



Community Exposure to Drug Overdose and Addiction in Baltimore

WEBSITE: 21cc.jhu.edu/research/baltimore-area-survey

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By Michael Bader and Mac McComas

1. Introduction

Overdoses have caused hundreds of thousands of deaths in America over the last decade. Because of how our lives connect us to friends and family, millions more Americans have experienced the overdose death of a loved one. Low-income Americans and Americans who have not finished high school are at greater risk for overdose, indicating that their families and communities have also borne a greater brunt of trauma and loss.¹ Baltimore has seen a sharp rise in overdose deaths in the past decade, with the Baltimore Banner and New York Times recently reporting a quadrupling of the overdose death rate since 2013 to nearly 1,000 fatalities a year.²

In this research brief, we examine the potential ripple effects of those deaths in the Baltimore area. We use data from the 2023 Baltimore Area Survey to report the share of Baltimore-area residents who know people who are addicted to illicit drugs and who have lost loved ones to drug overdoses.

Our initial report on the Baltimore Area Survey found that more than a quarter – 28.5 percent – of Baltimore-area residents lost someone close to them from a drug overdose.³ In this brief, we explore the results of the 2023 Baltimore Area Survey in more detail to document who has loved ones that are affected based on education, income, and race. We find:

- Baltimore-area residents with higher levels of educational attainment were less likely to have lost someone due to a drug overdose, and less likely to know people addicted to illegal drugs;
- Wealthier residents were less likely to have lost someone and were less likely to know people addicted to illegal drugs;
- There are no racial differences in overdose loss, however, there are large racial differences in residents who know three or more people addicted to illegal drugs.

These findings help shed light on the extent to which different populations in the Baltimore-area are exposed to the growing drug addiction epidemic and suggest the importance of addressing broader community loss and trauma in responding to this crisis.

If you or someone you know is struggling with addiction, please call 988 for support with substance abuse or mental health or text MDHope to 898211.

1. Powell, David. 2023. "Educational Attainment and US Drug Overdose Deaths." *JAMA Health Forum* 4(10):e233274 and van Draanen, et al. 2020. "Socioeconomic Marginalization and Opioid-Related Overdose: A Systematic Review." *Drug and Alcohol Dependence* 214:108127.

2. <https://www.nytimes.com/2024/06/03/us/baltimore-opioid-epidemic-seniors.html>

3. Bader, et al. 2023. "A Portrait of Baltimore: Results of the 2023 Baltimore Area Survey." 21st Century Cities BAS Reports 2023-1. <https://21cc.jhu.edu/a-portrait-of-baltimore-results-of-the-2023-baltimore-area-survey/>

4. Kennedy-Hendricks, et al. 2024. "Experience of Personal Loss Due to Drug Overdose Among US Adults." *JAMA Health Forum* 5(5):e241262.

“Residents with less than a high school degree were almost four times as likely to report losing a loved one to overdose than residents with a professional degree.”

2. Data

This research brief uses data from the 2023 Baltimore Area Survey. The responses came from 1,352 Baltimore-area respondents, 818 from Baltimore City and 534 from Baltimore County. The data and the findings we report here are weighted to be representative of the adult, English-speaking population of Baltimore City and Baltimore County. The overall margin of error for the whole sample is $\pm 4.2\%$.

The two relevant questions asked in the survey were:

- Have you ever experienced the death or loss of a loved one as the result of a drug overdose? Respondents could answer “Yes” or “No”.
- Drug use in the United States is more common than most people think. We want to know about how drug use has affected you. How many people do you personally know who are addicted to illegal drugs such as non-prescription painkillers, heroin, or other opioids? Respondents could answer “None”, “One or two”, or “Three or more”.

When considering the findings from the second question about whether residents know people who are addicted to illicit drugs, we recognize people may hide addictions from those close to them. The results reflect respondents who know someone who has not or could not hide their addiction. As such, we add a caveat to our findings that they must be interpreted cautiously with regard to that knowledge and that these results may *underestimate* the share of people who know someone addicted to drugs.

3. Findings

Overall, 28.5 percent of Baltimore-area residents have lost someone close to them from a drug overdose. A recent national study that asked a similar question found that, nationally, about a third of Americans knew someone who died of an overdose and that 18.9 percent reported that the person was a family member or a friend.⁴ Additionally, over 40 percent of Baltimore-area residents know at least one person who is addicted to illicit drugs, and, among those, 14.5 percent know three or more people who are addicted to illegal drugs. In the following sections, we examine whether there are differences by educational attainment, income, and race.

Educational Differences

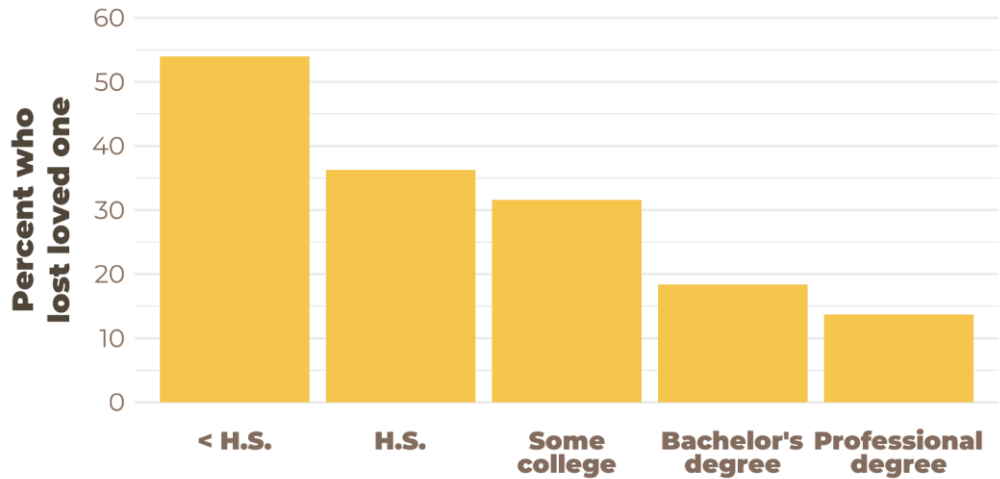
There is a significant and large difference in the probability of having experienced a loss by how much education respondents attained. Residents with less than a high school degree were almost four times as likely to report losing a loved one to overdose than residents with a professional degree. Figure 3.1 shows that over half of Baltimore-area residents with less than a high school degree (54 percent) lost a loved one due to drug overdose compared to 14 percent of residents with a professional degree that experienced a loss. The figure also shows that 18 percent of residents with a bachelor’s degree lost a loved one, 32 percent of residents with some college lost a loved one, and 36 percent of residents with a high school degree lost a loved one.

We found similar differences by education in the number of people residents reported to know with a drug addiction. Residents with less than a high school degree were six times more likely to report knowing three or more people with a drug addiction than residents with a professional degree, with 30 percent of residents with less than a high school degree knowing three or more people addicted to drugs.

Figure 3.1: Educational differences in loss of loved one due to illicit drug overdose

Overdose Losses Differ to Education

Percent of Baltimore-area residents who have lost loved a one to overdose deaths by highest level of education



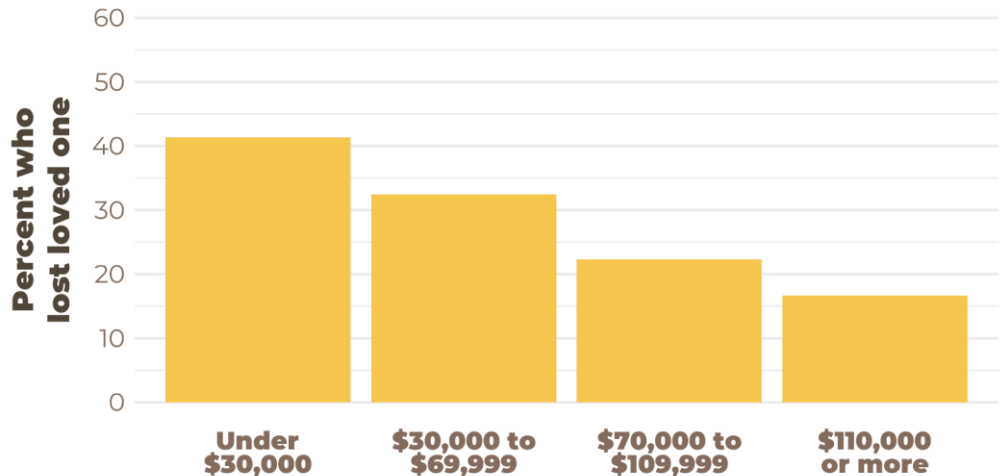
Income Differences

To explore differences in loss of a loved one due to drug overdose by income levels, we looked at four different ranges of household income. As shown in Figure 3.2, residents living in households with incomes less than \$30,000 were more than twice as likely to have lost a loved one than residents living in households with incomes of \$110,000 or more. Each step of household income included lower shares of people who lost a loved one due to drug overdose.

Figure 3.2: Income differences in loss of loved one due to illicit drug overdose

Overdose Losses Differ to Income

Percent of Baltimore-area residents who have lost loved a one to overdose deaths by household income



Baltimore-area residents living in households with incomes under \$30,000 were more than five times as likely to report knowing three or more people addicted to drugs than residents living in households with incomes of \$110,000 or more. About a quarter of residents living in the poorest households in the Baltimore area know three or more people with drug addictions. The pronounced differences in income mirror those found in the national study of those who know someone who died of a drug overdose and the strong pattern of income differences in overdose deaths.

5. <https://www.thebaltimorebanner.com/community/public-health/baltimore-overdose-crisis-inequality-EFGBP4UZDNEP5004VRHAVAPQW4/>

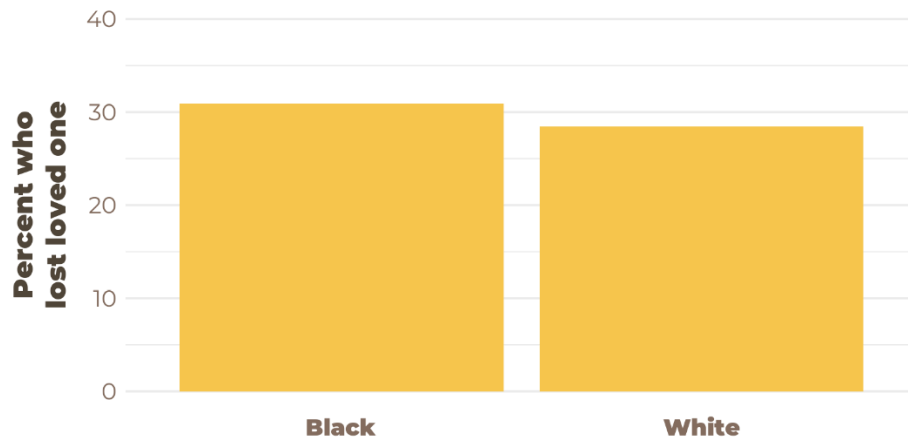
Figure 3.3: Racial differences in loss of loved one due to illegal drug overdose.

Racial Differences

We find no statistically significant difference in the percent of Black and White Baltimore-area residents who lost a loved one due to drug overdose. As shown in Figure 3.3, 31 percent of Black Baltimore-area residents lost a loved one, while 28 percent of White Baltimore-area residents lost a loved one, showing that this public health crisis is one of the few to cross the racial boundary. This is similar to a finding from [The Baltimore Banner](#) that found that overdose rates are similar in Black and White neighborhoods after accounting for poverty.⁵

No Racial Differences in Overdose Losses

Percent of Black and White Baltimore-area residents who have lost loved ones to overdose deaths



We did find racial differences in the number of people who report knowing someone with a drug addiction, however. Black Baltimore-area residents were more than twice as likely as White residents to report knowing three or more people with an addiction to illicit drugs: 22 percent compared to 9 percent. Given that there was no racial difference in experiences of overdose losses, it is possible that the difference may be due to White residents being less aware that friends and family have a substance use disorder.

3. Conclusion

The results of the 2023 Baltimore Area Survey provide insight into the collateral consequences of addiction to illicit drugs on communities.

Drug addiction affects the lives of many Baltimore area residents. We find that 28.5 percent of Baltimore-area residents have lost someone close to them from a drug overdose. Over forty percent of residents know at least one person who is addicted to illegal drugs, and, among those, 14.5 percent know three or more people who are addicted to illegal drugs. These values are higher than the national average, but within the range of experiences across regions in the United States.

Large class differences by education and income. We find large and statistically significant class differences in both knowing three or more people addicted to illegal drugs and having lost a loved one due to drug overdose, where residents living in poorer households and residents with lower levels of educational attainment are each separately more likely to be affected by drug addiction. The largest disparities were at the extreme ends of the class spectrum, demonstrating how education and income shape the daily lives of Baltimore residents.

No racial differences in losses. We did not find a racial difference in the probability of having lost a loved one due to drug overdose. We did, however, find that Black Baltimore-area residents were more than twice as likely as White residents to report knowing three or more people with an addiction to illegal drugs.

This report shows that the education gradient *within* the Baltimore area mirrors that of the education gradient nationally. The same is also true for income gradients. These results provide valuable context to understand who has experienced the consequences of losing a loved one in Baltimore are similar to patterns that have become common nationally. Knowing that the unequal patterns of exposure to the collateral consequences of the overdose epidemic in Baltimore provide context that should be considered in the design of programs and policies to support those who have lost loved ones.

The authors would like to acknowledge the helpful feedback that Dr. Joshua Sharfstein provided on drafts of this report.



What is Baltimore Area Survey?

The Baltimore Area Survey (BAS) is a new, annual, representative survey of Baltimore City and County residents being run by Johns Hopkins 21st Century Cities Initiative (21CC). The BAS will help scholars, community members, and policymakers learn more about the Baltimore area's strengths and challenges from residents. 21CC affiliated researchers will partner with Baltimore community leaders and policy makers to identify pertinent topics to study and then field a survey with questions on those topics to a representative address-based sample of Baltimore City and Baltimore County residents every year. Having the survey in the field on an annual basis means that policy makers and community leaders are never more than a year away from asking important questions and having timely data. The survey will also allow for measuring change over time and looking at perceptions and opinions before and after significant events.

Find out more:

Website: 21cc.jhu.edu/research/baltimore-area-survey

Email: 21CC@jhu.edu

BAS Data: <https://github.com/JHUCities/baltimore-area-survey-data>