

Overview

Urban and rural counties in Indiana have been affected by substance use disorder (SUD) and overdose. Investigating differences between drug overdose deaths in urban and rural counties can inform prevention and treatment efforts in both. This report examines differences in unintentional or undetermined intent drug overdose deaths in urban and rural counties.*

Overdose Rates in Urban and Rural Counties

According to Indiana vital records data, in 2023 the age-adjusted overdose death rate in urban counties was 24% higher than that of rural counties (Figure 1). While statewide overdose death rates have decreased since 2021, the decline was slightly larger in rural counties (27%) than urban counties (21%).

Opportunities for Intervention

Investigation of circumstances surrounding fatal overdoses highlights opportunities to intervene and prevent overdose deaths. In 2023, a majority of State Unintentional Drug Overdose Reporting System (SUDORS) overdose deaths in both urban and rural counties occurred in a private home, where an overdose may be less likely to be witnessed by a bystander who can intervene (Figure 2). Additionally, overdose deaths in rural counties were more likely to have a bystander present or naloxone administered than deaths in urban counties. These data emphasize the need for timely interventions to prevent fatal overdose, such as naloxone distribution and education and encouraging people to avoid using drugs while alone.

Figure 1. Age-adjusted overdose death rates per 100,000 in **urban** and **rural** Indiana counties (2023)

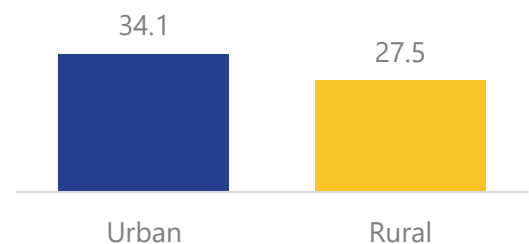
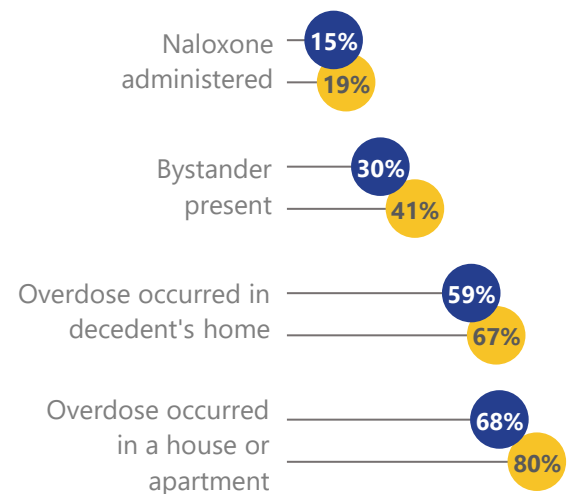


Figure 2. Fatal overdose circumstances for **urban** (top, blue) and **rural** (bottom, yellow) decedents (2023)



* This report reflects fatal drug overdose data from IDOH Division of Vital Records mortality data as well as the State Unintentional Drug Overdose Reporting System (SUDORS). Overdose rates were calculated using vital records data and age-adjusted using the U.S. Census 2000 Standard Million Population. All other data presented are from SUDORS.

SUDORS synthesizes data from death certificates, coroner/medical examiner reports, and toxicology reports. Hence, SUDORS provides additional circumstantial information to offer a holistic view of fatal overdoses. SUDORS data in this report reflect finalized data for 1,725 drug overdose deaths that occurred in Indiana in 2023 and had coroner or medical examiner reports available. Of the SUDORS cases included in this analysis, 87% occurred in urban counties, while 13% occurred in rural counties.

For this report, county urbanicity was determined using Health Resources & Services Administration's June 2024 rural area classifications. Sixty-two (62) of Indiana's 92 counties were categorized as rural.

Substance Use History

Individuals with SUD and a history of prior overdose or substance use are at greater risk of fatal overdose and may benefit from increased access to prevention, treatment, and harm reduction services. In 2023, most urban (98%) and rural (97%) decedents had prior evidence of SUD, defined as having been perceived by themselves or others to have a problematic pattern of substance use that caused impairment. In contrast, only a small percentage of urban (8%) and rural (5%) decedents had evidence of receiving SUD treatment. Additionally, a larger percentage of urban than rural decedents had evidence of a prior overdose, opioid use, or stimulant use (Figure 3).

Causes of Death

In 2023, opioids remained the leading cause of fatal drug overdoses in both urban and rural counties. However, detection of other substances varied among decedents in urban and rural counties (Figure 4). Examining the five most common combinations of opioids and stimulants causing fatal overdoses:

- Urban and rural counties had similar proportions of fatal overdoses caused by illicitly manufactured fentanyl (IMFs)
- Rural counties had a higher percentage of overdose deaths caused by methamphetamine (without other opioids or stimulants)
- Urban counties had a higher proportion of overdose deaths due to cocaine as well as a higher proportion of deaths due to IMFs along with either cocaine or methamphetamine

Additional Information

- For additional Indiana drug overdose data, visit: <https://www.in.gov/health/overdose-prevention/overdose-surveillance/>
- For more information on SUDORS, visit: <https://www.cdc.gov/overdose-prevention/data-research/facts-stats/about-sudors.html>

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Figure 3. Substance use history circumstances for decedents in **urban** (top, blue) and **rural** (bottom, yellow) decedents, 2023.

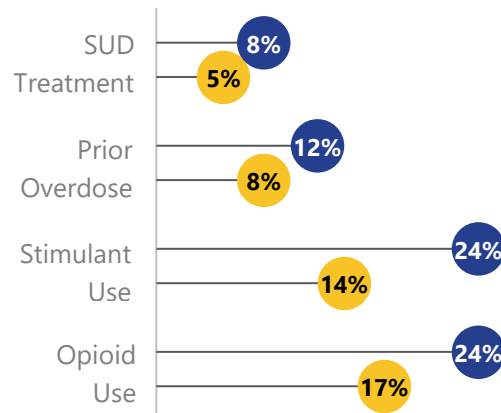


Figure 4. Most common opioid and stimulant combinations identified as cause of death in **urban** (top, blue) and **rural** (bottom, yellow) decedents, 2023

