# Preventing Opioid Misuse and Overdose: Data Sources and Tools to Inform Assessment and Planning Efforts

The misuse of prescription opioids and heroin can lead to a wide variety of problems, including overdose deaths, hospitalizations, and drug diversion arrests. To fully understand the impact of these problems, prevention practitioners will need to collect data on a variety of prescription opioid- and heroin-related indicators—to inform their needs assessments, create epidemiological profiles and/or data tools, and select prevention priorities and target populations.

This tool presents a list of 16 key data sources for prescription opioids and heroin, including:

- A brief description of the data source
- A list of prescription opioids and heroin-related indicators included in the dataset
- Availability of an online data analysis tool that allows users to generate their own indicator estimates (for example, prevalence or trends) by subgroup (for example, age, gender, state)
- Whether users can download raw data (or generate estimates using the online tool) for conducting opioids-specific needs assessments and/or identifying prevention priorities
- Data limitations

Please note that the list of sources presented in this tool is not comprehensive. Prevention practitioners may also find it helpful to examine data sources specific to their states, jurisdictions, tribes, or communities (such as police reports, EMS/ambulance response data, first responder focus groups) to identify additional indicators on prescription opioids and heroin.

| Brief Description of the Data Source | Indicators Included in Data Set | Online Tool | Raw Data Download | Data Limitations |
|---|---|---|---|---|
| **Centers for Disease Control and Prevention Multiple Cause of Death (CDC WONDER): https://wonder.cdc.gov/mcd.html** | | | | |
| • Mortality data from death certificates<br>• Geographic level: national, state, and county<br>• Available for all 50 states and Washington, D.C. | • Prescription opioids and heroin-related poisoning<br>• Prescription opioids and heroin dependence and abuse-related mortality | Numbers and rates from 1999-2015 data<br>https://wonder.cdc.gov/mcd-icd10.html | Raw data available for download at https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm#Mortality_Multiple | • County data may be suppressed due to low case count<br>• Low prevalence may lead to unreliable data especially at county level |
| **Agency for Healthcare Research and Quality's (AHRQ) Healthcare Cost and Utilization Project (HCUP): https://www.ahrq.gov/research/data/hcup/index.html** | | | | |
| | • Opioid-related emergency department visits<br>• Opioid-related inpatient stays | Opioid-related emergency room and inpatient admissions:<br>https://www.hcup-us.ahrq.gov/faststats/OpioidUseServlet | N/A (Data for select states can be purchased from HCUP) | • Not available for all states<br>• No county-level data<br>• Admissions do not represent individuals<br>• Online tool doesn't separate heroin vs. prescription opioid admissions |
| | • Emergency department and inpatient stays for specific diagnosis (e.g., accidental poisoning by methadone) | Inpatient and emergency department admission data by specific diagnosis codes<br>https://hcupnet.ahrq.gov/#setup | N/A (Data for select states can be purchased from HCUP) | • Not available for all states<br>• No county-level data<br>• Admissions do not represent individuals |

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|---|---|---|---|---|
| **SAMHSA's Treatment Episode Dataset (TEDS): https://www.samhsa.gov/data/client-level-data-teds** | | | | |
| • Admissions to state substance abuse treatment systems<br>• Geographic level: national and state<br>• Available for all 50 states and Washington, D.C. | • Heroin and other opiates-related treatment center admissions | Drug and Alcohol Services Information System Quick Statistics System: https://wwwdasis.samhsa.gov/webt/newmapv1.htm | Raw data until 2012 is available for download: https://www.icpsr.umich.edu/icpsrweb/ICPSR/series/56 | • No county-level data<br>• Admissions do not represent individuals<br>• May not reflect prevalence of opioid misuse in general population |
| **Federal Bureau of Investigation Uniform Crime Reporting (UCR) System: https://ucr.fbi.gov/ucr-publications** | | | | |
| • Reported crime and arrests data from over 18,000 law enforcement agencies voluntarily participating in the program<br>• Geographic level: national, state, and county<br>• Available for all 50 states and D.C. | • Arrests for manufacturing, sale, and possession of heroin and other synthetic opioids | N/A (UCR data tool does not provide data specific to prescription drugs and opioids-related arrests) | Raw UCR data till 2014 is available for download: https://www.icpsr.umich.edu/icpsrweb/ICPSR/series/57 | • May not reflect prevalence of substance misuse in general population |

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|---|---|---|---|---|
| **Bureau of Justice Assistance Prescription Drug Monitoring Program (PDMP)[1]: http://www.namsdl.org/prescription-monitoring-programs.cfm** | | | | |
| • Prescription data on controlled substances dispensed by non-hospital pharmacies and practitioners<br>• Geographic level: state, county, zip code<br>• Available for 49 states. | • Prescription opioid prescribing rates, dosage, and quantity<br>• Risky combinations (e.g., opioids with benzodiazepines) rate, dosage, and quantity<br>• Multiple provider episodes (doctor and/or pharmacy shopping) | N/A | N/A (PDMP data access is controlled by state legislature. Contact your state PDMP administrator for further details) | • Limited data access<br>• Difficult to differentiate between medical and non-medical use<br>• No data on illicit opioids like heroin and fentanyl |
| **Center for Medicare and Medicaid Services Medicare Part D Prescriber Data: https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/medicare-provider-charge-data/part-d-prescriber.html** | | | | |
| • Prescription drugs prescribed by individual physicians and other health care providers and paid for under the Medicare Part D Prescription Drug Program<br>• Geographic level: national, state, zip code<br>• Available for all 50 states, jurisdictions, and Washington, D.C. | • Prescription opioids prescribing rate<br>• Prescription opioids claim counts | Medicare Part D Opioid Prescribing Mapping Tool: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/OpioidMap.html | All prescription drug-related claims data files can be downloaded at: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/PartD2014.html | • Online tool available for opioids prescribing claims only<br>• Data on Medicare eligible population only<br>• No patient information (only prescriber)<br>• No data on illicit opioids like heroin and fentanyl |

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[1] NOTE: There is no centralized data repository for PDMPs. More information about PDMPs can be found at http://www.pdmpassist.org/

| Brief Description of the Data Source | Indicators Included in Data Set | Online Tool | Raw Data Download | Data Limitations |
|---|---|---|---|---|
| **SAMHSA's National Survey of Drug Use and Health (NSDUH): https://www.samhsa.gov/data/population-data-nsduh** | | | | |
| • Household-based survey for assessing prevalence, patterns, and consequences of alcohol, tobacco, and illegal drug use and abuse and mental disorders in the U.S. civilian, non-institutionalized population, age 12 and older.<br>• Geographic level: national, state, and sub-state regions<br>• Available for all 50 states and DC | • Past-year and past-month use of prescription painkillers and heroin<br>• Sources of prescription painkillers<br>• Reasons for using prescription painkillers<br>• Risk and protective factors for substance misuse | Online tool for analyzing national NSDUH data: http://pdas.samhsa.gov/#/ (Note: State level tool is not available as of April 2017) | Raw national-level NSDUH data until 2014 is available for download at: http://www.icpsr.umich.edu/icpsrweb/NAHDAP/series/00064 | • Low sample size for sub-state estimates<br>• No county-level data<br>• State level raw data file is not available for download as of April 2017 |
| **Center for Disease Control and Prevention Youth Risk Behavior Surveillance System (YRBSS): https://www.cdc.gov/healthyYouth/data/yrbs/index.htm** | | | | |
| • School-based survey for monitoring health-risk behaviors (including substance misuse) of students in grades 9–12<br>• Geographic level: national, state, and select cities<br>• Available for 47 states; Washington, D.C., and four Pacific Jurisdictions | • Lifetime use of prescription drugs and heroin<br>• Lifetime injection drug use<br>• Risk and protective factors for substance misuse | YRBSS Youth Online data analysis tool: https://nccd.cdc.gov/youthonline/App/Default.aspx | Raw national and state level data can be downloaded at: https://www.cdc.gov/healthyyouth/data/yrbs/data.htm | • No indicator data for recent (past-year or past-month) prescription drugs and heroin use or initiation<br>• Low sample size for subgroup estimates<br>• No county-level data |

| Brief Description of the Data Source | Indicators Included in Data Set | Online Tool | Raw Data Download | Data Limitations |
|---|---|---|---|---|
| **Communities that Care (CTC): http://www.sdrg.org/ctcresource/** | | | | |
| • Coalition-based community prevention operating system that uses a public health approach to prevent youth problem behaviors<br>• Geographic level: state, county, community<br>• Available for 7 states: Colorado, Illinois, Kansas, Maine, Oregon, Utah, and Washington | • Lifetime and 30-day prevalence of prescription opiate pain relievers<br>• Risk and protective factors for substance misuse | N/A | N/A (States participating in CTC may have access to their raw data) | • Data available for select states only<br>• Years that survey was conducted may vary by state |
| **Monitoring the Future (MTF): http://www.monitoringthefuture.org** | | | | |
| • National survey of 8th, 10th and 12th grade students<br>• Annual follow-up questionnaires sample each graduating class for a number of years after their initial participation.<br>• Geographic level: National, regional, and by population density | • Lifetime, annual, and 30-day prevalence of prescription opioids and heroin<br>• Risk and protective factors for substance misuse | N/A | N/A | • Data not available by state |

| Brief Description of the Data Source | Indicators Included in Data Set | Online Tool | Raw Data Download | Data Limitations |
|---|---|---|---|---|
| **National Health and Nutrition Examination Survey (NHANES): http://www.cdc.gov/nchs/nhanes.htm** | | | | |
| • Nationally representative sample of approximately 5,000 individuals<br>• Geographic level: national | • Lifetime and 30-day heroin use<br>• Lifetime injection drug use | N/A | Raw data can be downloaded at: https://wwwn.cdc.gov/nchs/nhanes/default.aspx | • Data not available by state |
| **Automation of Reports and Consolidated Orders System (ARCOS): http://www.deadiversion.usdoj.gov/arcos/** | | | | |
| • Monitors manufacture and distribution of DEA-controlled substances (prescription drugs and prescription opioids)<br>• Geographic Level: national, state, zip code | • Retail distribution of prescription opioids (excludes illicit opioids) | Summary Reports by year: http://www.deadiversion.usdoj.gov/arcos/retail_drug_summary/index.html | N/A | • No patient or prescriber level data<br>• Retail distribution may not reflect actual consumption in community<br>(e.g., patients may be purchasing drugs in different county) |

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| **The Researched Abuse, Diversion and Addiction-Related Surveillance (RADARS®) System:** <br> **http://www.radars.org/home2/programs/drug-diversion-program** | | | | |
| • Measures rates of abuse, misuse and diversion of prescription drugs throughout the United States <br> • Geographic level: zip code | • Prescription drugs diversion <br> • Poison center reports of exposure to prescription drugs <br> • Prescription opioids-related treatment admissions <br> • Surveys of key informants and college students <br> • Real-time monitoring of social media posts on prescription drugs | N/A | N/A | • No data on illicit opioids like heroin and fentanyl |
| **Alcohol and Drug Survey for Higher Education: http://core.siu.edu/index.php** | | | | |
| • Survey of college students' use, attitudes, perceptions, and opinions about alcohol and drugs. <br> • Geographic level: participating colleges | • Lifetime and past 30 day prevalence of illicit opiates and sedatives <br> • Risk and protective factors for substance misuse | N/A | N/A | • No national or state level data <br> • Data available for select colleges only |

| Brief Description of the Data Source | Indicators Included in Data Set | Online Tool | Raw Data Download | Data Limitations |
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| **American Association of Poison Control Center's National Poison Data System (NPDS): http://www.aapcc.org/data-system/** | | | | |
| • Tracks poisoning and their sources, including drugs and medicine, from America's 55 poison centers<br>• Geographic level: state, patient location at the time of exposure | • Poison center calls for exposure to prescription opioids | N/A | Data can be requested from NPDS at: http://www.aapcc.org/data-system/data-request-process/ | • Exposures do not necessarily represent overdoses or poisonings<br>• Difficult to determine accuracy and severity of poison center calls |
| **All-payer claims database (APCD): https://www.apcdcouncil.org/** | | | | |
| • Data on medical, pharmacy, and dental claims from private and public payers<br>• Geographic level: zip code<br>• Available for 30 states | • Pharmacy claims for opioid-related diagnosis, paid for from public and private payers | N/A | Need to be requested from participating states. More information can be found on: https://www.apcdcouncil.org/state/map | • Insurance claims may not reflect opioid misuse and/or over-prescribing |

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