

# Risk of Fatal Overdose Increases after a Nonfatal Overdose in Cleveland, Ohio

Data Brief, March 2025



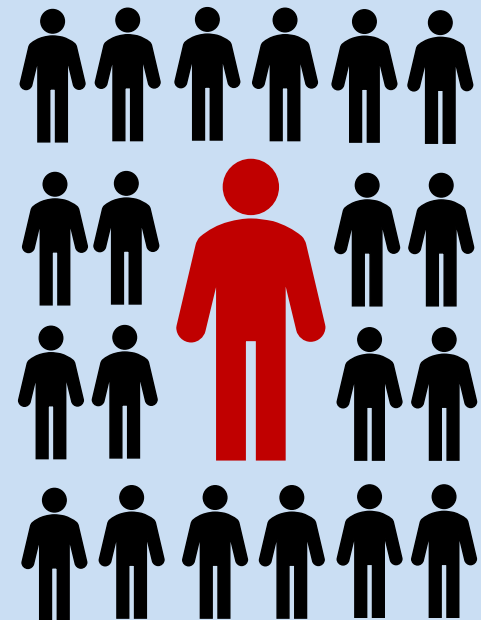
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Cleveland consistently ranks at the top of U.S. cities most impacted by the opioid epidemic. The overdose death rate among Clevelanders was [triple the national average](#) in 2022. While the number of overdose deaths in the city will likely be much lower in 2024 compared to previous years, in 2025 many people remain at high risk of experiencing an overdose death.

The [CDC estimates](#) on a national basis an average of 15 non-fatal overdoses occur for every fatal one. It is well-understood that overdose survivors may suffer from short- and long-term physical and psychological impacts. While it remains poorly understood what other risk factors may affect those who have survived an overdose, these people's elevated risk of suffering a future fatal overdose is coming to light.

To better understand the connection between non-fatal and fatal overdoses, we matched individuals who experienced a suspected overdose (reported by the Cleveland Division of Police) with residents of Cleveland who died from drug overdose (reported by the Cuyahoga County Medical Examiner's Office). Our analysis revealed a heightened risk for people who experienced one or more non-fatal overdoses compared to the rest of the population, with these individuals being 15.7 times more likely to later suffer a fatal overdose. In fact, 1 in 21 Clevelanders who experienced a suspected non-fatal overdose as reported by the Cleveland Police later died from a fatal overdose. This risk is further elevated when an individual experiences serial overdoses (see percentages below).

These findings may be important in the design of post-overdose response protocols, and more generally in substance use prevention, education, and treatment efforts. With this analysis we aimed to increase public awareness about the risk of death associated with multiple overdose experiences. However, these findings should be considered in light of their limitations. This analysis does not account for overdose cases treated by emergency medical services (EMS), in emergency departments, or by public bystanders, friends, or family. Future research is recommended as these data become available.



1 in 21

Clevelanders who have  
experienced at least one  
nonfatal overdose  
**die from an overdose**

Of the individuals who experienced

1 overdose	2+ overdoses	3+ overdoses
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<b>5%</b>	<b>6%</b>	<b>9%</b>
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**later died from an overdose**



Risk of fatal overdose for  
Clevelanders is more than

**16 times higher**

when experiencing a previous  
non-fatal overdose.

Data Sources: Calculated from matching public safety incidents of suspected overdose from the Cleveland Division of Police with Cuyahoga County Medical Examiner's Office mortality data, comparing incidents from 2020 to 2024. Incidents were filtered to include individuals who reported a Cleveland residential addresses.

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