



# Opioid Prevention Program: Data to Action Fentanyl-related deaths in New York State outside of New York City, 2015-2017

February 2019

## Overview

In recent years, fentanyl has become increasingly prevalent in the U.S. illicit drug supply<sup>1</sup>. Fentanyl and its analogs<sup>2</sup> have contributed to the rising number of non-fatal and fatal drug overdoses across the country, including in New York State<sup>3</sup>.

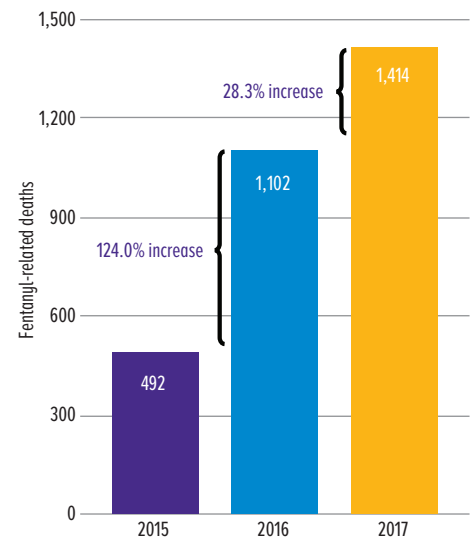
- Fentanyl is a very powerful synthetic opioid that is **50 to 100 times more potent than morphine**<sup>4</sup>.
- Pharmaceutical fentanyl is manufactured legally and has medical uses. It is sometimes prescribed for very severe pain, often in the form of an abuse-deterrent transdermal patch.
- While medically-prescribed pharmaceutical fentanyl can be misused, more often, misused fentanyl is manufactured, sold, and obtained illegally<sup>5</sup>.
- Fentanyl is relatively inexpensive and easy to manufacture, providing a high profit margin. Much of the current illicit supply of fentanyl comes into the U.S. from Mexico and China<sup>5</sup>.
- Illicit fentanyl is **commonly mixed (“cut”) with powdered heroin, as well as cocaine**<sup>6</sup>, or combined with other substances and **pressed into counterfeit pills that may resemble OxyContin and other prescription drugs**<sup>5</sup>.
- Most people who use opioids may be unaware that fentanyl is present in their drugs and would prefer to avoid it<sup>7</sup>.

To help mitigate the impact of this dangerous drug, this Data to Action brief provides a summary of recent data and a collection of [recommended actions and resources](#). This brief provides information on New York State residents residing outside of New York City, based on the availability of the causes of death reported in text on death certificate records (also referred to as literal data). Data for New York City residents can be found in the [NYC Health Epi Data Brief 104](#)<sup>8</sup>.

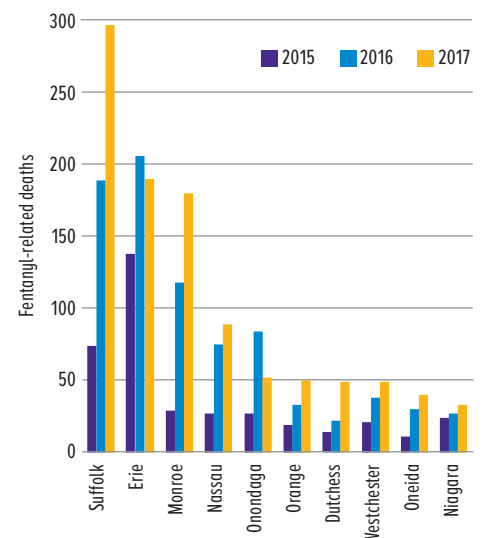
The number of fentanyl-related deaths in 2015-2017 for residents of New York State, outside of New York City, is shown among overdose deaths involving opioids (Figure 1). Between 2015 and 2016, the number of fentanyl-related deaths among overdose deaths involving opioids more than doubled, increasing by 124.0%, while the number of all overdose deaths involving opioids increased 34.8% for the same time period. The number of fentanyl-related deaths also increased from 2016 to 2017, by 28.3%. Over this same time period, the number of all overdose deaths involving opioids increased by 3.7% (please see the [Data Table](#) for counts and rates).

Figure 2 shows the top ten counties, outside New York City, with the highest number of fentanyl-related deaths in 2017. During 2016 and 2017, Suffolk, Erie, and Monroe counties had the highest numbers of fentanyl-related deaths. All but two counties (Erie and Onondaga), had higher numbers of fentanyl-related deaths in 2017 as compared to 2016. The increases among these counties ranged from 18.9% in Nassau County to 128.6% in Dutchess County. Please note that these counts are based on the decedent’s county of residence – not necessarily where the overdose death occurred.

**Figure 1**  
Fentanyl-related deaths among overdose deaths involving opioids in New York State, outside New York City, 2015-2017



**Figure 2**  
Top 10 counties with highest fentanyl-related deaths among overdose deaths involving opioids for New York State, outside New York City, 2015-2017 (based on decedent’s county of residence)



# Demographic Snapshot

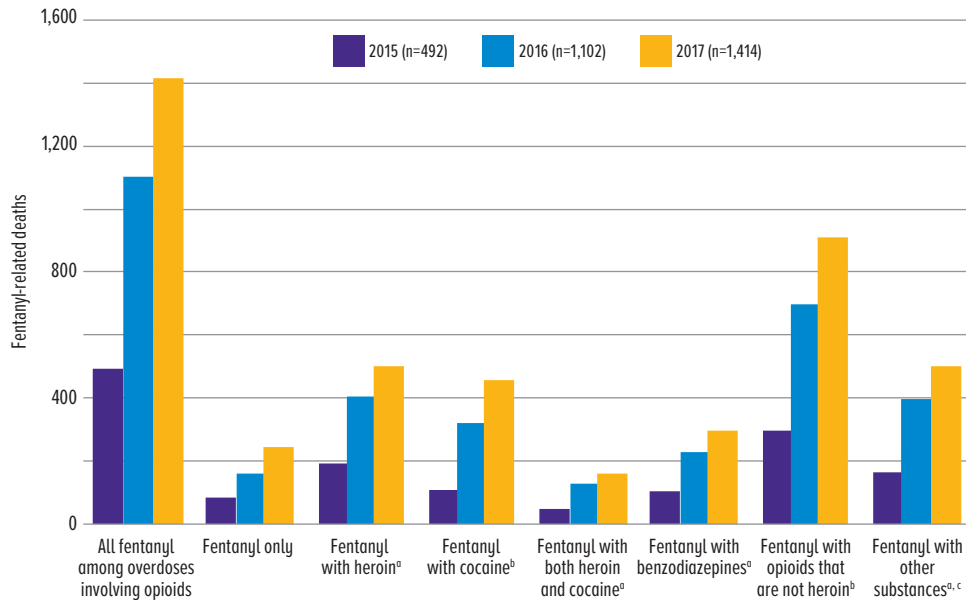
- The way in which 2017 fentanyl-related deaths were distributed by race, ethnicity, age and gender (shown in Figures 3 through 5) were very similar in both 2015 and 2016.
- During 2017, more than one third of fentanyl-related deaths occurred among people aged 25 to 34 years (33.9%).
- The majority of fentanyl-related decedents in 2017 were male (75.8%) and white (82.8%).

## Fentanyl with Other Substances

In addition to the presence of high-potency fentanyl in the illicit drug market, the risk of overdose is higher among people who use opioids in combination with benzodiazepines and other substances<sup>9</sup>. It is important to monitor the presence of multiple substances in drug overdose deaths, particularly in combination with fentanyl. According to death certificate records for 2017 (see Figure 6):

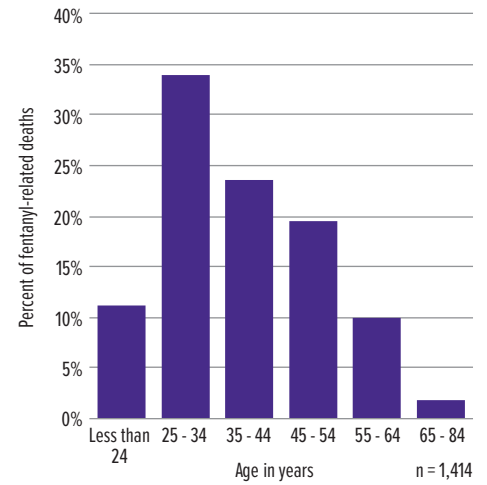
- Some fentanyl-related deaths also involved heroin (35.6%), cocaine (32.2%), or both heroin and cocaine (11.4%).
- Fentanyl-related deaths also involved benzodiazepines such as Xanax (21.0%) and other opioids that are not heroin, such as OxyContin or Vicodin (64.4%).
- Fentanyl was co-present with other substances (not including heroin, other opioids, cocaine, and benzodiazepines) in over a third of related deaths in 2017 (35.6%).
- A smaller number of deaths involved fentanyl *only* (17.3%). It is unknown whether the decedents were aware the substance they were consuming was fentanyl, or if they believed it to be heroin, some other drug, or a combination of substances.
- **Mixing substances such as benzodiazepines or alcohol with opioids can increase the risk of overdose;** however, the presence or potency of fentanyl or an analog is often not known to the user.

**Figure 6**  
Fentanyl-related deaths with other substances among overdose deaths involving opioids for New York State, outside New York City, 2015-2017

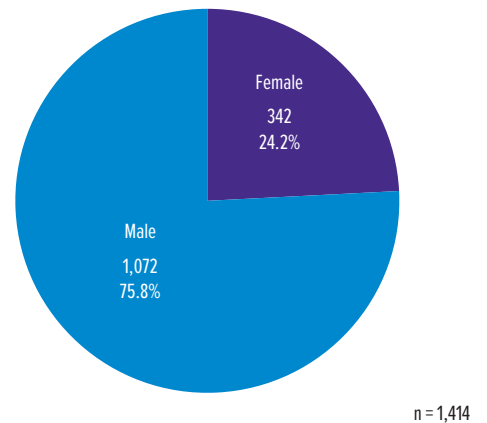


<sup>a</sup> May include other substances  
<sup>b</sup> May also include heroin and/or other substances  
<sup>c</sup> Other than heroin, other opioids, cocaine, and benzodiazepines  
 Note: Categories are not mutually exclusive

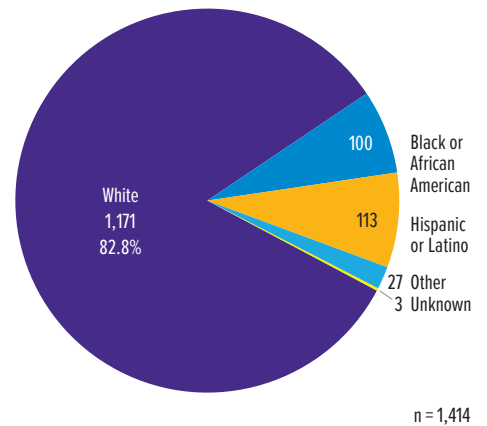
**Figure 3**  
Fentanyl-related deaths among overdose deaths involving opioids by age group for New York State, outside New York City, 2017



**Figure 4**  
Fentanyl-related deaths among overdose deaths involving opioids by gender for New York State, outside New York City, 2017



**Figure 5**  
Fentanyl-related deaths among overdose deaths involving opioids by race/ethnicity for New York State, outside New York City, 2017



# Recommended Actions and Resources

The following list of recommendations and resources is not exhaustive and may not apply to all audiences.

For more information about opioids and related resources in New York State, please visit <https://www.health.ny.gov/opioids>, or contact [opioidprevention@health.ny.gov](mailto:opioidprevention@health.ny.gov).

Actions:

- *State and local health departments*
  - Educate community members about the serious health risks associated with opioids, including overdose, coma, and/or death, and the importance of using those medications only as prescribed.
  - Learn how to become a registered [Opioid Overdose Prevention Program](#) in New York State.
  - Educate community members on the ability to access naloxone at pharmacies. Over 2,100 pharmacies have standing orders in place, allowing pharmacists to dispense naloxone to individuals without having to bring in a prescription from their provider. Check the [Statewide Directory of Pharmacies Dispensing Naloxone with Standing Orders](#) to find a location in your area.
  - Learn about the [Naloxone Co-payment Assistance Program \(N-CAP\)](#), which allows individuals with prescription coverage as part of their health insurance plan to get naloxone at pharmacies with no or lower out of pocket expenses. The cost of the medication is billed to the insurance company; N-CAP covers co-payments up to \$40.
  - Share these [Facts about the 911 Good Samaritan Law](#) with your community to encourage individuals to call 911 for help in the event of a suspected overdose.
- *County Coroners/Medical Examiners*
  - The Electronic Death Registration System (EDRS) will soon allow Medical Examiners and Coroners to file Cause of Death corrections electronically. This will improve the timeliness of reporting and appropriate coding of the cause(s) of death. Please see [EDRS Information for Medical Examiners & Coroners](#) to learn more.
  - Review the Association of State and Territorial Health Officials report, [Improving Drug Specificity and Completeness on Death Certificates for Overdose Deaths: Opportunities and Challenges for States](#), for guidance about entering information on the death certificate for drug overdose deaths.
- *First responders (Emergency Medical Services, law enforcement, fire departments)*
  - Know how to promptly identify signs and symptoms of opioid overdose, including: slow or shallow breathing, erratic or no breathing, blue or purplish-black lips or fingernails, unresponsiveness, and unconsciousness.
  - Be aware that more than one dose of naloxone may be required to reverse an overdose, especially if fentanyl or other synthetic opioids are present, according to [The National Institute for Occupational Safety and Health](#).
  - Review [Opioids: First Responder Information](#) for safety tips on preventing occupational exposure.
  - Be familiar with these [Facts about the 911 Good Samaritan Law](#) when responding to a 911 call for an overdose.
  - If you are a participating Opioid Overdose Prevention program, please report all naloxone administrations to the New York State Department of Health using the [New York State Public Safety Naloxone Quality Improvement Usage Report form](#).

## Methodology

### Data Source

**New York State Department of Health Bureau of Vital Records** provided death certificate records for 2015, 2016, and 2017. These files include only residents of, and those whose death occurred in, New York State, outside of New York City. Counts of fentanyl-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 December 2018.

### Definitions

**Drug overdose deaths involving opioids:** 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 any opioid was indicated in the other causes of death (ICD-10 codes T40.0, T40.1, T40.2, T40.3, T40.4, T40.6).

**Fentanyl-related deaths:** include drug overdose deaths involving opioids where fentanyl, fentanyl analogs, misspellings, chemical pre-cursors, or metabolites were mentioned in any of the literal text fields on the death certificate record. This is expected to be an underrepresentation, as only cases where fentanyl was detected and recorded are identifiable using this method.

### Cautions

Please note that, due to a significant data lag in identifying and reporting the official causes of death, fentanyl-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.

#### Citation:

Opioid Prevention Program - Data to Action: Fentanyl-related deaths in New York State outside of New York City, 2015-2017. New York State Department of Health Opioid Surveillance Team, Office of Public Health Practice. February 2019.

- *Community and family members*

- Check the [Community Calendar of Opioid Overdose Trainings](#) for an opioid prevention training near you. Learn how to identify and respond to an opioid overdose and be trained in how to administer naloxone.
- Learn about the New York State [Naloxone Co-payment Assistance Program \(N-CAP\)](#), which helps to make naloxone affordable for consumers with prescription insurance.
- Learn about and share these [Facts about the 911 Good Samaritan Law](#), which provides protections to individuals calling 911 for help in the event of a suspected overdose.

Resources:

- *Treatment and recovery resources*

- To locate a substance use disorder treatment program, visit the [New York State OASAS Treatment Availability Dashboard](#).
- Promote information about how New Yorkers struggling with an addiction 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 Buprenorphine Treatment Practitioner through the Substance Abuse and Mental Health Services Administration, visit the [SAMHSA Treatment Locator](#).
- Learn more about [buprenorphine](#), an option for Medication Assisted Treatment for opioid use disorder, from the Office of Drug User Health.

- *Comprehensive programs and services for people who use drugs*

- To help locate Syringe Exchange Programs (SEPs), Expanded Syringe Access Programs (ESAPs), Safe Sharps Disposal, Naloxone, and Hepatitis C testing in New York State, visit ["The Point"](#).
- Visit the New York State Department of Health website to learn about [Drug User Health](#), including helpful information and resources, such as Syringe Access Programs and Drug User Health Hubs.
- To access available programming and services offered by a Syringe Exchange Program, check this [list of NYS-Authorized Syringe Exchange Programs](#) for a program serving your area, including days and times of operation.

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1 <https://www.dea.gov/documents/2018/10/02/2018-national-drug-threat-assessment-nda>

2 Fentanyl analogs are chemically similar to fentanyl, but have varying potencies. They are manufactured illicitly to circumvent state and federal drug scheduling laws, classifying certain substances as illegal (<https://www.dea.gov/druginfo/ds.shtml>).

3 <https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm>

4 <https://www.cdc.gov/drugoverdose/opioids/fentanyl.html>

5 <https://www.dea.gov/factsheets/fentanyl>

6 <https://www1.nyc.gov/assets/doh/downloads/pdf/han/advisory/fentanyl-advisory10.pdf>

7 JJ Carroll, et al., Exposure to fentanyl-contaminated heroin and overdose risk among illicit opioid users in Rhode Island: A mixed methods study, *International Journal of Drug Policy* (2017), <http://dx.doi.org/10.1016/j.drugpo.2017.05.023>

8 Nolan ML, Tuazon E, Blachman-Forshay J, Paone D. Unintentional Drug Poisoning (Overdose) Deaths in New York City, 2000 to 2017. *New York City Department of Health and Mental Hygiene: Epi Data Brief* (104); September 2018. <https://www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief104.pdf>

9 Gudín JA, Mogali S, Jones JD, Comer SD. Risks, management, and monitoring of combination opioid, benzodiazepines, and/or alcohol use. *Postgrad Med*. 2013;125(4):115-30. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057040/>

## Fentanyl-related deaths among drug overdose deaths involving opioids

	2015		2016		2017		% Change (2016-2017)
	#	Rate*	#	Rate*	#	Rate*	
<b>Total fentanyl-related deaths</b>	492	4.4	1,102	9.8	1,414	12.6	28.3%
<b>Top Ten Counties</b>							
Suffolk	73	4.9	188	12.6	295	19.8	56.9%
Erie	137	14.8	205	22.3	189	20.4	-7.8%
Monroe	28	3.7	117	15.6	179	23.9	53.0%
Nassau	26	1.9	74	5.4	88	6.4	18.9%
Onondaga	26	5.6	83	17.8	51	11.0	-38.6%
Orange	18	4.8	32	8.4	49	12.8	53.1%
Dutchess	13	4.4	21	7.1	48	16.2	128.6%
Westchester	20	2.0	37	3.8	48	4.9	29.7%
Oneida	10	4.3	29	12.5	39	16.9	34.5%
Niagara	23	10.8	26	12.3	32	15.1	23.1%
<b>Age Group</b>							
	2015 (#)		2016 (#)		2017 (#)		% Change
Less than 24 years	69		148		158		6.8%
25 to 34 years	186		403		480		19.1%
35 to 44 years	95		255		334		31.0%
45 to 54 years	82		180		276		53.3%
55 to 64 years	55		97		140		44.3%
65 to 84 years	s		17		26		52.9%
Unknown	s		s		0		n/a
<b>Race/Ethnicity</b>							
White	406		891		1,171		31.4%
Black or African American	39		99		100		1.0%
Hispanic or Latino	36		91		113		24.2%
Other	s		18		27		50.0%
Unknown	s		s		s		n/a
<b>Gender</b>							
Male	361		818		1,072		31.1%
Female	131		284		342		20.4%
<b>Fentanyl-related deaths with other substances (Categories are not mutually exclusive)</b>							
Fentanyl only	86		163		244		49.7%
Fentanyl with heroin <sup>a</sup>	193		404		503		24.5%
Fentanyl with cocaine <sup>b</sup>	108		323		456		41.2%
Fentanyl with <b>both</b> heroin and cocaine <sup>a</sup>	49		130		161		23.8%
Fentanyl with benzodiazepines <sup>a</sup>	106		229		297		29.7%
Fentanyl with other opioids that are not heroin <sup>b</sup>	299		698		911		30.5%
Fentanyl with other substances <sup>a, c</sup>	165		396		503		27.0%
<b>Overdose deaths involving synthetic opioids, excluding methadone (T40.4)</b>							
	2015 (n=544)		2016 (n=1,158)		2017 (n=1,467)		% Change (2016-2017)
With fentanyl	490		1,101		1,406		27.7%
Without fentanyl	54		57		61		7.0%
% of T40.4 with fentanyl	90.1%		95.1%		95.8%		0.8%
<b>Drug overdose deaths in New York State, outside New York City</b>							
	#	Rate*	#	Rate*	#	Rate*	% Change (2016-2017)
Drug overdose deaths involving any drug	1,797	16.0	2,285	20.4	2,412	21.5	5.6%
Drug overdose deaths involving opioids	1,475	13.1	1,988	17.7	2,061	18.4	3.7%

\* Rate per 100,000 population

a May include other substances

b May also include heroin and/or other substances

c Other than heroin, other opioids, cocaine, and benzodiazepines

s: Data do not meet reporting standards.

Data Source: NYS Bureau of Vital Records, as of December 2018