



Opioid Prevention Program: Data to Action

Overdose Deaths Involving Methamphetamine With and Without Fentanyl in New York State, Outside of New York City, 2016-2020

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Introduction

Highly potent illicit methamphetamine is increasingly available throughout the United States (US), including the Northeast, which has not historically been a major market for the drug.¹ In the US, self-reported illicit methamphetamine use in the past year among those aged 12 and older increased from 0.56% (1.5 million people) during 2016-2017 to 0.70% (1.9 million people) in 2018-2019.^{2,3} In New York State (NYS), this prevalence was 0.24% (40,000 people) during 2018-2019.³ Overdose deaths involving methamphetamine in NYS outside of New York City (NYC) have increased from 2016 to 2020 (Figure 1). These are overdose deaths where methamphetamine was listed as a contributing cause on the death certificate. Upon in-depth examination of the increase in these methamphetamine-involved overdose deaths, fentanyl was also found to be listed on a majority of the death certificates, showing that the potent opioid has actually been driving the increase. This report describes data on overdose deaths involving methamphetamine, with and without fentanyl. Additionally, it discusses public health responses and offers resources and recommended actions to raise awareness and reduce overdose.

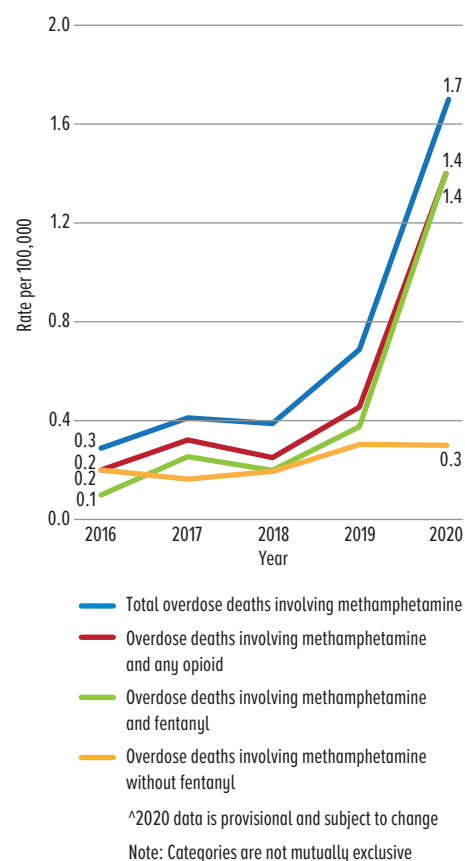
What is Methamphetamine?

Methamphetamine is a powerful, addictive stimulant that affects the central nervous system.⁴ There are limited medical uses for methamphetamine, including the treatment of attention deficit hyperactivity disorder (ADHD). When prescribed, it is generally at much lower doses than what is typically used for non-medical purposes.⁵ Thus, most of the methamphetamine used in the US is produced and distributed illicitly, rather than through the pharmaceutical industry.⁶ Use of illicit methamphetamine is associated with a range of harms to physical and mental health, including psychosis and other mental disorders, cardiovascular and renal dysfunction, and overdose.⁷

Overdose Deaths Involving Methamphetamine

- Figure 1* shows that the rate of overdose deaths involving methamphetamine increased substantially from 2016 to 2020, with a sharp rise after 2018 among NYS residents residing outside of NYC. This trend mirrors the increase in overdose deaths involving methamphetamine with any opioids.
- In 2020, there were 184 methamphetamine-involved overdose deaths (Table 1). The majority of these deaths (152, or 82.6%) also involved fentanyl. The crude rate of overdose deaths involving methamphetamine **with fentanyl** increased 1300%, from 0.1 per 100,000 population in 2016 to 1.4 in 2020 (Figure 1). This increase was much larger than the increase in the crude rate for deaths involving methamphetamine **without fentanyl**, from 0.2 per 100,000 to 0.3, indicating that fentanyl is driving the increase.

Figure 1
Overdose deaths involving methamphetamine with and without fentanyl, and methamphetamine with any opioid, crude rate per 100,000 population, New York State outside of New York City 2016-2020^A



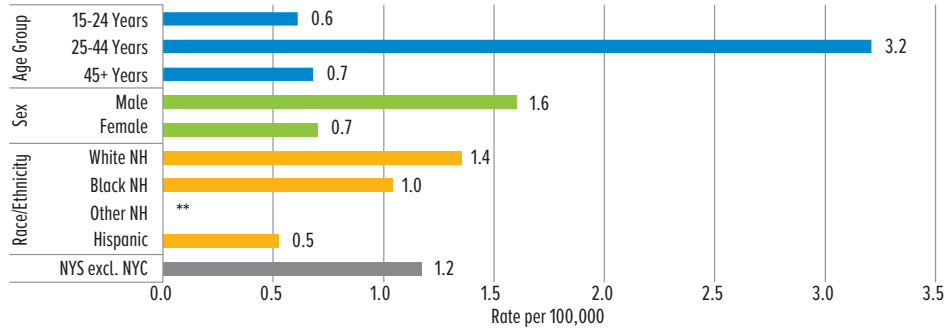
* Based on the availability of the causes of death reported in text on death certificate records, this brief provides information only on New York State residents residing outside of New York City (NYS outside of NYC). See Methodology for more detail.

Demographic Snapshot

- The average annual crude rates of overdose death involving methamphetamine in NYS outside of NYC for 2019 and 2020 were highest among those aged 25-44 years (3.2 per 100,000), males (1.6 per 100,000), and White non-Hispanic individuals (1.4 per 100,000) (Figure 2).

Figure 2

Overdose deaths involving methamphetamine, average annual crude rate per 100,000 population, by sub-population, New York State outside of New York City, 2019-2020^A



^A2020 data is provisional and subject to change

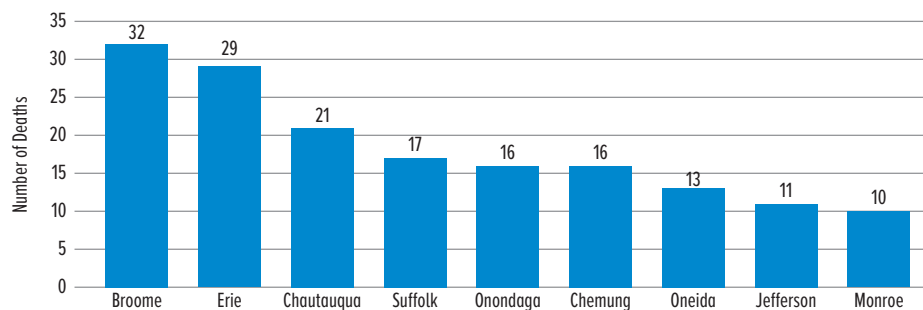
*White NH = White non-Hispanic. Black NH = Black or African American non-Hispanic. Other NH = Asian, Pacific Islander and all other non-Hispanic.

** Rate is suppressed due to fewer than 10 events in the numerator.

- The counties outside of NYC with the highest number of overdose deaths involving methamphetamine during 2019 and 2020 were Broome, Erie, Chautauqua, Suffolk, Onondaga, Chemung, Oneida, Jefferson, and Monroe (Figure 3).

Figure 3

Counties with highest overdose deaths involving methamphetamine, New York State outside of New York City, 2019 and 2020^A



^A2020 data is provisional and subject to change

Polysubstance overdose involving methamphetamine and fentanyl

- Polysubstance use (i.e., using more than one type of substance, either consecutively or in combination) and related overdose have become more common recently, particularly involving opioids such as fentanyl, and stimulants such as methamphetamine.^{8,9}
- Fentanyl is a powerful synthetic opioid that is 50 to 100 times more potent than morphine.¹⁰ Illicit fentanyl is commonly mixed with other substances, including heroin and cocaine, as well as counterfeit pills that may resemble OxyContin, Xanax, and other prescription medications.^{11,12}
- There is emerging evidence that adulteration of methamphetamine with fentanyl may be present in the current illicit drug supply.¹³ Individuals may also intentionally combine methamphetamine with an opioid (e.g., fentanyl or heroin), sometimes referred to as speed-balling or “goof-balling”.^{8,9}
 - This combination increases the risk of overdose and adverse effects, specifically from respiratory depression. Risk is especially increased among methamphetamine users who have not taken opiates prior to their exposure to fentanyl, due to their absence of opioid tolerance.¹⁴

Impact on Public Health Interventions

There has been an increasing number of overdose deaths involving methamphetamine, and the data show that fentanyl has contributed largely to this increase in NYS outside of NYC. Some people who use drugs may be intending to use fentanyl and methamphetamine together or alternatingly, or they may only intend to use methamphetamine. There is evidence that methamphetamine may be contaminated with fentanyl.^{12,13} More widespread availability of illicit methamphetamine creates easier access to the drug, particularly in the Northeast. This, along with high purity and increasing potency, may likely contribute to the increase in overdose deaths,¹⁵ as well as other related harms such as methamphetamine use disorder, which has increased substantially in recent years.¹⁶ Public health efforts should be aimed at raising awareness that illicit methamphetamine may be contaminated with fentanyl and other opioids, as well as of the risk of opioid overdose with methamphetamine use. Harm reduction education and training, with a focus on overdose prevention and use of naloxone, should be provided to people who use methamphetamine, and to others in their social networks. Prescribers should be reminded to review the Prescription Monitoring Program (PMP) registry before issuing every controlled substance prescription, including for stimulants, and consider their patients’ controlled substance histories in determining whether and what to prescribe.

These factors highlight the need for awareness about and access to naloxone, especially among people who use methamphetamine but not necessarily opioids. Naloxone is a medication that can reverse the effects of an opioid overdose when administered in time. Being trained on how to identify an overdose that involves opioids and administer naloxone can save a life. People should be educated on the dangers of methamphetamine use and encouraged not to use methamphetamine except as prescribed for a medical reason. People who use methamphetamine with or without opioids should reduce or stop their use, consider available treatment and recovery options, or consider practices to reduce their risk of overdose. See the following list of recommended actions and resources to learn more.

Recommended Actions and Resources

The following list of recommendations is tailored to specific audiences and is not exhaustive.

For more information about resources for people who use drugs in NYS, please visit

<https://www.health.ny.gov/opioids>, or contact opioidprevention@health.ny.gov.

Actions:

• *Healthcare providers*

- Review the Prescription Monitoring Program (PMP) registry before issuing every controlled substance prescription, including for stimulants, and consider their patients' controlled substance histories in determining whether and what to prescribe.
- Provide stigma-free care by withholding judgment about patients' substance use and becoming trained in cultural competency. The New York State Department of Health (NYSDOH) AIDS Institute provides clinical guidelines on [best practices](#).
- Prescribe naloxone to patients at risk for an opioid overdose. That includes patients whose drugs of choice are limited to stimulants. The [Naloxone Co-payment Assistance Program \(N-CAP\)](#), will cover co-payments for naloxone up to \$40 resulting in no or lower out-of-pocket expenses for most insured patients. Patients may also be referred to one of the State's [Opioid Overdose Prevention Programs](#) for overdose training and naloxone.
- Become a buprenorphine prescriber: file a notification of intent to prescribe buprenorphine with SAMHSA; with approval you may prescribe to up to 30 patients without additional training.
<https://www.samhsa.gov/medication-assisted-treatment/become-buprenorphine-waivered-practitioner>

• *State and local health departments*

- Educate community members that methamphetamine may be mixed with [fentanyl](#). Explain the serious health risks associated with opioids, including overdose, coma, and death, and the potential consequences of using these drugs together.
- [Opioid Overdose Educational Materials](#) are available from the NYSDOH at no cost to you.
- Consider [becoming a Registered Opioid Overdose Prevention Program](#) or [working closely with one](#).
- Raise awareness among Emergency Medical Services (EMS) agencies about possible polysubstance involvement when responding to overdose calls.
- To facilitate better public health surveillance of the illicit substance environment, encourage comprehensive and improved data reporting by EMS of all suspected substances involved in an overdose.
- Remind prescribers to review the Prescription Monitoring Program (PMP) registry before issuing every controlled substance prescription, including for stimulants, and consider their patients' controlled substance histories in determining whether and what to prescribe.

• *County Coroners/Medical Examiners*

- Take the [Mastering the Cause of Death in the 21st Century](#) online course for guidance on accurately entering information on the death certificate for drug overdose deaths and on enhanced toxicology screening for opioids when suspected.

• *Community and family members*

- Naloxone (also known by the brand name, Narcan®) is a medication that can be used in an emergency to reverse overdoses involving opioids. It is legal to possess in NYS. Because substances may contain opioids without the users' knowledge, anyone using drugs should have naloxone available and know how to use it.
- Check the [Community Calendar of Opioid Overdose Trainings](#) for opioid prevention training near you. Learn how to identify and respond to an opioid overdose and be trained in how to administer naloxone.
- If you have prescription drug coverage as part your health insurance, the [Naloxone Co-payment Assistance Program \(N-CAP\)](#) will cover co-payments for naloxone of up to \$40 resulting in no or lower out-of-pocket expenses for most individuals.
- If you call 911 to report an overdose, you and the person who has overdosed will not be charged with possession of a controlled substance. Read [Facts about the 911 Good Samaritan Law](#) and share this information with others.

Resources:

- *Treatment and recovery resources*
 - New Yorkers struggling with a substance use disorder can find help and hope by calling the state’s toll-free, 24-hour, 7-day-a-week HOPEline at 1-877-8-HOPENY (1-877-846-7369), or by texting HOPENY (Short Code 467369).
 - To locate a substance use disorder treatment program, visit the NYS OASAS [Treatment Availability Dashboard](#).
 - For help with an opioid use disorder, learn more about [buprenorphine](#).
- *Comprehensive programs and services for people who use drugs*
 - No matter what drug or drugs you use, reduce your risk of overdose by building a [safety plan](#) and sharing it with someone you trust.
 - Follow these strategies when [using methamphetamine](#) to reduce your risk of harm, whether snorting, smoking, or injecting.
 - Learn more about the signs and symptoms of methamphetamine or other stimulant overdose, or “[overamping](#)”, tips for prevention, and how to respond.
 - Visit the NYSDOH website to learn about [Drug User Health](#), including helpful information and resources, such as [Syringe Access Programs](#), [Safe Sharps Disposal](#), and Drug User Health Hubs.
 - To locate Syringe Exchange Programs (SEPs), visit the [New York State Directory of Program Sites](#).
- *Resource for providers*
 - View [NYSDOH training and information on effective use of the Prescription Monitoring Program \(PMP\)](#).

Methodology

Data Source

New York State Department of Health (NYSDOH) Bureau of Vital Records provided death certificate records for 2016 to 2020. These files include only residents of, and those whose death occurred in, New York State, outside of the five boroughs of New York City. New York State consists of two registration areas for vital statistics: New York City and New York State exclusive of New York City. The Bureau of Vital Records, NYSDOH, processes death data recorded in New York State exclusive of New York City but does not have access to death certificate literal text data for deaths occurring in New York City. Counts of methamphetamine-related deaths are based on searches of literal text fields and are reported by county of residence – not necessarily where the death event occurred. All data provided in this report are as of September 2021; data for 2020 are preliminary and subject to change.

Definitions

Drug overdose deaths involving methamphetamine: include all deaths where the underlying cause of death was due to drug poisoning, regardless of intent (ICD-10 codes X40-X44, X60-X64, X85, Y10-Y14) AND where methamphetamine was mentioned in any of the literal text fields on the death certificate record such as: underlying cause, contributing cause, significant conditions contributing to death, and injury.

Drug overdose deaths involving methamphetamine with fentanyl: include drug overdose deaths involving methamphetamine AND where fentanyl, fentanyl analogs, misspellings, chemical pre-cursors, or metabolites were mentioned in any of the literal text fields on the death certificate record such as: underlying cause, contributing cause, significant conditions contributing to death, and injury, or where fentanyl was indicated in the other contributing causes of death (ICD-10 code T40.4).

Drug overdose deaths involving methamphetamine with any opioid: include drug overdose deaths involving methamphetamine AND where any opioid was indicated in the other contributing causes of death (ICD-10 codes T40.0, T40.1, T40.2, T40.3, T40.4, or T40.6).

Cautions

Please note that significant data lag could occur due to the time it takes to investigate and report the official causes of death. Therefore, methamphetamine-related death counts are subject to change or may vary from those compiled by other sources. Improvements in data collection and reporting, such as the development of new toxicology standards, may also impact these data in the future.

Appendix

Table 1. Overdose deaths involving methamphetamine with and without fentanyl, and methamphetamine with any opioid, counts and crude rate per 100,000 population, New York State outside of New York City, 2016-2020^a

Year	Total overdose deaths involving methamphetamine (Rate)	Overdose deaths involving methamphetamine with any opioid (Rate)	Overdose deaths involving methamphetamine with fentanyl (Rate)	Overdose deaths involving methamphetamine without fentanyl (Rate)
2016	32 (0.3)	20 (0.2)	13 (0.1)	19 (0.2)
2017	46 (0.4)	35 (0.3)	28 (0.3)	18 (0.2)
2018	43 (0.4)	28 (0.3)	21 (0.2)	22 (0.2)
2019	76 (0.7)	49 (0.4)	42 (0.4)	34 (0.3)
2020 ^a	184 (1.7)	157 (1.4)	152 (1.4)	32 (0.3)

^a2020 data is provisional and subject to change

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