Drug Overdose Deaths In Dane County

Annual Report

2022

Data updated through 2020

Public Health
MADISON & DANE COUNTY
Healthy people. Healthy places.

In this report, we include a lot of data and information about people who died of a drug overdose in Dane County. Behind the numbers and all the information you see in the following pages are real people who lived full, complicated lives.

They are our families, our friends, our neighbors, and ourselves.

And they were loved.

Below are words family members used to describe the loved ones they lost in 2020.

He had dreams. And he was loved by so many people. I just want people to know, this was a loved one. No matter how many times he was arrested, no matter how many times you may have passed him on the street when he was in clothes that he slept in for two weeks, he was someone's child, someone's uncle, someone's brother.

We never give up on these people. The families never give up.

And I just hope that no matter how you think of people, just have some compassion. It was hell, but I would not have it any other way because I never would have given up on him. Ever.

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Help is Available

Public Health Madison & Dane County

Information and resources for safer drug use, overdose prevention, and Narcan® training. Sign up to receive Overdose Spike Alerts.

Grief Recovery After a Substance Passing

GRASP is a healing community with understanding, compassion, and support for those who lost someone they love through addiction and overdose.

Behavioral Health Resource Center

A voluntary person and family centered service to help Dane County residents access mental health and/or substance use services, regardless of insurance status.

Recovery Coach Helpline

24/7 access to support from people in long-term recovery who serve as advocates, peers, and confidants. For people using substances and those who are concerned about a loved one's substance use.

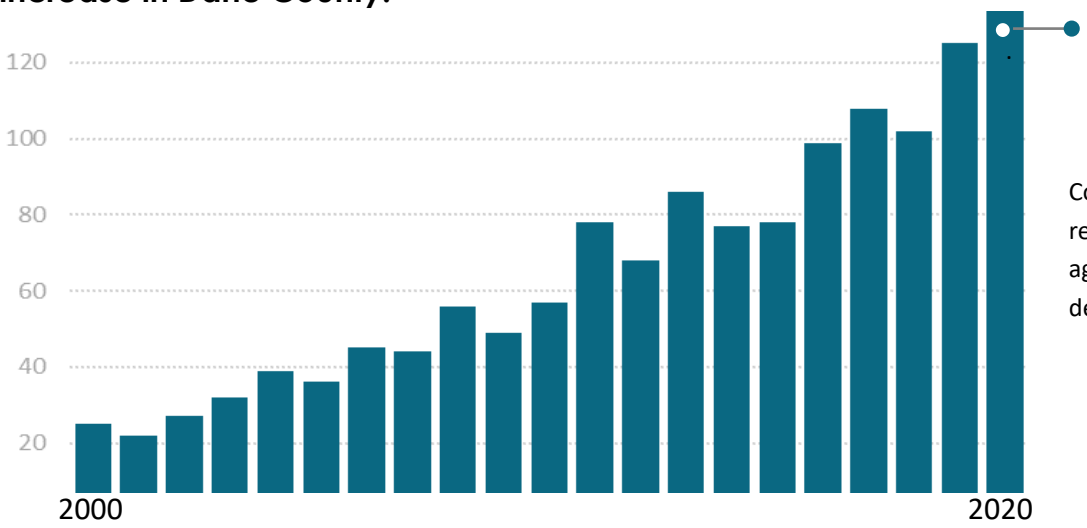
Trends in Drug Overdose Deaths

KEY TAKEAWAY

The number of people who died of a drug overdose death from 2018-20 was 43% higher than the number of people who died from 2014-16 (254 to 365). Opioid-involved deaths continue to drive drug overdose death trends.

The drug overdose epidemic nationally and locally continues to be a public health crisis. In 2020, nearly 92,000 people in the United States (US) died of a drug overdose. The age-adjusted rate of drug overdose deaths in the US increased by 31% from 2019 to 2020 (21.6 to 28.3 per 100,000). Similarly, Wisconsin experienced a 30% increase from 2019 to 2020 (20.9 to 27.2 per 100,000). In Dane County, the age-adjusted rate of drug overdose death increased by 11% from 2019 to 2020 (22.8 to 25.2 per 100,000).

The number of people who die due to drug overdose **continues to increase in Dane County.**



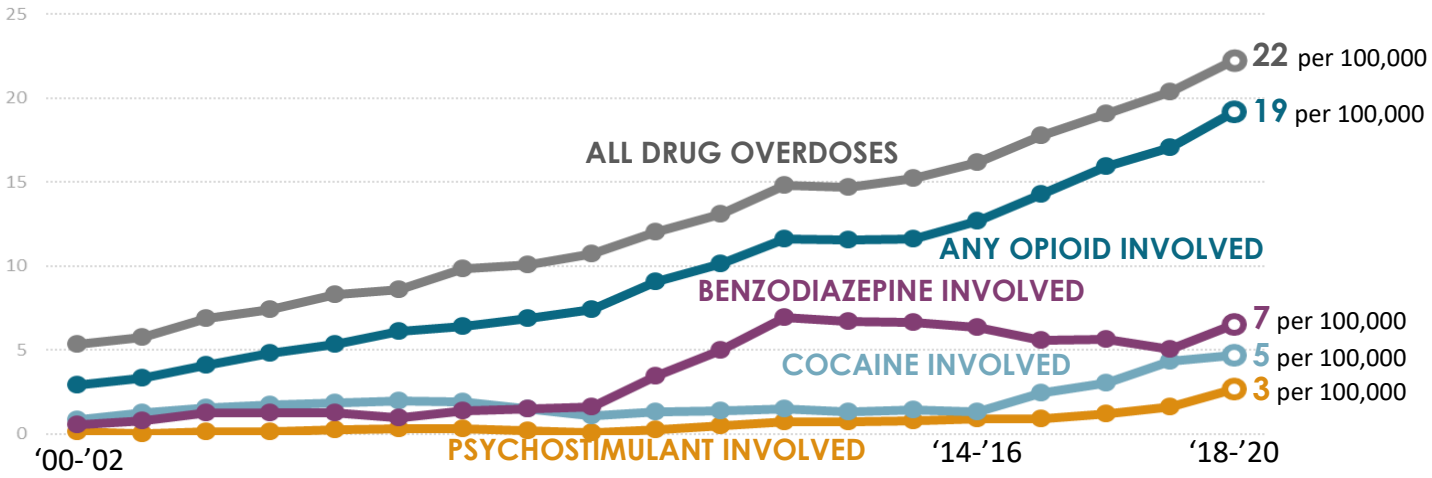
Compared to other injury-related causes of death, the age-adjusted drug overdose death rate in 2020 was:

4.2x the rate of motor vehicle deaths

3.4x the rate of firearm-involved deaths

When looking at major categories of substances, the age-adjusted opioid-involved drug overdose mortality rate continues to be highest compared to drug overdose fatality rates involving benzodiazepines, cocaine, and non-cocaine psychostimulants such as amphetamines. These categories of substances are not mutually exclusive.

Age-adjusted rate of drug overdose death by substance involved, Dane County, 2000-2020



*We adjust for age to make mortality rates more comparable between populations (e.g., counties or demographic groups). See the Appendix for more detail about why we use age-adjusted rates.

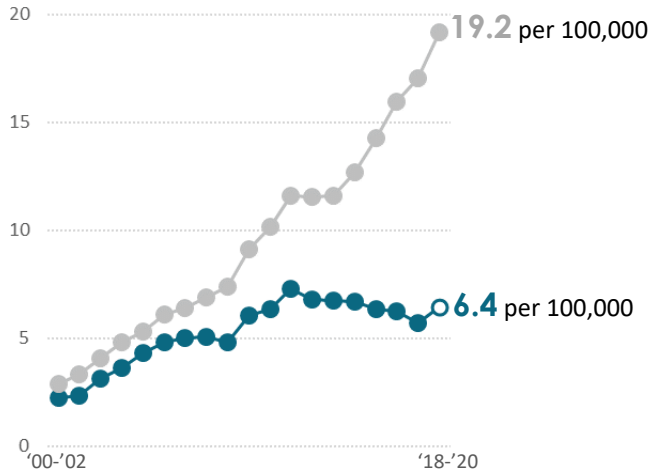
We show trends using 3 year rates (e.g., 2018-2020). This helps us make sense of changes over time when numbers fluctuate from year to year. This is important for trends that have a fewer number of people who die per year, as the rates can go up and down from year to year.

Trends in Opioid-Involved Deaths

KEY TAKEAWAY

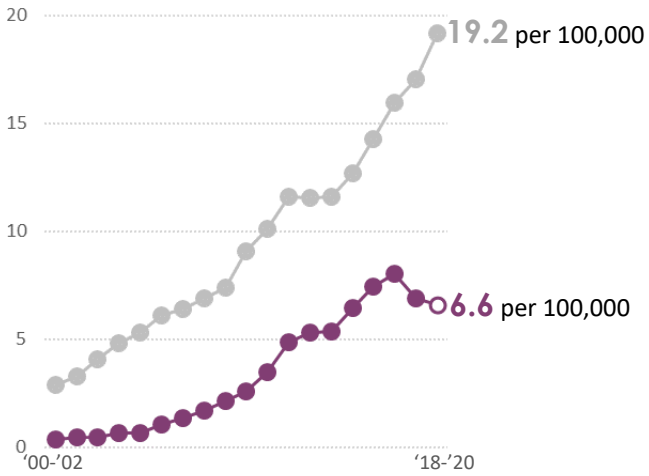
Opioids continue to be an important driver of drug overdose death; 86% of all deaths involved an opioid from 2018-2020. The contributions of specific types of opioids have changed over time.

PRESCRIPTION OPIOID & ANY OPIOID



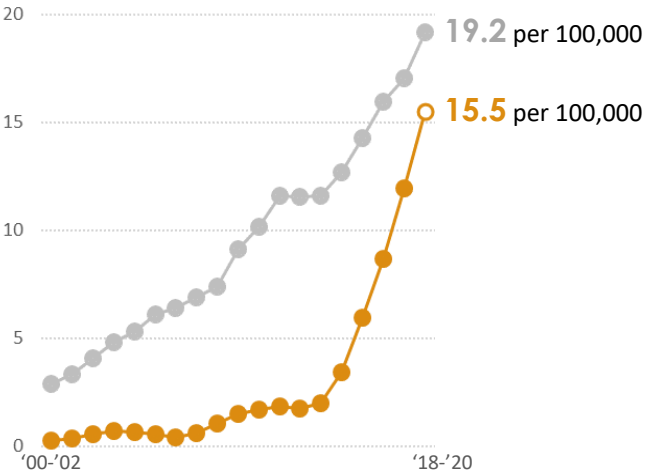
The age-adjusted rate of **prescription opioid-involved** drug overdose deaths increased from 2000-2011 but leveled off from 2011-2020. Substantial investments at the federal, state, and local level in addressing the prescription opioid crisis likely contributed to trends in the past decade. These efforts include mandating use of the Prescription Drug Monitoring Program, state supported biannual medication take-back events, installation of permanent drop boxes at police departments and pharmacies, and community education efforts.

HEROIN & ANY OPIOID



The age-adjusted rate of **heroin-involved** drug overdose deaths increased from 2000-2013, and leveled off from 2013-2020. There is some indication that heroin-involved death rates may be starting to decline in Dane County. Continued monitoring of this trend will help us understand more about heroin's contribution to opioid-involved death rates in the future.

SYNTHETIC OPIOID & ANY OPIOID



The age-adjusted rate of **synthetic opioid-involved** drug overdose deaths increased sharply from 2014 to 2020. The number of people who died from a synthetic-opioid involved death from 2014-2016 was nearly 5 times the number from 2018-2020 (53 vs. 256). Recent trends in opioid deaths are driven in large part by the increase in synthetic opioid-involved deaths.

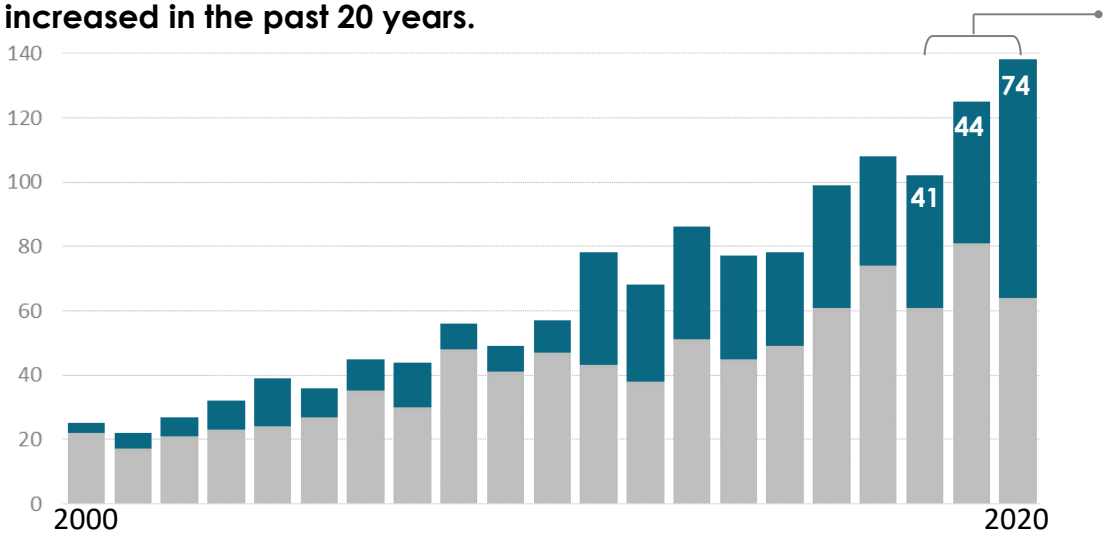
Fentanyl is included in the category synthetic opioids.

Polydrug overdose deaths

KEY TAKEAWAY

We often talk about the opioid overdose epidemic in waves. The first wave, which started in the 1990s, was driven by prescription opioids. The second wave, which started in 2010, was driven by heroin. The third wave, which started in 2013, was driven by synthetic opioids (illicit fentanyl, specifically). We are now in a fourth wave of the epidemic, characterized by polydrug, or multiple drug, overdose deaths.

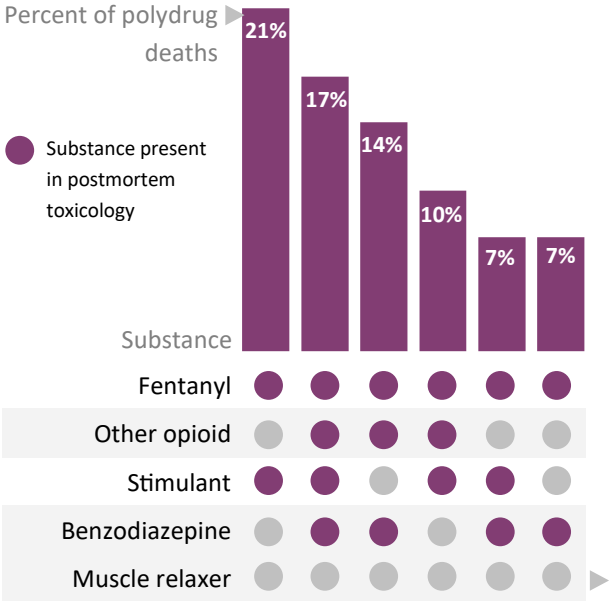
The number of people who died due to polydrug overdoses has increased in the past 20 years.



44% of the people who died of a drug overdose death from 2018-2020 died a polydrug death.

Examining toxicology reports provides additional information about what substances people used at the time of fatal overdose. We took a closer look at people who died a polydrug-involved death in 2020. The graph below shows major substance categories and how many people had combinations of those substances in postmortem toxicology reports.

Among people who died a polydrug death, the most common combinations of drugs in the toxicology report were fentanyl, other opioid, stimulant and benzodiazepine & fentanyl and stimulant.



We used Tennessee's definition of polydrug deaths: drug overdose deaths involving some combination of opioids, stimulants, benzodiazepines, and muscle relaxers. Muscle relaxers were not among the most common combination of drugs found in toxicology reports for people who died a polydrug death. However, they were found in toxicology reports among 10% of people with a polydrug death.

All of the people who died a polydrug death in 2020 had fentanyl, a non-fentanyl opioid, a stimulant, or a benzodiazepine detected during postmortem toxicology. Of those people:

- **61%** had a combination of opioids & stimulants
- **53%** had a combination of opioids & benzodiazepines
- **24%** had a combination of opioids, stimulants, & benzodiazepines

We included combinations drug categories that had 5 or more people. The combination of drugs above represents 54 of the 70 people who died a polydrug death and had both death certificate and toxicology data.

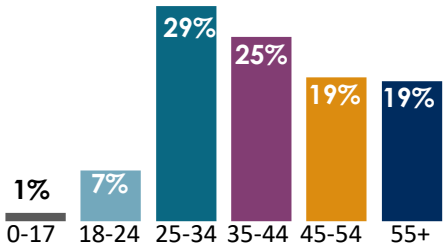
Characteristics of People Who Died

KEY TAKEAWAY

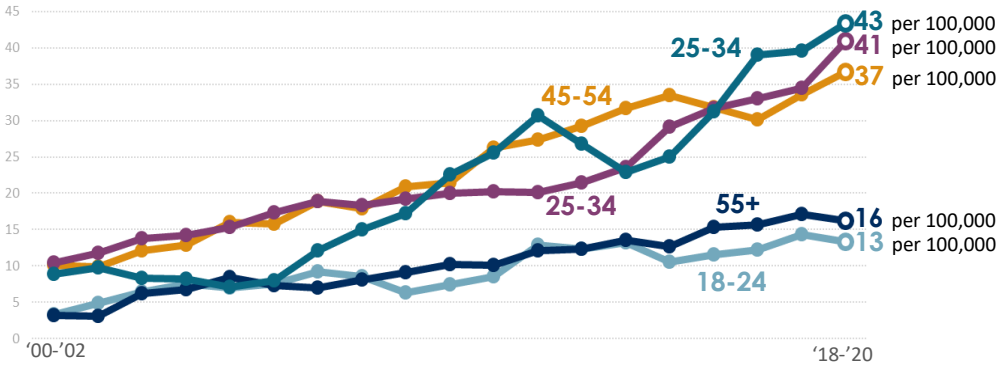
365 people lost their lives to drug overdose from 2018-2020 in Dane County. Below, we share information about who died of a drug overdose during this time, as well as rates for different populations. Rates help us identify groups in Dane County that are disproportionately impacted by drug overdose death even if the majority of deaths didn't occur in these groups, as they take the population size into account.

Age

More than half of all people who died of a drug overdose from 2018-2020 were **25-44 years old.**



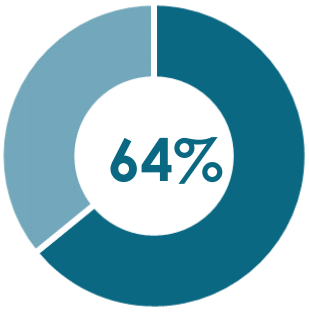
The highest rates of drug overdose deaths are among **people aged 25-54 years.** These age groups have experienced sharper increases in drug overdose death rates compared to people aged 18-24 and 55+ years.



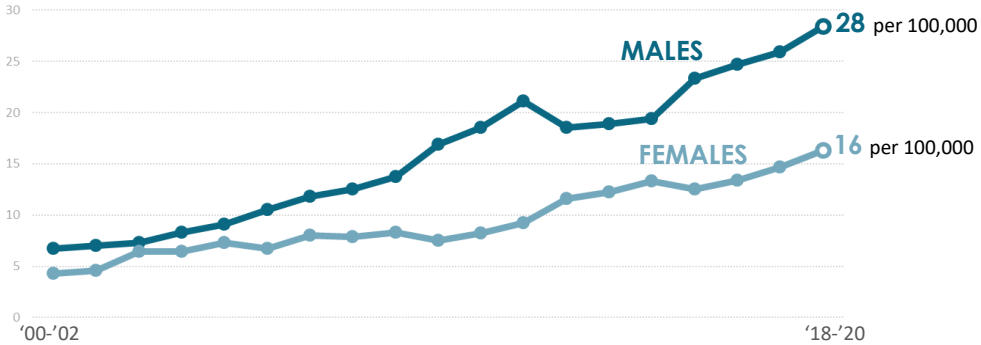
Trends for 0-17 year olds not included, as there were fewer than 5 deaths for most 3 year periods.

Sex

Nearly 2 in 3 people who died of a drug overdose death in 2018-2020 were **male.**



Men experience higher rates of drug overdose deaths compared to women. From 2018-2020, the age-adjusted drug overdose death rate was **1.7 times as high among males** compared to females.



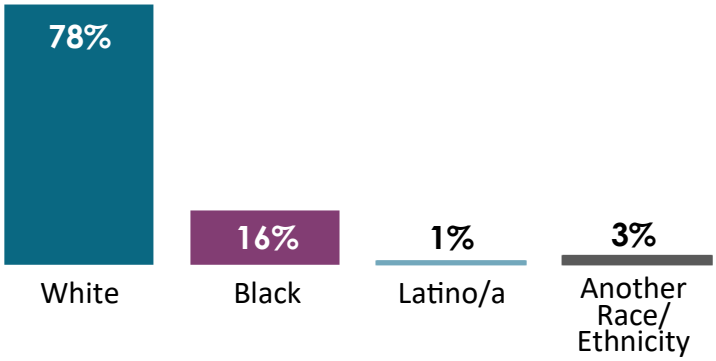
Characteristics of People Who Died (cont.)

KEY TAKEAWAY

78% of people who died of a drug overdose in Dane County from 2018-2020 were White. However, Black people in Dane County experience a disproportionate rate of overdoses and in 2018-2020 were over three times as likely to die of an overdose than White people.

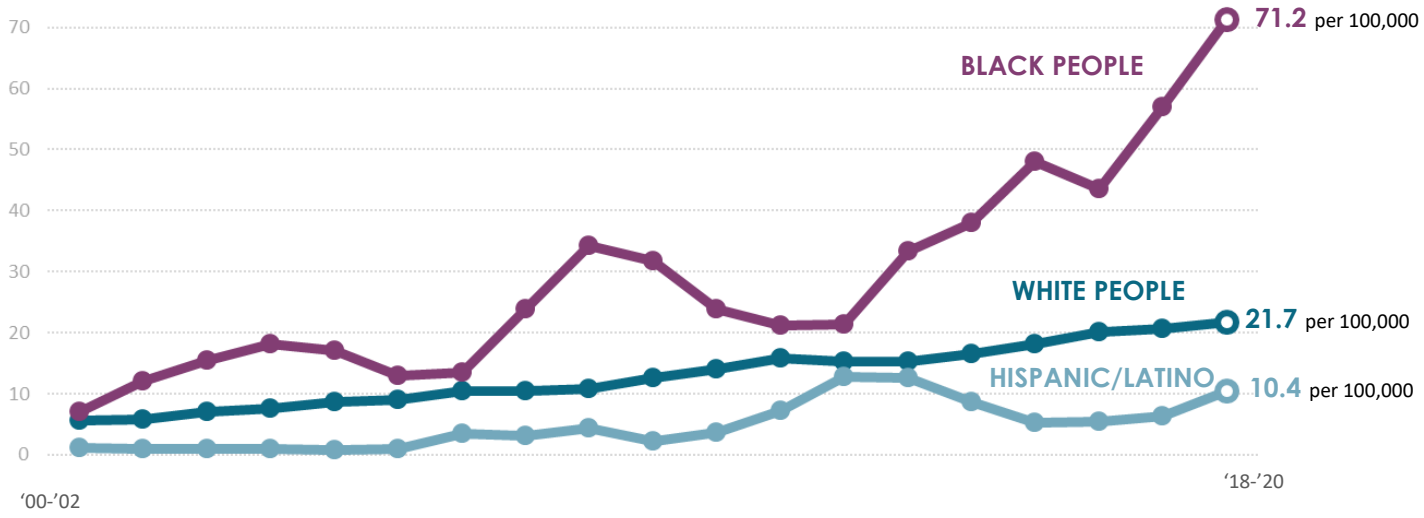
Race and Ethnicity

More than 3 in 4 people who died of a drug overdose from 2018-2020 were **White**.



Looking at the percentage of people by race and ethnicity gives us information about groups that make up the bigger share of overdose deaths. White people make up the biggest share of overdose deaths in part because Dane County has a large White population. Rates (shown below) take population size into account and help us compare the impact of overdose deaths between groups of people.

The age-adjusted drug overdose death rate among **Black people** was more than 3 times the rate among White people from 2018-2020. Black people have experienced **sharp increases in drug overdose death rates** in the past decade.



Note: Rates for Black people & Hispanic/Latino people are based on a small number of deaths for many 3 year periods, and may be unstable. See the Appendix for confidence intervals associated with each rate.

There is an urgent need to better understand and address the worsening racial inequities in drug overdose deaths. The rapid increase in drug overdose death rates among Black people in Dane County is related to long-standing inequities experienced by Black people, including higher rates of policing and incarceration as well as policies across sectors that negatively impact wellness and the ability of Black people to thrive.

Overdose Fatality Review Process

Drug overdose deaths are preventable, yet we have few opportunities to gather comprehensive information about overdose victims' lives and interactions with various systems to better understand what factors may have contributed to these deaths. The Dane County Overdose Fatality Review (OFR) allows us to examine and identify factors that contributed to drug overdose deaths, identify challenges within systems of care for individuals affected by drug use, and use this information to inform policies, practices, and programs within these systems.

Dane County OFR Process

Below are steps of the Dane County OFR process. This cyclical process involves ongoing data collection by Public Health staff, members of the Review Team examining and discussing cases every two months, and regular efforts by all involved to articulate and implement recommendations.

1 **GATHER DATA:** Identify cases, gather records, and interview families

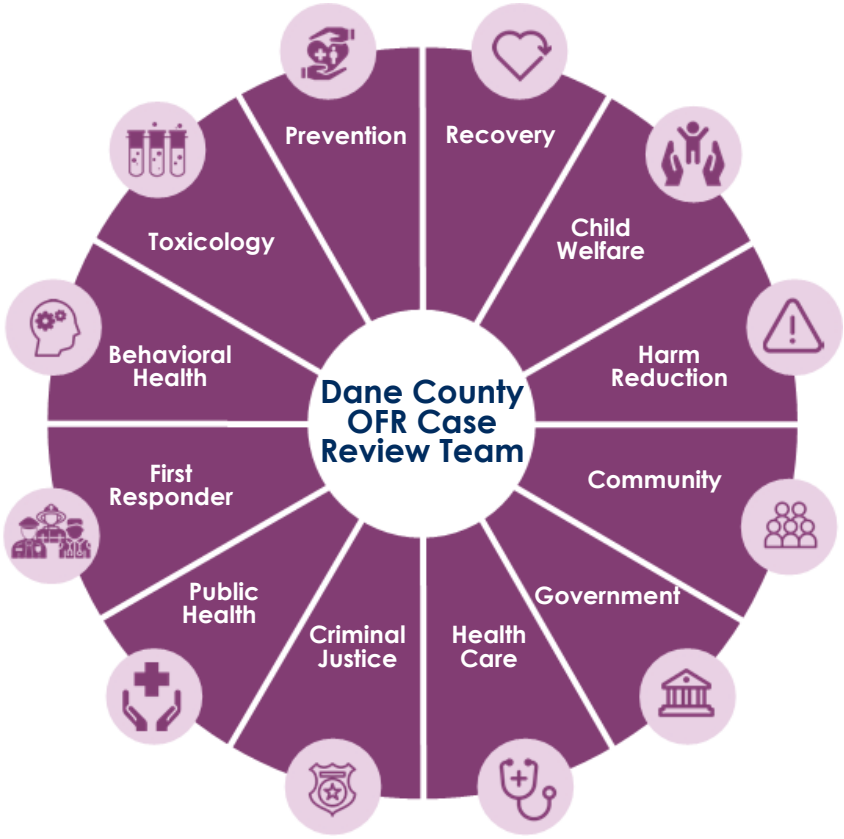
2 **REVIEW CASES:** Examine de-identified case summaries and identify contributing factors

3 **MAKE RECOMMENDATIONS:** Collectively identify changes that can prevent future deaths

4 **CHANGE SYSTEMS:** Put recommendations into action, locally or statewide

Family Interviews

Offering an interview to everyone who lost a loved one to drug overdose is a critical piece of the Dane County OFR. People's lives are full of many more experiences than what is reflected in medical, criminal justice, and other records. Centering family voice helps us articulate the challenges of living with substance use disorder in Dane County and provides a fuller picture of people who were beloved family members and friends.



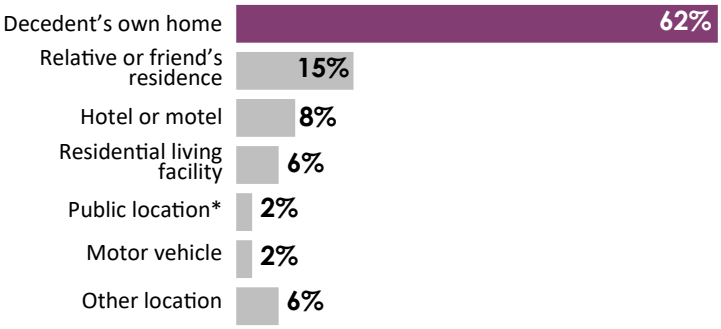
Partnerships with local organizations and institutions are vital to the Dane County OFR's success. Members of our case review team represent many sectors and have varied expertise and experience. This allows for robust discussion as well as sharing different perspectives as we examine the lives of people who die of an overdose death. Team members are able to learn from each other and expand their understanding of how other systems that interact with people who use drugs operate.

Circumstances of Deaths

KEY TAKEAWAY

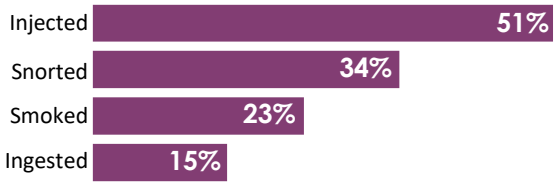
The circumstances of deaths point to opportunities for harm reduction strategies to save lives. The majority (77%) of people died in their home or the home of a friend or relative, and the majority (70%) of people we examined during case review had a bystander present. Making sure the individuals who support people who use drugs and assuring that naloxone is easily accessible within their own homes and in the homes of friends may save lives.

The majority of people who died a drug overdose death **died in their own home**.

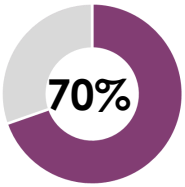


*Includes parks, playgrounds, streets, sideways, and other public spaces

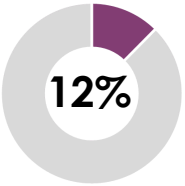
Injection was the most common method of substance administration, followed by snorting.



Percentages calculated among 95 individuals with data on route of administration of the fatal substance. Categories are not mutually exclusive.

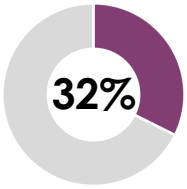


A bystander was present in the majority of deaths.* However, a witness to the fatal overdose was present in only 8% of deaths.



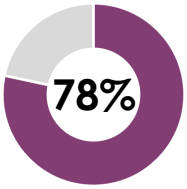
1 in 8 people who died were **experiencing homelessness**.

*Although people were physically nearby either during or shortly preceding a fatal overdose, the ability of these bystanders to intervene and respond to an overdose is questionable. For example, In a majority of fatal overdoses reviewed by the OFR Case Review Team where a bystander was present, the person using drugs was using alone in a closed room away from anyone, usually assumed to have gone to bed for the night.



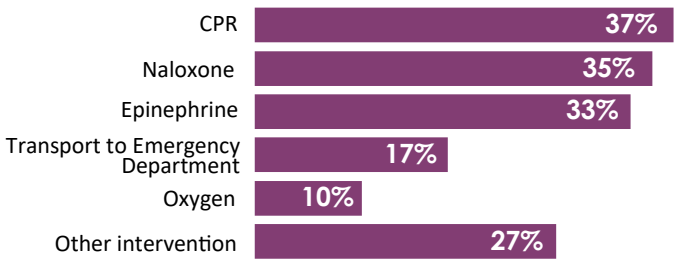
Naloxone was administered in almost a third of deaths.

Of the people who did not receive naloxone, **93% were deceased before there was an opportunity to administer.**



Emergency Medical Services (EMS) was present in the majority of deaths.

Of the people who died and had EMS present, the most common interventions were **naloxone, CPR, and epinephrine.**

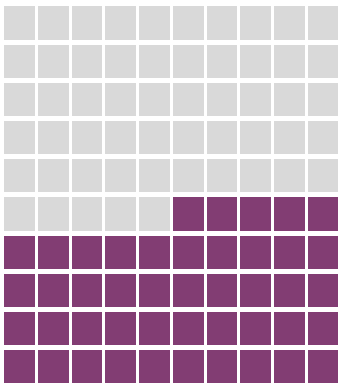


Recent contact with EMS & hospitals

KEY TAKEAWAY

Encounters with the medical system and paramedics were common among people who died of a drug overdose in 2020. Nearly half of all the people who died had an emergency department (ED) visit within a year of their death, and a third had an encounter with Emergency Medical Services (EMS).

45% had an ED visit in the year before they died.



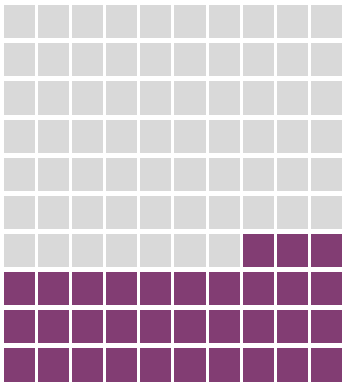
Of the 45% of people with an ED visit in the year before they died:

24% were for a non-fatal overdose.*

34% occurred within 30 days of death*

45% had 3 or more ED encounters in the past year.

33% had an EMS encounter in the year before they died.



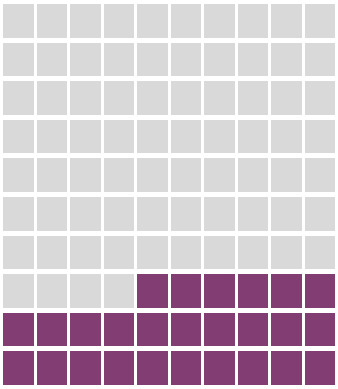
Of the 33% people with an EMS encounter in the year before they died:

49% were for a non-fatal overdose.*

26% occurred within 30 days of death*

33% had 3 or more EMS encounters in the past year.

26% had an overnight hospital stay in the year before they died.



Of the 26% people with an overnight hospital stay in the year before they died:

14% were related to substance use or mental health.*

25% occurred within 30 days of death*

25% had 3 or more overnight hospital stays in the past year.

*These data are for the most recent encounter within the past year

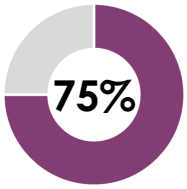
Percentages among people with an EMS or hospital visit/stay are based on small numbers and should be interpreted cautiously.

Every interaction with a part of the system is an opportunity for intervention. This can include providing education, tools, resources, and/or referrals or connections. Knowing that a third of people who died of a drug-involved overdose interacted with EMS providers and half had an emergency department visit in the year before they died, indicates the power of these interactions. Changes in these systems impact a significant number of lives. Combining this information with learnings from the case review process allows for the creation of specific, local recommendations that will save lives.

Contact with the criminal justice system

KEY TAKEAWAY

Encounters with the criminal justice system were common among people who died of a drug overdose in 2020. Three in four people who died had a known criminal justice history, and the majority were young adults at the first known time of arrest or incarceration.



3 in 4 people reviewed **had a criminal justice history.**

We receive adult criminal justice records for cases the OFR Case Review Team examines. Reviewed cases are a subset of all the people who died of a drug overdose death, and the criminal justice experiences of these 20 individuals may not generalize to the experiences of all people who died.

Arrests & incarceration among people with any criminal justice history

93% had a history of arrest and incarceration for various offenses

The median number of known arrests was **11** (range = 3 to 35)

The median number of incarcerations was **8.5** (range = 1 to 32)

Of those with a history of arrest or incarceration

- **29%** were **arrested within a year** of their death
- **40%** were **released from incarceration** with a year of their death
- **69%** were under the age of 25 at the time of **first known arrest**
- **71%** were under the age of 25 at the time of **first known incarceration**

Community supervision and post-adjudication or specialty courts among people with any criminal justice history

67% had a history of community supervision (programs where people convicted of crimes are supervised in their community rather than put in jail or prison)

The median number of known episodes of community supervision was **3** (range = 1 to 8)

27% had a history of specialty courts (drug court, operating while intoxicated treatment court, etc.)

Every interaction with a part of the system is an opportunity for intervention. This can include providing education, tools, resources, and/or referrals or connections.

Contact with the criminal justice system was common among the people we examined during Case Review. Many people had a large number of arrests and incarcerations, and the majority of first known arrests and incarcerations happened in early adulthood. Early intervention when individuals first engage within the criminal justice system may help prevent future arrests and improve overdose-related outcomes.

NOTE: Incarceration time periods vary from hours to years. Length of incarceration can impact the services and risk for overdose.

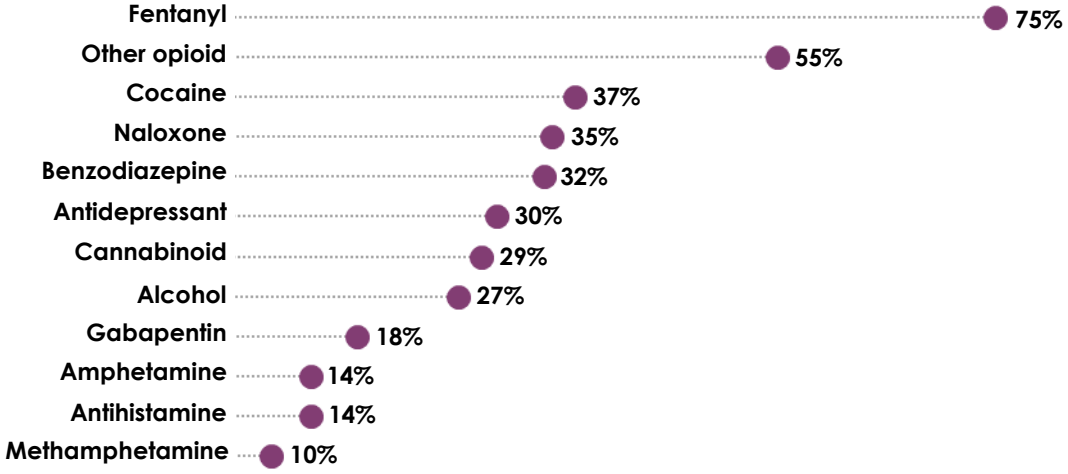
Postmortem Toxicology

KEY TAKEAWAY

Presence of multiple drugs was common among people who died a drug overdose death in 2020, and a high proportion had presence of both opioids and stimulants at the time of death. Harm reduction efforts should expand beyond opioids.

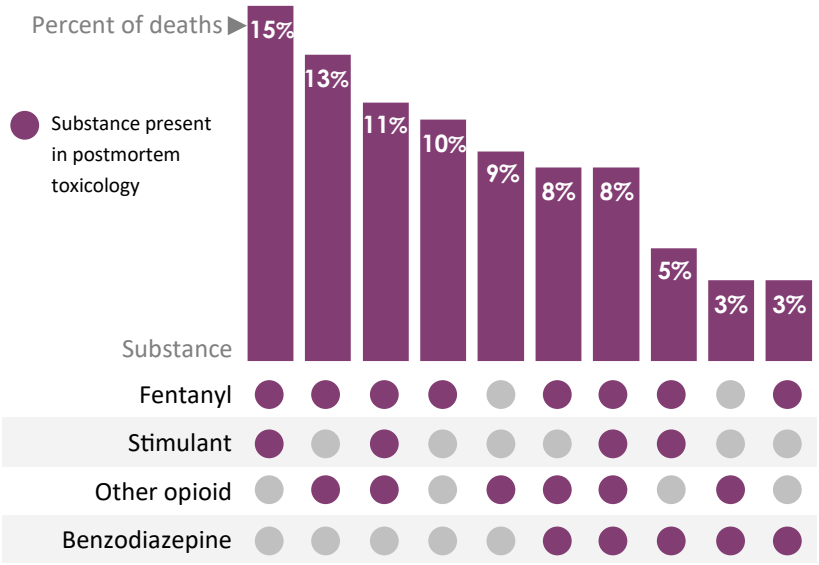
The Dane County Medical Examiner tests for the presence of substances through postmortem toxicology analysis. By examining toxicology reports, we gain a better understanding of which substances are commonly used by people who die of a drug overdose, as well as common combinations of substances at the time of death.

The most common substances detected among people who died were fentanyl and other opioids.



Only substances detected in at least 10% of people are included in this figure.

The most common combination of substances identified were fentanyl with a stimulant, fentanyl with another opioid, and fentanyl with another type of opioid and a stimulant.



We included combinations of major substance categories present in toxicology reports in at least 5 people who died. This graph does not reflect presence of other substances that fall outside of these substance categories.

138 people (95%) who died in 2020 had at least 1 of the following substances detected during postmortem toxicology: fentanyl, a non-fentanyl opioid, a stimulant, or a benzodiazepine. Of those people:

- **43%** had a combination of opioids & stimulants
- **30%** had a combination of opioids & benzodiazepines
- **14%** had a combination of opioids, stimulants, & benzodiazepines

Themes and Recommendations

The Dane County OFR Case Review Team reviewed information for 20 people who died in 2020. We combined what we learned from case review, the 25 interviews with loved ones, and quantitative data to identify common themes and recommendations. These recommendations were developed by the collective OFR Case Review Team and do not represent the views of any individual agencies. Many of these issues are interrelated, and moving recommendations to action in one area has the potential to positively impact other challenges facing people who use drugs.

Text in italics throughout the remainder of the report are expressions from families of loved ones who died

ADDRESSING COMPLEX, UNDERLYING ISSUES AT THE ROOT OF THE DRUG OVERDOSE CRISIS

Substance use disorder is a chronic medical condition that impacts the brain, yet the belief that people can stop using drugs at anytime substantially impacts how systems collectively respond to substance use disorder and people who use drugs.

Criminalizing Addiction

People who witness an overdose are often afraid to call for help because typically that help comes with a police officer. Individuals are fearful seeking care will result in being arrested or having someone they care about being arrested. People surviving an overdose are often arrested on a drug charge and taken directly to jail from the hospital. Making people criminals because they suffer from addiction is expensive, ruins lives, and can make access to treatment and recovery more difficult.

> *You shouldn't get arrested for OD'ing. You shouldn't. That's the most asinine thing, really. That's what you're going to do to him?! He's going to catch a charge? If you look at his record, it's bail jumping, bail jumping, bail jumping – which is basically every single time that kid overdosed. It wasn't because he didn't show up [to court]; it's because [he] OD'd.*

Recommendations

- Wisconsin's Good Samaritan Law should provide limited immunity from violation of probation and parole and from arrest, charge, and prosecution for both controlled substance possession and paraphernalia possession for the person summoning emergency personnel for the overdose victim and the individual experiencing an overdose.
- Continue to explore alternative responses to calls for service that include community paramedics and behavioral health providers and exclude police officers (e.g., CARES: Community Alternative Responses to Emergency Situations).

ADDRESSING COMPLEX, UNDERLYING ISSUES AT THE ROOT OF THE DRUG OVERDOSE CRISIS, CONTINUED

Stigma & Bias

People who use drugs and struggling with addiction are treated poorly across systems. They are often labeled with dehumanizing terms such as “addicts”, “frequent flyers”, and “familiar faces.” Stigma surrounding substance use is a major barrier to improving uptake of clinical care and other recovery and harm reduction services. Black people experience stigma in the context of generational trauma and chronic stress from racism present in every system that people engage with.

Discriminatory policies related to housing, jobs, policing, as well as implicit biases embedded within healthcare have deep and lasting impact on the ability of Black people to thrive in our community. In the past decade, drug overdose mortality rates have increased more sharply among Black people compared to other racial and ethnic groups in Dane County, and for the most recent year of data (2018-2020), the rate of drug overdose death among Black people was 3 times the rate among white people.

Stigma affects every level of the response to the ongoing crisis, and stigmatized attitudes toward substance use can be found not only in the general public, but also in critically important populations interacting with people who use drugs such as law enforcement, Emergency Medical Services (EMS), the courts, and health care professionals. People who use drugs themselves are not immune to stigmatized attitudes around substance use, and this self-stigma is also a huge barrier to recovery. This stigma not only discourages care seeking but can reduce the quality of care received.

> *They told her, ‘You’re a frequent flyer. We’re gonna get you in and we’re gonna get you out as soon as we can.’ There was no compassion there at all.*

Recommendations

- Examine quantitative and qualitative data beyond deaths to better characterize the experience of Black people with substance use disorder in Dane County, including the social, cultural, and illicit drug market factors that are driving the rapid increase in drug overdose death in this population.
- Allocate funding to assess the prevalence of stigma in Dane County. Better understanding of stigma will facilitate more effective and targeted interventions to reduce its impact and improve outcomes for people who use drugs.
- Expand culturally-appropriate treatment and harm reduction services focused on Black people with substance use disorder.
- Develop a media guide for talking about addiction and overdose.
- All courts should engage in trauma-informed judicial practices.

Themes and Recommendations

PREVENTING SUBSTANCE USE DISORDER

Supporting communities and individuals before substance use and misuse begin promotes health and well-being during childhood and into adulthood, including prevention of drug overdose deaths.

Adverse Childhood Experiences & Youth Substance Use

Experiences in childhood impact health outcomes, including the experience of substance use disorder, in adulthood. The people who died often initiated substance use in adolescence, typically with alcohol or cannabis. Initiating substance use during this period is linked to substantial long-term health risks. It was also very common for the people who died to experience multiple Adverse Childhood Experiences (ACEs) and childhood traumas, including abuse, household dysfunction, school challenges, and the loss of a parent or caregiver. Research demonstrates a strong, graded relationship between ACEs and a variety of substance-related behaviors, including illicit drug use, drug dependency, and self-reported addiction.

Recommendation

- Prevention practitioners should include ACEs among the primary risk and protective factors when planning efforts. Additional funding should be provided to support the implementation of programs and strategies addressing ACEs, including efforts focused on reducing intergenerational transmission of ACEs.

SUPPORT FOR FAMILIES

A loved one struggling with substance use profoundly affects their family members. Everyone affected by alcohol or other drug abuse needs support, care, and healing. Family members can be an asset to their loved one and can support them as they work to achieve and maintain recovery.

Supporting Friends & Family

It was common for people physically around the person who died to not recognize the signs and symptoms of a drug overdose or have Narcan® to administer. In addition, family members often struggled to understand the complexity of the disease of addiction and behavioral health services, and periodically held beliefs contrary to established evidence based science (example: a parent who thinks taking a medication for mental illness or a medication for opioid use disorder is trading one problem for another). Little support is available for family members navigating substance use disorder.

> *I didn't know what to do or where to go for help.*

Recommendations

- Increase Overdose Education and Narcan® Distribution efforts and focus on friends and family members of people using any illicit substances. These efforts should include skill building for people on how to have a conversation with a loved one about safer drug use and safety planning.
- Family members and friends of people who use drugs should have access to educational and support services. These services should provide education on addiction and mental health, best practices in treatment, medications for opioid use disorder, harm reduction strategies, and legal confidentiality restrictions. Other family members with a similar lived experience should provide support services to family members of people who use drugs.

Themes and Recommendations

TRAUMATIC LOSS

Supporting individuals who experience traumatic events past the childhood, particularly among individuals with ACEs during childhood, is important in promoting health and well-being.

Grief

Traumatic loss (e.g., loneliness and yearning with emotions such as anger and hopelessness) was a common experience among people whose lives we examined. Individuals report that their substance use increased to the point of having an addiction, or their addiction increased to a point of being lethal, following a traumatic loss. In Dane County, there is a lack of accessible grief support services tailored to the unique experiences of those with an addiction. Examples of traumatic loss that deeply impacted people who died included the death of close family members, overdose deaths of friends and partners, losing custody of children, and loss of a relationship with a significant other.

> *He called [from jail] the day after [our Dad] passed and I just broke down and said, 'Dad died.' I've never heard somebody howl so bad before. He always thought our father didn't love him.*
>
> *"He found out about his dad dying and his favorite uncle [dying] on the same day and then he just kinda spiraled downhill from there.*

Recommendations

- Human service and healthcare providers should receive affordable comprehensive training on how to navigate grief support. This recommendation will also support the workforce of helpers and reduce turnover rates and provider burnout.
- Behavioral health providers should ensure space is available during treatment sessions for patients to process traumatic loss both cognitively and emotionally.

Themes and Recommendations

HARM REDUCTION SAVES LIVES

Dane County has many evidence-based tools to prevent death and injury due to drug use. Continuing to evolve and expand harm reduction services are critical to supporting the health and well-being of people who use drugs.

Using Drugs Alone

When someone overdoses alone, no one is there to call for help. Half of the reviewed cases included a person using alone. Although people were physically nearby either during or shortly before fatal overdoses in the majority of cases we reviewed, the ability of these bystanders to intervene and respond to an overdose is unclear. Often these bystanders were not witnesses to the overdose because the person who died hid their drug use behind closed, and often locked, doors.

Recommendation

- Educational materials and outreach efforts on safer drug use should include the promotion of Never Use Alone, a national, free number to call if someone finds themselves using alone. They will stay on the line while someone uses their drugs and summons emergency medical services if the person becomes unresponsive. Services are provided in English and in Spanish.

Lack of Risk Mitigation

People who survived an overdose and treated by emergency medical providers and/or an emergency department are not consistently provided with adequate harm reduction education or materials.

In the worst scenarios reviewed by the Team, patients were treated for their overdose and discharged without any education, advisement, or tools. In the best scenarios reviewed by the Team, patients in emergency departments were provided with a physical prescription for Narcan® that they needed to fill at a pharmacy location, despite evidence suggesting that few people fill Narcan® prescriptions. Possible barriers to filling a Narcan® prescription include visiting the pharmacy, waiting in line, paying for the medication if uninsured, paying a copay if insured, and fear of experiencing stigma and bias at the pharmacy.

Recommendations

- Establish a countywide EMS Leave Behind Program to provide free harm reduction education and materials (including nasal Narcan®) and treatment and recovery resources to patients surviving a suspected overdose and/or their surrounding friends and family. FitchRona EMS began this program in 2021 and could serve as a model for the county.
- Emergency departments should establish Take-Home Programs to provide free nasal Narcan® directly to patients disclosing illicit substance use and/or surviving an overdose.
- Narcan® should be located in all first aid kits, AED boxes, and/or Nalox-Zone boxes to ensure quick access for bystanders in public overdose situations.

Themes and Recommendations

MEDICAL CARE FOR PEOPLE WITH SUBSTANCE USE DISORDER

Medical care for people experiencing substance use disorder is commonly structured in ways that make it difficult for people to get the care they need. Behavioral health care is often separate from primary care, and systems of care often struggle to accommodate the needs of people experiencing substance use disorder.

Quality of Clinical Care

Family members often described their loved ones not following treatment advice, including not going to treatment sessions, stopping medications, and leaving the hospital against medical advice. The reasons for this may be varied, yet family members often talked about challenges related to treatment for substance use disorder: their loved ones' desires for treatment not being incorporated into treatment plans, poor or no communication between providers, lack of compassion among providers, and failure to refer to services. Although ED2Recovery – the offering and, upon consent, provision of a recovery coach to support emergency department patients – is established at all Dane County hospitals, patients were not consistently offered peer support services. Medical needs for chronic health conditions beyond substance use disorder were also common, including co-occurring mental health conditions.

> *He called and said, 'My meds aren't working...I'm begging you to please give me something different.' And they said, 'We can't do anything for you right now.' And he died shortly thereafter.*

Recommendations

- Implement patient-centered, integrated care models to better serve people with substance use disorder. Integrating primary care with behavioral health care increases access to care, destigmatizes receipt of behavioral health services, and assures communication and collaboration among providers in real time. Patient collaboration in developing treatment plans recognizes that individuals have unique preferences and goals and allows for respectful, appropriate care.
- Screen all patients at emergency departments for substance misuse and offer ED2Recovery services if they meet criteria.

MEDICAL CARE FOR PEOPLE WITH SUBSTANCE USE DISORDER (CONT.)

Barriers to Accessing Care

When someone is ready to receive services for substance use disorder, those services should be available quickly and at times that are convenient for individuals. Many of the people who died experienced challenges such as inconvenient times for treatment services, waiting lists to get into treatment services, and screening requirements before medicated assisted treatment or medically managed withdrawal services could be initiated (e.g., urinalysis, blood tests, COVID tests). Families also often stated that available treatment options are unaffordable, especially when insurance limits for behavioral health services are reached.

> *They would get in a program and find a counselor that really was starting to work and then all of a sudden, your six months is up and that's it. Addiction cannot be cured in a set timeline.*
>
> *"It took a couple weeks to get into the methadone clinic… [I asked] 'What is he supposed to do in the meantime?' And the nurse said… 'He'll just have to keep doing whatever he was doing. Because you have to have opiates in your system [for the program].'*
>
> *"It's just so hard. It's hard to find the help. And then to get connected and [to be told], 'We're already swamped, we can't fit another person in.'*

Recommendations

- Implement patient-centered, integrated care models to better serve people with substance use disorder. Integrating primary care with behavioral health care increases access to care, destigmatizes receipt of behavioral health services, and assures communication and collaboration among providers in real time. Patient collaboration in developing treatment plans recognizes that individuals have unique preferences and goals and allows for respectful, appropriate care.*
- Expand services to hours outside of the traditional workday hours, such as evenings and weekends.

*This is a repeat recommendation. Integrated care models could address many of the challenges of caring for people who use drugs.

Themes and Recommendations

IMPACT OF COVID

COVID-19 caused unprecedented disruptions and challenges in our community in 2020. State Safer at Home orders and other community-wide mitigation efforts changed access to, and delivery of, healthcare, treatment, and harm reduction services for people experiencing substance use disorder.

COVID experiences

Jobs were lost, services were moved online, and social isolation and loneliness were common in 2020 as our community was living with the direct and indirect impact of COVID. These experiences were highlighted during case review and family interviews.

> *During COVID they [weren't] really checking in on him anymore… which probably did not help him.*
>
> *"[He] never did well online.*

Recommendations

- Support skill development for staff supporting people with substance use disorder, including developing and maintaining relationships with clients in a virtual settings.
- Develop contingency plans to assure continuity of patient-centered care that is responsive to patient needs, abilities, and access to online services.

Overdose Fatality Review: 2021 By the Numbers

In 2020, Dane County had the second highest number of drug overdose deaths in the state. Public Health Madison & Dane County is the coordinating agency for OFR. We gather data for all people who die of a drug overdose, prepare materials to support regular case reviews, and convene a diverse group of people to develop data-driven recommendations to prevent more people from dying. Nearly all of the dollars we receive for conducing OFR goes to a critical component of OFR: collecting and abstracting data for people who die of a drug overdose.

Conducting case reviews

20 people reviewed by the OFR Case Review Team

23 people, on average, attended meetings to discuss the people who died

7 case review meetings with 14 hours of Team examination & discussion

Impact of OFR

$14,000 grant dollars received to implement recommendations

3 in 4 people learned something new & were challenged to look at something differently

Sponsored attendance for 7 OFR Team members to the WI Opioid, Stimulant & Trauma Summit

Preparing for case review

$35,000 grant dollars to support case review

25 families shared stories about their loved ones

Gathered data for 145 people who died

215 pages of narrative & supporting documents created

OFR case review meetings offer an opportunity for people representing diverse sectors and experiences to discuss the experiences of people who die. The group is challenged to grow and learn as we talk about how systems can better support people who use drugs.

One way we see local impact is by case review members using those learnings in their work and organizations. Here are some examples:

[OFR] helps me increase my empathy for my clients. Interacting with people who are intoxicated or withdrawing all day every day can be exhausting. Everything I learned helps me humanize and empathize and I really appreciate it.

We have expanded our [syringe services] to try to bring in people who do not inject drugs, but are still at risk for overdose, so we can get more Narcan® out to the community. We are continuing to expand our partnerships in the community to ensure multiple points of access to Narcan®.

All providers have access to Narcan® or have it in their office and have fentanyl test strips.

We distributed medication lock boxes to [clients].

Appendix: Technical notes

Data sources

Death certificate. These data come from Vital Records at the Wisconsin Department of Health Services, and include information about the manner of death, underlying or primary cause of death, and contributing causes of death.

Overdose Fatality Review REDCap Database. PHMDC staff collects comprehensive data on people who die of a drug overdose in Dane County. The information in that database includes the following:

- Characteristics of the person who died
- Cause of death
- Observations at the scene of death
- Toxicology findings
- Interventions to try to save the person's life (by a bystander or first responder)
- Visits to a medical care provider, including Emergency Medical Services (EMS)
- Health conditions of the person who died
- Controlled substances received by the person who died
- Criminal justice history

Why are your numbers different from state and national reports?

We receive data files upon request at a specific point in time. The timing of when DHS finalizes data provided to us leads to small differences in the total of deaths you see in our reporting compared to what you see on the DHS website. We generally have 1-2 fewer deaths per year compared to what is reported in the Wisconsin Interactive Statistics on Health (WISH) Query System. These small differences do not have a big impact on rates or our understanding of overdose trends in Dane County. For national reports, data are also finalized as of a certain date, which can lead to small differences in data reported by DHS

Calculating rates

It's common to see two kinds of rates: crude rates and age-adjusted rates. Crude mortality rates are straightforward to calculate: it's the number of deaths divided by the total population and multiplied by 100,000.

Mortality rates are often adjusted for age because different age groups experience health outcomes, including drug overdose death, at different rates. Different geographic or demographic groups may have different age distributions, which impacts what types of health outcomes are common in those groups. We adjust for age and calculate age-adjusted rates so that we can make fair comparisons to state or national rates, and also between groups within Dane County. Check out this link for further explanation and examples. Confidence intervals for age adjusted rates were calculated based on methods developed by Fay & Feuer (gamma confidence intervals).

Appendix: Technical notes

Rates based on small numbers

It is common to label mortality rates based on fewer than 20 deaths as unreliable. We typically think about population health statistics as estimates—there is some uncertainty about the true value. Estimates based on small numbers of events, such as deaths, may be less accurate, or reliable, than estimates that are based on large numbers. When thinking about rates in any given year, we recommend looking at the 95% confidence intervals in the data tables, and interpreting the estimate with caution if the number of deaths is small. Check out this link for more information.

Statistical testing

Statistical testing for significance is standard practice in assessing whether the data show a pattern that we wouldn't expect by chance alone. We use Joinpoint to identify periods of time when drug overdose mortality rates changed significantly. It's important to keep in mind that sometimes we see patterns in data that may be important even if they don't reach the level of statistical significance. This is more likely to happen when there are a small number of deaths for a specific substance or group of people. Because the numbers are small, it can be harder to detect a statistically significant difference in a rate.

Identifying drug overdose deaths

We use cause and manner of death information from death certificates to identify drug overdose deaths among Dane County residents. We identify drug overdose deaths by using nationally established definitions:

- **Drug overdose deaths**. A death with drug poisoning listed as the underling cause of death (ICD-10 codes: X40-X44 (accidental poisoning by drugs), X60-X64 (intentional self-poisoning by drugs), X85 (assault by drug poisoning), or Y10-Y14 (drug poisoning of undetermined intent))
- **Opioid-involved deaths**. A drug overdose death with one of the following listed as a contributing cause of death: T40.0-T40.4, T40.6
- **Prescription opioid-involved deaths**. A drug overdose death with one of the following listed as a contributing cause of death: T40.2, T40.3
- **Synthetic opioid-involved deaths**. A drug overdose death with one of the following listed as a contributing cause of death: T40.4
- **Heroin-involved death**. A drug overdose death with one of the following listed as a contributing cause of death: T40.1
- **Benzodiazepine-involved death**. A drug overdose death with one of the following listed as a contributing cause of death: T42.4
- **Cocaine-involved death**. A drug overdose death with one of the following listed as a contributing cause of death: T40.5
- **Psychostimulant-involved death (excluding cocaine)**. A drug overdose death with one of the following listed as a contributing cause of death: T43.6
- **Poly-substance death**. A drug overdose death involving more than one of the following drug categories: opioids (T40.0-T40.4, T40.6), stimulants (T43.6,T40.5), benzodiazepines (T42.4), muscle relaxants (T48.1).

Appendix: Data tables

Drug overdose deaths, Dane County residents, 2000-2020

3-year rates

Year	Number of deaths	Age-adjusted rate per 100,000	
		Rate	95% CI
2000-2002	74	5.4	4.2, 6.7
2001-2003	81	5.7	4.5, 7.1
2002-2004	98	6.9	5.6, 8.4
2003-2005	107	7.4	6.1, 9.0
2004-2006	120	8.3	6.8, 9.9
2005-2007	125	8.6	7.2, 10.3
2006-2008	145	9.8	8.3, 11.6
2007-2009	149	10.1	8.5, 11.8
2008-2010	162	10.8	9.1, 12.6
2009-2011	184	12.0	10.3, 13.9
2010-2012	203	13.1	11.3, 15.0
2011-2013	232	14.8	12.9, 16.9
2012-2014	231	14.7	12.8, 16.7
2013-2015	241	15.2	13.3, 17.3
2014-2016	254	16.1	14.2, 18.3
2015-2017	285	17.8	15.7, 20.0
2016-2018	309	19.0	16.9, 21.3
2017-2019	335	20.4	18.2, 22.7
2018-2020	365	22.2	20.0, 24.7

CI=Confidence interval

Appendix: Data tables

Benzodiazepine, psychostimulant, and cocaine-involved overdose deaths, Dane County residents, 2000-2020

3-year rates

	Benzodiazepine-involved deaths			Psychostimulant-involved deaths (excludes cocaine)			Cocaine-involved deaths		
Year	Number of deaths	Age-adjusted rate per 100,000	95% CI	Number of deaths	Age-adjusted rate per 100,000	95% CI	Number of deaths	Age-adjusted rate per 100,000	95% CI
2000-2002	8^	0.6	0.2, 1.2	2^	0.1	0.0, 0.5	12^	0.9	0.4, 1.5
2001-2003	11^	0.8	0.4, 1.4	0	0.0	n/a	18^	1.3	0.8, 2.1
2002-2004	18^	1.2	0.7, 2.0	2^	0.1	0.0, 0.5	22^	1.5	1.0, 2.4
2003-2005	19^	1.3	0.8, 2.0	2^	0.1	0.0, 0.5	25	1.7	1.1, 2.6
2004-2006	19^	1.2	0.7, 2.0	4^	0.3	0.1, 0.7	27	1.8	1.2, 2.7
2005-2007	15^	1.0	0.5, 1.6	5^	0.3	0.1, 0.8	29	2.0	1.3, 2.9
2006-2008	21	1.4	0.8, 2.1	5^	0.3	0.1, 0.8	28	1.9	1.3, 2.8
2007-2009	23	1.5	1.0, 2.3	3^	0.2	0.0, 0.7	22	1.5	1.0, 2.3
2008-2010	24	1.6	1.0, 2.4	1^	0.1	0.0, 0.4	17^	1.1	0.6, 1.8
2009-2011	53	3.5	2.6, 4.6	4^	0.2	0.1, 0.7	20	1.3	0.8, 2.1
2010-2012	77	5.0	3.9, 6.2	8^	0.5	0.2, 1.0	20	1.4	0.8, 2.1
2011-2013	109	7.0	5.7, 8.4	11^	0.7	0.4, 1.3	21	1.5	0.9, 2.3
2012-2014	105	6.7	5.5, 8.2	11^	0.7	0.4, 1.3	19^	1.3	0.8, 2.1
2013-2015	104	6.7	5.4, 8.1	13^	0.8	0.4, 1.4	23	1.5	0.9, 2.2
2014-2016	100	6.3	5.1, 7.7	15^	0.9	0.5, 1.5	22	1.3	0.8, 2.0
2015-2017	91	5.6	4.5, 6.9	16^	0.9	0.5, 1.5	39	2.4	1.7, 3.4
2016-2018	93	5.6	4.5, 6.9	20	1.2	0.7, 1.9	48	3.0	2.2, 4.0
2017-2019	83	5.0	4.0, 6.3	26	1.6	1.0, 2.4	70	4.3	3.4, 5.5
2018-2020	106	6.6	5.3, 7.9	44	2.7	1.9, 3.6	75	4.7	3.7, 5.9

CI=Confidence interval

^Rates based on counts with less than 20 deaths. Interpret with caution.

Appendix: Data tables

Opioid-involved overdose deaths by opioid type, Dane County residents, 2000-2020

3-year rates

	Opioid-involved deaths			Prescription opioid-involved deaths			Heroin-involved deaths			Synthetic opioid-involved deaths		
Year	Number of deaths	Age-adjusted rate per 100,000	95% CI	Number of deaths	Age-adjusted rate per 100,000	95% CI	Number of deaths	Age-adjusted rate per 100,000	95% CI	Number of deaths	Age-adjusted rate per 100,000	95% CI
2000-2002	41	2.9	2.1, 4.0	32	2.2	1.5, 3.2	5^	0.4	0.1, 0.9	3^	0.2	0.0, 0.7
2001-2003	47	3.3	2.4, 4.4	33	2.3	1.6, 3.3	7^	0.5	0.2, 1.0	5^	0.4	0.1, 0.9
2002-2004	59	4.1	3.1, 5.3	45	3.1	2.3, 4.2	7^	0.5	0.2, 1.0	8^	0.6	0.2, 1.1
2003-2005	70	4.8	3.7, 6.1	53	3.6	2.7, 4.8	10^	0.7	0.3, 1.2	10^	0.7	0.3, 1.3
2004-2006	79	5.3	4.2, 6.7	64	4.3	3.3, 5.6	10^	0.6	0.3, 1.2	10^	0.6	0.3, 1.2
2005-2007	90	6.1	4.9, 7.5	70	4.8	3.7, 6.1	16^	1.0	0.6, 1.7	9^	0.6	0.3, 1.1
2006-2008	96	6.4	5.2, 7.8	74	5.0	3.9, 6.3	21	1.4	0.8, 2.1	7^	0.4	0.2, 0.9
2007-2009	104	6.9	5.6, 8.4	75	5.0	4.0, 6.3	26	1.7	1.1, 2.5	10^	0.6	0.3, 1.2
2008-2010	113	7.4	6.1, 8.9	73	4.8	3.8, 6.1	34	2.2	1.5, 3.0	16^	1.1	0.6, 1.7
2009-2011	140	9.1	7.6, 10.8	93	6.1	4.9, 7.5	41	2.6	1.9, 3.5	22	1.5	0.9, 2.3
2010-2012	157	10.1	8.6, 11.9	98	6.3	5.1, 7.8	54	3.5	2.6, 4.5	26	1.7	1.1, 2.5
2011-2013	182	11.6	10.0, 13.4	114	7.3	6.0, 8.8	76	4.9	3.8, 6.1	29	1.8	1.2, 2.6
2012-2014	182	11.5	9.9, 13.4	106	6.8	5.6, 8.3	85	5.3	4.2, 6.6	28	1.7	1.1, 2.5
2013-2015	184	11.6	9.9, 13.4	106	6.8	5.5, 8.2	88	5.4	4.3, 6.6	30	2.0	1.3, 2.8
2014-2016	200	12.7	10.9, 14.6	104	6.7	5.4, 8.1	103	6.4	5.2, 7.8	53	3.4	2.6, 4.5
2015-2017	228	14.3	12.5, 16.3	102	6.3	5.1, 7.7	118	7.4	6.1, 8.9	93	6.0	4.8, 7.3
2016-2018	258	15.9	14.0, 18.0	102	6.3	5.1, 7.6	128	8.0	6.7, 9.6	141	8.7	7.3, 10.3
2017-2019	278	17.0	15.1, 19.2	94	5.7	4.6, 7.0	111	6.9	5.6, 8.3	193	12.0	10.3, 13.8
2018-2020	313	19.2	17.1, 21.5	104	6.4	5.2, 7.8	107	6.6	5.4, 8.0	253	15.5	13.6, 17.6

CI=Confidence interval

^Rates based on counts with less than 20 deaths. Interpret with caution.

Appendix: Data tables

Drug overdose deaths by age, Dane County residents, 2000-2020

3-year rates

	18-24 years			25-34 years			35-44 years			45-54 years			55+ years		
Year	Number of deaths	Rate per 100,000	95% CI	Number of deaths	Rate per 100,000	95% CI	Number of deaths	Rate per 100,000	95% CI	Number of deaths	Rate per 100,000	95% CI	Number of deaths	Rate per	95% CI
2000-2002	6^	3.3	1.3, 6.8	18^	8.8	5.4, 13.7	22	10.4	6.7, 1.5	19^	10.1	6.3, 15.5	7^	3.2	1.4, 6.2
2001-2003	9^	4.9	2.4, 8.9	20	9.8	6.2, 14.9	25	11.8	7.8, 17.1	19^	9.8	6.1, 15.0	7^	3.0	1.3, 6.0
2002-2004	12^	6.5	3.5, 11.0	17^	8.3	5.0, 13.0	29	13.7	9.4, 19.4	24	12.1	7.9, 17.8	15^	6.2	3.6, 10.0
2003-2005	14^	7.5	4.3, 12.3	17^	8.2	4.9, 12.8	30	14.3	9.8, 20.1	26	12.8	8.6, 18.5	17^	6.7	4.1, 10.6
2004-2006	13^	7.0	3.9, 11.6	15^	7.1	4.1, 11.5	32	15.3	10.6, 21.3	33	16.0	11.2, 22.2	22	8.4	5.4, 12.5
2005-2007	14^	7.5	4.3, 12.4	17^	8.0	4.8, 12.5	36	17.3	12.3, 23.7	33	15.7	11.0, 21.9	20	7.3	4.6, 11.0
2006-2008	17^	9.2	5.5, 14.5	26	12.1	8.1, 17.5	39	18.9	13.7, 25.6	40	18.9	13.7, 25.5	20	7.0	4.4, 10.6
2007-2009	16^	8.6	5.1, 13.6	32	15.0	10.4, 20.9	37	18.3	13.1, 24.9	38	17.9	12.9, 24.3	24	8.0	5.3, 11.8
2008-2010	12^	6.3	3.4, 10.8	38	17.2	12.4, 23.4	38	19.2	13.8, 26.0	44	20.9	15.4, 27.8	28	9.1	6.1, 12.9
2009-2011	14^	7.4	4.2, 12.1	50	22.6	17.0, 29.6	39	20.0	14.4, 27.1	45	21.4	15.8, 28.4	33	10.2	7.2, 14.2
2010-2012	16^	8.5	5.1, 13.6	57	25.5	19.5, 32.8	39	20.2	14.5, 27.3	55	26.2	20.0, 33.9	34	10.1	7.1, 14.0
2011-2013	24	12.8	8.4, 18.8	69	30.7	24.1, 38.6	39	20.1	14.5, 27.2	57	27.4	20.9, 35.2	42	12.0	8.8, 16.1
2012-2014	23	12.3	8.0, 1.8	62	26.7	20.7, 34.1	42	21.4	15.6, 28.7	60	29.2	22.5, 37.4	44	12.3	9.0, 16.4
2013-2015	25	13.2	8.8, 19.2	55	22.9	17.5, 29.6	47	23.5	17.5, 31.0	64	31.7	24.6, 40.3	50	13.6	10.2, 17.8
2014-2016	20	10.5	6.6, 16.0	60	25.0	19.3, 32.0	59	29.1	22.3, 37.3	67	33.4	26.1, 42.2	48	12.6	9.4, 16.6
2015-2017	22	11.6	7.4, 17.3	75	31.2	24.7, 38.9	65	31.7	24.6, 40.1	63	31.8	24.6, 40.4	60	15.3	11.8, 19.6
2016-2018	23	12.2	7.9, 18.0	94	39.1	31.8, 47.6	69	33.0	25.9, 41.6	59	30.2	23.2, 38.6	63	15.6	12.1, 19.9
2017-2019	27	14.3	9.6, 20.6	96	39.5	32.2, 48.1	74	34.5	27.3, 43.0	65	33.5	26.1, 42.5	71	17.1	13.4, 21.4
2018-2020	25	13.3	8.8, 19.3	106	43.4	35.7, 52.2	90	41.0	33.1, 50.1	71	36.7	38.9, 46.0	69	16.2	12.7, 20.4

CI=Confidence interval

^Rates based on counts with less than 20 deaths. Interpret with caution.

Rates not shown for people < 18 years. A total of 15 Dane County children died from 2000-2020.

Appendix: Data tables

Drug overdose deaths by sex, Dane County residents, 2000-2020

3-year rates

	Male			Female		
Year	Number of deaths	Age-adjusted rate	95% CI	Number of deaths	Age-adjusted rate	95% CI
2000-2002	44	6.5	4.7, 8.8	30	4.3	2.9, 6.2
2001-2003	48	6.8	5.0, 9.1	33	4.6	3.2, 6.5
2002-2004	53	7.3	5.5, 9.7	45	6.4	4.7, 8.6
2003-2005	61	8.3	6.3, 10.8	46	6.4	4.7, 8.6
2004-2006	67	9.1	7.0, 11.6	53	7.3	5.5, 9.6
2005-2007	77	10.5	8.3, 13.2	48	6.7	4.9, 8.9
2006-2008	87	11.7	9.3, 14.5	58	8.0	6.1, 10.4
2007-2009	91	12.3	9.8, 15.1	58	7.9	6.0, 10.2
2008-2010	100	13.3	10.8, 16.2	62	8.2	6.3, 10.6
2009-2011	126	16.6	13.7, 19.8	58	7.4	5.6, 9.6
2010-2012	139	18.0	15.1, 21.3	64	8.1	6.2, 10.4
2011-2013	160	20.5	17.4, 24.1	72	9.0	7.0, 11.4
2012-2014	141	17.9	15.0, 21.1	90	11.5	9.2, 14.2
2013-2015	148	18.5	15.6, 21.8	93	12.0	9.6, 14.7
2014-2016	151	19.0	16.1, 22.4	103	13.2	10.7, 16.0
2015-2017	185	23.1	19.8, 26.7	100	12.4	10.0, 15.1
2016-2018	199	24.6	21.3, 28.3	110	13.4	11.0, 16.2
2017-2019	215	25.9	22.5, 29.7	120	14.7	12.2, 17.7
2018-2020	234	28.2	24.7, 32.2	131	16.3	13.6, 19.4

CI=Confidence interval

^Rates based on counts with less than 20 deaths. Interpret with caution.

Appendix: Data tables

Drug overdose deaths by race and ethnicity, Dane County residents, 2000-2020

3-year rates

	Non-Hispanic White			Non-Hispanic Black			Hispanic/Latino		
Year	Number of deaths	Age-adjusted rate	95% CI	Number of deaths	Age-adjusted rate	95% CI	Number of deaths	Age-adjusted rate	95% CI
2000-2002	68	5.5	4.3, 7.0	4^	7.0	1.8, 27.2	1^	1.1	0.0, 32.4
2001-2003	72	5.8	4.5, 7.3	8^	12.1	5.1, 31.4	1^	1.0	0.0, 29.8
2002-2004	88	7.0	5.6, 8.7	9^	15.5	6.6, 35.7	1^	1.0	0.0, 28.1
2003-2005	96	7.6	6.1, 9.3	11^	18.2	8.7, 38.3	1^	0.9	0.0, 26.3
2004-2006	110	8.6	7.1, 10.4	10^	17.0	7.9, 36.3	1^	0.8	0.0, 24.7
2005-2007	115	9.1	7.5, 10.9	9^	13.0	5.8, 30.1	1^	1.0	0.0, 23.9
2006-2008	132	10.4	8.7, 12.4	10^	13.5	6.3, 30.2	2^	3.4	0.3, 25.0
2007-2009	130	10.4	8.7, 12.4	16^	23.9	13.4, 43.4	2^	3.2	0.3, 23.5
2008-2010	135	10.7	9.0, 12.7	23	34.3	21.4, 55.6	3^	4.4	0.8, 23.5
2009-2011	160	12.6	10.7, 14.7	22	31.8	19.8, 52.0	2^	2.2	0.2, 19.8
2010-2012	181	14.0	12.0, 16.2	17^	23.8	13.7, 41.9	4^	3.7	1.0, 19.7
2011-2013	207	15.9	13.7, 18.2	16^	21.2	11.9, 38.1	6^	7.2	2.4, 23.0
2012-2014	200	15.3	13.2, 17.6	16^	21.3	12.0, 37.9	10^	12.7	5.6, 28.8
2013-2015	200	15.3	13.2, 17.7	25	33.3	21.4, 51.6	10^	12.6	5.7, 27.8
2014-2016	213	16.5	14.3, 19.0	27	38.0	24.8, 57.5	8^	8.6	3.5, 21.8
2015-2017	237	18.2	15.9, 20.7	36	48.0	33.3, 68.4	6^	5.3	1.9, 16.4
2016-2018	264	20.0	17.6, 22.7	33	43.5	29.4, 63.3	6^	5.5	2.0, 16.1
2017-2019	272	20.6	18.2, 23.2	45	56.9	40.9, 78.3	7^	6.3	2.5, 16.7
2018-2020	284	21.7	19.2, 24.4	59	71.2	53.6, 93.7	12^	10.4	5.3, 21.2

CI=Confidence interval

^Rates based on counts with less than 20 deaths are unstable. Interpret with caution.