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CHART



Unintentional Drug Overdose Fatalities in Philadelphia, 2021

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In Philadelphia, PA, unintentional drug overdoses¹ contribute to significant premature mortality. In 2021, Philadelphia reported the highest number of unintentional overdose deaths on record, with 1,276 fatalities, a 5% increase from 2020. Eighty-two percent of 2021 overdose fatalities involved opioids, a class of drugs that include pharmaceutical opioids, heroin, and fentanyl, a strong synthetic opioid that is a significant driver of fatal overdoses. Trends in 2021 overdose fatalities also demonstrated a rise in deaths associated with stimulant use, with 67% of deaths containing stimulants, including cocaine and methamphetamine. While most stimulant-involved deaths also involved opioids, unintentional overdose fatalities where only stimulants were involved also increased.

Unintentional overdose deaths in Philadelphia have historically been highest among Non-Hispanic White (NH) individuals. However, in 2021 overdose fatalities were highest among NH Black individuals. Most deaths among NH Black individuals occurred in males but deaths among NH Black females increased 29% from 2020. While opioid-only deaths decreased across all race/ethnicity groups from 2020 to 2021, previously from 2019 to 2020, opioid-only deaths increased among NH Black individuals and decreased among NH White individuals. From 2019 to 2021, opioid and stimulant-involved deaths also increased at a higher rate among NH Black individuals. Stimulant-only deaths have historically been highest among NH Black individuals, a trend which has continued in 2021. Thus, racial disparities in overdose fatalities, particularly among stimulant-involved deaths, are driving the observed increase in overall unintentional overdose deaths in Philadelphia.

This CHART examines unintentional overdose trends through 2021. In addition to Philadelphia's changing drug supply, the lasting effects of the COVID-19 pandemic should be considered when examining these trends, specifically the impact on mental health, social isolation, and access to healthcare, treatment, and harm reduction services.

KEY TAKEAWAYS

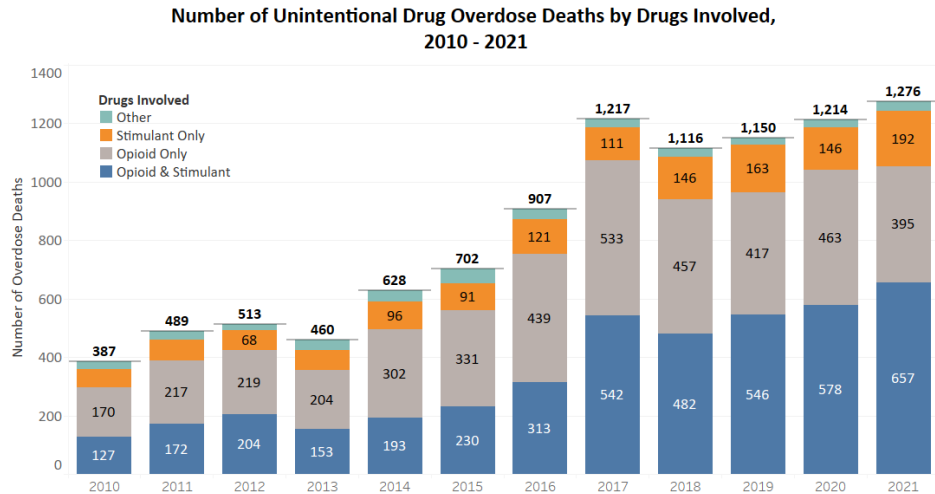
In 2021, there were 1,276 unintentional drug overdose deaths, the highest ever reported in Philadelphia.

While most unintentional overdose deaths involved opioids, deaths involving stimulants (both with and without the presence of opioids) also increased.

In 2021, the number of unintentional overdose deaths among Non-Hispanic Black individuals surpassed the number of unintentional overdose deaths among Non-Hispanic White individuals.

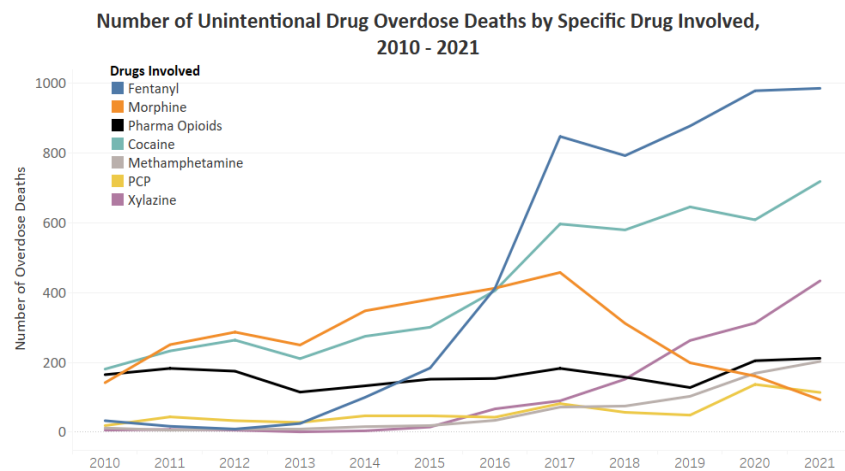
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Unintentional drug overdose deaths increased 5% from 2020 to 2021.



- In 2021, 1,276 people died of an unintentional drug overdose. This represents a 5% increase from 2020, and the highest number of overdose fatalities ever reported in Philadelphia.
- Opioids, both with and without the presence of stimulants, were detected in 82% of overdose deaths in 2021. In deaths where opioids were involved, fentanyl was detected in 94% of fatalities (data not shown).
- Stimulants were detected in 67% of overdose deaths, an increase of 17% from 2020. Deaths involving only stimulants and deaths involving stimulants and opioids together increased 32% and 14% from 2020 to 2021, respectively.

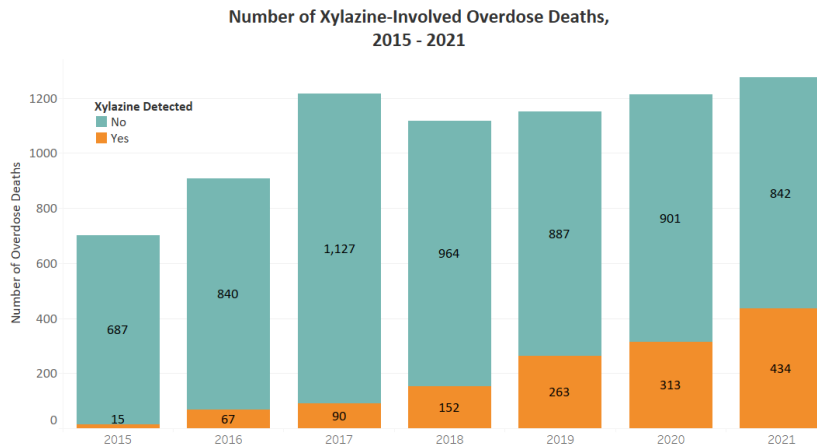
While 77% of unintentional overdose deaths involved fentanyl in 2021, deaths involving stimulants are also on the rise.



- Fentanyl continues to be the most common drug involved in unintentional overdose deaths. In 2021, 77% of all overdose fatalities contained fentanyl.
- From 2020 to 2021, the number of overdose fatalities involving cocaine and methamphetamine increased 17% and 36%, respectively.
- From 2020 to 2021, the number and proportion of overdose fatalities involving prescription opioids remained relatively consistent.

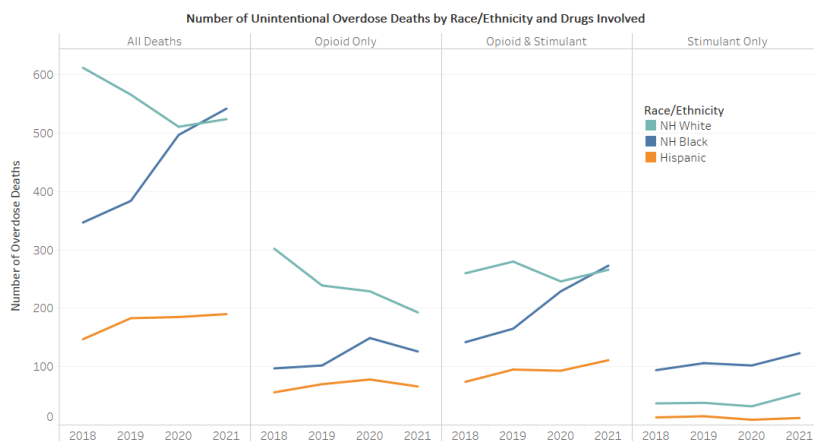
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The prevalence of xylazine in unintentional overdose deaths is increasing, and almost exclusively limited to deaths where opioids are involved.



- Xylazine, a veterinary anesthetic and analgesic commonly added to street opioids, was detected in 34% of all overdose deaths in 2021. This is a 39% increase from 2020.
- Xylazine is commonly associated with opioids, particularly fentanyl. In 2021, 41% of all opioid-involved unintentional overdose deaths, and 44% of all fentanyl-involved unintentional overdose deaths also involved xylazine.
- In the last 5 years, less than 1% of xylazine-involved overdose fatalities occurred in the absence of opioid-involvement

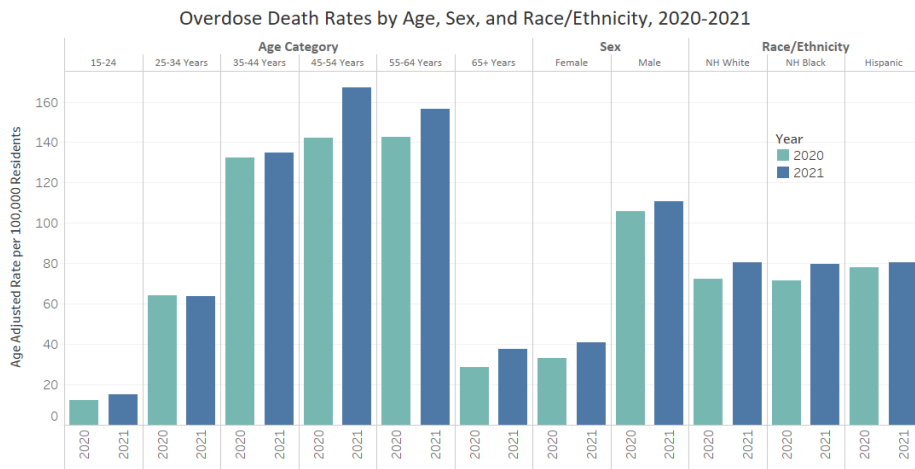
Racial and ethnic disparities exist, as overdose decedents have differing drug classes detected in toxicology.



- In 2021, unintentional overdose fatalities were highest among NH Black individuals. This is primarily being driven by deaths involving stimulants (both with and without the presence of opioids), which accounted for 73% of all deaths among this race/ethnicity group.
- While decreasing, deaths involving only opioids were highest among NH White individuals. Opioid-involved deaths (both with and without the presence of stimulants) accounted for 88% of all deaths among this race/ethnicity group.
- From 2020 to 2021, across all race and ethnicity groups², deaths involving opioids-only have decreased while deaths involving opioids and stimulants, and stimulants-only have increased.

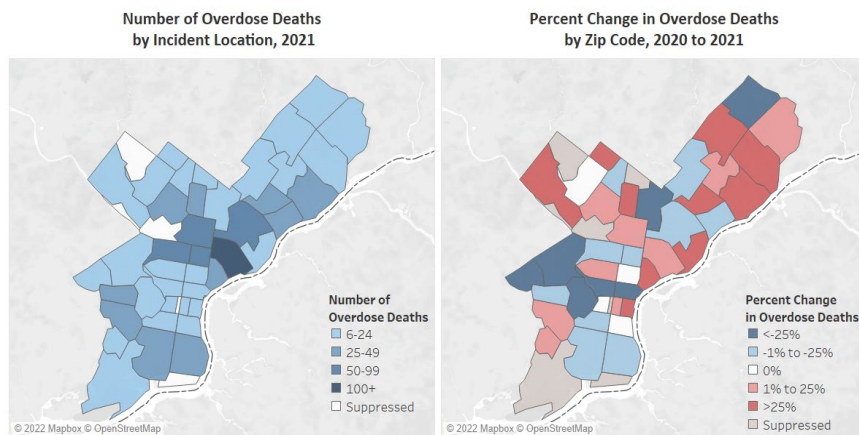
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From 2020 to 2021, unintentional overdose fatality rates increased among almost all demographic groups.

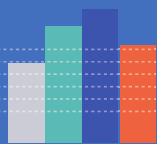


- In 2021, unintentional overdose fatality rates among Philadelphians^{3,4} were highest among those aged 45-54 years old and male. Age-adjusted rates among different race/ethnicity groups were similar⁵.
- From 2020 to 2021, overdose fatality rates increased across almost all age, sex, and race/ethnicity groups. The largest percent increases were seen among those who were aged 45-54 years old and those who were female.
- From 2020 to 2021, overdose fatality rates increased 24% among females. This increase is primarily being driven by deaths among NH Black females (data not shown).

Unintentional overdose deaths occurred throughout the city, but were concentrated in North, Northeast, South, and Southwest regions of Philadelphia.



- The highest number of unintentional overdose deaths occurred in the 19134-zip code with 169 deaths. In 2021, deaths in this zip code increased by 23% after declining 22% in the previous year
- Other Philadelphia zip codes with the highest number of overdose fatalities in 2021 included 19140 (n=84), 19124 (n=80), 19133 (n=59), and 19132 (n=55)
- Zip codes with the highest percent change in unintentional overdose deaths from 2020 to 2021 included 19141, 19124, 19149, and 19136. Of note, these zip codes also had more than 25 overdose deaths in 2021.



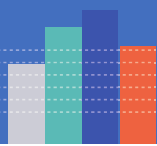
WHAT CAN BE DONE

The Health Department is:

- Continuing to support a city-wide overdose fatality review to better understand the circumstances surrounding unintentional overdose fatalities and make recommendations for system and policy level changes to better ensure the health and safety of Philadelphians who use substances.
- Addressing rising stimulant involved and stimulant-only overdoses by:
 - performing outreach in neighborhoods specifically impacted by stimulant use targeting populations who may not identify as people who use drugs,
 - developing resources for providers to discuss stimulant use, related risks, and strategies for safer use, and
 - launching campaigns about risks associated with stimulant and polysubstance use.
- Increasing harm reduction approaches by:
 - distributing naloxone, the opioid overdose reversal drug, to organizations serving at-risk populations,
 - educating the public on [opioid overdose recognition and naloxone use](#),
 - installing [naloxone towers](#) at [Lucien E. Blackwell Library](#)
 - implementing an overdose awareness campaign that considers the diversity of people who use drugs and the potential harms associated with Philadelphia’s rapidly changing drug supply,
 - distributing fentanyl test strips and providing training on how to test drugs before using, and
 - partnering with Next Distro to provide mail-based naloxone and fentanyl test strips to people who use drugs and their friends and family in Philadelphia. Visit nextdistro.org/philly for more information.
- Supporting ‘warm handoffs’ to substance use treatment from hospitals, jails, and the community.
- Increasing the availability of medications for opioid use disorder through primary care practices, specialized substance use treatment programs, and the Philadelphia jails.
- Providing health care providers, including [pharmacists](#), with training, mentorship, and [technical assistance](#).

Health care providers should:

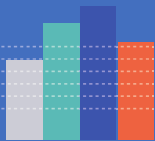
- Practice [non-stigmatizing language](#) when discussing substance use with patients.
- Offer naloxone prescriptions to all patients, even those without a SUD, and explain that naloxone is also available at pharmacies without a prescription under the Standing Order.
- [Co-prescribe naloxone](#) with prescription opioids and buprenorphine, as well as to patients receiving methadone and extended-release naltrexone.
- Prescribe buprenorphine to opioid dependent patients or make referrals to substance use treatment providers.
- Ensure continuity of medications for opioid use disorder in inpatient hospitalization settings, and post-discharge. [CareConnect](#) can assist with bridge prescriptions and can be reached at (484) 278-1679.
- Familiarize themselves with [xylazine](#), wound care treatment, and the importance of providing [xylazine withdrawal management](#) in conjunction with OUD withdrawal management.



- Educate patients who use any street drugs to test their drugs for the presence of fentanyl using fentanyl test strips.
 - Display materials about the presence of fentanyl in the Philadelphia drug supply and the proper use of fentanyl test strips.
 - Provide sterile syringes to patients who inject drugs to reduce the spread of HIV and hepatitis.
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Philadelphians can:

- Obtain and get trained on how to use naloxone to prevent opioid overdose fatalities. Naloxone is available at pharmacies in Pennsylvania without a prescription under a standing order signed by the Pennsylvania Physician General.
 - The Philadelphia Department of Public Health regularly offers free, virtual naloxone trainings. Visit www.phillynaloxone.com to learn more and to register for a training.
 - For those who use drugs, utilize universal precautions. Universal precautions for people who use drugs include carrying naloxone, starting with a small amount and going slowly, [testing your drugs for fentanyl with fentanyl test strips](#), and using with others.
 - If you don't want to or can't use with others, let someone know you're using or use an app like [Brave App](#) or call a hotline like Never Use Alone (English: 800-484-3731 Spanish: 800-928-5330).
 - Avoid taking medications that are not prescribed for you and ask medical providers who prescribe opioids for pain about alternative, safer forms of pain control.
 - If you are taking prescription medications that were not prescribed to you and/or were purchased on the street, use fentanyl test strips to [test them for fentanyl](#).
 - Seek [buprenorphine or methadone treatment](#) if dependent on opioids.
 - If you are unsure of what service you require and do not have medical insurance, please contact the Behavioral Health Special Initiative (BHSI) at 215-546-1200, Monday through Friday, between the hours of 8:30 a.m. and 5 p.m.
 - If you want treatment for a substance use challenge and do not have medical assistance or Medicaid, please contact Community Behavioral Health (CBH) at 888-545-2600
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REFERENCES & TECHNICAL NOTES

1. The term unintentional overdose death is defined as an overdose death as a result of using drugs, prescription or illicit, when no harm was intended. US Centers for Disease Control and Prevention. Unintentional drug poisoning in the United States. Accessed October 20, 2022. https://www.cdc.gov/medicationsafety/pdfs/cdc_5538_ds1.pdf
2. Individuals of other race/ethnicity groups are excluded due to low counts.
3. Rates are age-adjusted to the U.S. 2000 Standard population, except those for specific age groups, where age-specific rates are calculated.
4. Rates are calculated for Philadelphia residents only, resulting in an exclusion of 15% of deaths among NH White individuals, 3% of deaths among NH Black individuals, and 7% of deaths among Hispanic individuals from rate calculations.
5. In 2021, the median age of unintentional overdose death among NH White individuals was 40 [IQR 31-51], the median age of unintentional overdose death among NH Black individuals was 51 [IQR 40-58], and the median age of unintentional overdose death among Hispanic individuals was 41 [IQR 33-50]. Since age is a significant predictor of death, when its distribution is held constant across racial/ethnic groups, the age-adjusted unintentional overdose fatality rates among NH White, NH Black, and Hispanic individuals were similar.

RESOURCES

For resources for safer substance use during COVID-19:

<https://www.phila.gov/2020-04-16-resources-for-safer-substance-use-during-covid-19/>

For help on how to obtain and use naloxone:

phillynaloxone.com

For Citywide data related to the opioid and substance use epidemic, visit

<https://www.substanceusephilly.com/>

For information on how to access treatment:

<https://dbhids.org/addiction-services/>

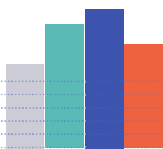
For harm reduction resources including syringe exchange:

<https://ppponline.org/>

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