

This analysis assessed the change in the number of reported overdoses in rural and urban Pennsylvania from 2018 to 2022 using data from the Pennsylvania State Police’s Overdose Information Network (ODIN). Information on the methodology and data sources are on Page 6.

It is important to note that this analysis used data that were available prior to the implementation date of Act 158 of 2022, which now requires all law enforcement agencies to report overdose information. The data in this report only include data supplied by 652 law enforcement and some emergency response agencies.

Key Findings:

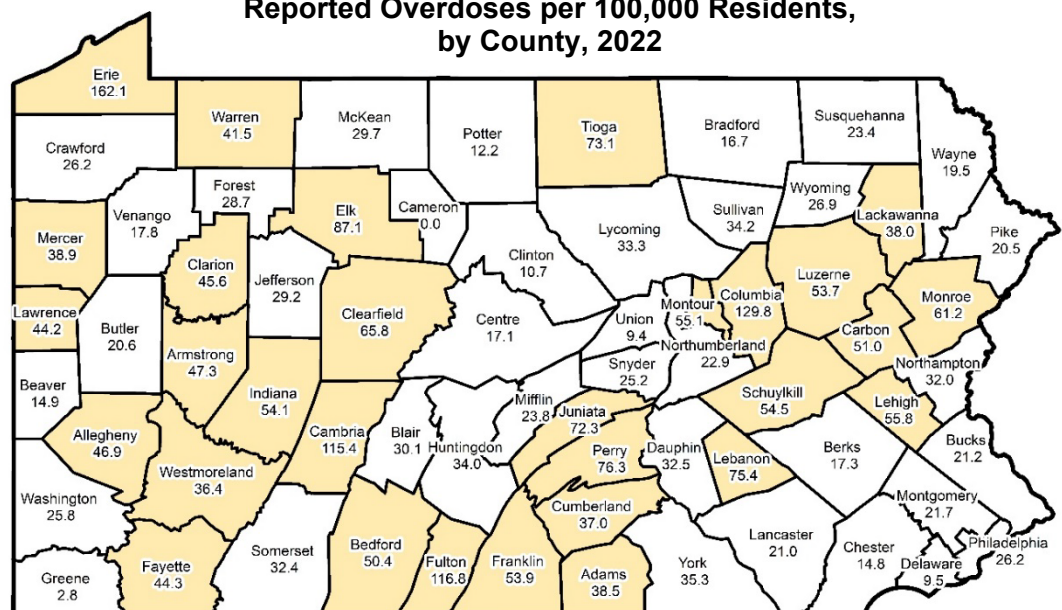
- The number of reported overdoses in rural Pennsylvania decreased 16 percent from 2021 to 2022. In urban Pennsylvania, there was a 2 percent decrease over the same period.
- From 2021 to 2022, there was a 23 percent decrease in the number of reported deaths from overdoses in rural Pennsylvania. In urban Pennsylvania, there was a 16 percent decrease in reported deaths from overdoses.
- In rural areas, 59 percent of reported overdose victims received Naloxone in 2022 compared to 66 percent of reported overdose victims in urban areas.
- At an overdose scene, police and first responders record all suspected overdose drugs. In 2022, Fentanyl was present at roughly the same rate at rural and urban overdose scenes, 29 and 26 percent, respectively.

Overdoses by County

Statewide, in 2022, there were 4,703 reported overdoses in Pennsylvania according to the ODIN data, or 36.2 overdoses per 100,000 residents. Every Pennsylvania county reported at least one overdose, except Cameron County, which reported none.

In 2022, there were 1,432 reported overdoses in rural Pennsylvania, or 42.3 overdoses per 100,000

Reported Overdoses per 100,000 Residents, by County, 2022



Statewide Rate, 2022 = 36.2 Overdoses per 100,000 People

Data source: ODIN.

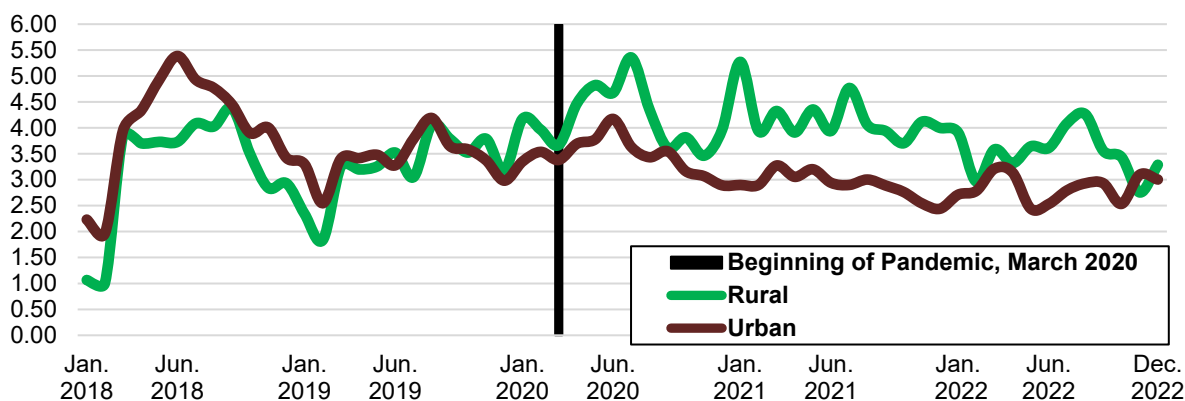
□ At or Below Statewide Rate □ Above Statewide Rate

residents. In urban Pennsylvania, there were 3,271 reported overdoses, or 34.0 overdoses per 100,000 residents.

Per capita, the highest number of overdoses were reported in Erie, Columbia, Fulton, and Cambria counties, each with more than 100 overdoses per 100,000 residents.

Change in Number of Overdoses

From 2021 to 2022, there was a 16 percent decrease in reported rural overdoses and a 2 percent decrease in reported urban overdoses. While this decrease is welcome news, rural Pennsylvania continues to have higher rates of reported overdoses per capita than urban Pennsylvania (42.3 and 34.0 per 100,000 residents, respectively.)



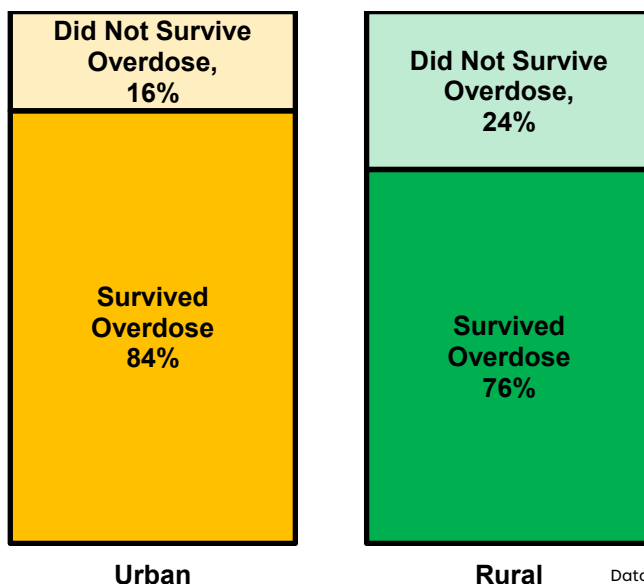
Data source: ODIN.

Overdose Survival Rates

Excluding “status unknown,” rural overdose victims were more likely to die than urban overdose victims. In 2022, 24 percent of reported rural overdose victims died and 76 percent survived. Among reported urban overdose victims, 16 percent died and 84 percent survived.

Over the 5-year period of 2018 to 2022, the rural death rate from reported overdoses was 23 percent and the urban rate was 16 percent.

Reported Rural and Urban Pennsylvania Overdose Survival Rates, 2022
(Excludes "Status Unknown")



Data source: ODIN.

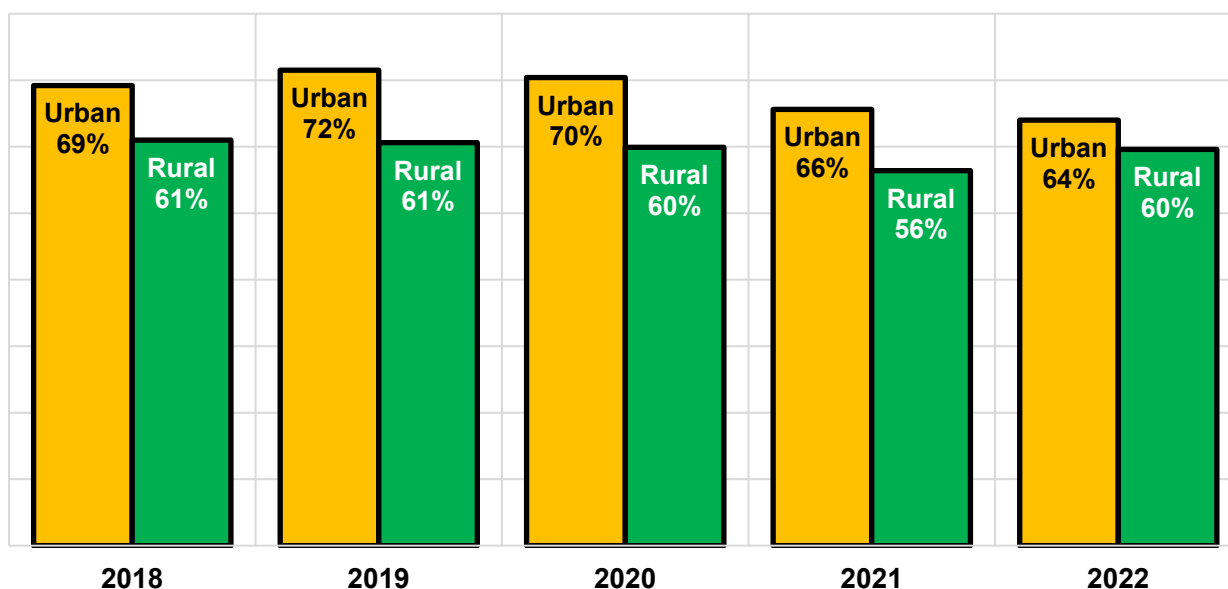
Naloxone

In 2022, 60 percent of reported rural overdose victims received naloxone. According to the Centers for Disease Control and Prevention (CDC), naloxone quickly reverses an overdose by blocking the effects of opioids. Among reported urban overdose victims, nearly 64 percent received naloxone.

Among reported rural victims that received naloxone in 2022, 10 percent died and 90 percent lived. Among reported urban victims that received naloxone in 2022, 7 percent died and 93 percent lived. Among reported rural overdose victims receiving naloxone, 54 percent received one dose and 46 percent received two or more doses. Among reported urban overdose victims, 60 percent received one dose and 40 percent received two or more doses.

% Rural and Urban Reported Overdose Victims Receiving Naloxone, 2018 to 2022

Data source: ODIN.

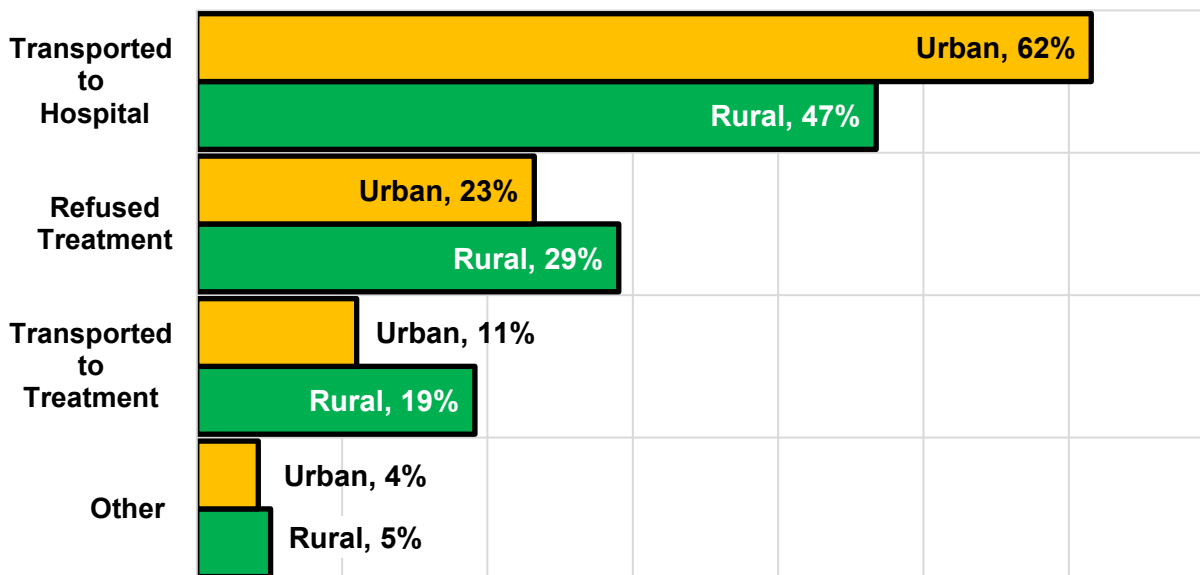


Care Received After Naloxone was Administered

In 2022, after receiving naloxone, 47 percent of reported rural victims and 62 percent of reported urban victims were transported to a hospital.

From 2019 to 2022, the percent of reported rural victims refusing treatment increased 12 percentage points. Among reported urban victims, there was a decrease of 4 percentage points of those refusing treatment. Among rural victims that refused treatment, most (70 percent) were male, between the ages of 30 and 49.

Post Naloxone Action, 2022
(Includes Only Reported Actions)



Data source: ODIN.

Time of Overdose

In 2022, the highest number of reported rural overdoses occurred in the summer months of June, July, and August. In urban counties, the spring months of March, April, and May had the highest number of reported overdoses.

In rural counties, the highest percentage of reported overdoses (18 percent) occurred on a Friday. In urban counties, Saturday had the highest percent of reported overdoses (16 percent).

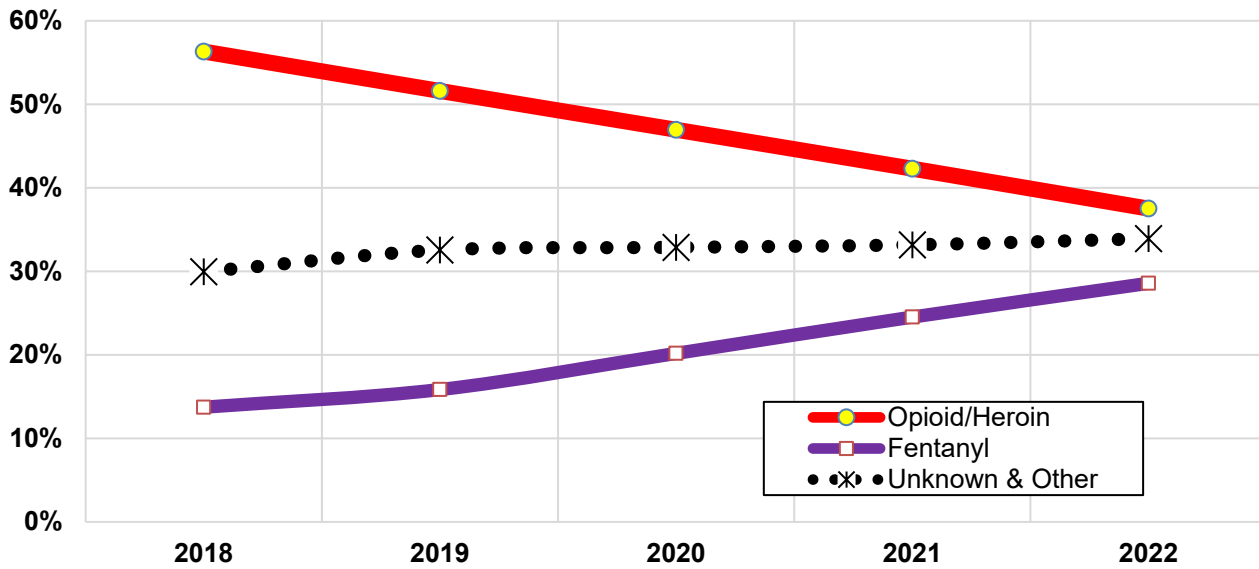
In addition, in both rural and urban counties, most reported overdoses (40 percent) occurred during the evening hours of 7 p.m. to midnight.

Suspected Overdose Drug

At an overdose scene, police and first responders record all the suspected overdose drugs. In many cases, there are multiple suspected drugs. Among all reported rural and urban overdose victims, the top two suspected drugs were heroin/opioids and Fentanyl. In 2022, heroin/opioids accounted for 34 percent of the reported overdose deaths and Fentanyl accounted for 33 percent of these deaths. In urban areas, heroin/opioids accounted for 35 percent of overdose deaths and Fentanyl accounted for 34 percent.

In 2019, heroin/opioids accounted for 44 percent of the reported overdose deaths and Fentanyl accounted for 21 percent of these deaths. The same year in urban Pennsylvania, heroin/opioids accounted for 47 percent of the reported overdose deaths and Fentanyl accounted for 29 percent of these deaths.

Suspected Overdose Drug Among Reported Rural Victims, 2018 to 2022



Data source: ODIN.

Demographic Characteristics of Overdose Victims

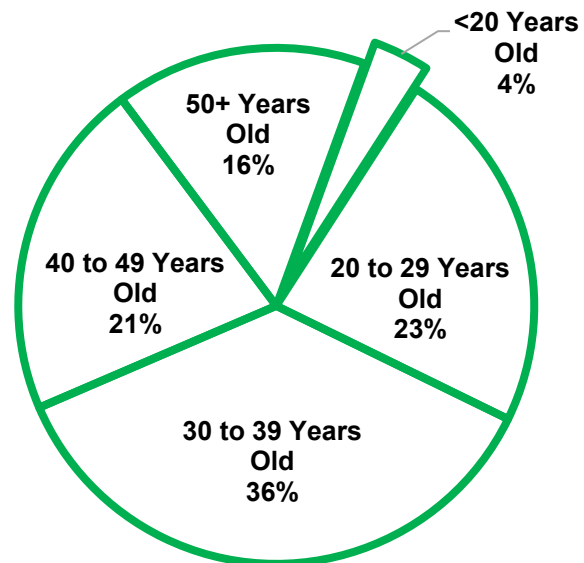
In 2022, 57 percent of reported rural overdose victims were between the ages of 30 and 49 years old. Among urban reported victims, 50 percent were 30 to 49 years old.

From 2018 to 2022, rural reported victims have gotten older, while the ages of urban victims have changed very little.

In 2022, among reported victims whose gender was recorded, 68 percent of rural overdose victims were male, and 32 percent were female. These ratios were similar among urban overdose victims.

In 2022, the majority of reported rural overdose victims were white, non-Hispanic (89 percent). Rural people of color comprised 11 percent of overdose victims. Among reported urban victims, in 2022, 76 percent were white, non-Hispanic and 24 percent were people of color.

Age of Reported Rural Overdose Victims, 2022



Data source: ODIN.

From 2019 to 2022, the percentage of rural victims of color increased 3 percentage points, while the percent of urban overdoses victims of color increased 7 percentage points.

Summary

Pennsylvania, like all states, continues to experience an opioid crisis. When the Center held its first public hearing on heroin/opioids in 2014, there was hope that this crisis would eventually end. However, the crisis continues.

There is some room for optimism, however. According to the Pennsylvania State Police's Overdose Information Network (ODIN), from 2021 to 2022:

- There was a 16 percent decrease in the overall number of reported rural overdoses.
- There was a 23 percent decrease in the number of reported rural overdoses that resulted in death.
- There was a 28 percent decrease in reported rural overdoses among those under age 30.

Despite these positive trends, there continues to be areas of concern, especially when comparing rural and urban reported overdoses. In 2022:

- 29 percent of reported rural victims had fentanyl present at the overdose scene compared to 25 percent of urban victims.
- 66 percent of reported rural victims were transported to a hospital or treatment facility after the overdose compared to 73 percent of reported urban victims.
- 60 percent of reported rural overdose victims received naloxone compared to 64 percent of reported urban victims.

Methods

Launched in 2018, the Overdose Information Network (ODIN) provides real-time information on the number of drug overdoses. This information is used by state and local policymakers to create treatment and prevention strategies. Prior to 2018, there was no statewide system that provided real-time information on overdoses. The data are maintained by the Pennsylvania State Police (PSP). Law enforcement agencies and some emergency response agencies provide information to the network on overdoses within their jurisdiction. In 2022, a total of 652 entities reported ODIN data. Thirty-one percent of these entities were in a rural county, 67 percent in an urban county, and 2 percent were statewide or regional organizations (PSP, Attorney General's Office, Department of Conservation and Natural Resources, etc.)

Readers should use caution in interpreting the results because they do not include all overdoses that may have occurred in Pennsylvania.

Despite this limitation, the data presented here provide a useful glimpse into the number of reported overdoses in rural and urban Pennsylvania. Soon, there should be more complete reporting of overdose incidents, since Act 158 of 2022 now requires all law enforcement agencies to report overdose information to ODIN.

In this analysis, overdoses were reported in the county in which they occurred, not the victim's county of residence. Counties were identified as rural or urban based on the Center for Rural Pennsylvania's definition: a county is rural when the number of people per square mile within the county is fewer than 291, and counties that have 291 people or more per square mile are considered urban. In 2023, Pennsylvania had 48 rural counties and 19 urban counties.

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