

Co-Occurrence of Drug Overdose & Mental Health Conditions Among Young Black Females

Michigan 2023

This is a special report; released once.



Key Findings

This report demonstrates the higher incidence of drug overdose emergency department (ED) visits with co-occurring mental health conditions among Black Michiganders compared to white Michiganders and highlights how the rate is much higher among young Black females compared to other sex/age groups. These findings show an alarming rate of suicide attempts among young Black females in the manner of intentional drug overdose, as the majority of the drug overdoses with co-occurring mental health conditions among young Black females were intentional drug overdoses and co-occurred with diagnoses of depression and/or history of self-harm/suicidal behavior.

- The rate of drug overdose co-occurring with mental health conditions is **higher among Black residents** compared to their white counterparts.
- The rate of drug overdose co-occurring with mental health conditions is **highest among the young Black female population ages 15-24 years old.**
 - The most common mental health conditions seen in the population of young Black females were **depression and self-harm/suicidal behaviors.**
- Most probable drug overdose ED visits with co-occurring mental health conditions among young Black females were **intentional overdoses.**

Background

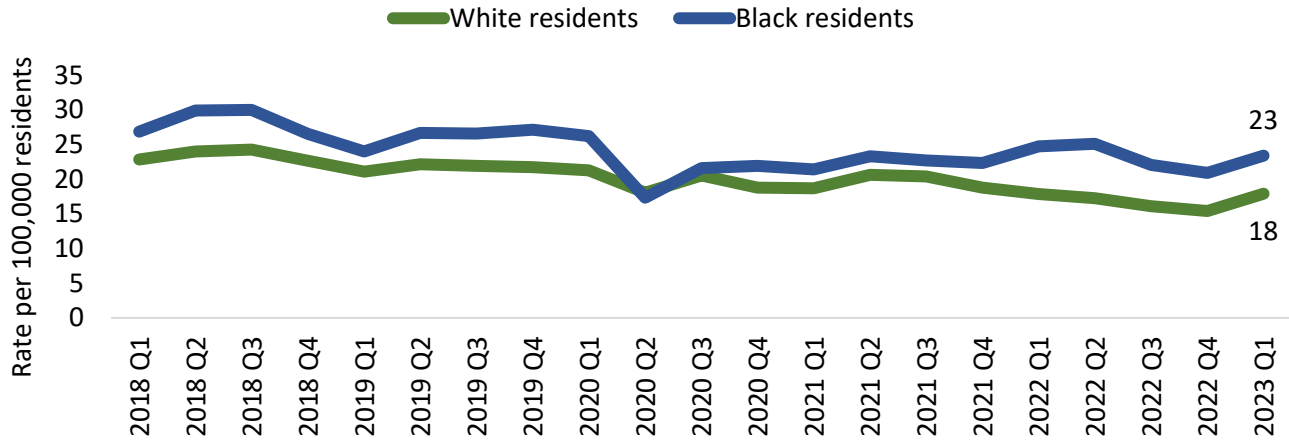
Black youth have the fastest rising suicide rate among their peers nationwide.¹ In Michigan, the rate of suicide for Black females has been increasing since 2015.² Girls are more likely than boys to use poisoning as a means for suicide,¹ which is reflected in the higher rates of intentional drug overdose among girls compared to boys.³ There are several risk factors for suicide that disproportionately affect the Black population, including institutional and interpersonal racism, mass incarceration, generational trauma, and stigma. Many social determinants of health (SDOH), including housing, education, employment, environmental health, and criminal justice system involvement are negatively impacted by institutional racism and are key factors when looking at mental health conditions and suicide risk.¹ Additionally, the COVID-19 pandemic disproportionately impacted Black Americans and worsened suicide risk factors, such as access to care, medical distrust, financial instability, and social connectedness.¹

A previous report, [Overdoses among Females 11-24 Years Old](#), provides additional information on the concerning increases in drug overdose ED visits among young females of all races. From 2020-2021, there were 602 more intentional overdose ED visits among females ages 11-24 than in 2020 in Michigan, an increase of 30%. Most overdose ED visits among females in this age group were intentional. Female youth are more likely to experience persistent feelings of sadness or hopelessness than their male counterparts,⁴ and female adolescents experienced increases in mental health-related emergency department (ED) visits in 2020 and 2021.⁵ Young Black females, therefore, experience overlapping risk factors for mental health conditions and suicide.

Results

The ED visit rate of probable drug overdose with co-occurring mental health conditions was higher among Black residents than among white residents for every quarter since 2018 except for 2020 Q2-Q3 (Figure 1).

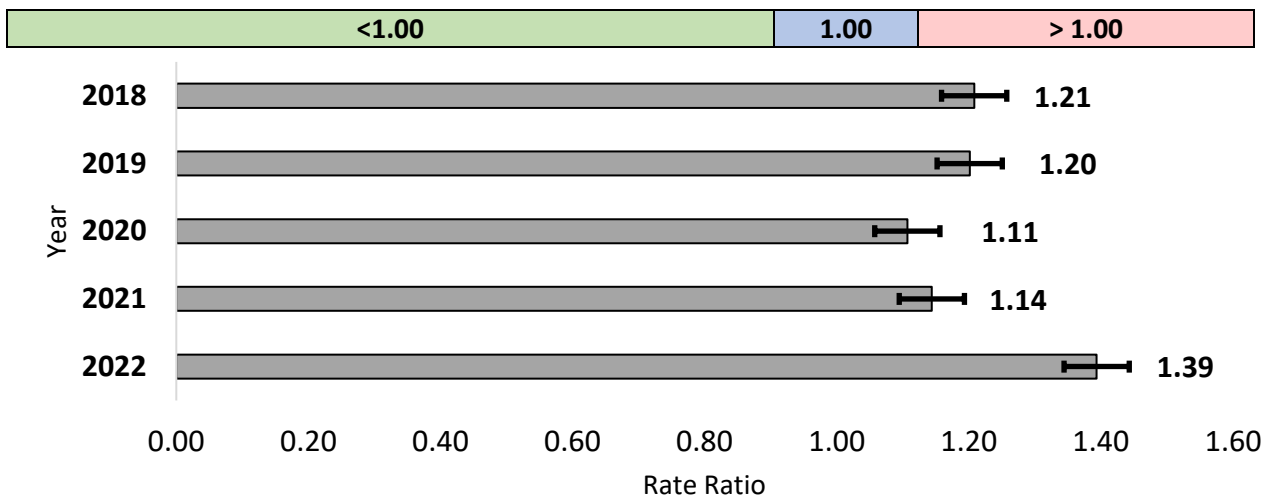
Figure 1. Quarterly Probable Drug Overdose ED Visit Rate with Co-Occurring Mental Health Conditions Among Black and White Michiganders, 2018 Q1-2023 Q1.



Note: There was a drop in ED rates among all races in early 2020 due to the COVID-19 pandemic.

In 2022, Black residents were 1.39 times more likely (rate ratio = 1.39) to experience an ED visit for a probable drug overdose with a co-occurring mental health condition than white residents (Figure 2). The disparity has widened over time as the rate ratio was highest in 2022. Because the confidence interval in 2022 does not include the value 1.00 and does not overlap with previous years' rate ratios, there is a statistically significant difference in the rates themselves and in the increase in the ratio in 2022.

Figure 2. Rate Ratio^a of Probable Drug Overdose ED Visits with Co-Occurring Mental Health Conditions Among Black Michiganders Versus White Michiganders, 2018-2022.



Error bars represent the 95% confidence intervals for the rate ratios.

^aRate ratios around 1.00 indicate equal risk among groups; below 1.00, lower risk among Black Michigander; above 1.00, higher risk among Black Michiganders.

The average ED visit rate of probable drug overdose with co-occurring mental health conditions was highest among Black females ages 15-24 with an average yearly rate of 315 per 100,000 residents from 2018-2022 (Figure 3). Among Black females, those aged 15-24 years old had the highest ED visit rate of probable drug overdose with a co-occurring mental health condition, and the most common mental health conditions recorded were mood disorders (depression) with a rate of 221 per 100,000 residents and self-harm/suicidal behavior with a rate of 145 per 100,000 residents (Figure 4). The rates for these mental health conditions in this age group were much higher than any other age group.

Figure 3. Probable Drug Overdose ED Visit Rate with Co-Occurring Mental Health Conditions Among Black Michiganders by Sex and Age Group (5-Year Average).

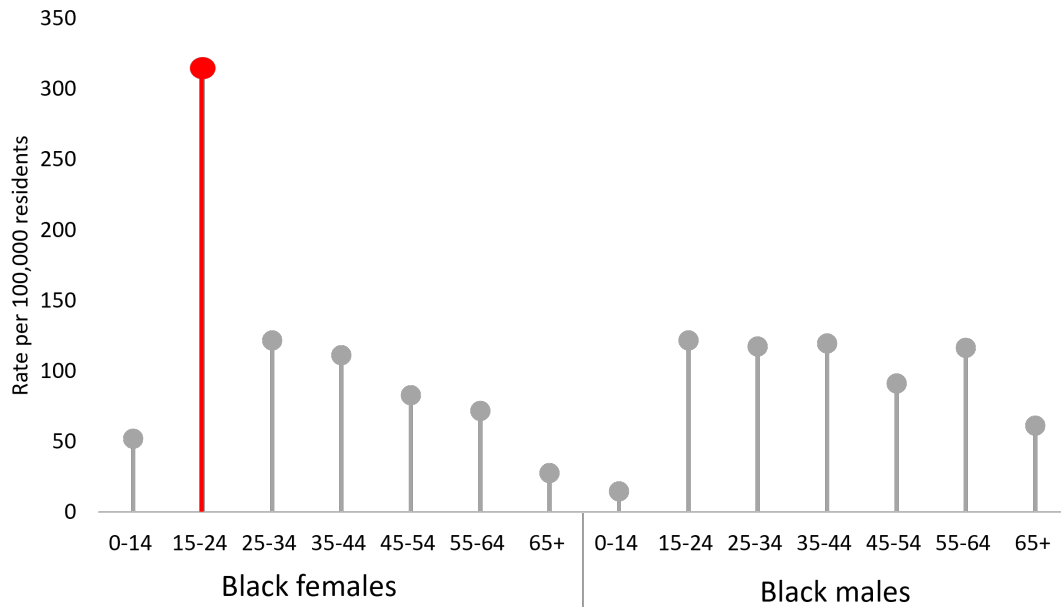
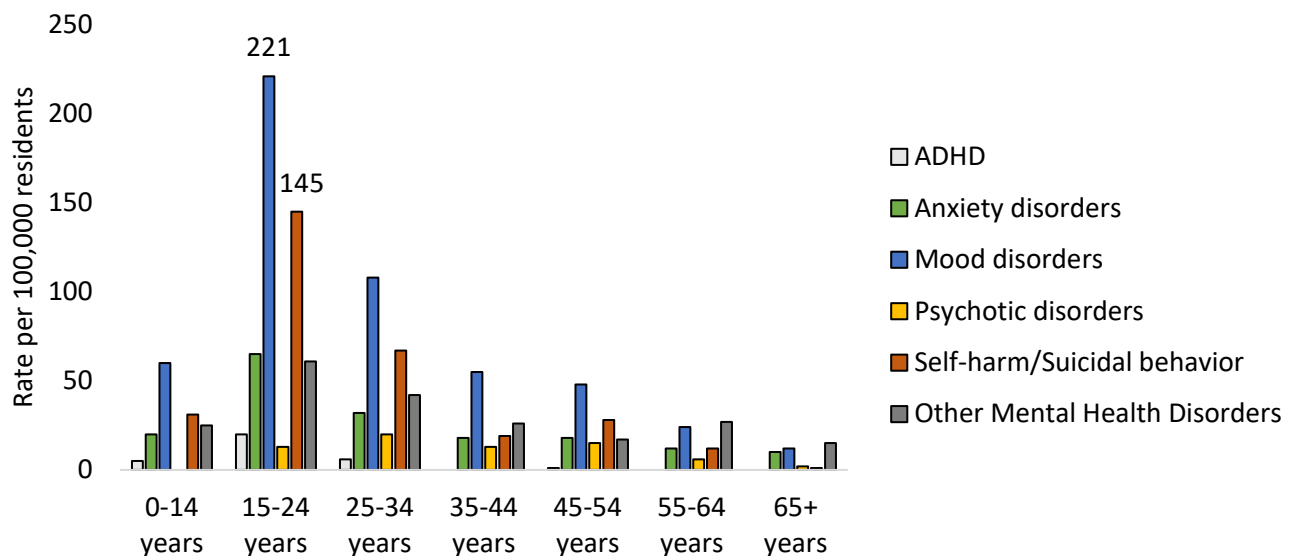
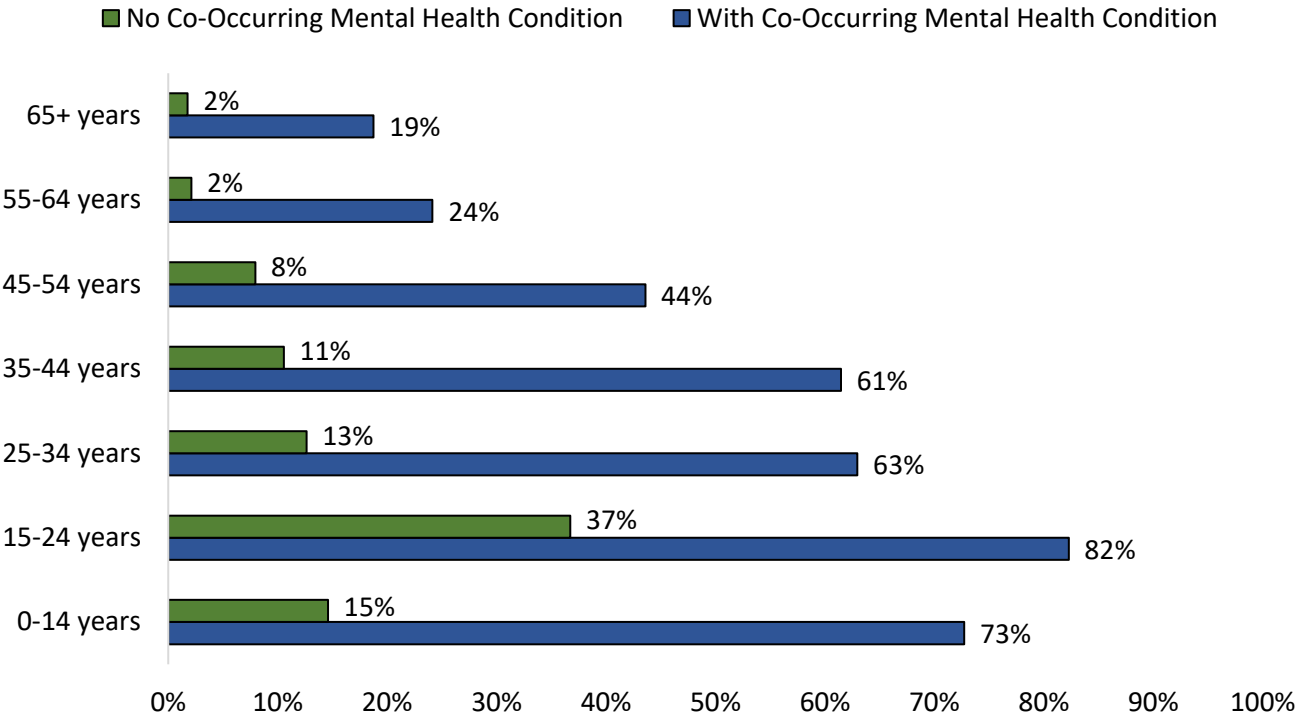


Figure 4. Probable Drug Overdose ED Visit Rate Among Black Female Michiganders with Co-Occurring Mental Health Conditions by Age Group and Mental Health Condition Category, 2022.



The percentage of overdoses classified as intentional (versus unintentional) is much higher among Black females with a co-occurring mental health condition compared to Black females with no co-occurring mental health condition. Ages 15-24 and 0-14 had the highest percentage of drug overdoses classified as intentional with a co-occurring mental health condition in 2022 (82% and 73% respectively) (Figure 5).

Figure 5. Percent of Probable Drug Overdose ED Visits Classified as an Intentional Overdose Among Probable Drug Overdose ED Visits with a Co-Occurring Mental Health Conditions or No Co-Occurring Mental Health Conditions for Black Female Michiganders by Age Group, 2022.



Discussion & Public Health Implications

The ED visit rate of probable drug overdose co-occurring with mental health conditions is much higher among young Black females age 15-24- than other sex and age groups of Black Michiganders. The majority of probable drug overdoses with co-occurring mental health conditions among young Black females were intentional overdoses, indicating the need to support and expand Black youth suicide prevention programs. Additionally, mental health services should be made more accessible, particularly in communities of color. This should include culturally appropriate services, trauma-informed care, youth peer coaches, and ensuring services are covered by insurance. Culturally appropriate services are especially important given the compounding risk factors that disproportionately affect young Black females for mental health conditions and suicide.⁶ Furthermore, existing suicide prevention programs and resources should be evaluated with a health equity lens to understand their impact on communities of color. Resources should be allocated to finding ways to increase health care access for young Black females. This should include increases in screening and prevention, particularly in schools, given that young girls had the highest rates of overdose with co-occurring mental health conditions.⁷ Staffing social workers in schools and providing trauma training for teachers and other school staff can aid in recognizing mental health issues earlier to reduce suicide risk.⁷

Historically, the rate of suicide deaths for Black residents has been lower than their white counterparts, but the suicide rate for Black females has been rising since 2015² and issues of misclassification may lead to an undercount of the true burden of suicide deaths among Black residents, particularly in young people.^{1, 8-9} Suicide deaths may be misclassified in terms of race and cause of death. Race on death certificates may be inaccurate due to the person filling out the form recording the decedent's race incorrectly.⁸⁻⁹ Suicide deaths may be misclassified as deaths of undetermined intent more often in people of color compared to their white counterparts.⁸⁻⁹ Age also factors into misclassification because some medical examiners may be less likely to label deaths as intentional in young people.¹

Mental Health Resources

- Michigan Resources
 - General Resources
 - [Michigan 2-1-1](#)
 - Health Care
 - [MI Bridges: Apply for Assistance](#)
 - [Family Planning Resources](#)
 - [Find a Federally Qualified Health Center](#)
 - [Michigan Free Clinics and Community Health Centers Directory](#)
 - [Good Oral Health During Pregnancy](#)
 - Mental Health and Substance Use
 - [Suicide Prevention](#)
 - [Free and Low-Cost Mental Health Care Services](#)
 - [Get Help Now - Behavioral Health](#)
 - [Mental Health](#)
 - [Postpartum Support International](#)
 - [Find treatment for mental health and/or substance use disorders](#)
 - [Additional resources from the Michigan Maternal Mortality Surveillance \(MMMS\) Program](#)
- Nationwide Resources
 - [988 Suicide & Crisis Lifeline](#)
 - [The Trevor Project](#) mental health resources for LGBTQ+ adolescents
 - [Surgeon General's Youth Mental Health Advisory](#) recommendations for families and individuals, communities, and schools to improve mental health outcomes among youth.
 - [The Society for Adolescent Health and Medicine](#) youth friendly mental health online resources.

Need Support Now?

If you or someone you know is struggling or in crisis, help is available.

Call or text 988 or chat 988lifeline.org.

References

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7. J. Conor O'Neill, David B. Goldston, Tamar Kodish, Stephanie H. Yu, Anna S. Lau & Joan R. Asarnow (2021) Implementing Trauma Informed Suicide Prevention Care in Schools: Responding to Acute Suicide Risk, *Evidence-Based Practice in Child and Adolescent Mental Health*, 6:3, 379-392, DOI: 10.1080/23794925.2021.1917019.
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Data Notes

Data Sources

- 2018-2022 Michigan Outpatient Database (MODB), Michigan Health & Hospital Association (MHA).
- 2020 National Center for Health Statistics Bridged-Race Population Estimates (Vintage 2020), Centers for Disease Control and Prevention.

Case Definitions

- Probable drug overdose ED visits were identified by the following ICD-10-CM codes (restricted to initial visits for drug poisonings among Michigan residents treated in Michigan Emergency Departments):
 - T36-T50: Poisoning by drugs, medicaments, and biological substances.
 - Probable drug overdoses are classified by intentionality by the ICD-10-CM code assigned. Overdoses may be listed as intentional, accidental, assault, or undetermined. For the purposes of Figure 5, overdoses were grouped as intentional or not intentional (includes accidental, assault, and undetermined).
- Co-occurring mental health conditions were defined as mental health condition diagnoses that were assigned for the same ED visit as a drug poisoning event listed above meaning a person who experienced a probable drug overdose was also diagnosed with a mental health condition. Mental health conditions were identified by the following ICD-10-CM codes and categories on the following page. Further ICD code definitions can be referenced here: lcd10data.com/ICD10CM.

ADHD

- F90 ADHD

Anxiety disorders

- F41 Panic disorder, Generalized anxiety disorder
- F42 Mixed obsessional thoughts and acts

Mood disorders

- F30 Manic episodes
- F31 Bipolar disorder
- F32 Major depressive disorder
- F33 Major depressive disorder
- F34 Cyclothymic disorder
- F39 Unspecified mood disorder
- F530 Postpartum depression

Psychotic disorders

- F20 Schizophrenia
- F21 Schizotypal disorder
- F22 Delusional disorder
- F23 Brief psychotic disorder
- F24 Shared psychotic disorder
- F25 Schizoaffective disorder
- F28 Other psychotic disorder
- F29 Unspecified psychosis

Self-harm/suicidal behaviors

- R45.851 Suicidal ideation
- R45.88 Non-suicidal self-injury
- Z91.51 Personal history of suicidal behavior
- Z91.52 Personal history of non-suicidal self-injury

Other mental health conditions

- F40 Phobias
- F43 Acute stress reaction, PTSD
- F44 Dissociative and conversion disorders
- F45 Somatization disorder
- F48 Depersonalization-derealization syndrome
- F60 Personality disorders
- F63 Impulse control disorders
- R41.82 Altered mental status describes a marked change in mental health status that is not attributable to other factors

Statistical Notes

- Rate ratio of probable drug overdose ED visits with co-occurring mental health conditions by patient race (Black/White) = Rate of probable drug overdose ED visits with co-occurring mental health condition per 100,000 Black Michiganders/Rate of probable drug overdose ED visits with co-occurring mental health condition per 100,000 white Michiganders.

Limitations

- ED data represent de-identified event-level data. If an individual visited a Michigan ED multiple times during the study period, they would be represented in the data multiple times during the study period.
- The accuracy of indicators based on codes found in hospital and emergency department discharge data is limited by the completeness and quality of coding.
- Data set excludes emergency department and hospitalization discharges of out-of-state residents admitted to a Michigan MHA-member hospital. Michigan residents who were treated and discharged from an out-of-state facility are not included.
- Not included: visits for a subsequent encounter/sequela, visits for underdosing or adverse effects.
- The following hospitals did not submit data to the MODB in 2020: University of Michigan Health System, C.S. Mott Children's Hospital, and Sheridan Community Hospital.

The Michigan Department of Health and Human Services (MDHHS) does not discriminate against any individual or group on the basis of race, national origin, color, sex, disability, religion, age, height, weight, familial status, partisan considerations, or genetic information. Sex-based discrimination includes, but is not limited to, discrimination based on sexual orientation, gender identity, gender expression, sex characteristics, and pregnancy.

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MORE DATA AVAILABLE:

For more data and information on substance use disorder and overdose, go to Michigan.gov/OpioidsData.

