

Understanding the Nature of the Opioid Crisis: How did we get here?

Drug overdose deaths are at epidemic levels in the United States, with opioid misuse and abuse—including the use of prescription pain relievers and heroin—driving these increases. Since 1999, the number of opioid overdose deaths has nearly quadrupled, with more than 165,000 individuals dying from prescription drug-related opioid overdoses during this period.¹ Data also show a recent spike in overdose deaths involving heroin, which have more than tripled between 2010 and 2014.

This summary is designed to help community members better understand the history and contributing factors of how we got to the point that we are today.

FACTORS DRIVING THE OPIOID CRISIS

Overprescribing opioids and the failure of the pharmaceutical company to monitor opioid usage are factors in the crisis. Some major causes of the opioid crisis are linked to “diseases of despair” that are strongly associated with suicide, such as poverty and health conditions. Some identified root causes of opioid use are²:

- A shift in medical care toward pain management and a greater expectation among patients regarding pain relief (see phase 1 description below).
- As people live longer, the pain and medical issues faced are on the rise particularly skeletal disorders for an aging population as well as obesity.
- The advancement of modern medicine and increased survivorship after injury and diseases, such as Cancer, along with an increase in the complexity of surgery, which requires more recovery time and pain management.

Historical Phases

- **Phase 1: 1990's.** Going back to when opioids became widely available and popularly prescribed in the 1990's, cognitive behavioral therapy which was previously used as a way to manage pain, was no longer covered by insurance companies to treat pain. This opened the door of opportunity for pharmaceutical companies to innovate various opioids to treat pain

¹Heroin is an opiate. Information on risk and protective factors associated with heroin use and overdose, specifically, is provided in the CAPT tool Preventing Heroin Use: Facts, Factors, and Strategies.

² Dasgupta, N., Beletsky, L., & Ciccarone, D. (2017). Opioid Crisis: No Easy Fix to Its Social and Economic Determinants. *American Journal of Public Health*, e1-e5.

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and in many cases, resulted in “big business” between doctors and pharmaceutical companies.

- **Phase 2: 2000's.** Opioid dependency became more prevalent and due to higher tolerance, heroin dependency was on the rise (not to mention that heroin was much cheaper than prescription opioids and more potent).
- **Phase 3: 2013+.** A global supply chain became accessible and with it, illicitly manufactured and counterfeit drugs on the market.

WHAT IS AN OPIOID?

- Opioids are potentially addictive substances that can relieve pain, produce feelings of relaxation and euphoria, and depress respiration.
- *Commonly prescribed opioids* like morphine, oxycodone, hydrocodone, and methadone are medications that healthcare providers use to treat and manage pain from injury, surgery, and chronic health disorders such as cancer. While they offer distinct health benefits, they also pose health risks—including addiction and overdose.³

Opioids ⁴		
Natural	Semi-synthetic	Synthetic
Natural opioids like morphine are derived from the poppy plant.	Semi-synthetic opioids like oxycodone and hydrocodone are created by changing the chemical structure of natural opioids.	<p>Synthetic opioids like methadone are created using chemicals only.</p> <p>Other <i>synthetic opioids</i> include fentanyl and tramadol:</p> <p>Like commonly prescribed opioids, these opioids offer health benefits but also pose health risks.</p> <p>Some synthetic opioids, like fentanyl, can be extremely</p>

³ Centers for Disease Control and Prevention. (ND). *Opioid Overdose*. Retrieved from <https://www.cdc.gov/drugoverdose/opioids/index.html>; Centre for Addiction and Mental Health. (2003). *Do you know... prescription opioids*. Retrieved from [http://www.camh.ca/en/hospital/health information/a z mental health and addiction information/oxycotin/Pages/opioid s_dyk.aspx](http://www.camh.ca/en/hospital/health%20information/a%20z%20mental%20health%20and%20addiction%20information/oxycotin/Pages/opioid_s_dyk.aspx)

⁴ Centers for Disease Control and Prevention. (2017). *Opioid Data Analysis*. Retrieved from <https://www.cdc.gov/drugoverdose/data/analysis.html>

Opioids ⁴		
Natural	Semi-synthetic	Synthetic
		potent and cause overdose in very small amounts. These opioids are often manufactured illegally.
<p><i>Heroin</i> is an illegal opioid that is synthesized from morphine. It can be white, brown, or black. Unlike the other categories of opioids, heroin has no pharmaceutical purpose; it only poses health risks.</p> <p>In addition, heroin is often adulterated with other dangerous substances—such as fentanyl.⁵</p>		

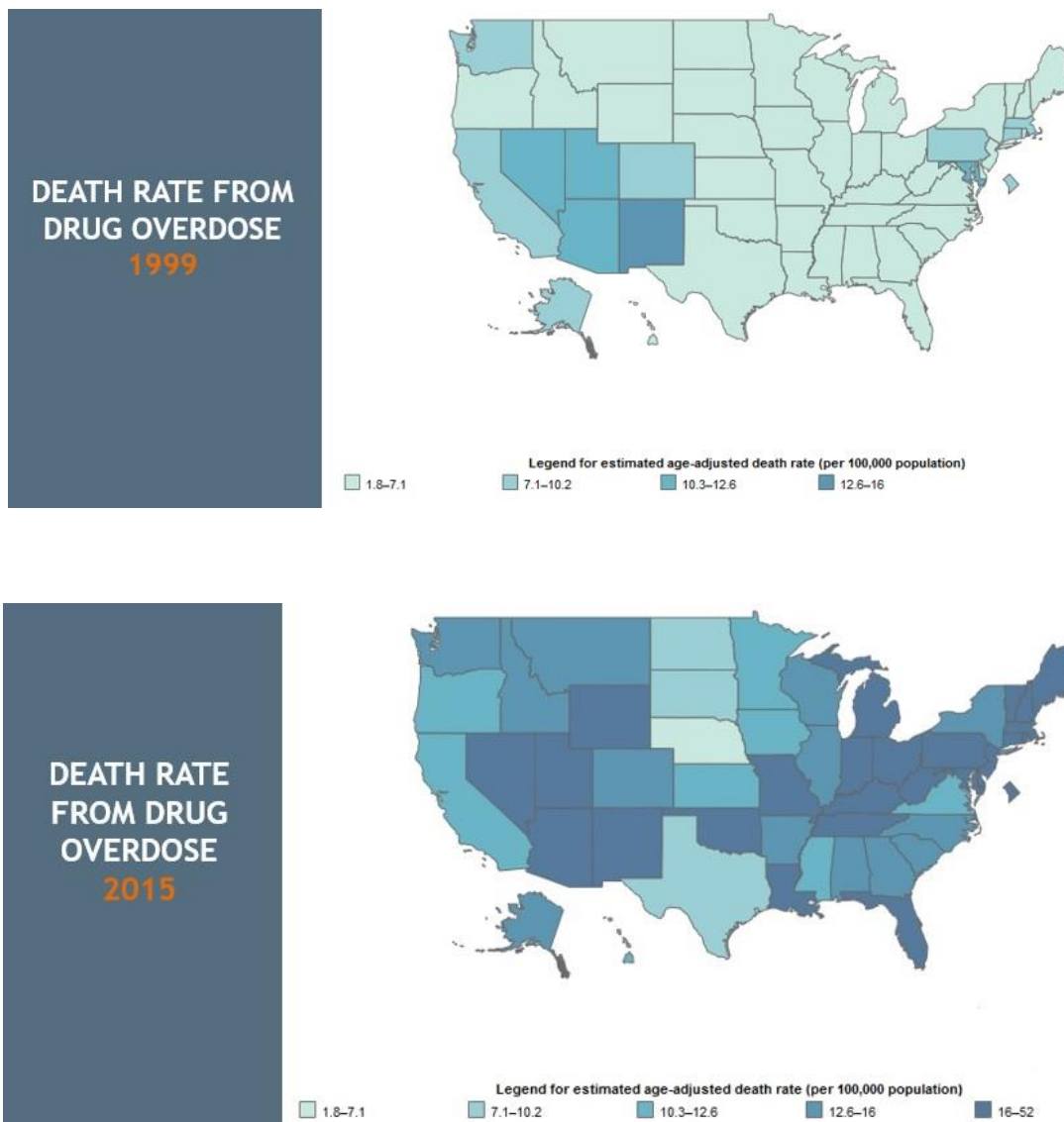
FACTS ABOUTS OPIOIDS IN THE US⁶

- Deaths from drug overdose surpassed deaths from motor vehicle crashes and from gun violence.
- More than half a million people died from drug overdose. Most of these deaths involved opioids.
- This urgent public health emergency, declared in 2017, affects people of all ages, across racial and ethnic groups, at all socioeconomic levels, and in every corner of the country.
- Deaths involving synthetic opioids such as illegally made fentanyl doubled between 2015 and 2016. These opioids are now responsible for most opioid overdose deaths.
 - Many of these deaths involve heroin adulterated with fentanyl.
 - Overdose deaths from all categories of opioids continue to rise.

⁵ Centers for Disease Control and Prevention. (ND). *Opioid Overdose*. Retrieved from <https://www.cdc.gov/drugoverdose/opioids/index.html> ; National Institute on Drug Abuse. (January 2018). *What is heroin?* Retrieved from <https://www.drugabuse.gov/publications/drugfacts/heroin>

⁶ Centers for Disease Control and Prevention (ND). *Understanding the Epidemic*. Retrieved from <https://www.cdc.gov/drugoverdose/epidemic/index.html>

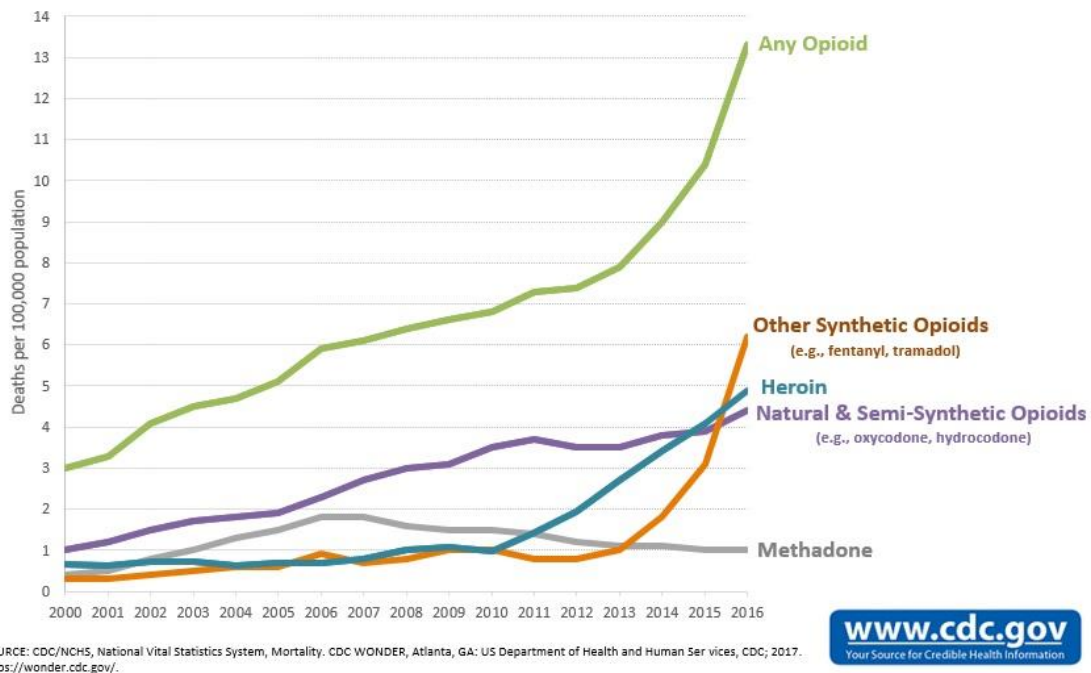
TRENDS IN OPIOID USE IN THE U.S.^{7&8}



⁷ Rossen, L.M., Bastian, B., Warner, M., Khan, D., Chong, Y. (2017). *Drug Poisoning Mortality: United States, 1999–2016*. Atlanta, GA: National Center for Health Statistics. Retrieved from <https://www.cdc.gov/nchs/data-visualization/drug-poisoning-mortality/>

⁸ Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2016 on CDC WONDER Online Database, released December, 2017. Data are from the Multiple Cause of Death Files, 1999-2016, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Retrieved from <http://wonder.cdc.gov/mcd-icd10.html>

Overdose Deaths Involving Opioids, by Type of Opioid, United States, 2000-2016



WHAT RISK FACTORS ARE ASSOCIATED WITH OPIOID OVERDOSE?

Understanding the risk and protective factors associated with prescription drug overdose and opioid overdose can help practitioners assess, plan for, and select interventions designed to address them. To date, no factors have been identified that reduce the likelihood of overdose (i.e., protective factors); this section therefore focuses on risk factors that have been identified, which are associated with a higher likelihood of opioid overdose. Specifically, individuals who overdose are more likely than their counterparts to have the following:

- A history of substance use or misuse, such as having:
 - Misused prescription drugs in the past 90 days
 - Misused potent opioids, such as fentanyl
 - Concurrently used prescription opioids and other substances such as benzodiazepines or alcohol
 - Injected substances including opioids and tranquilizers
 - Shared syringes and other injection paraphernalia
 - Used heroin in her/his lifetime
 - Had history of opioid dependence
 - Non-orally ingested a prescription drug
 - Used alcohol heavily
 - Tobacco use
 - Recently initiated drug use by injection
 - Experienced prior opioid overdose

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- Had one or more of the following prescription drug-related experiences:
 - Had a maximum prescribed daily opioid dosage greater than 100 milligrams
 - Obtained four or more filled prescriptions
 - Had overlapping prescriptions for opioids and other controlled substances such as benzodiazepines and other psychiatric prescriptions
 - Engaged in pharmacy hopping—using more than four pharmacies
 - Engaged in doctor shopping—receiving prescriptions from four or more prescribers
- Had one or more of the following mental health conditions:
 - Severe psychological distress
 - Diagnosed with a mental health disorder
 - Been admitted to a psychiatric hospital
- Had one or more of the following conditions in their medical history:
 - Chronic pain
 - Liver problems (e.g., Cirrhosis)
 - Impaired drug metabolism or excretion
 - Pulmonary disorder
 - Frequent and/or recent hospitalization
 - Physical disability
- Experienced one or more of the following life events or conditions:
 - Witnessed a family member overdose
 - Been incarcerated or had a change in tolerance related to incarceration history
 - Post-discharge from detoxification or other in-patient residential settings
 - Experienced homelessness in the past 90 days
 - Unemployment
 - Financial struggles
- Had low perception of harm
- Lacked knowledge regarding opioid overdose risk factors

In addition, research has shown that experiencing a non-fatal overdose can also increase the likelihood of experiencing a fatal overdose among individuals who inject.