



Opioid Use Disorder Petition- Section 2

Relevant medical or scientific evidence of Opioid Use Disorder

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Included in the attached Section 2 PDF file is a variety of government reports detailing the relevant medical evidence of Opioid Use Disorder with reference links to the original reports. The documents address the scope and the science of addiction, including a commentary by Nora D. Volkow, M.D., Director, NIDA and more. The attachment also includes the most recent report from the National Center for Health Statistics listing Ohio as the second highest in the nation for overdoses.

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Relevant medical or scientific evidence of Opioid Use Disorder

Included in this Section 2 of the petition is a variety of government reports detailing the relevant medical evidence of Opioid Use Disorder with reference links to the original reports. The documents address the science of addiction, including a commentary by Nora D. Volkow, M.D., Director, NIDA and more. Dr Volkow clearly states that of Opioid Use Disorder / Opiate Addiction is a medical condition.

This attachment also includes the most recent report from the National Center for Health Statistics listing Ohio as the second highest in the nation for overdoses. A report on the deaths from the Center for Disease Control and the science of addiction. With enhanced controls and restriction on Prescription Drugs and reporting via the Ohio Automated Rx Reporting System (OARRS), prescription related deaths have decreased while other opiate related deaths have increased dramatically.

Below is a list of the relevant medical or scientific evidence pertaining to Opioid Use Disorder / Opiate Addiction included in this section.

Note: Each subject area is separated by a dashed (---) line and has Hyperlink(s) to the full/original article from which the summary quotes or relevant sections were obtained. Note if petition reviewers are use unable to use the Hyperlink provided to obtain the reference document, Ohio Patient Network can obtain an original copy upon request. Also note any excerpts or copies of the referenced articles text are in *non bolded italics*.

1. Opioid-Related Overdose Deaths
2. Drug Overdose Deaths in the United States, 1999–2017 report by the Center for Disease Control and Prevention
3. Assessing and Addressing Opioid Use Disorder from the Center for Disease Control



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4. **Drugs, Brains, and Behavior: The Science of Addiction, Nora D. Volkow, M.D., Director, National Institute on Drug Abuse**
5. **Drug Misuse and Addiction from National Institute of Drug Abuse**
6. **Addiction Science from National Institute of Drug Abuse**
7. **2017 Ohio Drug Overdose Data: General Findings (Ohio Department of Health)**

1 - National Institute on Drug Abuse. 2018. Ohio Opioid Summary. Opioid Summaries by State. Opioid-Related Overdose Deaths

Ohio is among the top five states with the highest rates of opioid-related overdose deaths. In 2016, there were 3,613 opioid-related overdose deaths--- in Ohio—a rate of 32.9 deaths per 100,000 persons and more than double the national rate of 13.3 deaths per 100,000. Since 2010, the rate has tripled from 10 deaths per 100,000. In the same period, the number of heroin-related deaths increased from 355 to 1,478 deaths, and deaths related to synthetic opioids rose from 175 to 2,296 deaths.

Source: <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-summaries-by-state/ohio-opioid-summary>

2 - Holly Hedegaard, M.D., Arialdi M. Miniño, M.P.H., and Margaret Warner, Ph.D. 2018. *Drug Overdose Deaths in the United States, 1999–2017*. Center for Disease Control and Prevention: National Center for Health Statistics NCHS Data Brief No. 329, November 28th 2018

The most recent report from the CDC ranks Ohio as #2 in the nation in overdose deaths, some key findings are

- *In 2017, there were 70,237 drug overdose deaths in the United States. The age-adjusted rate of drug overdose deaths in 2017 (21.7 per 100,000) was 9.6% higher than the rate in 2016 (19.8).*
- *Adults aged 25–34, 35–44, and 45–54 had higher rates of drug overdose deaths in 2017 than those aged 15–24, 55–64, and 65 and over.*
- *West Virginia (57.8 per 100,000), Ohio (46.3), Pennsylvania (44.3), and the District of Columbia (44.0) had the highest age-adjusted drug overdose death rates in 2017.*

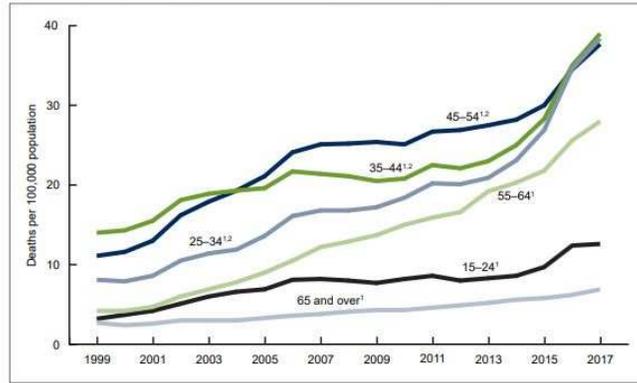
Deaths from drug overdose continue to be a public health burden in the United States (1–5). This report uses the most recent final mortality data from the National Vital Statistics System (NVSS) to update



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trends in drug overdose deaths, describe demographic and geographic patterns, and identify shifts in the types of drugs involved.

Figure 2. Drug overdose death rates, by selected age group: United States, 1999–2017



¹Significant increasing trend from 1999 through 2017 with different rates of change over time, $p < 0.005$.
²2017 rates were significantly higher for age groups 25–34, 35–44, and 45–54 than for age groups 15–24, 55–64, and 65 and over, $p < 0.05$. The rate for age group 35–44 was significantly higher than the rate for age group 45–54 and statistically the same as the rate for age group 25–34.
 NOTES: Deaths are classified using the International Classification of Diseases, 10th Revision. Drug poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db329_briefs-508.pdf#2.
 SOURCE: NCHS, National Vital Statistics System, Mortality.

Above is Figure 2 from the CDC report of overdose death rates

Source Links

- <https://www.cdc.gov/nchs/products/databriefs/db329.htm>
- <https://www.cdc.gov/nchs/data/databriefs/db329-h.pdf>

3 - Center for Disease Control. Assessing and Addressing Opioid Use Disorder (OUD) Center for Disease Control

Opioid Misuse in the United States

Here's what we know about opioid misuse:

- In 2016, 11.5 million people self-reported that they had personally misused prescription opioids during the previous year.
- The most commonly-reported reason that opioids were misused was to relieve physical pain (62.3 %).
- The misused prescription opioids were obtained:
 - From a friend or relative (53.0 %)
 - Through prescription(s) or stealing from a healthcare provider (37.5 %), typically through one doctor
 - From a drug dealer or stranger (6.0 %)

OUD is defined in the DSM-5 as a problematic pattern of opioid use leading to clinically significant impairment or distress.



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OUD was previously classified as Opioid Abuse or Opioid Dependence in DSM-IV. OUD has also been referred to as "opioid addiction."

Full Text

<https://www.cdc.gov/drugoverdose/training/oud/accessible/index.html>

4 - Dr Nora D. Volkow, M.D. 2018. *Drugs, Brains, and Behavior: The Science of Addiction.* National Institute on Drug Abuse

Preface excerpts (Full article at link below)

How Science Has Revolutionized the Understanding of Drug Addiction

For much of the past century, scientists studying drugs and drug use labored in the shadows of powerful myths and misconceptions about the nature of addiction. When scientists began to study addictive behavior in the 1930s, people addicted to drugs were thought to be morally flawed and lacking in willpower. Those views shaped society's responses to drug use, treating it as a moral failing rather than a health problem, which led to an emphasis on punishment rather than prevention and treatment.

Today, thanks to science, our views and our responses to addiction and the broader spectrum of substance use disorders have changed dramatically. Groundbreaking discoveries about the brain have revolutionized our understanding of compulsive drug use, enabling us to respond effectively to the problem.

As a result of scientific research, we know that addiction is a medical disorder that affects the brain and changes behavior. We have identified many of the biological and environmental risk factors and are beginning to search for the genetic variations that contribute to the development and progression of the disorder. Scientists use this knowledge to develop effective prevention and treatment approaches that reduce the toll drug use takes on individuals, families, and communities.

Despite these advances, we still do not fully understand why some people become addicted to drugs or how drugs change the brain to foster compulsive drug use. This booklet aims to fill that knowledge gap by providing scientific information about the disorder of drug addiction, including the many harmful consequences of drug use and the basic approaches that have been developed to prevent and treat substance use disorders.

At the National Institute on Drug Abuse (NIDA), we believe that increased understanding of the basics of addiction will empower people to make informed choices in their own lives, adopt science-based policies and programs that reduce drug use and addiction in their communities, and support scientific



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research that improves the Nation's well-being.

Full Text

<https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/preface>

5 - National Institute of Drug Abuse. 2018. *Drug Misuse and Addiction*

Excerpts (Full article at link below)

*Addiction is defined as a chronic, relapsing disorder characterized by compulsive drug seeking and use despite adverse consequences. It is considered a brain disorder, because it involves functional changes to brain circuits involved in reward, stress, and self-control, and those changes may last a long time after a person has stopped taking drugs.*¹¹

Addiction is a lot like other diseases, such as heart disease. Both disrupt the normal, healthy functioning of an organ in the body, both have serious harmful effects, and both are, in many cases, preventable and treatable. If left untreated, they can last a lifetime and may lead to death.

Full Text

<https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/drug-misuse-addiction>

6 - Source National Institute of Drug Abuse. *Addiction Science*

Brief Description

Many people don't understand why or how other people become addicted to drugs. They may mistakenly think that those who use drugs lack moral principles or willpower and that they could stop their drug use simply by choosing to. In reality, drug addiction is a complex disease, and quitting usually takes more than good intentions or a strong will. Drugs change the brain in ways that make quitting hard, even for those who want to. Fortunately, researchers know more than ever about how drugs affect the brain and have found treatments that can help people recover from drug addiction and lead productive lives.

Full Text

<https://www.drugabuse.gov/related-topics/addiction-science>



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Additional References

1. Koob, G. F. & Volkow, N. D. Neurocircuitry of addiction. *Neuropsychopharmacology* 35, 217–238 (2010).
2. Koob, G. F. Negative reinforcement in drug addiction: the darkness within. *Curr. Opin. Neurobiol.* 23, 559–563 (2013).
3. Volkow, N. D., Koob, G. F. & Baler, R. Biomarkers in substance use disorders. *ACS Chem. Neurosci.* 6, 522–525 (2015).

7 - Ohio Department of Health. 2017. *2017 Ohio Drug Overdose Data: General Findings.*

Selected Quotes

Prescription opioid-related overdose deaths accounted for 523 of Ohio’s total 4,854 unintentional overdose deaths in 2017, compared to 564 of 4,050 total deaths in 2016. Combating prescription opioid abuse continues to be critical to Ohio’s overall efforts to fight drug abuse, addiction and overdose because prescription opioids abuse is a key risk factor for the use of illicit drugs like fentanyl and related drugs, according to the Centers for Disease Control and Prevention (CDC).

Illicit fentanyl and related drugs like carfentanil continued to drive an increase in Ohio’s unintentional overdose deaths in 2017, with 70.7 percent involving these drugs compared to 58.2 percent in 2016, 37.9 percent in 2015, and 19.9 percent in 2014. Carfentanil was involved in 29.4 percent of deaths attributed to fentanyl and related drugs in 2017 (Figure 7).

Source

https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/violence-injury-prevention-program/media/2017_OhioDrugOverdoseReport

Full text PDF direct link

https://odh.ohio.gov/wps/wcm/connect/gov/5deb684e-4667-4836-862b-cb5eb59acbd3/2017_OhioDrugOverdoseReport.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-5deb684e-4667-4836-862b-cb5eb59acbd3-moxPbu6
