REGULATIONS



FAILING			LAGGING BEHIND		MAKING PROGRESS	
MEET ZERO INDICATORS	MEETS 1 INDICATOR	MEETS 2 INDICATORS	MEETS 3 INDICATORS	MEETS 4 INDICATORS	MEETS 5 INDICATORS	MEETS 6 INDICATORS
<p>THREE HAVE MET ZERO INDICATORS.</p> <p>Michigan Missouri Nebraska</p> <p>3 STATES</p>	<p>Alaska District of Columbia Hawaii Idaho Kansas Montana Wyoming</p>	<p>Arizona Connecticut Florida Georgia Illinois Iowa Maryland Mississippi Nevada New Jersey New York North Dakota Oregon South Carolina South Dakota Virginia</p>	<p>Arkansas Colorado Delaware Louisiana Maine Massachusetts Minnesota Oklahoma Pennsylvania Texas Utah Washington</p>	<p>Alabama California Indiana New Hampshire North Carolina Ohio Rhode Island West Virginia Wisconsin</p>	<p>Kentucky New Mexico Tennessee Vermont</p>	<p>ZERO HAVE MET ALL 6 INDICATORS.</p> <p>NO STATES</p>

DEADLIEST DRUG EPIDEMIC ON RECORD IN OUR NATION'S HISTORY



The United States is confronting the deadliest drug crisis on record. (CENTERS FOR DISEASE CONTROL & PREVENTION, 2016)

Drug overdoses, mostly caused by opioids, end far too many lives too soon. More than 47,055 families lost loved ones in 2014 to a drug overdose. Opioid pain medications like Vicodin (hydrocodone), OxyContin (oxycodone) or Fentanyl accounted for 18,893 deaths. (CDC NATIONAL CENTER FOR HEALTH STATISTICS, 2015)

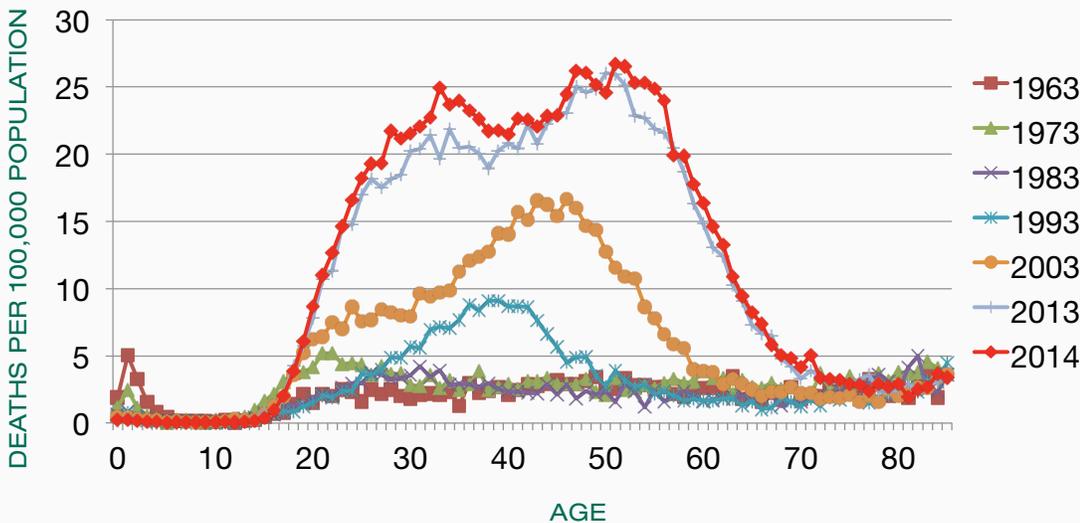
According to the CDC, the increase in opioid-related fatalities and treatment admissions parallels the increase in sales of opioid pain relievers. (PAULOZZI, JONES, MACK, & RUDD, 2011) Opioid prescribing remains high, with more than 259 million prescriptions written in 2012. (PAULOZZI, MACK, & HOCKENBERRY, VITAL SIGNS: VARIATION AMONG STATES IN PRESCRIBING OF OPIOID PAIN RELIEVERS AND BENZODIAZEPINES—UNITED STATES, 2012, 2014)

Opioid pain medications, if taken too long or at a high daily dose, can have deadly and life-changing consequences even when used under the care of a medical professional.

The drug problems of past decades pale when compared to the current opioid epidemic which has killed 165,000 Americans from 2000 to 2014.

Poisoning Death Rates by Age

This graphic shows the rate of poisoning deaths has changed in the past fifty years. In 1963, poisoning deaths peaked in early childhood causing 5 deaths per every 100,000 people.



Today, there has been a **550 percent increase** in the age-adjusted death rate of Americans killed by poisoning. These deaths, primarily from an overdose of an opioid pain medication or heroin, peak around age 50 with a secondary peak around age 30. Especially troubling is that these deaths span from ages 20-70 as it shows an increase in the rate of poisoning death for nearly all working adults.

FACT

➤ From 1963 to 2014 the age adjusted death rate for poisoning increased **550%** from 2.0 to 13.0.



AMERICANS ARE AT GREATER RISK FOR ADDICTION THAN THEY REALIZE



Opioid pain medications have a number of side effects and the risk of addiction may be the most serious. However, it is clear most people do not understand this risk. A 2015 National Safety Council public opinion poll found nearly 90 percent of opioid users were not worried about addiction, even though 60 percent of respondents reported having an addiction risk factor such as personal or family history of alcoholism, depression, use of psychiatric medications, or a history of physical, mental or sexual abuse. More education is needed about who is at risk for addiction from opioid pain medication use.

More than 1.9 million Americans are addicted to opioid painkillers. (SAMHSA, 2015) For some people, their first prescription of an opioid pain medication began an addiction that was never intended or expected. More than 4.3 million people have misused¹ an opioid painkiller in the past month. (SAMHSA, 2015) Seventy percent of people gain access to opioids from people they know. (SAMHSA, 2015) Tragically, about four percent of those who misuse opioid painkillers will transition to heroin. (JONES, 2013)



for Opioid Addiction

- Having depression, anxiety or other mental health illness
- A personal and/or family history of alcohol or substance abuse
 - A history of physical, mental or sexual abuse
- Long term use of opioid pain medications



STARTED MISUSING
an opioid pain medication
for the first time
TODAY!

¹ "Misuse" includes use without a prescription or taking the drug for the feeling or "high" it causes. Examples of misuse include using another person's prescription or using "saved" medications from a previous medical condition or surgery.

THE TRANSITION TO HEROIN



Opioid pain medications, like hydrocodone and oxycodone, are chemically similar to heroin and have a similar effect on our minds and bodies.

As opioid pain medication use dramatically increased, the United States also experienced an increase in heroin use and deaths. More than 900,000 people reported heroin use

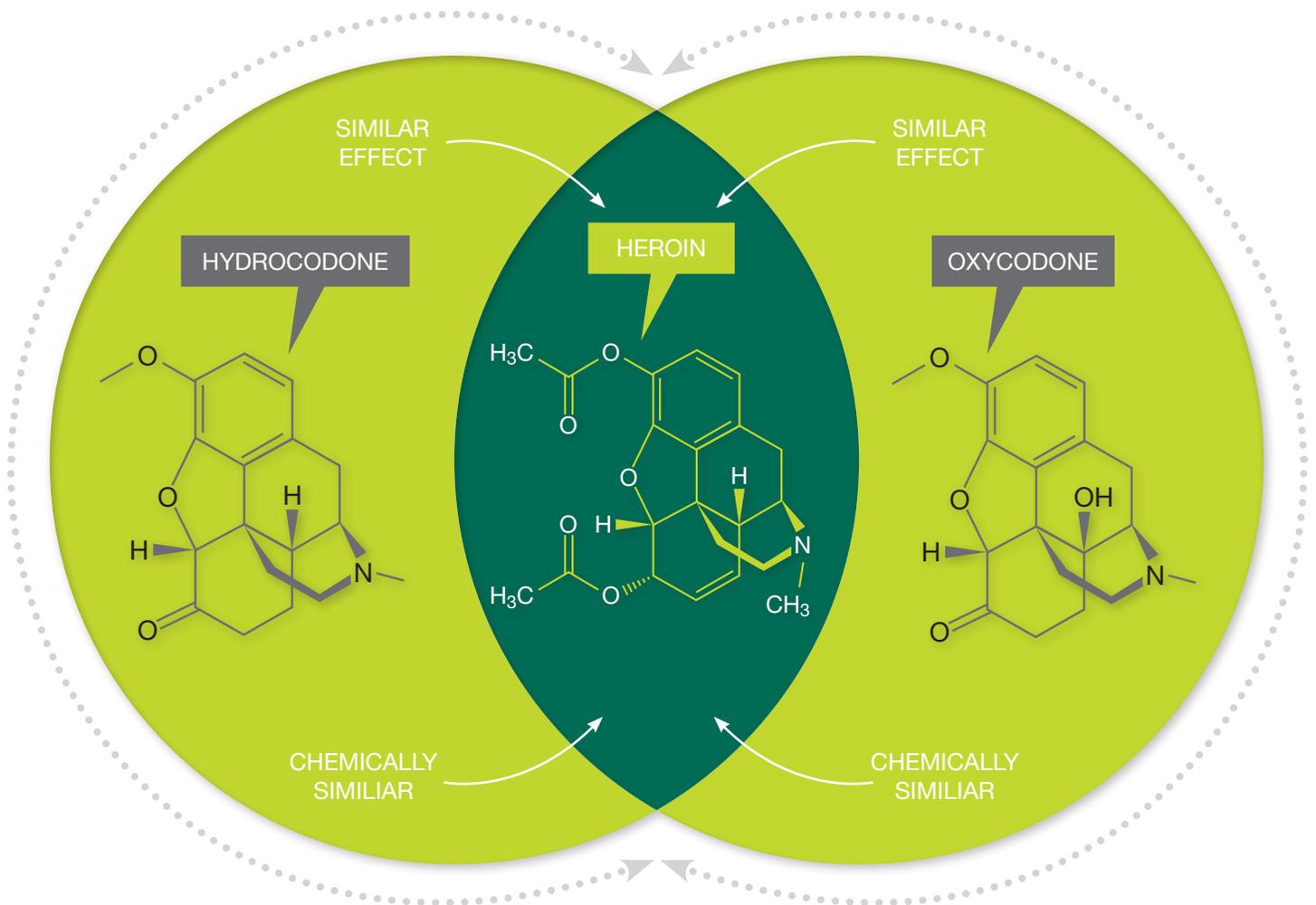
in 2014, a 153 percent increase since 2007. (COMPTON, JONES, & BALDWIN, 2016)

Tragically, heroin deaths tripled in the 5 year period from 2010 to 2014, increasing from 3,300 to more than 10,000 deaths. (CENTERS FOR DISEASE CONTROL & PREVENTION, 2016)

These facts clearly show heroin use patterns have changed. In the 1960's,

80 percent of heroin users reported heroin was the first opioid they used. Today, of the 600 people who begin using heroin, (SAMHSA, 2015) four out of five report that they started with opioid pain relievers. (JONES, HEROIN USE AND HEROIN USE RISK BEHAVIORS AMONG NONMEDICAL USERS OF PRESCRIPTION OPIOID PAIN RELIEVERS - UNITED STATES, 2002-2004 AND 2008-2010, 2013)

Opioid Pain Medications and Heroin are Chemically Similar and just as Addictive



States with the **highest heroin fatality rates.**

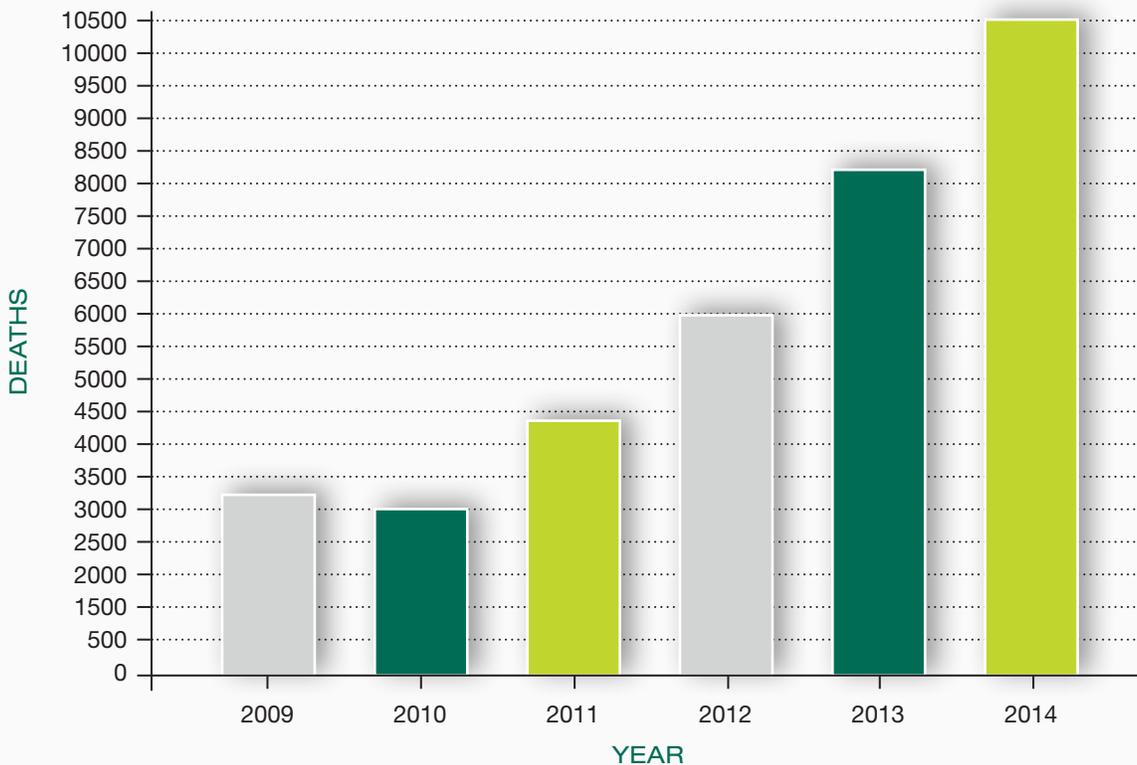
In fact, nonmedical users of opioid pain medications were 19 times more likely to use heroin than people reporting no misuse of opioids. (MUHURI, GFROERER, & DAVIES, 2013)

More research is needed to fully understand what prompts a person misusing opioid pain medications to transition to heroin. However, it is widely believed the transition to heroin happens as users turn to dealers for their daily supply of opioids, heroin is offered as a cost saving measure.

Nonmedical users of opioid pain medications were **19 times more likely** to use heroin

OVERALL RANK	STATE	AGE-ADJUSTED HEROIN DEATH RATE PER 100,000
1	Ohio	11.1
2	West Virginia	9.8
3	Connecticut	8.9
4	New Hampshire	8.1
5	Massachusetts	7.2
6	New Mexico	7.2
7	Rhode Island	6.8
8	Delaware	6.3
9	Vermont	5.8
10	Missouri	5.8

FIGURE 1: Heroin Deaths by Year,
United States, 2009-2014



DEADLY EMERGENCE OF FENTANYL



Fentanyl, a synthetic opioid, is 50 times more potent than heroin and 100 times more potent than morphine. (CDC, 2016) It is commonly prescribed to manage pain for advanced stage cancer patients.

However, fentanyl, when added to heroin, can create a lethal combination and is often added by drug dealers without the end user's knowledge. The Drug Enforcement Administration (DEA) has documented the import of illegally manufactured fentanyl into parts of the U.S. (U.S. DEPARTMENT OF JUSTICE, DRUG ENFORCEMENT ADMINISTRATION, 2015) DEA National Forensic Laboratory Information System (NFLIS) found

fentanyl reports increased 300 percent from the second half of 2013 to the first half of 2014. The DEA issued a health advisory in March 2015 after documenting a surge of fentanyl drug seizures and deaths. (U.S. DRUG ENFORCEMENT ADMINISTRATION, 2015)

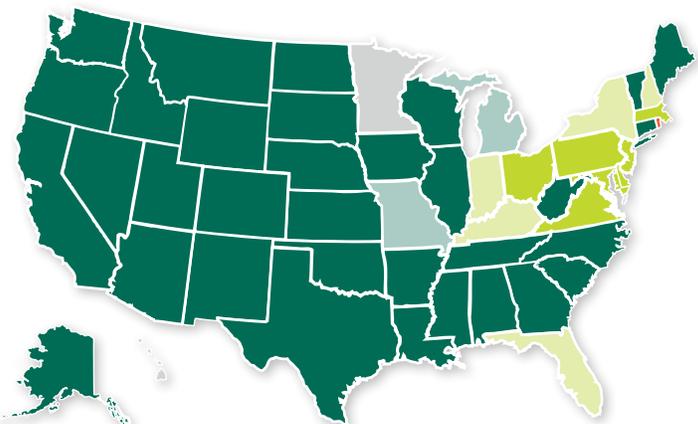
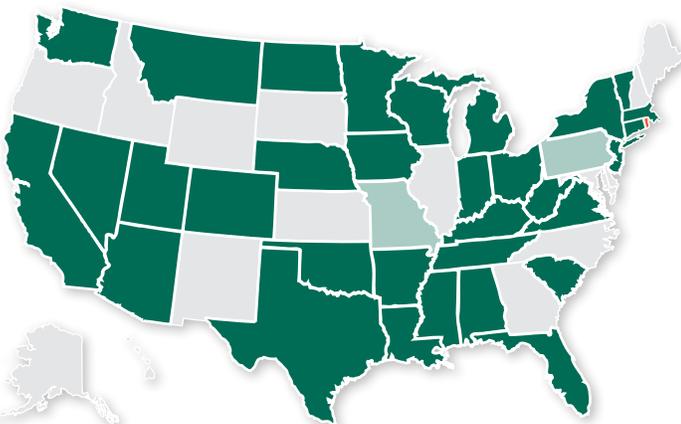
The maps below show the extent to which fentanyl reports have grown since 2009, when 35 states reported analyzing fentanyl. That same year, no state had more than 49 fentanyl reports. By 2014, 46 states reported fentanyl, with six states having 100 or more reports. (U.S. DEPARTMENT OF JUSTICE, DRUG ENFORCEMENT ADMINISTRATION, 2015)



In only a 72-hour period in Chicago, 74 people died from an overdose of fentanyl laced heroin in October 2015.
(GORNER, NICKEAS, & SOBOL, 2015)

FIGURE 2:
2009 Fentanyl Reports in NFLIS by State,
January - June 2009

FIGURE 3:
2014 Fentanyl Reports in NFLIS by State,
January - June 2014





In 21 states, more than **25 percent** of overdose death certificates did not specify the drugs involved in the death.



Improved data collection is vital to fully understand the scope of the epidemic.

A March 2015 DEA National Threat Assessment Summary noted the true number of fentanyl-related deaths is most likely higher because “many coroners’ offices and state crime laboratories do not test for fentanyl or its analogs unless given a specific reason to do so.” (*U. S. DRUG ENFORCEMENT ADMINISTRATION, 2015*) Better mortality data is needed to accurately track the involvement of fentanyl and other drugs in opioid-related deaths. A 2013 study documented variation in how states certify manner of death, including toxicology, and found that death certificates often do not specify the drugs involved in overdose deaths. For example, in 21 states, more than 25 percent of overdose death certificates did not specify the drugs involved in the death. (*WARNER, PAULOZZI, NOLTE, DAVIS, & NELSON, 2013*)

A CDC Health Advisory Network (HAN) alert recommends that medical examiners and coroners screen for fentanyl in suspected opioid overdose cases, especially in areas reporting increases in fentanyl seizures or unusually high spikes in heroin or unspecified drug overdose fatalities. (*CENTERS FOR DISEASE CONTROL AND PREVENTION, 2015*) The HAN alert further recommends that coroners and medical examiners use Substance Abuse Mental Health Safety Administration (*SAMHSA*) consensus recommendations to report opioid-related deaths. (*GOLDBERGER, MAXWELL, CAMPBELL, & WILDFORD, 2013*) **The National Safety Council urges states to adopt these recommendations.** Improved data collection is vital to fully understand the scope of the epidemic.

Certificate of Death

CERTIFICATE NUMBER: _____

LEGAL NAME (Include AKA's if any) (First, Middle, Last)

4b. UNDER 1 YEAR		4c. UNDER 1 DAY		5. DATE OF BIRTH (Mo/Day/Yr)	2. SEX	3. SOCIAL SECURITY NUMBER
Months	Days	Hours	Minutes			
7b. COUNTY				6. BIRTHPLACE (City and State or Foreign Country)		

STATE PROGRESS



Multiple actions will be needed to end this drug epidemic and reduce the loss of life. It is only with concentrated state focus and efforts to reduce opioid overprescribing and to improve the ability to identify and offer help to those at risk. By ensuring that effective and coordinated substance abuse treatment is readily available to those with opioid use disorder, we can end the loss of life in the current drug crisis.

The National Safety Council examined state progress on six key indicators:

1. Mandatory Prescriber Education
2. Opioid Prescribing Guidelines
3. Eliminating Pill Mills
4. Prescription Drug Monitoring Programs (PDMPs)
5. Increased Access to Naloxone
6. Availability of Opioid Use Disorder (OUD) Treatment



1.	Requires Mandatory Prescriber Education	17 states meet this indicator: CA, CT, DE, IA, KY, MA, NV, NH, NM, NC, OR, RI, SC, TN, VT, WI, WV
2.	Adopted Opioid Prescribing Guidelines	22 states meet this indicator: AL, AZ, AR, CA, CO, HI, IN, KY, MA, MN, NH, NM, NC, OH, OK, PA, RI, TN, UT, VT, WA, WV
3.	Eliminating Pill Mills	12 states meet this indicator: AL, FL, GA, IN, KY, LA, MS, OH, TN, TX, WI, WV
4.	Allows Physician and Pharmacy delegates to PDMPs	42 states meet this indicator: AL, AR, AZ, CA, CO, CT, DE, DC, ID, IL, IN, IA, KS, KY, LA, MD, MA, ME, MN, MT, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY
5.	Allows Naloxone to be prescribed with a standing order	35 states meet this indicator: AK, AL, AR, CA, CO, DE, FL, GA, IL, IN, KY, LA, MD, ME, MN, MS, NC, ND, NV, NH, NJ, NM, NY, OH, OK, PA, RI, SD, TN, TX, UT, VA, VT, WA, WI
6.	Availability of Opioid Use Disorder (OUD) Treatment	3 states meet this indicator: ME, NM, VT

STATE PROGRESS



STATE	REQUIRES MANDATORY PRESCRIBER EDUCATION	ADOPTS OPIOID PRESCRIBING GUIDELINES	ELIMINATES PILL MILLS	ALLOWS PHYSICIAN DELEGATES TO ACCESS PDMPs	ALLOWS NALOXONE STANDING ORDER	MEETS NEED FOR OUD TREATMENT
Alabama		✓	✓	✓	✓	
Alaska					✓	
Arizona		✓		✓		
Arkansas		✓		✓	✓	
California	✓	✓		✓	✓	
Colorado		✓		✓	✓	
Connecticut	✓			✓		
Delaware	✓			✓	✓	
District of Columbia				✓		
Florida			✓		✓	
Georgia			✓		✓	
Hawaii		✓				
Idaho				✓		
Illinois				✓	✓	
Indiana		✓	✓	✓	✓	
Iowa	✓			✓		
Kansas				✓		
Kentucky	✓	✓	✓	✓	✓	
Louisiana			✓	✓	✓	
Maine				✓	✓	✓
Maryland				✓	✓	
Massachusetts	✓	✓		✓		
Michigan						
Minnesota		✓		✓	✓	
Mississippi			✓		✓	
Missouri						

State ranking were based on best available data at time of publication.

STATE PROGRESS



STATE	REQUIRES MANDATORY PRESCRIBER EDUCATION	ADOPTS OPIOID PRESCRIBING GUIDELINES	ELIMINATES PILL MILLS	ALLOWS PHYSICIAN DELEGATES TO ACCESS PDMPs	ALLOWS NALOXONE STANDING ORDER	MEETS NEED FOR OUD TREATMENT
Montana				✓		
Nebraska						
Nevada	✓				✓	
New Hampshire	✓	✓		✓	✓	
New Jersey				✓	✓	
New Mexico	✓	✓		✓	✓	✓
New York				✓	✓	
North Carolina	✓	✓		✓	✓	
North Dakota				✓	✓	
Ohio		✓	✓	✓	✓	
Oklahoma		✓		✓	✓	
Oregon	✓			✓		
Pennsylvania		✓		✓	✓	
Rhode Island	✓	✓		✓	✓	
South Carolina	✓			✓		
South Dakota				✓	✓	
Tennessee	✓	✓	✓	✓	✓	
Texas			✓	✓	✓	
Utah		✓		✓	✓	
Vermont	✓	✓		✓	✓	✓
Virginia				✓	✓	
Washington		✓		✓	✓	
West Virginia	✓	✓	✓	✓		
Wisconsin	✓		✓	✓	✓	
Wyoming				✓		

State ranking were based on best available data at time of publication.

MANDATORY PRESCRIBER EDUCATION

The medical community is an important and vital partner in addressing the opioid epidemic. An Institute of Medicine report recommends that all healthcare providers keep their knowledge of pain management current through continuing medical education (CME). (*NATIONAL RESEARCH COUNCIL, 2011*) Licensure, certification and recertification examinations should include assessments of providers' pain education. Unfortunately, research has shown that practicing physicians received fewer than 12 hours of pain management education in medical school. (*MEZEI & MURINSON, 2011*) Another study found that 60 percent of physicians surveyed did not "receive training on identifying prescription drug abuse and addiction" in medical school. (*THE NATIONAL CENTER ON ADDICTION AND SUBSTANCE ABUSE, 2005*)

Addressing this knowledge gap is necessary to reduce dangerous prescribing practices and improve treatment of pain. **NSC recommends that states require CMEs on pain management for prescribers of controlled substances.** Seventeen states currently require education for physicians and other professionals who prescribe controlled substances to treat pain. (*FEDERATION OF STATE MEDICAL BOARDS, 2015*) For example, Kentucky doctors are required to take 4.5 hours of activity related to KASPER (Kentucky All Schedule Prescription Electronic Reporting), pain management or addiction disorders. In New Mexico, prescribers who are registered with the DEA must complete a 5 hour CME class about pain and addiction. Following implementation of New Mexico's CME requirement, the amount of opioids per prescription declined and prescribers issued fewer high-dose prescriptions. (*KATZMAN, ET AL., 2014*)

NSC Calls for Federal Educational Standards on Pain Management

Based on the successes seen by states like New Mexico in changing prescribing patterns as a result of the requirement for CME classes, **the National Safety Council recommends that the DEA require CME for all prescribers who apply for a new or renewed registration under the Controlled Substances Act of 1970.²**

The proposed CME should include the following topics:

- ✓ Relative efficacy and risks of medications used to treat acute and chronic pain
- ✓ Responsible prescribing, including the use of tools such as state Prescription Drug Monitoring Programs
- ✓ Linkage to treatment for those with addiction

Not all prescribers are required to register with the DEA—only those who will prescribe controlled substances such as opioid pain medications. Therefore, DEA controlled substance registration and renewal provides a targeted opportunity to address this knowledge gap.



State requires medical education for prescribers on pain management

17 states meet this indicator:

California,
Connecticut,
Delaware,
Iowa,
Kentucky,
Massachusetts,
Nevada,
New Hampshire,
New Mexico,
North Carolina,
Oregon,
Rhode Island,
South Carolina,
Tennessee,
Vermont,
West Virginia
and Wisconsin

(*FEDERATION OF STATE MEDICAL BOARDS, 2015*)

² The Controlled Substances Act of 1970 established that some medications require additional screening and oversight by the Drug Enforcement Agency (DEA) when prescribed, including most opioid pain medications.

OPIOID PRESCRIBING GUIDELINES

Opioid prescribing guidelines helps medical providers make informed choices about pain treatment. Guidelines consist of recommendations for pain treatment based on the current knowledge of the risks and benefits of opioid use, as well as the risks and benefits of alternative non-opioid treatments. A number of medical professional organizations, state licensing agencies, state medical boards and, most recently, the CDC have published opioid prescribing guidelines. When states have developed guidelines, both regulatory and voluntary approaches have been used to develop and implement a guideline. States have developed opioid prescribing guidelines for a variety of clinical settings, including chronic pain, emergency medicine and workers compensation.

Washington, Kentucky, Ohio, Vermont and Indiana are among the states that have taken a regulatory approach by changing controlled substance regulations and establishing interagency and prescriber workgroups to develop a prescribing guideline.

Utah, in 2009, convened a steering committee and workgroups to develop their guideline, *Utah Clinical Guidelines on Prescribing Opioids for Treatment of Pain*. Arizona and North Carolina used a similar process, convening workgroups comprised of prescribers and medical associations to develop a guideline for hospital emergency departments regarding the prescribing of opioid pain relievers for patients with non-cancer pain.

Types of Opioid Guidelines

Chronic Pain

Chronic pain guidelines comprise recommendations on the use of opioids in treating pain lasting longer than three months or past the time of normal tissue healing. Twenty-two states have developed prescribing guidelines for chronic pain.

In March 2016, CDC issued an *Opioid Prescribing Guideline for Chronic Pain*. This guideline is intended to inform pain treatment decisions of primary care providers treating chronic, non-cancer pain.

The CDC guideline includes:

- ✓ Lower dosage recommendations. Higher opioid doses are associated with higher risk of overdose and death—even relatively low doses (20-50 morphine milligram equivalents (MME) per day) increase risk
- ✓ Risk assessment criteria for all patients. Previous guidelines focused safety precautions on “high risk patients,” however, opioids pose risk to all patients, and currently available tools cannot rule out risk for abuse or other serious harm
- ✓ More specific recommendations compared to previous guidelines on monitoring and discontinuing opioids when risks and harms outweigh benefits



State or state medical board has issued an opioid prescribing guideline

22 states meet this indicator:

Alabama,
Arizona,
Arkansas,
California,
Colorado,
Hawaii,
Indiana,
Kentucky,
Massachusetts,
Minnesota,
New Hampshire,
New Mexico,
North Carolina,
Ohio,
Oklahoma,
Pennsylvania,
Rhode Island,
Tennessee,
Utah, Vermont,
Washington and
West Virginia

(NATIONAL SAFETY COUNCIL, 2016)

OPIOID PRESCRIBING GUIDELINES (CONTINUED)

Emergency Medicine

Nine states have adopted guidelines developed by the American College of Emergency Physicians (ACEP) to inform the use of opioids in hospital emergency departments. **Key elements of the ACEP guideline include:**

- ✓ Use of short-acting, instead of long-acting, opioids
- ✓ Prescriptions for no more than a seven-day supply. States like Ohio have specified that no more than a three-day supply of opioid pain medications should be prescribed for acute pain in emergency room settings

Workers' Compensation

Three states have developed a guideline for the use of opioid pain medications in the treatment of occupational injuries covered by state workers' compensation programs. Following the 2007 implementation of the opioid dosing guideline, Washington workers' compensation system examined detailed billing data to learn about changes in opioid prescribing to workers receiving disability compensation. The introduction in Washington of an opioid dosing guideline appears to be associated with a decline in the mean dose for long-acting opioids, percent of claimants receiving opioid doses ≥ 120 mg morphine equivalent dose per day, and number of opioid-related deaths among injured workers. (FRANKLIN, MAI, TURNER, SULLIVAN, WICKIZER, & FULTON-KEHOE, 2012)

Guideline development is critical as opioids, even when prescribed at low doses, carry significant risks. States like Washington which have implemented a prescribing guideline, reduced opioid prescribing and reduced opioid overdose fatalities. As a result, **the National Safety Council recommends that all states adopt an opioid prescribing guideline.** At a minimum, the guideline should address:

- ✓ When initiation of opioid treatment is appropriate
- ✓ Guidance on maximum dose and duration of opioid treatment
- ✓ Information on how to monitor treatment to ensure patient safety



Washington State Case Study

Washington has seen success in reducing overdose deaths and opioid prescribing rates through the implementation of a prescribing guideline.

In 2007, voluntary guidelines were introduced in Washington to guide physicians on responsible opioid prescribing for non-cancer pain. Following introduction of the guideline, prescribers reported increases in awareness of safer opioid prescribing practices, and the State realized subsequent decreases in overdose deaths. In 2010, Washington required all licensing boards to establish rules and adopt one evidence-based prescribing guideline. The State developed a number of tools and resources to support responsible opioid prescribing practices. In addition, it increased training and support for prescribers to recognize substance abuse and make referrals to treatment. These efforts have resulted in a 29 percent reduction in drug overdose death rate since 2008.

ELIMINATING PILL MILLS

“Pill mills” are a doctor’s office, clinic or health care facility that routinely prescribes controlled substances outside the scope of standard medical practice and often in violation of state laws. Frequently advertised as “pain management” clinics, pill mills can operate within medical practices that treat a variety of legitimate medical issues. Typical characteristics of pill mills include non-individualized care, lack of referrals to specialists or use of diagnostic tests and repetitive combinations of medications that do not vary from patient to patient.

NSC recommends continued state policy development that stops the establishment and/or operation of pill mills that function outside guidelines for licensed, qualified physicians and whose primary treatment is prescribing opioids. State policy should include requirements for acceptable standards of medical care including:

- ✓ Following prescribing guidelines in accordance with standards established by state licensing authorities and prevailing best practice standards
- ✓ Defining ownership requirements to ensure that clinic owners can be held accountable by state licensing authorities
- ✓ Restricting the dispensing of controlled substances
- ✓ Requiring use of state prescription drug monitoring programs by pain clinics
- ✓ Requiring an appropriate medical evaluation including adequate patient history and physical examination
- ✓ Conducting an appropriate risk assessment at each visit

Ten states have adopted pain clinic requirements to target activities consistent with these practices. Two additional states—Alabama and Indiana—have enacted regulations for prescribers related to specific prescribing activities rather than regulations limited to pain clinics. This trend may allow for a greater variety of enforcement options and address pill mills operating within other medical specialties or practice settings. *(NATIONAL ALLIANCE FOR MODEL STATE DRUG LAWS, 2014)*



The State has a law or laws that regulate pain clinics or pain management services

12 states meet this indicator:

Alabama,
Florida,
Georgia,
Indiana,
Kentucky,
Louisiana,
Mississippi,
Ohio,
Tennessee,
Texas,
West Virginia and
Wisconsin

(NATIONAL ALLIANCE FOR MODEL STATE DRUG LAWS, 2014)





Florida State Case Study

By 2009, Florida was known as the epicenter of the nation's pill mill activity. DEA's Automation of Reports and Consolidated Orders System (ARCOS) reported that 98 of the top 100 oxycodone dispensing physicians in the nation were located in Florida. *(FLORIDA OFFICE OF THE ATTORNEY GENERAL)* Starting in 2010, in an effort to address this growing public health threat, Florida began requiring pain clinic registrations and inspections and enacted a number of laws to curb high-volume prescribing. **These included:**

- Bans on physician dispensing
- Establishment of a PDMP
- Tougher penalties for illegal prescribing

As a result of these new requirements, opioid prescribing rates decreased and overdose deaths declined by 23 percent between 2010 and 2012.

(JOHNSON, PAULOZZI, PORUCZNIK, MACK, & HERTER, 2014) After the 2010 law, Florida experienced a significant decrease in the amount of opioids prescribed - equal to 500,000 fewer 5-mg hydrocodone tablets.

(RUTKOW, CHANG, DAUBRESSE, WEBSTER, STUART, & ALEXANDER, 2015) Another study found the death rate from prescription painkiller overdoses in Florida was 7 percent lower than expected. In 2011, the rate was 20 percent lower and in 2012, 34.5 percent lower. *(KENNEDY-HENDRICKS, RICHEY, MCGINTY, STUART, BARRY, & WEBSTER, 2016)*

Today, none of the top 100 opioid dispensing physicians reside in Florida.



PRESCRIPTION DRUG MONITORING PROGRAMS

Patients who obtain opioid painkillers from four or more doctors or pharmacies are at an increased risk of overdose. Therefore, state Prescription Drug Monitoring Programs (PDMPs) can be a valuable tool to help prescribers make informed clinical decisions and avoid costly or fatal errors. PDMPs serve as an early warning system, alerting prescribers and state officials about high-risk patients seeking prescriptions from multiple doctors and risky prescribing practices and allowing them to intervene when necessary to protect patients and the community.

Unfortunately, PDMPs are underutilized by prescribers. A 2015 study of primary care prescribers found that while a majority reported having obtained data from their PDMP at some point in time, prescribers consulted PDMP data in fewer than one-quarter of instances when they prescribed opioids to patients. (RUTKOW, TURNER, LUCAS, HWANG, & ALEXANDER, 2015) In states with voluntary PDMP use, prescribers verified patient history only 14 percent of the time before prescribing an opioid. (SHATTERPROOF, 2016)

In a Johns Hopkins survey, family practice physicians reported they did not use the PDMP because it was time-consuming process and data was not reported in an easy to use format. Other issues identified include physician perception that data was needed only for a few patients. (RUTKOW, TURNER, LUCAS, HWANG, & ALEXANDER, 2015)

State action remains necessary to ensure widespread adoption and utilization of PDMPs by prescribers and pharmacists. Fourteen states require prescribers to access the PDMP prior to prescribing a schedule II, III or IV controlled substances. The number is based on how it is defined. (PDMP CENTER OF EXCELLENCE BRANDEIS UNIVERSITY, 2016) In Kentucky, New York and Tennessee—three of the first states to mandate prescriber use of the PDMP—increased PDMP utilization has resulted in reductions in opioid prescriptions and in patients visiting multiple providers—75 and 36 percent reductions respectively in doctor shopping in New York and Tennessee.

However, the rapid implementation of these mandates has not been without challenges. A Brandeis Center of Excellence report recommends that states establish stakeholder groups to build consensus and offer feedback to better integration of PDMP data in clinical decisions. (PDMP CENTER OF EXCELLENCE BRANDEIS UNIVERSITY, 2016) CDC has provided funding to states to develop universal registration and use, making PDMPs easier to use and the data more timely. (CENTERS FOR DISEASE CONTROL AND PREVENTION, 2016)



State PDMP allows prescriber and dispenser delegates

42 states meet this indicator:

Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming

(NATIONAL ALLIANCE FOR MODEL STATE DRUG LAWS, 2014)



PRESCRIPTION DRUG MONITORING PROGRAMS

(CONTINUED)

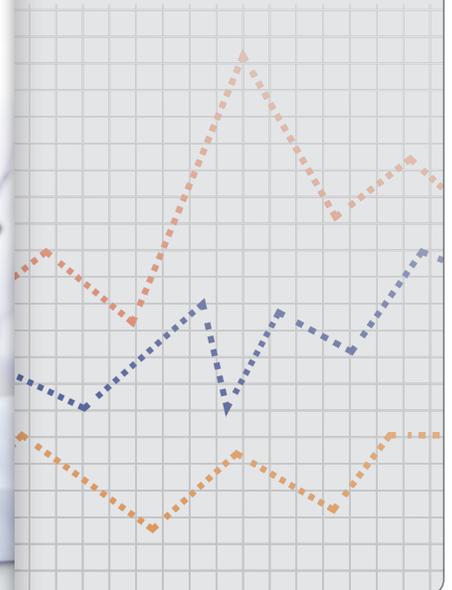
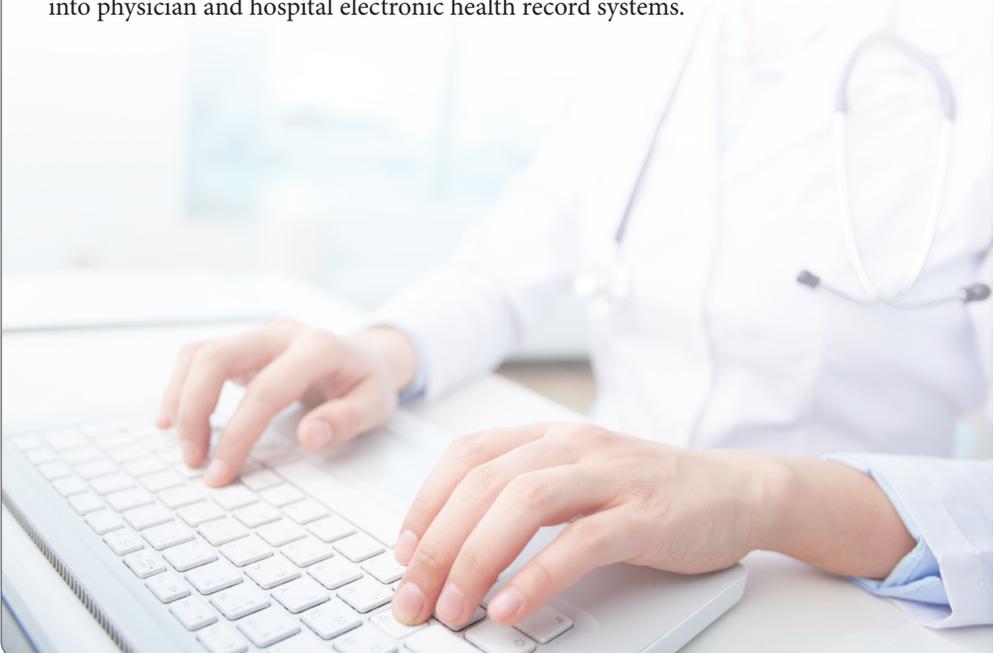
Forty-two states allow physicians and dispensers to appoint delegates or staff from their practice to access PDMP data, making it easier to integrate into clinical workflow. Institutional accounts are another PDMP innovation that makes it easier for clinicians, hospitals or universities to manage and supervise a delegate's PDMP utilization. To increase the effective use of PDMPs, **NSC recommends that State PDMPs allow prescriber and physician delegates and the creation of institutional accounts.**

Another hurdle to PDMP utilization is complicated multi-step application and verification processes. **NSC recommends that states simplify the PDMP registration process, integrating and automating when possible with other licensing processes.** Prescribers and pharmacists need easy-to-use reports with real-time information. Oklahoma's PDMP was the first to offer real-time data reports to pharmacists and physicians to assist them in making timely clinical decisions whether to issue a prescription or dispense medication to a patient. Since then, 27 state PDMPs now collect prescription information from pharmacies within 24 hours of dispensing controlled substances. The remaining state PDMPs collect this data within 72 hours or weekly. **NSC recommends that all states collect prescription data within 24 hours.**

NSC also recommends that States improve reporting response times and upgrade PDMP technology to facilitate data transfer into clinical workflows. The Kentucky PDMP processes the majority of PDMP queries within 15 seconds or less, and a number of states are currently working on pilot programs to integrate PDMP data into physician and hospital electronic health record systems.



**PRESCRIBERS
and
PHARMACISTS
NEED
EASY-TO-USE
REPORTS
with
REAL-TIME
INFORMATION**



INCREASED ACCESS TO NALOXONE

Opioid overdoses are reversible with the timely administration of naloxone. Naloxone, available by prescription, can be administered as an injection or nasal spray. It is not a controlled substance and has no abuse potential.

Physicians can provide a prescription for naloxone to a person at risk of overdose, similar to prescribing an EpiPen for people with severe allergies. However, unlike some types of allergic reactions, an opioid overdose renders the victim unable to self-administer this medication. Making naloxone available to family members and friends of those suffering from addiction, as well as first responders, will save lives.

Some states have increased access to and use of naloxone by amending medical practice laws and regulations to allow a licensed healthcare professional to prescribe naloxone for use by a third-party such as a family member. For example, Massachusetts allows community programs to provide naloxone to trained individuals with a standing order from the health department.

Community overdose education and prevention programs distribute naloxone overdose prevention kits and provide training. Education includes how to recognize the signs of an overdose, when and how to administer naloxone and the importance of rescue breathing until 9-1-1 first responders arrive.

Use of naloxone has increased greatly. From 1996 through June 2014, laypersons reported using naloxone in 26,463 overdose reversals. In 2013 alone, nearly 40,000 laypersons with 93 organizations reported 8,032 overdose reversals—lives that may not have been saved without laws allowing increased naloxone access.

(WHEELER, JONES, GILBERT, & DAVIDSON, 2015)



State allows
a standing order
for naloxone

35 states meet
this indicator:

Alabama, Alaska,
Arkansas, California,
Colorado, Delaware,
Florida, Georgia,
Illinois, Indiana,
Kentucky, Louisiana,
Maine, Maryland,
Minnesota,
Mississippi,
Nevada,
New Hampshire,
New Jersey,
New Mexico,
New York,
North Carolina,
North Dakota,
Ohio, Oklahoma,
Pennsylvania,
Rhode Island,
South Dakota,
Tennessee, Texas,
Utah, Vermont,
Virginia,
Washington and
Wisconsin

(NETWORK FOR PUBLIC HEALTH LAW, 2016)

INCREASED ACCESS TO NALOXONE (CONTINUED)

Thirty-five states permit naloxone to be prescribed with a standing order.³ (NETWORK FOR PUBLIC HEALTH LAW, 2016) More recently, Connecticut, Idaho, North Dakota and New Mexico started allowing naloxone to be dispensed by pharmacists. About a dozen states permit pharmacists to establish collaborative practice agreements with a physician to dispense naloxone. Other states allow the pharmacy board to establish standards that permit naloxone to be dispensed.

However, while this progress is encouraging, more work is needed to ensure that naloxone remains affordable. **Therefore, NSC recommends that states, insurers, and other relevant payers work to ensure that naloxone is covered by all insurance plans, including public plans.**

Good Samaritan Provisions

Opioid overdose often happen when the victim is with friends or family members. Witnesses or bystanders to an overdose may be in the best position to save a life by administering naloxone. However, some overdose bystanders sometimes fail to summon medical assistance for fear of police involvement.

(TOBIN, DAVEY, & LATKIN, 2005)

“Good Samaritan” laws provide protection from negative consequences associated with calling for help. Opioid overdose bystanders can become “Good Samaritans” by calling emergency responders without fear of arrest or other negative legal consequences.

Thirty-four states and the District of Columbia have enacted Good Samaritan provisions. **NSC recommends that all states enact Good Samaritan laws to remove any barriers to seeking help for a drug overdose.**



Sal's Story

Patty DiRenzo, of Blackwood, NJ lost her son Sal to a fatal overdose. His death could have been prevented if the people with whom he was using drugs had called 9-1-1 for help. They didn't, most likely afraid of legal consequences. Instead of saving a life by seeking help, Sal was left alone to die, without the medical help he needed. Patty lost her son, and her grandson lost his father, because someone was afraid to call 9-1-1.

Patty believes with proper treatment Sal could have beaten his addiction, but this opportunity was lost forever with his passing. The majority of overdose victims do not die until one to three hours after they have initially taken a drug, and most of these deaths occur in the presence of others. This leaves a significant amount of time for witnesses to intervene and call for medical help, but the fear of arrest and prosecution prevents many from making that call. Good Samaritan laws remove these legal barriers, so that calling 9-1-1 is never a crime.

Patty believes “Saving a life is far more important than punishing those who seek help.”

³ A standing order allows a drug to be dispensed by a pharmacy or other programs to any person who meets specific criteria and without the prescriber or patient ever meeting.

AVAILABILITY OF OPIOID USE DISORDER TREATMENT

Opioid use disorder (OUD), occurs when the recurrent use of opioid pain relievers or heroin cause significant clinical problems including health issues, disability, and the failure to meet major responsibilities at work, school or home. OUD is a brain disease and a serious chronic health condition like heart disease or diabetes. And like these conditions, medication and support to make lifestyle changes may be required to effectively treat an OUD. **As a chronic disease, if left untreated, OUD will worsen, often resulting in death.** In 2014, more than 2.4 million people had an opioid use disorder related to use of opioid pain relievers or heroin. (SAMHSA, 2015)

Medication assisted treatment (MAT) with buprenorphine or methadone is the most effective treatment for OUD. (WORLD HEALTH ORGANIZATION, 2009) A third medication, Naltrexone, can also be used to treat OUD. However, it is less effective in sustaining long-term recovery. (COUSINS, RADFAR, CRÈVECOEUR-MACPHAIL, ANG, DARFLER, & RAWSON, 2016)

Methadone is provided in a clinic setting at opioid treatment programs (OTP). OTPs are federally regulated clinics that dispense methadone, usually as a liquid, daily to patients. Barriers to methadone include waiting lists for treatment, relatively few locations in most states, insurance coverage limits and requirements for daily clinic visits. In 2012, nearly all state OTPs operated at greater than 80 percent capacity, and OTPs in 12 states reported 100 percent capacity. (JONES, CAMPOPIANO, BALDWIN, & MCCANCE-KATZ, 2015)

With most state OTPs operating at capacity, buprenorphine which can be prescribed in office-based settings, offers the most viable way to expand access for MAT. Buprenorphine is prescribed by SAMHSA certified physicians who receive specialized training. Patient caseloads for buprenorphine prescribers are capped at 30 individuals in the first year. (SAMHSA, 2016) After the first year, physicians can expand their caseload to 100 patients, but many physicians do not apply for this extension. If all physicians provide buprenorphine at the maximum level, 1,093,150 people can receive treatment in the US, which is less than the number needed. (JONES, CAMPOPIANO, BALDWIN, & MCCANCE-KATZ, 2015)



State has sufficient buprenorphine treatment

capacity to treat residents with opioid dependence

3 states meet this indicator:

Maine,
New Mexico
and Vermont

(JONES, CAMPOPIANO, BALDWIN, & MCCANCE-KATZ, 2015)



AVAILABILITY OF OPIOID USE DISORDER TREATMENT

(CONTINUED)

Treatment capacity in the United States lags behind the need for opioid treatment. An analysis of national and state treatment capacity found that rates of opioid abuse or dependence (891.8 per 1,000,000 people) far exceeded the maximum buprenorphine treatment capacity (420.3) and numbers of people receiving methadone (119.9) at an OTP. Most states had opioid dependence rates higher than their buprenorphine treatment capacity. Only three states—Maine, New Mexico and Vermont had maximum buprenorphine treatment capacity sufficient to meet the treatment need in their state. (JONES, CAMPOPIANO, BALDWIN, & MCCANCE-KATZ, 2015)

States must close the treatment gap. **NSC recommends that physician patient caseload limits be raised for buprenorphine wavered physicians and that advanced practice nurses are allowed to obtain DATA-2000 waivers to prescribe buprenorphine. NSC also recommends that federal and state-funded substance abuse services offer MAT, the most effective methods of opioid dependence treatment.** Care should be coordinated and MAT provided in conjunction with counseling and recovery support services. Vermont and Massachusetts have developed innovative care models to expand buprenorphine treatment capacity in their states, and this treatment should also be affordable. **NSC recommends that States require public and private health insurers to cover medication assisted treatment.** All three options for medication-assisted treatment should be available to all patients as unique patient characteristics may mean one form of medication assisted treatment is more effective. Also caps on the length and duration of MAT should be eliminated.

**Reality
Check**

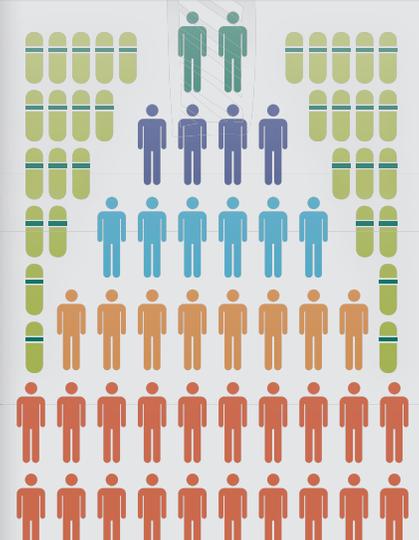
**RATES OF
OPIOID ABUSE/
DEPENDENCY**

FAR EXCEED

the maximum
buprenorphine/
methadone

**TREATMENT
CAPACITY**

in nearly
all states





Vermont: Effective and Coordinated Opioid Treatment

Through a unique partnership between the Vermont Department of Health's Division of Alcohol and Drug Abuse Programs and the Department of Vermont Health Access's Blueprint for Health, the Care Alliance was formed. The Care Alliance for Opioid Addiction is a statewide partnership of clinicians and treatment centers that provide MAT to Vermonters addicted to opioids.

How it Works

The Care Alliance uses a Hub & Spoke model to ensure that each person's care is effective, coordinated and supported. People can access care by requesting services at a regional opioid treatment center (Hub), or their primary care provider (Spoke), or by dialing 2-1-1, a statewide, free, confidential information and help service. Five regional opioid treatment centers in 8 locations in Vermont serve as treatment hubs. Regional opioid treatment centers treat patients with complex needs with medication assisted treatment, either methadone or buprenorphine. In the Spokes, community physicians lead a team

of nurses and clinicians to treat patients with medication assisted therapy, using buprenorphine. Patient care is coordinated and supported and supervised by a physician. Nurses and counselors connect patients with community-based support services. Support services may include mental health and substance abuse treatment, pain management, life skills and family support, job development and recovery support.

Highlights of Vermont's Opioid Treatment System to Date:

- In 2015, more than 4,800 people received MAT in Vermont, up from 2,867 in January 2013
- The 90-day retention rate among Vermont Medicaid-eligible individuals served by the Hub and Spoke system is 77 percent and greater than the national average of 70 percent and is increasing
- Vermonters who stay in treatment in Hubs longer than 90 days show improved overall functioning at discharge than those who left treatment earlier

RECOMMENDATIONS



NSC believes that if the following recommendations are implemented by state leaders, we can begin to reverse this epidemic and save lives.

1. Establish state requirements for medical education on effective pain management
2. Require CME for prescribers who apply for a new or renewed registration under the Controlled Substances Act of 1970. CME should be pertinent to the classes of controlled substances prescribed by the provider. The proposed CME should include the following topics:
 - ✓ Relative efficacy and risks of medications used to treat acute and chronic pain
 - ✓ Responsible prescribing, including the use of tools such as state Prescription Drug Monitoring Programs (PDMPs)
 - ✓ Linkage to treatment for those with addiction
3. Adopt state opioid prescribing guideline. At a minimum, the guideline should address:
 - ✓ When initiation of opioid treatment is appropriate, provide guidance on maximum dose and duration of opioid treatment
 - ✓ Monitor treatment to ensure patient safety
4. Develop or strengthen state policy that stops the establishment and/or operation of pill mills that function outside prescribing standards for licensed, qualified physicians and whose primary treatment is prescribing opioids. State policy should include requirements for acceptable standards of medical care including:
 - ✓ Following prescribing guideline in accordance with standards established by state licensing authorities and prevailing best practice standards
 - ✓ Defining ownership requirements to ensure that clinic owners can be held accountable by state licensing authorities
 - ✓ Restricting the distribution of controlled substances
 - ✓ Requiring use of state prescription drug monitoring programs by pain clinics
 - ✓ Requiring an appropriate medical evaluation including adequate patient history and physical examination
 - ✓ Conducting an appropriate risk assessment at each visit
5. Make PDMPs easy to use:
 - ✓ Require the collection of prescription data within 24 hours
 - ✓ Simplify the PDMP registration process, integrating and automating when possible with other medical professional licensing processes
 - ✓ Improve reporting response times and facilitate data transfer into clinical workflows
6. Improve reporting of drugs involved in drug overdose fatalities:
 - ✓ Encourage medical examiners and coroners to screen for fentanyl for suspected opioid overdose cases
 - ✓ Require coroners and medical examiners use SAMHSA consensus recommendations to report opioid-related deaths
7. Expand access to naloxone and remove barriers to its purchase and use
 - ✓ Enact laws allowing standing orders for naloxone
 - ✓ Require insurers, and other relevant payers to ensure that naloxone is covered by insurance plans, including public plans
 - ✓ Enact laws to enact “Good Samaritan” laws to remove any barriers to seeking help for a drug overdose
8. Increase patient caseload caps for buprenorphine waived physicians
9. Allow advanced practice nurses to obtain waiver to prescribe buprenorphine. Expand use of medication-assisted treatment, ensure it is offered and available at state-funded treatment providers
10. Require public and private health insurers to cover medication-assisted treatment
11. Remove caps on the duration of medication-assisted treatment

ABOUT THE NATIONAL SAFETY COUNCIL

Founded in 1913 and chartered by Congress, the National Safety Council, **nsc.org**, is a nonprofit organization whose mission is to save lives by preventing injuries and deaths at work, in homes and communities, and on the roads through leadership, research, education and advocacy. NSC advances this mission by partnering with businesses, government agencies, elected officials and the public in areas where we can make the most impact—distracted driving, teen driving, workplace safety, prescription drug overdoses and Safe Communities.

Visit **nsc.org** to learn more.





- Centers for Disease Control and Prevention. (2016, March 14). *Fentanyl Overdose Data*. Retrieved March 31, 2016, from Centers for Disease Control and Prevention: <http://www.cdc.gov/drugoverdose/data/fentanyl.html>
- Centers for Disease Control and Prevention. National Center for Health Statistics. (2015). *Multiple Cause of Death 1999-2014 on CDC WONDER Online Database, released 2015*. Retrieved December 14, 2015, from Centers for Disease Control and Prevention: <http://wonder.cdc.gov/mcd-icd10.html>
- Centers for Disease Control & Prevention. (2016, March 14). *Data Overview*. Retrieved April 5, 2016, from Centers for Disease Control & Prevention: <http://www.cdc.gov/drugoverdose/data/>
- Centers for Disease Control and Prevention. (2012, September). *Menu of Pain Management Clinic Regulation*. Retrieved March 1, 2016, from Centers for Disease Control and Prevention: <http://www.cdc.gov/phlp/docs/menu-pmcrc.pdf>
- Centers for Disease Control and Prevention. (2015, October 26). *Increases in Fentanyl Drug Confiscations and Fentanyl-related Overdose Fatalities*. Retrieved March 1, 2016, from Emergency Preparedness and Response: <http://emergency.cdc.gov/han/han00384.asp>
- Centers for Disease Control and Prevention. (2016, March 15). *Prevention for States*. Retrieved April 5, 2016, from Centers for Disease Control and Prevention: http://www.cdc.gov/drugoverdose/states/state_prevention.html
- Compton, W. M., Jones, C. E., & Baldwin, G. T. (2016). Relationship between Nonmedical Prescription-Opioid Use and Heroin Use. *New England Journal of Medicine*, DOI: 10.1056/NEJMr1508490.
- Cousins, S. J., Radfar, S. R., Crèvecoeur-MacPhail, D., Ang, A., Darfler, K., & Rawson, R. A. (2016). Predictors of Continued Use of Extended-Released Naltrexone (XR-NTX) for Opioid-Dependence: An Analysis of Heroin and Non-Heroin Opioid Users in Los Angeles County. *Journal of Substance Abuse Treatment*, 66–71.
- Federation of State Medical Boards. (2015). *Continuing Medical Education Board by Board Overview*. Retrieved March 1, 2016, from Federation of State Medical Boards: http://www.fsmb.org/Media/Default/PDF/FSMB/Advocacy/GRPOL_CME_Overview_by_State.pdf
- Florida Office of the Attorney General. (n.d.). *Pill Mill Initiative*. Retrieved March 1, 2016, from Florida Attorney General: <http://myfloridalegal.com/pages.nsf/Main/AA7AAF5CAA22638D8525791B006A30C8>
- Goldberger, B. A., Maxwell, J. C., Campbell, A., & Wildford, B. B. (2013). Uniform Standards and Case Definitions for Classifying Opioid-Related Deaths: Recommendations by a SAMHSA Consensus Panel. *Journal of Addictive Diseases*, 32:231–243.
- Gorner, J., Nickeas, P., & Sobol, R. R. (2015, October 2). *74 overdoses in 72 hours: Laced heroin may be to blame*. Retrieved March 1, 2016, from Chicago Tribune: <http://www.chicagotribune.com/news/local/breaking/ct-heroin-overdoses-met-20151002-story.html>
- Johnson, H., Paulozzi, L., Porucznik, C., Mack, K., & Herter, B. (2014, July 4). *Decline in Drug Overdose Deaths After State Policy Changes—Florida, 2010–2012*. Retrieved March 1, 2016, from Centers for Disease Control and Prevention: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6326a3.htm>
- Jones, C. M. (2013). Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers – United States, 2002–2004 and 2008–2010. *Drug and Alcohol Dependence*, 95–100.
- Jones, C. M., Campopiano, M., Baldwin, G., & McCance-Katz, E. (2015). National and State Treatment Need and Capacity for Opioid Agonist Medication-Assisted Treatment. *American Journal of Public Health*, e55–e63.
- Kennedy-Hendricks, A., Richey, M., McGinty, E. E., Stuart, E. A., Barry, C. L., & Webster, D. W. (2016). Opioid Overdose Deaths and Florida's Crackdown on Pill Mills. *American Journal of Public Health*, Vol. 106, No. 2, pp. 291–297. doi: 10.2105/AJPH.2015.302953.
- Mezei, L., & Murinson, B. (2011). Pain Education in North American Medical Schools. *Journal of Pain*, 1199–1208.
- Muhuri, P. K., Gfroerer, J. C., & Davies, M. C. (2013, August). *Associations of nonmedical pain reliever use and initiation of heroin use in the United States*. Retrieved March 31, 2016, from CBHSQ Data Review: <http://archive.samhsa.gov/data/2k13/DataReview/DR006/nonmedical-pain-reliever-use-2013.pdf>
- National Alliance for Model State Drug Laws. (2014, April). *Prescription Drug Abuse, Addiction and Diversion: Overview of State Legislative and Policy Initiatives Part 2: State Regulation of Pain Clinics*. Retrieved March 1, 2016, from National Alliance for Model State Drug Laws: <http://namsdl.org/library/7C4C8B13-1C23-D4F9-74DC1E8E771E451A/>
- National Alliance for Model State Drug Laws. (2015, September). 2015 Annual Review of Prescription Monitoring Programs. Retrieved May 2016, from National Alliance of Model State Drug Laws: <http://www.namsdl.org/library/E89878EA-E597-4B32-B83391F57B2275A7/>
- National Research Council. (2011). *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington DC: National Academies Press.
- Network for Public Health Law. (2016, April 15). *Legal Interventions to Reduce Overdose Mortality: Naloxone Access and Overdose Good Samaritan Laws*. Retrieved May 6, 2016, from Network for Public Health Law: https://www.networkforphl.org/_asset/qz5pvn/network-naloxone-10-4.pdf
- Paulozzi, L. J., Jones, C. M., Mack, K. A., & Rudd, R. A. (2011, November 4). *Vital Signs: Overdoses of Prescription Opioid Pain Relievers, United States, 1999 - 2008*. *MMWR: Morbidity & Mortality Weekly Report*, 60(43), pp. 1487–1492.
- Paulozzi, L. J., Mack, K. A., & Hockenberry, J. M. (2014, July 4). *Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines—United States, 2012*. Retrieved January 7, 2016, from Centers for Disease Control and Prevention: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6326a2.htm>



PDMP Center of Excellence Brandeis University. (2016, May). *PDMP Prescriber Use Mandates: Characteristics, Current Status, and Outcomes in Selected States*. Retrieved April 5, 2016, from PDMP Center of Excellence Brandeis University: <http://www.pdmpexcellence.org/sites/all/pdfs/COE%20briefing%20on%20mandates%203rd%20revision.pdf>

Rutkow, L., Chang, H.-Y., Daubresse, M., Webster, D. W., Stuart, E. A., & Alexander, G. C. (2015). Effect of Florida's Prescription Drug Monitoring Program and Pill Mill Laws on Opioid Prescribing and Use. *JAMA Internal Medicine*, 175(10):1642-1649. doi:10.1001/jamainternmed.2015.3931.

Rutkow, L., Turner, L., Lucas, E., Hwang, C., & Alexander, G. C. (2015). Many primary care physicians are aware of prescription drug monitoring programs, but many find the data difficult to access. *Health Affairs*, 484-492.

SAMHSA. (2015). *Results from the 2014 National Survey on Drug Use and Health: Summary of National Findings*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

SAMHSA. (2016, April 12). *Buprenorphine Waiver Management*. Retrieved April 20, 2016, from SAMHSA: <http://www.samhsa.gov/medication-assisted-treatment/buprenorphine-waiver-management>

Shatterproof. (2016, March). *Prescription Drug Monitoring Programs: Critical Elements of Effective State Legislation*. Retrieved April 5, 2016, from Shatterproof: https://secure.shatterproof.org/page/-/Shatterproof_WP_FINAL.pdf?_ga=1.228326110.217109100.1461943552

Syed, Y., & Keating, G. (2013). Extended-release intramuscular naltrexone (VIVITROL): A review of its use in the prevention of relapse to opioid dependence in detoxified patients. *CNS Drugs*, 27(10):851-861 doi:10.1007/s40263-013-0110-x.

The National Center on Addiction and Substance Abuse. (2005). *Under the Counter: The Diversion and Abuse of Controlled Prescription Drugs in the US*. New York: Columbia University.

Tobin, K. E., Davey, M. A., & Latkin, C. A. (2005). Calling emergency medical services during drug overdose: an examination of individual, social and setting correlates. *Addiction*, 100(3):397-404.

U. S. Drug Enforcement Administration. (2015, April). *National Heroin Threat Assessment*. Retrieved March 1, 2015, from Drug Enforcement Administration: http://www.dea.gov/divisions/hq/2015/hq052215_National_Heroin_Threat_Assessment_Summary.pdf

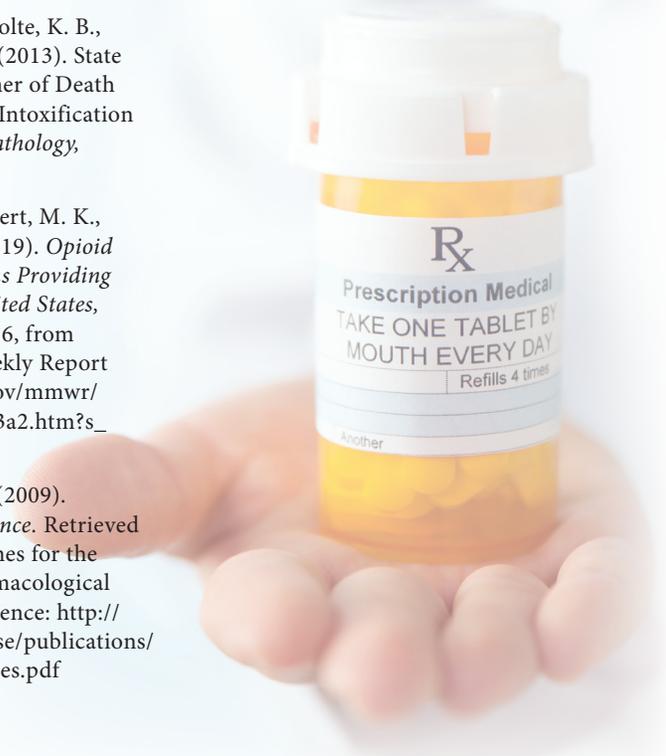
U.S. Department of Justice, Drug Enforcement Administration. (2015). *Special Report: Opiates and Related Drugs reported in NFLIS, 2009-2014*. Springfield VA: U.S. Drug Enforcement Administration.

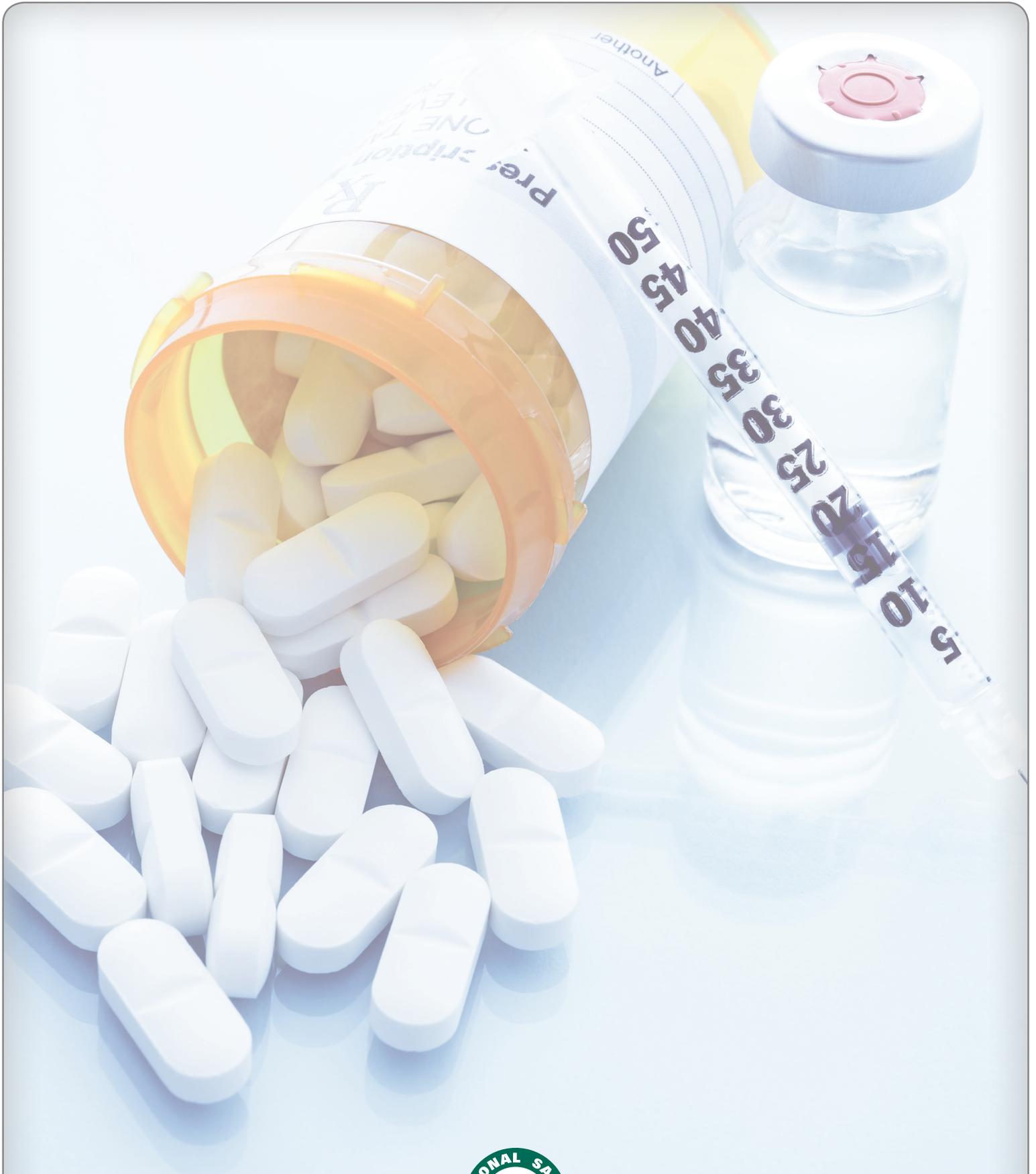
U.S. Drug Enforcement Administration. (2015, March 18). *DEA Issues Nationwide Alert on Fentanyl as Threat to Health and Public Safety*. Retrieved March 1, 2016, from <http://www.dea.gov/divisions/hq/2015/hq031815.shtml> Warner, M., Paulozzi, L. J., Nolte, K. B., Davis, G. G., & Nelson, L. S. (2013). State Variation in Certifying Manner of Death and Drugs Involved in Drug Intoxification Deaths. *American Forensic Pathology*, 231-236.

Warner, M., Paulozzi, L. J., Nolte, K. B., Davis, G. G., & Nelson, L. S. (2013). State Variation in Certifying Manner of Death and Drugs Involved in Drug Intoxification Deaths. *American Forensic Pathology*, 231-236.

Wheeler, E., Jones, T. S., Gilbert, M. K., & Davidson, P. J. (2015, June 19). *Opioid Overdose Prevention Programs Providing Naloxone to Laypersons—United States, 2014*. Retrieved March 1, 2016, from Morbidity and Mortality Weekly Report (MMWR): http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6423a2.htm?s_cid=mm6423a2_e

World Health Organization. (2009). *Treatment of Opioid Dependence*. Retrieved April 15, 2014, from Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence: http://www.who.int/substance_abuse/publications/opioid_dependence_guidelines.pdf





nsc.org/rxreport