Drug Overdose Dashboard

Overview and Data Information

Division of Trauma and Injury Prevention
Office of Data and Analytics Data Analysis Team
Indiana Department of Health

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Introduction

Drug overdose injuries have been a growing public health concern over the past decade both nationally and in Indiana. Drug overdose injuries have lasting effects on the well-being of families and communities. An important part of drug overdose prevention efforts is understanding the trends and regional and demographic differences that may exist. Access to data from a variety of sources is key to supporting both state and local overdose response and prevention activities.

This dashboard shows drug overdose injuries in different ways and can be used to drive interventions and assist in drug overdose education and prevention efforts. Although the factors that contribute to drug overdose injuries are largely known, this dashboard highlights the problems and issues that affect people living in Indiana. For more data on drug overdose injuries, please visit the Indiana Department of Health's Drug Overdose Prevention Website.

If you need immediate help, Call 2-1-1 or click here to connect with help.

Call the Indiana Addiction Hotline at 1-800-662-HELP (4357) or visit here to live chat with a representative.

Through a partnership between Indiana 211 and OpenBeds, people seeking treatment for substance use disorder can be immediately connected with available inpatient or residential treatment services.

Dashboard Data Sources

This dashboard was a collaboration between the Indiana Department of Health's (IDOH's) Division of Vital Records, Office of Data and Analytics Data Analysis Team, Fatality Review Division, Division of Trauma and Injury Prevention and other state agencies such as the Management Performance Hub (MPH), Indiana Professional Licensing Agency and Indiana Hospital Association. The data source for the deaths by drug poisoning (overdose) is the vital records mortality data for 2016, 2017, 2018, 2019, 2020, and 2021. The data source for hospitalizations and emergency department visits due to drug poisoning is the Indiana Hospital Association's discharge data for 2016, 2017, 2018, 2019, 2020, and 2021. The data source for the opioid prescription dispensation data is from the INSPECT PDMP program in conjunction with MPH for 2017, 2018, 2019, 2020, and 2021. For more information or questions about this data, please contact trauma@isdh.in.gov.

Vital Records (Vital Statistics) Mortality Data

Death certificate data are used to track underlying and contributing cause of death, in order to understand the burden of drug overdose deaths for prevention. The underlying cause of death is the disease or injury that initiated the events leading to death while the contributing causes of

death are diseases or injuries that contributed to the fatal outcome. Data are collected by the IDOH Division of Vital Records. A final dataset is provided by the IDOH, Office of Data and Analytics, Data Analysis Team and analyzed by the Division of Trauma and Injury Prevention to identify overdose deaths among Indiana residents. Deaths are reported back to the county of residence of the Indiana decedent.

Vital statistics mortality data includes up to 20 causes of death. Frequencies are based on the decedent's county of residence, not the county where death occurred. The dashboard's mortality data reflects definitions of drug poisoning (overdose) and contributing involved drugs based on guidance provided by the Centers for Disease Control and Prevention (CDC) and the National Center for Health Statistics (see Tables 1 and 2). Rates based on counts less than 20 are considered unstable/unreliable (U) and should be interpreted with caution. Age-adjusted rate per 100,000 was calculated using the 2000 Standard Million Population, U.S. Bureau of Census. To avoid over-counting the number of drug deaths, counts from various drug categories should not be added to counts from other categories as multiple drugs can be listed on the death certificate for drug poisoning deaths, and deaths can be included in more than one of these tables for deaths from certain drugs and drug types.

Mortality data reported in this dashboard may vary from the data shared on the Stats Explorer website as the dashboard portrays age-adjusted rates and the Stats Explorer website primarily portrays crude rates for the following data elements. Dashboard reviewers should be aware of these differences when comparing the website data elements. The identified overdose cases are based on ICD-10 codes derived from the death certificate information recorded by county coroners or medical examiners. Because overdose is a sensitive topic, and findings by the coroner or medical examiner may be subjective or under-investigated, there may be under-reporting of overdose-involved cases.

The identified overdose cases for the involvement of specific drugs are based on ICD-10 codes derived from the death certificate information recorded by county coroners or medical examiners. Because toxicology testing availability and toxicology testing interpretation was variable prior to 2018, drug specificity on death certificates by the coroner or medical examiner may be subjective or under-reported, causing an under-reporting of the specific drugs involved in an overdose.

Data is reported by county of residence of the decedent, which may or may not be where the death occurred. When reviewing the data collected by county coroners, reviewers should be aware that county coroners report death counts based on county of occurrence and their interpretation of the deaths they certify.

All drug overdose death counts do not include alcohol as a primary substance of inclusion.

Table 1. Drug Poisoning (Overdose) Definitions for Vital Statistics Mortality Data

Definition	Underlying Cause of Death ICD-10 Codes
Accidental poisoning by drugs	X40-X44
Intentional self-poisoning by drugs	X60-X64
Assault by drug poisoning	X85
Drug poisoning of undetermined intent	Y10-Y14

Table 2. Drug Poisonings (Overdoses) Involving Specific Drug Categories Definitions for Vital Statistics Mortality Data

Definition	Contributing Cause of Death ICD-10 Codes
Drug overdose death involving any opioid	Any underlying cause code as listed above with any of the additional contributing cause codes of: T40.0 (opium), T40.1 (heroin), T40.2 (natural and semisynthetic opioids), T40.3 (methadone), T40.4 (synthetic opioids), T40.6 (other unspecific narcotic)
Drug overdose death involving an opioid pain reliever	Any underlying cause code as listed above with any of the additional contributing cause codes of: T40.2 (natural and semisynthetic opioids), T40.3 (methadone), T40.4 (synthetic opioids)
Drug overdose death involving synthetic opioids	Any underlying cause code as listed above with the additional contributing cause code of: T40.4 (synthetic opioids)
Drug overdose death involving heroin	Any underlying cause code as listed above with the additional contributing cause code of: T40.1 (heroin)
Drug overdose death involving benzodiazepines	Any underlying cause code as listed above with the additional contributing cause code of: T42.4 (benzodiazepines)
Drug overdose deaths involving cocaine	Any underlying cause code as listed above with the additional contributing cause code of: T40.5 (cocaine)

Drug overdose deaths involving psychostimulants other than cocaine (primarily amphetamines/ methamphetamines)	Any underlying cause code as listed above with the additional contributing cause code of: T43.6 (psychostimulants other than cocaine)

Indiana Hospital Discharge (Morbidity) Data

The Indiana hospitalizations and emergency department (ED) visit data are a subset of data compiled from the Uniform Billing 2004 form. The inpatient (hospitalizations) data contain Indiana residents discharged from a non-federal, acute care facility who were admitted to the hospital. The outpatient (ED visits) data contain Indiana residents discharged from a non-federal, acute care facility who received emergency services without being admitted to the hospital. The data are supplied by the Indiana Hospital Association under a contract with IDOH. Data are processed by the IDOH, Office of Data and Analytics, Data Analysis Team to provide a dataset that is analyzed by the Hospital Discharge Data Analyst in conjunction with the Division of Trauma and Injury Prevention.

Each hospitalization and ED visit are assigned ICD-10-CM codes for the principal reason and up to 59 secondary reasons for the hospital visit. Statistics in these dashboards are based on all 60 diagnoses, and the frequencies are based on the decedent's county of residence, not the county where the event occurred. The dashboard's morbidity data reflects definitions of drug poisoning (overdose) and contributing involved drugs based on guidance provided by the CDC (see Table 3). Rates based on counts less than 20 are considered unstable/unreliable (U) and should be interpreted with caution. Age-adjusted rate per 100,000 was calculated using the 2000 Standard Million Population, U.S. Bureau of Census. To avoid over-counting the number of drug-related events, counts from various drug categories should not be added to counts from other categories as multiple drugs can be listed on the billing codes for drug poisoning events, and events can be included in more than one of these tables for discharges from certain drugs and drug types. An individual can have more than one hospitalization or ED visit during the reporting time frame. Frequencies and rates are based on the number of discharges and not on the number of individuals seen.

Morbidity rates reported in this dashboard vary from the data shared on the Stats Explorer website, as the dashboard portrays age-adjusted rates rather than crude population rates. Dashboard reviewers should be aware of this difference when comparing the website data elements.

Table 3. Non-fatal Drug Poisoning (Overdose) Definitions for Indiana Hospital Discharge Morbidity Data

Definition	Diagnosis/ICD-10-CM Codes
All drug overdose emergency department visits/hospitalizations	[T36.x-T50.x] (1A): Unintentional Poisoning by drug; initial encounter

	[T36.x-T50.x] (2A): Self-Harm Poisoning by drug; initial encounter [T36.x-T50.x] (4A): Undetermined Poisoning by drug; initial encounter
Emergency department visits/hospitalizations involving any opioid	[T40.0, T40.1, T40.2, T40.3, T40.4, T40.60, T40.69] (1A): Unintentional Poisoning by drug; initial encounter [T40.0, T40.1, T40.2, T40.3, T40.4, T40.60, T40.69] (2A): Self-Harm Poisoning by drug; initial encounter [T40.0, T40.1, T40.2, T40.3, T40.4, T40.60, T40.69] (4A): Undetermined Poisoning by drug; initial encounter
Emergency department visits/hospitalizations involving opioid pain relievers	[T40.2, T40.3, T40.4] (1A): Unintentional Poisoning by drug; initial encounter [T40.2, T40.3, T40.4] (2A): Self-Harm Poisoning by drug; initial encounter [T40.2, T40.3, T40.4] (4A): Undetermined Poisoning by drug; initial encounter
Emergency department visits/hospitalizations involving heroin	[T40.1] (1A): Unintentional Poisoning by drug; initial encounter [T40.1] (2A): Self-Harm Poisoning by drug; initial encounter [T40.1] (4A): Undetermined Poisoning by drug; initial encounter
Emergency department visits/hospitalizations involving cocaine	[T40.5] (1A): Unintentional Poisoning by drug; initial encounter [T40.5] (2A): Self-Harm Poisoning by drug; initial encounter [T40.5] (4A): Undetermined Poisoning by drug; initial encounter
Emergency department visits/hospitalizations visits involving synthetic opioids	[T40.4] (1A): Unintentional Poisoning by drug; initial encounter [T40.4] (2A): Self-Harm Poisoning by drug; initial encounter [T40.4] (4A): Undetermined Poisoning by drug; initial encounter
Emergency department visits involving benzodiazepines	[T42.4] (1A): Unintentional Poisoning by drug; initial encounter [T42.4] (2A): Self-Harm Poisoning by drug; initial encounter [T42.4] (4A): Undetermined Poisoning by drug; initial encounter

Emergency department visits involving psychostimulants	[T43.6] (1A): Unintentional Poisoning by drug; initial encounter [T43.6] (2A): Self-Harm Poisoning by drug; initial encounter [T43.6] (4A): Undetermined Poisoning by drug; initial encounter

Opioid Prescription Dispensations (INSPECT) Data

Opioid prescription dispensations to Indiana residents is collected from the Indiana Scheduled Prescription Electronic Collection and Tracking Program (INSPECT) from the Management Performance Hub and shared with the IDOH Division of Trauma and Injury Prevention. Dispensation data includes three opioid prescription categories: opioid analgesics, opioid antidiarrheals/antitussives, and opioid antagonists and treatment addiction medications.

Data is reported by county of residence of the patient who received the dispensation, and this may or may not be where the prescription was written or filled. Statistical unit is Prescription Rate per 1,000. Statistical unit is crude rate per 1,000 and is not adjusted for age or terminal illness diagnosis. County numbers are approximate as some patients receiving a dispensation are missing a designated county FIPS code. The denominator for the years 2017 and 2018 are based on the U.S. Bureau of Census 2016 estimate population counts for Indiana and its county populations. 2019 and 2020 denominators are based on 2018 U.S. Bureau of Census estimate population counts for Indiana and its county populations. Data may include naloxone; however, naloxone is not an opioid but an opioid antagonist (opioid overdose reversal drug). Data is inclusive of methadone but are not methadone prescriptions related to opioid treatment therapy that is delivered by opioid treatment programs. Data is also inclusive of non-human subject dispensations. Data will differ from data reported by the CDC for various reasons such as the inclusion of non-human subject prescriptions, different data sources and the types of opioid prescriptions included. Data reviewers should be aware of these when analyzing the data.

Contact Information

For more information or questions about this data, please contact trauma@isdh.in.gov