

# Mississippi's Opioid Crisis



Jordon Hillhouse, CPS

February 17, 2021



## Icebreaker

- ◆ Count to eight, then clap.
- ◆ The process will continue until I say stop.



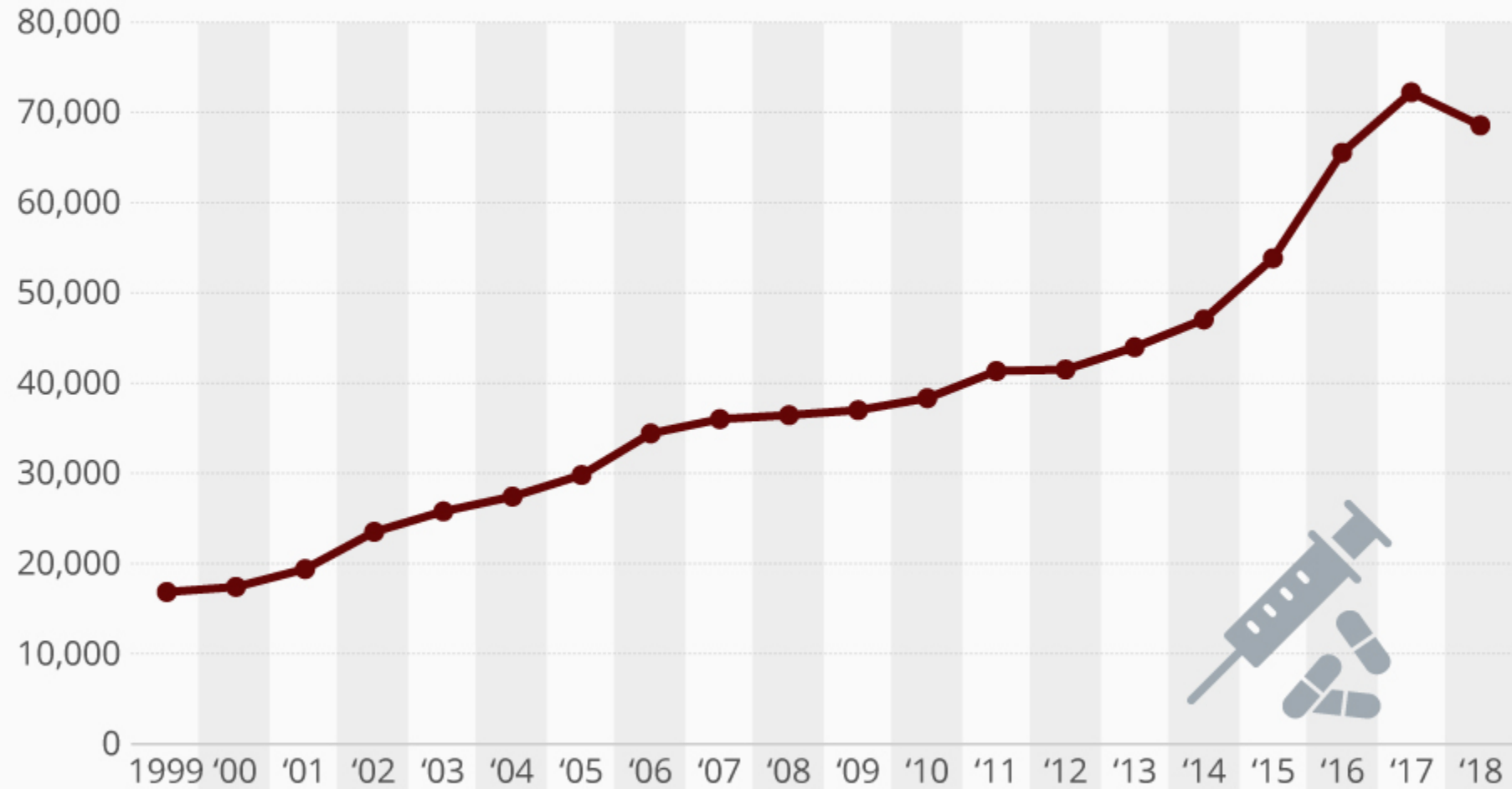
In 2018 , there were  
67,367 overdose deaths.

**One death every  
Eight Minutes!**



# U.S. Drug Overdose Deaths Drop For First Time In 20 Years

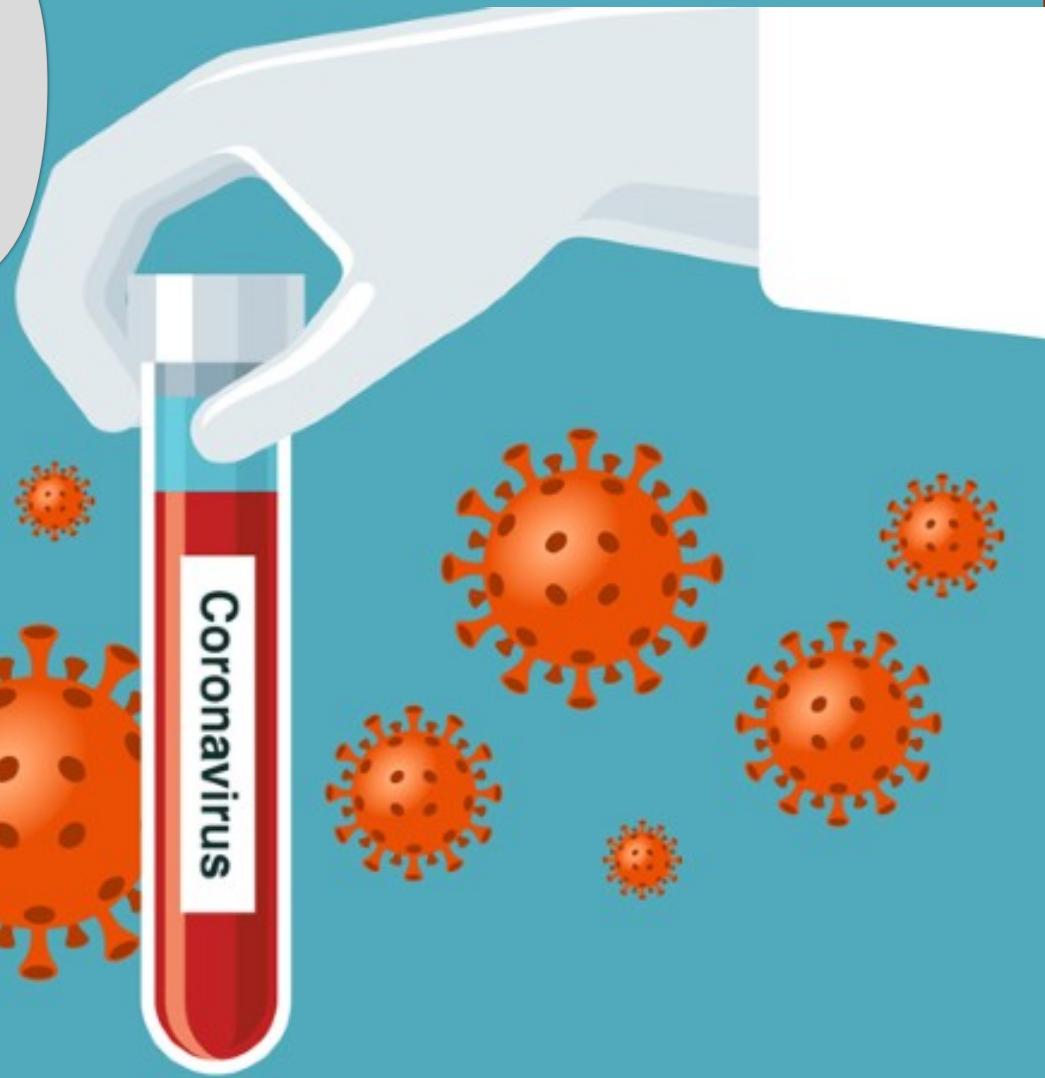
Number of drug overdose deaths in the U.S. from 1999 to 2018\*



\* Historical data from 1999 to 2014. 2015-2018 are provisional figures due to some deaths still being investigated.

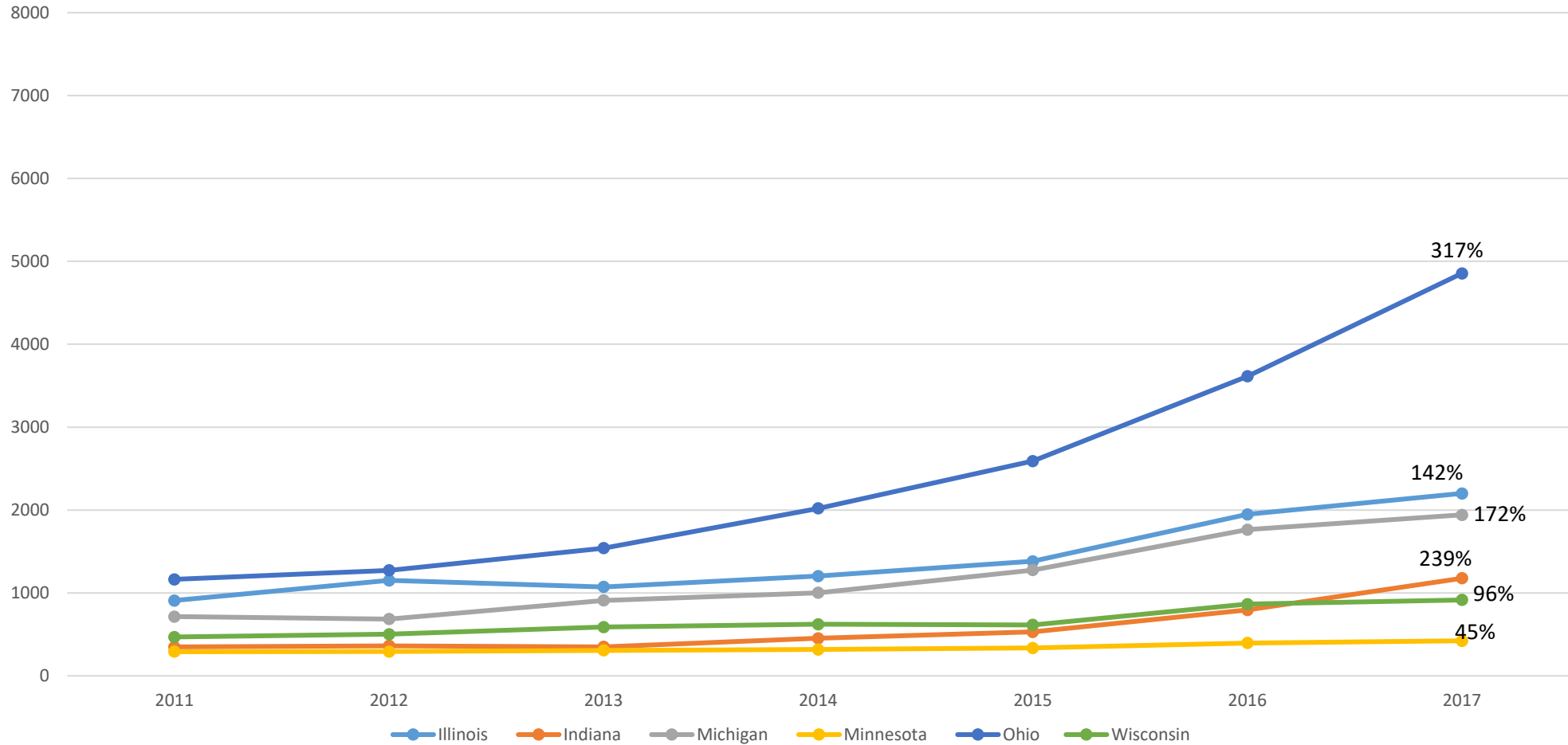


2020



# Opioid Related Deaths

Opioid Overdose Deaths





# COMMON TERMS



# What is an opioid?

- ◆ Opioids are a class of drugs naturally found in the opium poppy plant.
- ◆ Some prescription opioids are made from the plant directly, and others are made by scientists in labs using the same chemical structure.
- ◆ Opioids are often used as medicines because they contain chemicals that relax the body and can relieve pain.

## What is an opioid?

- ◆ Prescription opioids are used mostly to treat moderate to severe pain.
- ◆ Opioids can also make people feel very relaxed and "high" - which is why they are sometimes used for non-medical reasons.
- ◆ Opioids can be highly addictive, and overdoses and death are common.



## Opioid vs. Opiate

- ◆ Opiates are labeled “natural”, because nature creates the active ingredient molecules.
- ◆ An opioid is a substance (molecule) that is synthetic or partly synthetic. This means the active ingredients are created chemically.



## What Makes a Crisis?

- ◆ Crisis - a time of intense difficulty, trouble, or danger.
- ◆ Epidemic - a widespread occurrence of an infectious disease in a community at a particular time.

# Agenda



The History of Opioids



Commonly Abused Opioids



Mississippi's Opioid Crisis

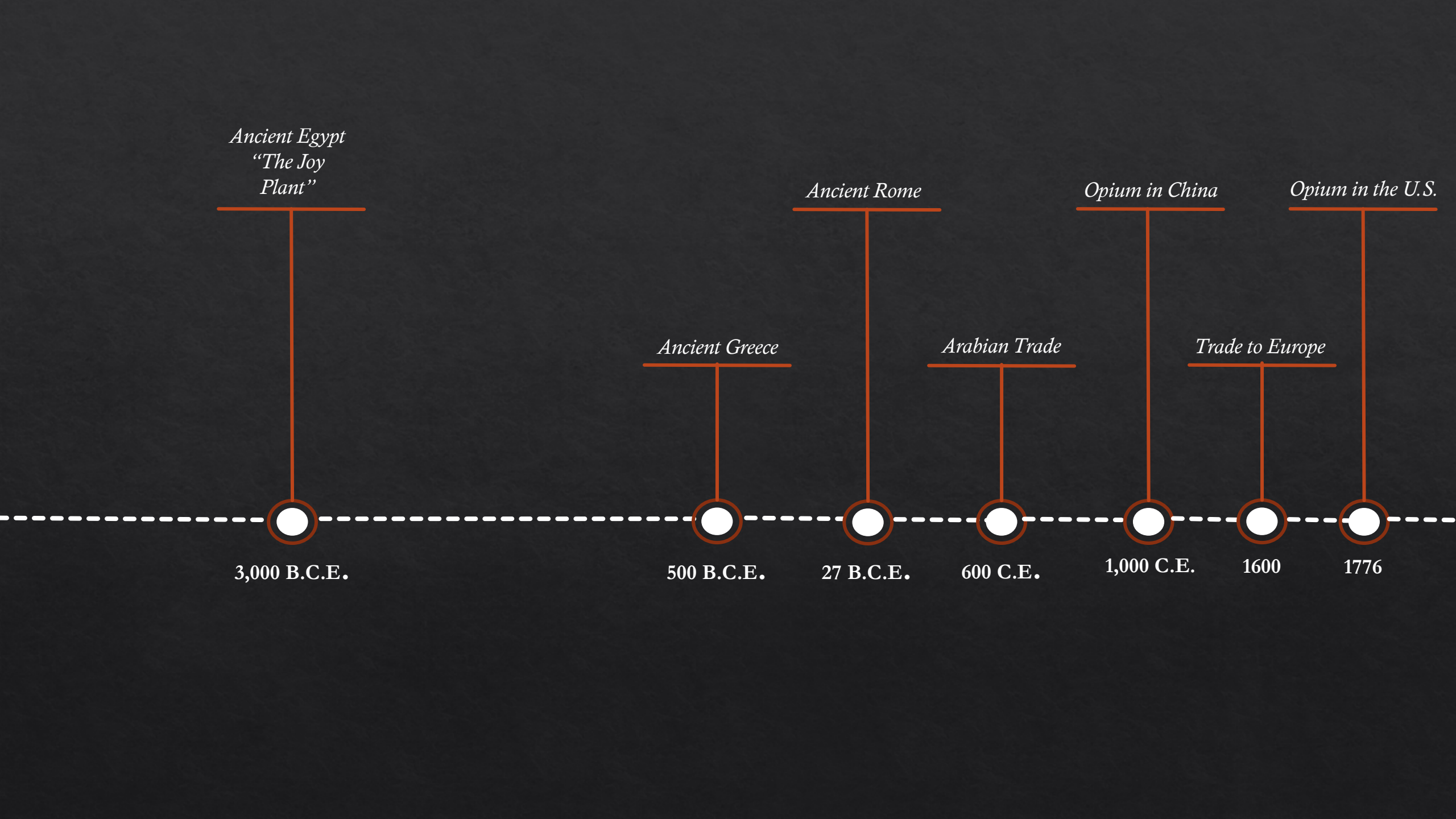


HIV and Opioids



# The History of Opioids





*Ancient Egypt  
"The Joy  
Plant"*

3,000 B.C.E.

*Ancient Greece*

500 B.C.E.

*Ancient Rome*

27 B.C.E.

*Arabian Trade*

600 C.E.

*Opium in China*

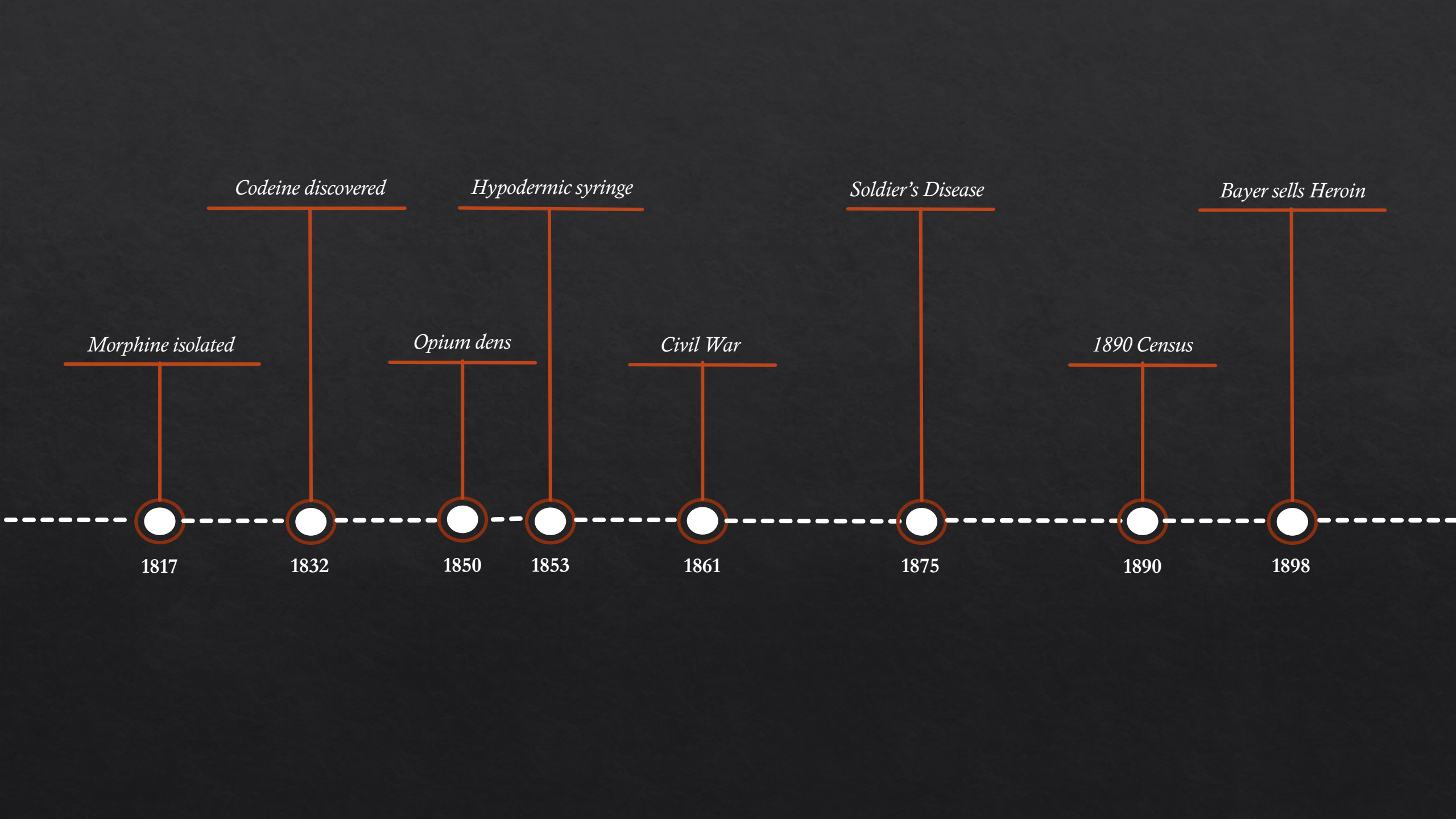
1,000 C.E.

*Trade to Europe*

1600

*Opium in the U.S.*

1776



*Morphine isolated*

*Codeine discovered*

*Opium dens*

*Hypodermic syringe*

*Civil War*

*Soldier's Disease*

*1890 Census*

*Bayer sells Heroin*

1817

1832

1850

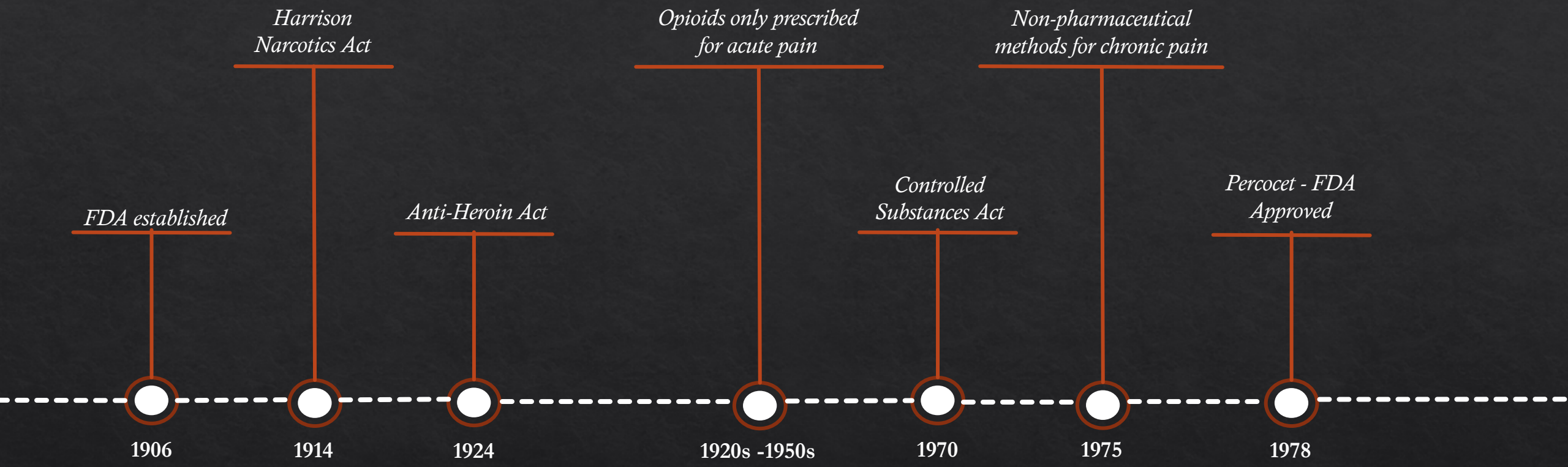
1853

1861

1875

1890

1898





*NEJM Article*

*Advocacy for  
pain relief*

*Oxycontin –  
FDA Approved*

*Vicodin –  
FDA Approved*

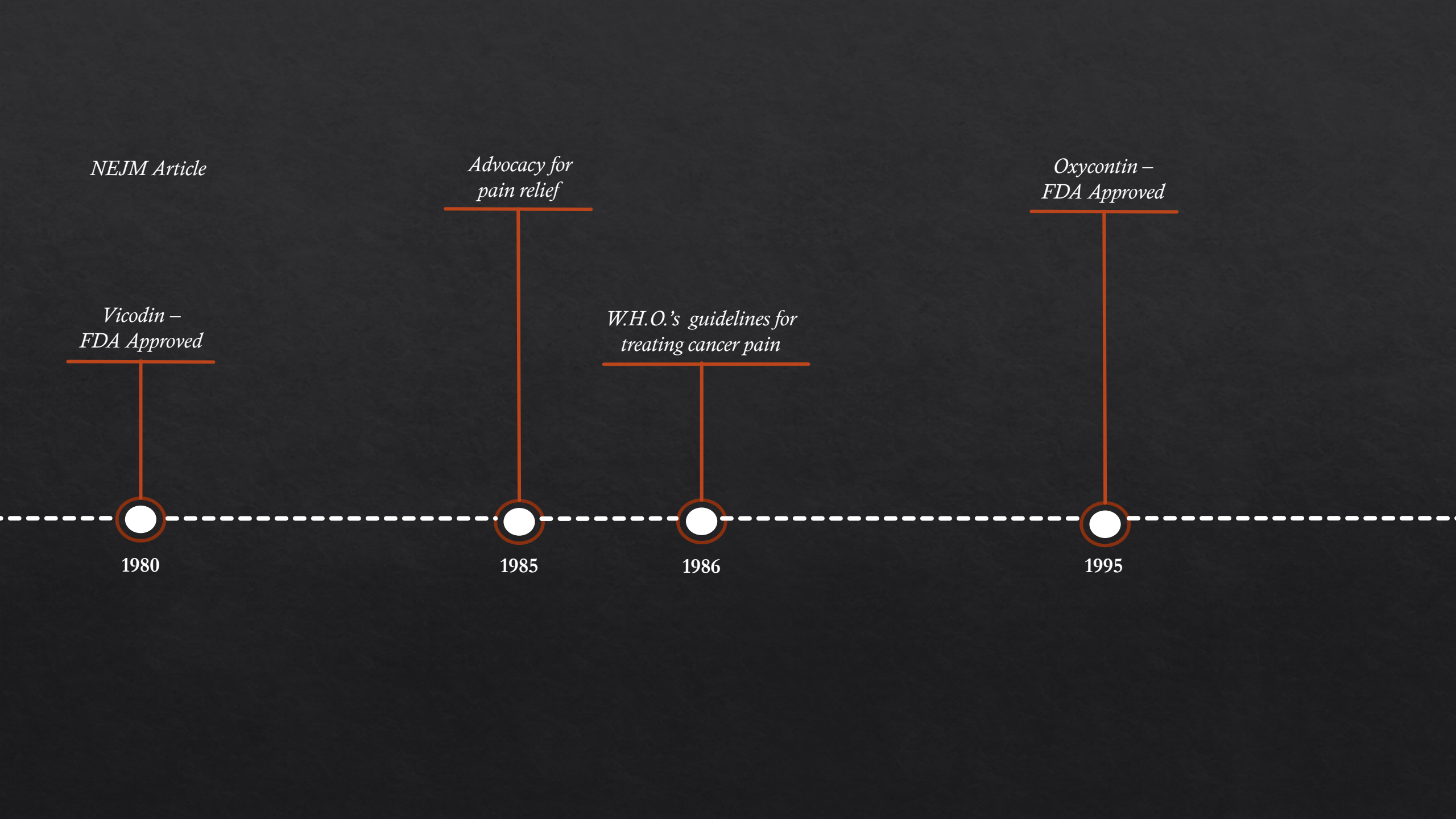
*W.H.O.'s guidelines for  
treating cancer pain*

1980

1985

1986

1995



*Oxycontin on  
the market*

1996

*Purdue Pharma  
Strategic Marketing*

1998

*Patient Pain  
Level*

2001

*Prescriptions increase*

2002

*Rise in teen  
opioid use*

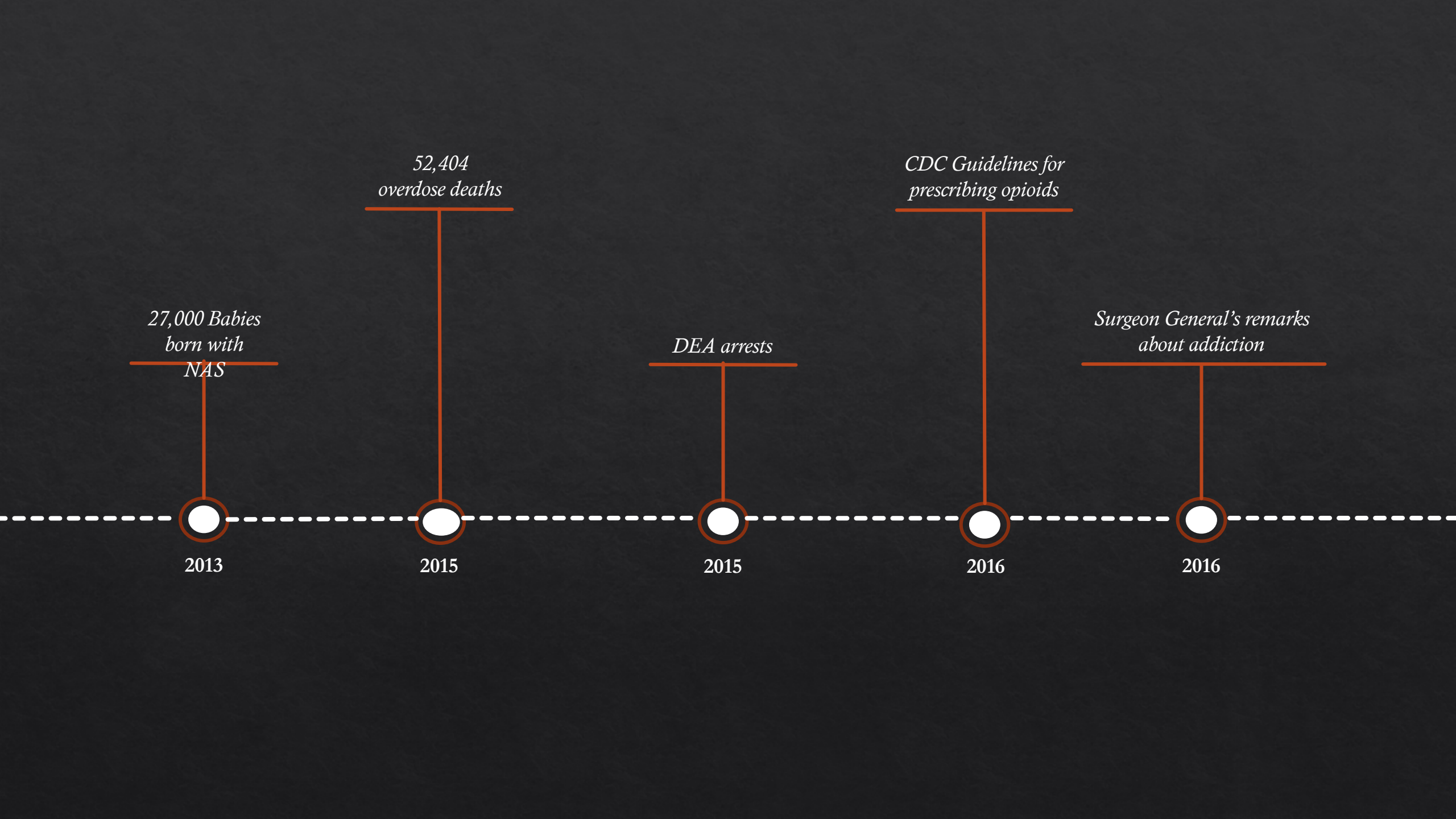
2006

*United States v.  
Purdue Pharma*

2007

*Tamper-resistant  
Oxycontin released*

2010



*27,000 Babies  
born with  
NAS*

2013

*52,404  
overdose deaths*

2015

*DEA arrests*

2015

*CDC Guidelines for  
prescribing opioids*

2016

*Surgeon General's remarks  
about addiction*

2016



*President's Commission on  
Combating Drug  
Addiction and the Opioid Crisis.*

*CVS Pharmacy  
7 day policy*

*142 daily deaths*

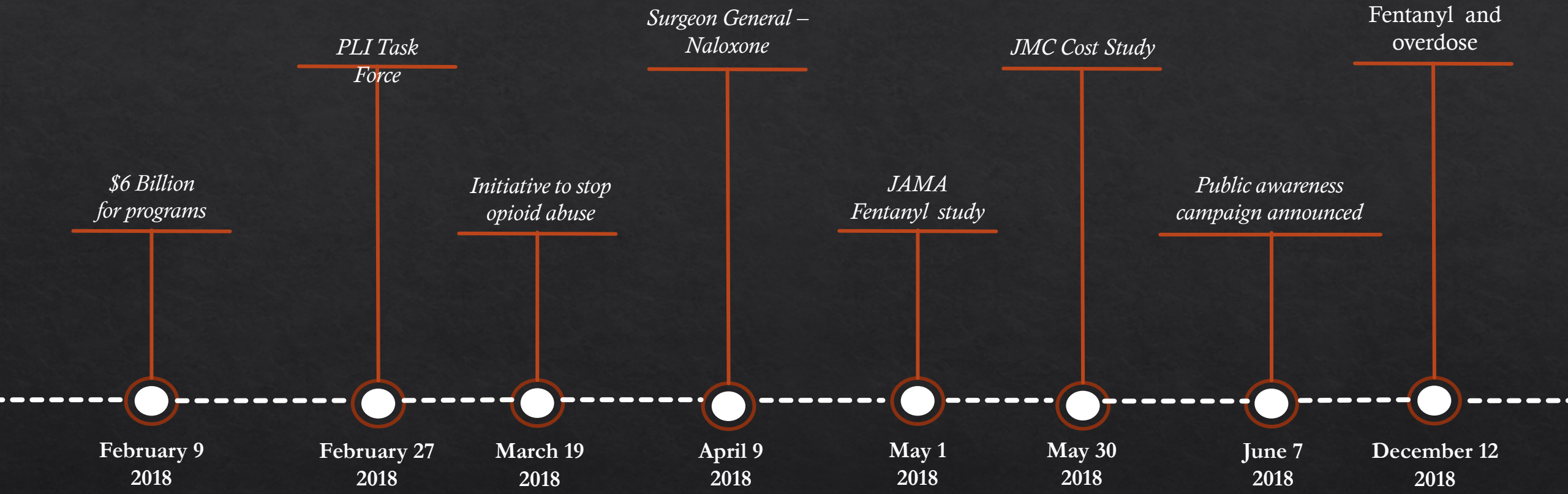
*Opioid Commission  
releases final report*

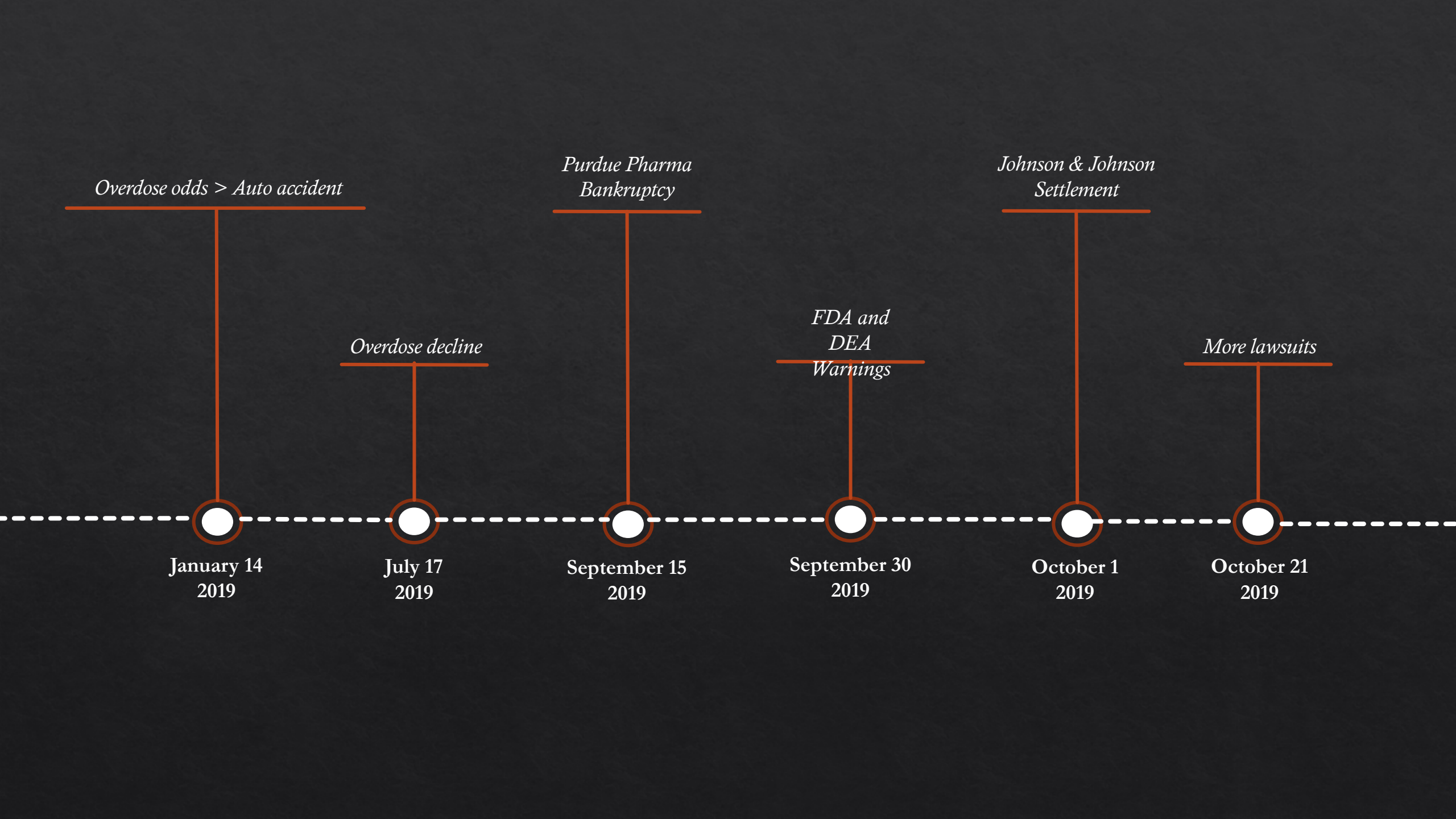
March 2017

July 2017

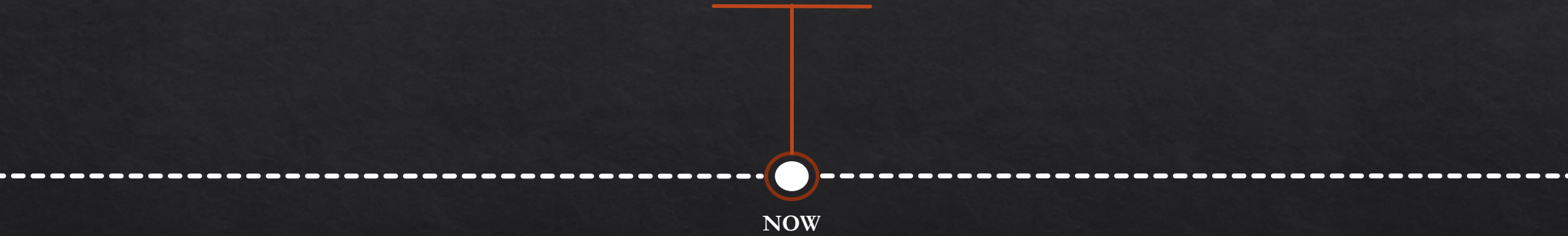
September 2017

December 2017









<https://www.youtube.com/watch?v=B76TQGfohW8&t=1s>



# Commonly Abused Opioids



# Types of Opioids

Codeine

Hydrocodone

Hydromorphone

Meperidine

Morphine

Methadone

Oxycodone

Oxymorphone

Fentanyl

# Fentanyl

Actiq

Duragesic

Fentora

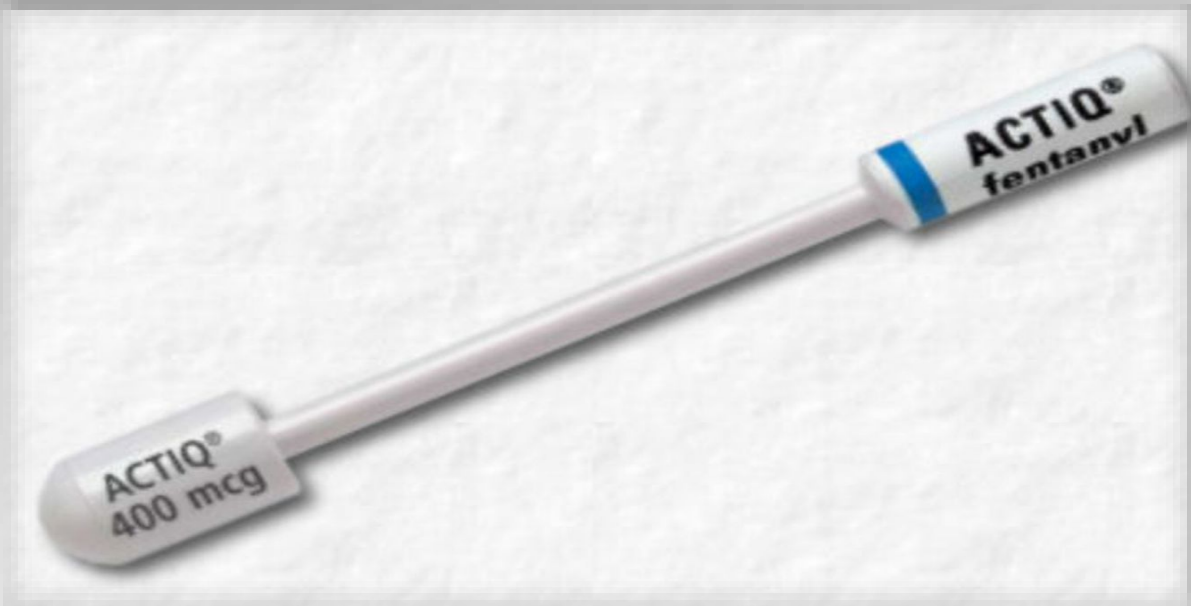
Abstral

Onsolis

- Fentanyl is 50 times more potent than heroin and 100 times more potent than morphine.
- Pharmaceutical fentanyl is prescribed to manage severe pain. Illegally manufactured fentanyl is available in counterfeit pills or mixed with heroin and/or cocaine.



- According to the Drug Enforcement Administration, "Fentanyl is the most prevalent and the most significant synthetic opioid threat to the United States."
- Overdoses related to use of synthetic marijuana laced with fentanyl have also been reported recently.



# Lethal Doses of Opioids

(Dime for Scale)

**Heroin**

10-12mg



**Fentanyl**

1-2mg







- ◆ Fake pills are much cheaper than the real versions.
- ◆ The public should be aware that drugs obtained on the street, even though they look like a real prescription pharmaceutical, may be deadly.
- ◆ It is always unsafe to take a prescription drug unless it comes from your own prescription and is dispensed by a reputable pharmacy.

# The Strength of Commonly Prescribed Opioids



Morphine

Codeine

Oxycodone

Hydromorphone

Fentanyl

# The Strength of Commonly Prescribed Opioids



1

**Morphine**

Codeine

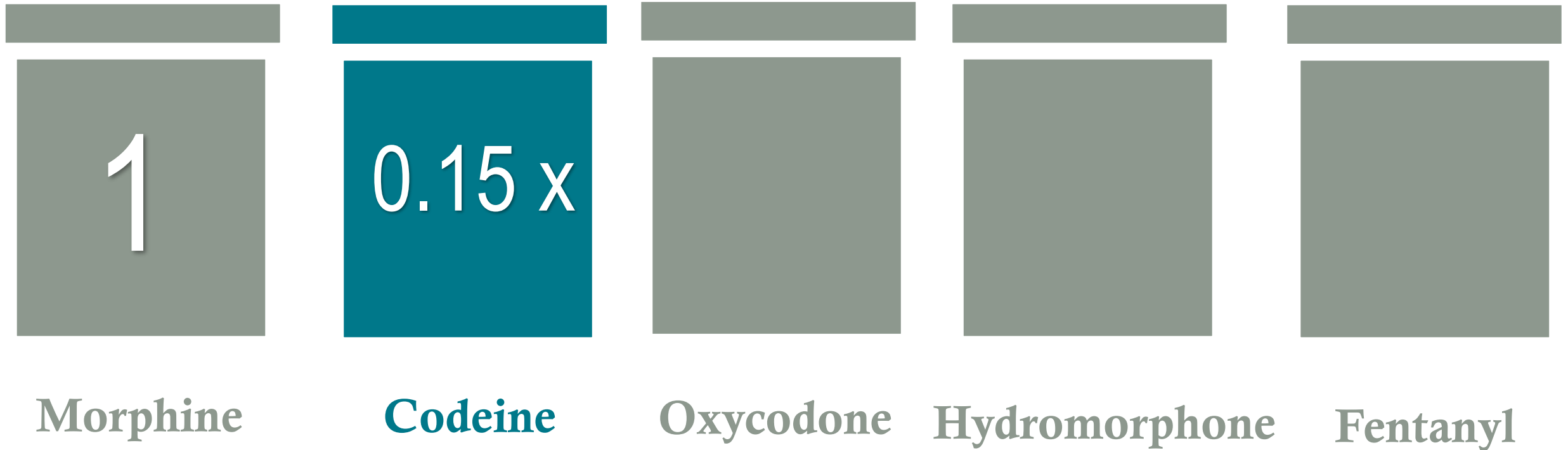
Oxycodone

Hydromorphone

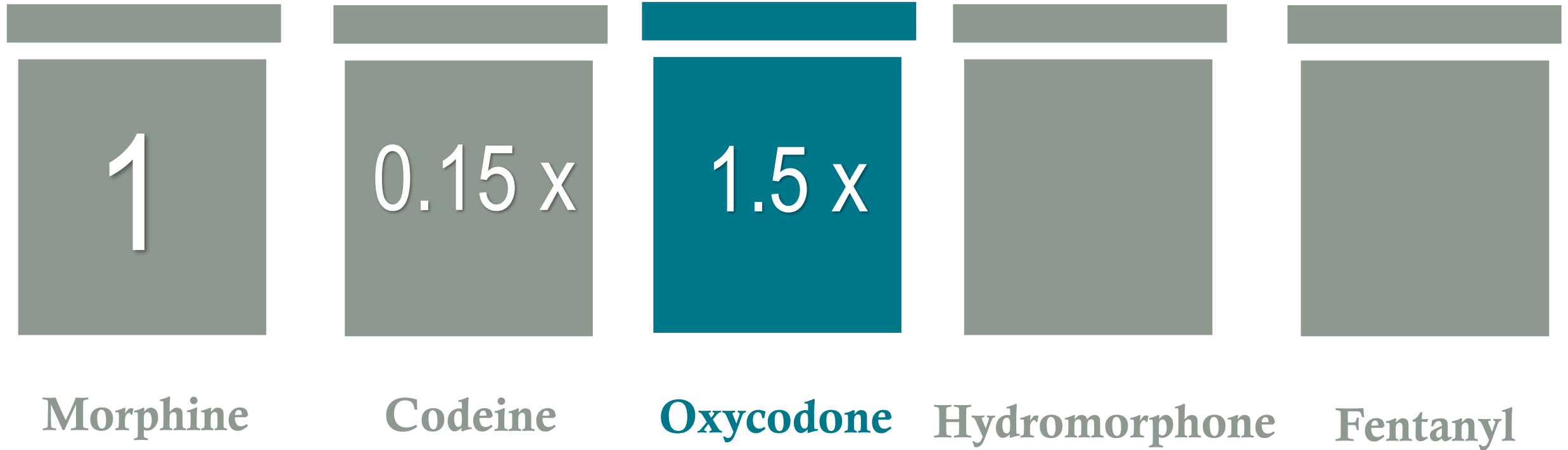
Fentanyl



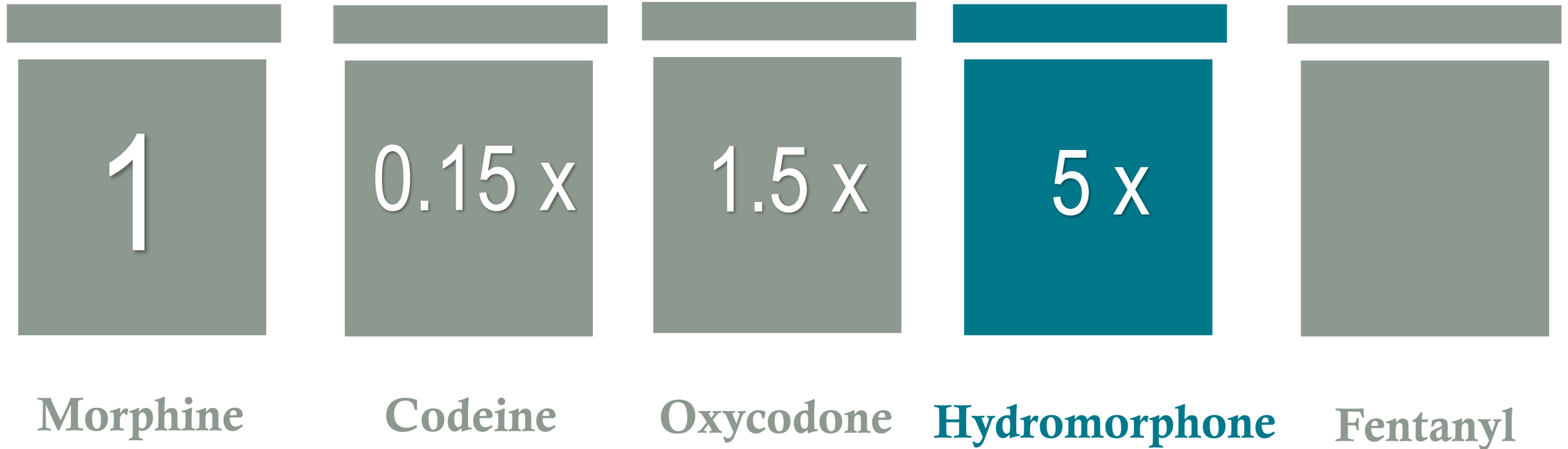
# The Strength of Commonly Prescribed Opioids



# The Strength of Commonly Prescribed Opioids



# The Strength of Commonly Prescribed Opioids



# The Strength of Commonly Prescribed Opioids

1

Morphine

0.15 x

Codeine

1.5 x

Oxycodone

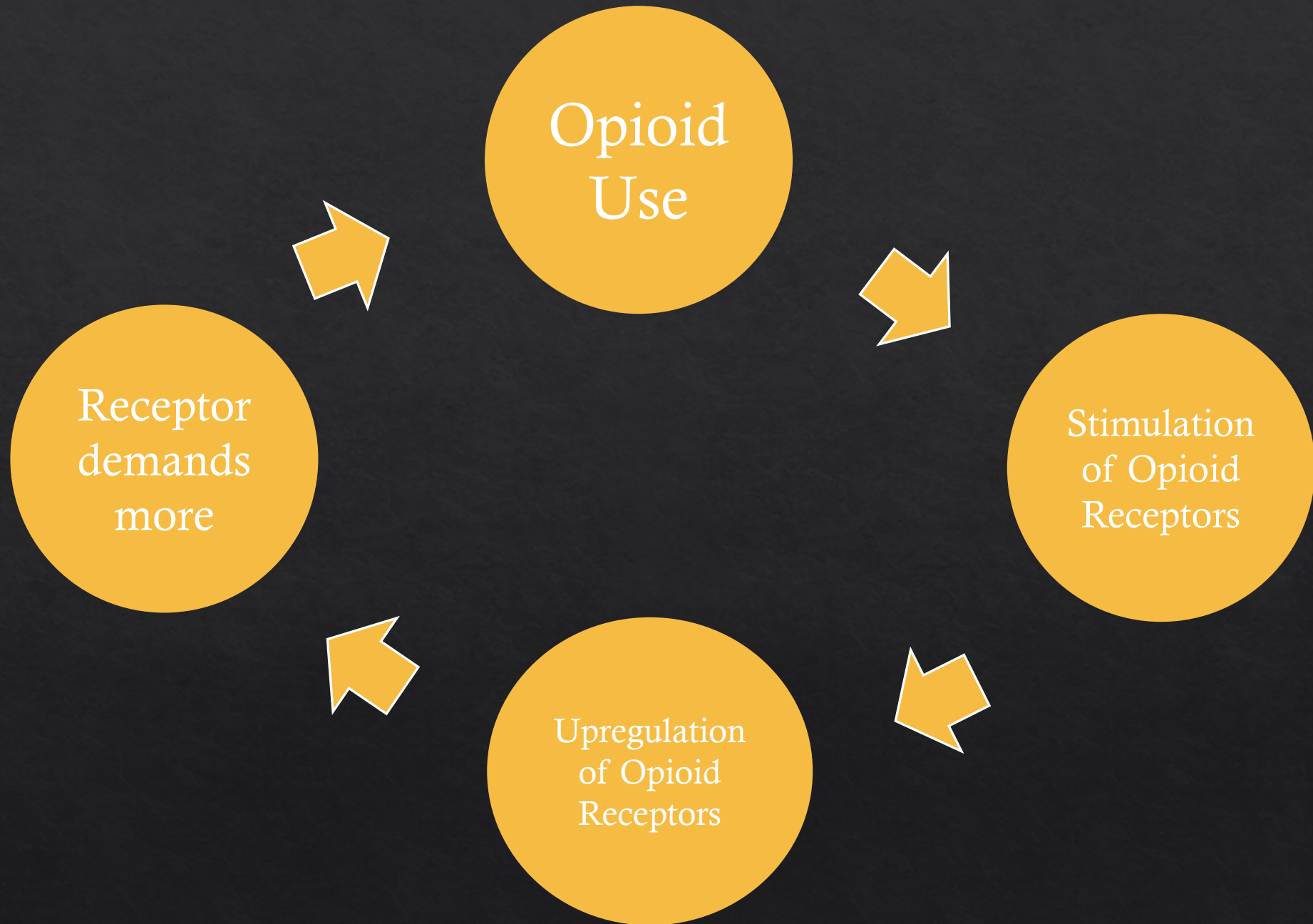
5 x

Hydromorphone

50 –  
100 x

Fentanyl



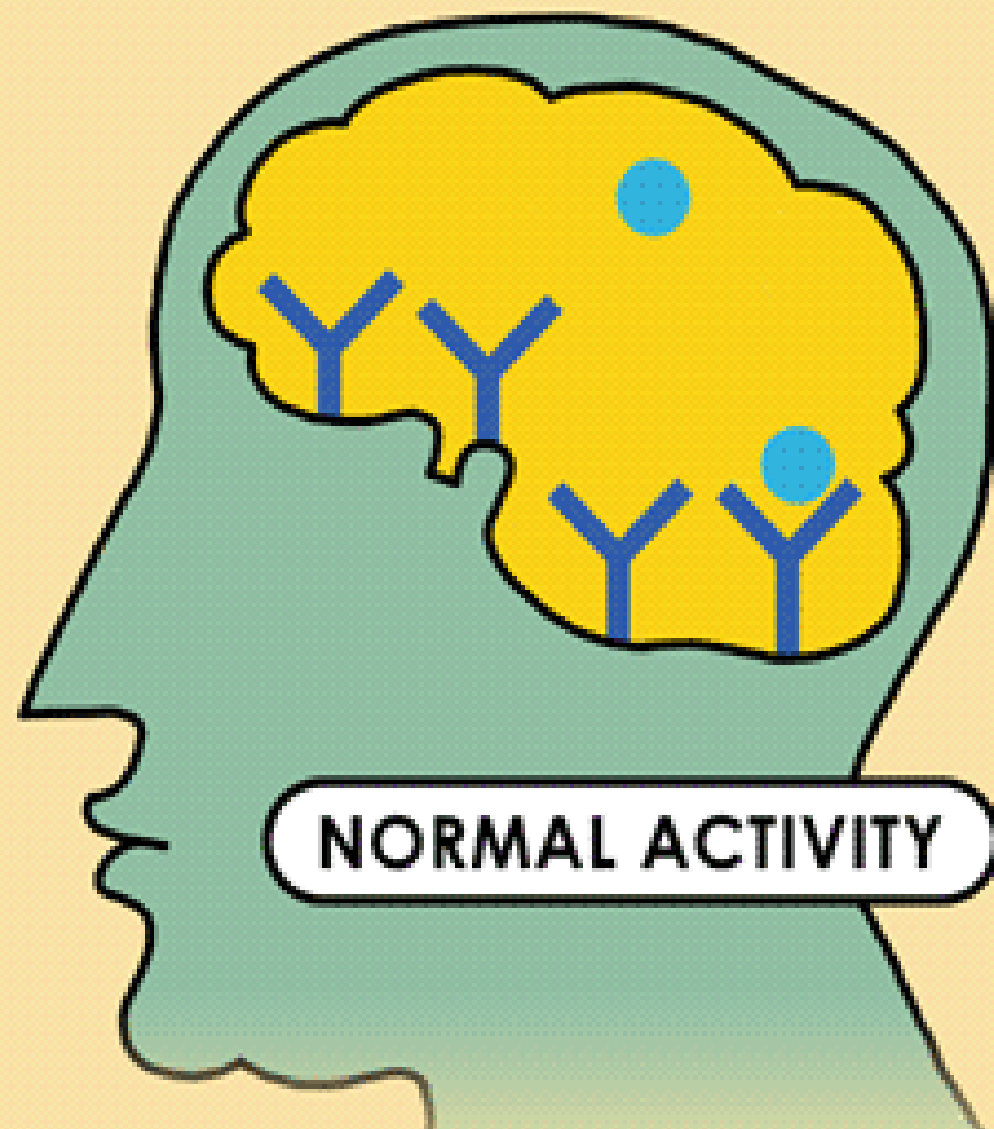


Opioid  
Use

Stimulation  
of Opioid  
Receptors

Upregulation  
of Opioid  
Receptors

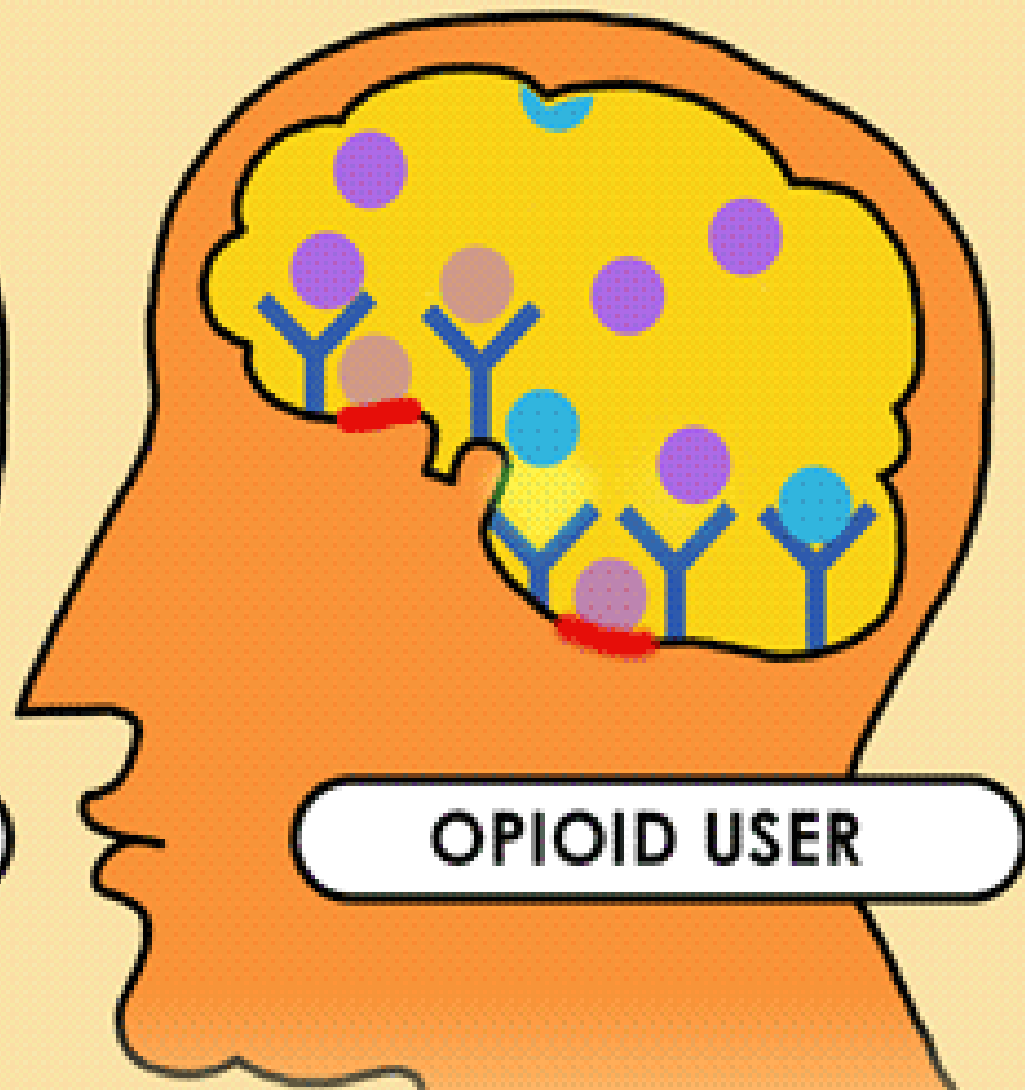
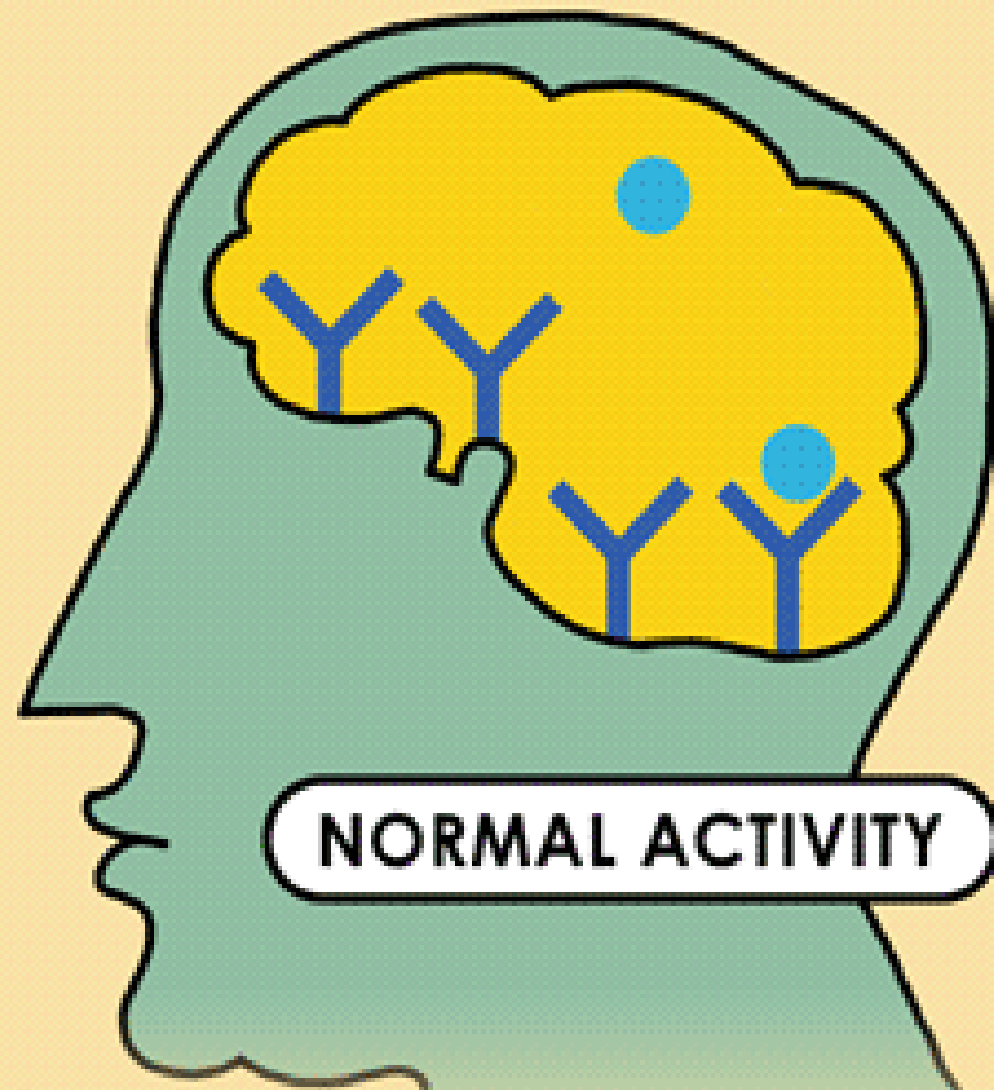
Receptor  
demands  
more



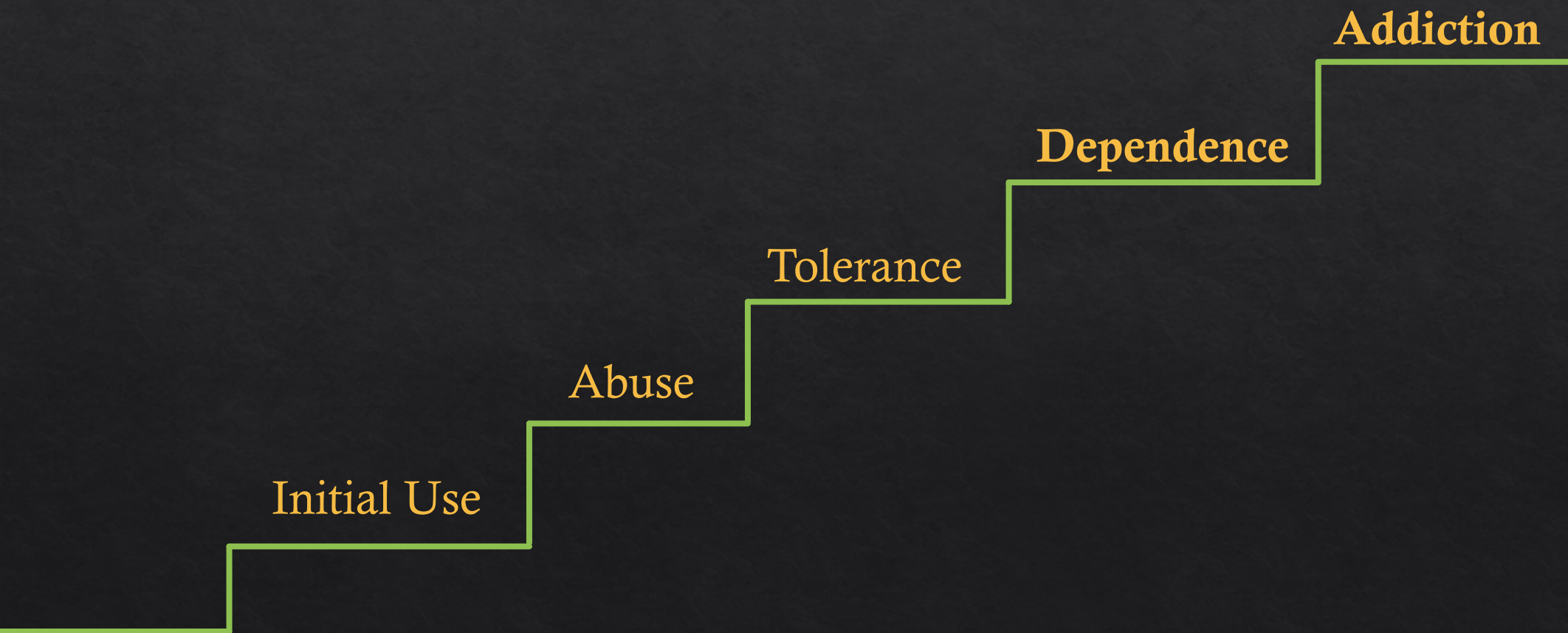
**NORMAL ACTIVITY**

■ OPIOID RECEPTORS

■ NATURAL ENDORPHINS



■ OPIOID RECEPTORS   ■ NATURAL ENDORPHINS   ■ OPIOID DRUGS



Initial Use

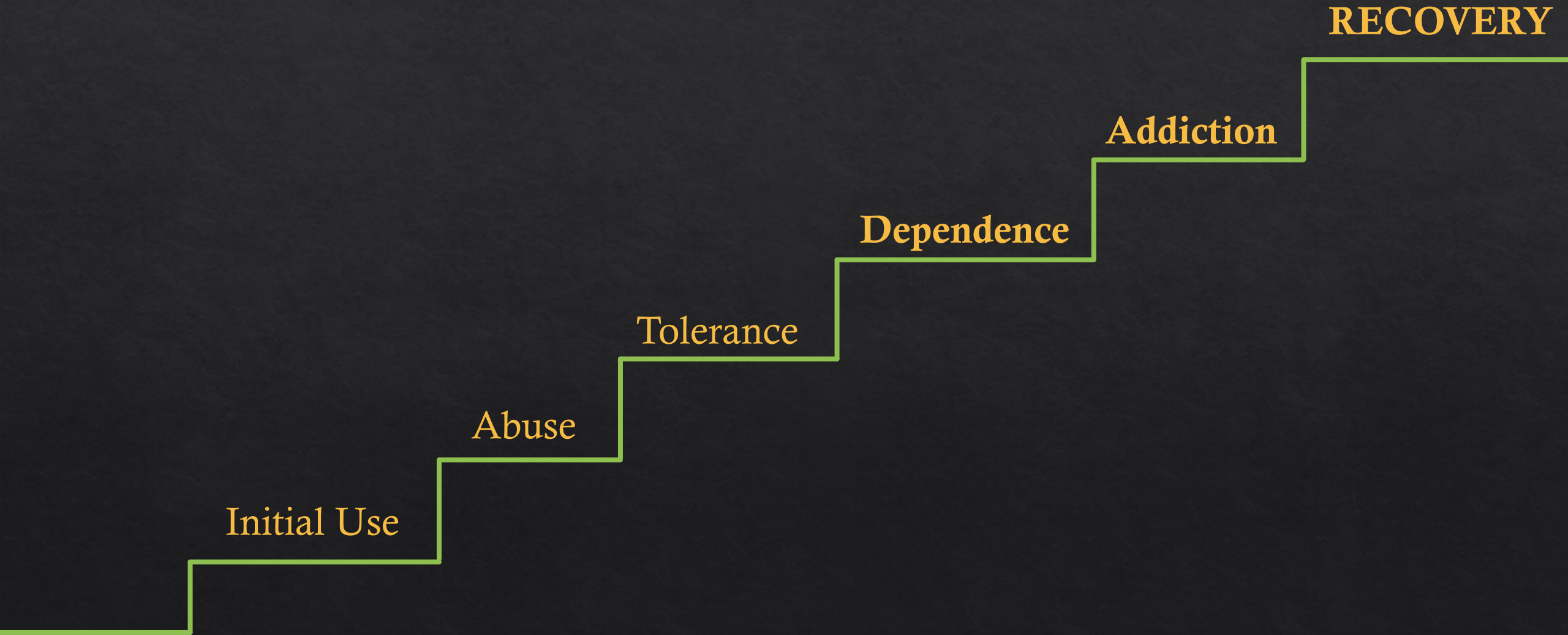
Abuse

Tolerance

Dependence

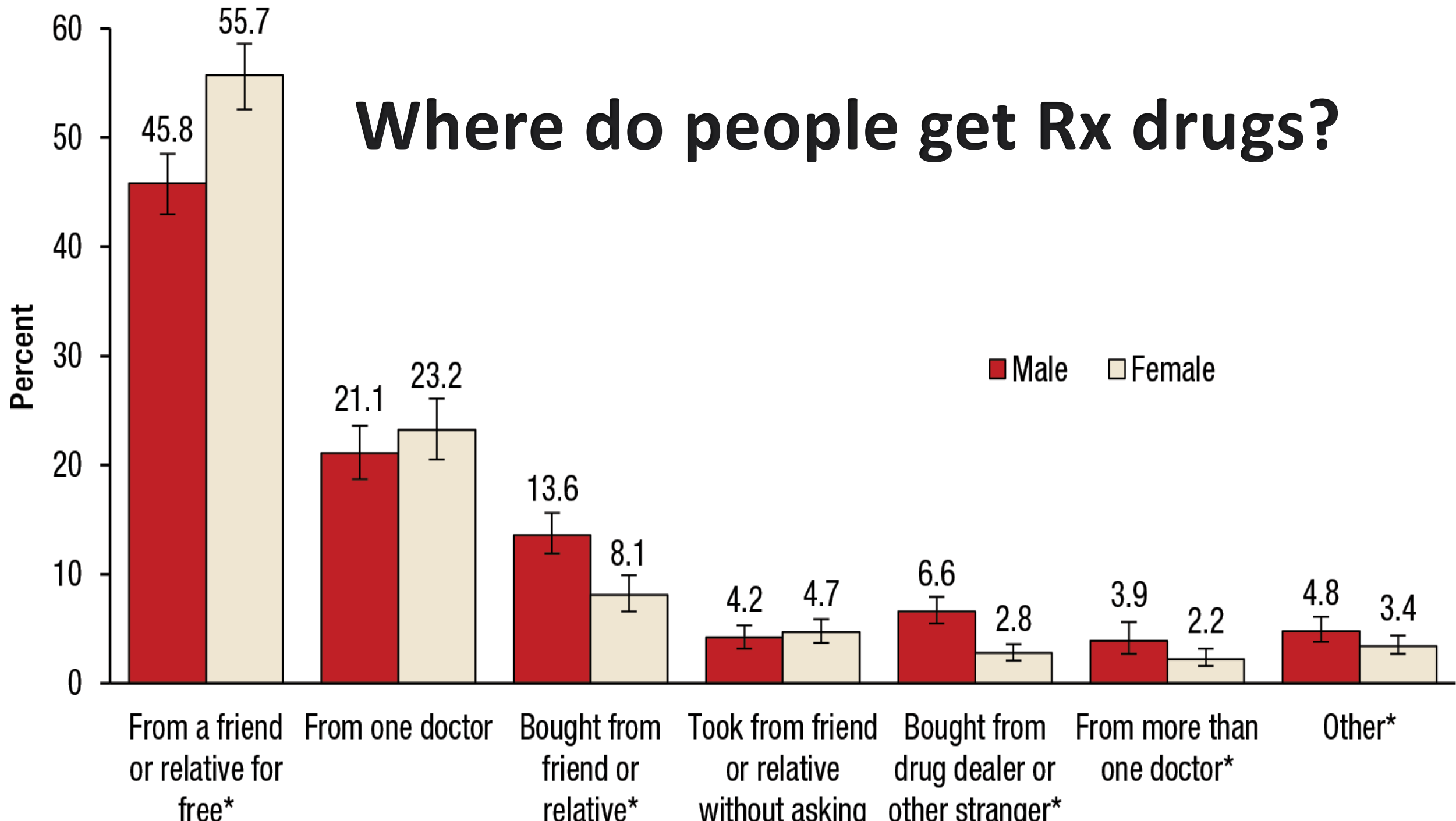
Addiction



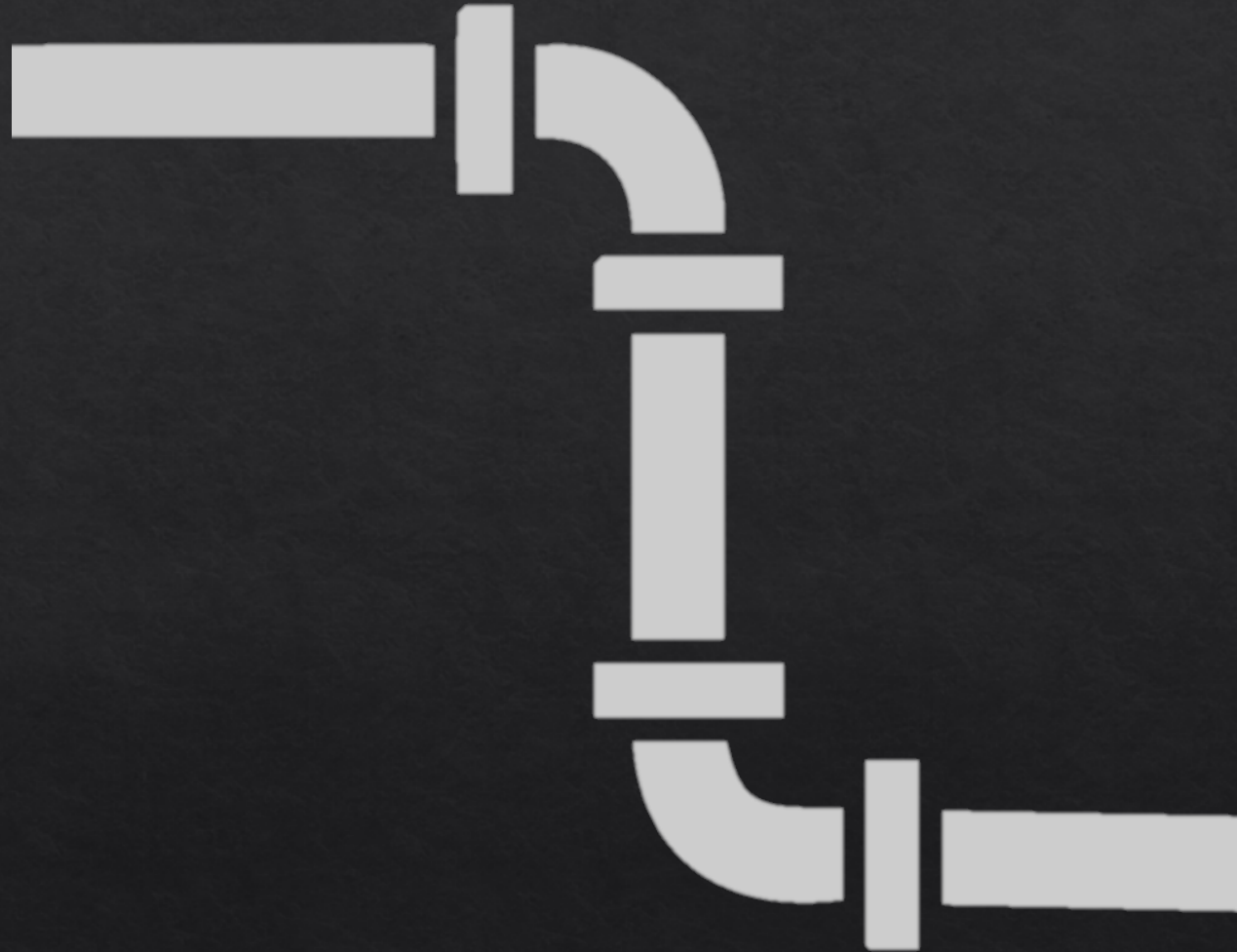


**Where do people get Rx drugs?**

# Where do people get Rx drugs?



Rx Opioids



Heroin



Four in five new heroin users started out misusing prescription painkillers.

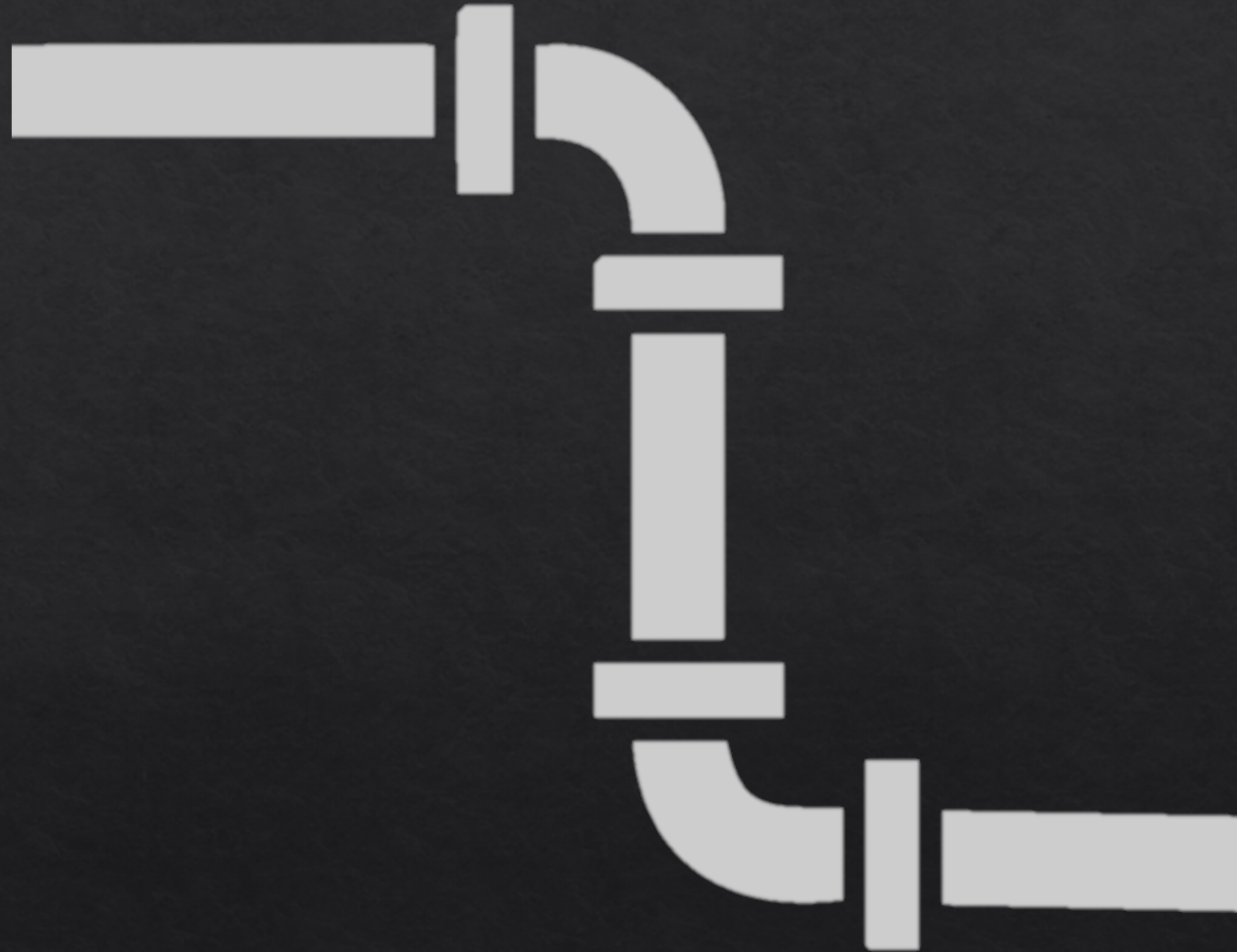
**80%**

Of the 20.5 million Americans 12 or older that had a substance use disorder in 2015, 2 million had a substance use disorder involving prescription pain relievers and 591,000 had a substance use disorder involving heroin.

94% of respondents in a 2014 survey of people in treatment for opioid addiction said they chose to use heroin because prescription opioids were “far more expensive and harder to obtain.”



Rx Opioids




Heroin





# Mississippi's Opioid Crisis

- 
- ◆ There were a total of 197 fatalities due to opioid overdose.
  - ◆ Mississippi providers wrote 76.8 opioid prescriptions for every 100 persons, compared to the average U.S. rate of 51.4 prescriptions.
  - ◆ The incidence rate of NAS/NOWS in Mississippi in 2017 was lower than the national average at 2.4 cases per 1,000 hospital births.

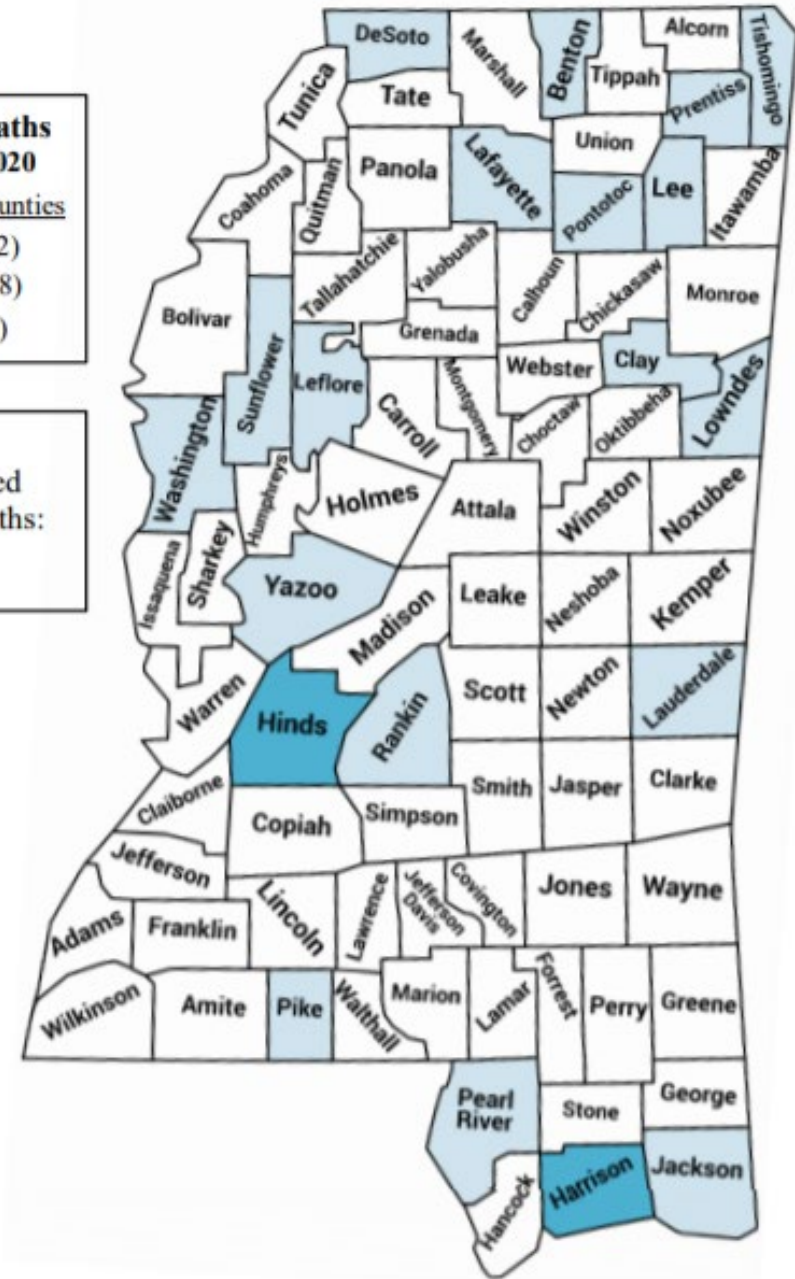
- ◆ 2020 data is still being collected. Thusfar:
  - ◆ 78 Suspected Opioid Overdose Deaths
  - ◆ 946 Naloxone Administrations
  - ◆ 8,042 Drug Related Arrests

# Suspected Opioid Overdose Deaths

- ◇ 30 (Jan-March)
- ◇ 48 (April – June)
- ◇ 197 total in 2019

Overdose Deaths Apr – June 2020	
# Deaths	# Counties
0	(62)
1-5	(18)
6-10	(2)

Total  
Drug-Related  
Overdose Deaths:  
48



Data Source: Mississippi Bureau of Narcotics

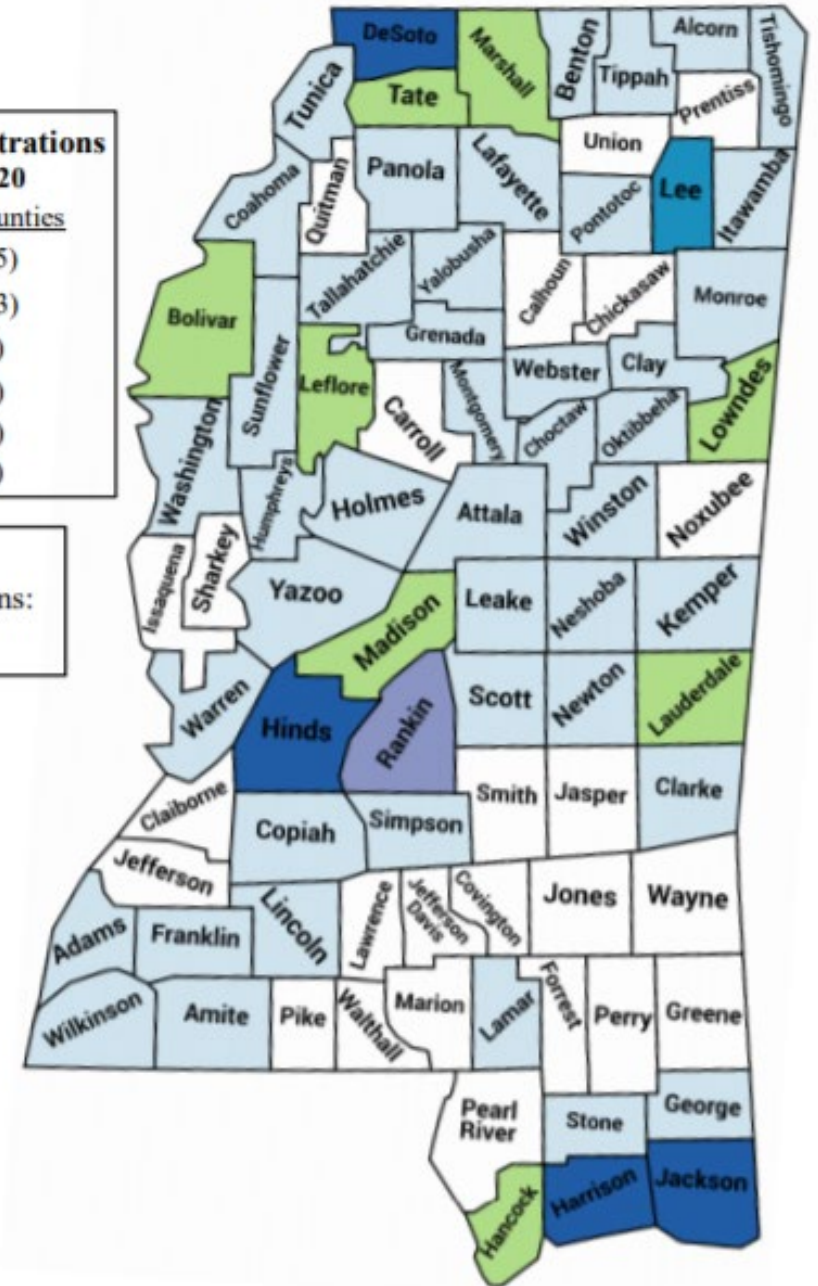


# Number of EMS Naloxone Administration

- ◇ 389 (Jan. – March)
- ◇ 557 (April – June)
- ◇ 1,334 total in 2019

# Admins.	# Counties
0	(25)
1-10	(43)
11-20	(8)
21-30	(1)
31-40	(1)
41+	(4)

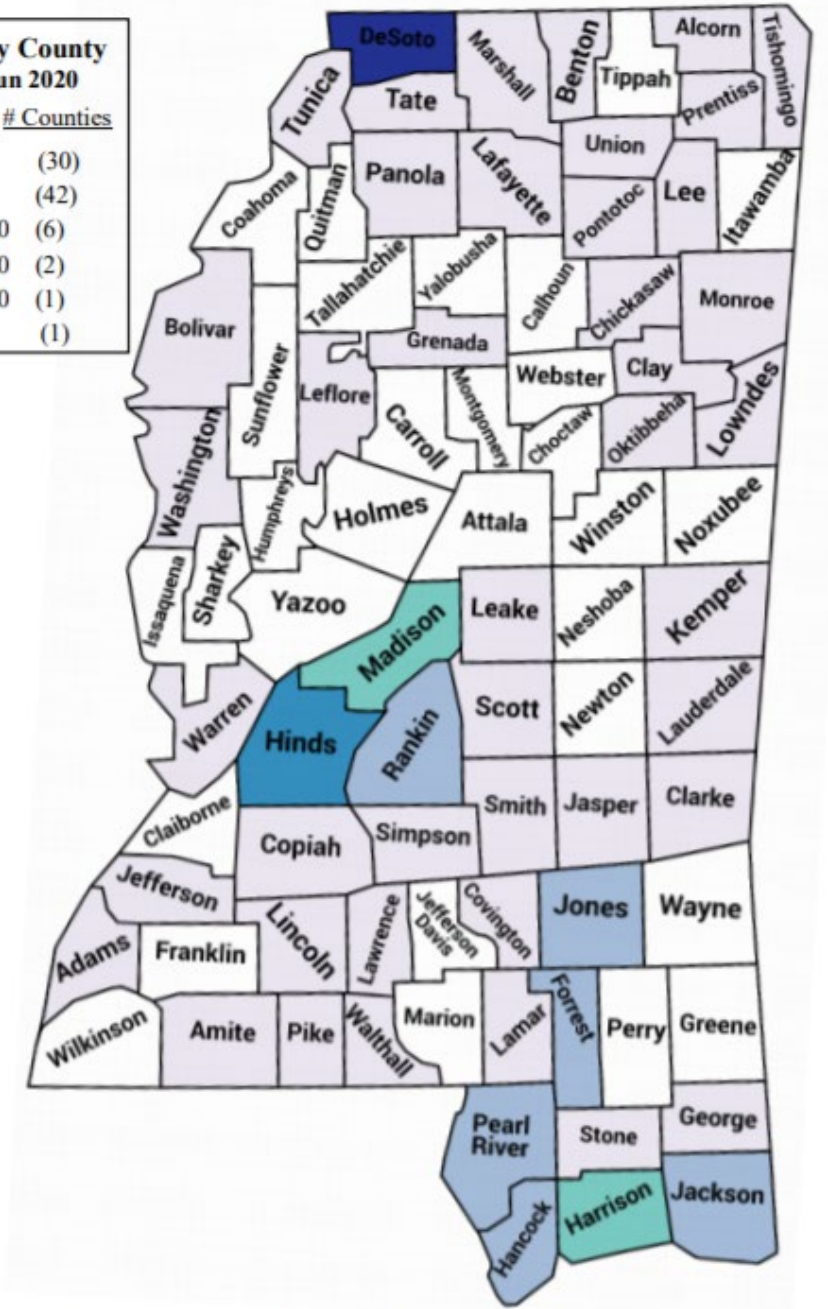
Total  
Administrations:  
557



# Drug-Related Arrests

- ◇ 4,359 (Jan. – March)
- ◇ 3,683 (April – June)
- ◇ 17,278 total in 2019
- ◇ 47.3 each day

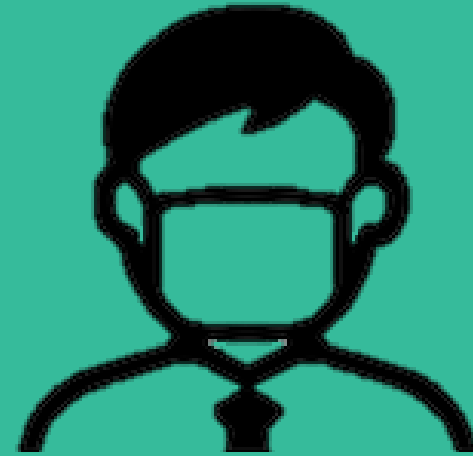
Arrests by County Apr – Jun 2020	
# Arrests	# Counties
0	(30)
1-100	(42)
101-200	(6)
201-300	(2)
301-400	(1)
401+	(1)



Data Source: Mississippi Bureau of Narcotics



- ◆ More than 760,000 people have died since 1999 from a drug overdose. Two out of three drug overdose deaths in 2018 involved an opioid.
- ◆ Naloxone is a medication designed to rapidly reverse opioid overdose. The number of prescriptions for naloxone doubled from 2017 to 2018.
- ◆ In 2018, an estimated 10.3 million people aged 12 or older misused opioids in the past year. Specifically, 9.9 million people misused prescription pain relievers and 808,000 people used heroin.



# HIV/AIDS and Opioid Use



# HIV Statistics

- ◆ Number of new HIV infections: **37,968**
- ◆ Number of people living with HIV: **1.1+ million**
- ◆ Percent of people infected with HIV who don't know it: **15%**
- ◆ Percent of people with HIV who are virally suppressed: **51%**

# OF THE 37,968 NEW HIV DIAGNOSES IN THE UNITED STATES (US) AND DEPENDENT AREAS IN 2018:

69% WERE  
AMONG GAY,  
BISEXUAL, AND OTHER  
MEN WHO HAVE  
SEX WITH MEN



24% WERE AMONG  
HETEROSEXUALS



7% WERE AMONG  
PEOPLE WHO  
INJECT DRUGS



- ◆ There were 9,466 people living with HIV in Mississippi.
- ◆ 477 people were newly diagnosed with HIV.
- ◆ Of the new HIV diagnoses in 2017, 427 occurred in Mississippi—a rate of 17.2. Among males, 3.2% of new HIV diagnoses were attributed to IDU or male-to-male sexual contact and IDU. Among females, 4.7% were attributed to IDU.



In 2017, 9,399 persons were living with a diagnosed HIV infection in Mississippi—a rate of 379.1. Of those, 11.5% of male cases were attributed to IDU or male-to-male sexual contact and IDU. Among females, 13.4% were living with HIV attributed to IDU.<sup>10</sup>



**People who inject drugs overall: up 9%**

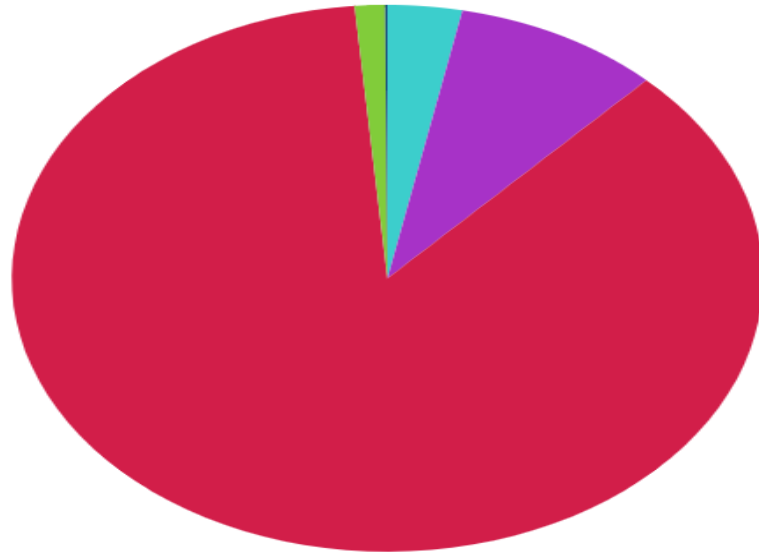
**Men who inject drugs: up 10%**

**Women who inject drugs: up 7%**

## PEOPLE NEWLY DIAGNOSED WITH HIV, BY TRANSMISSION CATEGORY, 2018

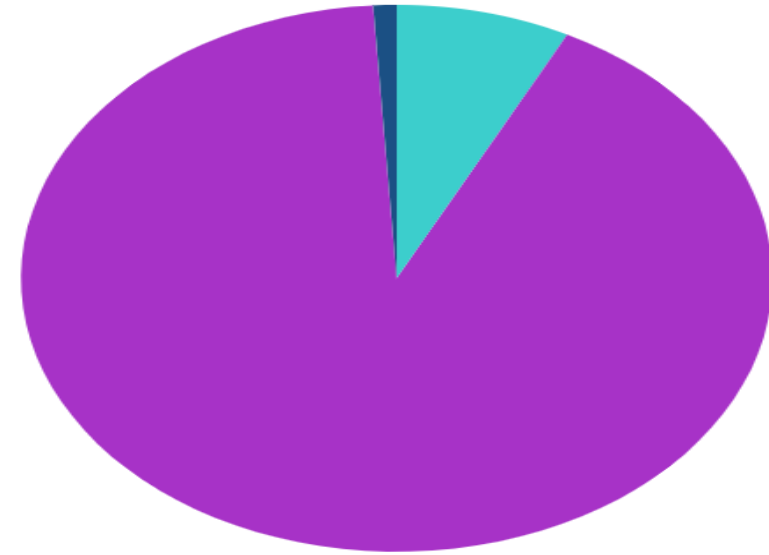
### Percent of People Newly Diagnosed with HIV, by Transmission Category, 2018

#### Male Transmission Categories



- Injection Drug Use (3.2%)
- Heterosexual Contact (8.9%)
- Male-to-Male Sexual Contact (86.5%)
- Male-to-Male Sexual Contact & Injection Drug Use (1.3%)
- Other\* (0.1%)

#### Female Transmission Categories



- Injection Drug Use (7.5%)
- Heterosexual Contact (91.5%)
- Other\* (1.0%)

*\*Includes risk factor not reported or identified, along with hemophilia, blood transfusion, perinatal exposure, or missing/suppressed data*

# HIV and Substance Use Disorders

- According to CDC in 2016, persons who injected drugs represented “9% (3,425) of the 39,782 diagnoses of HIV in the United States in 2016 (2,224 cases were attributed to injection drug use and 1,201 to male-to-male sexual contact and injection drug use).”
- Highlighted by recent outbreaks such as Scott County (Indiana). From November 2014-November 2015, 181 cases of HIV with about 87 percent using opioids (oxymorphone).
- Links to hepatitis and other communicable diseases as well as HIV
- Often co-occurring mental health conditions

# Prevention Strategies





Targeted Naloxone Distribution

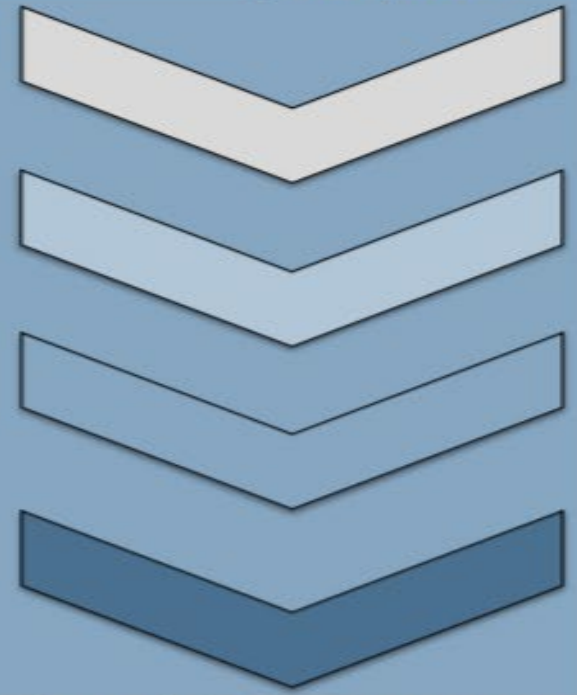
Screening for Fentanyl  
Medication Assisted Treatment

911 Good Samaritan Laws

Academic Detailing

Naloxone Distribution in  
Treatment Centers and  
Criminal Justice Settings

# THE MISSISSIPPI OPIOID AND HEROIN DATA COLLABORATIVE



## **Provisional Data Report First Quarter of 2020**

**Mississippi Board of Pharmacy  
Mississippi Bureau of Narcotics  
Mississippi State Department of Health  
Mississippi Department of Mental Health  
The University of Southern Mississippi**

6/17/2020



# OD2A

- ◆ Overdose Data to Action is a 3-year cooperative agreement that began in September 2019 .
- ◆ It focuses on the complex and changing nature of the drug overdose epidemic and highlights the need for an interdisciplinary, comprehensive, and cohesive public health approach.
- ◆ Funds awarded as part of this agreement will support state, territorial, county, and city health departments in obtaining high quality, more comprehensive, and timelier data on overdose morbidity and mortality and using those data to inform prevention and response efforts.



# Mini-grants



- ◆ Six awardees
- ◆ Targeted counties based off of need
- ◆ Grants ends in 2022
- ◆ Community-based approaches



# Agenda



The History of Opioids



Commonly Abused Opioids



Mississippi's Opioid Crisis



HIV and Opioids

# Resources

- ◇ AMA. Issue brief: Reports of increases in opioid- and other drug-related overdose and other concerns during COVID pandemic. <https://www.ama-assn.org/system/files/2020-10/issue-brief-increases-in-opioid-related-overdose.pdf>
- ◇ ASAM. Opioid Addiction 2016: Facts and Figures. <https://www.asam.org/docs/default-source/advocacy/opioid-addiction-disease-facts-figures.pdf>
- ◇ Healthline. What are the 12 Leading Causes of Death in the United States? <https://www.healthline.com/health/leading-causes-of-death>
- ◇ Mississippi Opioid and Heroin Data Collaborative [https://msdh.ms.gov/msdhsite/\\_static/resources/11184.pdf](https://msdh.ms.gov/msdhsite/_static/resources/11184.pdf)

# THANK YOU!!!



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