

What Should I Know Before Using Overdose Data?

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OVERDOSE DATA CONSIDERATIONS

Injury and Violence Prevention Branch (IVPB) overdose data can be used in many ways, from identifying risks, tracking trends, and developing effective prevention strategies, to supporting advocacy, funding decisions, and public awareness campaigns. This document outlines what you should know and consider before using IVPB overdose data resources.

Language Matters

The language used to describe and communicate overdoses has important impact on overdose prevention.

Negative language can contribute to stigma.

Stigma is when someone is viewed in a negative way because of particular characteristics or attributes, like their skin color, culture, substance use, or mental illness.

Negative language and stigma about substance use can make it harder for people who use drugs to ask for help or get the support they need.

- Stigmatizing words such as “addict” reduce a person to only their drug use.
- Not everyone who uses drugs has a substance use disorder or requires treatment.
- Referring to people who use drugs and talking about substance use disorder in a more accurate and humanizing way can reduce stigma and help people receive appropriate treatment or other supports.

For more information on suggested language to use, words and phrases to avoid when talking about overdose and substance use, and other ways to address stigma, visit [Stop the Stigma](#).

More information on stigma and overdose is also available at:

- [Unshame NC](#)
- [Centers for Disease Control and Prevention, Stigma Reduction](#)

Using Provisional Data

Several overdose data resources, including the [Monthly Overdose Reports](#) and the [Interactive Overdose Data](#) use provisional data to:

- Share information about overdoses in NC quickly.
- Spot changes in overdose trends before the final data are available.
- See patterns that help us know when to take action.



Provisional numbers can change as more information becomes available.

- Provisional data should be used carefully because there may be missing information or delays in reporting.
- Provisional data become available at different times for different data sources.
 - There are longer delays for death certificate data (at least 6 months). This is because of the time it takes to investigate deaths and assign a cause of death (ICD-10 code).
- IVPB uses provisional indicators from the NC Office of the Chief Medical Examiner (OCME) to monitor the most recent changes in overdose deaths.
 - Proxy measures from provisional OCME data can help monitor likely changes in overdoses before death certificate data are coded.

For more information on provisional data and when they become available, visit [Using Provisional Data for Monitoring Injuries](#). For information specific to overdose, visit [Using Provisional Overdose Data](#).



Delays in coding death certificates can make it seem that overdose deaths declined more than they actually did. Or the delays may make it seem that an increase in overdose deaths was not as large as it actually was.

Differences Between IVPB Data and Data from Other Sources

There can be differences between overdose data IVPB shares and data shared by the Centers for Disease Control and Prevention (CDC), as well as data shared by other NC agencies.

These differences can be caused by differences in:

- Case definitions
- Data source
- Time period of data
- Whether the data are provisional or final.

IVPB epidemiologists consult with national leaders, state data providers, and other experts to be sure they are counting injuries and overdoses as accurately as possible using NC data.

For more information on why there are differences and specific examples, visit [Understanding Differences in Data Reported by IVPB and Data Reported by Other Sources](#).

How Overdoses are Measured

Who Is Included in Overdose Data?

Occurrence vs Residence When Measuring Overdose

Occurrence describes where something happened. Residence describes the area where someone has reported that they live.

Residence Rates

Most overdose metrics are limited to overdoses among NC residents. County-level data are limited to county residents.

- Limiting to residents allows for rate calculations using NC resident population estimates.
 - This ensures that the information used to calculate rates is consistent.
 - Limiting to residents allows for more accurate comparisons across groups and between counties.
- This excludes people that overdose in a county but are not residents of that county.
 - Someone living in a county, but who has not yet updated their residence status to that county would also be excluded.
- While limiting to county residents works well for most counties, there are some counties where this limitation has a large impact on the local overdose rate.

Occurrence Rates

- Occurrence rates include all overdoses that happened in a given area, regardless of whether the individuals were residents of that area.
- For counties with lots of people coming and going, the occurrence rate is often higher than the resident rate. This is especially true for:
 - Counties with college towns.
 - Counties that have popular tourist destinations, or beach towns.
 - Counties or areas with large populations of people experiencing homelessness.
- Limiting to residents would exclude these transient populations and can underestimate the burden of overdose on local systems.
- Counting cases based on where they happen rather than where people live helps us understand how overdose affects local systems and services and can inform local overdose prevention planning.

Injury Location

Where an overdose death occurs can be different from where the injury occurred. This distinction can also impact differences in occurrence vs resident rates of overdose injury and death.

- This distinction is especially true in rural areas where a single hospital or health care facility may serve a large area across multiple counties.
- Someone may overdose in one county and then be transported and later die in a hospital in another county.
 - This transfer of care to another county is common for people with serious injuries that require treatment at a designated trauma center.

For more information on overdose case definitions, visit [Understanding Injury Surveillance Case Definitions](#).

What Is Counted in Overdose Data?

The types of substances that are included can differ between overdose metrics.

- Some overdose metrics include information on overdoses of all intents (e.g. unintentional, undetermined, self-inflicted, assault).
- Some metrics are limited by intent.
- Some metrics include specific types of overdoses (e.g. fentanyl overdose, heroin overdose, benzodiazepine overdose).

What is included when measuring overdoses depends on the case definition and the data source being used. These differences are outlined in more detail in the data source specific considerations sections below.

- For more information, visit [Understanding Injury Surveillance Case Definitions](#).
- For more detail on the specific case definitions and metrics IVPB uses, visit [NC IVPB Injury Surveillance Case Definitions](#).

What Else is Measured to Monitor the Impacts of Substance Use?

Substance Use

IVPB monitors the impacts of substances that can alter a person's mental or physical state, including:

- Illegal drugs like cocaine, heroin, methamphetamine, and illicitly manufactured fentanyl.
- Legal substances like prescription medications that may be used inappropriately.
 - Someone misusing their own prescription medications.
 - Using someone else's prescription or taking a prescription medication without a doctor's prescription.

There are other substances IVPB does not include in overdose surveillance, like alcohol (ethanol), cannabis, and tobacco (nicotine).

- While these substances do alter a person's mental or physical state and do cause negative health outcomes, they are not the focus of overdose surveillance.
- IVPB monitors some of these substances separately from overdose surveillance.
 - IVPB does track drug overdoses that also involve alcohol.

Alcohol

- Alcohol is a substance that kills more people than drug overdose each year.
- IVPB also monitors alcohol deaths that do not involve other drugs as well as the overall impacts of alcohol use.
- For more information, visit [NC Alcohol Use and Related Harms Prevention](#).

Cannabis

- It is very rare for someone to die from using only cannabis (without the use of other drugs), but using cannabis can still cause many health problems.
- IVPB has collaborated with NC DETECT to establish case definitions to identify ED visits related to cannabis use.
 - These definitions offer a baseline to monitor any health impacts caused by future cannabis legislation changes.
 - ICD-10-CM codes used to classify cannabis-related ED visits are general. They include ED visits where cannabis was a primary reason for the visit, when cannabis use may have been a contributing factor, and if there was a history of cannabis use.
 - For more information on the type of ED visits involving cannabis, groups impacted, and how the cannabis case definition was validated, visit NC DETECT's [Mental & Behavioral Health Syndrome Validation Report](#).
- For more information on the impacts of cannabis products, visit [Looks can be deceiving: Keeping Kids Safe from Cannabis Edibles](#).

Tobacco

- IVPB does not focus on the impact of tobacco use. This work is conducted by the [NCDHHS Tobacco Prevention and Control Branch](#).

- The Tobacco Prevention and Control Branch leads efforts to:
 - Prevent initiation of tobacco/nicotine use.
 - Eliminate exposure to secondhand smoke and secondhand aerosol.
 - Promote quitting tobacco/nicotine among adults and youth
 - Understanding differences to identify and eliminate commercial tobacco product-related disparities among NC populations and communities.

Drug Withdrawal in Newborns

IVPB does not directly monitor drug withdrawal in newborns.

- The rate of newborns diagnosed with drug withdrawal symptoms is monitored by the [NCDHHS Title V Maternal and Child Health Block Grant Program](#).

Not all drug withdrawal among newborns is due to illicit drug use.

- Some infants go through withdrawal because their parent was taking medications prescribed during pregnancy.
- Continuing medications like methadone and buprenorphine is currently recommended to treat opioid use disorder during pregnancy.

For data on drug withdrawal in newborns, visit the [NC Maternal and Infant Health Data Dashboard](#).

Considerations for Using Overdose Data by Data Source

No single data source captures the full scope of the overdose burden in NC. Data sources should be used together to fully understand the statewide impact of overdose.

Overdose Death Data

Intent of Overdose Deaths within Death Certificate Data

The case definition used to identify overdoses in the death certificate data includes overdoses of all intents.

- While most (95%) of the overdose deaths in NC are unintentional, the overdose death case definition also includes overdoses of undetermined intent and self-inflicted overdoses.
 - Self-inflicted overdoses are also included in self-inflicted injury and suicide metrics.
- For more information, see the [Changes in Overdose Death Data, Intent of Overdose Deaths](#) section below.
- For more information on injury intent, visit [Injury Mechanism and Intent](#).

Understanding Substances Involved in Overdose Deaths

Most overdose deaths involve polysubstance use, or the use of multiple substances together.

- We can't know from death data whether someone was intentionally using multiple substances, or if their polysubstance use was unintended.
 - For example, someone might not know the stimulant they used also contained fentanyl.

The OCME tests for substances involved in overdose deaths during their investigations.

- The OCME Toxicology Laboratory is the only Postmortem laboratory in NC and performs testing on approximately 15,000 cases a year.
 - The OCME Toxicology Laboratory is accredited by the College of American Pathologists, Laboratory Accreditation Program.

- The OCME currently uses the following testing strategy related to overdose deaths.
 - **Drug Screen: Basic** — Tests for 29 common drugs and is added to select cases where the cause of death is already known.
 - **Drug Screen: Expanded** — Tests for almost 100 substances and is completed for all suspected overdose deaths or when the cause of death is unknown.
 - **Drug Screen: Comprehensive** — Tests for additional rare or novel substances and will only be done by pathologist request when there is reason to check for a substance not included in the initial drug screen.
- Toxicology labs can't test for every possible substance during investigations because of limits on funding, time, and staffing.
 - The OCME tests for the most common drugs and poisons, but not every possible substance that may have contributed to a person's death.
- The OCME is working on expanding the types of cases with a known cause of death that receive a Drug Screen-Basic. These deaths have not historically been included in the drug testing strategy.

Monthly Overdose Reports

- The monthly ***Fentanyl Positive Overdose Death Report*** does not include data on all overdose deaths.
 - The report uses OCME toxicology data to track deaths that tested positive for fentanyl but have not yet been confirmed with a final cause and intent of death.
 - Most overdoses in NC involve fentanyl (about 80%).
 - While fentanyl-positive deaths don't represent all overdoses, they can be used as an early estimate to monitor changes in overdose deaths when final death certificate data are not available yet.
 - This report is available statewide and at the county level.
- The ***Suspected Overdose Death Report*** can also be used as an early indicator to estimate all overdose deaths statewide.
 - This report includes deaths under investigation with reason to believe they may have been due to an overdose.
 - This report is not available at the county level.

For more information on the [Monthly Overdose Reports](#), visit [Overview of Overdose Data Resources](#).

NC State Unintentional Drug Overdose Reporting System (NC-SUDORS)

NC-SUDORS Case Definition

NC-SUDORS collects comprehensive data on overdose deaths of unintentional and undetermined intent.

- For more information see this [NC-SUDORS Flyer](#) or visit, [NC IVPB Injury Surveillance Case Definitions](#).

NC-SUDORS Circumstance Data

NC-SUDORS provides rich information on the events and factors surrounding an overdose death and highlights opportunities where intervention could save lives.

- Circumstance data is collected during the initial death investigation, often through interviews with the decedent's family and friends.
- Details about circumstances are not always known or shared with authorities during the investigation.
 - Sensitive topics, like mental health or certain health behaviors, may be underreported by or unknown to the decedent's family and friends.
 - As a result, these details may not be included in official records used to identify circumstances.
 - This means some circumstances — like mental illness — are likely more common among overdose deaths than what is reported in NC-SUDORS.

Overdose ED Visit Data

ED visit data are encounter-based, meaning that the same person may be involved in multiple ED visits during any given time period.

Data Quality

- Trends may be impacted by missing data.
- There was a large drop in the number of people going to the ED for any reason (ED utilization) starting in March 2020 when the COVID-19 stay at home order was implemented.
 - ED utilization slowly increased but remained lower than normal throughout most of that year.
 - This drop in ED utilization also impacted the number of ED visits for specific injuries, including overdoses in 2020.

Identifying Overdoses in ED visit Data

ICD-10-CM are codes used to group and classify diagnoses and reasons for health care visits in administrative health care systems, including ED visit data.

- ED visits with an ICD-10-CM code for an overdose listed anywhere in the record are included as overdose ED visits.
 - For more detailed information on how these cases are identified, see [Injury Surveillance Technical Notes](#).
- IVPB does not exclude ED visits where the patient is admitted to the hospital or visits that result in death.
 - Including ED visits resulting in hospitalization or death helps us understand the full burden of overdose and other injuries on the NC healthcare system.
 - These records are excluded in national case definitions. This variation in case definitions can contribute to differences in the number of overdose ED visits IVPB identifies compared to those shared by CDC or other sources.
- ICD-10-CM codes are intended for administrative and billing purposes, not public health surveillance.
 - External cause of injury codes used to identify overdoses and other types of injuries are not required for billing.
 - This purpose can affect which codes are or are not assigned to a record, and therefore which events are included or excluded as injury cases.
 - For more information, visit [Understanding Injury Surveillance Case Definitions](#).
- Some ED visit case definitions also search for the chief complaint and/or triage notes fields for keywords to identify overdose-related ED visits.
 - Because these definitions also use keywords, they identify more ED visits related to overdose than when using ICD-10-CM codes alone.
 - For more information, visit [Updates to Overdose ED Indicators](#).

ED Visits with Multiple Overdose ICD-10-CM Codes

- Some ED visits for overdose may receive multiple ICD-10-CM codes related to the overdose event and for other types of injuries.

Multiple Substances Involved

- There may be more than one code to describe multiple substances involved in the overdose.

Multiple Overdose Intents

- In some instances, there may be multiple codes with conflicting overdose intent information, like a code for unintentional drug overdose and another for self-inflicted drug overdose.
 - The ICD-10-CM coding guidance defaults to classifying injuries, including overdoses, as unintentional.
 - Multiple codes may be used to document different aspects of the ED visit, which can contribute to conflicting or inconsistent coding.

Multiple Injuries Identified

- There may be codes to describe multiple types of injuries like drug overdose and a fall, or overdose and self-inflicted injury.
- A visit with multiple ICD-10-CM codes is counted once in each category of injury that applies to that ED visit, but only once in the total number of injury ED visits.
- For example:
 - An ED visit that had a code for **an unintentional overdose involving multiple substance types** would be counted one time each in:
 - The total number of overdose ED visits for each substance type
 - The total number of unintentional injury ED visits
 - The total number of medication/drug overdose ED visits
 - The total number of injury ED visits
 - An ED visit that had a code for both **an unintentional overdose and a self-inflicted overdose** would be counted one time each in:
 - The total number of overdose ED visits for each substance type
 - The total number of unintentional injury ED visits
 - The total number of self-inflicted injury ED visits
 - The total number of medication/drug overdose ED visits
 - The total number of injury ED visits
 - Similarly, if multiple types of injuries were identified, like overdose and a fall injury, the ED visit would be counted once in each of those injury mechanism categories.

Injury ICD-10-CM Codes in the ED Visit Record

How IVPB Counts the Injury ED Visit (each box represents the visit being counted one time)

	Multiple Substances	Substance Type	Intent	Mechanism	Total Injury
ED Visit A	- Unintentional Fentanyl Overdose - Unintentional Heroin Overdose	Fentanyl Overdose	Unintentional	Medication/Drug Overdose	Injury ED Visit
		Heroin Overdose			
ED Visit B	Multiple Intents Unintentional Fentanyl Overdose Self-Inflicted Heroin Overdose	Fentanyl Overdose	Unintentional	Medication/Drug Overdose	Injury ED Visit
		Heroin Overdose	Self-Inflicted		



Type of Substances in Non-Fatal Overdose

It is difficult to identify the specific substances involved in overdose ED visits.

- Comprehensive toxicology testing is rarely done in the ED or in the hospital. When it is done, the toxicology results are not directly shared with IVPB for overdose surveillance, although results may improve how detailed the ICD-10-CM codes are that are assigned to the record.
 - The substance type is unknown for many overdose ED visits, and it is possible that a patient consumed a substance or multiple substances that were not tested for.
 - The focus in the ED is on treating and stabilizing the patient rather than identifying a specific substance involved in the overdose.
- Providers may not ask what substances a person has taken and may instead make a best guess based on how the patient presents to the ED.
 - If a patient experiencing an overdose responds to naloxone, providers will likely code the visit as being related to an opioid overdose.
- When providers do ask, it is still difficult to know for sure what substances were involved in an overdose.
 - Some patients may choose not to disclose what substances they took.
 - Some patients may not know what they took or if what they took had been laced with something else.

Even though we often do not know the exact substances involved, ED visit data are still useful for tracking overdose trends.

Emergency Medical Services (EMS) Data

EMS data are encounter-based, meaning that the same person may be involved in multiple EMS responses during any given time period.

IVPB is currently using EMS data to monitor suspected opioid overdoses.

- Naloxone (Narcan) administration is used in combination with other information from the EMS response to estimate suspected EMS responses for opioid overdose.
 - For more detailed information about how suspected overdoses are identified in the EMS data, visit [EMS Syndrome Definitions](#).
- Case definitions for identifying overdoses from other substances in the EMS data may be developed in the future.

Current EMS Case Definitions for Overdose May be Missing People.

EMS suspected overdose cases do not include overdoses from other non-opioid substances.

- Naloxone only reverses overdoses from opioids. If someone overdoses from another substance, naloxone will not be effective.
 - First responders typically administer naloxone when it appears a person has overdosed since so many substances can be laced with opioids, like fentanyl.

- Similarly, if someone mixed multiple substances, they may not have the anticipated response to naloxone.
 - If a person took opioids, they may still exhibit signs and symptoms from another non-opioid substance after naloxone is administered.

EMS is not involved in all overdoses.

- People who experience an overdose may go to the ED on their own, be transported privately by someone other than EMS personnel, or choose not to seek treatment.
- Some people may be afraid to call EMS for help after an overdose because of negative perceptions of or interactions with law enforcement.
- EMS may be called less frequently to respond to opioid overdoses as naloxone becomes more available throughout communities, and more people are comfortable using it on their own.

Assumptions about drug use can impact who shows up in EMS overdose data.

- Different populations or groups tend to use drugs differently.
- Because of this, first responders may assume that the person was or was not using certain substances based on how they look.

Changes in Overdose Metrics Over Time

When changes are made to overdose surveillance case definitions, those changes are also applied to historical data whenever possible.

- The changes are applied retroactively so that overdoses can be counted the same way across multiple years of data.
 - This allows IVPB to accurately monitor overdose trends.
- Data IVPB shared before a change was implemented can be different from data shared for the same time-period today.
 - Use the data resources posted to the [NC Overdose Epidemic Data](#) webpage to be sure you are accessing the most up to date information on overdose in NC.
 - If you have questions about data you have received from IVPB previously, email us at SubstanceUseData@dhhs.nc.gov.

Changes in Overdose Death Data

Type of Drug Overdose Deaths

- Before 2020, public facing overdose dashboard metrics originally showed only opioid-related overdoses. These metrics have since been expanded to include overdoses from all medications and drugs.
 - NC-SUDORS started collecting data on fatal unintentional or undetermined intent opioid-related overdoses in 2018. The case definition was expanded in NC and nationally in 2019 to collect data on all drug overdose deaths of unintentional or undetermined intent.
 - IVPB always tracked all drug overdoses across other data sources, but primary focused on opioid-related overdoses before this change.

Intent of Overdose Deaths

- Before 2020, most public overdose death certificate data metrics were limited to unintentional overdoses, which represents most (95%) of the overdose deaths in NC.
 - The definition now includes overdoses of all intents (e.g. undetermined intent, assaults, and self-inflicted overdoses).
 - Self-inflicted overdoses are also included in self-inflicted injury and suicide metrics.
- It may sometimes be difficult to determine if an overdose was unintentional or not, given the overlap between mental illness and substance use.
 - NC OCME works hard to assign a specific intent for overdose deaths, which is not the case in every state.
 - Many other jurisdictions outside of NC have a much larger number of overdoses of undetermined intent.
- Including overdoses of all intents helps to:
 - Align the NC overdose case definition more closely with definitions used by the CDC.
 - Ensure everyone who experienced an overdose is represented in the data.
 - Simplify and improve consistency in communication and language around overdose data.
 - Align how overdoses are counted with overdose prevention.
 - Strategies for preventing unintentional overdose can also be helpful in addressing self-inflicted overdoses.

Changes in Overdose ED Visit Data

ICD-10-CM Coding Transition

The system used to code diagnoses and other information in ED visit, hospital discharge, and other outpatient data was updated in 2015.

- The codes used previously (ICD-9-CM codes) are not directly comparable to the new codes (ICD-10-CM codes).
- Since the data are not comparable, data from before 2016 are not usually shared.

For more information on this transition and impacts to injury surveillance, visit [ICD-10-CM Coding Transition](#).

Type of Drug Overdose ED Visits

- Before 2020, public facing overdose dashboard and monthly report ED visit metrics originally tracked only opioid-related overdoses.
- These overdose ED metrics have since been expanded to include overdoses from all medications and drugs.
- In 2026, metrics were expanded to include key words in addition to ICD-10-CM codes to identify overdose ED visits.
 - For more information, visit [Updates to Overdose ED Visit Indicators](#).

Intent of Overdose ED Visits

- Before 2020, most ED visit definitions for overdose were limited to unintentional overdoses.
 - In 2020, these overdose ED visit definitions were expanded from just unintentional overdoses to include both unintentional overdoses and overdoses of undetermined intent.
- The ED visit definition for opioid overdoses included all intents between 2017 and 2025.
 - This definition was updated in 2026 to unintentional opioid overdose and opioid overdoses of undetermined intent for consistency across drug categories.

Overdose and COVID-19

There have been many implications from the COVID-19 pandemic that began in 2020, including changes to the numbers and rates of non-fatal overdoses and overdose deaths.

- The impacts of the COVID-19 pandemic exacerbated the overdose crisis.
 - Overdose deaths increased 82% from 2019 to 2023, with a 40% jump in 2020 during the first year of the pandemic. The rate of people who have died from overdose has also worsened in some communities.
 - In 2024, NC experienced the first decrease in overdose deaths since 2018. The fatal overdose rate decreased 35% from 2023 to 2024. Not all communities experienced this large of a decrease.
 - Despite the large decrease in 2024, fatal overdose rates are still higher than they were before the pandemic.
- There were large impacts to ED visits during the pandemic.
 - There was a large drop in the number of people going to the ED for any reason (ED utilization) starting in March 2020 when the COVID-19 stay-at-home order was implemented.
 - ED utilization slowly increased but remained lower than normal throughout most of 2020.
 - This drop in ED utilization also impacted the number of ED visits for specific injuries, including overdose in 2020.
 - Despite the drop in ED utilization, ED visits for overdose increased by 23% from 2019 to 2020.
 - The rate of overdose ED visits has since dropped, decreasing 30% from 2023 to 2024.

Who is Most Affected by Overdose?

For decades, certain communities have faced consistent barriers due to policies that emphasized criminal punishment rather than support for people with addiction.

These barriers have taken root in critical systems, including education, employment, housing, child welfare, immigration, and public benefits.

- This has caused differences in health outcomes among groups of people, including differences based on race and ethnicity, and for justice-involved populations.
 - Different populations tend to use substances differently.
 - Some substances have been penalized more strictly than others, and these differences in enforcement have affected various groups unevenly.
 - Because of this, overdose and substance use surveillance and prevention should be inclusive of all substance use, not just specific types of substances.
- Often times, information about community and the environmental contributors of substance use are not collected alongside health outcome data, like overdoses.
 - Special research studies linking datasets and systems can offer some insights.
 - For some examples, see [More Data Resources](#) on the NC Overdose Epidemic Data website.
 - [NC-SUDORS](#) also provides insights into social drivers of health and circumstances surrounding overdoses by combining data from death certificates, medical examiner reports, autopsies, and toxicology results.

Who we count—and how—changes what we know about overdoses.

The most reliable way to collect information on race and ethnicity is when it is self-reported, where individuals choose the race and ethnicity they use to describe themselves.

Asking someone to report their own race and ethnicity ensures the data are accurate.

- In some cases, race and ethnicity may not be self-reported and may instead be assigned based on someone's name or their appearance.
- This assumption may happen if the person was unresponsive from an overdose when EMS responded or when they arrived at the ED.
- This assumption can result in misclassification of race and ethnicity, when someone is categorized into a racial or ethnic group that they do not identify with.

For more information on how race and ethnicity are collected in the data sources IVPB uses, and how IVPB groups race and ethnicity, visit [Using Injury Data by Race and Ethnicity](#).

Monitoring Overdoses by Demographic Groups

IVPB uses rates to compare the burden of overdoses across groups, including by age group, sex, and race/ethnicity.

This approach allows IVPB to identify groups that are experiencing the greatest burden of overdose.

- Rates account for the size of the population and allow us to compare injuries that happened in small populations to injuries in larger groups.
- Comparing rates helps us understand different experiences of overdose between groups.

For example:

- The overall number of overdose deaths in 2023 was still highest among non-Hispanic white people.
- However, when measured as a proportion of the population, American Indian/Indigenous people have the highest overdose death rate.

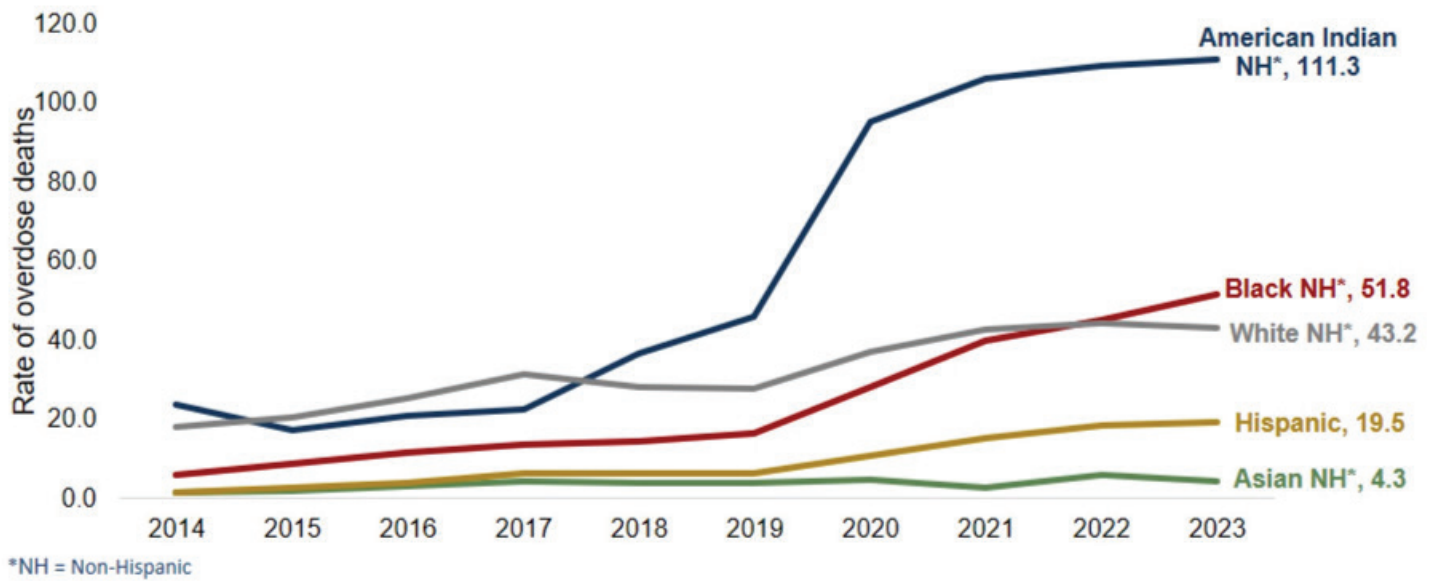
For more information, visit [Understanding Counts and Rates](#).

IVPB also monitors how rates are changing over time across different groups.

It isn't only important to monitor which groups have the highest rates, but also how fast rates may be increasing or changing for specific groups over time.

- For example, the rate of people who have died from overdose has worsened in some communities.
- The increase in overdose death rates from before COVID-19 in 2019 to 2023 was greatest for Black or African American people and Hispanic people, an increase of 200% or more.
 - Before the COVID-19 pandemic, the overdose death rate for Black residents in NC was lower than that of white residents.
 - Since 2020, the rate among Black residents has climbed at a faster pace, and in 2023 the overdose death rate among Black residents rose higher than the rate among white residents.

Overdose death rates are increasing in some communities.



The figure above shows overdose death rates using death certificate data by race/ethnicity from 2014 through 2023, and how rates have increased for non-Hispanic (NH) American Indian, NH Black, and Hispanic populations.

Capturing the Full Impact of the Overdose Crisis

IVPB uses several datasets to understand and provide context to overdoses in NC, but this still does not capture the full burden of overdose.

IVPB monitors data on overdose deaths as well as hospitalizations, ED visits, and EMS responses related to overdose. Other data sources are also used to understand context around health experiences and other related drivers of health.

- While this captures many of the health outcomes related to overdose, it is important to keep in mind what is not captured in these data, such as:
 - Overdoses where the person does not seek health care.
 - This may involve self-administered or community naloxone reversals.
 - Community naloxone reversal data are provided to IVPB through annual reporting required of all Syringe Service Programs (SSPs), but these counts are still an incomplete picture as some reversals may not be reported to SSPs.
 - Impacts from using substances that are not regularly monitored or tested for in health care settings or during autopsy.
 - Some social factors, drivers of health, and other health outcomes related to substance use disorders.
- Because of this, we may be underestimating the true scope of the overdose crisis in NC and the prevalence of certain types of substance use.

How Many People Are Using Drugs?

People often want to know how many people are using drugs, misusing drugs, injecting drugs, or how many people have a substance use disorder in their area to help with overdose prevention planning.

- It is very difficult to know the number of people who are using or misusing drugs.
 - People may or may not be honest when responding to survey questions asking about their drug use.
 - The stigma surrounding drug use and the illegality of most drug use makes it difficult to collect this data.
- The [National Survey on Drug Use and Health \(NSDUH\)](#) is the best source for estimated numbers of people currently using different substances.
 - NSDUH is a national survey that provides up-to-date information on tobacco, alcohol, and drug use, mental health and other health-related issues.
 - Data are only available nationally and at the state level.
 - It can be difficult to apply state estimates to the county level since drug usage can vary greatly from community to community.
- The [NC Youth Risk Behavior Survey \(YRBS\)](#) also includes questions related to historical and current substance use for middle and high school students.
- It is important to keep in mind that not everyone that uses substances has a substance use disorder.

FOR MORE RESOURCES:

Visit our [Injury Data Users Toolkit](#)



NC DEPARTMENT OF
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dph.ncdhhs.gov/injury-and-violence-prevention-branch-data-users-toolkit

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