

INVESTMENT IN RESEARCH SAVES LIVES AND MONEY

Opioid Use Disorder (OUD)

Opioid use disorder (OUD) is characterized by compulsive use of opioids, which are chemicals that reduce feelings of pain in the body and brain and produce euphoria, despite negative consequences.¹ The more severe forms of OUD are considered addiction. OUD is a medically complex disease that has biological, environmental, and societal causes and implications. Addiction is often stigmatized as a moral failing; however, opioid addiction “rewires” the brain, leading individuals to behave in ways that can be detrimental to their health, relationships, and livelihood. Opioids can lead to physical dependence within a short time, as little as four to eight weeks.¹ In chronic users, an abrupt stop to opioid use leads to severe symptoms of withdrawal, including pain, cramps, and more. Because these symptoms are so severe, it becomes difficult for someone physically dependent on opioids to discontinue use.¹

COST⁵

\$2.5 trillion:

Total economic cost of the opioid crisis from 2015 to 2018.

\$696 billion:

Full cost of the opioid crisis in 2018 through lost lives, treatment cost, and reductions in productivity.

TODAY

About **1.7 million** people in the U.S. had a substance use disorder related to prescription opioid medicine in 2018.²

8% to 12% of people who take prescription pain medications develop an OUD.³

Prescription painkillers were involved in about **15,000** deaths in the U.S. in 2018. Heroin, a cheaper alternative, was involved in about **15,000** deaths that same year, while synthetic opioids such as illicit fentanyl were involved in over **30,000** deaths.⁴

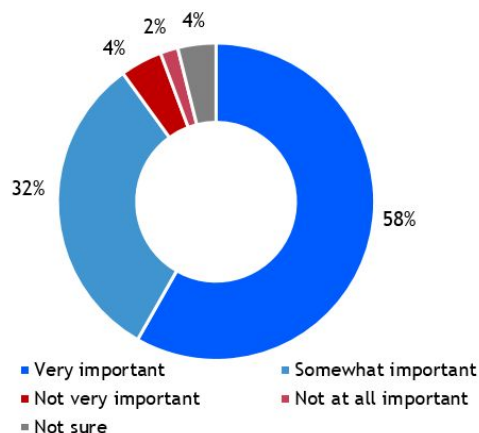
Research Delivers Solutions

One study examined the relationship between **chronic pain** and OUD. Researchers analyzed 5,307 patients with OUD, more than two-thirds of whom also had a chronic pain condition. Of the patients who had both conditions, a majority of them developed OUD after a preexisting chronic pain condition. Patients who had chronic pain before OUD had higher rates of other medical problems, such as heart disease, cancer, and diabetes. This study helps to target an underlying cause of OUD (misuse of prescription opioids) and points to the importance of ongoing monitoring of OUD and developing well-targeted intervention efforts.⁶

Another study reviewed the research surrounding **buprenorphine (BUP)**, a medication used to treat OUD. Researchers found that treatment using BUP has been successful in multiple clinical trials, and it also has the added benefit of being a promising treatment for depression, anxiety, and neonatal opioid withdrawal symptoms. However, many individuals relapse, and the researchers highlight the need to expand on BUP treatment research to provide more information on improving outcomes.⁷

In addition to BUP, the FDA has approved two other medications for treating OUDs: **methadone (MET)** and **naltrexone (NTX)**. One recent review looked into the varying levels of effectiveness of BUP, MET, and extended release naltrexone (XR-NTX) and how each treatment can affect outcomes of OUD treatment, such as abstinence from opioid substances and treatment adherence. Through analysis of over 18 clinical studies, researchers found that BUP is more effective in achieving abstinence from opioids than are MET and XR-NTX; MET is more effective at helping patients adhere to and remain in treatment for OUD. These implications are useful for administering updated medication protocols for future treatments.⁸

How important do you think it is that the U.S. is a global leader in research to improve health?



Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2020

Opioid Use Disorder (OUD)

Then. Now. Imagine.

THEN

In 2000, drug overdose death rate involving opioids was around 3 deaths per 100,000 people.⁹

NOW

Since 2000, the rate of deaths from opioid overdose has increased 5 fold.⁴

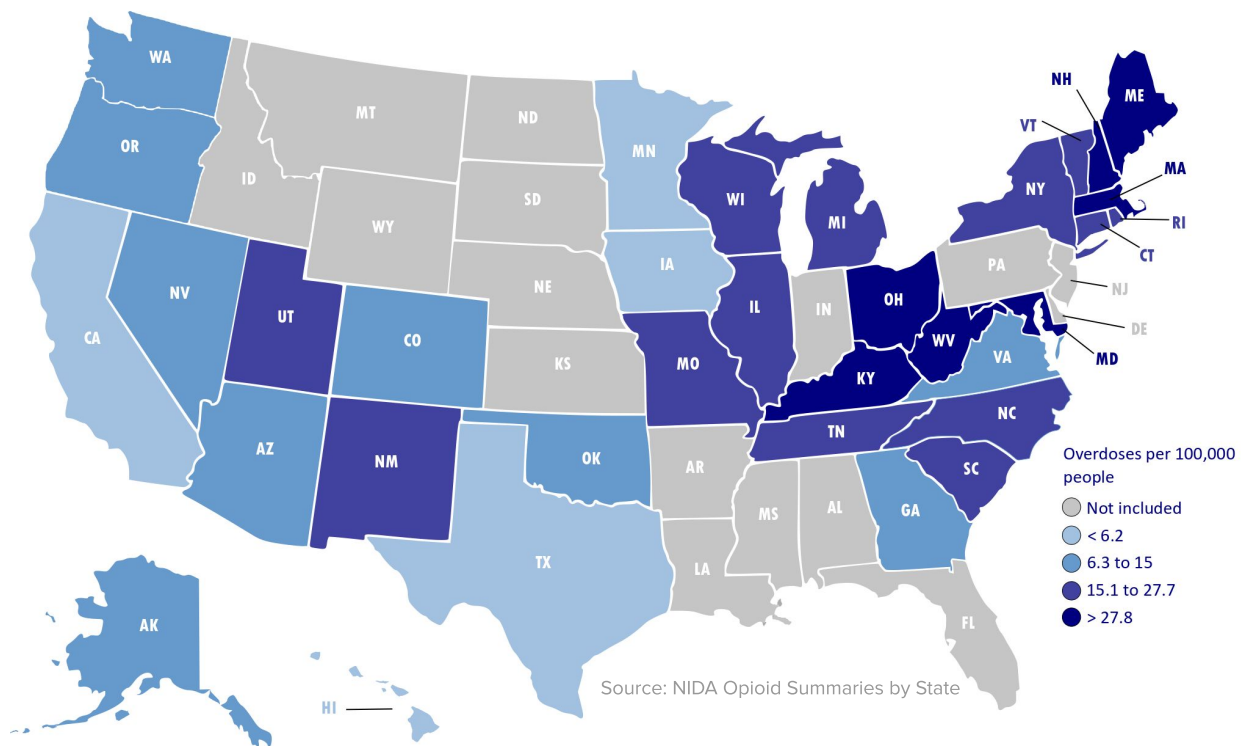
IMAGINE

More personalized diagnosis and treatment planning for OUD.

Potentially Inappropriate Prescribing (PIP) Practices

Studies show that potentially inappropriate prescribing (PIP) of opioids is associated with increased risk of mortality and overdose. PIP is a common yet preventable situation in which drugs are unnecessarily prescribed, overprescribed, or underprescribed. In the case of OUD and the opioid crisis, the U.S. population is significantly affected by high rates of opioid prescribing. This also highlights an important point of intervention to prevent further OUDs.¹⁰ To combat this issue, the American Medical Association, along with many other organizations representing physicians, pharmacists, and supply chains, developed a consensus document. The document explains important “red flag” warning signs of prescription drug abuse to better prevent misuse of medication while ensuring access for those with legitimate needs.¹¹ The CDC also recommends extra care in prescribing to those who are already taking opioids, as opioids should not be abruptly discontinued for patient safety.¹²

Opioid-Involved Overdose Death Rates per 100,000 people, 2017



1. "Opioid Use Disorder." American Psychiatric Association. 2018.

2. "2018 NSDUH Detailed Tables." SAMHSA. 2019.

3. Vowles et al. "Rates of opioid misuse, abuse, and addiction in chronic pain: a systematic review and data synthesis." Pain. 2015;156(4):569-579.

4. "Multiple Cause of Death Data." CDC Wonder. 2020.

5. "The Full Cost of the Opioid Crisis: \$2.5 Trillion Over Four Years." White House. 2019.

6. Hser et al. "Chronic pain among patients with opioid use disorder: Results from electronic health records data." J Subst Abuse Treat. 2017;77:26-30.

7. Pendergrass et al. "The importance of buprenorphine research in the opioid crisis." Mol Psychiatry. 2019;24(5):626-632.

8. Mariolis et al. "Systematic review of the effectiveness of buprenorphine for opioid use disorder compared to other treatments: Implications for research and practice." J Addict Res Ther. 2019;10(379).

9. Rudd et al. "Increases in drug and opioid-involved overdose deaths – United States, 2010–2015." MMWR. 2016;65:1445-1452.

10. Jayawardhana et al. "Deaths among opioid users: Impact of potential inappropriate prescribing practices." Am J Manag Care. 2019;25(4):e98-e103.

11. "AMA helps stop inapt prescribing, dispensing of controlled substances." AMA. 2015.

12. "CDC Advises Against Misapplication of the Guideline for Prescribing Opioids for Chronic Pain." CDC. 2019.

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