

# U.S. Opioid Epidemic Resource Pack

2024

## Overview

This resource pack was curated by the Global Health Education and Learning Incubator to provide a broad overview of the opioid epidemic in the United States, while also placing current trends into historical context. This collection of resources explores the “three waves” of the opioid epidemic, from the over prescription of opioids, to the rise in heroin use, and the introduction of synthetic opioids like fentanyl. Resources also explore interventions for harm reduction, such as evidence-based treatment modalities, as well as possible reforms to the criminal justice system for opioid users.

The resources in this collection were selected for their diversity, quality, and timeliness. We specifically curated publications, data portals, and interactives that allow users to explore the many facets of the opioid epidemic in the United States. The variety of resource types are well-suited for integration into the classroom, hybrid, or online learning environments. Most of these resources are accessible for free and updated regularly.

These resources may be useful to educators as they develop lesson plans, activities, or assignments focusing on the opioid epidemic in the U.S. Learners apply analytical skills through exploration of data portals and interactives, use of articles as case examples for discussion, or focus on specific issues related to the opioid epidemic in their own communities.

The [Global Health Education and Learning Incubator at Harvard University](#) supports interdisciplinary education about world health through the production, curation, and dissemination of educational public goods.

This resource pack includes:

- [At-A-Glance](#)
- [U.S. Opioid Epidemic](#)
- [The Three Epidemics: Natural Opioids, Heroin, Synthetic Opioids](#)
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[Last updated: January 2024]

## Selected Resources

\*indicates resource listed in GHELI's online Repository

### AT-A-GLANCE

**\* Report. Responding to the Opioid Crisis in North America and Beyond: Recommendations of the Stanford-Lancet Commission**

Humphreys K et al. Responding to the Opioid Crisis in North America and Beyond: Recommendations of the Stanford-Lancet Commission. *The Lancet* 2022; 399(10324): 555-604.  
DOI: [https://doi.org/10.1016/S0140-6736\(21\)02252-2](https://doi.org/10.1016/S0140-6736(21)02252-2).

**\* Report. World Drug Report 2023**

World Drug Report 2023. United Nations Office on Drugs and Crime 2023. <https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2023.html>.

**\* Report. Annual Surveillance Report of Drug-Related Risks and Outcomes — United States 2019**

Annual Surveillance Report of Drug-Related Risks and Outcomes — United States 2019. Presentation. Centers for Disease Control and Prevention 2019. <https://www.cdc.gov/drugoverdose/pdf/pubs/2019-cdc-drug-surveillance-report.pdf>.

**\* Article. Global Patterns of Opioid Use and Dependence: Harms to Populations, Interventions, and Future Action**

Degenardt L et al. Global Patterns of Opioid Use and Dependence: Harms to Populations, Interventions, and Future Action. *The Lancet* 2019; 394(10208): 1560-1579. DOI: [https://doi.org/10.1016/S0140-6736\(19\)32229-9](https://doi.org/10.1016/S0140-6736(19)32229-9).

**\* Brief. Fentanyl and the U.S. Opioid Epidemic**

Klobucista C, Ferragamo M. Fentanyl and the U.S. Opioid Epidemic. Council on Foreign Relations 2023. <https://www.cfr.org/backgrounder/us-opioid-epidemic>.

**\* Brief. Trends and Geographic Patterns in Drug and Synthetic Opioid Overdose Deaths – United States, 2013-2019**

Mattson C et al. Trends and Geographic Patterns in Drug and Synthetic Opioid Overdose Deaths – United States, 2013-2019. Centers for Disease Control and Prevention: *Morbidity and Mortality Weekly Report* 2021; 70(6): 202-207.  
DOI: <https://dx.doi.org/10.15585/mmwr.mm7006a4>.

**\* Data Portal. CDC Data Portal: Drug Overdose Deaths and Opioid-Involved Deaths**

CDC Data Portal: Drug Overdose Deaths and Opioid-Involved Deaths. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/dashboards/index.html>.

### U.S. OPIOID EPIDEMIC

**\* Report. Suicide Prevention: Resource for Action**

Suicide Prevention: Resource for Action. Centers for Disease Control and Prevention 2022. <https://www.cdc.gov/suicide/resources/prevention.html>.

**\* Article. Using Policy Tools to Improve Population Health – Combatting the U.S. Opioid Crisis**

Barry C, Saloner B. Using Policy Tools to Improve Population Health – Combatting the U.S. Opioid Crisis. *The New England Journal of Medicine* 2021; 385: 2113-2116. DOI: <https://www.nejm.org/doi/full/10.1056/NEJMp2102323>.

**Article. Opioid Deaths and Lockdowns: A Complicated Story**

Lu A. Opioid Deaths and Lockdowns: A Complicated Story. *Think Global Health* 2021. <https://www.thinkglobalhealth.org/article/opioid-deaths-and-lockdowns>.

**\* Article. Tracing the US Opioid Crisis to Its Roots**

DeWeerd S. Tracing the US Opioid Crisis to Its Roots. *Nature* 2019; 573: 10-12. DOI: <https://doi.org/10.1038/d41586-019-02686-2>.

**\* Article. Understanding Links Among Opioid Use, Overdose, and Suicide**

Bohnert ASB, Ilgen MA. Understanding Links Among Opioid Use, Overdose, and Suicide. The New England Journal of Medicine 2019; 380: 71-79. DOI: <https://dx.doi.org/10.1056/NEJMr1802148>.

**Article. Opioid Crisis: No Easy Fix to Its Social and Economic Determinants**

Dasgupta N, Beletsky L, Ciccarone D. Opioid Crisis: No Easy Fix to Its Social and Economic Determinants. American Journal of Public Health 2018; 108(2): 182-186. DOI: <https://dx.doi.org/10.2105/AJPH.2017.304187>.

**\* Article. Backstories on the US Opioid Epidemic. Good Intentions Gone Bad, an Industry Gone Rogue, and Watch Dogs Gone to Sleep**

deShazo RD et al. Backstories on the US Opioid Epidemic. Good Intentions Gone Bad, an Industry Gone Rogue, and Watch Dogs Gone to Sleep. The American Journal of Medicine 2018; 131(6): 595-601. DOI: <https://doi.org/10.1016/j.amjmed.2017.12.045>.

**\* Article. Addressing the Burden of Mental, Neurological, and Substance Use Disorders: Key Messages From Disease Control Priorities, 3rd Edition**

Patel V et al. Addressing the Burden of Mental, Neurological, and Substance Use Disorders: Key Messages From Disease Control Priorities, 3rd Edition. The Lancet 2015; 387: 1672-1685. DOI: [https://dx.doi.org/10.1016/S0140-6736\(15\)00390-6](https://dx.doi.org/10.1016/S0140-6736(15)00390-6).

**Brief. The Role of Community Health Centers in Addressing the Opioid Epidemic**

Zur J et al. The Role of Community Health Centers in Addressing the Opioid Epidemic. Henry J. Kaiser Family Foundation 2018. <https://www.kff.org/medicaid/issue-brief/the-role-of-community-health-centers-in-addressing-the-opioid-epidemic>.

**\* Fact Sheet. Opioid Overdose**

Opioid Overdose. World Health Organization 2023. <https://www.who.int/news-room/fact-sheets/detail/opioid-overdose>.

**\* News. Judge Overturns Purdue Pharma's Opioid Settlement**

Hoffman J. Judge Overturns Purdue Pharma's Opioid Settlement. The New York Times 2021; Dec 16. <https://www.nytimes.com/2021/12/16/health/purdue-pharma-opioid-settlement.html>.

### THE THREE EPIDEMICS: NATURAL OPIOIDS, HEROIN, SYNTHETIC OPIOIDS

**Report. The Future of Fentanyl and Other Synthetic Opioids**

Pardo B et al. The Future of Fentanyl and Other Synthetic Opioids. RAND Corporation 2019. [https://www.rand.org/pubs/research\\_reports/RR3117.html](https://www.rand.org/pubs/research_reports/RR3117.html).

**\* Article. The Triple Wave Epidemic: Supply and Demand Drivers of the US Opioid Overdose Crisis**

Ciccarone D. The Triple Wave Epidemic: Supply and Demand Drivers of the US Opioid Overdose Crisis. International Journal of Drug Policy 2019; 71: 183-188. DOI: <https://doi.org/10.1016/j.drugpo.2019.01.010>.

**Article. A Brief History of the Opioid Epidemic and Strategies for Pain Medicine**

Jones M et al. A Brief History of the Opioid Epidemic and Strategies for Pain Medicine. Pain and Therapy 2018; 7(1): 13-21. DOI: <https://dx.doi.org/10.1007%2Fs40122-018-0097-6>.

**Article. Addressing the Fentanyl Threat to Public Health**

Frank RG, Pollack HA. Addressing the Fentanyl Threat to Public Health. The New England Journal of Medicine 2017; 376: 605-607. DOI: <https://doi.org/10.1056/NEJMp1615145>.

**\* Brief. The U.S. Fentanyl Crisis: What to Know**

Klobucista C. The U.S. Fentanyl Crisis: What to Know. Council on Foreign Relations 2021. <https://www.cfr.org/in-brief/us-fentanyl-crisis-what-know>.

**Brief. Drug Overdose Deaths in the United States, 2001-2021**

Spencer MR, Miniño AM, Warner M. Drug Overdose Deaths in the United States, 2001–2021. Centers for Disease Control and Prevention: National Center for Health Statistics 2022; 457. DOI: <https://dx.doi.org/10.15620/cdc:122556>.

**\* Brief. Understanding America's Surge in Fentanyl and Other Synthetic Opioids**

Pardo B et al. Understanding America's Surge in Fentanyl and Other Synthetic Opioids. RAND Corporation 2019.

# Resource Pack: U.S. Opioid Epidemic

DOI: [https://www.rand.org/pubs/research\\_briefs/RB10091.html](https://www.rand.org/pubs/research_briefs/RB10091.html).

## KEY POPULATIONS

**\* Report. Drug Overdose Deaths Among Persons Aged 10–19 Years — United States, July 2019–December 2021**

Tanz LJ et al. Drug Overdose Deaths Among Persons Aged 10–19 Years — United States, July 2019–December 2021. Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report 2022; 71:1576–1582.

DOI: <https://dx.doi.org/10.15585/mmwr.mm7150a2>.

**Report. Final Report: Opioid Use, Misuse, and Overdose in Women**

Final Report: Opioid Use, Misuse, and Overdose in Women. Office on Women’s Health. U.S. Department of Health and Human Services 2017. <https://owh-wh-d9-prod.s3.amazonaws.com/s3fs-public/documents/final-report-opioid-508.pdf>.

**Article. Racial/Ethnic and Age Group Differences in Opioid and Synthetic Opioid-Involved Overdose Deaths Among Adults Aged ≥ 18 Years in Metropolitan Areas – United States, 2015-2017**

Lippold K et al. Racial/Ethnic and Age Group Differences in Opioid and Synthetic Opioid-Involved Overdose Deaths Among Adults Aged ≥ 18 Years in Metropolitan Areas – United States, 2015-2017. Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report 2019; 68(43): 967-973.

DOI: <https://dx.doi.org/10.15585/mmwr.mm6843a3>.

**Article. Impact of Dual Use of Department of Veterans Affairs and Medicare Part D Drug Benefits on Potentially Unsafe Opioid Use**

Gellad WF et al. Impact of Dual Use of Department of Veterans Affairs and Medicare Part D Drug Benefits on Potentially Unsafe Opioid Use. American Journal of Public Health 2018; 108(2): 248-255.

DOI: <https://dx.doi.org/10.2105/AJPH.2017.304174>.

**Article. Nonmedical Use of Prescription Opioids among Pregnant US Women**

Kozhimannil KB et al. Nonmedical Use of Prescription Opioids among Pregnant US Women. Women's Health Issues 2017; 27(3): 308-15. [https://www.whijournal.com/article/S1049-3867\(16\)30329-2/fulltext](https://www.whijournal.com/article/S1049-3867(16)30329-2/fulltext).

**\* Article Series. Substance Use in Young People**

Substance Use in Young People. The Lancet Psychiatry 2016. <https://www.thelancet.com/series/adolescent-substance-misuse>.

**Article. The Increasing Global Health Priority of Substance Use in Young People**

Degenhardt L et al. The Increasing Global Health Priority of Substance Use in Young People. The Lancet 2016; 3(3): 251-264. DOI: [https://doi.org/10.1016/S2215-0366\(15\)00508-8](https://doi.org/10.1016/S2215-0366(15)00508-8).

**Article. Why Young People's Substance Use Matters for Global Health**

Hall WD et al. Why Young People's Substance Use Matters for Global Health. The Lancet 2016; 3(3): 265-279.

DOI: [https://doi.org/10.1016/S2215-0366\(16\)00013-4](https://doi.org/10.1016/S2215-0366(16)00013-4).

**Article. Prevention, Early Intervention, Harm Reduction, and Treatment of Substance Use in Young People**

Stockings E et al. Prevention, Early Intervention, Harm Reduction, and Treatment of Substance Use in Young People. The Lancet 2016; 3(3): 280-296. DOI: [https://doi.org/10.1016/S2215-0366\(16\)00002-X](https://doi.org/10.1016/S2215-0366(16)00002-X).

**\* Brief. Urban-Rural Differences in Drug Overdose Death Rates, 1999-2019**

Hedegaard H, Spencer M. Urban-Rural Differences in Drug Overdose Death Rates, 1999-2019. Centers for Disease Control and Prevention: National Center for Health Statistics 2021; 403: 1-8.

<https://www.cdc.gov/nchs/products/databriefs/db403.htm>.

**Brief. Key Facts about Uninsured Adults With Opioid Use Disorder**

Orgera K, Tolbert J. Key Facts about Uninsured Adults With Opioid Use Disorder. Henry J. Kaiser Family Foundation 2019. <https://www.kff.org/uninsured/issue-brief/key-facts-about-uninsured-adults-with-opioid-use-disorder>.

## PRESCRIBING AND PAIN MANAGEMENT

### \* Report. Alleviating the Access Abyss in Palliative Care and Pain Relief—An Imperative of Universal Health Coverage: The Lancet Commission Report

Knauer FM et al. Alleviating the Access Abyss in Palliative Care and Pain Relief—An Imperative of Universal Health Coverage: The Lancet Commission Report. *The Lancet* 2017; 391 (10128): 1391–1454. DOI: [https://doi.org/10.1016/S0140-6736\(17\)32513-8](https://doi.org/10.1016/S0140-6736(17)32513-8).

### \* Article Series. Lancet Series: Postoperative Pain Management and Opioids

Postoperative Pain Management and Opioids. *The Lancet* 2019. <https://www.thelancet.com/series/Postoperative-pain-management-and-opioids>.

#### Article. Transition From Acute to Chronic Pain After Surgery

Glare P et al. Transition From Acute to Chronic Pain After Surgery. *The Lancet* 2019; 393(10180): 1537-1546. DOI: [https://doi.org/10.1016/S0140-6736\(19\)30352-6](https://doi.org/10.1016/S0140-6736(19)30352-6).

#### Article. Inappropriate Opioid Prescription After Surgery

Neuman M et al. Inappropriate Opioid Prescription After Surgery. *The Lancet* 2019; 393(10180): 1547-1557. DOI: [https://doi.org/10.1016/S0140-6736\(19\)30428-3](https://doi.org/10.1016/S0140-6736(19)30428-3).

#### Article. Perioperative Opioid Analgesia – When is Enough Too Much? A Review of Opioid-Induced Tolerance and Hyperalgesia

Colvin L et al. Perioperative Opioid Analgesia – When is Enough Too Much? A Review of Opioid-Induced Tolerance and Hyperalgesia. *The Lancet* 2019; 393(10180): 1558-1568. DOI: [https://doi.org/10.1016/S0140-6736\(19\)30430-1](https://doi.org/10.1016/S0140-6736(19)30430-1).

### Article. Opioid Prescribing After Surgery in the United States, Canada, and Sweden

Ladha KS et al. Opioid Prescribing After Surgery in the United States, Canada, and Sweden. *JAMA* 2019. DOI: <https://doi.org/10.1001/jamanetworkopen.2019.10734>.

### Fact Sheet. Opioid Prescribing: Where You Live Matters

Opioid Prescribing: Where You Live Matters. CDC Vital Signs; U.S. Centers for Disease Control and Prevention 2017. <https://www.cdc.gov/vitalsigns/pdf/2017-07-vitalsigns.pdf>.

### News. What the Opioid Crisis Took From People in Pain

Szalavitz M et al. What the Opioid Crisis Took From People in Pain. *The New York Times* 2022; Mar. 7. <https://www.nytimes.com/2022/03/07/opinion/opioid-crisis-pain-victims.html>.

## INTERVENTIONS FOR HARM REDUCTION

### Report. The Opioid Epidemic: From Evidence to Impact

The Opioid Epidemic: From Evidence to Impact. Johns Hopkins Bloomberg School of Public Health, Clinton Foundation 2017. <https://www.jhsph.edu/events/2017/americas-opioid-epidemic/report/2017-JohnsHopkins-Opioid-digital.pdf>.

### Report. A Second Chance: Overdose Prevention, Naloxone, and Human Rights in the United States

A Second Chance: Overdose Prevention, Naloxone, and Human Rights in the United States. Human Rights Watch 2017. <https://www.hrw.org/report/2017/04/27/second-chance/overdose-prevention-naloxone-and-human-rights-united-states>.

### \* Article. Estimating Naloxone Need in the USA Across Fentanyl, Heroin, and Prescription Opioid Epidemics: A Modelling Study

Irvine M et al. Estimating Naloxone Need in the USA Across Fentanyl, Heroin, and Prescription Opioid Epidemics: A Modelling Study. *The Lancet Public Health* 2022; 7(3): 210-218. DOI: [https://doi.org/10.1016/S2468-2667\(21\)00304-2](https://doi.org/10.1016/S2468-2667(21)00304-2).

### Article. A Public Health Response to Opioid Use in Pregnancy

Patrick SW, Schiff DM. A Public Health Response to Opioid Use in Pregnancy. *Pediatrics* 2017. <https://pediatrics.aappublications.org/content/early/2017/02/16/peds.2016-4070>.

## Resource Pack: U.S. Opioid Epidemic

### **Brief. Addressing the Opioid Crisis: A Look at the Evolving Landscape of Federal OUD Treatment Policies**

Saunders H, Panchal N. Addressing the Opioid Crisis: A Look at the Evolving Landscape of Federal OUD Treatment Policies. Kaiser Family Foundation 2023. <https://www.kff.org/mental-health/issue-brief/addressing-the-opioid-crisis-a-look-at-the-evolving-landscape-of-federal-oud-treatment-policies>.

### **\* Brief. Syringe Distribution Programs Can Improve Public Health During the Opioid Overdose Crisis**

Syringe Distribution Programs Can Improve Public Health During the Opioid Overdose Crisis. Pew 2021. <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2021/03/syringe-distribution-programs-can-improve-public-health-during-the-opioid-overdose-crisis>.

### **Brief. The Opioid Epidemic and Medicaid's Role in Facilitating Access to Treatment**

Orgera A, Tolbert J. The Opioid Epidemic and Medicaid's Role in Facilitating Access to Treatment. Kaiser Family Foundation 2019. <https://www.kff.org/medicaid/issue-brief/the-opioid-epidemic-and-medicaids-role-in-facilitating-access-to-treatment>.

### **News. Doctors, Companies Push to Keep Looser, Pandemic-Era Rules for Prescribing Opioid Addiction Treatment Via Telemedicine**

Marquardt A. Doctors, Companies Push to Keep Looser, Pandemic-Era Rules for Prescribing Opioid Addiction Treatment Via Telemedicine. STAT 2022; Mar 7. <https://www.statnews.com/2022/03/07/doctors-companies-push-to-keep-looser-pandemic-era-rules-for-prescribing-opioid-addiction-treatment-via-telemedicine>.

## THE CRIMINAL JUSTICE SYSTEM

### **Report. Corrections-Based Responses to the Opioid Epidemic: Lessons From New York State's Overdose Education and Naloxone Distribution Program**

Anthony-North V et al. Corrections-Based Responses to the Opioid Epidemic: Lessons From New York State's Overdose Education and Naloxone Distribution Program. Vera Institute of Justice 2018. <https://www.vera.org/publications/corrections-responses-to-opioid-epidemic-new-york-state>.

### **Report. Treating an Illness, Ending a War**

Ghandnoosh N, Anderson C. Treating an Illness, Ending a War. The Sentencing Project 2017. <https://www.sentencingproject.org/publications/opioids-treating-illness-ending-war>.

### **Report. A New Normal: Addressing Opioid Use through the Criminal Justice System**

A New Normal: Addressing Opioid Use through the Criminal Justice System. Vera Institute of Justice 2017. <https://www.vera.org/publications/new-normal-opioid-use-criminal-justice-system>.

### **Article. Opioids and the Criminal Justice System: New Challenges Posed by the Modern Opioid Epidemic**

Caulkins J et al. Opioids and the Criminal Justice System: New Challenges Posed by the Modern Opioid Epidemic. Annual Review of Criminology 2021; 4: 353-375. DOI: <https://doi.org/10.1146/annurev-criminol-061020-125715>.

### **\* Article. Law Enforcement and Public Health: Recognition and Enhancement of Joined-up Solutions**

van Dijk AJ et al. Law Enforcement and Public Health: Recognition and Enhancement of Joined-up Solutions. The Lancet 2019; 393(10168): 287-294. DOI: [https://doi.org/10.1016/S0140-6736\(18\)32839-3](https://doi.org/10.1016/S0140-6736(18)32839-3).

### **Article. Only One in Twenty Justice-Referred Adults in Specialty Treatment for Opioid Use Receive Methadone or Buprenorphine**

Krawczyk N et al. Only One in Twenty Justice-Referred Adults in Specialty Treatment for Opioid Use Receive Methadone or Buprenorphine. Health Affairs 2017; 36(12). DOI: <https://doi.org/10.1377/hlthaff.2017.0890>.

### **Brief. Minimizing Harm: Public Health and Justice System Responses to Drug Use and the Opioid Crisis**

Parsons J, Neath S. Minimizing Harm: Public Health and Justice System Responses to Drug Use and the Opioid Crisis. Vera Institute of Justice 2017. <https://www.vera.org/publications/for-the-record-public-health-justice-system-responses-opioid-crisis>.

## **Commentary. Opioid Use Disorder Treatment for People Involved in the US Criminal Justice System—Promising Advances and Critical Implementation Challenges**

Winkelman T, Silva R. Opioid Use Disorder Treatment for People Involved in the US Criminal Justice System—Promising Advances and Critical Implementation Challenges. JAMA 2021; 4(9): 1-3.  
DOI: <https://doi.org/10.1001/jamanetworkopen.2021.25120>.

## **DATA**

### **\* Data Interactive. U.S. Prescribing Rate Maps**

U.S. Prescribing Rate Maps. U.S. Centers for Disease Control and Prevention.  
<https://www.cdc.gov/drugoverdose/maps/rxrate-maps.html>.

### **\* Data Interactive. Opioid & Health Indicators Database**

Opioid & Health Indicators Database. amfAR. <http://opioid.amfar.org>.

### **Data Interactive. Medicare Part D Opioid Prescribing Mapping Tool**

Medicare Part D Opioid Prescribing Mapping Tool. Centers for Medicare & Medicaid Services 2019.  
<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/OpioidMap.html>.

## **TEACHING MATERIAL**

### **Glossary. Addictionary**

Addictionary. Recovery Research Institute. <https://www.recoveryanswers.org/addiction-ary>.

### **\* Lesson Plan. Investigating the Heroin and Prescription Opioid Epidemic: A Lesson Plan**

Gonchar M, Crosson Gilpin C. Investigating the Heroin and Prescription Opioid Epidemic: A Lesson Plan. The New York Times 2017. <https://www.nytimes.com/2017/05/04/learning/lesson-plans/investigating-the-heroin-and-prescription-opioid-epidemic-a-lesson-plan.html>.

### **\* Online Learning. The Opioid Crisis: A Governors Roundtable**

The Opioid Crisis: A Governors Roundtable. The Forum. Harvard T.H. Chan School of Public Health 2017; May 7.  
<https://theforum.sph.harvard.edu/events/the-opioid-crisis>.

## **ORGANIZATIONS AND TOPIC PORTALS**

### **Organization. National Harm Reduction Coalition**

National Harm Reduction Coalition. <https://harmreduction.org/>.

### **Organization. Opioid Policy Research Collaborative**

Opioid Policy Research Collaborative. The Heller School for Social Policy and Management, Brandeis University.  
<https://heller.brandeis.edu/opioid-policy/index.html>.

### **Topic Portal. End the Epidemic**

End the Epidemic. American Medical Association. <https://www.end-opioid-epidemic.org>.

### **Topic Portal. Drug Overdose**

Drug Overdose. U.S. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/index.html>.

### **Topic Portal. Opioids**

Opioids. The JAMA Network. <https://jamanetwork.com/collections/42053/opioids>.

### **Topic Portal. Help and Resources: National Opioids Crisis**

Help and Resources: National Opioids Crisis. United States Department of Health and Human Services.  
<https://www.hhs.gov/opioids>.

# Annotated Bibliography

### AT-A-GLANCE

#### **Report. Responding to the Opioid Crisis in North America and Beyond: Recommendations of the Stanford-Lancet Commission**

Humphreys K et al. Responding to the Opioid Crisis in North America and Beyond: Recommendations of the Stanford-Lancet Commission. *The Lancet* 2022; 399(10324): 555-604.

DOI: [https://doi.org/10.1016/S0140-6736\(21\)02252-2](https://doi.org/10.1016/S0140-6736(21)02252-2).

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13913>

This Stanford-Lancet Commission report analyzes the history and trends of the North American opioid crisis, focusing on the insufficient regulation of the pharmaceutical and health care industries. Given that opioid-related morbidity and mortality have drastically increased in the United States and Canada over the past 25 years, the Commission—supported by Stanford University—aims to propose domestic solutions, prevent the international spread of the crisis, and develop a coherent, empirically grounded analysis of the causes of and solutions to the opioid crisis. In the mid-1990s, opioid prescribing quadrupled, particularly for extremely potent opioids for a range of chronic, non-cancer pain conditions. The Commission analyzed the crisis across seven domains: the crisis as a case study in multi-system regulatory failure; opioids' dual nature as a benefit and risk to health; building integrated, enduring systems of care for people with substance use disorders; maximizing the benefits and minimizing the effects of the involvement of the criminal justice system with people who are addicted to opioids; creating healthy environments that allow long-term declines in addiction; greater innovation in response to the crisis; and preventing the North American crisis from spreading globally.

The Commission provides a series of evidence-based policy recommendations for each of these seven domains, specifically highlighting the need to reduce the power of health care systems to cause addiction and maximize their ability to treat and respond to it. The report is accompanied by an [editorial article](#).

#### **Report. World Drug Report 2023**

World Drug Report 2023. United Nations Office on Drugs and Crime 2023. <https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2023.html>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/12109>

This annual report by the United Nations Office on Drugs and Crime (UNODC) provides an overview of global drug demand and supply of drugs; current trends in the supply, use, and health consequences of drugs; trends in the market and supply of opioids; trends of stimulants such as cocaine and amphetamines; and trends in the use of cannabis and other hallucinogenic substances. This year's report focuses on the growing complexity of contemporary drug issues, including a special chapter on how drug trafficking and crimes intersect with environmental crimes and other convergent crimes in the Amazon Basin. The report also includes sections on substance use disorders in humanitarian settings and drug service innovations implemented during the COVID-19 pandemic. The report is accompanied by a [statistical annex](#), [data portal](#), [summary of key takeaways](#), and [interactive data visualization](#) depicting trends in drug supply and demand from the 2023 report.

#### **Report. Annual Surveillance Report of Drug-Related Risks and Outcomes — United States 2019**

Annual Surveillance Report of Drug-Related Risks and Outcomes — United States 2019. Presentation. Centers for Disease Control and Prevention 2019. <https://www.cdc.gov/drugoverdose/pdf/pubs/2019-cdc-drug-surveillance-report.pdf>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/11809>

This report from the Centers for Disease Control and Prevention (CDC) is the third annual surveillance report summarizing the most recent data at the national level for opioid prescribing patterns, drug use, nonfatal, overdoses, and fatal overdoses related to the drug overdose epidemic in the United States. It includes data from the 2017, 2018, and 2019 National Survey on Drug Use and Health to reflect changes in question wording and age categories in the survey. The report found that while age-adjusted drug overdose deaths have increased significantly over the past two



decades, mortality estimates through February 2019 suggested slight decreases in drug overdose deaths since 2017. While the burden of the overdose epidemic is still high, the data showed that rates of opioid prescriptions filled in 2018 continued to decrease since 2012. The West region of the United States experienced the highest rates of hospitalizations and emergency department visits for suspected methamphetamine poisonings. This report is intended to be a resource for people who are addressing the opioid crisis, members of the public who want to be informed with recent data, and people who are interested in developing innovative solutions to address it.

### **Article. Global Patterns of Opioid Use and Dependence: Harms to Populations, Interventions, and Future Action**

Degenardt L et al. Global Patterns of Opioid Use and Dependence: Harms to Populations, Interventions, and Future Action. *The Lancet* 2019; 394(10208): 1560-1579. DOI: [https://doi.org/10.1016/S0140-6736\(19\)32229-9](https://doi.org/10.1016/S0140-6736(19)32229-9).

GHELI repository link: <https://repository.gheli.harvard.edu/repository/14094>

This article from *The Lancet* examines global patterns of opioid use and dependence, reviewing the medicinal uses of opioids, the harms associated with use of these drugs, and the interventions to address opioid-related harms. This article is part of the Lancet Series on drug use, which examines the public health implications of the changing landscape surrounding drug use. Global drug production and consumption is increasing on a global scale, and public attitudes and laws towards substance use are also rapidly shifting. Given the changing landscape, the authors reviewed the epidemiological evidence of drug use and the related harms and interventions to address these trends. This series focuses on opioid use, cannabis, stimulants, and psychoactive substances.

### **Brief. Fentanyl and the U.S. Opioid Epidemic**

Klobucista C, Ferragamo M. Fentanyl and the U.S. Opioid Epidemic. Council on Foreign Relations 2023.

<https://www.cfr.org/backgrounder/us-opioid-epidemic>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13592>

This brief from the Council on Foreign Relations examines the economic and national security implications of the ongoing opioid epidemic in the United States. The impact of Coronavirus Disease 2019 (COVID-19) on the opioid crisis is also highlighted, as overdose deaths have spiked in the U.S. during the pandemic. The brief examines which drugs contribute to the crisis, from prescription opioid medications and illicit drugs such as heroin to fentanyl and other synthetic opioids. This brief explores the scale and demographics of the opioid epidemic and breaks down the economic consequences. It also digs deeper into U.S. national policy on foreign narcotics to see where heroin and fentanyl are coming from, the domestic supply of opioids, and how the government is seeking to reduce demand.

### **Brief. Trends and Geographic Patterns in Drug and Synthetic Opioid Overdose Deaths – United States, 2013-2019**

Mattson C et al. Trends and Geographic Patterns in Drug and Synthetic Opioid Overdose Deaths – United States, 2013-2019. Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report 2021; 70(6): 202-207.

DOI: <https://dx.doi.org/10.15585/mmwr.mm7006a4>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13944>

This brief from the Centers for Disease Control and Prevention (CDC) presents trends and patterns in drug and synthetic overdose deaths by region in the United States and draws data from 2013 to 2019. The age-adjusted rate of deaths involving synthetic opioids other than methadone increased by 1,040 percent over that period. The most significant relative increase in synthetic opioid-related death rates occurred in the West, and the largest relative increase in psychostimulant-involved death rates occurred in the Northeast region. The report provides specific data, figures, and maps on overdose deaths by type of drug and offers more detail on particular states and regions across the United States. The authors urge evidence-based prevention and response strategies, including treatment and overdose prevention efforts, response efforts focused on polysubstance use, and comprehensive and coordinated approaches from clinicians, public health, public safety, and community actors.

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## Data Portal. CDC Data Portal: Drug Overdose Deaths and Opioid-Involved Deaths

CDC Data Portal: Drug Overdose Deaths and Opioid-Involved Deaths. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/dashboards/index.html>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/11811>

This data portal hosted by the Centers for Disease Control and Prevention depicts how drug overdose deaths and opioid-involved deaths continue to increase in the United States; overdose deaths from opioids have increased by a factor of six since 1999. Opioids are a drug class that contains heroin as well as prescription pain relievers such as oxycodone, hydrocodone, morphine, codeine, fentanyl, and others; these substances interact with specific brain receptors to reduce the intensity of pain. Deaths from drug overdoses are up within nearly all population groups – men and women, all races, and nearly all adult age cohorts—and opioids are involved in more than 70% of overdose deaths as of 2019.

This portal offers data about drug overdose rates for different types of opioids, prescription rates, and encounters with the highly potent fentanyl, which is increasingly being mixed with heroin and prescription opioids and has contributed to this dramatic rise in overdose deaths. The portal also offers information about overdose prevention, pain management guidance for health care providers and individuals, evidence-based strategies for states seeking to curb the opioid epidemic, and more.

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### Report. Suicide Prevention: Resource for Action

Suicide Prevention: Resource for Action. Centers for Disease Control and Prevention 2022.

<https://www.cdc.gov/suicide/resources/prevention.html>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/14212>

This publication from the Centers for Disease Control and Prevention (CDC) provides evidence-based policies, programs, and practices aimed at suicide prevention or increasing protective factors against suicide. The resource details seven key suicide prevention strategies—providing rationale, implementation approaches, evidence, and possible outcomes for each strategy. The resource aims to inform communities and policymakers of suicide prevention efforts and strategies for action, which include improving access and delivery of suicide care, strengthening economic supports, creating protective environments, identifying people at risk, and more. For each strategy, the resource provides case examples of programs and prevention tools for suicide prevention in the U.S. and beyond.

### Article. Using Policy Tools to Population Health – Combatting the U.S. Opioid Crisis

Barry C, Saloner B. Using Policy Tools to Improve Population Health – Combatting the U.S. Opioid Crisis. *The New England Journal of Medicine* 2021; 385: 2113-2116. DOI: <https://www.nejm.org/doi/full/10.1056/NEJMp2102323>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/14092>

This article from *The New England Journal of Medicine* illustrates how policy tools can be utilized to improve population health, using examples from the U.S. opioid crisis, which has resulted in over 500,000 deaths since 1999. This article outlines the five essential steps needed to use public policy to advance population health and address complex public health challenges—and how these tools have been applied in the context of the opioid crisis in the United States.

### Article. Opioid Deaths and Lockdowns: A Complicated Story

Lu A. Opioid Deaths and Lockdowns: A Complicated Story. *Think Global Health* 2021.

<https://www.thinkglobalhealth.org/article/opioid-deaths-and-lockdowns>.

This article from *Think Global Health* examines how COVID-19-related lockdowns, social distancing, and treatment center closures affected the opioid crisis in the United States and Canada. The pandemic's onset led to an opioid overdose surge in the United States, and overdose deaths from all drugs, not just opioids, spiked immediately following social distance mandates in March 2020. The article includes figures and data on opioid mortality and trends in the US, Canada, and by state and province. It also compares these trends to other regions around the world, discussing policy responses by different governments and gaps in data that affect the global understanding of overdoses during the pandemic.

### **Article. Tracing the US Opioid Crisis to Its Roots**

DeWeerd S. Tracing the US Opioid Crisis to Its Roots. *Nature* 2019; 573: 10-12. DOI: <https://doi.org/10.1038/d41586-019-02686-2>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13945>

This article from *Nature* examines the history of the opioid epidemic in the U.S., providing context to the current state of the crisis. Starting in 2015, life expectancy in the United States entered a period of sustained decline – falling from 78.8 years in 2015 to 78.5 years in 2016 and 2017. The decline in life expectancy is explained by an increase in drug overdoses and suicides linked to opioids. The article outlines the different stages of the opioid epidemic, beginning with prescription opioids, then heroin, and now synthetic opioids such as fentanyl. Between 1990 and 2010, there was a steady increase in deaths related to prescription opioid overdose. In response to this, state and federal agencies began to crack down on the availability of prescription opioids and Purdue Pharmaceuticals reformulated Oxycotin to make it more difficult to crush and inhale. The decrease in supply of prescription opioids, along with the increase in supply of heroin, caused users to switch as heroin was easier to obtain. Around 2013, dealers who wanted to increase profits began to mix heroin with synthetic opioids such as fentanyl. As synthetics are considerably more potent to heroin, overdose deaths from fentanyl and other synthetics increased by 88% per year. The article continues to provide further context into drug manufacturers and the health system in the U.S.

### **Article. Understanding Links Among Opioid Use, Overdose, and Suicide**

Bohnert ASB, Ilgen MA. Understanding Links Among Opioid Use, Overdose, and Suicide. *The New England Journal of Medicine* 2019; 380: 71-79. DOI: <https://dx.doi.org/10.1056/NEJMr1802148>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/12836>

This article in *The New England Journal of Medicine* carefully reviews the links between suicide and overdoses, two major, growing public health issues in the U.S. The combined number of American deaths from suicide and unintentional overdose have more than doubled from 2000 to 2017. Both suicide and unintentional overdose are linked to pain and opioid use—opioid use is directly related to the risk of unintentional overdose and is also connected to suicide risk. In 2017, 40 percent of suicide and overdose deaths involved opioids. This article highlights some of the major biological, medical, and social factors linking suicide and overdose, such as pain, patterns of opioid prescribing, economic dynamics, and changes in opioid supply. It also highlights the shared demographic characteristics associated with each cause of death—rates were higher among men, among people who identified as white or Native American, and among people in midlife. The article concludes with shared approaches to prevention, including risk scores, counseling, naloxone distribution, and medication-assisted therapy.

### **Article. Opioid Crisis: No Easy Fix to Its Social and Economic Determinants**

Dasgupta N, Beletsky L, Ciccarone D. Opioid Crisis: No Easy Fix to Its Social and Economic Determinants. *American Journal of Public Health* 2018; 108(2): 182-186. DOI: <https://dx.doi.org/10.2105/AJPH.2017.304187>.

This commentary in the *American Journal of Public Health* discusses the need to adopt a social determinants of health lens to understand the opioid crisis in the United States. The authors discuss the implications of the general public's perception of the opioid epidemic as driven by prescription practices and pharmaceutical companies, and critique the ways such an approach fails to account for the structural root causes of recent trends, including limited economic opportunity and social upheaval.

### **Article. Backstories on the US Opioid Epidemic. Good Intentions Gone Bad, an Industry Gone Rogue, and Watch Dogs Gone to Sleep**

deShazo RD et al. Backstories on the US Opioid Epidemic. Good Intentions Gone Bad, an Industry Gone Rogue, and Watch Dogs Gone to Sleep. *The American Journal of Medicine* 2018; 131(6): 595-601.

DOI: <https://doi.org/10.1016/j.amjmed.2017.12.045>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/14090>

This article from the *American Journal of Medicine* reviews the several factors that have contributed to the opioid epidemic in the United States. In analyzing the factors that promoted the escalation of opioid use in the U.S., the article reviews several key backstories in the overall picture of the country's opioid crisis, including failures in oversight of opioid manufacture and use, the rise of the pain movement and the greed of the pharmaceutical industry, lack of physician education on addictive drugs, deceptive marketing practices, and more.

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### **Article. Addressing the Burden of Mental, Neurological, and Substance Use Disorders: Key Messages From Disease Control Priorities, 3rd Edition**

Patel V et al. Addressing the Burden of Mental, Neurological, and Substance Use Disorders: Key Messages From Disease Control Priorities, 3rd Edition. *The Lancet* 2015; 387: 1672-1685. DOI: [https://dx.doi.org/10.1016/S0140-6736\(15\)00390-6](https://dx.doi.org/10.1016/S0140-6736(15)00390-6).  
GHELI repository link: <https://repository.gheli.harvard.edu/repository/11075>

This review article from *The Lancet* summarizes the analyses from volume four of *Disease Control Priorities, 3rd edition* (DCP3), published by the World Bank, entitled “[Mental, Neurological, and Substance Use Disorders](#).” That volume discusses the prevalence of mental, neurological, and substance use (MNS) disorders, as well as the associated disability and premature mortality that can accompany them. In this article, the authors describe the myriad effective interventions, including drugs, psychological treatments, and social interventions, that are available to prevent and treat MNS disorders, and identify population-, community-, and health-care level best practices for service delivery. They argue that achieving health gains associated with prioritized MNS interventions will require both financial investment as well as committed and sustained efforts to address a range of other barriers, including paucity of human resources, weak governance, and social stigma.

### **Brief. The Role of Community Health Centers in Addressing the Opioid Epidemic**

Zur J et al. The Role of Community Health Centers in Addressing the Opioid Epidemic. Henry J. Kaiser Family Foundation 2018. <https://www.kff.org/medicaid/issue-brief/the-role-of-community-health-centers-in-addressing-the-opioid-epidemic>.

This issue brief from the Kaiser Family Foundation presents findings from a 2018 survey of community health centers on activities related to the prevention and treatment of opioid use disorder. Responses show that community health centers have expanded treatment services in response to the crisis, but those in Medicaid expansion states are more equipped to respond to the epidemic in their states than those in non-expansion states. Findings show that 48 percent of health centers provide medications as part of medication-assisted treatment, which is considered to be the most effective treatment. The brief highlights that as the primary source of health care for many low-income Americans, these health centers are critical to addressing the opioid epidemic through prevention, treatment, overdose reversal, and safe prescribing practices.

### **Fact Sheet. Opioid Overdose**

Opioid Overdose. World Health Organization 2023. <https://www.who.int/news-room/fact-sheets/detail/opioid-overdose>.  
GHELI repository link: <https://repository.gheli.harvard.edu/repository/12110>

This fact sheet from the World Health Organization (WHO) provides information about opioid overdoses worldwide, outlining effects of opioids, physical symptoms of overdose, risk factors, and emergency responses to it. The fact sheet also highlights gaps in access to effective opioid dependence treatment as well as gaps in access to naloxone, a medication that can reverse opioid overdose.

### **News. Judge Overturns Purdue Pharma’s Opioid Settlement**

Hoffman J. Judge Overturns Purdue Pharma’s Opioid Settlement. *The New York Times* 2021; Dec 16. <https://www.nytimes.com/2021/12/16/health/purdue-pharma-opioid-settlement.html>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/14096>

This news article from *The New York Times* describes the overturning of the opioid settlement involving the pharmaceutical company Purdue Pharma, the maker of the prescription drug OxyContin in 2021. Purdue, which faced thousands of civil lawsuits for the company’s role in the opioid epidemic, filed for bankruptcy in September 2019—to protect the company’s owners from civil lawsuits or liability in opioid-related cases in return for a \$4.5 billion contribution. The article provides the details of the case and the ruling, documenting litigation seeking accountability for the role of pharmaceutical companies in contributing to the opioid epidemic in the United States.

## THE THREE EPIDEMICS: NATURAL OPIOIDS, HEROIN, SYNTHETIC OPIOIDS

### Report. The Future of Fentanyl and Other Synthetic Opioids

Pardo B et al. The Future of Fentanyl and Other Synthetic Opioids. RAND Corporation 2019. [https://www.rand.org/pubs/research\\_reports/RR3117.html](https://www.rand.org/pubs/research_reports/RR3117.html).

This report from the RAND Corporation is designed to provide information on synthetic opioids to decisionmakers, researchers, media outlets, and the general public – with a specific focus on how to respond to the rise in use of synthetic opioids. The use of synthetic opioids, according to the report, is strategic from the dealer’s perspective – allowing the supplier to lower costs and to work around drug laws. Suppliers use e-commerce to plant synthetics, like fentanyl, into a market. Once these drugs gain a foothold, they sweep across the illicit drug market rapidly and the number of opioid-related deaths rises. Deaths involving synthetic opioids have drastically increased from 2013 to 2018, growing from 3,000 deaths to more than 30,000 and the authors note that the problems surrounding synthetic opioids in the U.S. are likely to get worse before they get better. The RAND Corporation provides numerous recommendations to address the issue of synthetic opioid use, from encouraging policymakers to implement evidence-informed treatment modalities to preventing the entrenchment of synthetics into the drug market.

### Article. The Triple Wave Epidemic: Supply and Demand Drivers of the US Opioid Overdose Crisis

Ciccarone D. The Triple Wave Epidemic: Supply and Demand Drivers of the US Opioid Overdose Crisis. *International Journal of Drug Policy* 2019; 71: 183-188. DOI: <https://doi.org/10.1016/j.drugpo.2019.01.010>.  
GHELI repository link: <https://repository.gheli.harvard.edu/repository/14089>

This article from the *International Journal of Drug Policy* provides a brief overview of the triple wave epidemic of overdose deaths in the United States from three classes of opioids: opioid pills, heroin, and synthetic opioids. The article details the supply and demand drivers contributing to the three waves of opioid mortality, providing a brief history of the timeline and events leading to opioid overdose deaths in the U.S. The author also discusses the fentanyl crisis and interventions such as drug supply surveillance and harm reduction

### Article. A Brief History of the Opioid Epidemic and Strategies for Pain Medicine

Jones M et al. A Brief History of the Opioid Epidemic and Strategies for Pain Medicine. *Pain and Therapy* 2018; 7(1): 13-21. DOI: <https://dx.doi.org/10.1007%2Fs40122-018-0097-6>.

This article from *Pain and Therapy* delves into the history of opioids and opioid use in the U.S., but also focuses on the implications for pain treatment during the opioid epidemic. The article opens with a detailed history of opioid analgesic use, beginning in the 1800s and moving through the different stages of the epidemic. As recent research on opioid prescription and dependence have grown, and as government policy has caught up with concerns surrounding opioids, the use of the substance as primary pain management has declined. However, pain management is still a priority, and the authors note that multimodal pain regimens are underway. These regimens include nerve blocks, non-steroidals, and acetaminophen.

### Article. Addressing the Fentanyl Threat to Public Health

Frank RG, Pollack HA. Addressing the Fentanyl Threat to Public Health. *The New England Journal of Medicine* 2017; 376: 605-607. DOI: <https://doi.org/10.1056/NEJMp1615145>.

This article published in *The New England Journal of Medicine* explains the role of fentanyl in rising mortality due to heroin or opioid overdose. The authors point to using policy tools to make illicit markets more transparent and strengthening incentives for drug suppliers to avoid using fentanyl into products as possible solutions in curbing the opioid epidemic.

### Brief. The U.S. Fentanyl Crisis: What to Know

Klobucista C. The U.S. Fentanyl Crisis: What to Know. Council on Foreign Relations 2021. <https://www.cfr.org/in-brief/us-fentanyl-crisis-what-know>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13946>

This brief from the Council on Foreign Relations focuses on the United States fentanyl crisis. In 2020, opioid-related overdose deaths increased from 50,000 to 70,000; more than 80 percent of these deaths are attributable to synthetic

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opioids such as fentanyl. The brief provides information on the sources of fentanyl production, compares trends with other countries, discusses the U.S. response, and explains the scale of the crisis. In September 2021, The Biden administration classified all fentanyl-related substances as Schedule 1 drugs, a category reserved for drugs that pose the highest risk for abuse and dependence. The administration also plans to invest tens of billions of dollars to support law enforcement efforts and expand prevention and treatment services.

### **Brief. Drug Overdose Deaths in the United States, 2001–2021**

Spencer MR, Miniño AM, Warner M. Drug Overdose Deaths in the United States, 2001–2021. Centers for Disease Control and Prevention: National Center for Health Statistics 2022; 457. DOI: <https://dx.doi.org/10.15620/cdc:122556>.

This brief from the Centers for Disease Control and Prevention presents key findings on drug overdose deaths in the United States from 2001 to 2021. The age-adjusted rate of drug overdose deaths in 2021 rose more than 14% from 2020, and in 2021, adults aged 35–44 had the highest rate of drug overdose deaths. This brief includes data on the age-adjusted rate of drug overdose deaths, overdose deaths by opioid type, drug-overdose deaths by age group and race/ethnicity, and a summary of overall trends.

### **Brief. Understanding America's Surge in Fentanyl and Other Synthetic Opioids**

Pardo B et al. Understanding America's Surge in Fentanyl and Other Synthetic Opioids. RAND Corporation 2019. DOI: [https://www.rand.org/pubs/research\\_briefs/RB10091.html](https://www.rand.org/pubs/research_briefs/RB10091.html).

GHELI repository link: <https://repository.gheli.harvard.edu/resource/14093>

This research brief from RAND Corporation assesses the rise of fentanyl in the United States, a synthetic opioid linked to sharp increases in overdose deaths in the U.S. The report assesses the past, present, and potential future of fentanyl and other synthetic opioids, presenting key findings on fentanyl-involved overdose deaths, geographic regions with the most overdoses involving synthetic opioids, and recommended policy responses looking to the future.

## KEY POPULATIONS

### **Report. Drug Overdose Deaths Among Persons Aged 10–19 Years — United States, July 2019–December 2021**

Tanz LJ et al. Drug Overdose Deaths Among Persons Aged 10–19 Years — United States, July 2019–December 2021. Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report 2022; 71:1576–1582.

DOI: <https://dx.doi.org/10.15585/mmwr.mm7150a2>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/14091>

This report from the *Morbidity and Mortality Weekly Report* presents data and trends of drug overdose deaths among people aged 10 to 19 in the United States. Analyzing data for the period between 2019 and 2021, the report finds that monthly overdose deaths increased by 109% from July–December 2019 to July–December 2021 among 10 to 19-year-olds in the U.S. Of drug overdose deaths, 90% involved opioids, while nearly 84% involved illicitly manufactured fentanyls (IMFs). The report presents data for drug overdose deaths by various characteristics, including race and ethnicity, drugs involved, evidence of overdose circumstances, route of drug use, and evidence of drug use history and treatment. The report also analyzes mental health history or evidence of a mental health condition, finding that 41% of people who died from drug overdose had evidence of mental health treatment or conditions.

### **Report. Final Report: Opioid Use, Misuse, and Overdose in Women**

Final Report: Opioid Use, Misuse, and Overdose in Women. Office on Women's Health. U.S. Department of Health and Human Services 2017. <https://owh-wh-d9-prod.s3.amazonaws.com/s3fs-public/documents/final-report-opioid-508.pdf>.

This report from the U.S. Department of Health and Human Services (HHS) Office on Women's Health explores prevention, treatment, and recovery issues for women who misuse and/or overdose on opioids. The report highlights that between 1999 and 2015, the rate of prescription overdose deaths increased 471 percent among women, compared to increase of 218 percent among men; simultaneously there has been a worrying increase in synthetic opioid-related deaths. This report takes a closer look at these differences and why those differences occur. Several key themes emerge: Research gaps on the impact of gender on substance use persist; women require greater access to gender responsive support, including naloxone; and research must treat opioid dependence as a chronic disorder.

### **Article. Racial/Ethnic and Age Group Differences in Opioid and Synthetic Opioid-Involved Overdose Deaths Among Adults Aged ≥ 18 Years in Metropolitan Areas – United States, 2015-2017**

Lippold K et al. Racial/Ethnic and Age Group Differences in Opioid and Synthetic Opioid-Involved Overdose Deaths Among Adults Aged ≥ 18 Years in Metropolitan Areas – United States, 2015-2017. Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report 2019; 68(43): 967-973.

DOI: <https://dx.doi.org/10.15585/mmwr.mm6843a3>.

This article from the Centers for Disease Control and Prevention's *Morbidity and Mortality Weekly Report* describes racial and ethnic breakdown of opioid use related deaths in large metro areas in the U.S. While nearly all racial and ethnic groups, and age groups, experienced significant increases in opioid related deaths, Black populations aged 45-54 in large metro areas and non-Hispanic White populations aged 25-34 in large fringe metro areas experienced the largest increase in deaths from 2015- to 2017. The death rate for Black populations aged 45 to 54 in large metro areas grew from 19.3 per 100,000 in 2015 to 41.9 per 100,000 in 2017. This drastic increase is also seen in non-Hispanic White populations aged 25 to 34 in large fringe metro areas, with the death rate increasing from 36.9 per 100,000 in 2015 to 58.3 per 100,000 in 2017. The results from this analysis can help target interventions to combat opioid use in these populations.

### **Article. Impact of Dual Use of Department of Veterans Affairs and Medicare Part D Drug Benefits on Potentially Unsafe Opioid Use**

Gellad WF et al. Impact of Dual Use of Department of Veterans Affairs and Medicare Part D Drug Benefits on Potentially Unsafe Opioid Use. American Journal of Public Health 2018; 108(2): 248-255.

DOI: <https://dx.doi.org/10.2105/AJPH.2017.304174>.

This article sought to estimate the extent to which veterans received prescription opioids from both the Department of Veterans Affairs (VA) and Medicare Part D (the federal program that subsidizes prescription drug costs and insurance premiums for Medicare beneficiaries). The VA and the Centers for Medicare and Medicaid Services pay for a large proportion of prescription drugs in the United States, and both systems have implemented changes to address possible misuse and abuse of prescription opioids. However, many U.S. veterans receive care from both systems and the ability to monitor prescriptions across systems is limited. Of the more than half-million veterans with dual enrollment who filled one or more opioid prescriptions in 2012, approximately 25 percent received opioids from the VA only, 62 percent from Part D only, and 13 percent from both. Among those who were enrolled in both, dual use of opioids was related to over twice the risk of being exposed to high doses of opioids.

### **Article. Nonmedical Use of Prescription Opioids among Pregnant US Women**

Kozhimannil KB et al. Nonmedical Use of Prescription Opioids among Pregnant US Women. Women's Health Issues 2017; 27(3): 308-15. [https://www.whijournal.com/article/S1049-3867\(16\)30329-2/fulltext](https://www.whijournal.com/article/S1049-3867(16)30329-2/fulltext).

This article explores the use of nonmedical opioids during pregnancy through data from the National Survey on Drug Use and Health. It finds that many pregnant women using opioids for nonmedical purposes also have mental illness and use other substances. The authors recommend improving both screening and treatment to address the multiple needs of pregnant women using nonmedical opioids, and their infants.

### **Article Series. Substance Use in Young People**

Substance Use in Young People. The Lancet Psychiatry 2016. <https://www.thelancet.com/series/adolescent-substance-misuse>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/11132>

This *Lancet Series* examines the increasing global problem of substance use among young people, looking at the clinical and epidemiological picture as well as exploring the knowledge regarding prevention, early intervention, harm reduction, and treatment. The use of tobacco, alcohol, and illicit drugs during adolescence carries potential short- and long-term impacts on physical, mental, and social well-being. Series papers include:

- [The Increasing Global Health Priority of Substance Use in Young People](#)
- [Why Young People's Substance Use Matters For Global Health](#)
- [Prevention, Early Intervention, Harm Reduction, And Treatment of Substance Use in Young People](#)

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### **Brief. Urban-Rural Differences in Drug Overdose Death Rates, 1999-2019**

Hedegaard H, Spencer M. Urban-Rural Differences in Drug Overdose Death Rates, 1999-2019. Centers for Disease Control and Prevention: National Center for Health Statistics 2021; 403: 1-8.

<https://www.cdc.gov/nchs/products/databriefs/db403.htm>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13947>

This data brief from the Centers for Disease Control and Prevention outlines the differences in drug overdose rates between urban and rural locales. Drug overdose deaths have continued to rise in the United States. For a significant portion of the opioid epidemic, opioid death rates in rural areas were higher than in urban areas. However, there has been a substantial spike in the death rates in metropolitan counties in recent years, attributable primarily to overdoses from synthetic opioids. This data brief provides an analysis of the death rates from opioid and stimulant overdoses, as well as provides an in-depth picture of the state of the opioid epidemic over time.

### **Brief. Key Facts about Uninsured Adults With Opioid Use Disorder**

Orgera K, Tolbert J. Key Facts about Uninsured Adults With Opioid Use Disorder. Henry J. Kaiser Family Foundation 2019. <https://www.kff.org/uninsured/issue-brief/key-facts-about-uninsured-adults-with-opioid-use-disorder>.

This brief from the Kaiser Family Foundation provides key statistics and information about uninsured adults with opioid use disorder. There are roughly 400,000 nonelderly adults with opioid use disorder who are uninsured, making the group particularly vulnerable due to lack of access to care and treatment. The fact sheet provides information on the demographic breakdown of the group, the type of opioid that is used by insured versus uninsured populations, poverty status, as well as mental illness. These statistics give an insight into the current state of the opioid epidemic in the U.S.

## PRESCRIBING AND PAIN MANAGEMENT

### **Report. Alleviating the Access Abyss in Palliative Care and Pain Relief—An Imperative of Universal Health Coverage: The Lancet Commission Report**

Knoul FM et al. Alleviating the Access Abyss in Palliative Care and Pain Relief—An Imperative of Universal Health Coverage: The Lancet Commission Report. *The Lancet* 2017; 391 (10128): 1391–1454. DOI: [https://doi.org/10.1016/S0140-6736\(17\)32513-8](https://doi.org/10.1016/S0140-6736(17)32513-8).

GHELI repository link: <https://repository.gheli.harvard.edu/repository/11818>

This *Lancet* Commission report calls on the global health community to alleviate the global burden of health-related human suffering by providing equitable, worldwide access to palliative care and pain relief. The practice of palliative care, defined as a core component of universal health care, has been ignored in most parts of the world, especially in the failure to provide pain-relieving medicines such as morphine and other opioids to sick and dying people. The report describes current global conditions, outlines challenges and opportunities, and presents a framework and methodology to achieve universal access goals. It emphasizes that overcoming the access abyss requires collective international action, and it sets forth recommendations and strategies for global implementation. These include integrating a cost-effective package of essential medicines and equipment into universal health coverage, adopting a metric for health-related suffering to describe the state of the world's health, and amending inflexible regulatory policies that inhibit the medical distribution of opioids. The commission report is accompanied by two comments and a profile, as well as two audio interviews.

### **Article Series. Lancet Series: Postoperative Pain Management and Opioids**

Postoperative Pain Management and Opioids. *The Lancet* 2019. <https://www.thelancet.com/series/Postoperative-pain-management-and-opioids>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/12966>

This *Lancet* series examines the rising epidemic of prescription opioid misuse, abuse, and overdose-related deaths around the world, closely linked to inappropriate opioid prescribing after surgery. 10 percent of patients who have surgery will have chronic postsurgical pain, which typically begins as acute pain that is difficult to control, but transitions into a persistent pain that is unresponsive to opioids. Clinicians have an important role to play in recognizing the differences between acute and chronic pain and preventing overprescribing of opioids. Research has illuminated



the causes and effects of opioid-induced tolerance and opioid-induced hyperalgesia, which has led to safer, opioid-sparing medication regimens, and even non-pharmacological interventions for pain management.

Series papers include:

- [Transition from Acute to Chronic Pain After Surgery](#)
- [Inappropriate Opioid Prescription After Surgery](#)
- [Perioperative Opioid Analgesia—When Is Enough Too Much? A Review of Opioid-Induced Tolerance and Hyperalgesia](#)

### **Article. Opioid Prescribing After Surgery in the United States, Canada, and Sweden**

Ladha KS et al. Opioid Prescribing After Surgery in the United States, Canada, and Sweden. *JAMA* 2019.

DOI: <https://doi.org/10.1001/jamanetworkopen.2019.10734>.

This article in *JAMA* describes a study comparing rates of filled opioid prescriptions, by patients in the U.S., Sweden, and Canada. The results show that the U.S. and Canada have a 7-fold higher rate of opioid prescriptions filled in the immediate postoperative period, and have higher doses of prescription, compared with Sweden. Additionally, the mean dose of opioids for most surgical procedures was highest in the U.S. The report calls for a more judicious use of opioids in the perioperative period in both the U.S. and Canada.

### **Fact Sheet. Opioid Prescribing: Where You Live Matters**

Opioid Prescribing: Where You Live Matters. CDC Vital Signs; U.S. Centers for Disease Control and Prevention 2017.

<https://www.cdc.gov/vitalsigns/pdf/2017-07-vitalsigns.pdf>.

This fact sheet from the U.S. Centers for Disease Control and Prevention highlights how opioid prescribing remains high and varies county to county in the United States. In particular, the highest prescribing counties prescribed six times more opioids per person than the lowest prescribing counties in 2015. Higher-prescribing counties tended to comprise small cities or large towns, with a higher percentage of white residents, more uninsured or underemployed citizens, and more people with chronic conditions.

### **News. What the Opioid Crisis Took From People in Pain**

Szalavitz M et al. What the Opioid Crisis Took From People in Pain. *The New York Times* 2022; Mar. 7.

<https://www.nytimes.com/2022/03/07/opinion/opioid-crisis-pain-victims.html>.

This op-ed essay in *The New York Times* provides a narrative overview of ongoing reductions in opioid restrictions used for chronic pain by up to eight million Americans. Doctors and pain clinics around the country are making prescription cuts to fight the overdose and addiction crisis, but they hurt patients who rely on them for chronic pain. The article distinguishes between addiction and physical dependence and emphasizes the importance of medications for chronic pain patients. The article reports a study that found that reducing a patient's opioid dosage increased their risk of overdose by 28 percent and increased their risk of mental health crisis requiring hospitalization by 78 percent. The Centers for Disease Control and Prevention is updating its recommendations for opioid prescribing cuts for primary care providers and different types of patients.

## INTERVENTIONS FOR HARM REDUCTION

### **Report. The Opioid Epidemic: From Evidence to Impact**

The Opioid Epidemic: From Evidence to Impact. Johns Hopkins Bloomberg School of Public Health, Clinton Foundation 2017. <https://www.jhsph.edu/events/2017/americas-opioid-epidemic/report/2017-JohnsHopkins-Opioid-digital.pdf>.

This report from the Clinton Foundation and the Johns Hopkins Bloomberg School of Public Health highlights high-impact and evidence-based solutions to the U.S. opioid epidemic. The report broadly focuses on improving safe use of prescription opioids and identifying and treating people with opioid-use disorders. To improve the safe use of prescription opioids, the authors recommend optimizing prescription drug monitoring programs; standardizing clinical guidelines; engaging pharmacy benefits managers and pharmacies; implementing innovative engineering strategies; and engaging patients and the public. To improve treatment, the report advocates for improving surveillance;

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improving naloxone access and use; expanding harm reduction strategies; and implementing approaches to tackle stigma.

### **Report. A Second Chance: Overdose Prevention, Naloxone, and Human Rights in the United States**

A Second Chance: Overdose Prevention, Naloxone, and Human Rights in the United States. Human Rights Watch 2017. <https://www.hrw.org/report/2017/04/27/second-chance/overdose-prevention-naloxone-and-human-rights-united-states>.

This report from Human Rights Watch explores the role of naloxone in responding to opioid overdoses in the United States. The report highlights the steps needed to curb and prevent overdose deaths: ensuring people who use drugs have naloxone access; reforming prescription rules to expand naloxone access to community members; encouraging reports of overdoses by protecting overdose reporters from criminal prosecution; and equipping law enforcement officials with naloxone.

### **Article. Estimating Naloxone Need in the USA Across Fentanyl, Heroin, and Prescription Opioid Epidemics: A Modelling Study**

Irvine M et al. Estimating Naloxone Need in the USA Across Fentanyl, Heroin, and Prescription Opioid Epidemics: A Modelling Study. *The Lancet Public Health* 2022; 7(3): 210-218.

DOI: [https://doi.org/10.1016/S2468-2667\(21\)00304-2](https://doi.org/10.1016/S2468-2667(21)00304-2).

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13948>

This article from *The Lancet* estimates the need for naloxone across fentanyl, heroin, and prescription opioid epidemics. Further, it provides evidence of the need to broaden naloxone distribution to reduce the incidence of fatal overdose. The authors found that demand for naloxone differed by epidemic type, with fentanyl epidemics having the highest probability of naloxone use during overdose events. Additionally, community-based and pharmacy-initiated naloxone access points had a higher likelihood of naloxone use and need than provider prescription access. This article modeled demand across 12 states and found that almost all states would need between 0 and 1270 additional kits per 100,000 population to reach a target of naloxone use in 80 percent of witnessed overdoses.

### **Article. A Public Health Response to Opioid Use in Pregnancy**

Patrick SW, Schiff DM. A Public Health Response to Opioid Use in Pregnancy. *Pediatrics* 2017.

<https://pediatrics.aappublications.org/content/early/2017/02/16/peds.2016-4070>.

This article examines the response to increasing trends of opioid use during pregnancy. In an effort to curb this trend, many states have incarcerated pregnant women with substance use disorders. However, a public health response is needed to focus on preventing unintended pregnancies by improving access to contraception. Programs that emphasize opioid-replacement therapy and comprehensive obstetric care are other public health responses that could slow the rate of opioid use during pregnancy.

### **Brief. Addressing the Opioid Crisis: A Look at the Evolving Landscape of Federal OUD Treatment Policies**

Saunders H, Panchal N. Addressing the Opioid Crisis: A Look at the Evolving Landscape of Federal OUD Treatment Policies. Kaiser Family Foundation 2023. <https://www.kff.org/mental-health/issue-brief/addressing-the-opioid-crisis-a-look-at-the-evolving-landscape-of-federal-oud-treatment-policies>.

This brief from the Kaiser Family Foundation (KFF) examines federal policies for the treatment of opioid use disorder (OUD) in the United States. From 2016 to 2021, opioid overdose deaths in the U.S. almost doubled—increasing from 42,249 deaths to 80,411 deaths. The brief provides an overview of the current landscape of approved medication and treatments for OUD, examining five key federal policies and their implications for access and treatment of opioid use disorder. The authors discuss access to and changes regarding the prescribing of buprenorphine, a medication approved for OUD, along with changes in dispensing methadone, access to overdose prevention and reversal methods such as naloxone, and access to treatment for incarcerated people.

### **Brief. Syringe Distribution Programs Can Improve Public Health During the Opioid Overdose Crisis**

Syringe Distribution Programs Can Improve Public Health During the Opioid Overdose Crisis. Pew 2021.

<https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2021/03/syringe-distribution-programs-can-improve-public-health-during-the-opioid-overdose-crisis>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/13949>

This brief from Pew highlights the importance of syringe distribution programs in the portfolio of broader responses to the opioid crisis in the United States. People who inject drugs (PWID) are at risk of contracting a severe infection or transmitting diseases, including hepatitis C virus and HIV. To reduce the risks associated with injection drug use, state governments are encouraged to provide PWID with free sterile equipment in conjunction with other interventions such as vaccinations, education programs, and naloxone. Decades of research have shown that implementing these programs reduces overdose-related hospital admissions and prevents HIV and HCV infections at a relatively low cost. This brief explains what a Syringe Service Program is, the importance of changing drug paraphernalia laws, how to fund the programs, and how to facilitate engagement with treatment.

### **Brief. The Opioid Epidemic and Medicaid's Role in Facilitating Access to Treatment**

Orgera A, Tolbert J. The Opioid Epidemic and Medicaid's Role in Facilitating Access to Treatment. Kaiser Family Foundation 2019. <https://www.kff.org/medicaid/issue-brief/the-opioid-epidemic-and-medicaids-role-in-facilitating-access-to-treatment>.

This brief from the Kaiser Family Foundation (KFF) explores Medicaid's role in facilitating access to treatment in the U.S. opioid epidemic. It presents figures and information on characteristics of nonelderly adults with opioid use disorder (OUD), utilization of treatment services among nonelderly adults with OUD, Medicaid's role in covering opioid use disorder treatment services, and future directions for expanding coverage of community-based benefits, state action, and integration of behavioral health services. KFF found that nearly two million nonelderly adults in the U.S. had an OUD, and Medicaid covered almost four in ten. Among these nonelderly adults with OUD, those with Medicaid were more likely than those with other coverage to receive treatment, as Medicaid facilitates access to treatment through inpatient and outpatient services, medications, and therapy.

### **News. Doctors, Companies Push to Keep Looser, Pandemic-Era Rules for Prescribing Opioid Addiction Treatment Via Telemedicine**

Marquardt A. Doctors, Companies Push to Keep Looser, Pandemic-Era Rules for Prescribing Opioid Addiction Treatment Via Telemedicine. STAT 2022; Mar 7. <https://www.statnews.com/2022/03/07/doctors-companies-push-to-keep-looser-pandemic-era-rules-for-prescribing-opioid-addiction-treatment-via-telemedicine>.

This article from Stat News discusses options for opioid addiction treatment via telemedicine during the pandemic era. The COVID-19 pandemic loosened some restrictions and barriers to addiction care, such as clinician shortages and lack of transportation, as telehealth companies and addiction doctors made online treatment options available for patients. Physicians and other experts in the addiction medicine space are pushing Congress to preserve flexibility after the pandemic to continue removing these barriers. Early research has found that telemedicine patients stayed in treatment and abstained from opioid use at the same rates as those treated in-person, and misuse of drugs did not increase as telehealth-based treatment did.

## THE CRIMINAL JUSTICE SYSTEM

### **Report. Corrections-Based Responses to the Opioid Epidemic: Lessons From New York State's Overdose Education and Naloxone Distribution Program**

Anthony-North V et al. Corrections-Based Responses to the Opioid Epidemic: Lessons From New York State's Overdose Education and Naloxone Distribution Program. Vera Institute of Justice 2018.

<https://www.vera.org/publications/corrections-responses-to-opioid-epidemic-new-york-state>.

This report published by the Vera Institute of Justice details the efforts of New York State to implement an overdose education and naloxone distribution (OEND) program to serve people who have been recently released from incarceration in state prison. New data from the Bureau of Justice Statistics estimates that 58 percent of people incarcerated in state prisons meet criteria for drug dependence or abuse and face an increased risk of death from

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overdose due to the inadequate support during their reintegration into the community. The OEND program in the New York State Department of Corrections and Community Supervision teaches all soon-to-be released people in correctional facilities about the risks of opioid use, trains them in the use of naloxone, and offers it to them free of charge at release. The report includes a [fact sheet](#) that highlights key considerations and offers insights for other correctional systems seeking to implement OEND programs.

### **Report. Treating an Illness, Ending a War**

Ghandnoosh N, Anderson C. Treating an Illness, Ending a War. The Sentencing Project 2017.

<https://www.sentencingproject.org/publications/opioids-treating-illness-ending-war>.

This report from the Sentencing Project synthesizes evidence supporting a public health approach to ending the opioid epidemic and shares lessons learned from past drug crises in the U.S. The report suggests the past “war on drugs” did not reduce drug crime of the last three decades and instead influenced the dramatic growth in incarceration. The report advocates aligning prescribing practices to national public health guidelines, expanding insurance coverage to increase access to healthcare and mental health services, prioritizing drug treatment in the criminal justice system, increasing naloxone access to prevent overdose deaths, and implementing safe syringe sites.

### **Report. A New Normal: Addressing Opioid Use through the Criminal Justice System**

A New Normal: Addressing Opioid Use through the Criminal Justice System. Vera Institute of Justice 2017.

<https://www.vera.org/publications/new-normal-opioid-use-criminal-justice-system>.

This report from the Vera Institute of Justice describes how some parts of the U.S. criminal justice system are employing harm reduction strategies to reduce overdose deaths and advance the safety of their communities. Despite a long history of punitive enforcement policies that inflated incarceration in the U.S., there is now growing momentum to implement more compassionate approaches to people using drugs, including law enforcement assisted diversion, medication-assisted treatment, naloxone distribution, and syringe exchange programs.

### **Article. Opioids and the Criminal Justice System: New Challenges Posed by the Modern Opioid Epidemic**

Caulkins J et al. Opioids and the Criminal Justice System: New Challenges Posed by the Modern Opioid Epidemic. *Annual Review of Criminology* 2021; 4: 353-375. DOI: <https://doi.org/10.1146/annurev-criminol-061020-125715>.

This article from the *Annual Review of Criminology* explores the impact of the opioid epidemic on the criminal justice system and the challenges and opportunities associated with the treatment of inmates. Treatment for opioid use disorder is promising because of the variety of pharmacotherapies available, including methadone, buprenorphine, and naltrexone. The paper highlighted research indicating the clear effects of drug treatment on reducing drug use in prison and continuity of treatment-retention once released. Further, providing treatment reduces the possibility of overdose when released. The authors noted that the criminal justice system has an ethical obligation to provide the high-quality addiction care to all imprisoned persons.

### **Article. Law Enforcement and Public Health: Recognition and Enhancement of Joined-up Solutions**

van Dijk AJ et al. Law Enforcement and Public Health: Recognition and Enhancement of Joined-up Solutions. *The Lancet* 2019; 393(10168): 287-294. DOI: [https://doi.org/10.1016/S0140-6736\(18\)32839-3](https://doi.org/10.1016/S0140-6736(18)32839-3).

GHELI repository link: <https://repository.gheli.harvard.edu/repository/14095>

This article from the *Lancet* analyzes the intersection between law enforcement and public health, arguing that public health should be viewed as an integral aspect of public safety and security. This article is part of the [Lancet series](#) on security and health, which explores the relationship between the security sector—including the military and law enforcement—and public health. These two sectors often intersect in their attempts to address or respond to public or global health issues, such as disease outbreaks and humanitarian or environmental disasters. However, depending on the nature of the challenge, military involvement can sometimes have negative effects on health. The two-paper series summarizes the varied roles, responsibilities, and approaches of military forces in global health, provides policies that can help optimize the contributions of all participants to enhance global health, and explores the connections between law enforcement and global health at the global and local levels.

### **Article. Only One in Twenty Justice-Referred Adults in Specialty Treatment for Opioid Use Receive Methadone or Buprenorphine**

Krawczyk N et al. Only One in Twenty Justice-Referred Adults in Specialty Treatment for Opioid Use Receive Methadone or Buprenorphine. *Health Affairs* 2017; 36(12). DOI: <https://doi.org/10.1377/hlthaff.2017.0890>.

This article in *Health Affairs* examines whether people in the U.S. criminal justice system—who experience high rates of opioid use and overdose—are referred to the highest standard of treatment: methadone or buprenorphine. Using data from the national Treatment Episode Data Set, the authors find that only 4.6 percent of individuals referred from the criminal justice system for care received these treatments, compared to 40.9 percent of individuals referred from elsewhere. Because people in the criminal justice system represent a key demographic among those affected by the opioid epidemic, increasing these individuals' access to high-quality opioid treatments like methadone and buprenorphine is critical. The authors suggest expanding Medicaid programs to recently incarcerated populations as well as greater collaboration between health and criminal justice groups.

### **Brief. Minimizing Harm: Public Health and Justice System Responses to Drug Use and the Opioid Crisis**

Parsons J, Neath S. Minimizing Harm: Public Health and Justice System Responses to Drug Use and the Opioid Crisis. Vera Institute of Justice 2017. <https://www.vera.org/publications/for-the-record-public-health-justice-system-responses-opioid-crisis>.

This brief from the Vera Institute of Justice describes the ways in which public health and the justice system have responded to the opioid crisis. Responses in public health are discussed in relation to treatment, prevention, and harm reduction, and are described as standing in stark contrast to punitive responses focusing on drug law enforcement and incarceration that tend to be the focus of most state and federal spending. The implications of common responses are discussed and recommendations for a nationwide harm reduction approach to tackling the crisis are discussed.

### **Commentary. Opioid Use Disorder Treatment for People Involved in the US Criminal Justice System—Promising Advances and Critical Implementation Challenges**

Winkelman T, Silva R. Opioid Use Disorder Treatment for People Involved in the US Criminal Justice System—Promising Advances and Critical Implementation Challenges. *JAMA* 2021; 4(9): 1-3.

DOI: <https://doi.org/10.1001/jamanetworkopen.2021.25120>.

This commentary from *JAMA* examines the US overdose crisis through the lens of the criminal justice system, highlighting the need for medication-assisted treatment for incarcerated individuals. According to the authors, most individuals with opioid use disorder (OUD) will experience at least one episode of incarceration in their lifetime, and as jails do not commonly provide medications for OUD, these individuals are at risk of suffering an overdose death when released. This commentary analyzes the feasibility of extended-release medications for OUD for individuals transitioning out of prison into the community.

## DATA

### **Data Interactive. U.S. Prescribing Rate Maps**

U.S. Prescribing Rate Maps. U.S. Centers for Disease Control and Prevention.

<https://www.cdc.gov/drugoverdose/rxrate-maps/index.html>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/11810>

These interactive maps from the U.S. Centers for Disease Control and Prevention (CDC) illustrate the geographic distribution of retail opioid prescriptions dispensed in the United States at both the state and county levels. Data is shown as a rate per 100 people, and maps are available for each year from 2006 to 2020; corresponding data tables are also provided. The data show that the national opioid prescribing rate steadily increased from 2006 to its peak in 2012 when more than 255 million prescriptions were dispensed across the United States (representing 81.3 prescriptions per 100 persons). That national rate then declined from 2012 to the lowest point in 15 years in 2020. However, prescribing rates remain very high in areas across the country—in approximately four percent of U.S. counties, enough prescriptions were dispensed for each person to have one. While the national rate in 2020 was 43.3 prescriptions per 100 people, some counties had rates nine times higher than that.

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## Data Interactive. Opioid & Health Indicators Database

Opioid & Health Indicators Database. amfAR. <https://opioid.amfar.org>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/12837>

This data interactive from amfAR brings together local to national-level data about the opioid epidemic and its implications for HIV and hepatitis C. The interactive includes indicators on new HIV and hepatitis C infections, opioid use and overdose death rates, and the availability of treatment and prevention services. Users can navigate data by state or congressional district, browse amfAR's [policy briefs](#), or download the [full dataset](#).

## Data Interactive. Medicare Part D Opioid Prescribing Mapping Tool

Medicare Part D Opioid Prescribing Mapping Tool. Centers for Medicare & Medicaid Services 2019.

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/OpioidMap.html>.

This data interactive from the Centers for Medicare & Medicaid Services shares information about opioid prescribing rates based on Medicare Part D opioid prescription claims. Users can explore the data at the state, county, and ZIP code levels, as well as see both the number and percentage of opioid claims in specific localities. The interactive map is based on 2013 to 2017 de-identified Medicare Part D claims.

## TEACHING MATERIAL

### Glossary. Addictionary

Addictionary. Recovery Research Institute. <https://www.recoveryanswers.org/addiction-ary>.

This glossary by the Recovery Research Institute defines common terms associated with addiction, with careful emphasis on language that destigmatizes substance use disorders.

### Lesson Plan. Investigating the Heroin and Prescription Opioid Epidemic: A Lesson Plan

Gonchar M, Crosson Gilpin C. Investigating the Heroin and Prescription Opioid Epidemic: A Lesson Plan. The New York Times 2017. <https://www.nytimes.com/2017/05/04/learning/lesson-plans/investigating-the-heroin-and-prescription-opioid-epidemic-a-lesson-plan.html>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/11764>

This lesson plan from *The New York Times* explores the causes, effects, and potential solutions for addressing the prescription opioid crisis in the United States. The lesson includes a short film about an overdose survivor, relevant news articles to discuss within class, and a discussion guide for brainstorming possible solutions.

### Online Learning. The Opioid Crisis: A Governors Roundtable

The Opioid Crisis: A Governors Roundtable. The Forum. Harvard T.H. Chan School of Public Health 2017; May 7.

<https://theforum.sph.harvard.edu/events/the-opioid-crisis>.

GHELI repository link: <https://repository.gheli.harvard.edu/repository/collection/resource-pack-us-opioid-epidemic/resource/11805>

This multimedia roundtable discussion, hosted by The Forum at Harvard T.H. Chan School of Public Health in partnership with PRI's *The World and WGBH News*, features four former governors sharing their candid insights into the epidemic of opioid drug overdoses, which claim the lives of 91 Americans every day, according to the Centers for Disease Control and Prevention. The speakers – from Kentucky, Ohio, Missouri, and Hawaii – offer their thoughts on how government policy can help address this crisis. They explore what works and what doesn't, describing their experiences in their home states and within the broader national context. Topics of this roundtable conversation include prescription drug monitoring programs; treatment vouchers; naloxone use; and crackdowns on illegal supply streams. The governors also discussed the goals of the 21st Century Cures Act to fight the epidemic and the role of the Trump administration's opioid task force. This event was part of The Forum's "[Policy Controversies](#)" series.

### ORGANIZATIONS AND TOPIC PORTALS

#### **Organization. National Harm Reduction Coalition**

National Harm Reduction Coalition. <https://harmreduction.org>.

The Harm Reduction Coalition advocates for harm reduction approaches to ensure drug users and their communities have access to health care and basic human services. “Harm reduction” encompasses a spectrum of strategies aimed at reducing negative consequences associated with drug use, emphasizing the human rights and voice of drug users themselves. The organization’s work includes advocating for safe syringe access to curb HIV and hepatitis C rates, disseminating best practices for responding to opioid overdose, and capacity-building services to help organizations provide destigmatized, evidence-based services to drug users.

#### **Organization. Opioid Policy Research Collaborative**

Opioid Policy Research Collaborative. The Heller School for Social Policy and Management, Brandeis University.

<https://heller.brandeis.edu/opioid-policy/index.html>.

The Opioid Policy Research Collaborative (OPRC) at Brandeis University’s Heller School for Social Policy and Management advances scholarship on public health interventions to address the opioid addiction epidemic. The OPRC focuses on providing timely research to evaluate local, state, and national interventions and policies; offering evidence-based policy recommendations to address the crisis; convening stakeholders across disciplines to develop coordinated strategies addressing the epidemic; and sharing findings of specific innovations to broader, non-academic audiences.

#### **Topic Portal. End the Epidemic**

End the Epidemic. American Medical Association. <https://www.end-opioid-epidemic.org>.

This topic portal from the American Medical Association (AMA) synthesizes key recommendations from the AMA’s opioid task force and provides state-by-state education and training information for health care providers seeking to curb the epidemic. Resources include fact sheets on prescription drug monitoring programs, prescription disposal, and anti-stigma efforts, as well as guidelines and policy statements to tackling overdose issues.

#### **Topic Portal. Drug Overdose**

Drug Overdose. U.S. Centers for Disease Control and Prevention. <https://www.cdc.gov/drugoverdose/index.html>.

This topic portal from the U.S. Centers for Disease Control and Prevention (CDC) shares current data about opioid use and overdose prevention efforts specific to the United States. The portal also shares up-to-date information regarding the CDC’s ongoing efforts to address the country’s opioid overdose epidemic and the most recent clinical guidelines for prescribing opioids for chronic pain management.

#### **Topic Portal. Opioids: The JAMA Network**

Opioids: The JAMA Network. <https://jamanetwork.com/collections/42053/opioids>.

This topic portal curates the latest peer-reviewed research from the *Journal of the American Medical Association* on opioid use and related topics like opioid prescribing guidelines, pain management, and addiction treatment.

#### **Topic Portal. Help and Resources: National Opioids Crisis**

Help and Resources: National Opioids Crisis. United States Department of Health and Human Services.

<https://www.hhs.gov/opioids>.

This topic portal from the U.S. Department of Health and Human Services (HHS) summarizes resources related to HHS’ five-point strategy to tackle the opioid crisis: better data; better pain treatment; prevention, treatment, and recovery; more overdose reversers; and better research. The topic portal include basic drug and pain medication facts, drug disposal information, prevention planning, and information for health professionals and law enforcement.