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# 2025 Cuyahoga County Drug Overdose Integrated Epidemiologic Profile (DOIEP)



Local Data, Local Partners, Local Solutions

## Cuyahoga County Board of Health

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## EXECUTIVE SUMMARY

### CONTEXT

This Drug Overdose Integrated Epidemiologic Profile (DOIEP) provides information about drug overdose mortality and morbidity - emergency department (ED) visits and emergency medical services (EMS) naloxone administration - in Cuyahoga County (CC), including descriptive statistics, rates, and geographic analyses. Combining multiple data sources creates a more comprehensive picture of the local drug overdose burden.

Assessment of the epidemiology of the overdose crisis in CC as outlined in this profile is an important component of overdose prevention. It provides information to effectively guide prevention and care activities for diverse organizations serving populations at risk for overdose.

The profile also provides education and insight to healthcare providers, first responders, policymakers, and other stakeholders, including the general public. Data included are based on currently available information and will continue to be annually updated.

### FACTS ABOUT OVERDOSES - NATIONAL AND LOCAL

In 2024, the Centers for Disease Control and Prevention (CDC) and the National Center for Health Statistics reported that 79,384 people died of drug overdoses in the United States (US). Drug overdose deaths continue to remain a leading cause of injury-related death.<sup>1,2</sup>

Overdose deaths involving opioids, including prescription opioids, heroin, and synthetic opioids such as fentanyl, have increased more than 1000% since 1999.<sup>3</sup>

Drug overdoses continue to impact communities nationwide, including CC, Ohio. Between 2015 and 2024, a total of 4,855 CC residents were reported to have died from unintentional drug overdose deaths (UDOD) (Figure 8).

In 2024, fentanyl and fentanyl analogues were involved in 73% of UDOD (Figure 13).

During 2024, drug poisoning accounted for 40% of unintentional deaths among CC residents (Figure 7).

From 2023-2024, 6,311 ED visits for suspected drug overdoses occurred in CC (Table 13).

## DRUG OVERDOSE DEMOGRAPHICS - CUYAHOGA COUNTY

According to 2024 US Census estimates, 1,245,873 people reside in CC. 52.0% of residents were between the ages of 25-64 years; 28.8% were younger than 25 years, and 19.5% were 65 or older (median age = 40.4) (Table 1).

Based on analyses of Ohio Department of Health Vital Statistics, the highest rate of UDOD in CC in 2024 occurred among adults aged 35-44: 53.3 UDOD per 100,000 people (Table 11). Among adults aged 55-64, the rate was 49.6 UDOD per 100,000 people.

48% of the population of CC in 2024 consisted of males, yet males accounted for more than half of the UDOD.

The Hispanic population (7.0% of CC) had the lowest number of UDOD in 2024 ( $n = 13$ ) compared to Non-Hispanic Whites ( $n = 189$ ) and Non-Hispanic Blacks ( $n = 149$ ). Non-Hispanic Blacks experienced the highest rate of UDOD at 40.8 per 100,000 people.

When considering race/ethnicity and sex, Non-Hispanic Black males had the highest rate of UDOD in CC in 2024: 65.2 per 100,000 people, which is a 25% decrease from 2023 (Table 11).

Additional demographic information such as marital status and education represent other potential risk/protective factors for UDOD. The US Census Bureau reports that 40.8% of residents in CC were never married (Table 6) and only 27.3% of the population had a high school diploma or GED as their highest educational attainment, the most common level of education (Table 5). 2024 Vital Statistics data show that 59.2% of UDOD occurred among individuals who had never been married and 57.8% of UDOD were among individuals with a high school diploma or GED (Table 12).

UDOD routinely includes a combination of drugs that contributed to one's death with many deaths involving fentanyl and fentanyl analogues. Fentanyl and fentanyl analogues remained the highest contributor to UDOD through 2024 in CC.

Cocaine has been the second highest contributor to UDOD in CC since 2020. Cocaine-related UDOD were highest among Non-Hispanic Black males in 2024, contributing to 83 UDOD.

Heroin-related UDOD have steadily decreased (Figure 11).

Though psychostimulant-related UDOD, such as methamphetamine, have contributed to fewer deaths historically in comparison to opioid related deaths, this drug category increased from 2020 to 2021, surpassing natural and semi-synthetic opioids UDOD. There was a decrease in psychostimulant-related UDOD in 2024.

Compared to 2024, preliminary 2025 data show slightly different trends in the prevalent drug groups contributing to the number of UDOD. After cocaine (N =102), fentanyl and fentanyl analogues (N = 73) remain a major contributor to UDOD in CC. This is the first year that fentanyl and fentanyl analogues have not been the leading drug type associated with UDOD. Notably, carfentanil-related UDOD resulted in eight deaths in 2024 and an estimated five deaths occurring in 2025 based on vital statistics.

From 2023-2024, 6,311 ED visits for suspected drug overdoses were reported in CC (Table 13):

35-49 year olds: 26.8%

25-34 year olds: 21.9%

Average age: 41 years old

Male compared to females: 56.6% vs 43.4%

Whites compared to Blacks: 50.3% vs 37.9%

Visits to the ED by White persons decreased from 2023 to 2024 while visits by Black persons slightly increased from 2023 to 2024 (Figure 21). Collectively, the highest percentage of drug overdoses presenting in the ED occurred in White males, between ages 35-49 (Figure 25).

Naloxone distribution is one of many major resources that is used to combat opioid overdose-related deaths in CC. Naloxone is a medication that has the ability to reverse an overdose caused by an opioid drug such as heroin, fentanyl, or other prescription pain medications.<sup>4</sup> When naloxone is administered during an overdose, it blocks the effects of opioids on the brain and quickly restores breathing. It is also known by the brand name, Narcan®.

From 2018-2025, EMS providers in CC administered 34,122 doses of naloxone (Figure 27). In the last eight years, the highest total count of naloxone doses administered was 6,049 doses in 2019. The number of naloxone administrations during subsequent years has steadily decreased.

The top two ZIP Codes, based on decedent residence, with the highest rate of UDOD in 2024 were 44109 and 44103 (Figure 10). The highest number of ED visits for suspected drug overdose and naloxone doses administered occurred in ZIP Codes 44109 and 44114 (Figures 26 and 29).

## OVERVIEW: DRUG OVERDOSE INTEGRATED EPIDEMIOLOGIC PROFILE (DOIEP)

The 2025 Cuyahoga County (CC) Drug Overdose Integrated Epidemiologic Profile (DOIEP) was made possible through the Overdose Data to Action: Limiting Overdose through Collaborative Actions in Localities (OD2A) grant from the Centers for Disease Control and Prevention (CDC). OD2A focuses on understanding the complex and changing nature of the drug overdose epidemic using an interdisciplinary, comprehensive and cohesive public health approach, integrating data and prevention. There are several settings and strategies outlined in the OD2A grant. The DOIEP was conducted as part of surveillance strategy 6A, which focuses on improving overdose surveillance infrastructure. The DOIEP was adopted from a CDC and Health Resources and Services Administration (HRSA) document called the Integrated Epidemiologic Profile (IEP).<sup>5</sup> This document described the burden of HIV/AIDS using multiple data sources to inform prevention and program planning, implementation and evaluation. The OD2A grant uses the IEP model as a foundation for the DOIEP.

The DOIEP describes the burden the drug crisis has on the population of CC in terms of sociodemographic and geographic characteristics of persons experiencing substance use disorder. The profile represents a data-driven resource for local partners and community members to understand current drug overdose trends, patterns, and risk factors in CC and make recommendations for allocating drug overdose prevention and care resources, planning programs, and evaluating programs and policies.

Goals of this DOIEP report:

- Describe the socio-demographic characteristics of the general population in Cuyahoga County for comparison to overdose statistics;
- Provide a thorough description of drug overdose morbidity and mortality among various populations (age, race, sex, ZIP Code, etc.) in Cuyahoga County using data;
- Identify trends and characteristics representing risk and protective factors for drug overdoses in Cuyahoga County; and
- Provide insights for overdose prevention.

## DATA SOURCES

Data from various sources were analyzed for this DOIEP and are described below. Future editions may include additional data.

### United States Census Bureau

The Census Bureau collects and provides information about the people and economy of the United States. The Census Bureau's website (<http://www.census.gov/>) includes data on demographic characteristics of the population, family structure, educational attainment, income level, housing status, and the proportion of persons who live at or below the federal poverty level. State and county-specific data are easily accessible, and valuable to understand a population. In this DOIEP, the 2024 American Community Survey (ACS) 5-year data are reported, the most recent data yearly available.

### State of Ohio Integrated Behavioral Health Dashboard

The State of Ohio Integrated Behavioral Health Dashboard was created and is maintained by Recovery Ohio; it provides behavioral health data from multiple agencies that is accessible in a single location. This dashboard provides a county- and state-level picture of long-term trends in opioid use disorder, overdoses, and treatment. For this DOIEP, data related to buprenorphine use for treatment of opioid use disorder (OUD) was sought.

### Ohio's State Unintentional Drug Overdose Reporting System (SUDORS) Data Dashboard

SUDORS was developed by the CDC for participating states to collect in-depth information on unintentional drug overdose deaths. The dashboard uses data from death certificate information, medical examiner or coroner reports, and forensic toxicology results. Information from other sources, such as Medicaid, the state prescription drug monitoring program, criminal justice, and child welfare may also be collected. In this DOIEP, 2024 data for Cuyahoga County and Ohio are examined.

### Ohio Hospital Association Data Dashboard

The Ohio Hospital Association (OHA) Data dashboard was created and is maintained by OHA, to provide state, regional and county-level data on opioid overdose encounters at Ohio hospitals to assist local community health and human services organizations as they address the crisis at the local level. The data are updated quarterly and sorted by sex, race, and age of the patient, in addition to marketplace totals and county level per-capita rates. The data are reported at the encounter-level (i.e., visits to a hospital) and do not reflect individual patients. In this DOIEP, data on hospital encounters due to opioid overdose are reported.

### Cuyahoga County Pilot Drug Checking Program

The Cuyahoga County Medical Examiner's Office (CCMEO) and Cuyahoga County Board of Health, in partnership with the MetroHealth System, the Centers and Case Western Reserve University, launched the pilot drug checking program in 2023, funded by CDC's OD2A LOCAL grant through Component B strategy. Under this program, beginning August 2024, used syringes from seven different syringe service program (SSP) locations in Cuyahoga

County are being tested, and the results are shared with program participants, partner agencies and local stakeholders. From August 2025 onwards, other used paraphernalia such as pipes and cookers have been included in the drug testing. This program enhances local drug surveillance capabilities and provides insight into participants' perception/misperception about their drug use.

### **Cuyahoga County Regional Forensic Science Laboratory**

The Cuyahoga County Regional Forensic Science Laboratory (CCRFSL) is an accredited laboratory at CCMEQ, which provides a wide range of forensics science services to the community. The lab handles various types of evidence, including DNA, controlled substances and much more. This report utilizes the results of submissions to the drug chemistry laboratory. Submissions may be positive for more than one drug or substances. This data captures the presence of drug/substances, not concentrations or purity of drug/substances. Information provided from CCRFSL allow us to understand the current drug supply that is impacting our community. We are able to track top drug submissions and the emergence of new drugs. For this report, 2022-2025 data are examined.

### **Ohio Department of Health Vital Statistics System**

This DOIEP uses death certificate data from the Ohio Department of Health (ODH) Vital Statistics System. ODH uses the *International Classification of Disease, Tenth Revision* (ICD-10) to code deaths. ODH categorizes causes of death into six "External Injury Intent" types: Homicide, Legal Intervention and Operations of War, Natural, Suicide, Undetermined, and Unintentional. Accidental drug poisoning deaths, or unintentional drug overdose deaths (UDOD) as described in this report, fall into the "Unintentional" category. Among decedents with UDOD as the underlying cause of death, the type of drug is indicated by the following ICD10 multiple cause-of-death codes: illicit and prescription opioids (T40.0, T40.1, T40.2, T40.3, T40.4, or T40.6); benzodiazepines (T42.4); cocaine (T40.5); and methamphetamines (T43.6). Vitals Statistics data are used in this DOIEP to provide insights on fatal overdoses, specifically UDOD, for decedents who resided in CC between 2015 and June 2025 (note: 2025 data are preliminary and incomplete). In-depth analyses of 2024 data (the most recent complete year of data available) are provided.

### **Ohio Department of Health EpiCenter System**

EpiCenter is a syndromic surveillance system managed by ODH that monitors suspected drug overdoses and many other health events presenting in emergency departments (ED). Between 2016 to 2024 ODH developed, updated, and added multiple opioid-related and other drug-related classifiers based on chief complaint data:

- suspected drug overdose,
- suspected drug overdose due to opioid,
- suspected drug overdose due to heroin,
- suspected drug overdose due to stimulants,
- suspected drug overdoses involving benzodiazepines,
- suspected drug overdoses involving cocaine,
- suspected drug overdoses involving fentanyl,
- suspected drug overdoses involving methamphetamine, and
- suspected drug overdoses involving xylazine.

The classifiers build upon one another and one individual can be reported as a part of multiple classifiers; therefore, this report uses a general “all drug overdose” category. These classifiers support non-fatal overdose surveillance and anomaly (spike alert) detection, known as an Epi-Alert. EpiCenter data are used in this DOIEP to provide insights on drug overdose morbidity in CC between January 2017 through December 2024. Preliminary 2025 totals are also provided.

## **Ohio Department of Public Safety’s Emergency Medical Services Incidence Reporting System**

The Ohio Department of Public Safety’s Emergency Medical Services (EMS) Incidence Reporting System (EMSIRS) records naloxone dose administrations provided by local EMS agencies participating in EMSIRS and the number of EMS 9-1-1 response events that mention “Narcan” or “naloxone” in the report under Medication Given Description, Situation Complaint Statement, or Patient Care Report Narrative. Naloxone is a medication used as treatment to reverse an opioid overdose.<sup>4</sup> The Ohio State Board of Emergency Medical, Fire, and Transportation Services has statutory authority over EMSIRS and supervises its operations. For this report, 2018-2025 data are examined.

## STRENGTHS AND LIMITATIONS

The 2025 DOIEP provides important information that local partners can use as a resource for prevention efforts. Strengths of this profile include:

- Robust datasets and detailed analyses.
- Comprehensive population demographics data from the Census Bureau offer community context.
- The Vital Statistics System captures data on all deaths of CC residents and has hundreds of variables for analysis. Data from this system can be compared across communities or with other counties across the state.
- EpiCenter data are submitted by local hospital systems and urgent care centers in near real-time and have become an important resource for tracking trends in ED visits for drug overdoses. EpiCenter also administers Epi-Alerts which help to detect spikes in overdose ED visits at hospitals.
- Lastly, most EMS naloxone dose administrations in CC are recorded into EMSIRS, which is helpful for understanding the overdose burden on EMS providers and communities.

Despite the many strengths of the data sources included in this profile, some limitations must be acknowledged:

- Due to the timing of data releases from the United States Census Bureau, the most recent Census data available and used are 2024 data.
- New data from the State of Ohio Integrated Behavioral Health Dashboard were unavailable at the time of this report.
- SUDORS data collection methods vary by county, therefore data should be interpreted with caution and comparisons between counties may not be reliable. The number of deaths in SUDORS might not match the number shown by ODH Bureau of Vital Statistics data due to differences in case identification and inclusion.
- A time lag also exists in reporting for Vital Statistics and finalization of these data by ODH; it can take over a year to complete. Therefore, validated county vital statistics data indicating cause of death for 2025 deaths are incomplete. In this report only the first 6 months of 2025 data are included and are considered preliminary. Non-CC-resident deaths are also not accounted for in the vital statistics analyses reported.
- EpiCenter data are de-identified to some degree, classifiers do not capture all overdoses, and non-standard reporting across hospital systems can make these data hard to interpret. Underreporting may exist due to facilities temporarily being out of surveillance, although some facilities rejoined surveillance in 2024.
- EMS data are listed as total dose administrations and not per person administrations; therefore, it is not known how many doses of naloxone an individual received. Administrations of naloxone may be part of standard EMS protocols. As such, an incident in which EMS responded and administered naloxone may not necessarily have been an opioid-related overdose but protocols led to administration of the medication and the incident was reported as such. Lastly, not all EMS agencies report to EMSIRS.

# GEOGRAPHIC AND SOCIODEMOGRAPHIC COMPOSITION OF THE POPULATION OF CUYAHOGA COUNTY, OH

## Geographic Description of Cuyahoga County

- Cuyahoga County is located in northeastern Ohio, in the Midwest region of the United States. Housing the City of Cleveland, it is the second most-populated county in Ohio with a population of 1.23 million people, and the 39<sup>th</sup> largest county in the state by land area at 44,826 square miles<sup>6,7</sup>.
- Between 2020 and 2024, the population of Cuyahoga County experienced a 1.9% decline.<sup>6,7</sup> Cuyahoga County shares its borders with Lake Erie, Geauga County, Lake County, Lorain County, Medina County, Portage County, and Summit County (Figure 1).

Figure 1: Geographic Location of Cuyahoga County, OH



<sup>8</sup>Data Source: Worldatlas.com. Accessed December 18<sup>th</sup>, 2025. [Cuyahoga County, Ohio / Map of Cuyahoga County, OH / Where is Cuyahoga County? \(worldatlas.com\)](https://www.worldatlas.com/cuyahoga-county-ohio/)

## Demographic Composition

- The types and level of services needed by community members are highly related to the demographic make-up of the community, in particular age, sex, race, income levels, access to health insurance, etc.
- In 2024, the median age in Cuyahoga County was 40.4 years, with more than half (51.8%) of CC residents between the ages of 25 and 64 years. The female to male ratio in the county is 100:92.

**Table 1. Population Distribution by Age Group and Sex, Cuyahoga County, OH, 2024**

| Age Group (years) | Males       |       | Females     |       | Total Population |       |
|-------------------|-------------|-------|-------------|-------|------------------|-------|
|                   | N = 597,883 | %     | N = 647,990 | %     | N = 1,245,873    | %     |
| <15               | 107,190     | 17.9% | 102,590     | 15.9% | 209,780          | 16.9% |
| 15-24             | 74,193      | 12.4% | 73,587      | 11.3% | 147,780          | 11.9% |
| 25-34             | 87,499      | 14.6% | 91,747      | 14.2% | 179,246          | 14.4% |
| 35-44             | 75,124      | 12.6% | 79,279      | 12.2% | 154,403          | 12.4% |
| 45-54             | 68,946      | 11.5% | 74,617      | 11.5% | 143,563          | 11.5% |
| 55-64             | 79,924      | 13.3% | 88,359      | 13.7% | 168,283          | 13.5% |
| 65+               | 105,007     | 17.6% | 137,811     | 21.2% | 242,818          | 19.5% |

<sup>9</sup>Source: 2024 American Community Survey Estimates, United States Census Bureau. Note: Percentages may not sum to 100% due to rounding.

- The Census Bureau estimates that 56.5% (n = 714,159) of CC residents are Non-Hispanic White. Non-Hispanic Black residents make up 28.5% (n = 354,721) of the population.

**Table 2. Population Distribution by Race/Ethnicity, Cuyahoga County, OH, 2024**

| Race/Ethnicity     | Total Population |       |
|--------------------|------------------|-------|
|                    | *N = 1,245,873   | %     |
| Non-Hispanic White | 714,159          | 56.5% |
| Non-Hispanic Black | 354,721          | 28.5% |
| Hispanic or Latino | 87,528           | 7.0%  |
| Asian              | 41,070           | 3.3%  |
| Native American    | 266              | 0.0%  |
| Two or more races  | 50,980           | 4.1%  |

<sup>10</sup>Source: 2024 American Community Survey estimates, United States Census Bureau. Note: Percentages may not sum to 100% due to rounding.

\*This is the total including residents who identified as “other” race, which is not shown in the race/ethnicity category.

## Poverty, Income, and Education

- According to rankings based on poverty rate, CC is the 13<sup>th</sup> most impoverished county in Ohio.<sup>11</sup> In 2024 it was reported that 16.1% of individuals residing in Cuyahoga County live below the federal poverty level, compared to 13.3% for the state.
- When broken down by race and ethnicity, Non-Hispanic Blacks made up 27.6% of individuals who live below the federal poverty level, while 24.0% were Hispanic or Latino.
- The average personal income in Cuyahoga County is \$42,747 and the median household income is \$64,468.

**Table 3. Socioeconomic Characteristics of Population, Cuyahoga County, OH and Ohio, 2024**

| Characteristic                                     | Cuyahoga County | Ohio     |
|----------------------------------------------------|-----------------|----------|
| <b>Income</b>                                      |                 |          |
| Average per Capita Income*                         | \$42,747        | \$40,552 |
| Median Household Income*                           | \$64,468        | \$71,389 |
| <b>Federal Poverty Level</b>                       |                 |          |
| Individuals                                        | 16.1%           | 13.3%    |
| Female                                             | 17.1%           | 14.6%    |
| Male                                               | 15.0%           | 11.9%    |
| <b>Federal Poverty Level by Age Group (years)</b>  |                 |          |
| <18                                                | 22.9%           | 17.8%    |
| 18-64                                              | 14.9%           | 12.6%    |
| ≥65                                                | 12.5%           | 10.0%    |
| <b>Federal Poverty Level by Race and Ethnicity</b> |                 |          |
| Non-Hispanic White                                 | 9.2%            | 10.4%    |
| Non-Hispanic Black                                 | 27.6%           | 26.6%    |
| Hispanic or Latino                                 | 24.0%           | 21.2%    |
| Native American                                    | 6.6%            | 28.8%    |
| Asian                                              | 14.5%           | 11.9%    |

<sup>12-14</sup>Source: 2024 American Community Survey estimates, United States Census Bureau.

Note: Percentages may not sum to 100% due to rounding.

\*Inflation-Adjusted Dollars

- The State of Homelessness data for CC (Table 4) draw from the nationwide Point-in-Time Count, and show how homelessness in CC has fluctuated during the last 5 years, 2019-2024.<sup>15</sup> Between 2023 and 2024, overall homelessness has slightly increased.
- In 2024, an estimated 1,637 individuals were homeless, of which 1,522 (93.0%) were reported to be sheltered. Homelessness has been associated with reduced access to care, engagement in harmful behaviors such as substance use, lower survival rate, and reduced adherence to treatment.<sup>15</sup>
- Due to the COVID-19 pandemic, data collection was interrupted in 2021, so data for that year is unavailable.

**Table 4. Homelessness in Cuyahoga County, Ohio 2019-2024\***

|                      | 2019     |       | 2020     |       | 2022     |       | 2023     |       | 2024     |       |
|----------------------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|
| Overall Homelessness | N= 1,618 | %     | N= 1,675 | %     | N= 1,574 | %     | N= 1,629 | %     | N= 1,637 | %     |
| Unsheltered          | 106      | 6.6%  | 109      | 6.5%  | 84       | 5.3%  | 180      | 11.0% | 115      | 7.0%  |
| Sheltered            | 1,512    | 93.4% | 1,566    | 93.5% | 1,490    | 94.7% | 1,449    | 89.0% | 1,522    | 93.0% |
| Individual           | 1,228    | 75.9% | 1,315    | 78.5% | 1,228    | 78.0% | 1,221    | 75.0% | 1,216    | 74.3% |
| Family               | 390      | 24.1% | 360      | 21.5% | 346      | 22.0% | 408      | 25.0% | 421      | 25.7% |
| Chronic              | 212      | 13.1% | 171      | 10.2% | 198      | 12.6% | 278      | 17.1% | 317      | 19.4% |
| Veteran              | 135      | 8.3%  | 168      | 10.0% | 105      | 6.7%  | 90       | 5.5%  | 82       | 5.0%  |
| Youth                | 118      | 7.3%  | 110      | 6.6%  | 112      | 7.1%  | 97       | 6.0%  | 295      | 18.0% |

<sup>15</sup>Source: US Department of Housing and Urban Development.

\*The COVID-19 pandemic interrupted data collection in 2021, so data for that year are unavailable.

- The most common level of education attained in CC among people aged 25 years and older is a high school diploma or its equivalent (27.3%). Only 20.8% of residents 25 years and older reported having a bachelor's degree.

**Table 5. Educational Attainment (Population Age ≥25 Years) in Cuyahoga County, OH 2024**

| Education                       | Males       |       | Females     |       | Total Population |       |
|---------------------------------|-------------|-------|-------------|-------|------------------|-------|
|                                 | N = 416,500 | %     | N = 471,813 | %     | N = 889,313      | %     |
| Less than High School           | 38,142      | 9.2%  | 37,317      | 7.9%  | 75,459           | 8.5%  |
| High School Diploma/GED         | 121,222     | 29.1% | 121,325     | 25.7% | 242,547          | 27.3% |
| Some College, no degree         | 79,221      | 19.0% | 95,203      | 20.2% | 174,424          | 19.6% |
| Associate's Degree              | 30,294      | 7.3%  | 40,916      | 8.7%  | 71,210           | 8.0%  |
| Bachelor's Degree               | 86,261      | 20.7% | 98,645      | 20.9% | 184,906          | 20.8% |
| Graduate or Professional Degree | 61,360      | 14.7% | 78,407      | 16.6% | 139,767          | 15.7% |

<sup>16</sup>Source: 2024 American Community Survey estimates, United States Census Bureau. Note: Percentages may not sum to 100% due to rounding.

## Marital Status, Employment, and Healthcare Coverage

- Among persons 15 years of age and over, 40.5% (n= 419,403) reported being married and, 40.8% (n= 422,760) have never been married.

**Table 6. Marital Status (Population Age ≥15 Years) in Cuyahoga County, OH 2024**

| Marital Status | Males       |       | Females     |       | Total Population |       |
|----------------|-------------|-------|-------------|-------|------------------|-------|
|                | N = 490,693 | %     | N = 545,400 | %     | N = 1,036,093    | %     |
| Married        | 210,014     | 42.8% | 209,389     | 38.4% | 419,403          | 40.5% |
| Divorced       | 51,760      | 10.5% | 75,995      | 13.9% | 127,755          | 12.3% |
| Never Married  | 213,551     | 43.5% | 209,209     | 38.4% | 422,760          | 40.8% |
| Widowed        | 15,368      | 3.1%  | 50,807      | 9.3%  | 66,175           | 6.4%  |

<sup>17,18</sup>Source: 2024 American Community Survey estimates, United States Census Bureau. Note: Percentages may not sum to 100% due to rounding.

- The civilian labor force, or currently active workforce, is defined as all civilian noninstitutionalized residents 16 years or older who fulfill the requirements for inclusion among the employed or the unemployed.
- The employed residents of CC (59.5%) are defined as those who work for pay or profit for at least one hour a week, or have a job, but are temporarily on leave due to illness, industrial action, etc. Those that are unemployed (4.2%) are defined as people without work, but are actively seeking a job and currently available to start work.

**Table 7. Employment Status (Population Age ≥16 Years) in Cuyahoga County, OH and Ohio, 2024**

| Characteristic                                | Cuyahoga County |       | Ohio      |       |
|-----------------------------------------------|-----------------|-------|-----------|-------|
|                                               | Total           | %     | Total     | %     |
| <b>Civilian Labor Force 16 Years and Over</b> | 650,577         | 63.7% | 5,994,779 | 63.0% |
| Employed                                      | 607,460         | 59.5% | 5,709,399 | 60.0% |
| Unemployed                                    | 43,117          | 4.2%  | 285,380   | 3.0%  |

<sup>19</sup>Source: 2024 American Community Survey estimates, United States Census Bureau. Note: Percentages may not sum to 100% due to rounding.

- In 2024, 46.2% of CC residents were covered under their employers' health insurance plan, compared to 49.9% in Ohio overall. Another 22.6% were insured by Medicaid, which is higher than Medicaid coverage at the state level (17.9%).

**Table 8. Healthcare Coverage in Cuyahoga County, OH and Ohio, 2024**

| Health Insurance Coverage | Cuyahoga County<br>% | Ohio<br>% |
|---------------------------|----------------------|-----------|
| Employer                  | 46.2%                | 49.9%     |
| Non-Group                 | 10.0%                | 10.5%     |
| Medicaid                  | 22.6%                | 17.9%     |
| Medicare                  | 14.5%                | 14.0%     |
| Military or VA            | 1.0%                 | 1.3%      |
| Uninsured                 | 5.7%                 | 6.4%      |

<sup>20, 21</sup>Source: Data USA: Cuyahoga County, OH & Ohio.

Note: Percentages may not sum to 100% due to rounding.

NSD = No Statistical Data

## Behavioral Health

- Updated (2024) OARRS Drug Monitoring Program data on individuals receiving and retaining Buprenorphine as either medication for opioid use disorder (MOUD) or medication-assisted treatment (MAT) were not available from the State of Ohio Integrated Behavioral Health Dashboard at the time of this report.<sup>22</sup>
- Other behavioral health data insights were available from the new Ohio State Unintentional Drug Overdose Reporting System (SUDORS) Data dashboard.<sup>23</sup>
- Ohio SUDORS data for 2024 show that, in Cuyahoga County, 83% of decedents had at least one potential opportunity for intervention. For example, 69% of decedents had a mental health diagnosis and 31% had experienced a previous overdose.
- Half of decedents (50%) were ever treated for substance use disorder (SUD) and 13% were currently being treated for an SUD at time of fatal overdose. These data highlight behavioral health support gaps.

**Table 9. Opportunities for Intervention and Additional Circumstances Among Decedents, Cuyahoga County, OH and Ohio, 2024**

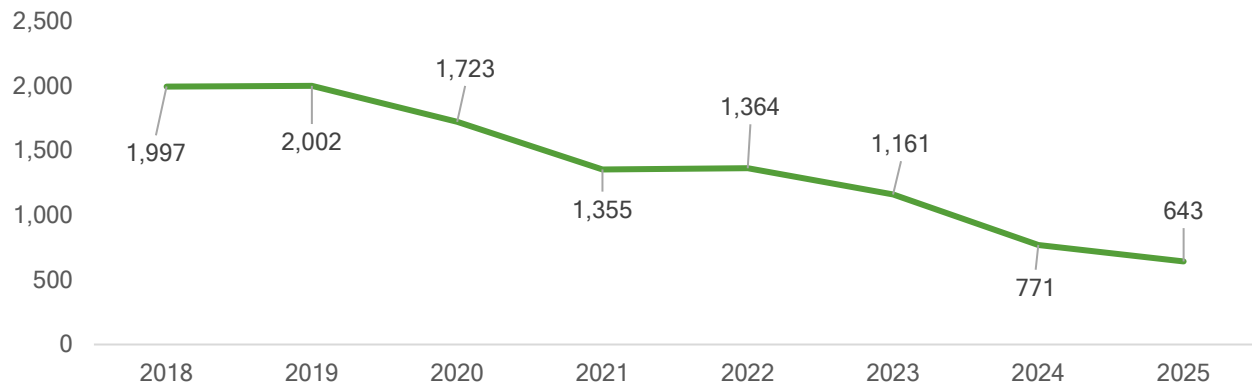
| Characteristic                                                                | Cuyahoga County | Ohio  |
|-------------------------------------------------------------------------------|-----------------|-------|
| <b>Potential Opportunities for Intervention</b>                               |                 |       |
| ≥1 Potential Opportunity                                                      | 83.4%           | 84.4% |
| Recent Release from Institution                                               | 6.9%            | 8.7%  |
| Previous Overdose                                                             | 30.7%           | 28.4% |
| Mental Health Diagnosis                                                       | 69.0%           | 68.3% |
| Currently Treated for a Substance Use Disorder (SUD)                          | 13.0%           | 14.2% |
| Potential Bystander Present                                                   | 36.6%           | 37.0% |
| Fatal Drug Use Witnessed                                                      | 8.0%            | 6.8%  |
| <b>Additional Circumstances</b>                                               |                 |       |
| Decedents who received naloxone when the overdose occurred                    | 7.0%            | 20.0% |
| Decedents who had a recent opioid relapse                                     | 4.0%            | 2.0%  |
| Decedents who were ever treated for a SUD                                     | 50.0%           | 50.0% |
| Decedents who experienced homelessness/housing instability                    | 6.0%            | 8.0%  |
| Decedents who received treatment for pain at the time of their fatal overdose | 13.0%           | 14.0% |

<sup>23</sup>Source: Ohio State Unintentional Drug Overdose Reporting System (SUDORS) Dashboard

## Hospital Encounters

- Figures in this section derive from the Ohio Hospital Association (OHA) Dashboard. From 2024 to 2025, hospital encounters related to opioid overdose decreased 17%.

**Figure 2. Hospital Encounters Related to Opioid Overdose in Cuyahoga County, 2018-2025**

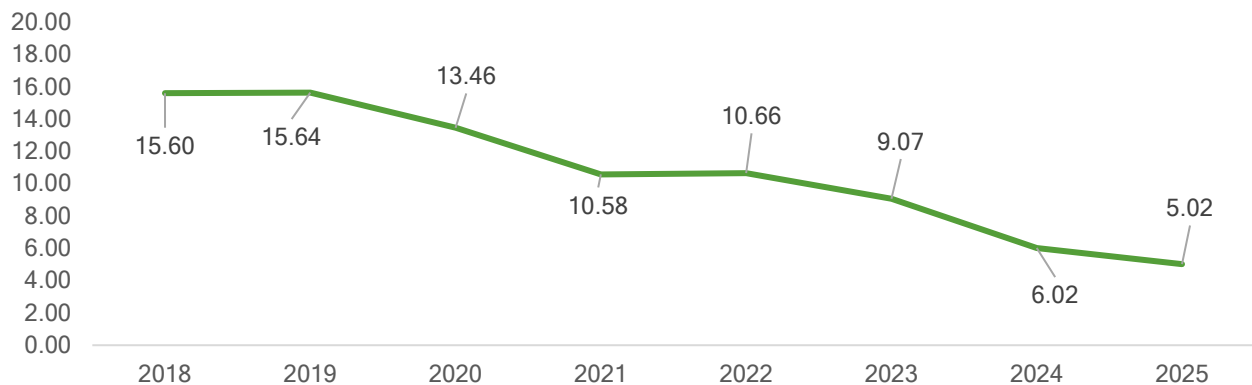


<sup>24</sup>Source: Ohio Hospital Association Dashboard

County data includes hospital encounters seen in an Ohio hospital for patients who live in Ohio.

- In 2025, the rate for hospital encounters related to opioid overdose was 5.02 per 10,000, which represents the lowest rate in the time frame provided. This was a 17% decrease from 2024.

**Figure 3. Rate per 10,000 population for Hospital Encounters Related to Opioid Overdose in Cuyahoga County, 2018-2024**



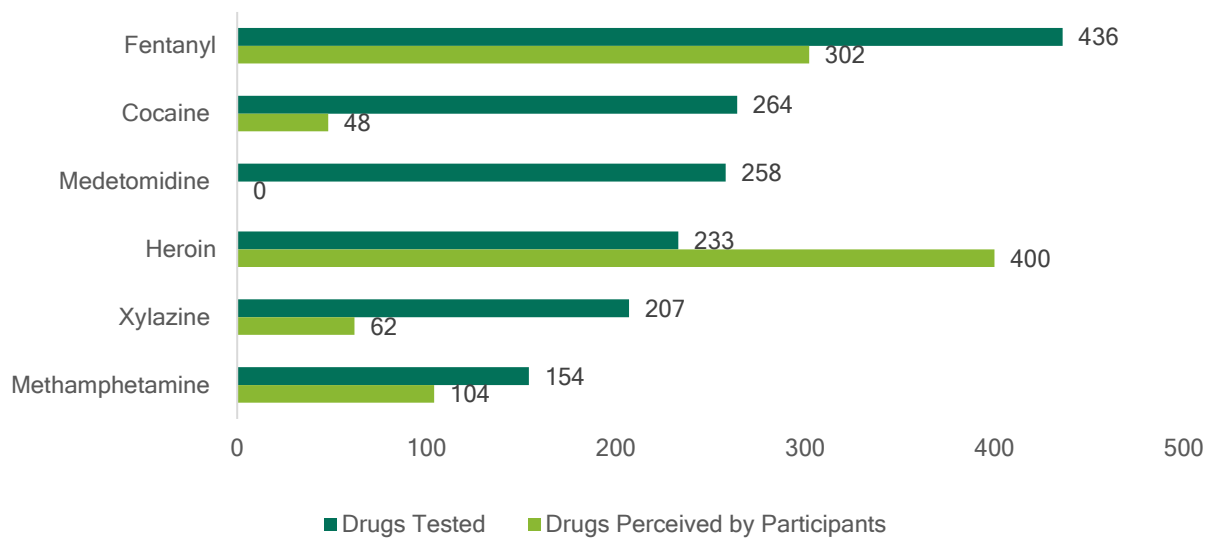
<sup>24</sup>Source: Ohio Hospital Association Dashboard

County data includes hospital encounters seen in an Ohio hospital for patients who live in Ohio.

## Drug Supply in Cuyahoga County

- In 2025, the Cuyahoga County Pilot Drug Checking Program, which collects from seven different SSPs, tested a total of 698 samples. The samples included 687 (98.4%) syringes, 8 (1.1%) cookers, and 3 (0.4%) pipes.
- Among the clients, 91.5% were Non-Hispanic (n = 639), 89.5% were White (n = 625), and 54.4% were males (n = 380), with an average age (SD) of 42.1 (9.7) years.

**Figure 4. Major Drugs Tested vs. Perceived by Clients in Cuyahoga County, 2025\***



Source: Cuyahoga County Pilot Drug Checking Program

\*A participant could expect one or more drugs, and more than one drug could be present in a sample. Many participants use 'heroin' as a general term, and they know that it may be mixed with other drugs. Fentanyl includes fentanyl and analogs.

- Medetomidine (37%) and xylazine (29.7%), veterinary sedatives not approved for human use, were among the top five most detected drugs.
- There was a large gap between perceived and detected drugs for cocaine, medetomidine and xylazine (Figure 4, Table 10).
- The most commonly detected drugs were illicit fentanyls including fentanyl analogs (n = 436, 62.5%) and cocaine (n = 264, 37.8%).

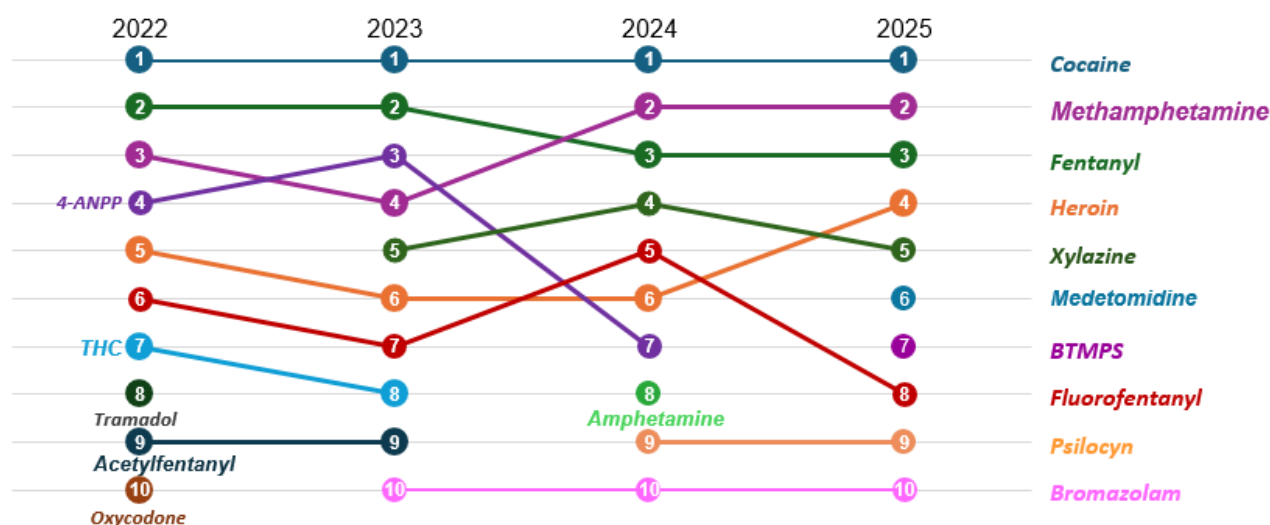
**Table 10. Major Drugs Tested and Perceived by Clients in Cuyahoga County, 2025\***

| Drug            | Drugs Tested |      | Drugs Perceived by Clients |      |
|-----------------|--------------|------|----------------------------|------|
|                 | N = 698      | %    | N = 698                    | %    |
| Fentanyl        | 436          | 62.5 | 32                         | 43.3 |
| Cocaine         | 264          | 37.8 | 48                         | 6.9  |
| Medetomidine    | 258          | 37.0 | 0                          | 0.0  |
| Heroin          | 233          | 33.4 | 400                        | 57.3 |
| Xylazine        | 207          | 29.7 | 62                         | 8.9  |
| Methamphetamine | 154          | 22.1 | 104                        | 14.9 |

Source: Cuyahoga County Pilot Drug Checking Program

\*A participant could expect one or more drugs, and more than one drug could be present in a sample. Many participants use 'heroin' as a general term, and they know that it may be mixed with other drugs. Fentanyl includes fentanyl and analogs.

- Diphenhydramine (470, 67.3%), caffeine (372, 53.3%), quinine (299, 42.8%), and lidocaine (256, 36.7%) were the most detected adulterants (not shown). BTMPS was detected in 132 (18.9%) samples, mostly found alongside fentanyl. Carfentanil was detected in 3 (0.4%) samples.

**Figure 5. Ranking of Top Drug Submissions in Cuyahoga County, 2022-2025**

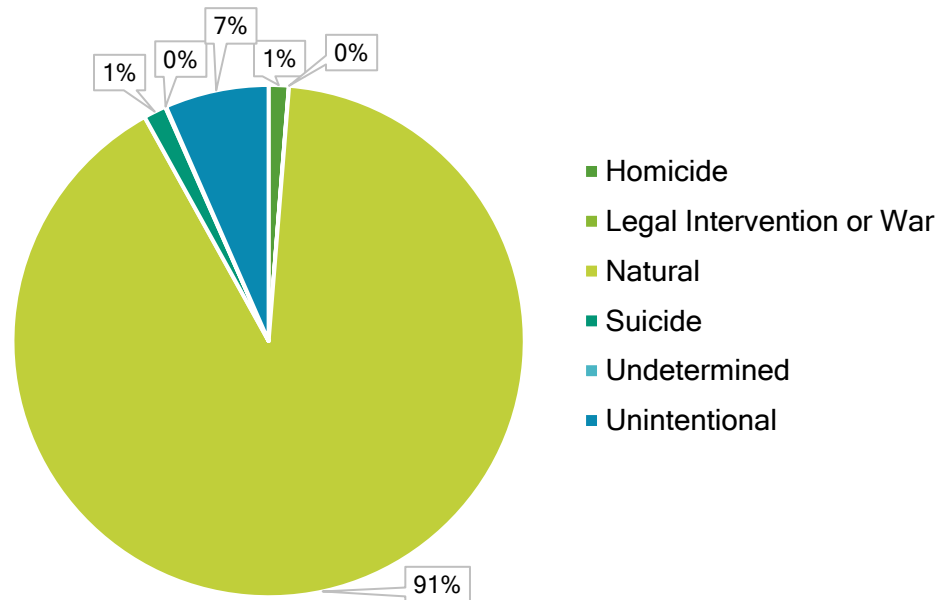
Source: Cuyahoga County Regional Forensic Science Laboratory

- As far as drug submission testing at the CCRFSL, cocaine was the most common drug identified from 2022 to 2025. Methamphetamine and fentanyl continued to rank 2<sup>nd</sup> and 3<sup>rd</sup> in 2025, rounding out the top 3 drugs. Fluorofentanyl continued its dominance of all other fentanyl analogs, however it did decrease 3 spots (#5 to #8) from 2024 to 2025.
- Although the top 5-6 ranked drugs are relatively stable, the change in rankings after that reflects the changing nature of the crisis including emerging substances in the drug supply. In 2025 drug shifts included the introduction of medetomidine (#6), which is a veterinary sedative more potent than xylazine, and BTMPS (#7), which is an industrial chemical used in the production of plastic.

## DRUG OVERDOSE MORTALITY–TOTAL DEATHS

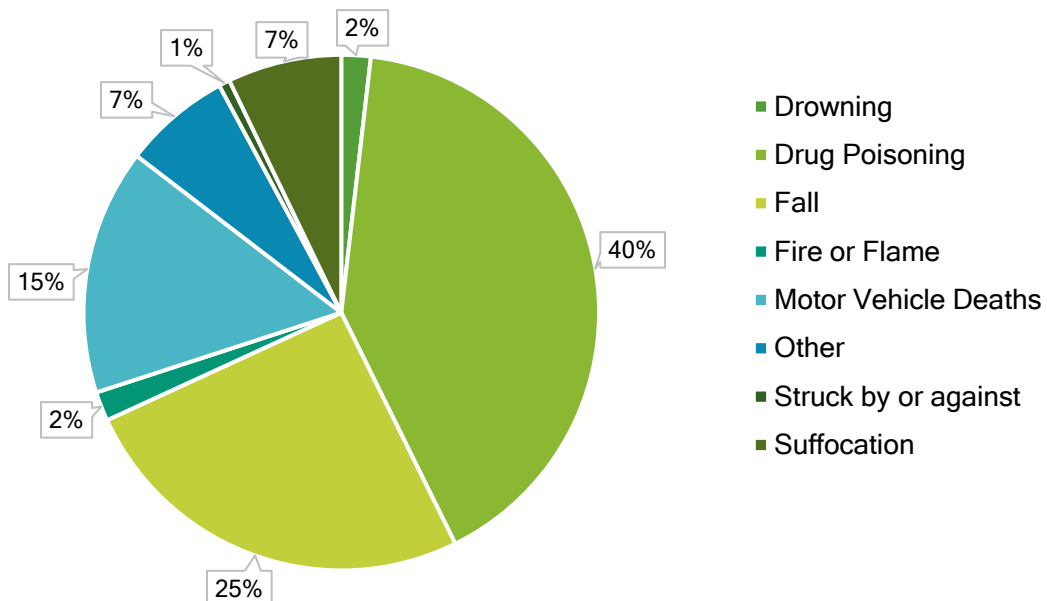
- Based on Vital Statistics data, there were 13,460 CC resident deaths in 2024. 91% of the deaths were by natural cause, with 7% of deaths being unintentional (n=883).

Figure 6. Causes of Death of Those Residing in Cuyahoga County, 2024



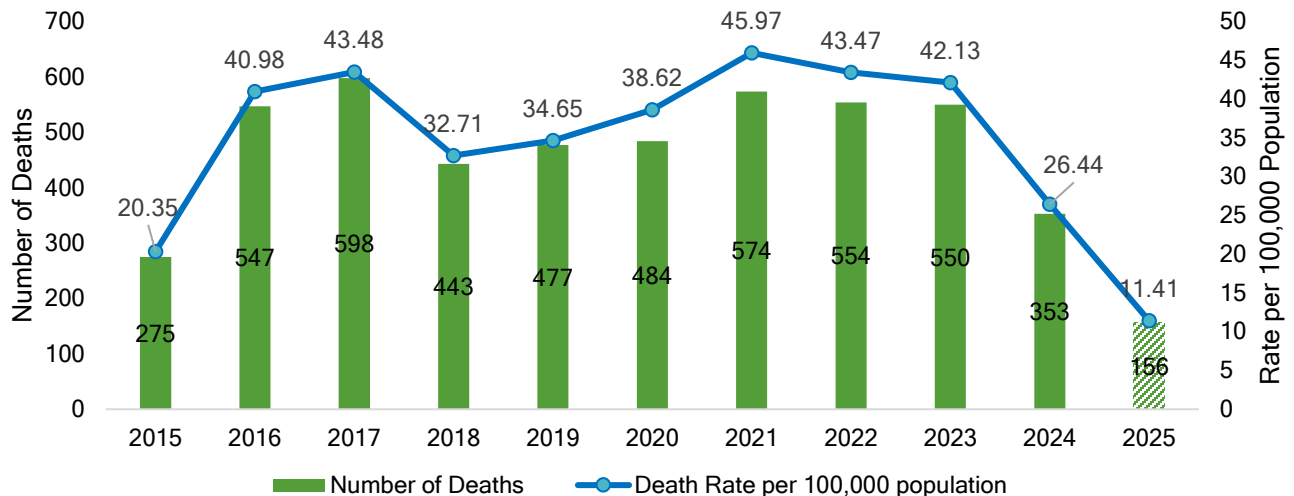
- In 2024, drug poisoning accounted for 40% of all CC resident unintentional deaths (compared to the 54% in 2023). This is the largest decrease in unintentional drug overdose deaths since 2018.

Figure 7. Causes of Unintentional Death of Those Residing in Cuyahoga County, 2024



- In 2024, there were 353 unintentional drug overdose deaths (UDOD) among residents, a 35.8% decrease from 2023.
- In 2024, CC's age-adjusted rate of 26.4 deaths per 100,000 population marked a decrease from the age-adjusted rate of 42.1 deaths per 100,000 population seen in 2023.

**Figure 8. Number and Age-Adjusted Rate of Unintentional Drug Overdose Deaths in Cuyahoga County, 2015-2025\***

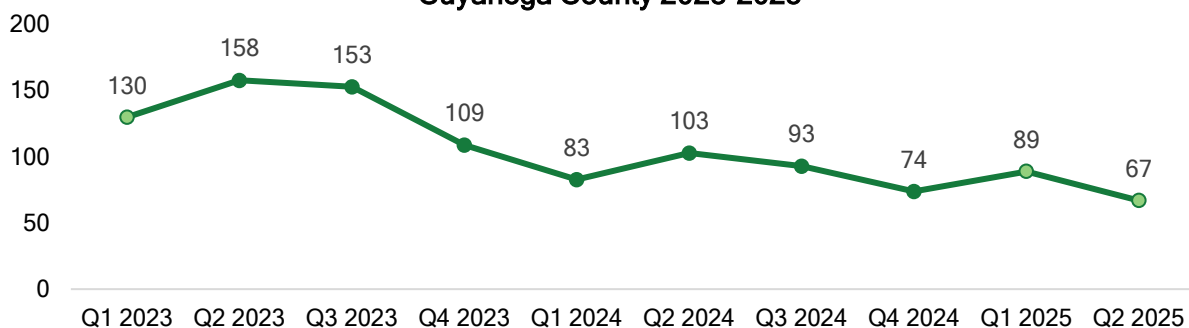


\*2025 DATA ONLY REFLECT THE FIRST 6 MONTHS (JANUARY 2025 - JUNE 2025) OF THE YEAR THEREFORE ARE PRELIMINARY AND INCOMPLETE

Note: The death rates presented are age-adjusted to the 2000 U.S. standard population to allow comparisons between different populations.

- In 2024, there was a 24% increase in the number of UDOD from the first quarter (83 deaths) to the second quarter (103 deaths). The number of UDOD decreased 28% from the second quarter to the fourth quarter (74 deaths).

**Figure 9. Number of Unintentional Drug Overdose Deaths by Quarter, Cuyahoga County 2023-2025\***



\*2025 DATA ONLY REFLECT THE FIRST 6 MONTHS (JANUARY 2025 - JUNE 2025) OF THE YEAR THEREFORE ARE PRELIMINARY AND INCOMPLETE

## DRUG OVERDOSE MORTALITY–DEMOGRAPHIC AND GEOGRAPHIC ANALYSES

- In 2024, the 35-44 age group had the highest rate of UOD (53.3 deaths per 100,000 population). More males died of UOD than females (255 deaths vs 98 deaths, respectively).
- Non-Hispanic Blacks had a higher rate of UOD (40.8 per 100,000) than Non-Hispanic Whites (26.3 per 100,000) and Hispanics (15.6 per 100,000).

**Table 11. Demographics for Unintentional Drug Overdose Deaths in Cuyahoga County, 2023-2025\***

|                                           | 2023 |      |                   | 2024 |      |                   | 2025* |      |                   |
|-------------------------------------------|------|------|-------------------|------|------|-------------------|-------|------|-------------------|
| Age                                       | N    | %    | Rate <sup>1</sup> | N    | %    | Rate <sup>1</sup> | N     | %    | Rate <sup>1</sup> |
| <15                                       | -    | -    | -                 | -    | -    | -                 | -     | -    | -                 |
| 15-24                                     | 9    | 1.6  | 5.8               | 12   | 3.4  | 7.7               | -     | -    | -                 |
| 25-34                                     | 80   | 14.6 | 44.6              | 53   | 15.0 | 29.6              | 25    | 16.0 | -                 |
| 35-44                                     | 131  | 23.8 | 88.5              | 79   | 22.4 | 53.3              | 32    | 20.5 | -                 |
| 45-54                                     | 118  | 21.5 | 78.6              | 63   | 17.8 | 42.0              | 29    | 18.6 | -                 |
| 55-64                                     | 148  | 26.9 | 81.6              | 90   | 25.5 | 49.6              | 32    | 20.5 | -                 |
| 65+                                       | 64   | 11.6 | 58.6              | 56   | 15.9 | 41.9              | 38    | 24.4 | -                 |
| <b>Sex</b>                                |      |      |                   |      |      |                   |       |      |                   |
| Female                                    | 169  | 30.7 | 25.6              | 98   | 27.8 | 14.8              | 47    | 30.1 | -                 |
| Male                                      | 381  | 69.3 | 63.0              | 255  | 72.2 | 42.2              | 109   | 69.9 | -                 |
| <b>Race/Ethnicity<sup>2</sup></b>         |      |      |                   |      |      |                   |       |      |                   |
| Non-Hispanic Black                        | 218  | 39.6 | 59.7              | 149  | 42.2 | 40.8              | 77    | 49.4 | -                 |
| Non-Hispanic White                        | 292  | 53.1 | 40.6              | 189  | 53.5 | 26.3              | 72    | 46.2 | -                 |
| Hispanic                                  | 37   | 6.7  | 44.4              | 13   | 3.7  | 15.6              | 7     | 4.5  | -                 |
| <b>Race/Ethnicity and Sex<sup>2</sup></b> |      |      |                   |      |      |                   |       |      |                   |
| Non-Hispanic Black Females                | 73   | 13.3 | 36.9              | 40   | 11.3 | 20.2              | 20    | 12.8 | -                 |
| Non-Hispanic Black Males                  | 145  | 26.4 | 86.8              | 109  | 30.9 | 65.2              | 57    | 36.5 | -                 |
| Non-Hispanic White Females                | 87   | 15.8 | 23.6              | 57   | 16.1 | 15.5              | 26    | 16.7 | -                 |
| Non-Hispanic White Males                  | 205  | 37.3 | 58.5              | 132  | 37.4 | 37.1              | 46    | 29.5 | -                 |
| Hispanic Females                          | 8    | 1.5  | 18.8              | 1    | 0.3  | 2.3               | 1     | 0.6  | -                 |
| Hispanic Males                            | 29   | 5.3  | 71.2              | 12   | 3.4  | 29.5              | 6     | 3.8  | -                 |
| <b>Total<sup>3</sup></b>                  | 550  |      | 42.1              | 353  |      | 26.4              | 156   |      | -                 |
| <b>Mean Age</b>                           |      | 48.9 |                   |      | 49.2 |                   |       | 51.5 |                   |

\*2025 DATA ONLY REFLECT THE FIRST 6 MONTHS OF THE YEAR (JAN 2025-JUN 2025), DUE TO THIS THE OVERDOSE RATE IS NOT REPORTED.

<sup>1</sup>Death rates for age are age-specific. Death rates for sex and race/ethnicity are age-adjusted to the 2000 U.S. standard population to allow comparisons between different populations.

<sup>2</sup>Other race groups are not shown due to small numbers.

<sup>3</sup>Total includes all unintentional drug overdose deaths in Cuyahoga County.

- Additional key points that indicate a stark difference in rate of UDOD among demographic groups include:
  - Despite non-Hispanic White males representing the highest number and percentage of UDOD in 2023 and 2024, Non-Hispanic Black males had a higher rate of UDOD.
  - Non-Hispanic Black females had a higher rate of UDOD when compared to non-Hispanic White females.
  - The Hispanic female UDOD rate remained the lowest among all race/ethnicity and sex subgroups.

**Table 12. Unintentional Drug Overdose Deaths by Marital Status and Education in Cuyahoga County, 2023-2025\*\***

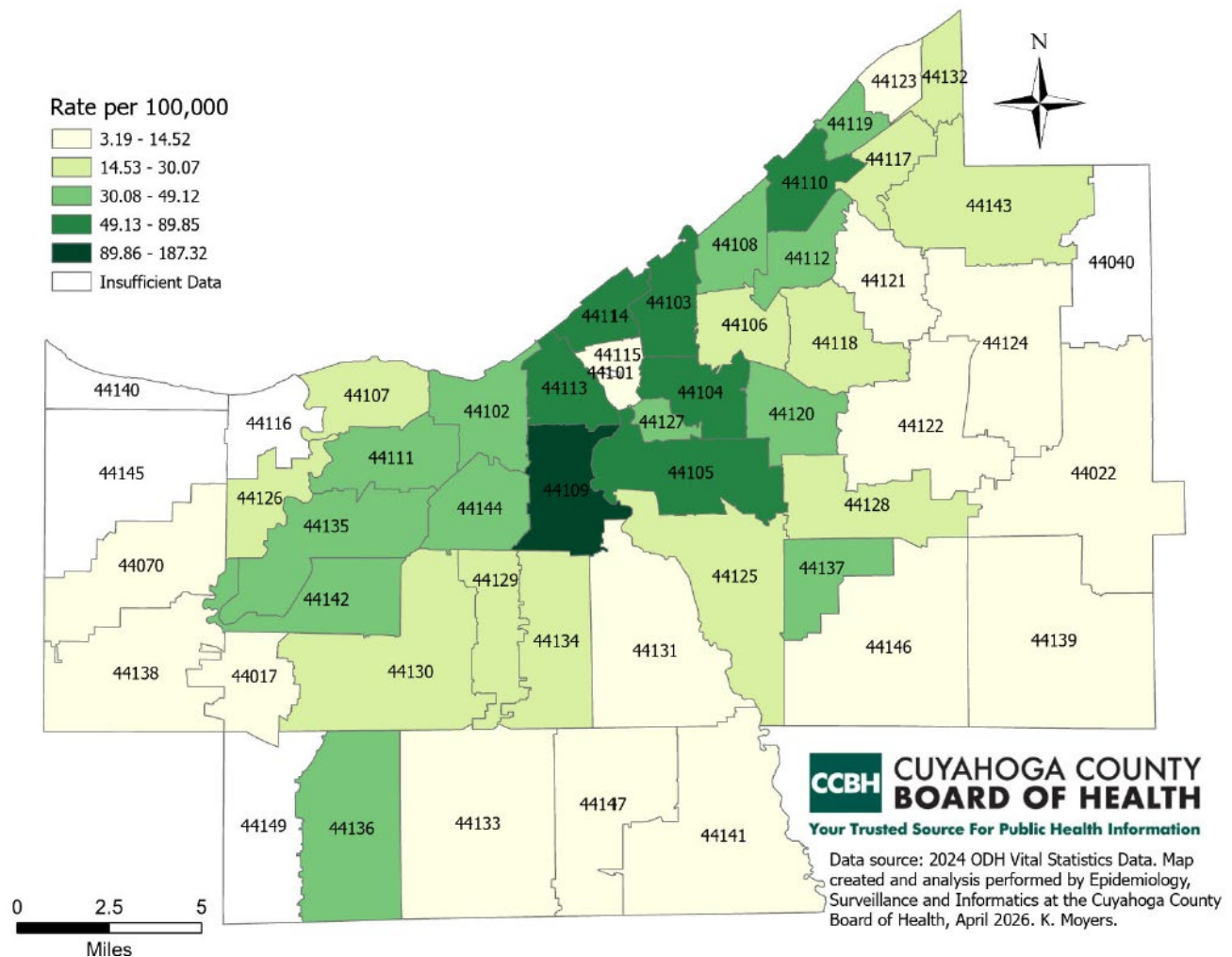
|                            | 2023       |          | 2024       |          | 2025**     |          |
|----------------------------|------------|----------|------------|----------|------------|----------|
| <b>Marital Status</b>      | <b>N</b>   | <b>%</b> | <b>N</b>   | <b>%</b> | <b>N</b>   | <b>%</b> |
| Married                    | 50         | 9.1      | 39         | 11.1     | 9          | 5.8      |
| Divorced                   | 111        | 20.2     | 85         | 24.1     | 39         | 25.0     |
| Never Married              | 344        | 62.6     | 209        | 59.2     | 100        | 64.1     |
| Other/Unknown              | 45         | 8.2      | 20         | 5.7      | 8          | 5.1      |
| <b>Education</b>           |            |          |            |          |            |          |
| Less than High School Grad | 121        | 22.0     | 68         | 19.3     | 29         | 18.6     |
| High School Diploma/GED    | 289        | 52.6     | 204        | 57.8     | 84         | 53.9     |
| Some College               | 62         | 11.3     | 35         | 9.9      | 23         | 14.7     |
| College Degree             | 56         | 10.2     | 31         | 8.8      | 14         | 9.0      |
| Unknown                    | 22         | 4.0      | 15         | 4.3      | 6          | 3.9      |
| <b>Total<sup>1</sup></b>   | <b>550</b> |          | <b>353</b> |          | <b>156</b> |          |

\*\*2025 DATA ONLY REFLECT THE FIRST 6 MONTHS OF THE YEAR (JAN 2025-JUN 2025)

<sup>1</sup>Total includes all unintentional drug overdose deaths in Cuyahoga County

- Individuals who were never married (59.2% in 2024) represent the highest percentage of UDOD among marital status groups. The most common level of education attained for individuals that died of UDOD was a high school diploma or GED (57.8%). These trends were seen in 2023, 2024, and preliminary 2025.

Figure 10. Rate of Unintentional Drug Overdose Deaths in Cuyahoga County by Residence Zip Code, 2024

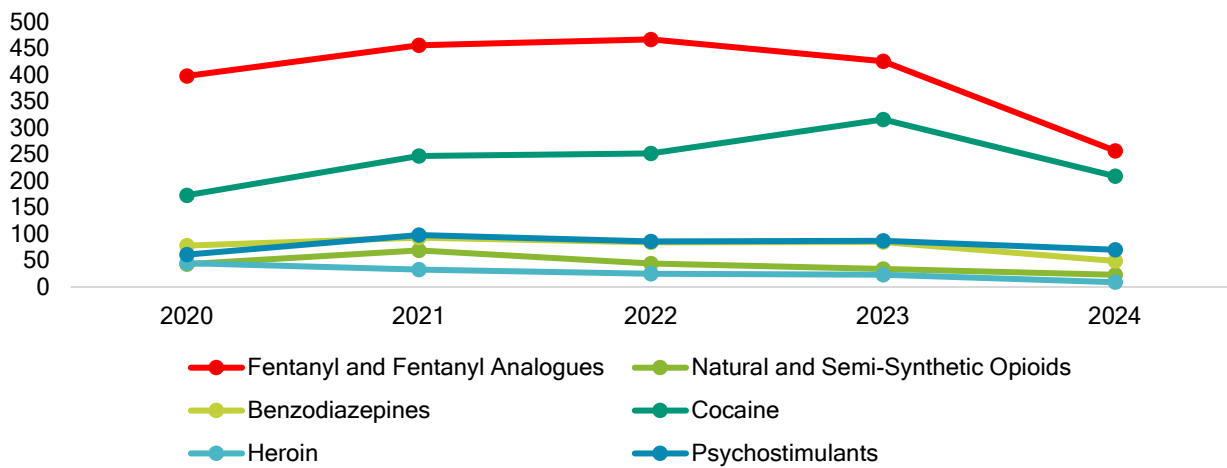


- Understanding where overdose deaths are occurring is important for planning prevention and outreach events to prioritize high risk areas for services. The map (Figure 10) shows rates of UDOD by zip code based on 2024 Vital Statistics data.
- The CC zip codes with the highest rates of UDOD in 2024 were 44109 (187.32 deaths per 100,000 population) and 44103 (89.85 deaths per 100,000 population). Although their rates decreased from 2023, both zip codes 44109 and 44103 remained high burden areas.

## DRUG OVERDOSE MORTALITY—DRUG TYPES

- From 2023 to 2024, there were decreases in the number of UDOD across all of the selected drugs.
- Overall opioid-related UDOD decreased 39% from 2023 to 2024. Fentanyl-related UDOD decreased 40%, while deaths involving natural and semisynthetic opioids and heroin decreased 32% and 61%, respectively.

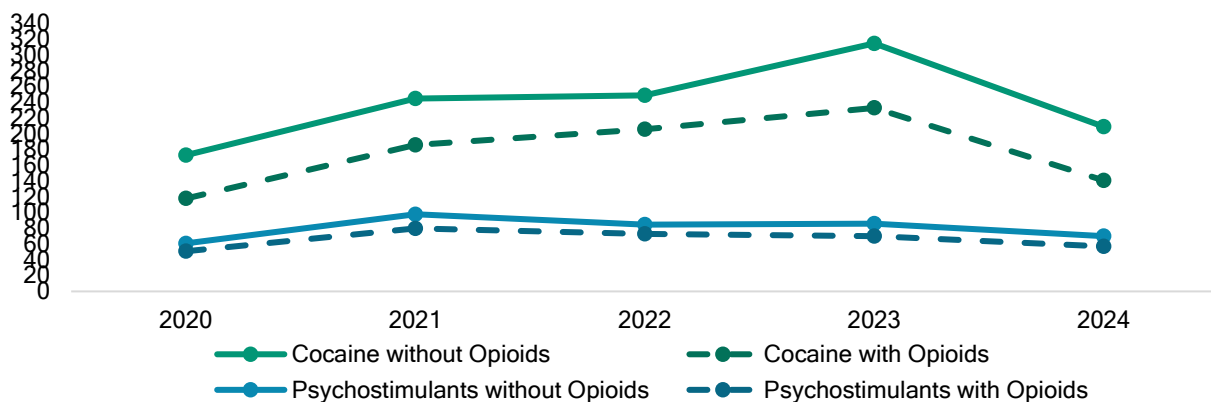
**Figure 11. Number of Unintentional Drug Overdose Deaths Involving Select Drugs in Cuyahoga County, 2020-2024**



Note: Overdose deaths usually involve a combination of drugs. Individual deaths may be reported in more than one category.

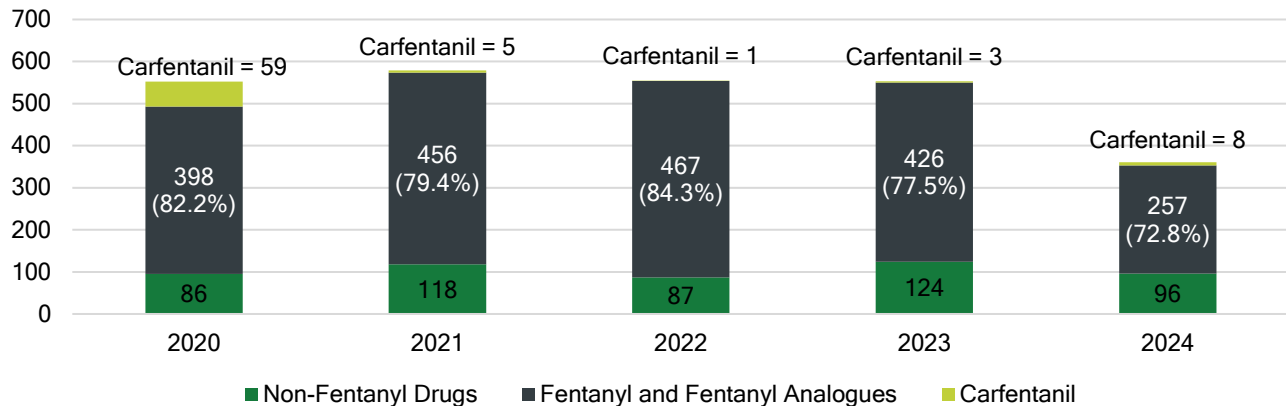
- Between 2023 to 2024, the number of cocaine-related UDOD without opioid involvement decreased 34% and those that involved an opioid decreased 39%.
- From 2023 to 2024, UDOD related to psychostimulants decreased 19%, both with and without the presence of opioids.

**Figure 12. Number of Unintentional Drug Overdose Deaths Involving Select Drug Combinations in Cuyahoga County, 2020-2024**



- Fentanyl and fentanyl analogs continue to drive UDOD in CC. In 2024, there were 257 UDOD involving fentanyl or fentanyl analogs, contributing to nearly 73% of UDOD. The number of UDOD related to the fentanyl analog carfentanil peaked in 2020 at 59 deaths. Carfentanil contributed to 8 fentanyl-related UDOD 2024.

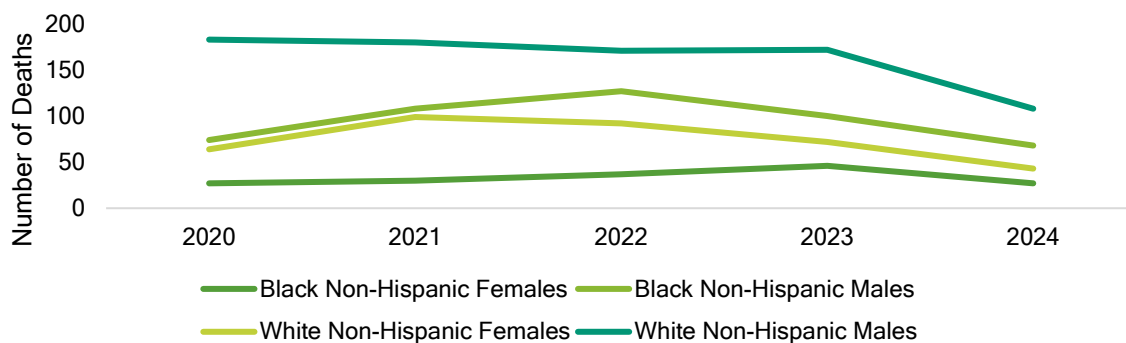
**Figure 13. Number and Percentage of Fentanyl-Related Unintentional Drug Overdose Deaths in Cuyahoga County, 2020-2024\***



Note: Overdose deaths usually involve a combination of drugs. Individual deaths may be reported in more than one category. Carfentanil count shown for reference but included in fentanyl and fentanyl analogues percentage.

- Compared to 2024, preliminary 2025 data (not shown) suggest slightly different trends in the prevalent drug type groups contributing to UDOD in CC. Provisionally, fentanyl and fentanyl analogues remain a major contributor in UDOD (n=73) in 2025 but cocaine is the leading drug type associated with UDOD (n=102) for the first time. While carfentanil was a major contributor to drug deaths in the county in the past, it has diminished.<sup>25</sup> Nevertheless, carfentanil may be on the rise again as it is estimated that five deaths occurred in 2025 involving carfentanil.

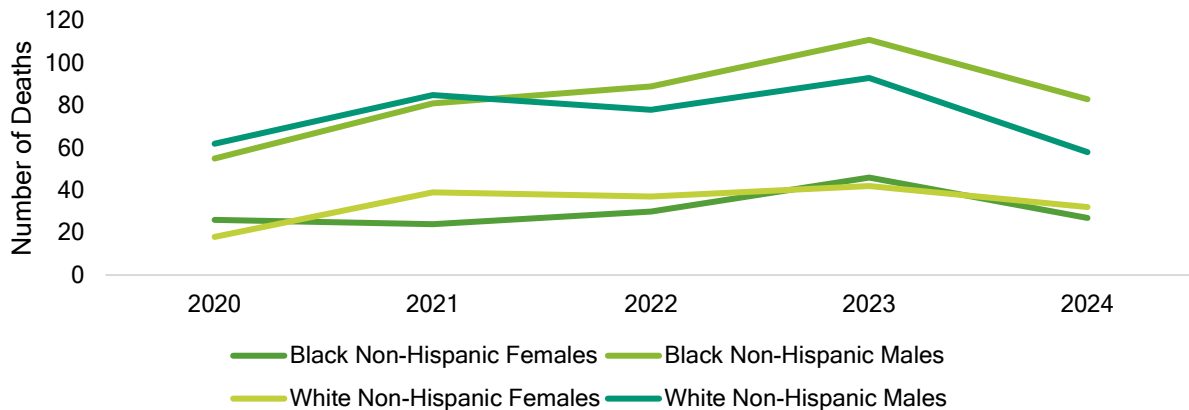
**Figure 14. Number of Unintentional Drug Overdose Deaths Involving Fentanyl by Sex and Race/Ethnicity in Cuyahoga County, 2020-2024**



- From 2023 to 2024, all sex and race/ethnicity groups experienced decreases in the number of fentanyl-related deaths.

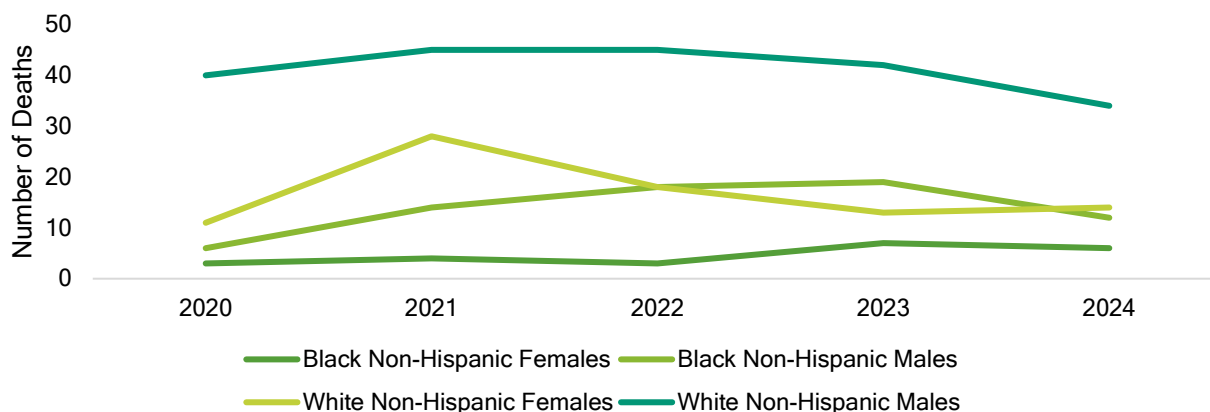
- Among Black Non-Hispanic females and males, fentanyl-related deaths decreased 41% and 32% respectively. Among White Non-Hispanic females and males, fentanyl-related deaths decreased 40% and 37%, respectively.

**Figure 15. Number of Unintentional Drug Overdose Deaths Involving Cocaine by Sex and Race/Ethnicity in Cuyahoga County, 2020-2024**



- From 2023 to 2024, the number of cocaine-related deaths decreased across all sex and race/ethnicity groups, with the largest decrease (41%) among Black Non-Hispanic females.
- Black Non-Hispanic males experienced the highest number of cocaine-related deaths in 2024.

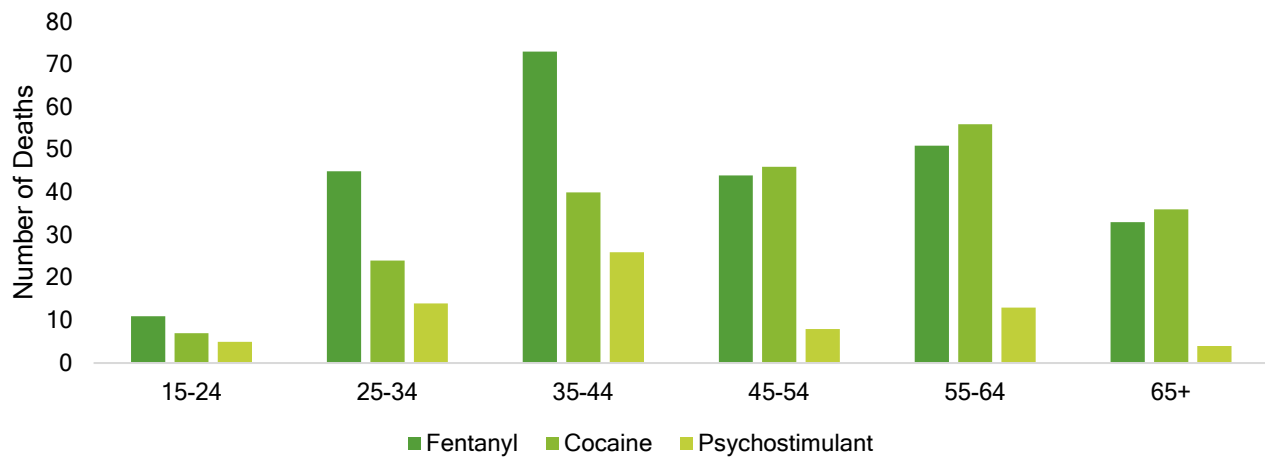
**Figure 16. Number of Unintentional Drug Overdose Deaths Involving Psychostimulants by Sex and Race/Ethnicity in Cuyahoga County, 2020-2024**



- From 2023 to 2024, psychostimulant-related deaths decreased across all sex and race/ethnicity groups except for White Non-Hispanic females (8% increase).

- From 2023 to 2024, psychostimulant-related deaths among Black Non-Hispanic females and males decreased 14% and 37%, respectively.
- In 2024, psychostimulant-related deaths remained highest among White Non-Hispanic males.

**Figure 17. Number of Unintentional Drug Overdose Deaths Involving Select Drugs by Age, Cuyahoga County, 2024**

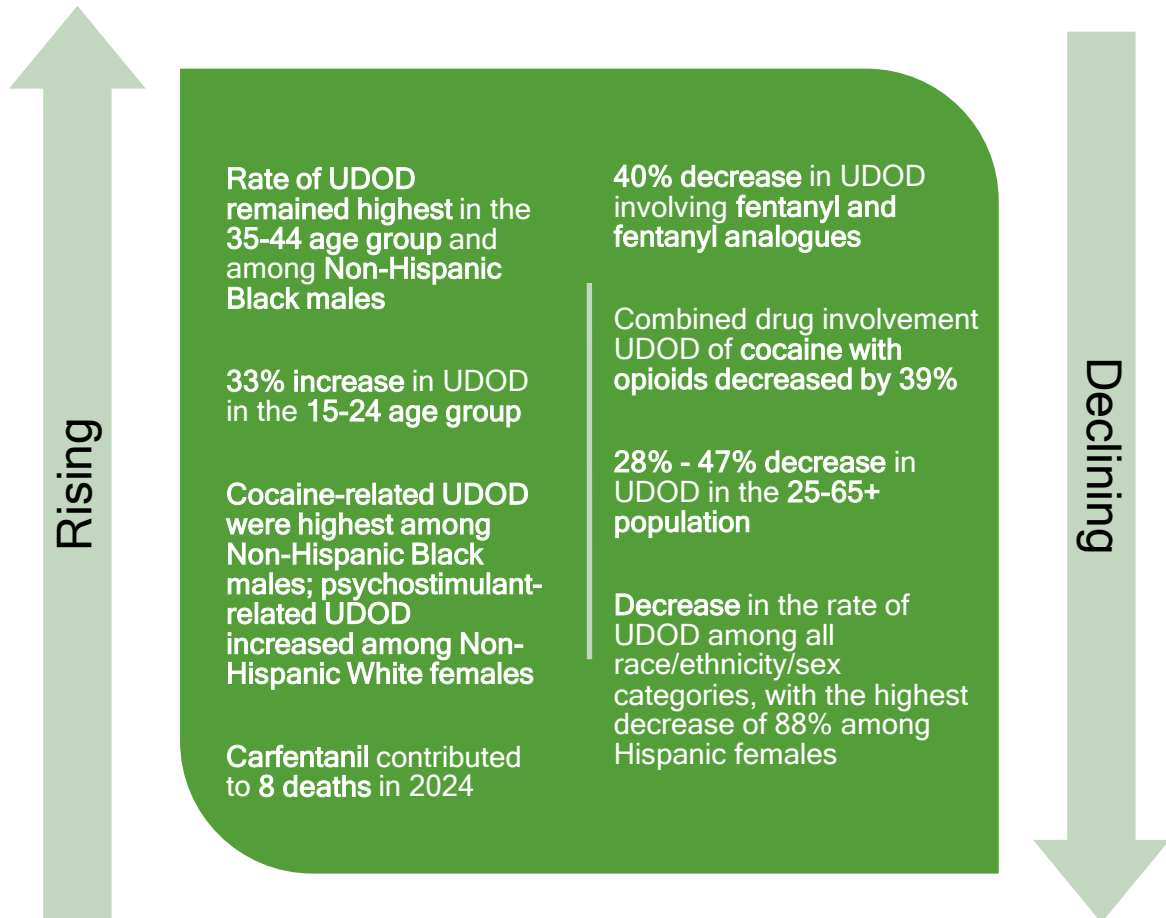


- In 2024, illicit fentanyl was involved in the majority of unintentional drug overdose deaths among those between the ages of 15-44 years. Fentanyl involvement was highest among the 35-44 years old age group (n=73) and lowest among those in the 15-24 years old age group (n= 11).
- Cocaine involvement appeared to increase with age. In 2024, cocaine-related deaths were highest among those in the 55-64 age group (n=56).
- Psychostimulant-related deaths were highest among the 35-44 age group (n=26).

## DRUG OVERDOSE MORTALITY—SUMMARY

Based on the mortality data presented above, there are specific sub-populations to prioritize for prevention efforts:

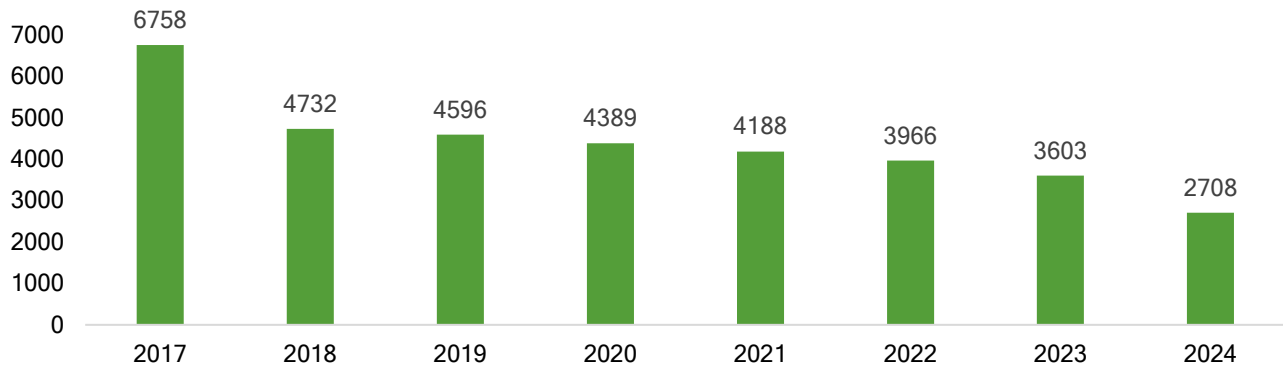
*From 2023 to 2024:*



## DRUG OVERDOSE MORBIDITY—TOTAL EMERGENCY DEPARTMENT VISITS

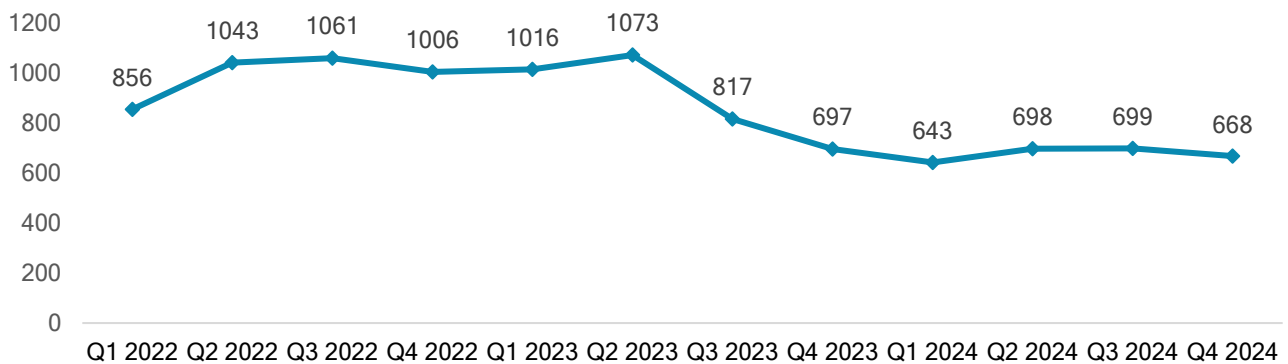
- In 2024, there were 2,708 emergency department (ED) visits for suspected drug overdoses in CC. This was a 25% decrease in the number of ED visits from 2023.

**Figure 18. Number of Emergency Department Visits for All Suspected Drug Overdoses, Cuyahoga County 2017-2024**



- In 2024, the highest volume of ED visits occurred between April and September, with the highest number of visits (n = 699) occurring in Q3.

**Figure 19. ED Visits for All Suspected Drug Overdoses by Quarter, Cuyahoga County 2022-2024**



## DRUG OVERDOSE MORBIDITY–ED VISIT DEMOGRAPHIC AND GEOGRAPHIC ANALYSES

- From 2023-2024, the 35-49 years old age group accounted for 27% (n = 1,691) of ED visits for suspected drug overdose, followed by 25-34 year olds, accounting for 22% (n = 1,382) of visits. The average age of a person visiting an ED for a suspected drug overdose was 41.4 years.
- Males were more likely to visit the ED for a suspected drug overdose compared to females (56.6% vs 43.4%, respectively).
- Whites race individuals were more likely to visit the ED for suspected drug overdose compared to those of Black race (50.1% vs 37.9%, respectively).

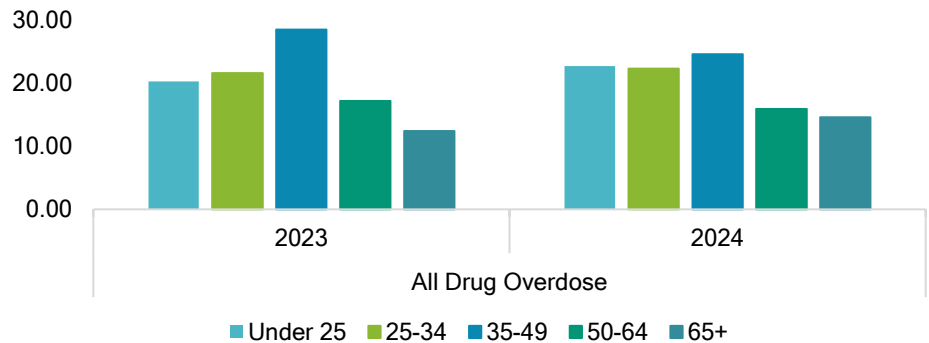
**Table 13. Demographics for ED Visits Due to All Drug Overdose, Cuyahoga County, 2023-2024**

|                                  | 2023-2024 ED Visits |        |
|----------------------------------|---------------------|--------|
| Age Group                        | N                   | %      |
| <12                              | 316                 | 5.0    |
| 12-17                            | 352                 | 5.6    |
| 18-24                            | 677                 | 10.7   |
| 25-34                            | 1,382               | 21.9   |
| 35-49                            | 1,691               | 26.8   |
| 50-64                            | 1,050               | 16.6   |
| 65+                              | 843                 | 13.4   |
| Total                            | 6,311               | 100    |
| Sex                              |                     |        |
| Male                             | 3,562               | 56.6   |
| Female                           | 2,731               | 43.4   |
| Total                            | 6,293               | 100    |
| Race                             |                     |        |
| White                            | 3,177               | 50.3   |
| Black                            | 2,389               | 37.9   |
| Other                            | 706                 | 11.2   |
| Unknown                          | 39                  | 0.6    |
| Total                            | 6,311               | 100    |
| Mean and Median Age of ED Visits | Mean                | Median |
|                                  | 41.4                | 38.0   |

**2023-2024 Demographic Breakdown - All Drug Overdose:** The demographic breakdown of ED visits related to drug overdose for 2023 and 2024 show a similar pattern as the aggregate 2023-2024 data (see Figures 20-22).

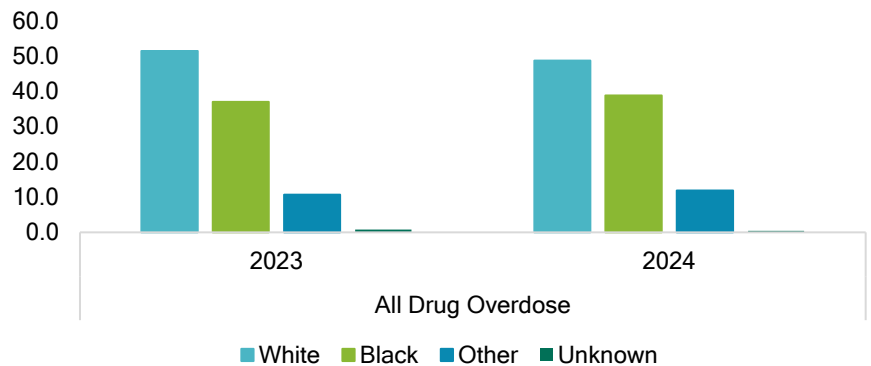
- Collectively, the greatest number of drug overdoses occurred among White males, ages 35-49 years.

**Figure 20. Percentage of ED Visits for Overdose by Age, Cuyahoga County 2023-2024**



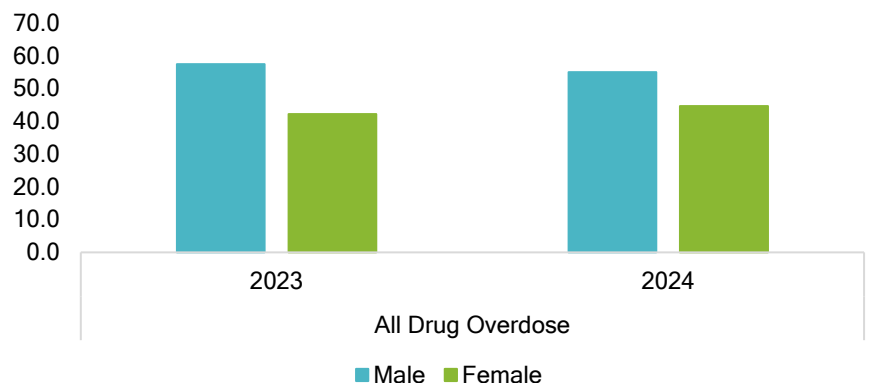
- Among Whites, the percentage of ED visits decreased (51.5% vs 48.8%) while the percentage of ED visits among Blacks increased (37.1% vs 38.9%).

**Figure 21. Percentage of ED Visits for Overdose by Race, Cuyahoga County 2023-2024**



- Among males, the percentage of ED visits decreased (57.5 % vs 55.0%) while increasing for females (42.2% vs 44.7%) from 2023 to 2024.

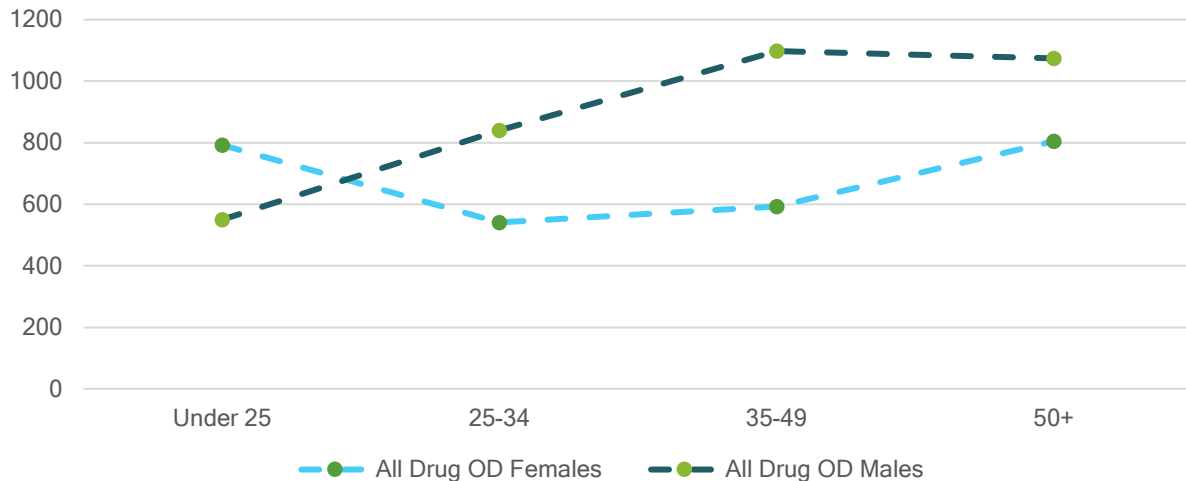
**Figure 22. Percentage of ED Visits for Overdose by Sex, Cuyahoga County 2023-2024**



### Sex and Age Breakdown - All Drug Overdose:

- Males had a higher number of all drug overdose ED visits than females in all age categories except for the under 25 age group.
- The 35-49 male age group had the highest number of ED visits (n = 1,098) followed by the 50 and over male age group (n = 1,074).

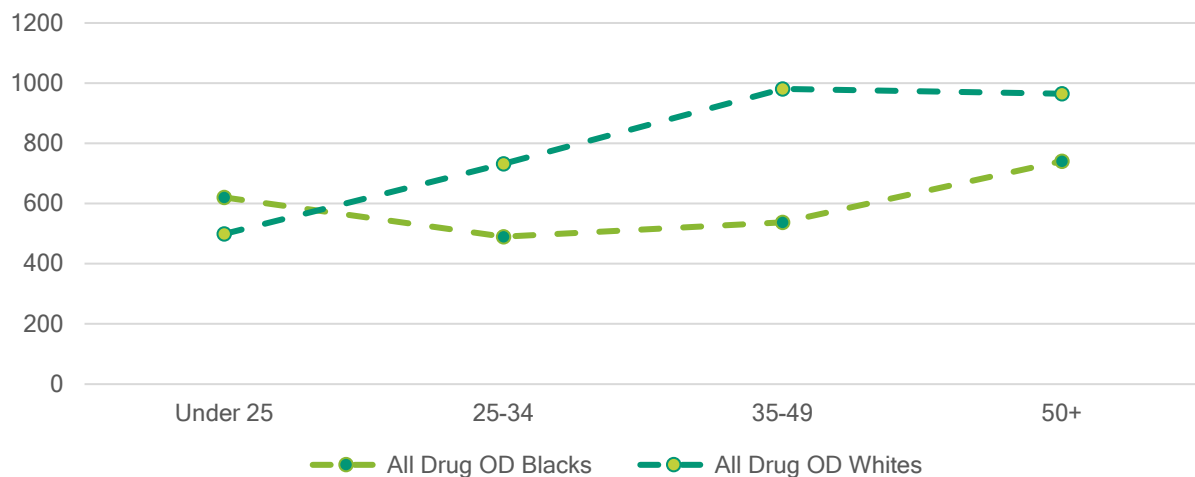
**Figure 23. Number of All Drug Overdose ED Visits by Age and Sex, Cuyahoga County 2023-2024**



### Race and Age Breakdown - All Drug Overdose:

- Whites had the highest number of ED visits due to all drug overdose in the 35-49 age group with 981 and the 50 and over age group with 965 visits.
- Among Blacks, the highest number of ED visits occurred in the 50 and over age group with 741 visits followed by the under 25 age group with 620 visits.

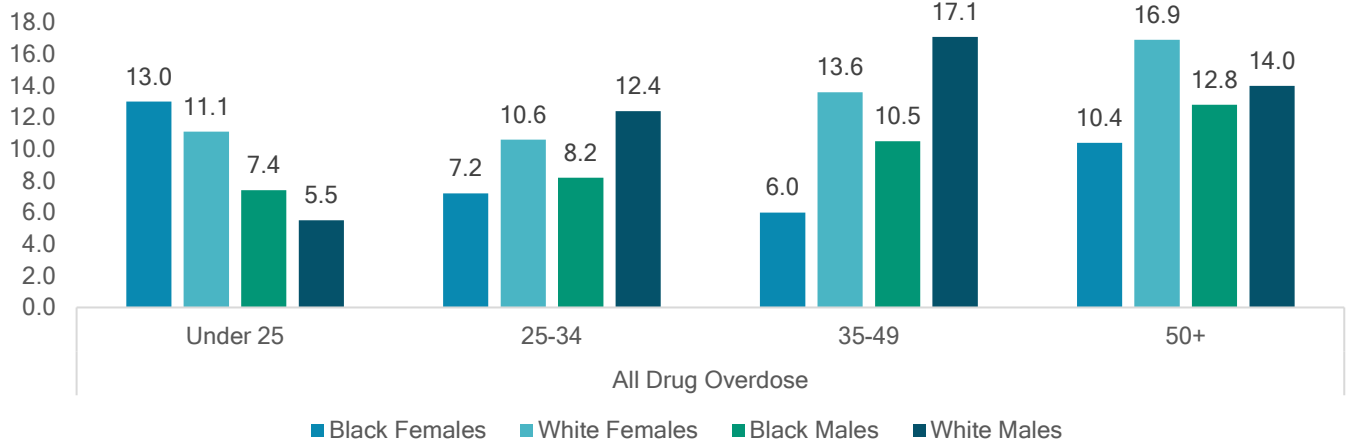
**Figure 24. Number of All Drug Overdose ED Visits by Age and Race, Cuyahoga County 2023-2024**



### Sex, Age and Race Breakdown - All Drug Overdose:

- Among Whites, the highest prevalence of ED visits for males was the 35 to 49 age group (17.1%) and for females was the 50 and over age group (16.9%).
- Among Blacks, the highest prevalence of ED visits was in the under 25 age group for females (13.0%) and 50 and over age group for males (12.8%).

**Figure 25. Percent of ED Visits in Cuyahoga County by Age, Sex, and Race, 2023-2024**



### Age-Specific Rates with Sex and Race Breakdown - All Drug Overdose:

- The age-specific rates shown in Table 14 tell a different story than the prevalence data above.
- Black males had the highest age-specific rate across all age groups except the under 25 group. Black females had the highest age-specific rate for the under 25 age group.
- Among Whites, males had higher age-specific rates than females in all age groups except the under 25 age group.
- Black females had a higher age-specific rate compared to White females across all age categories except the 35-49 age group.

**Table 14. Age-Specific Rates for ED Visits for All Drug Overdose, Cuyahoga County, 2023-2024**

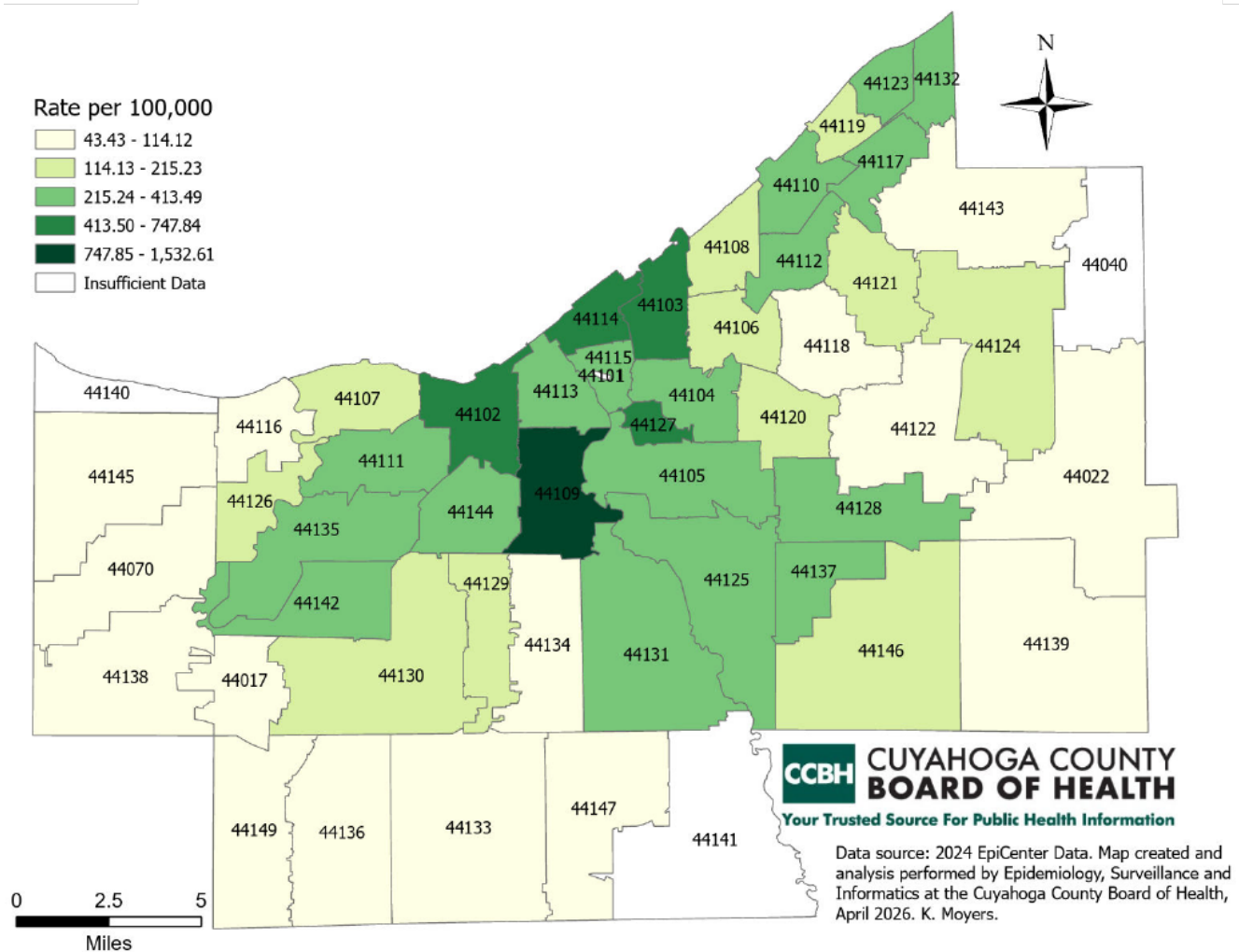
|                  | Black Females | White Females | Black Males | White Males |
|------------------|---------------|---------------|-------------|-------------|
| <b>Age Group</b> |               |               |             |             |
| Under 25         | 40.7          | 25.9          | 30.2        | 16.0        |
| 25-34            | 18.9          | 16.1          | 35.5        | 23.9        |
| 35-49            | 22.1          | 28.4          | 63.3        | 46.3        |
| 50 and Over      | 11.5          | 7.9           | 24.8        | 9.8         |

Rates per 100,000 population

Note: The rates presented are age-adjusted to the 2000 U.S. standard population to allow comparisons between different populations.

- Understanding where overdose-related ED visits are occurring is important for planning prevention and community outreach to reach those most in need of services. The map (Figure 26) shows the rate of ED visits by zip code using 2024 EpiCenter data.
- The CC zip codes with the highest rates of ED visits due to all drug overdose were 44109 (1532.6 per 100,000 population) and 44114 (747.8 per 100,000 population). Although their rates decreased from 2023, both the 44109 and 44114 zip codes remain high burden areas.

**Figure 26. Rate of ED Visits for All Drug Overdose by Zip Code in Cuyahoga County, 2024**



### 2025 At-A-Glance and Epi-Alerts:

- In 2025, there were 3,282 ED visits for all drug overdose, which is a 21% increase from 2024.
- July represented the month with the highest number of ED visits for all drug overdoses in 2025, whereas in 2024 October had the highest number of ED visits.
- Trends by age, sex, and race in 2025 preliminary data (not shown) are similar to those observed in 2024 data. Collectively, White males ages 35-49 reported the highest number of ED visits for all suspected drug overdose.

**Table 15. Number of ED Visits for suspected drug overdose: 2024 and 2025\***

|              | 2024         | 2025*        |
|--------------|--------------|--------------|
| January      | 184          | 249          |
| February     | 224          | 244          |
| March        | 235          | 252          |
| April        | 230          | 273          |
| May          | 231          | 299          |
| June         | 237          | 267          |
| July         | 246          | 346          |
| August       | 238          | 292          |
| September    | 215          | 256          |
| October      | 252          | 291          |
| November     | 200          | 255          |
| December     | 216          | 258          |
| <b>Total</b> | <b>2,708</b> | <b>3,282</b> |

\*2025 data are preliminary and subject to change

- Epi-Alerts are administered when there is a verified spike in the number of ED visits for suspected drug overdoses. A spike occurs when the number of ED visits is greater than expected by four standard deviations in a 24-hour period.
- Based on data from 2020 to 2025 (excluding 2021 when the system was inactive) Cuyahoga County averages four Epi-Alerts per year, and their frequency is decreasing.
- Epi-Alerts had routinely occurred at least quarterly from 2020 to 2023. This pattern changed in 2024.
- In 2024, three Epi-Alerts occurred in quarter one, then no further occurred in 2024 nor throughout 2025.

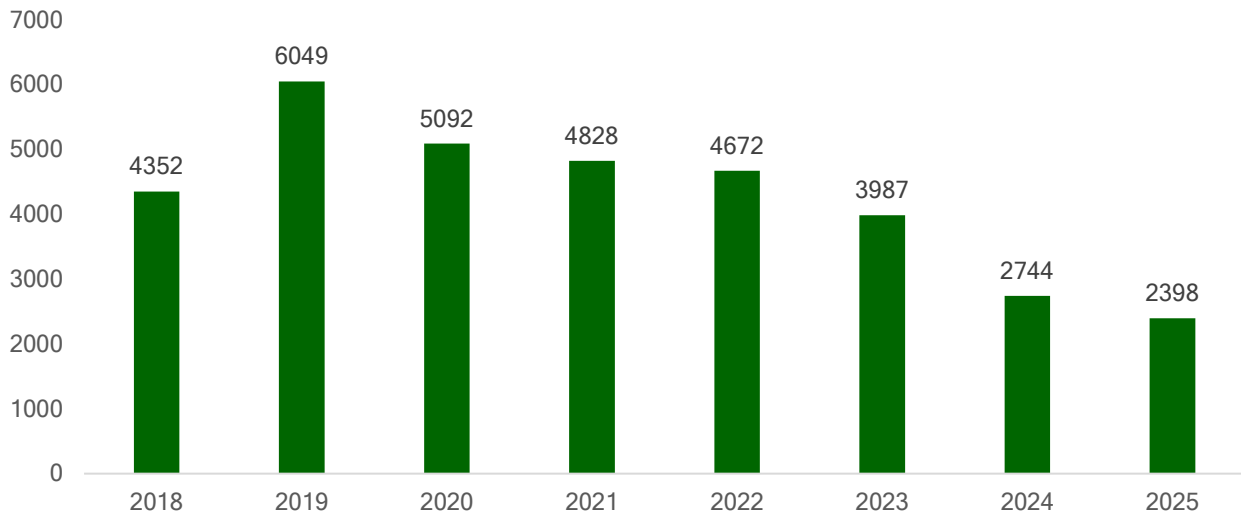
**Table 16. Epi-Alerts Administered Due to Suspected Drug Overdose, 2020-2025**

| Q1                                             |           |           | Q2       |          | Q3        |           | Q4         |
|------------------------------------------------|-----------|-----------|----------|----------|-----------|-----------|------------|
| 2020                                           |           |           |          |          |           |           |            |
| 1/15/2020                                      | 2/1/2020  |           | 4/1/2020 | 6/8/2020 | 7/25/2020 | 7/29/2020 | 12/19/2020 |
| 2021                                           |           |           |          |          |           |           |            |
| Epi-Alerts inactive Q1-Q3 due to system change |           |           |          |          |           |           | 11/8/2021  |
| 2022                                           |           |           |          |          |           |           |            |
| 1/22/2022                                      |           |           | 4/1/2022 |          | 7/12/2022 |           | 11/28/2022 |
| 2023                                           |           |           |          |          |           |           |            |
| 1/1/2023                                       | 3/2/2023  |           | None     |          | 7/5/2023  |           | 11/12/2023 |
| 2024                                           |           |           |          |          |           |           |            |
| 2/12/2024                                      | 2/28/2024 | 3/19/2024 | None     |          | None      |           | None       |
| 2025                                           |           |           |          |          |           |           |            |
| None                                           |           |           | None     |          | None      |           | None       |

## DRUG OVERDOSE MORBIDITY—EMS MEDICAL SERVICES NALOXONE ADMINISTRATION

- Between 2018 and 2025, there were 34,122 doses of naloxone administered by EMS providers in CC as reported by EMSIRS. From 2024 to 2025, there was a 13% decrease in the number of naloxone administrations.

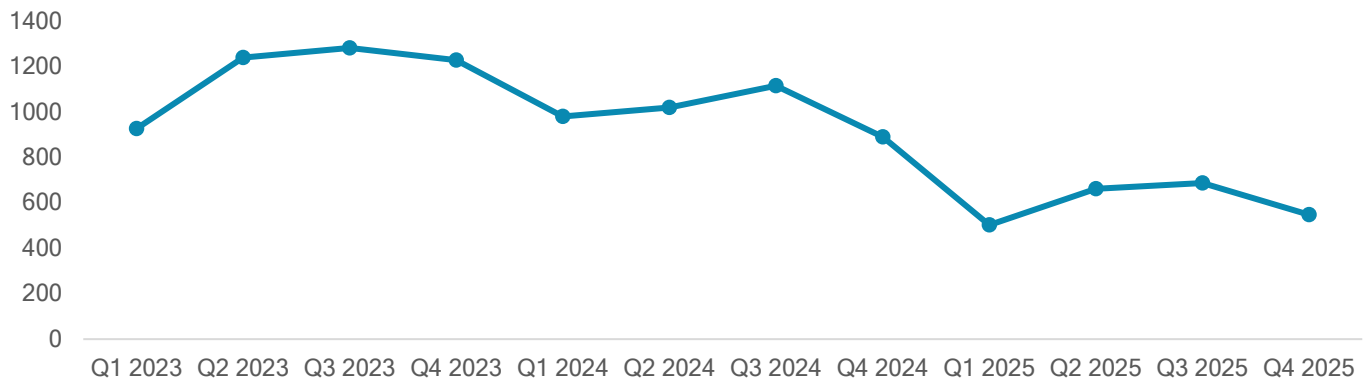
**Figure 27. EMS Naloxone Administrations in Cuyahoga County, 2018-2025\***



\*2025 data are preliminary and subject to change

- Similar to previous years, in 2025 EMS naloxone administrations were highest in quarter 3 (n = 686) followed by quarter 2 (n = 662).

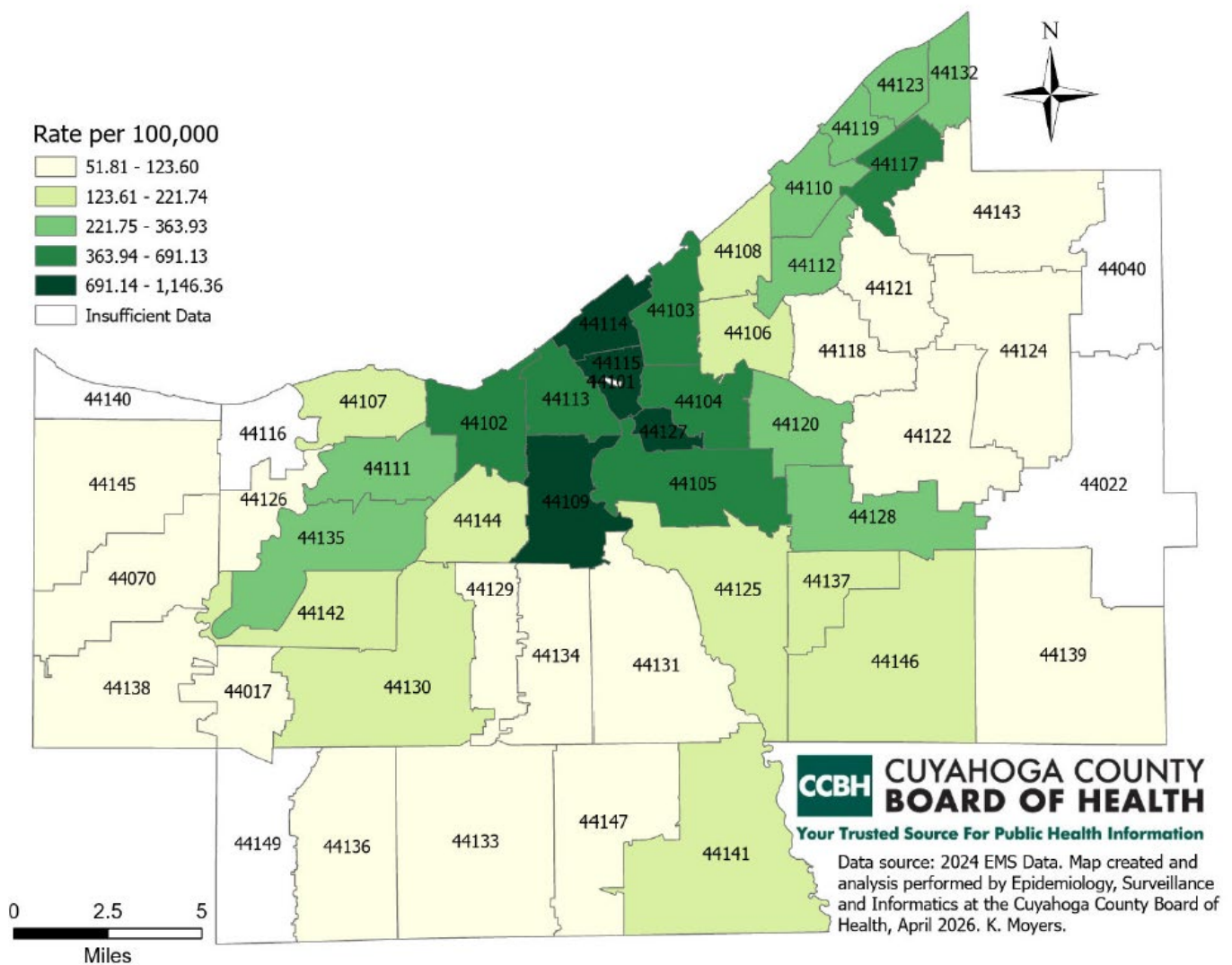
**Figure 28. EMS Naloxone Administrations by Quarter in Cuyahoga County, 2023-2025\***



\*2025 data are preliminary and subject to change

- Understanding where naloxone administrations by EMS are occurring most frequently per capita is important for evaluating areas that may need increased access to community naloxone distribution sites. The map (Figure 29) shows rates of EMS naloxone administrations by zip code based on 2024 Ohio EMSIRS data.
- In 2024, the five zip codes with the highest rate of EMS naloxone administrations were: 44115, 44114, 44127, 44109, and 44103. These zip codes had a rate of 690 or more naloxone administrations per 100,000 population, with the highest rate of 1,146.36 per 100,000 populations in zip code 44115.

Figure 29. Rate of EMS Naloxone Administrations by Zip Code in Cuyahoga County, 2024

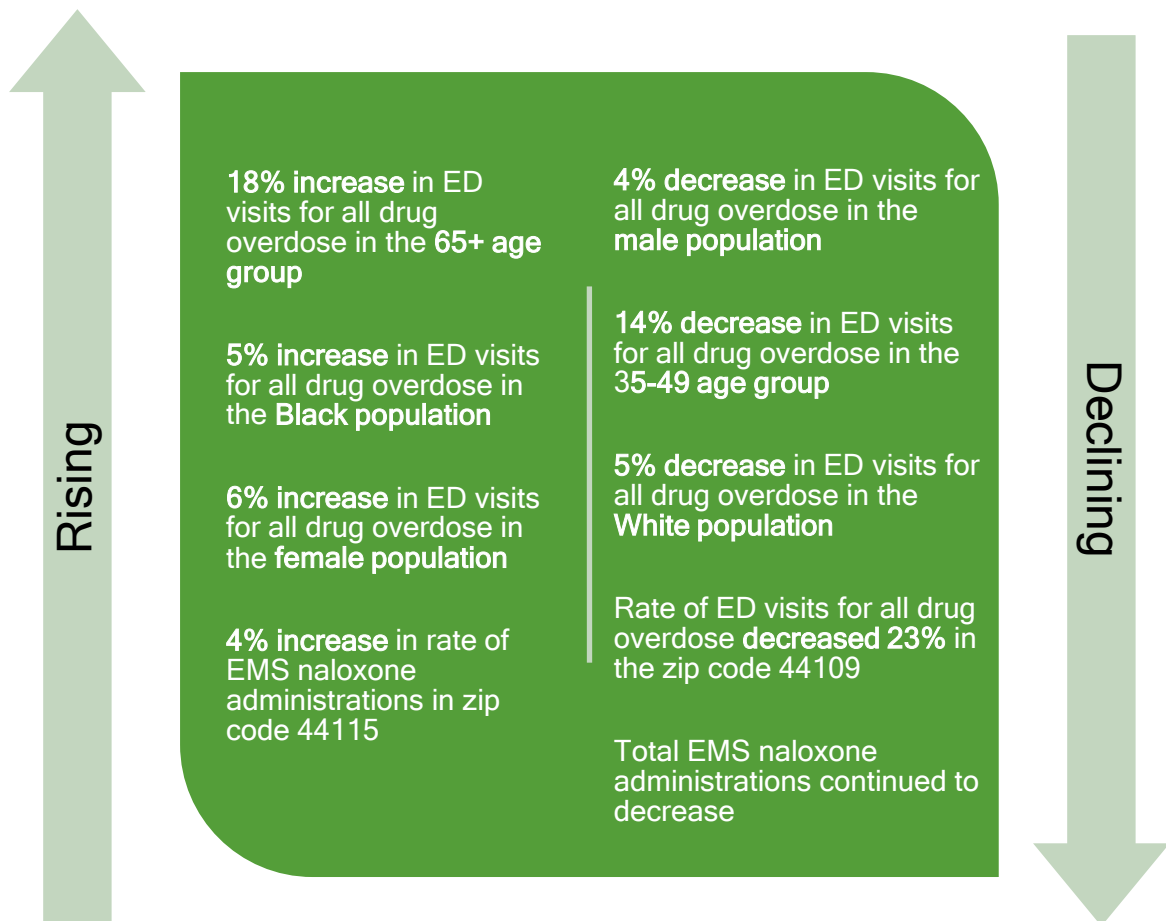


\*Not all EMS agencies report to EMSIRS. The accuracy of data reported to EMSIRS is limited by the number of individual EMS agencies submitting data and the accuracy of these submissions.

## DRUG OVERDOSE MORBIDITY—SUMMARY

Based on the morbidity data presented above, there are specific sub-populations to prioritize for prevention efforts:

*From 2023 to 2024:*



## DRUG OVERDOSE MORBIDITY–SUMMARY (CONT.)

- Rate-specific data showed a notable difference from count prevalence data for 2023-2024 as far as racial groups at risk for visits to the ED due to suspected drug overdose:
  - Although White males had the highest prevalence of ED visits for suspected drug overdose, Black males had the highest age-specific rates across all age groups, except the under 25 age group where black females show the highest rate.
- Morbidity analyses showed specific geographic areas of concern. The City of Cleveland has both the highest rates of ED visits due to suspected drug overdose and EMS naloxone administrations.
  - Specific zip codes of concern for ED visits include: **44109**, **44114**, 44102, **44127**, and **44103**.
  - Specific zip codes of concern for EMS naloxone administrations include: 44115, **44114**, **44127**, **44109**, and **44103**.
- EMS naloxone administration data largely parallel ED visit data in terms of annual and quarterly trends. The number of naloxone doses administered by EMS has decreased since 2019 and suspected ED visits for drug overdoses have decreased since 2017 in Cuyahoga County.

## FINAL THOUGHTS

This Integrated Epidemiologic Profile provides guidance for drug overdose prevention and control efforts by combining multiple data sources and identifying populations most affected in Cuyahoga County.

In 2024, 40% of unintentional deaths in Cuyahoga County were due to drug overdose. Recent trends show that males were consistently more likely to die from an UDOD and visit the ED for a suspected drug overdose than females.

Non-Hispanic Black males had the highest rate of UDOD in 2024. The Hispanic population experienced a decrease in UDOD from 2023-2024.

Vital statistics data showed that 73% of all 2024 UDOD involved fentanyl and/or fentanyl analogues, which is a decrease from 2023.

ED visit data suggest that targeted interventions should prioritize Black males 25 and older, Black females under 25, and White males age 35-49.

Naloxone distribution is an important strategy used to combat opioid overdose-related deaths in Cuyahoga County. Naloxone administration by EMS continues to decrease.

Geographic analyses of Vital Statistics, EpiCenter, and EMS data were conducted and showed that the City of Cleveland is a high burden area for drug overdose in Cuyahoga County. The top zip code for rates of UDOD and ED visits due to suspected drug overdose in 2024 was 44109, which was also among the top five for EMS naloxone administrations.

Based on these findings, increasing community-based overdose prevention resources in these areas and prioritizing outreach to these subpopulations could improve UDOD prevention.

We hope that this comprehensive report drives discussion, direction, and action to identify and assist individuals in Cuyahoga County that are at highest risk for drug overdose.

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