

Race Rate Disparity in Drug Overdose Death

Why this report is needed: African American and American Indian populations are dying from drug overdose deaths in Minnesota at disproportionate rates compared to whites. All program and policy decisions about substance use disorder must include a racial equity lens in order to address the race rate disparity within African American and American Indian populations.

This data and information is intended to inform opioid epidemic response and substance use disorder prevention efforts. The race rate disparities in drug overdose death mirror other racial disparities in Minnesota, in, for example, graduation rates, infant mortality, poverty, incarceration, removal from home, unemployment, home ownership, and suicide.

Who's included in this report: This report is an analysis of disparities based on race within Minnesota in drug overdose death. This report does not focus on nonfatal overdose or opioid use disorder treatment. The three groups included are African American¹, American Indian, and whites. Other racial groups are not included because they have lower drug overdose mortality rates relative to whites.

How a drug overdose death is determined and counted: Drug overdose death data come from Minnesota death certificates.² After a death occurs, a death investigation is completed, along with an autopsy³, and a medical examiner or coroner makes a determination of the cause and manner of death. The medical examiner or coroner lists specific drugs on the death certificate determined to be involved or that caused the death.

Summary:

- Minnesota's overall drug overdose mortality rate masks racial disparities.
- In 2016, African Americans were two times more likely to die of a drug overdose than whites.
- In 2016, American Indians were almost six times more likely to die of a drug overdose than whites.
- Drug overdose mortality rates increased for all groups, *and* the race rate disparity increased from 2015-2016.
- The age distribution of drug overdose deaths differs between African Americans, American Indians, and whites.
- For whites, African Americans, and American Indians, opioids are the leading cause of drug overdose death. Over the last 15 years, however, there were increases in all drug categories, including benzodiazepines, psychostimulants (e.g., methamphetamine), heroin and synthetic opioids (e.g., fentanyl and carfentanyl).

¹ African American includes U.S.-born and African-born decedents.

² During data analysis, to identify drug overdose deaths and the specific drugs involved from the entire death certificate file, a two-step analysis is completed. First, only death certificates with an underlying cause of death in the ranges of X40-X44, X60-X64, X85, or Y10-Y14 are selected to identify drug overdose deaths. From there specific ICD-10 drug codes in the contributing cause of death fields are searched to identify all drug overdose deaths that involved each drug category of interest (T36-T50). The drug categories are not mutually exclusive, meaning, for example, that a death with heroin (T40.1) and cocaine (T40.5) will be counted in both drug categories.

³ 94% of drug overdose deaths had an autopsy completed in 2016.

Understanding race rate disparity

Overall, Minnesota has a relatively low drug overdose mortality rate. When compared with other states in the nation, Minnesota does not rise to the top as a state needing extra support or resources to address the opioid epidemic. In other words, many states are suffering even more from the opioid epidemic than Minnesota. However, when the mortality rate is divided by race, then the disparity between whites and African Americans, and between whites and American Indians can be seen.

In Minnesota, African Americans make up 7% of the total population and American Indians make up 1.5% of the total population. If only the number of drug overdose deaths was counted, the number would be relatively small in the African American and American Indian populations compared to whites, simply because of the low percentage of the population overall.

Understanding polysubstance use

Polysubstance use is the intentional or unintentional consumption of more than one drug at once. Polysubstance use may occur when:

1. multiple prescriptions are being taken, such as benzodiazepines and opioids,
2. a prescription is being taken, along with an illicit drug,
3. multiple illicit drugs are being taken, such as methamphetamine and opioids, commonly known as speedballing, or
4. one illicit drug is laced with multiple other illicit drugs, such as heroin laced with fentanyl or methamphetamines laced with heroin. Another recent trend is counterfeit prescriptions laced with cocaine, fentanyl, and/or carfentanyl. When someone buys counterfeit prescription or illicit drugs on the street, the buyer is unaware of the actual drugs contained in the counterfeit prescription or illicit drug.

Understanding self-medicating

Self-medicating is when people take medications and/or drugs that they have self-selected (rather than been prescribed) to cope with mental health symptoms, physical pain, and/or trauma.

There are many reasons why African Americans and American Indians are dying from, and using prescription and illicit opioids to self-medicate, including, but not limited to:

- higher incidence of historical trauma
- higher incidence of adverse childhood experiences
- lack of access to medical care and/or non-opioid treatment options
- stigma in pursuing chemical health treatment and recovery supports
- lack of access to culturally responsive treatment programs
- lack of trust with Western medicine interventions
- failure to appropriately diagnose physical or mental health symptoms
- lack of research about the effectiveness of interventions within people of color and American Indian communities

- easier access to illicit drugs within the community
- racial bias on the part of providers who prematurely and/or abruptly discontinue opioids
- illicit drugs are currently addressing symptoms
- cultural acceptance of sharing prescription medications with loved ones

Understanding social determinants of health

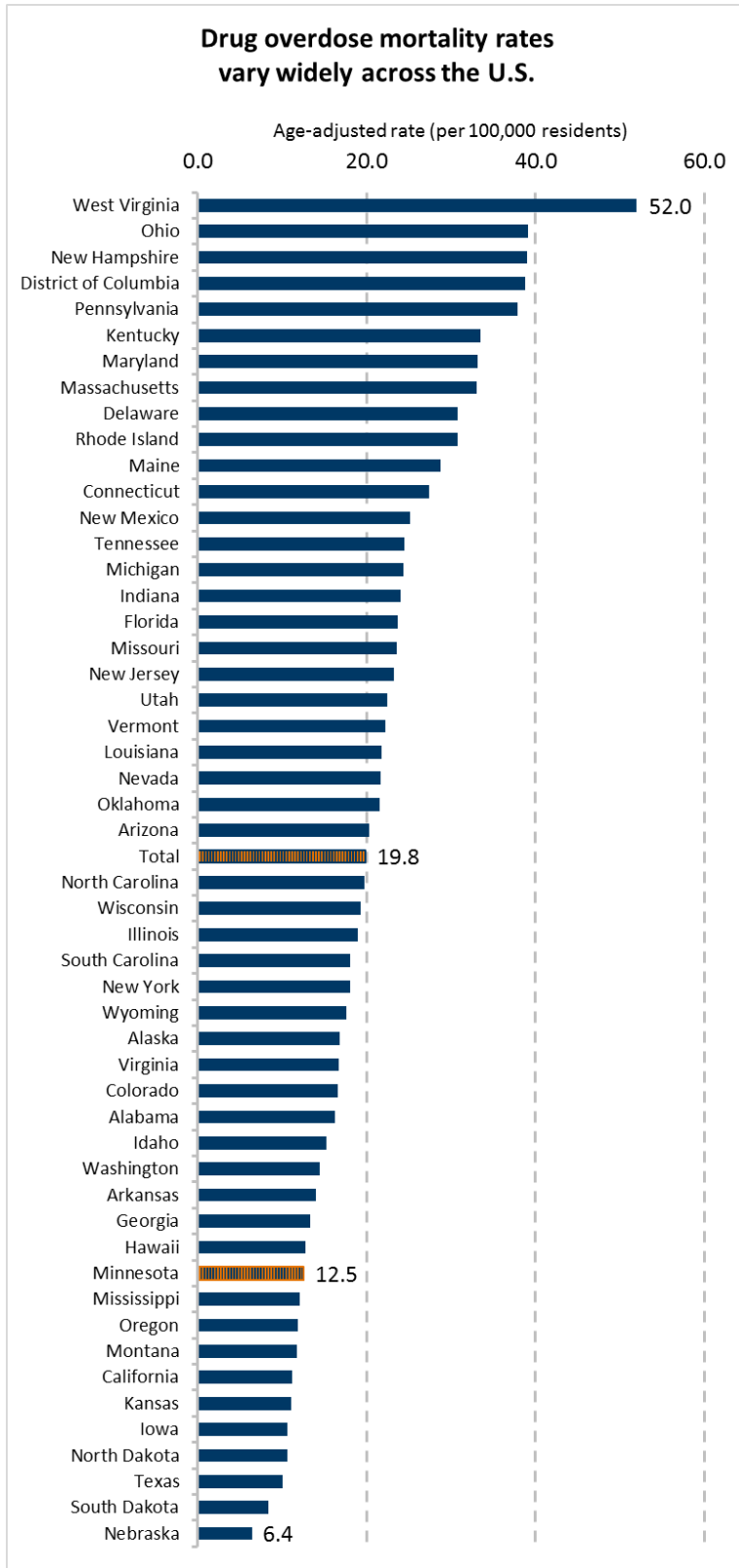
The realities of poverty, racism, classism, social isolation, sexual exploitation and other social inequities affect people's vulnerability to and capacity for effectively dealing with drug-related harms.

Risk factors for developing a substance use disorder add up over the lifetime starting with historical trauma, genetics, substance exposure during pregnancy, adverse childhood experiences, early exposure to drugs and social contexts where drugs are used, and early initiation to drug use.

For example, if a person has a good paying job, safe living environment, and quality health care, their ability to seek treatment for medical, mental, and chemical health needs is greater than a person who is financially struggling, living in toxic or unsafe conditions, and lacks health coverage.

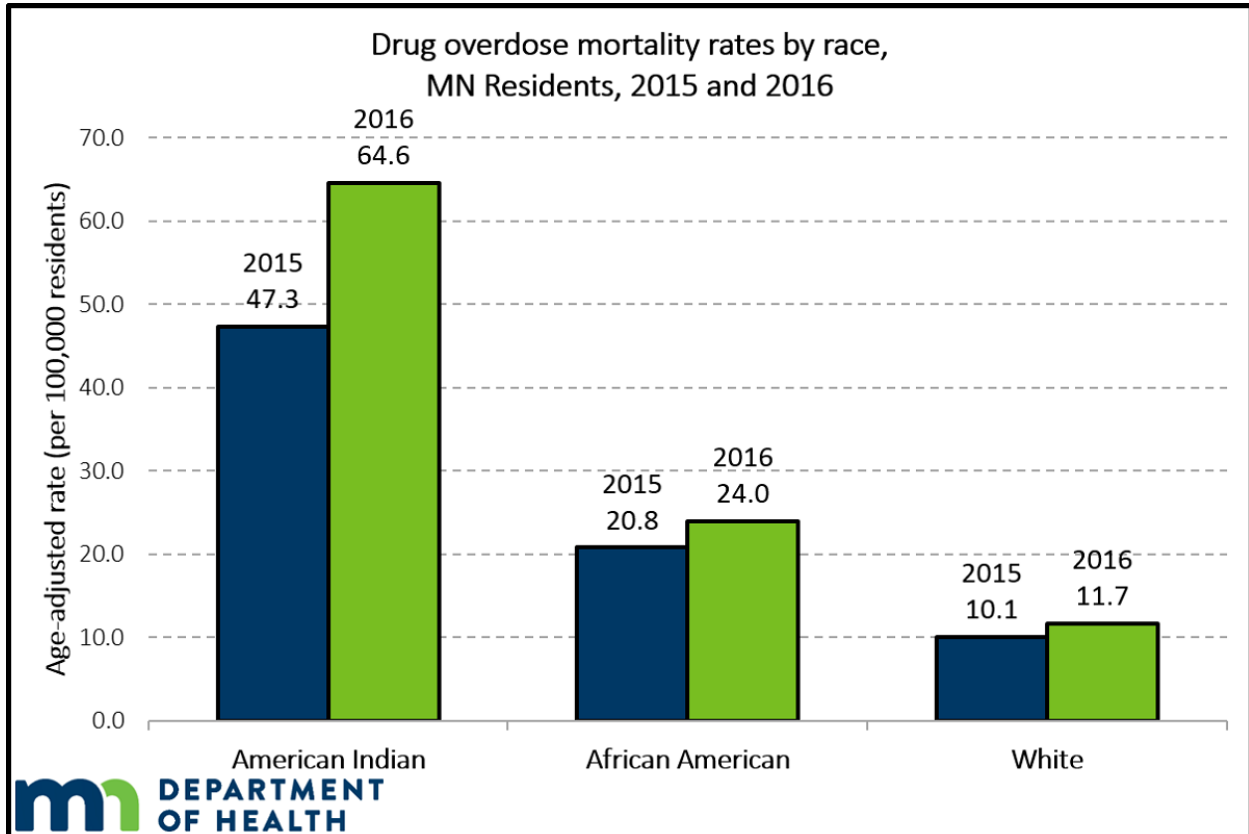
Conditions of life are connected to outcomes, especially when it comes to the treatment of chronic pain, mental health and trauma. Life and health potential is affected by a countless number of factors, down to the quality of the mattress a person sleeps on, to the quality of the shoes someone stands in all day, to the price of co-pays for medical treatments.

Drug overdose mortality rates vary widely across the U.S.



Minnesota’s overall drug overdose mortality rate masks racial disparities

Minnesota ranked eleventh lowest among all states and the District of Columbia in drug overdose mortality rate in 2016 (12.5 per 100,000 residents). Minnesota moved slightly higher in the rankings from 2015 where Minnesota ranked fifth lowest among all states and the District of Columbia. The increasing trend in drug overdose mortality rates in Minnesota parallels continued mortality rate increases across the U.S.

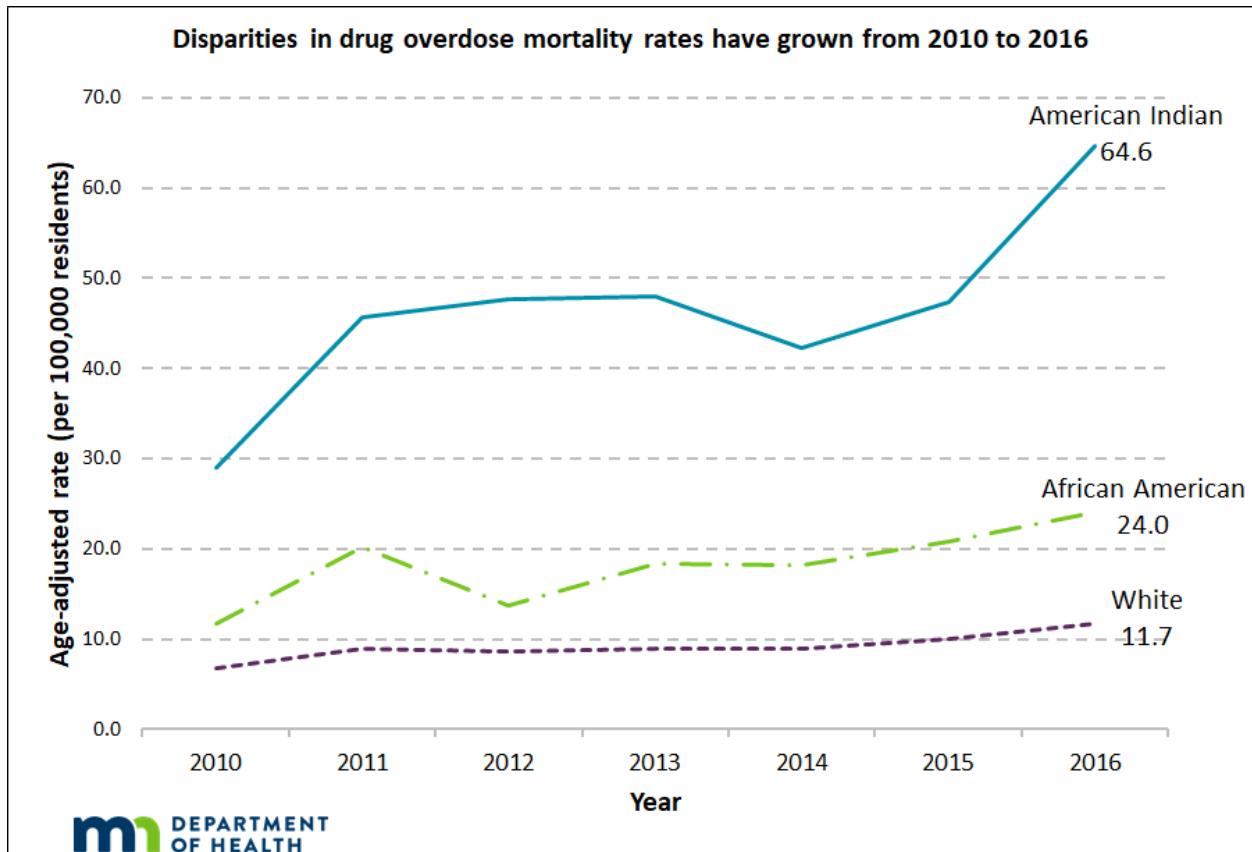


In 2016, African Americans were two times more likely to die of a drug overdose than whites.

In 2016, American Indians were almost six times more likely to die of drug overdose than whites.

While Minnesota has one of the lowest drug overdose mortality rates in the nation, Minnesota also has some of the worst race rate disparities in drug overdose mortality in the nation. African American Minnesotans were two times more likely to die from a drug overdose than white Minnesotans. Native American Minnesotans were six times more likely to die from a drug overdose than white Minnesotans. Other states have disparities based in race, however, the rate disparity between Native Americans/whites is the greatest rate disparity based on race in the United States; the rate disparity between African Americans/whites is the second greatest rate disparity based on race in the United States.

Changes in Drug Overdose Mortality Rates



Racial Group	2010	2016	Percent Change in Drug Overdose Race Rate Disparity
White	6.8 per 100,000	11.7 per 100,000	72% increase
American Indian	29.0 per 100,000	64.6 per 100,000	123% increase
African American	11.7 per 100,000	24.0 per 100,000	105% increase

Drug overdose mortality rates increased for all groups, *and* the race rate disparity grew more disparate from 2015-2016.

American Indian drug overdose mortality rate increased 123% from 2010-2016.

African American drug overdose mortality rate increased 105% from 2010-2016.

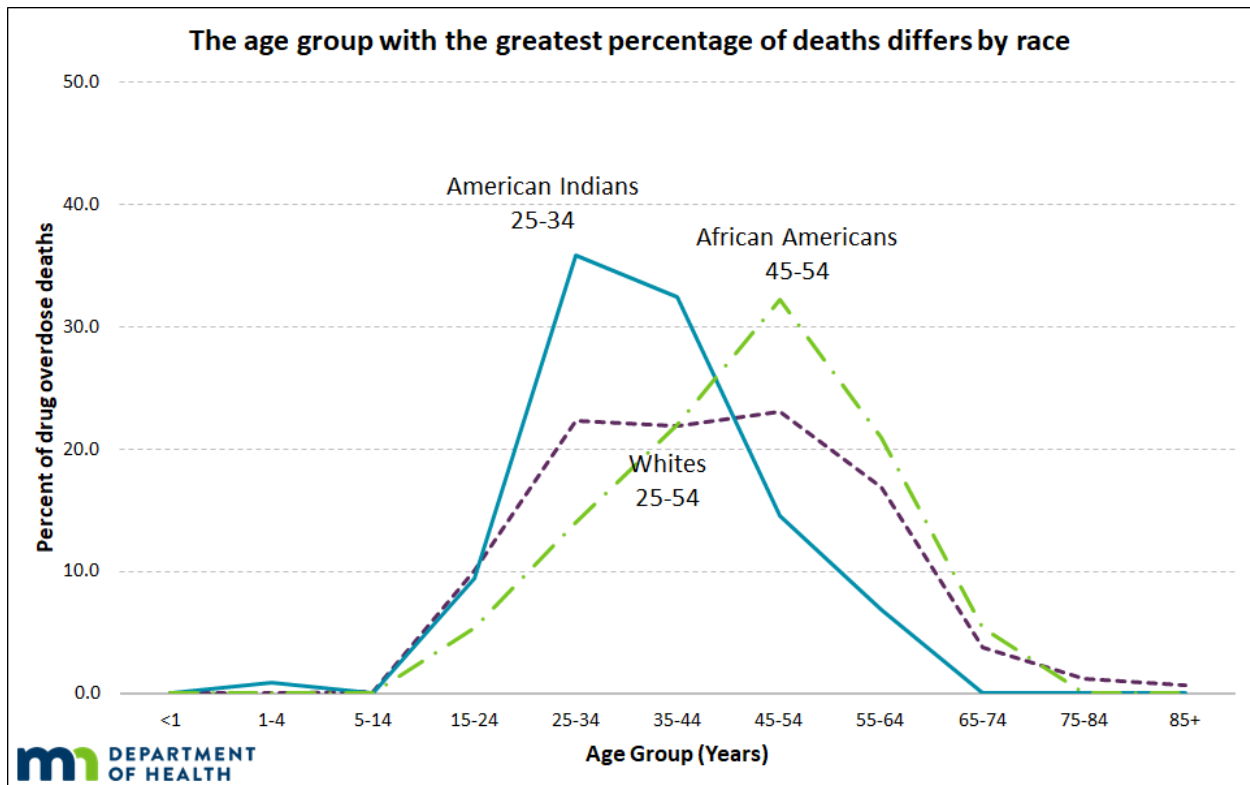
The mortality rate disparity between American Indians and whites has continued and worsened in 2016. From 2010 to 2016, the American Indian mortality rate more than doubled from 29.0 per 100,000 to 64.6 per 100,000 (123% increase), and was almost six times as high as the white

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mortality rate. For comparison, the white mortality rate increased from 6.8 per 100,000 to 11.7 per 100,000 (72% increase).

The mortality rate disparity between African Americans and whites has continued and worsened in 2016. From 2010 to 2016, the African American mortality rate increased from 11.7 per 100,000 to 24.0 per 100,000 (105% increase), and was two times as high as the white mortality rate. For comparison, the white mortality rate increased from 6.8 per 100,000 to 11.7 per 100,000 (72% increase).

Age Distributions of Drug Overdose Deaths



American Indian deaths are primarily occurring within the 25-34 year age group.

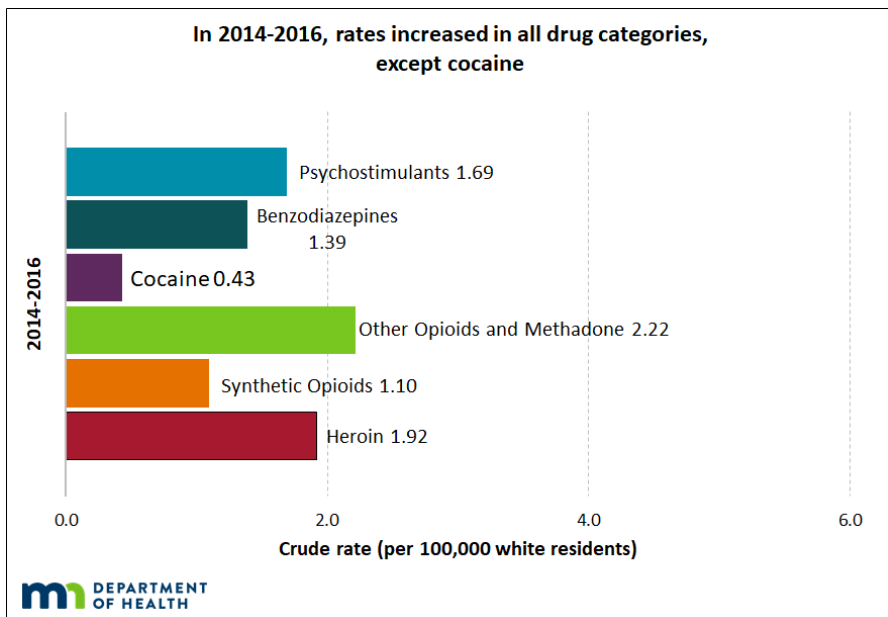
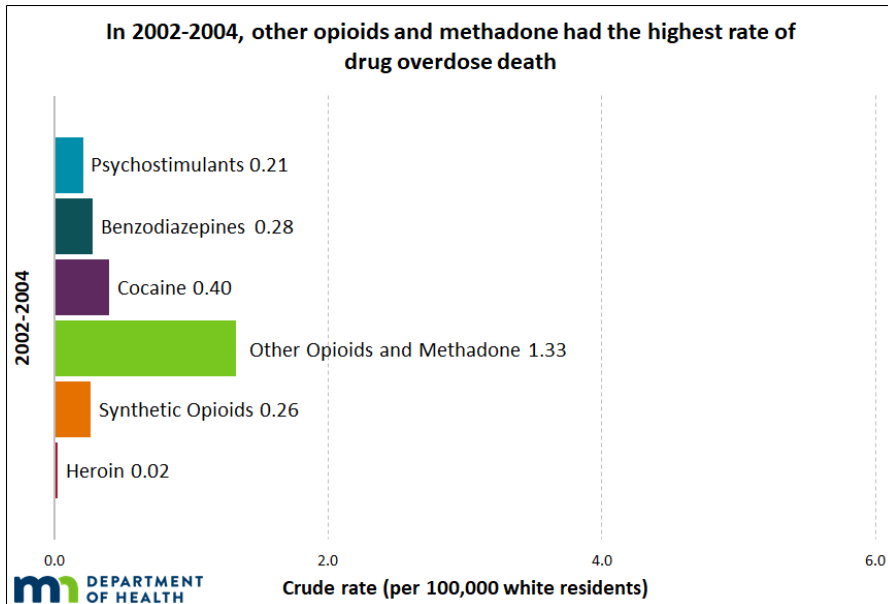
African American deaths are primarily occurring within the 45-54 year age group.

For whites, drug overdose deaths occur primarily within the 25-54 year age groups. Among American Indians, the greatest percentage of deaths has been in the 25-34 year age group. For African Americans, the 45-54 year age group has had the greatest percentage of deaths.

Drug Categories of Drug Overdose Deaths

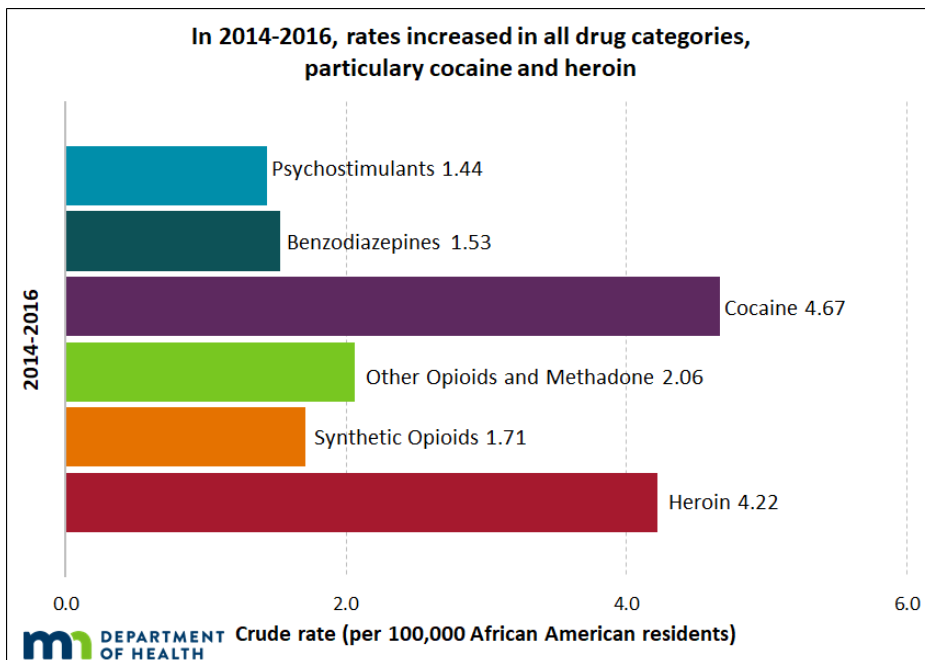
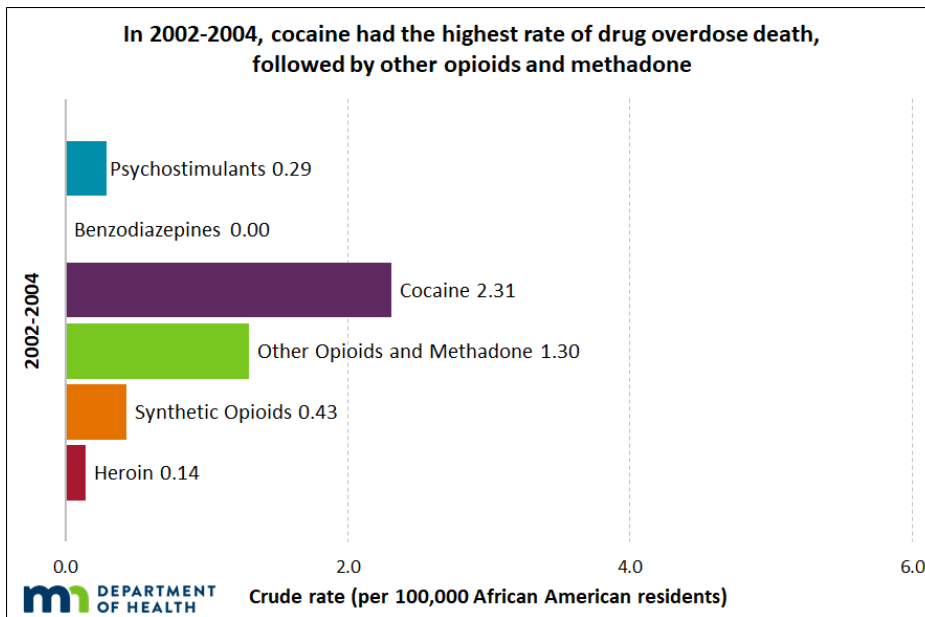
For whites, African Americans, and American Indians, opioids are the leading cause of drug involved deaths. Over the last 15 years, however, there were increases in all drug categories, including benzodiazepines, psychostimulants (e.g., methamphetamine), heroin and synthetic opioids (e.g., fentanyl and carfentanyl).

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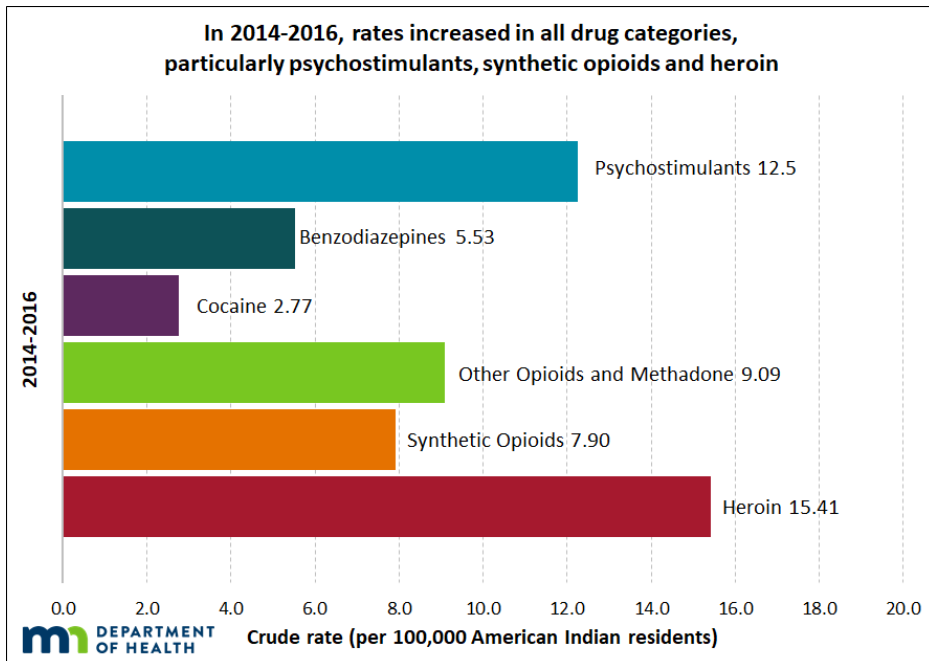
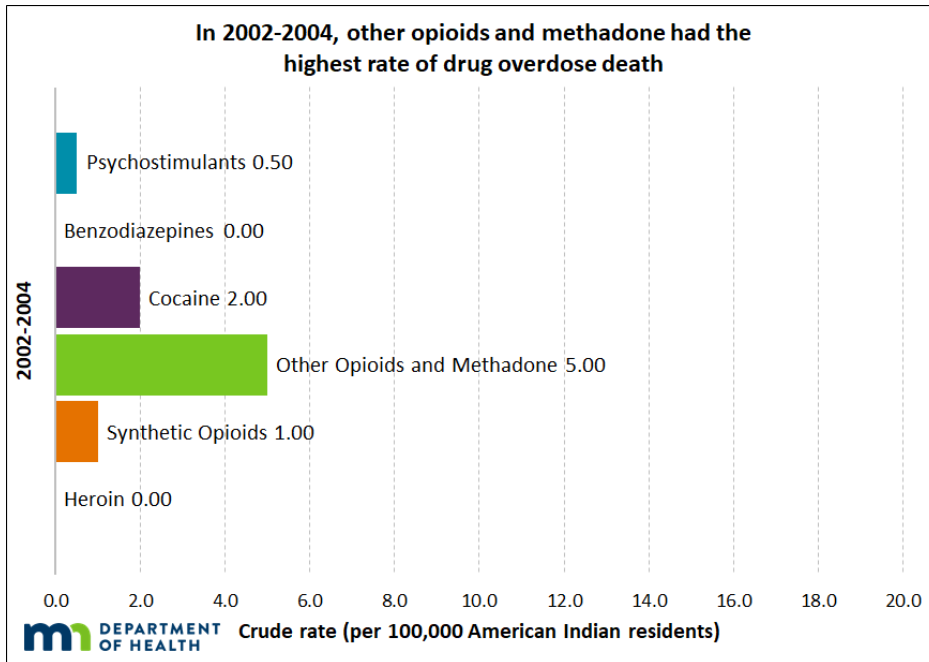
Drug Categories of Drug Overdose Deaths among whites: From 2002-2004 to 2014-2016 for all age groups, the mortality rate increased across all drug categories for whites. Cocaine-involved mortality rates remained relatively stable. Psychostimulant-involved (e.g., methamphetamine) and benzodiazepine-involved deaths increased significantly. All opioids, including prescription, synthetic, and heroin, increased significantly. Within the white population, other opioids and methadone (i.e., prescription opioids) were the leading cause of opioid-involved death in 2014-2016. Opioids were involved in 59% of all drug overdose deaths in 2014-2016.

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Drug Categories of Drug Overdose Deaths among African Americans: From 2002-2004 to 2014-2016 all drug categories increased for African Americans. Psychostimulant-involved (e.g., methamphetamine) deaths, benzodiazepine-involved deaths, and cocaine-involved deaths increased significantly. All opioids, including prescription, synthetic, and heroin, increased significantly. Within the African American population, heroin was the leading cause of opioid-involved death in 2014-2016. Opioids were involved in 54% of all drug overdose deaths in 2014-2016.

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Drug Categories of Drug Overdose Deaths among American Indians: From 2002-2004 to 2014-2016, all drug categories, except for cocaine, increased for American Indians. Psychostimulant-involved (e.g., methamphetamine) deaths and benzodiazepine-involved deaths increased significantly. All opioids, including prescription, synthetic, and heroin, increased significantly. Within the American Indian population, heroin was the leading cause of opioid-involved death in 2014-2016. Opioid were involved in 70% of all drug overdose deaths in 2014-2016.

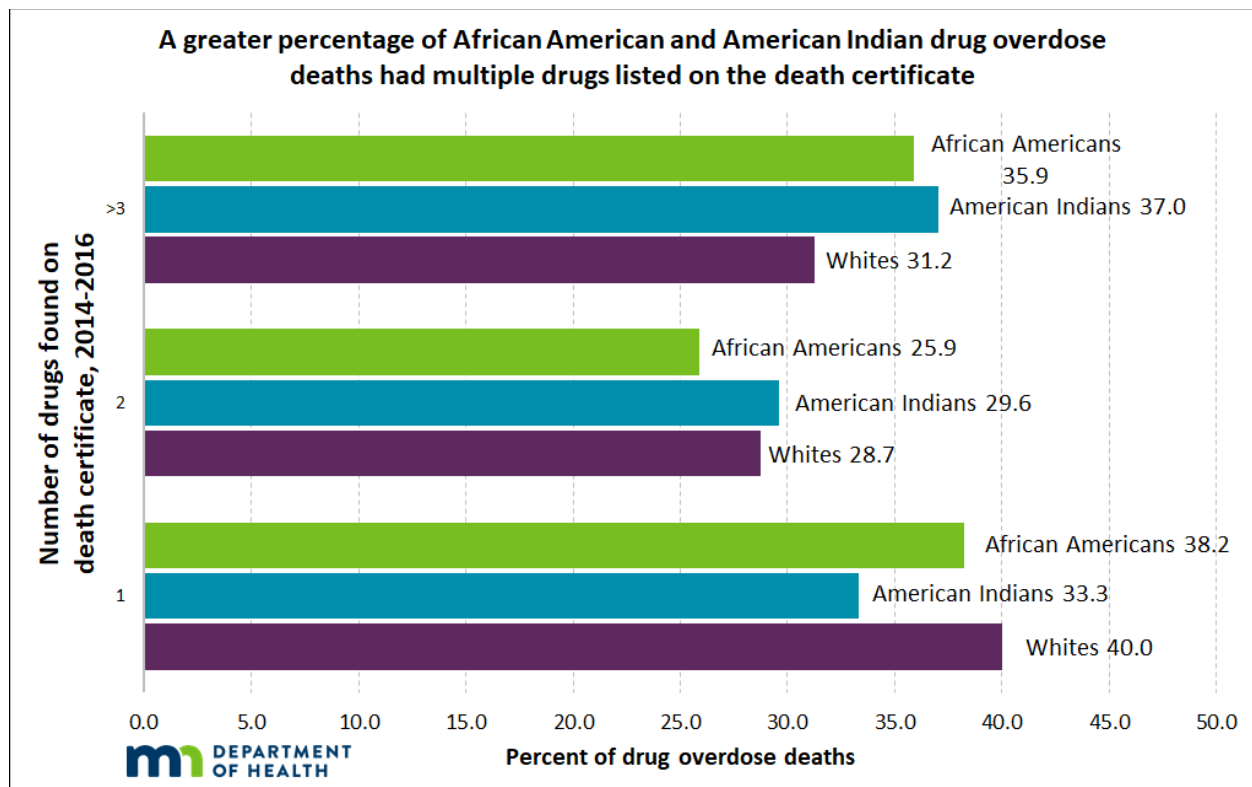
Discussion of Drug Categories among African American, American Indian and white Drug Overdose Deaths:

In the African American and American Indian community, there were zero benzodiazepine-involved deaths in 2002-2004. Benzodiazepine-involved death rose significantly over the next 15 years in African American, American Indian, and white communities. Concomitant benzodiazepine and opioid use is linked to a significant increase in risk of opioid overdose.

While prescription opioid involved deaths have begun to stabilize statewide, synthetic opioid- and heroin-involved deaths are increasing rapidly. The shift from commonly prescribed opioids to illicit forms of opioids bring additional challenges in stigma, and consequently, access to treatment and recovery supports.

The rapid increase in psychostimulant- and heroin-involved deaths points to an increase in injection drug use. Injection drug use bring additional risk factors including the spread of infectious disease and additional physical health problems.

Drugs listed on Death Certificates



A greater percentage of American Indian and African American drug overdose deaths involved more than one drug, compared to whites:

- 60% of drug overdose deaths among whites involved greater than one drug.
- 62% of drug overdose deaths among African Americans involved greater than one drug.
- 67% of drug overdose deaths among American Indians involved greater than one drug.

Knowing that there are multiple drugs showing up on death certificates has several implications, including, but not limited to:

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- Addressing an overdose is more challenging when multiple substances are present, especially if there are opioids and non-opioids mixed.
- Tapering, withdrawal management, and treatment have additional considerations when polysubstance use is present.

Medical examiners and coroners must know what drugs are available in the community in order to know what to test for in toxicology during the drug investigation.

For more information on intersecting topics, please visit:

- [Opioid Dashboard](#): a one-stop shop for opioid-related data and information
- [MDH Health Equity Report](#): a report to the legislature that includes recommendations for advancing health equity in Minnesota
- [Pain Management](#): finding effective, long-term solutions for acute and chronic pain
- [Prescription Pills and Street Drugs](#): how prescription opioids and illicit substance are interrelated
- [Language of Substance Use Disorder](#): terms related to opioid use, misuse, and substance use disorder
- [Identification of Substance Use Disorder](#): screening and diagnosis of substance use disorder
- [Injection Drug Use](#): additional risk factors and considerations when drugs are injected
- [Infectious Disease](#): the relationships between substance use and infectious disease
- [MDH Drug Overdose Death among Minnesota Residents 2000-2016](#): MDH report and analysis of data regarding drug overdose deaths, by drug category, and by county for 2000-2016

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