

OCTOBER 26, 2019



Engaging the Texas PMP to Support Patient Health

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Disclosure

Dr. Hill receives financial support from the Substance Abuse & Mental Health Services Administration and the Texas Health & Human Services Commission via the Texas Targeted Opioid Response. He has no other relevant financial relationships or potential conflicts of interest to disclose.

Learning Objectives

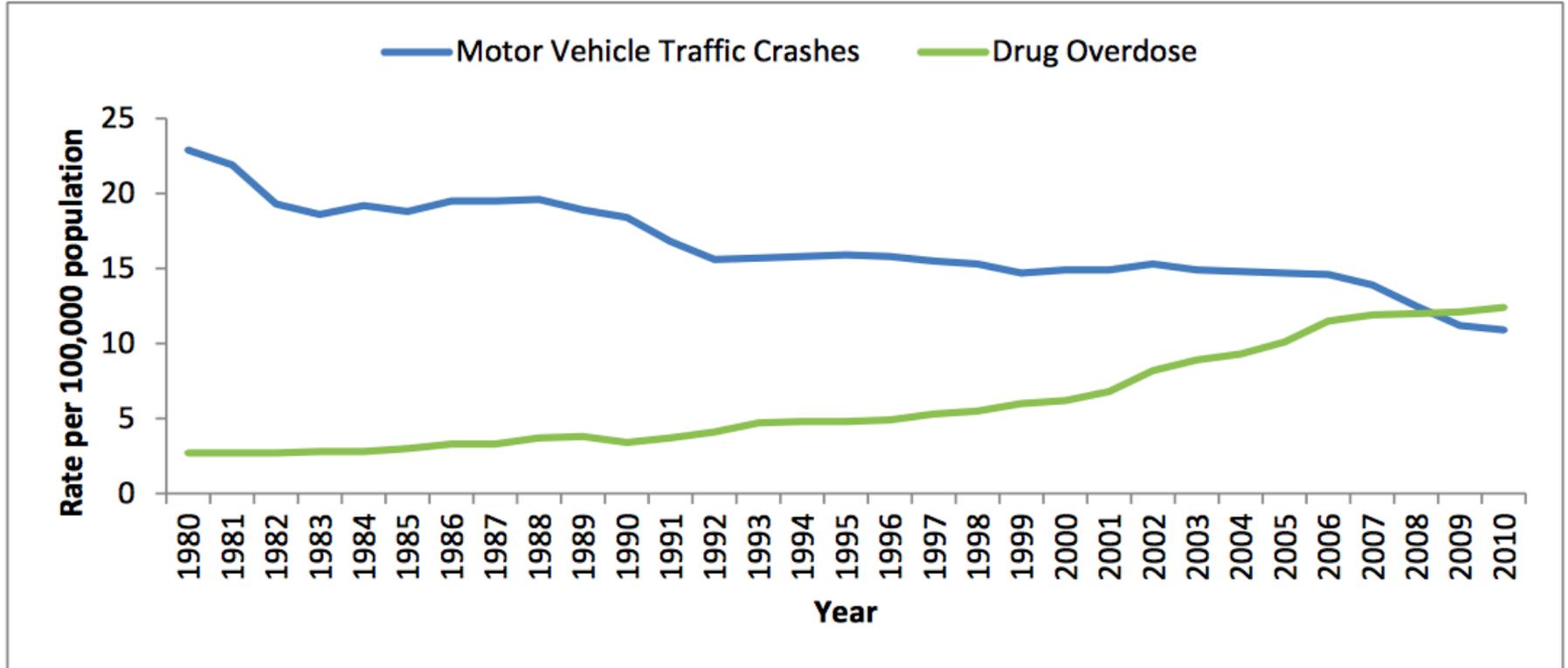
- Discuss recent trends in controlled substance misuse & harm
- Describe patient outcomes related to PMP implementation
- Plan for integration of PMP queries in a clinical workflow
- Consider interventions to support patient health when concerning patterns of controlled substance use are identified

Stigmatizing Language	Supportive Language
Junkie / addict	Person with a substance use disorder
Drug abuser	Person who uses drugs
Relapse	Recurrence of use
Medication-assisted treatment	Medication
Overdose	Bad reaction / breathing emergency
Clean / dirty	Drug screen = positive / negative Drug use = in recovery / in active use

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Figure 1. Rates of motor vehicle traffic and drug overdose deaths, United States, 1980-2010.



From 1999 – 2008...

Prescribe: ↑ x4

Death: ↑ x4

Rehab: ↑ x6

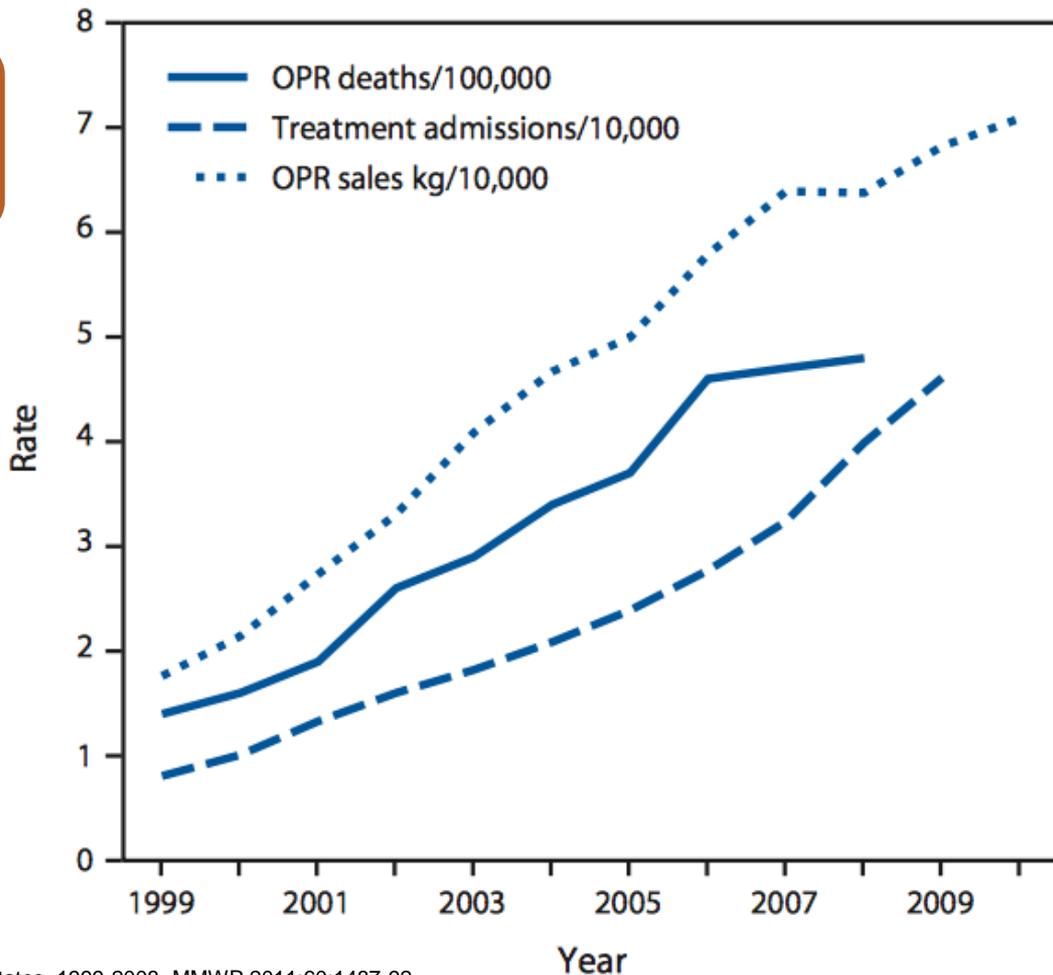
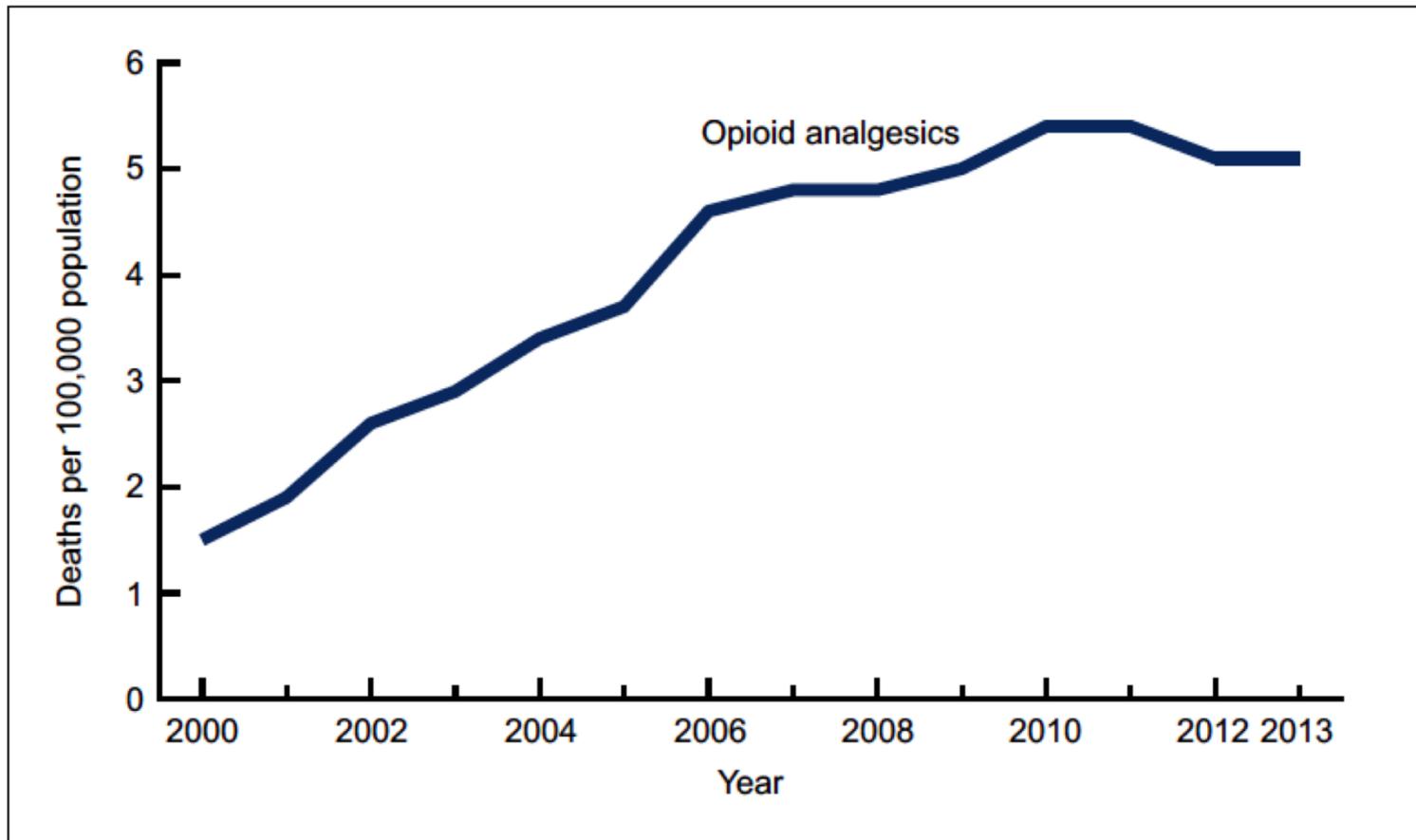


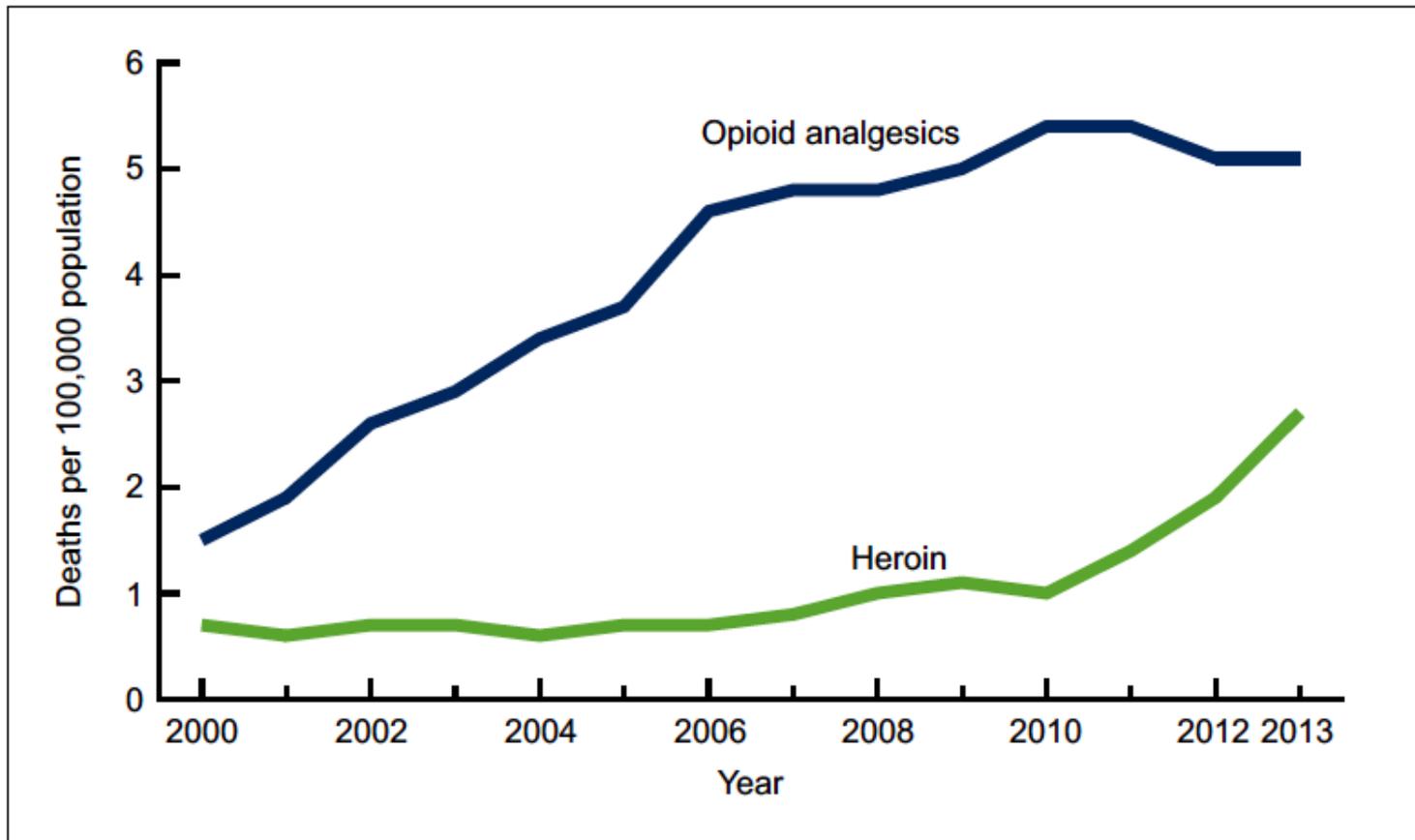
Figure 1. Age-adjusted rates for drug-poisoning deaths, by type of drug: United States, 2000–2013



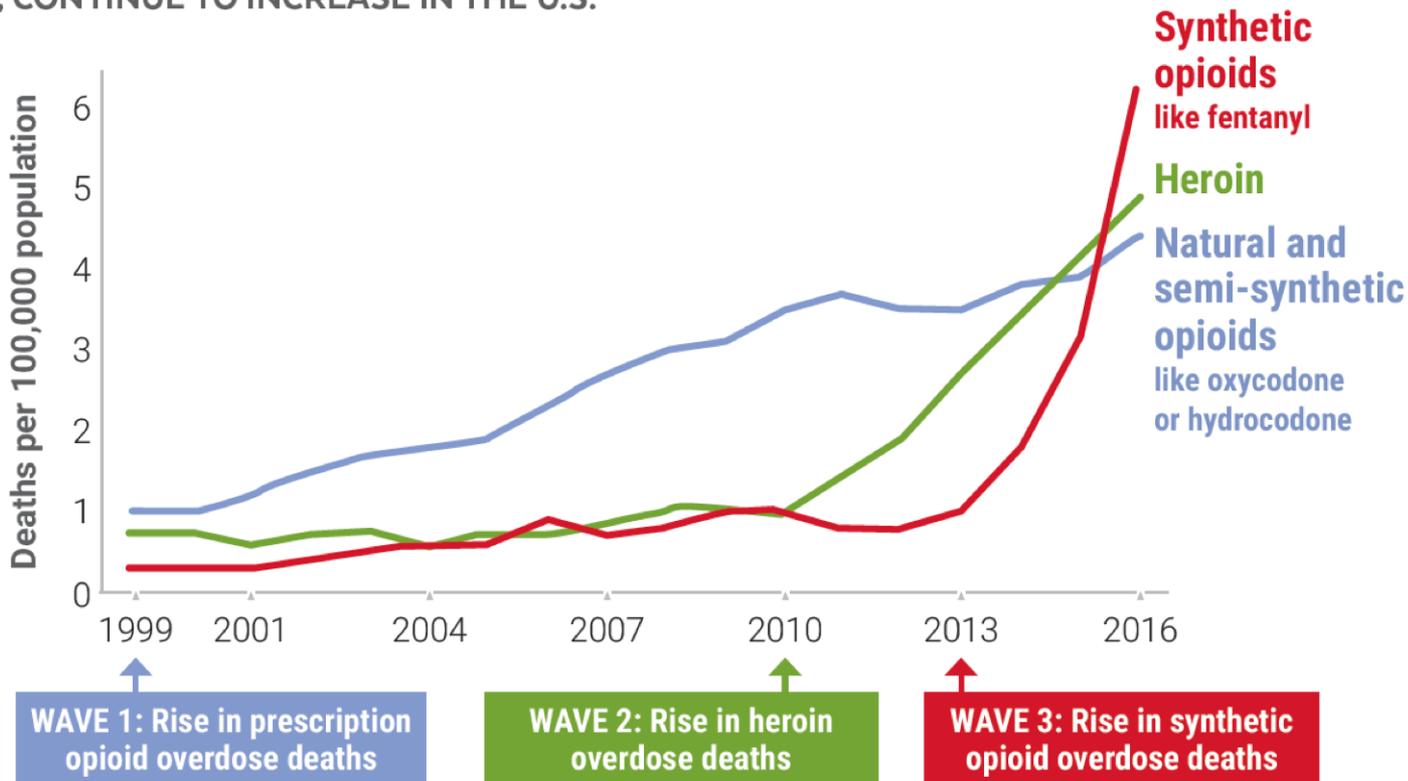
Supply Reduction Strategies

- Prescription dose and duration limits
- Tamper-resistant formulations
- Prescription monitoring programs

Figure 1. Age-adjusted rates for drug-poisoning deaths, by type of drug: United States, 2000–2013



DRUG OVERDOSE DEATH RATES, INCLUDING THOSE INVOLVING PRESCRIPTION OPIOIDS AND HEROIN, CONTINUE TO INCREASE IN THE U.S.⁷



Prescription Dose/Duration Limits

2016 CDC Opioid Guidelines

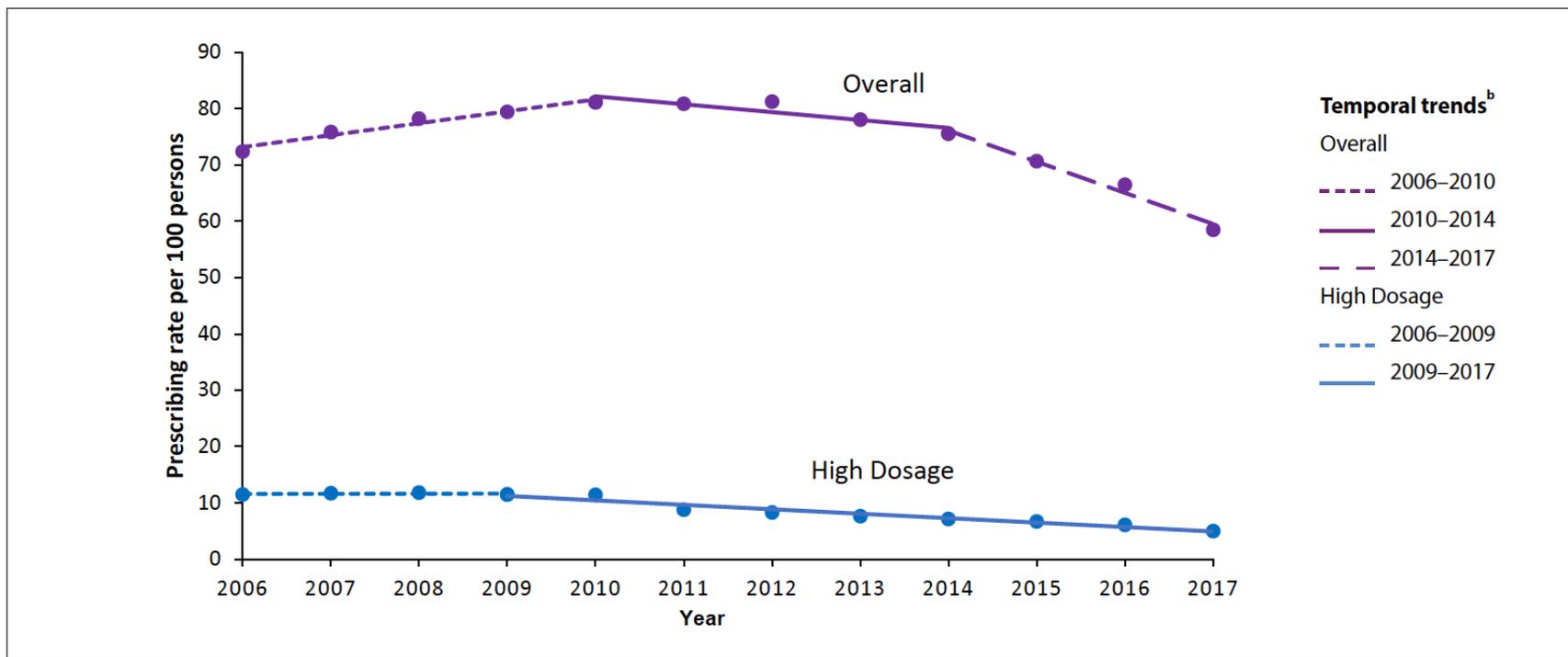
- Low quality evidence with high heterogeneity
- 12 broad recommendations to steer prescribers away from long-term opioids

Prescription Dose/Duration Limits

Guidelines misapplied without nuance

- At least 5 states have prohibited initial opioid prescriptions for more than 7 days
- A growing number of insurers and pharmacies are implementing dose limitations

FIGURE 1A

Annual opioid prescribing rates overall and for high-dosage prescriptions^a (≥ 90 MME/day)^b — United States, 2006–2017


Tamper-Resistant Formulations

INTAC crush-resistant technology

- Forms gel when crushed to deter non-oral misuse
- Introduced to U.S. in 2010 with reformulated OxyContin
- Employed in Opana ER in 2012



Tamper-Resistant Formulations

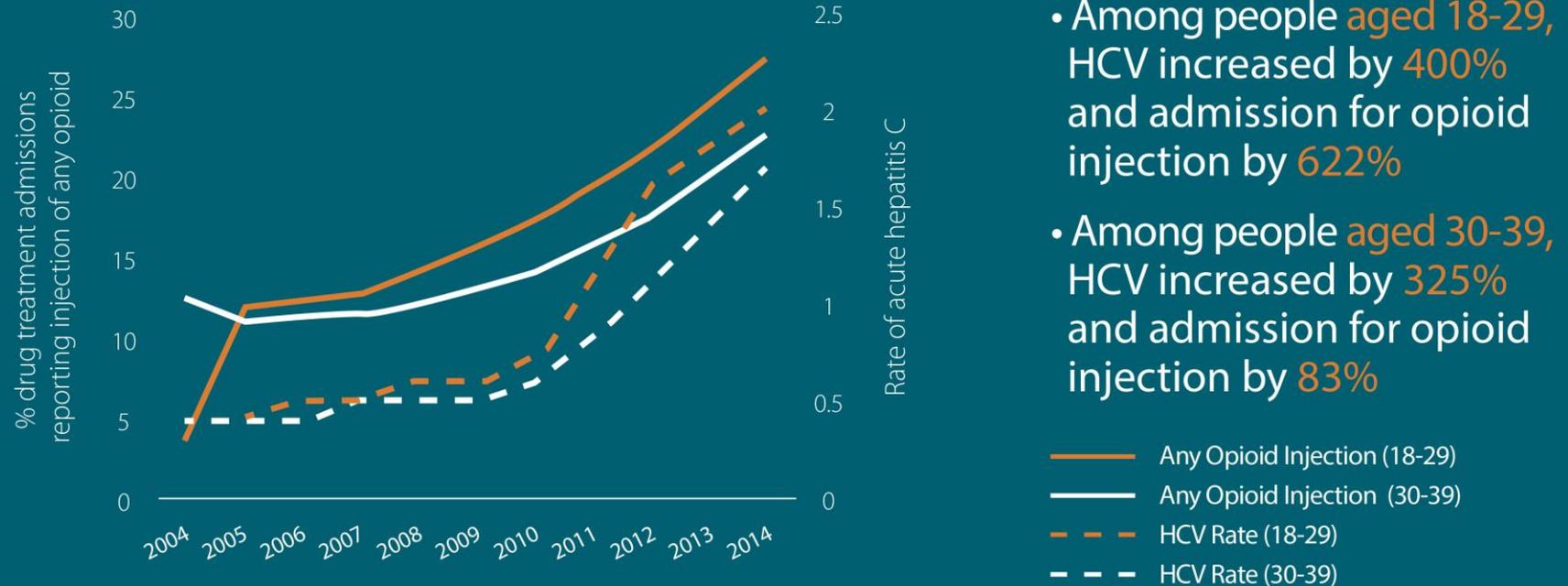
FDA News Release

FDA requests removal of Opana ER for risks related to abuse

Reformulation led to increased / more dangerous IV use

- Outbreaks of HIV, HCV, and thrombotic microangiopathy
- No similar removal request for OxyContin at this time

HEPATITIS C AND OPIOID INJECTION ROSE DRAMATICALLY IN YOUNGER AMERICANS FROM 2004-2014



Source: Centers for Disease Control and Prevention and Substance Abuse and Mental Health Services Administration

IRON LAW OF PROHIBITION

THE HARDER THE ENFORCEMENT, THE HARDER THE DRUGS

INCREASING LAW
ENFORCEMENT



INCREASING COST OF
ILLEGALITY



INCREASING POTENCY OF
THE SUBSTANCE



Need to Avoid Detection
(Less Weight and Volume, Easier to Hide,
Store and Transport)

Beer and Wine



Spirits



Moonshine

Cannabis



High THC Cannabis



Synthetic Cannabinoids

Coca Leaf/Tea



Powder Cocaine



Crack/Paco/Basuco

Opium



Heroin



Fentanyl/Carfentanyl

Ephedra



Amphetamine



Ice/Methamphetamine

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Prescription Monitoring Programs

State-level databases with controlled substance dispensing data, searchable by patient name

Goals

- Prevent “doctor shopping” by patients
- Identify irregular prescribing patterns

Prescription Monitoring Programs

Specific details vary greatly by state

- CII only vs CII-V
- Optional review vs mandatory review
- Access for law enforcement & prosecutors
- Access for various health professionals
- Permitted to share data with other states

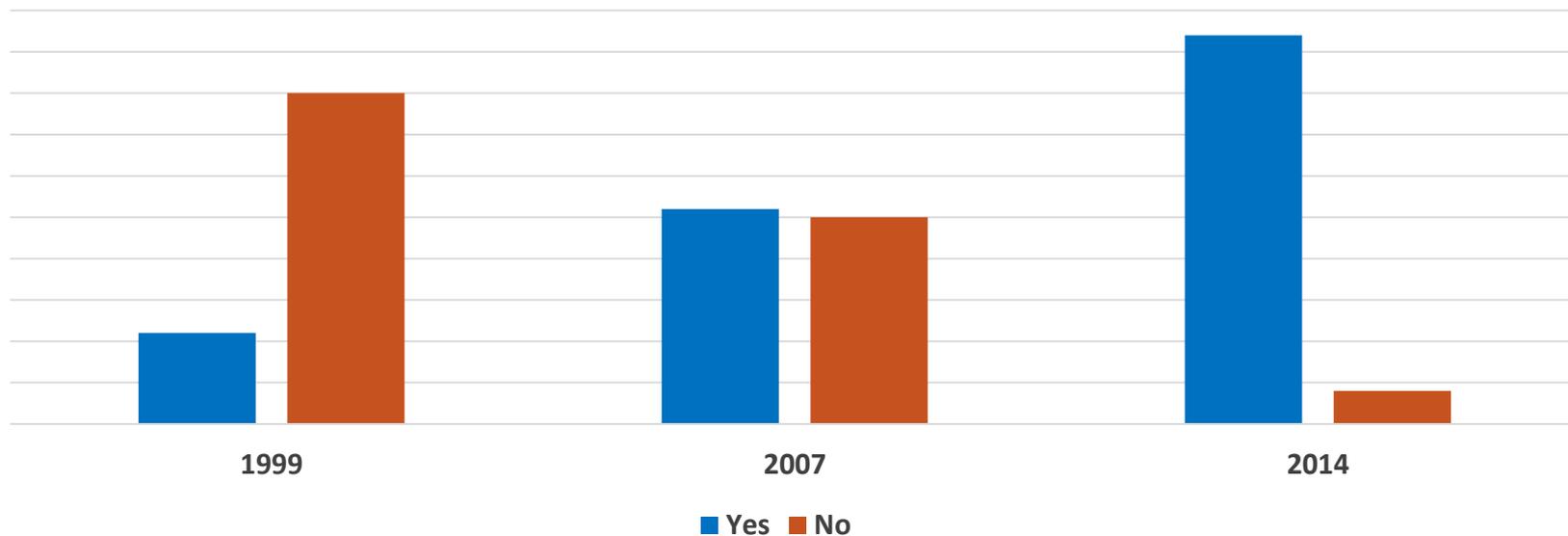
Prescription Monitoring Programs

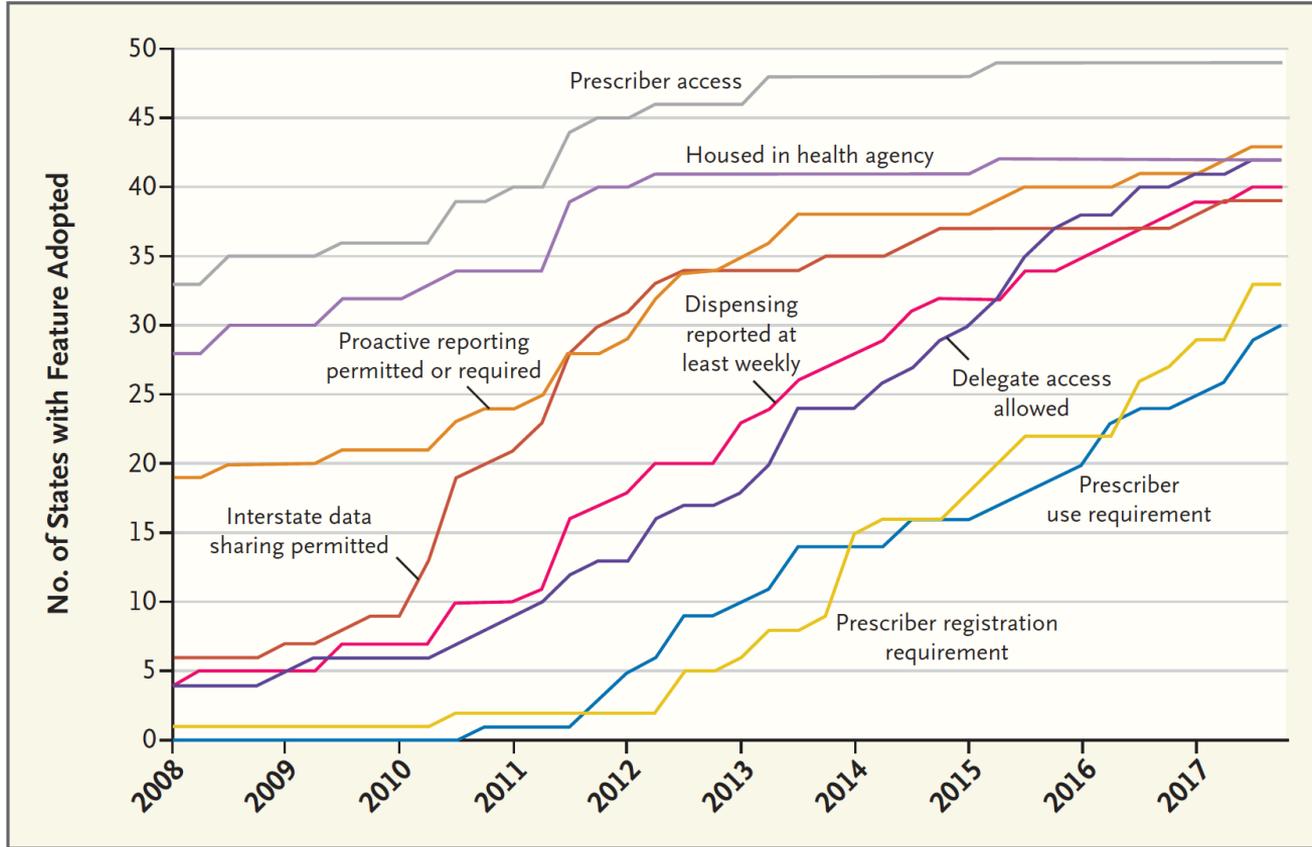
Factors association with a decrease in Rx overdose deaths:

- Mandatory provider review
- Data sharing with other states
- Monitoring of unscheduled drugs
- Updating PMP data at least weekly
- Proactive reporting to prescribers and licensure boards

Prescription Monitoring Programs

States with PMP by Year





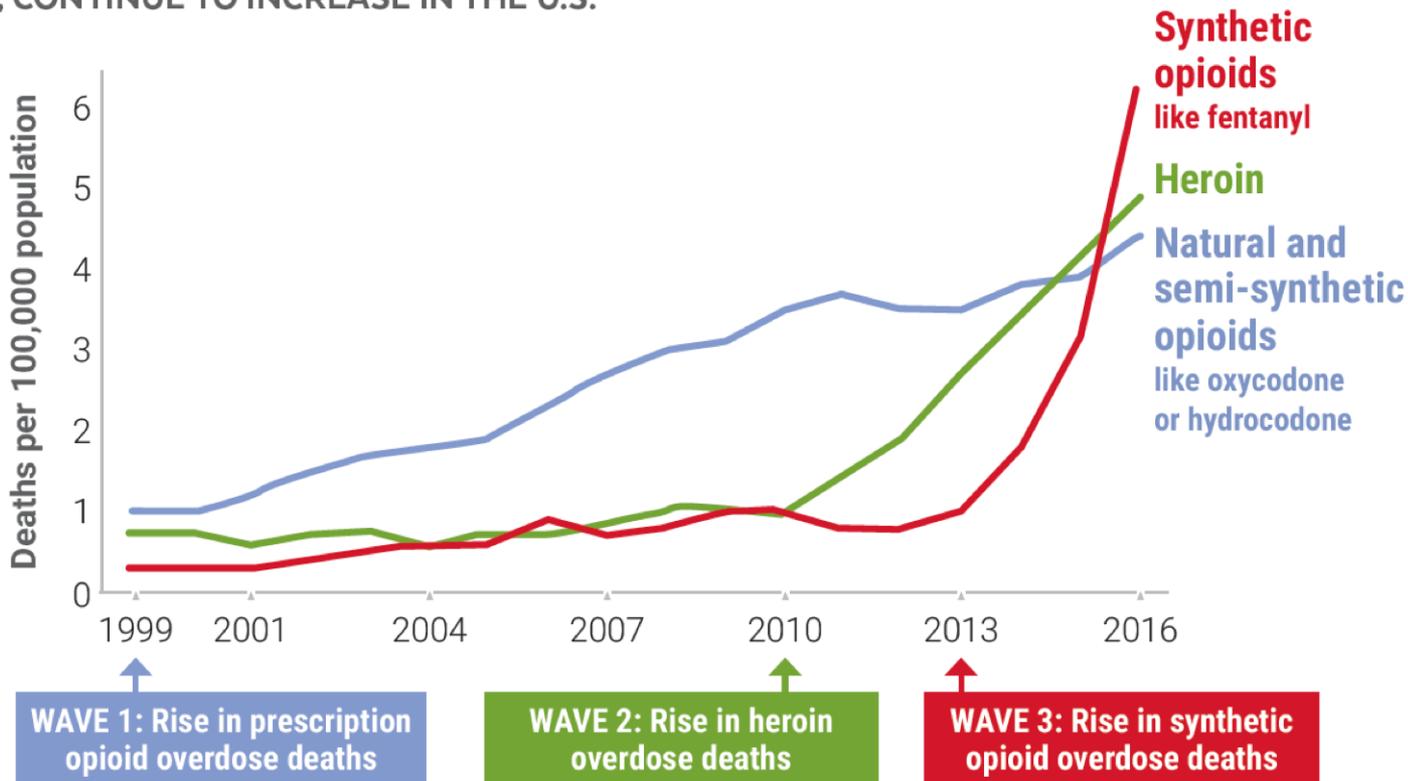
States with Selected Prescription Drug Monitoring Program Features, 2008–2017.

Prescription Monitoring Programs

Key results from 2018 systematic review

- “Low strength evidence from ten studies suggested a reduction in fatal overdoses with PMP implementation.”
- “Three of six studies [which evaluated the impact of PMP on illicit drug overdoses] found an increase in heroin overdoses after PMP implementation.”

DRUG OVERDOSE DEATH RATES, INCLUDING THOSE INVOLVING PRESCRIPTION OPIOIDS AND HEROIN, CONTINUE TO INCREASE IN THE U.S.⁷





Mandated Use of the Texas PMP

Starting March 1, 2020, prescribers and pharmacists will be required by Texas state law to use the Texas PMP to review a patient's prescription history before prescribing or dispensing opioids, benzodiazepines, barbiturates, or carisoprodol. Exceptions are made for patients who have been diagnosed with cancer or are receiving hospice care.

Texas-licensed pharmacies are currently required to report all dispensed controlled substances records to the Texas PMP no later than the next business day after the prescription is filled.

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Texas Prescription Monitoring Program (PMP)

[PMP Login](#)[Register](#)

The Texas PMP collects and monitors outpatient prescription data for controlled substances dispensed by a pharmacy in Texas. It is a patient care tool that can be used to inform prescribing practice and to address prescription drug misuse, diversion, and overdose.



MANDATE

On March 1, 2020, prescribers and pharmacists will be required to check the Texas PMP.

[Learn More](#)

DELEGATES

Prescribers and pharmacists may authorize delegates to check the Texas PMP on their behalf.

[Learn More](#)

PRESCRIBER TOOLKIT

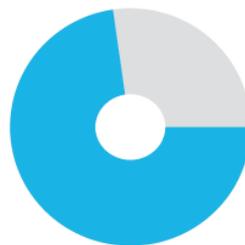
Download a toolkit with guidelines for talking with patients about the Texas PMP and the safe and effective alleviation of pain.

[Learn More](#)

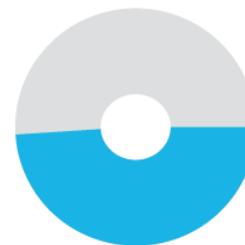
WHO IS REGISTERED TO USE THE PMP?

% of registered users by license type

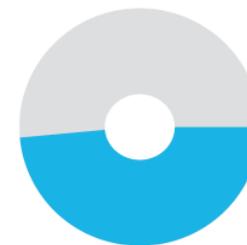
As of August 31, 2018. Numbers based on most recent and/or applicable agency data of active licenses.



72.6%
PHARMACIST



49.0%
PHYSICIAN ASSISTANT



48.6%
DENTIST



45.6%
PHYSICIAN (MD, DO)



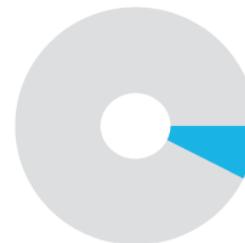
38.7%
PODIATRIST



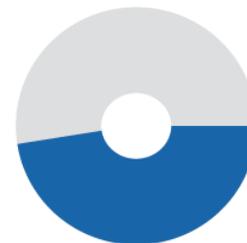
38.4%
ADVANCED PRACTICE REGISTERED NURSE



15.5%
OPTOMETRIST



7.1%
VETERINARIAN



47.6%
TOTAL % OF REGISTERED USERS

WHO USES THE TEXAS PMP? % of user searches by license type

**43.0%**

PHARMACISTS

**28.4%**PHYSICIANS
(MD, DO)**14.0%**

PRESCRIBER DELEGATES

**8.1%**

APRNs

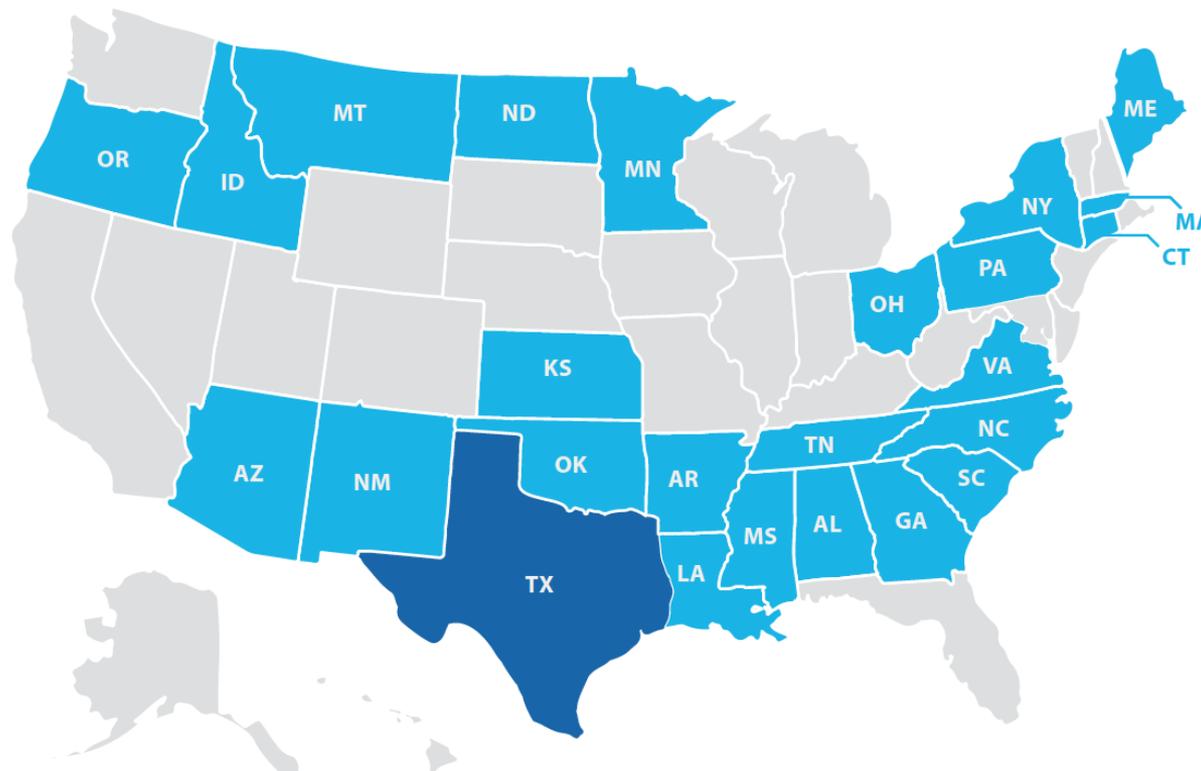
**3.2%**PHYSICIAN
ASSISTANTS**2.5%**PHARMACY TECHNICIANS
(PHARMACIST DELEGATES)**0.8%**

OTHER

TOTAL USER SEARCHES**8,143,304**

PARTNER STATES

Texas partners with 24 other states to share data via the PMP Interconnect.



PMP Queries

- Required prior to prescribing/dispensing opioids, benzodiazepines, barbiturates, or carisoprodol
- Exceptions: cancer, sickle cell, hospice, **inpatient**
- May be accessed by a delegate (e.g. nurse, medical assistant, administrative staff)

EHR Integration

- TSBP will cover costs of integration for requesting entities
- Clinicians must register for PMP prior to attempting access through EHR
- Delegates **MAY NOT** access PMP through EHR

Robust analytics and clinical resources to help best identify, prevent, and manage substance use disorder

NarxCare is a robust analytics tool and care management platform that helps prescribers and dispensers analyze real-time controlled substance data from Prescription Drug Monitoring Programs (PDMPs) and manage substance use disorder.

NarxCare automatically analyzes PDMP data and a patient's health history and provides patient risk scores and an interactive visualization of usage patterns to help identify potential risk factors. Your decisions can be based on objective insight into potential drug misuse or abuse, ultimately leading to improved patient safety.

The identification of patients at risk is only the beginning of a comprehensive platform needed to impact the increasing prevalence of substance use disorder. NarxCare extends beyond information and insights to provide tools and resources to enable care teams to support patient needs.

Increasing access to treatment, improving patient education and engagement, and enabling the coordination of care across the continuum through powerful care team communications are key NarxCare features that are widely recognized as critical to success.



NarxCare

- Proprietary algorithm without transparent research evaluating predictive value
- Primary input is dispensing data...
- Must be interpreted cautiously with consideration of patient-specific factors



Guidelines & Talking Points



Learning Objectives

- Discuss recent trends in controlled substance misuse & harm
- Describe patient outcomes related to PMP implementation
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- **Consider interventions to support patient health when concerning patterns of controlled substance use are identified**

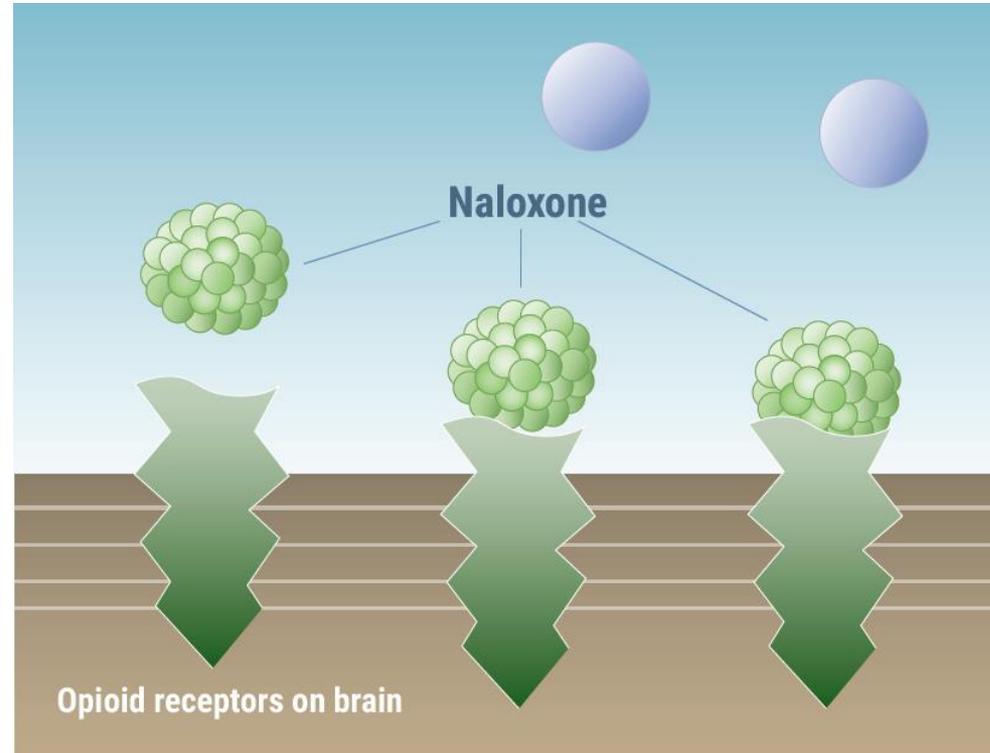
Harm Reduction Strategies

- Practical strategies to reduce the negative consequences of risky behaviors
 - Driving = seatbelt
 - Cooking = fire extinguisher
 - Intercourse = condom
- A spectrum of strategies may be employed in the context of drugs
 - **Safer use**
 - **Managed use**
 - Abstinence

OVERDOSE REVERSAL

Naloxone = The Opioid Overdose Antidote

- High affinity mu-opioid receptor antagonist
- Minimal risk for serious adverse effects
- Multiple formulations approved by FDA for layperson administration



Naloxone Access Laws

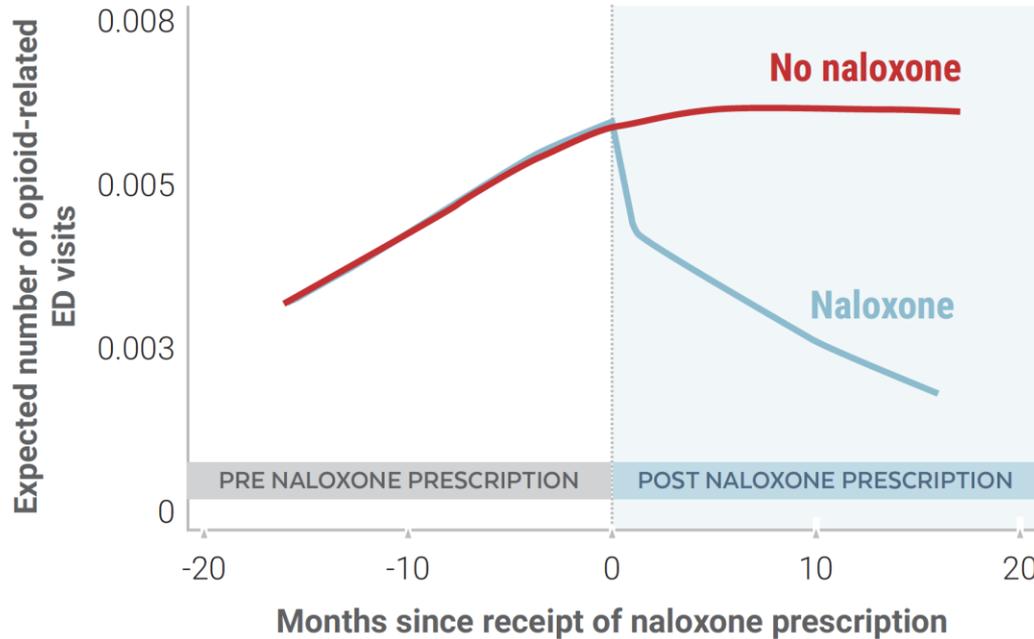
Enacted in all 50 U.S. states and the District of Columbia

Legislation varies but typically includes:

- Pharmacy-based access without a prior physician encounter
- Third party prescribing to individuals who may witness an overdose
- Liability protection for healthcare professionals and overdose responders

Associated with 14% reduction in opioid-related mortality

OPIOID RELATED EMERGENCY DEPARTMENT VISITS BY RECIPIENT OF NALOXONE PRESCRIPTION AMONG PRIMARY CARE PATIENTS ON OPIOID THERAPY FOR CHRONIC PAIN*



Prescribing naloxone to 29 patients averted 1 opioid-related emergency department visit in the following year.

*In a population with a rate of opioid-related emergency department visits of 7/1000 person years.

OPERATION NALOXONE.org

Continuing education & informational
resources for pharmacists, prescribers,
behavioral health professionals, & patients

Naloxone for Patients

You or a loved one may be at risk for an accidental drug overdose.

Accidental drug overdose is the leading cause of injury death in the United States. Most overdoses involve opioids, which include certain prescription pain relievers and heroin.

Common Opioids	Percocet®, Norco®, Vicodin®, OxyContin®, Morphine, Oxycodone, Hydromorphone, Fentanyl, Hydrocodone, Codeine, Methadone, Heroin
-----------------------	--

Thousands of people die each year from accidental overdoses. The pharmacist has determined you or a loved one may be at risk for an accidental opioid overdose for reasons that may include the following:

✓	Risk Factors for Opioid Overdose
	History of opioid poisoning or overdose
	History of illicit or nonmedical opioid use
	Use of methadone or buprenorphine
	High-dose prescription opioid use (>50 milligram morphine equivalents daily)
	Long-term prescription opioid use (>90 days continuously)
	Long-acting or extended-release prescription opioid use
	Use of opioids from multiple prescribers or multiple pharmacies
	Use of interacting drugs or medications (alcohol, sedatives, or antidepressants)
	Underlying health problems (lung, kidney, liver, or heart disease)
	Recent release from drug treatment/detoxification or correctional facility

You should have naloxone at home to keep you and your loved ones safe.

Naloxone is the antidote to an opioid overdose. If you take too much of an opioid medication, take opioids along with interacting drugs, or have a health condition that affects your ability to breathe or process medications, your breathing can slow to the point that you lose consciousness. If this condition persists, it can cause irreversible damage, including death. Naloxone reverses this effect, allowing you to breathe normally. Naloxone is not a controlled substance and it cannot be abused.

If you give naloxone to someone who is not experiencing an opioid overdose, nothing will happen. Naloxone can cause withdrawal symptoms if the overdose victim has developed a physical dependence to opioids. While acute opioid withdrawal is not generally life-threatening, it is still essential to call emergency medical services after administering naloxone. If you try to save a life with naloxone, you are protected by law from any liability regardless of the outcome.

Naloxone is available in several different versions. Some versions of naloxone are injected into the victim's thigh or upper arm, while others can be squirted into their nose. Your pharmacist can help you determine which version of naloxone is right for you. Check out OperationNaloxone.org to learn more about staying safe with opioids.

✓	Risk Factors for Opioid Overdose
	History of opioid poisoning or overdose
	History of illicit or nonmedical opioid use
	Use of methadone or buprenorphine for opioid use disorder
	High-dose prescription opioid use (>50 milligram morphine equivalents daily)
	Long-term prescription opioid use (>90 days continuously for non-cancer pain)
	Long-acting or extended-release prescription opioid use
	Use of opioids from multiple prescribers or multiple pharmacies
	Use of interacting drugs or medications (alcohol, sedatives, antidepressants)
	Underlying disease of key organs (lung, kidney, liver, heart, HIV/AIDS)
	Recent release from drug treatment/detoxification or correctional facility

Naloxone Formulations

Order details for several available naloxone formulations that are appropriate for layperson use are listed below. Dispensing two doses is generally recommended in case the first dose is insufficient. Prescriptions should be issued to the recipient, even if the recipient is not the individual at risk for opioid overdose.

Intranasal

Prefilled Syringe + MAD

1. Naloxone Prefilled Syringe (2mg/2mL), #2 boxes, PRN refills
 - Instill 1mL into each nostril as needed for suspected opioid overdose, repeat in 2 minutes if necessary
2. Mucosal Atomization Device with Luer-lock, #2 devices, PRN refills
 - Attach to prefilled naloxone syringe as needed for suspected opioid overdose

Narcan® Nasal Spray

1. Narcan® Nasal Spray (4mg/0.1mL), #1 two-pack, PRN refills
 - Instill 4mg into nostril as needed for suspected opioid overdose, repeat in 2 minutes if necessary

Intramuscular

Vial & Syringe

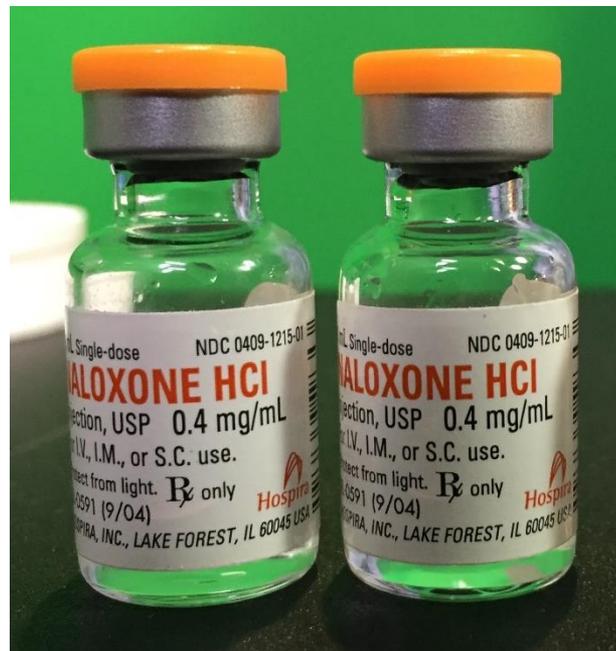
1. Naloxone Vial (0.4mg/mL), #2 vials, PRN refills
 - Inject 1mL into outer thigh as needed for suspected opioid overdose, repeat in 2 minutes if necessary
2. IM Needle & Syringe (3mL, 25g, 1”), #2 syringes, PRN refills
 - Use to administer naloxone as needed for suspected opioid overdose

Evzio® Auto-Injector

1. Evzio® Auto-injector (2mg/0.4mL), #1 two-pack, PRN refills
 - Inject into outer thigh as needed for suspected opioid overdose, repeat in 2 minutes if necessary

Vial + Syringe

- Naloxone Vial (0.4mg/mL), #2, PRN refills
 - Inject 1mL into outer thigh as needed for suspected opioid overdose, repeat in 2 minutes if necessary
- IM Needle & Syringe (3mL, 25g, 1"), #2, PRN refills
 - Use to administer naloxone as needed for suspected opioid overdose



Prefilled Syringe + MAD

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 - Instill 1mL into each nostril as needed for suspected opioid overdose, repeat in 2 minutes if necessary
- Mucosal Atomization Device, #2, PRN refills
 - Attach to prefilled naloxone syringe as needed for suspected opioid overdose



NARCAN Nasal Spray

- NARCAN Nasal Spray (4mg/0.1mL), #1 box, PRN refills
 - Instill 4mg into nostril as needed for suspected opioid overdose, repeat in 2 minutes if necessary



EVZIO Auto-Injector

- Evzio Auto-injector (2mg/0.4mL), #1 box, PRN refills
 - Inject 2mg into outer thigh as needed for suspected opioid overdose, repeat in 2 minutes if necessary



COMMUNICATING WITH PATIENTS ABOUT NALOXONE

The word “overdose” may have negative connotations and prescription opioid users may not relate to it.

Some patients have overdosed and don't realize it.

Out of 60 patients on opioid therapy for pain, 22 (37%) had stopped breathing or required help to be woken up due to opioids.²⁰

45%

**of these patients denied overdosing,
calling it a bad reaction**

Fentanyl Hysteria

- Passive exposure to fentanyl does not represent a meaningful risk to overdose responders
- Fentanyl and other ultra-potent analogues are not resistant to naloxone

TOUCH DOESN'T KILL

***TOUCHING FENTANYL CANNOT
CAUSE AN OVERDOSE***



#FENTANYLFACTSNOTFEAR

**CENTRAL ARKANSAS HARM REDUCTION PROJECT
MATT ADAMS FOUNDATION**

OPIC PHARMACOTHERAPY

	DSM-IV Abuse ^a		DSM-IV Dependence ^b		DSM-5 Substance Use Disorders ^c			
Hazardous use	X	} ≥ 1 criterion	-	} ≥ 3 criteria	X	} ≥ 2 criteria		
Social/interpersonal problems related to use	X		-		X			
Neglected major roles to use	X		-		X			
Legal problems	X		-		-			
Withdrawal ^d	-		X				X	
Tolerance	-		X				X	
Used larger amounts/longer	-		X				X	
Repeated attempts to quit/control use	-		X				X	
Much time spent using	-		X				X	
Physical/psychological problems related to use	-		X				X	
Activities given up to use	-		X				X	
Craving	-		-		X			

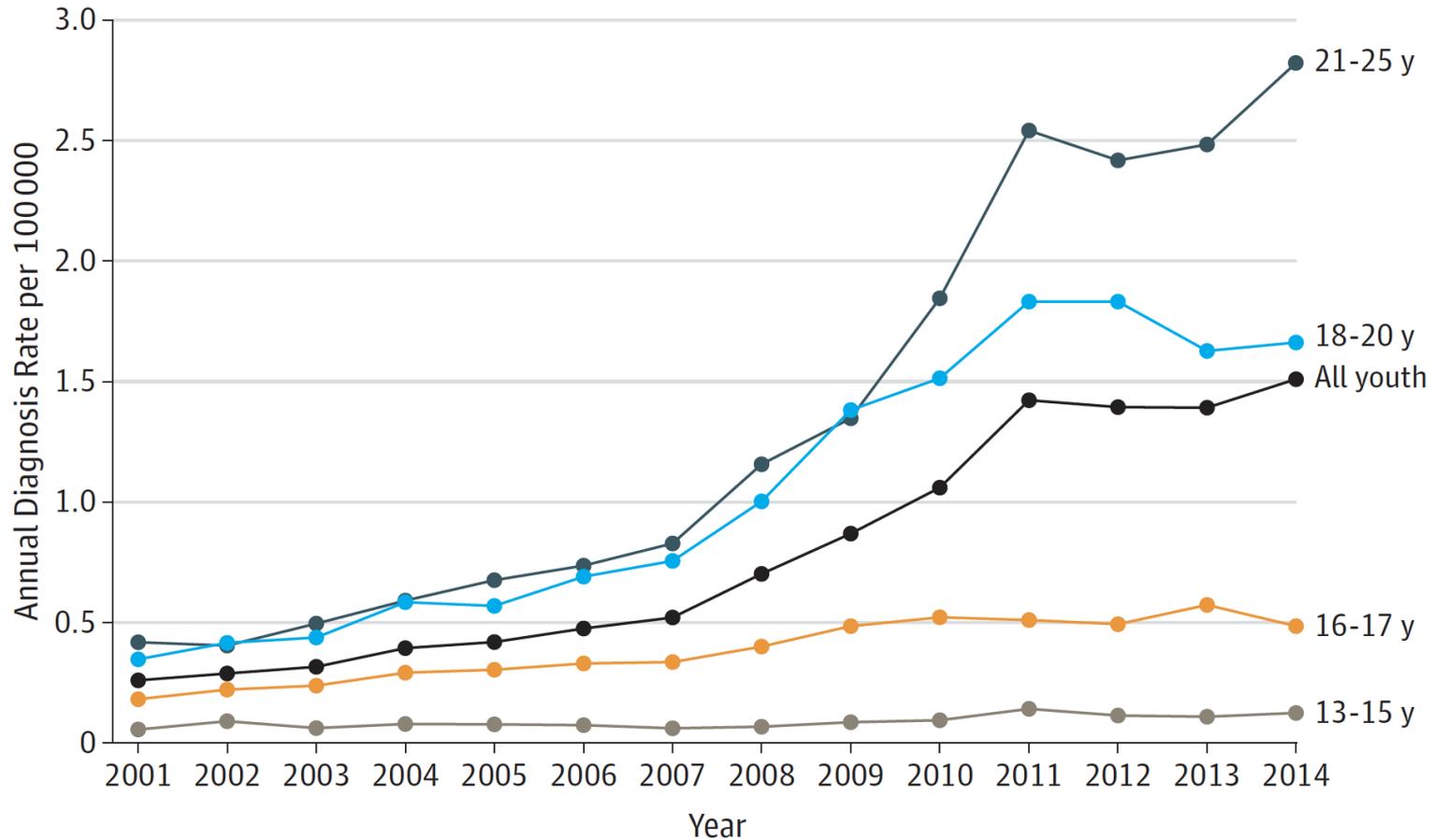
^a One or more abuse criteria within a 12-month period *and* no dependence diagnosis; applicable to all substances except nicotine, for which DSM-IV abuse criteria were not given.

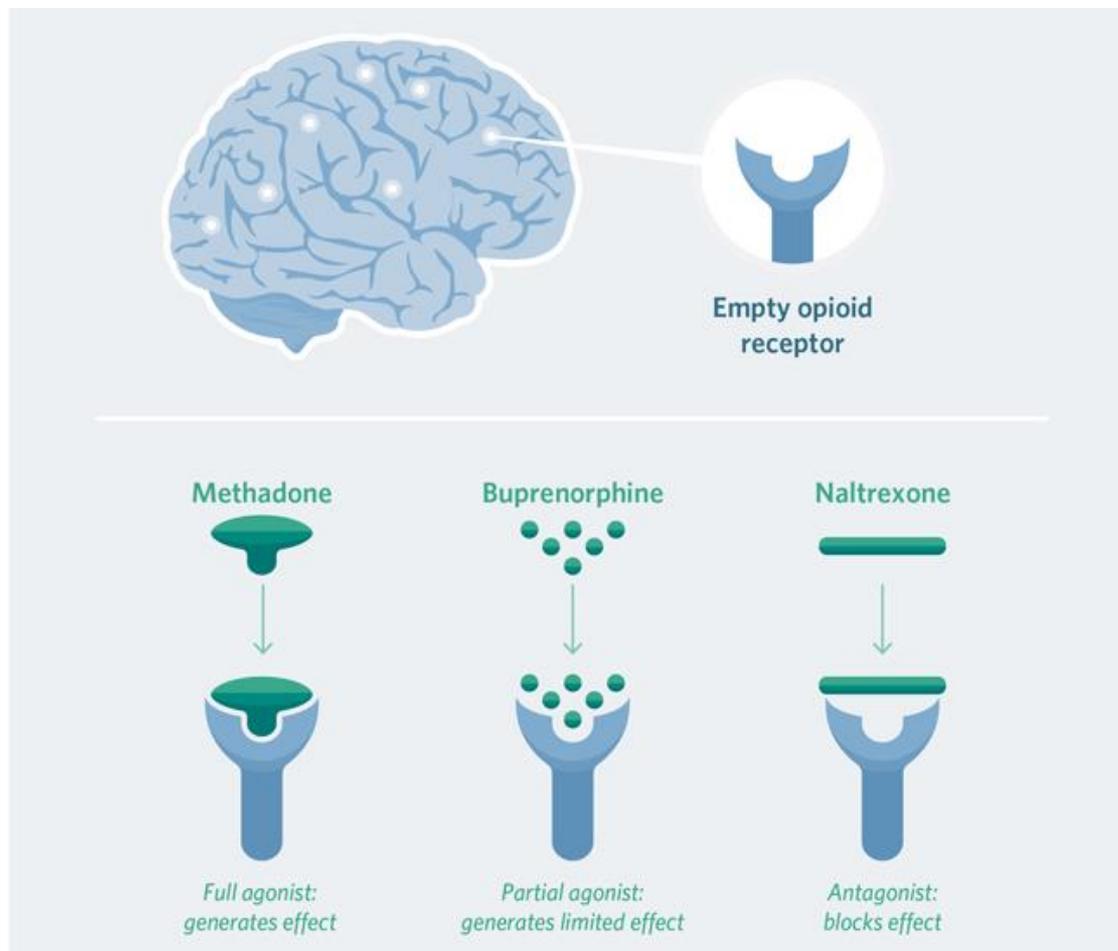
^b Three or more dependence criteria within a 12-month period.

^c Two or more substance use disorder criteria within a 12-month period.

^d Withdrawal not included for cannabis, inhalant, and hallucinogen disorders in DSM-IV. Cannabis withdrawal added in DSM-5.

Figure 1. Trends in Annual Rate of New Diagnoses of Opioid Use Disorder Among Youth





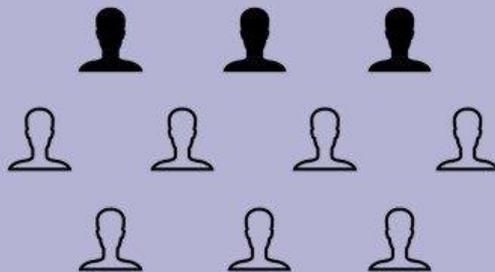
Methadone And Buprenorphine Are Associated With Reduced Mortality After Nonfatal Opioid Overdose

RETROSPECTIVE COHORT, MASSACHUSETTS PUBLIC HEALTH DATASET, 2012-2014

17,568 opioid overdose survivors
with ambulance or hospital encounter



Only 3 in 10 receive MOUD*
over 12 months of follow-up



*Medication for Opioid Use Disorder

Mortality at 12 months:
4.7 deaths / 100 person-yr

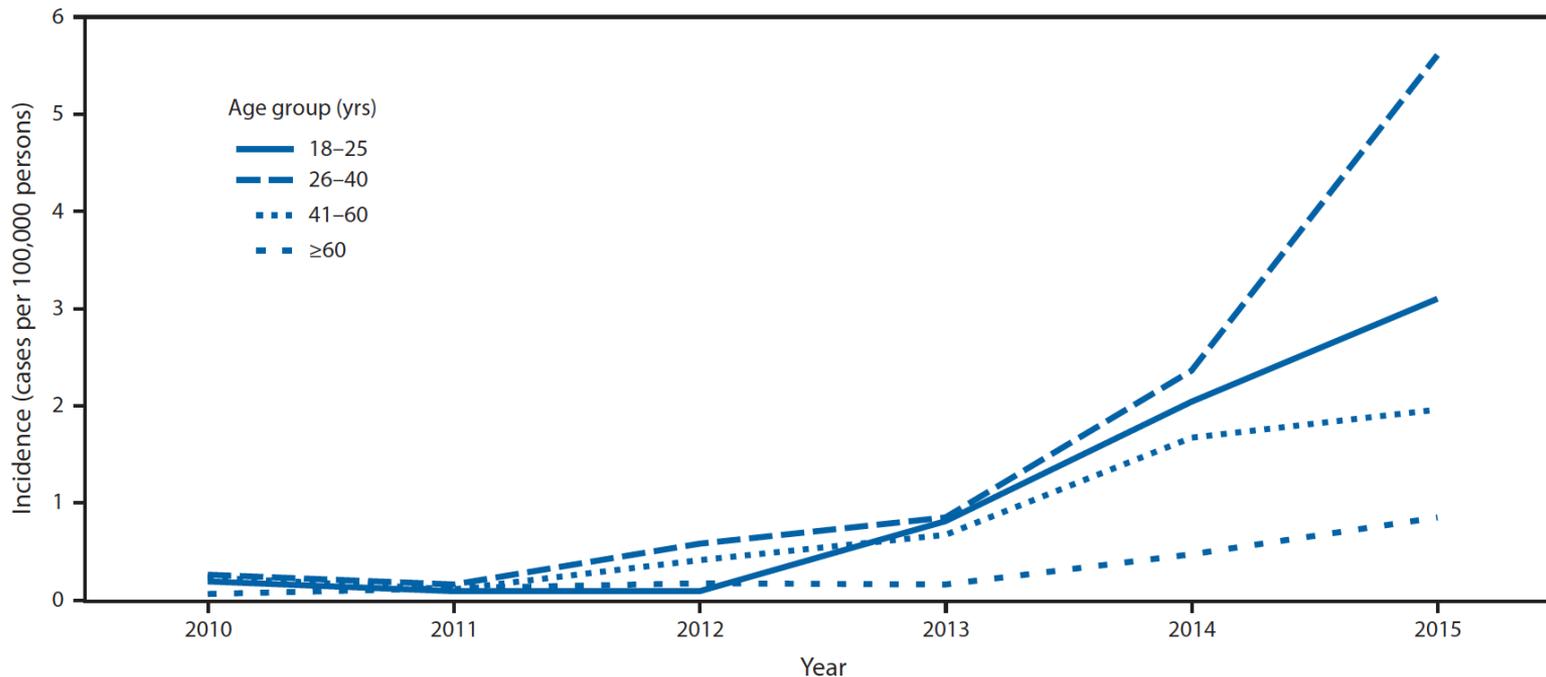
Association of MOUD* with mortality:

Methadone	↓	53%
Buprenorphine	↓	37%
Naltrexone**	↔	

** limited by small sample

Larochelle et al. *Annals of Internal Medicine*. 2018.

STERILE INJECTION

FIGURE 1. Incidence* of hospital discharge diagnoses of drug dependence–associated endocarditis,[†] by age group — North Carolina, 2010–2015


* North Carolina Hospital Discharge database, which includes discharge data from all 128 hospitals in North Carolina.

[†] Ninth and tenth revisions of *International Classification of Diseases Clinical Modification and Related Health Problems* (ICD-9-CM or ICD-10-CM) codes for both drug dependence and endocarditis.

Syringe Service Programs (SSP)

AKA syringe/needle exchange

Services typically include:

- Distributing sterile injection equipment with training
- Distributing naloxone kits with training
- Providing wound care and triage
- Screening for injection-related viral infections
- Referring to substance use disorder treatment

SSPs Increase Entry Into Substance Use Disorder Treatment:

SSPs **reduce drug use**. People who inject drugs (PWID) are 5 times as likely to enter treatment for substance use disorder and more likely to reduce or stop injecting when they use an SSP.



SSPs Reduce Needlestick Injuries:

SSPs **reduce needlestick injuries** among first responders by providing proper disposal. One in three officers may be stuck with a needle during their career. Increasing safe disposal also protects the public from needlestick injuries. SSPs do not increase local crime in the areas where they are located.



SSPs Reduce Overdose Deaths:

SSPs **reduce overdose deaths** by teaching PWID how to prevent and respond to drug overdose. They also learn how to use naloxone, a medication used to reverse overdose.



3,600 HIV Diagnoses Among PWID In 2015:

SSPs **reduce new HIV and viral hepatitis infections** by decreasing the sharing of syringes and other injection equipment. About 1 in 3 young PWID (aged 18–30) have hepatitis C.



Prevention Saves Money:

SSPs **save health care dollars** by preventing infections. The estimated lifetime cost of treating one person living with HIV is more than \$400,000. Testing linked to hepatitis C treatment can save an estimated 320,000 lives.



SSPs DON'T INCREASE DRUG USE OR CRIME.

Pharmacy-Based Syringe Access

- Pharmacies could be a valuable point-of-access for sterile injection equipment and education
- Most community pharmacists are not willing to provide syringes to patients with suspected IVDU
- A common reason for refusal is the fear of promoting IVDU, though no evidence exists to support this fear

The PMP is not the solution to the overdose crisis!

Whether the PMP supports or harms patient care is dependent on how you respond to the data it provides.

Prepare to respond effectively by reviewing the PMP prescriber toolkit and educating yourself about naloxone.

lucas.hill@austin.utexas.edu | OperationNaloxone.org