

INVESTMENT IN RESEARCH SAVES LIVES AND MONEY

# Substance Use Disorder

According to the Substance Abuse and Mental Health Services Administration, substance use disorders (SUD) occur “when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.”<sup>1</sup> As exemplified by the opioid crisis, the human and fiscal toll of this disorder is staggering and the need for more SUD-focused research is urgent.

## TODAY

In 2017,

**2 million Americans**

were admitted to substance abuse treatment centers nationwide.<sup>2</sup>

Over

**70,000 Americans died of drug overdose**

in 2017.<sup>3</sup>

More than

**50%**

of inmates meet criteria for an SUD, but only **28%** receive treatment.<sup>4</sup>

## COST

**\$120 billion:**

How much the U.S spent on direct and indirect costs of SUDs in 2016.<sup>5</sup>

**\$2.05 per drink:**

How much alcohol misuse costs the nation.<sup>6</sup>

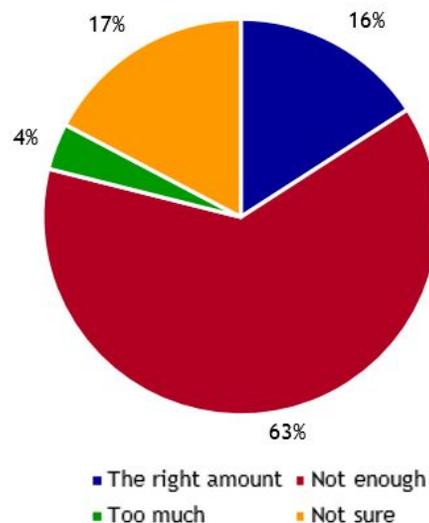
## Research Delivers Solutions

In the 1960s, scientists at Rockefeller University interviewed hundreds of individuals with an opioid use disorder and theorized that addiction was a **neurobiological** illness. They experimented with the drug **methadone** as treatment and found that it was able to reduce cravings and withdrawal symptoms without producing euphoria.<sup>7</sup> Today, not only methadone but also buprenorphine and naltrexone are available to be used for **medication-assisted treatment (MAT)** of opioid use disorder.<sup>8</sup>

Research has reinforced the neurobiological basis of SUD and shed important light on the factors influencing this disorder. For example, research has shown that **more impulsive** individuals are at greater risk of developing a SUD, and in 2018, researchers at Mount Sinai discovered a gene correlated with impulsivity: **the CREM gene**.<sup>9</sup> These findings could lead to new, targeted prevention and treatment strategies.

The drug naloxone can prevent death from opioid overdose. A 2016 meta-analysis of 22 research studies focused on **take-home naloxone (THN) programs**, which provide users on high doses of opioids with naloxone kits, found that they significantly reduced overdose mortality rates.<sup>10</sup>

The U.S. spends about 5 cents of each health dollar on research to prevent, cure and treat disease and disability. Do you think that this is too much, the right amount, or not enough?



Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2019

# Substance Use Disorder

## Then. Now. Imagine.

### THEN

Until the 1950s, SUDs were seen as a moral failing and treatment was the encouragement of abstinence.<sup>7</sup>

### NOW

Research has shown that substance use disorder has a neurobiological basis. This health-based outlook changes the way medical caretakers can spot the disease, and has been shown to make treatment more effective.<sup>6</sup>

### IMAGINE

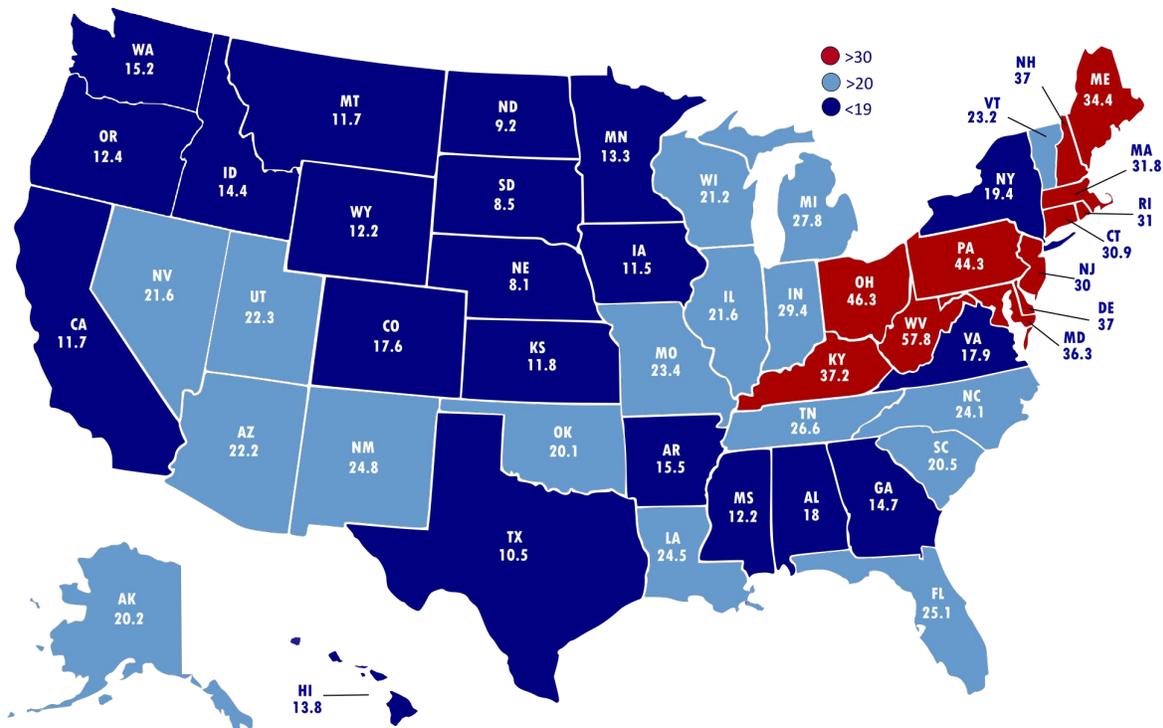
A cure.

Neonatal abstinence syndrome (NAS) costs **\$1.5 billion annually.**

NAS is caused when a baby withdraws from certain types of drugs they are exposed to before birth.<sup>11</sup>

There are more than **two times** the number of infants born with drug withdrawal now than two decades ago.<sup>12</sup>

## Drug Overdose Mortalities per 100,000 Residents



1. "Mental Health and Substance Use Disorders." SAMHSA.gov. 2019.
2. "Treatment Episode Data Set." SAMHSA.gov. 2017.
3. "Overdose Death Rates." Drugabuse.gov.
4. "Medications for Opioid Disorder Save Lives." National Academies. 2019.
5. "Substance Abuse Calculator for Employers." NIH.gov. 2017.
6. "Facing Addiction in America." The Surgeon General's Report. 2016.
7. "Fifty years after landmark methadone discovery stigmas and misunderstandings persist." Rockefeller University. 2016.
8. "Medication and Counseling Treatment" SAMHSA.gov. 2019.
9. "A Gene Links Impulsivity and Drug Use Vulnerability." Drugabuse.org. 2018.
10. McDonald and Strang. "Are take-home naloxone programmes effective? Systematic review utilizing application of the Bradford Hill criteria." Addiction. 2016.
11. "WV Medicaid Covers an Innovative and Less Costly Treatment Model for Opioid-Affected Infants." National Academy for State Health Policy. 2018.
12. Shukla and Gomez Pomar. "Perinatal Drug Abuse and Neonatal Drug Withdrawal." StatPearls. 2019.

SOURCE: "Number of Drug Overdoses per 100,000 Residents." CDC National Center for Health Statistics. 2017

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