



Office of the Medical Examiner

Monroe County, New York

Nadia A. Granger, MD
Medical Examiner

Rebecca L. Hartman, PhD
Chief Toxicologist

Opioid deaths in Monroe County in 2022

In 2022, there were 333 deaths in Monroe County that were attributed, in whole or in part, to the use of opioids such as heroin/morphine, fentanyl, and/or its analogs (“fentanyl/heroin”). This represents over a quarter (29%) of the Monroe County deaths investigated with toxicology by the Office of the Medical Examiner (OME)—a slight increase over the previous 4 years (20-27% in 2018-2021). The actual number of Monroe County fentanyl/heroin deaths increased 14% from the previous maximum 293 observed in 2021 (Table 1).

In addition, there were 13 further opioid overdose cases with only prescription opioids (usually including other substances, but no heroin/morphine or fentanyl/analog) including hydrocodone [3], methadone [3], mitragynine [1] and oxycodone [8]—for a total of 346 (30% of Monroe County deaths investigated with toxicology).¹

NOTE: The data presented in this report refer only to those individuals who died in Monroe County, for whom the cause(s) of death was specifically attributed to the substances involved. It does not include deaths wherein these substances were present, but the cause of death was attributed to some traumatic injury (e.g., driving under the influence of drugs leading to a fatal crash). It also does not include cases from other counties that were investigated by the Monroe County OME. Not all deaths in Monroe County fall under the jurisdiction of the OME, and not all OME cases require toxicology testing. Medical examiner deaths with toxicology generally include natural (sudden and unexpected) deaths and suspected accidents, homicides, and suicides.

Table 1. Number of deaths in Monroe County attributed to overdose from heroin/morphine and/or fentanyl, fentanyl analogs, or other designer opioids.

Year	Number of Deaths
2011-2013 (aggregate)	78
2014	81
2015	69
2016	169
2017	220
2018	195
2019	181
2020	238
2021	293
2022	333

¹ Previous years’ iterations of this report did not include opioid deaths which did not contain heroin/morphine/fentanyl/analog because illicit opioids were the primary focus. For consistency and comparison purposes, the 2022 data are presented in the same way as previous reports except as otherwise indicated (see Table 5 for comparison data). The additional 13 cases included 38% male and 62% female individuals; 23% Black/African American and 77% White.



Office of the Medical Examiner

Monroe County, New York

Nadia A. Granger, MD
Medical Examiner

Rebecca L. Hartman, PhD
Chief Toxicologist

The racial/ethnic heritage (Table 2) and sex distribution (Table 3) of fentanyl/heroin overdose deaths reflects considerable diversity, with communities of color still disproportionately affected. In particular, the proportion of Black or African American people dying of fentanyl/heroin overdose in Monroe County continued its pattern of increase, from 13.3% in 2018 to 33.9% in 2022.

Table 2. Race/ethnicity distribution among fentanyl/analogs and heroin/morphine deaths in 2022, and estimates of the general population demographic distribution of Monroe County.

Race	Percent of Overdose Deaths	Monroe County General Population Estimate ^a
Caucasian	61.0%	76.0%
Black or African American	33.9%	16.6%
Asian	0.9%	3.9%
Other ^b	4.2%	3.5%
Hispanic ^c	14.1%	9.9%

^aSource: <https://www.census.gov/quickfacts/monroecountynewyork> Accessed 3 October 2023.
^bOther includes but is not limited to Native American, Native Hawaiian/Pacific Islander, and 2 or more races.
^cHispanic ethnicity identification is independent of race identification.

Table 3. Sex distribution among fentanyl/analogs and heroin/morphine deaths in 2022, and estimates of the general population demographic distribution of Monroe County.

Sex	Percent of Overdose Deaths	Monroe County General Population Estimate ^a
Male	75.7%	48.6%
Female	24.3%	51.4%

^aSource: <https://www.census.gov/quickfacts/monroecountynewyork> Accessed 3 October 2023.

In 2022, the ages of the victims of fentanyl/heroin overdose ranged from <20 to 72 years with a median age of 47 years (Figure 1), illustrating that overdoses affect people of all ages. Of note, there has also been a steady trend of increase in the overall ages of overdose victims over the last 5 years, from a median age of 38 years in 2018 to 47 years in 2022.



Office of the Medical Examiner

Monroe County, New York

Nadia A. Granger, MD
Medical Examiner

Rebecca L. Hartman, PhD
Chief Toxicologist

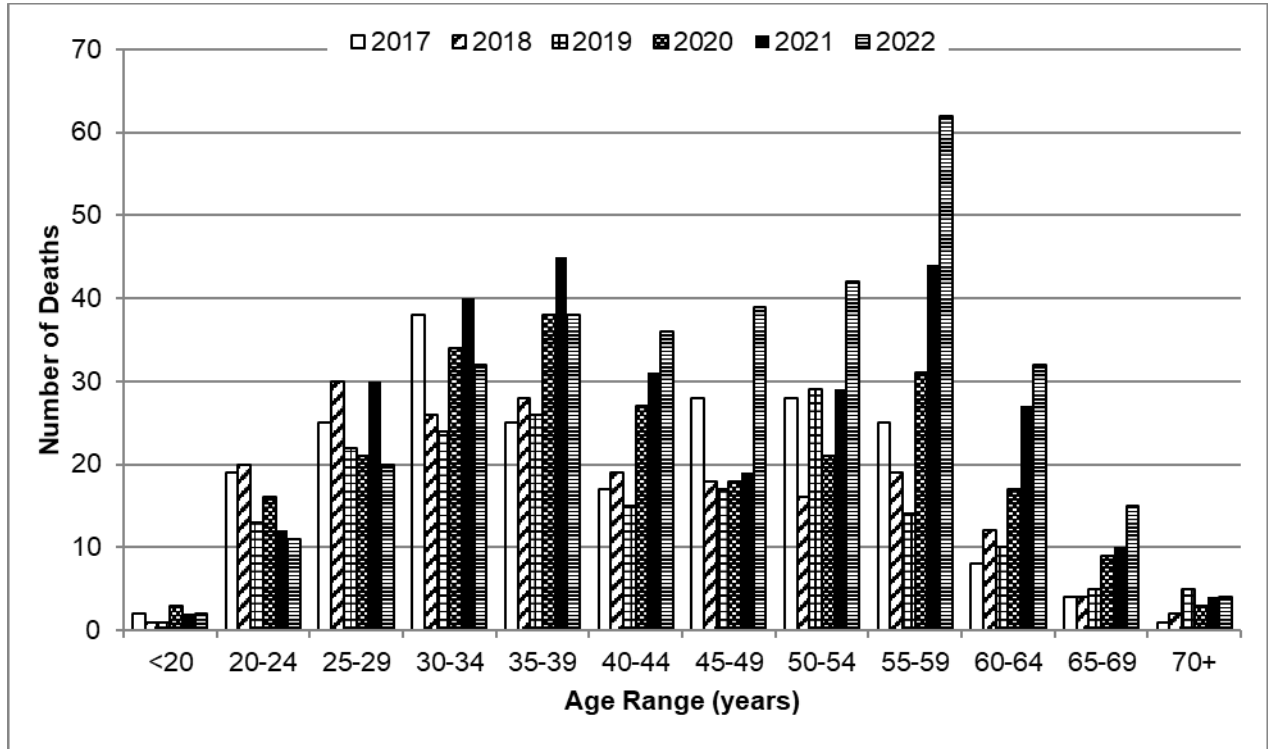


Figure 1. Age distribution of fentanyl/heroin deaths by year.

Based on the raw number of Monroe County deaths listed above, it follows that the average number of fentanyl/heroin deaths per month in Monroe County also reached its highest point in 2022 (Table 4). That said, the most in any single given month in 2022 occurred in August and October (38 and 36, respectively). No month in 2022 had fewer than 20 deaths from fentanyl/heroin or heroin/morphine.

Table 4. Average number of Monroe County fentanyl/heroin and heroin/morphine deaths per month.

	Average Deaths/Month
2016	14
2017	18
2018	16
2019	15
2020	20
2021	24
2022	28



Office of the Medical Examiner

Monroe County, New York

Nadia A. Granger, MD
Medical Examiner

Rebecca L. Hartman, PhD
Chief Toxicologist

Fentanyl remains by far the most common opioid associated with overdose deaths. Fentanyl/analogs were present in 97.9% of these cases in 2022 (Table 5). In contrast, the heroin/morphine² prevalence continued a sharp decline from its peak in an earlier wave of the opioid crisis (from 42.3% in 2017 to just 3.3% in 2022)—having been superseded and largely replaced by the more-potent fentanyl in recent years. Only 6 (1.8%) of the overdose deaths contained heroin/morphine in the absence of fentanyl, consistent with the past two years.

Novel Psychoactive Substances (NPS) are also a continued concern. Availability, potency and/or composition of drugs on the street varies over time and by region.

NPS opioids in Monroe County have historically been fentanyl analogs, and in 2022 fentanyl analogs were found in 30.3% of these deaths—always alongside fentanyl itself. Fluorofentanyl (first observed in autumn of 2020) remained the most prevalent fentanyl analog in 2022, appearing in 25.8% of the fentanyl/heroin deaths. Meanwhile, most other fentanyl analogs detected in previous years had largely dropped away in 2021, with the exception of acetyl fentanyl (present in 9.0% of the 2022 overdose deaths). These analog compounds vary in potency, but are rarely detected in the absence of fentanyl. For the first time in 2022, a compound from another (“nitazenes”) class of NPS opioids³, metonitazene, was detected as well. It is possible that use of these emerging NPS opioids may become more common as the local drug trends evolve.

The dynamic and frequently changing NPS and illicit drug market presents unique and ongoing challenges for toxicological testing. The OME continues to watch developments carefully and adapt testing methodology to detect these threats to public health.

Xylazine, a veterinary sedative not approved for human use, has also appeared frequently in opioid overdose deaths in the last few years. Taking off notably in 2021, it appeared in 19.1% of that year’s fentanyl/heroin deaths and 20.7% of those from 2022. Xylazine is most often utilized as a cutting agent for illicit fentanyl formulations.

Polypharmacy (using multiple drugs simultaneously) is the most typical finding among overdose deaths. Varying combinations of fentanyl/analogs, ethanol (alcohol), cocaine (and occasionally heroin/morphine) are still among the most common in overdose deaths. Among the 333 fentanyl/heroin cases described herein, the tendency was to have at least two of these four types of substances on board: 81.1% had at least 2, 29.7% had at least 3, and three cases had all 4 of

²Upon entry into the body, heroin is rapidly metabolized to morphine through an intermediate (6-monoacetylmorphine, 6-MAM). Detecting 6-MAM helps differentiate heroin from pharmaceutical morphine, but its absence does not preclude it. Five (1.5%) of the 333 deaths involved morphine that could not necessarily be attributed to heroin. Fentanyl and analogs may be sold on the street as heroin or cocaine, frequently in preparations or mixtures with those compounds.

³ Typically referred to as “nitazenes”, this more recent trend of benzimidazole compounds (NPS opioids) are *not* fentanyl analogs. The category includes broprhine, etonitazene, isotonitazene, metonitazene, protonitazene, and potentially others.



Office of the Medical Examiner

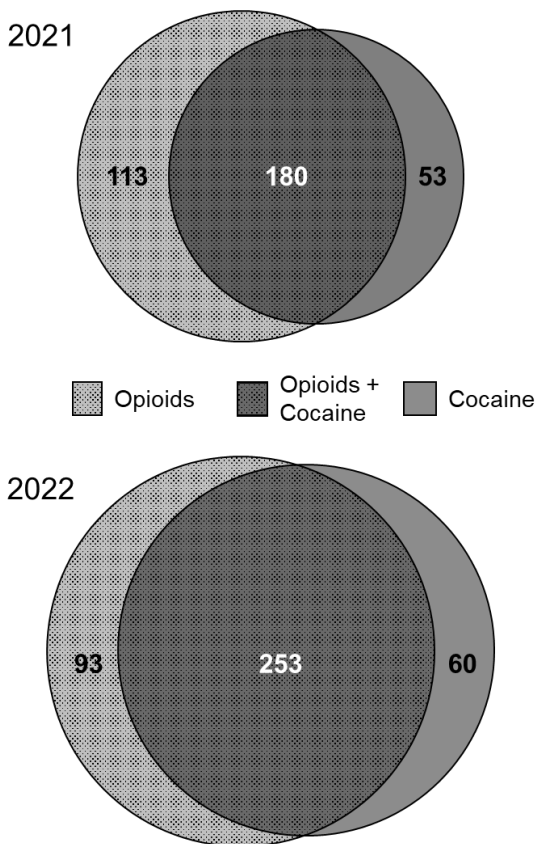
Monroe County, New York

Nadia A. Granger, MD
Medical Examiner

Rebecca L. Hartman, PhD
Chief Toxicologist

them listed as direct contributors to the cause of death. Cocaine is the single most common concurrent contributing substance in opioid overdoses. Appearing in 61.4% of the opioid deaths in 2021, that number jumped in 2022 to three quarters of the cases (Table 5). Although preparations vary, when cocaine and opioids appear together it is generally not possible to establish whether cocaine and fentanyl/analogs were contained in the same mixture or merely utilized concurrently. However, the public should be cautioned about the risks of taking multiple drugs and/or combining drugs with alcohol—as well as the fact that illicit drugs may contain unknown mixtures of compounds and produce unexpected or exaggerated effects.

Other common findings of polypharmacy drugs contributing to these overdose deaths are presented in Table 5. Amphetamines and benzodiazepines appear and contribute to opioid overdose deaths with notable frequency.



Cocaine also remains a growing concern for overdose deaths in its own right, reflecting a broader overdose epidemic. Although cocaine is not an opioid, it does not represent a safer alternative. Cocaine’s contribution to the overdose epidemic has expanded rapidly: whereas the number of fentanyl/heroin deaths increased by 14% from 2021 to 2022, the increase in cocaine-related deaths during the same period was more than double that figure, at 34%. In fact, in terms of raw numbers, the total of cocaine-related deaths (313) in Monroe County in 2022 surpassed all of the previous years’ total fentanyl/heroin death numbers (Table 1), including those during the height of the opioid crisis. The total number of cocaine and/or opioid overdose deaths for Monroe County was 406. This means that an average of about 6 deaths per month could be attributed to cocaine, independently of opioids. Again, as illustrated in Figure 2, the vast majority of deaths in either category involved both cocaine and opioids, demonstrating the inextricability of these substances’ relevance to the overdose epidemic.

Figure 2. Opioids and cocaine overdose deaths in 2021 and 2022.

Note: Figure includes all 406 overdoses in 2022. Calculated as in 2021 (fentanyl/heroin deaths instead of all opioids), the 2022 opioids, combined, and cocaine categories contain 82, 251, and 62 cases, respectively.



Office of the Medical Examiner

Monroe County, New York

Nadia A. Granger, MD
Medical Examiner

Rebecca L. Hartman, PhD
Chief Toxicologist

Table 5. Number of 2022 overdose cases for which common substances were listed in the cause of death.

Compound / Drug Class	Number of Cases	Percent of Fentanyl/Analogs or Heroin/Morphine Overdose Deaths (n=333)	Number of Cases	Percent of All Opioid Overdose Deaths (N=346)	Number of Cases	Percent of All Opioid & Cocaine Overdose Deaths (N=406)
Fentanyl/Analogs	326	97.9%	326	94.2%	326	80.3%
Cocaine	251	75.4%	253	73.1%	313	77.1%
Alcohol	112	33.6%	118	34.1%	135	33.3%
Heroin	11	3.3%	11	3.2%	11	2.7%
Morphine	5	1.5%	5	1.4%	5	1.2%
Prescription Opioids ^a	27	8.1%	40	11.6%	40	9.9%
Xylazine	69	20.7%	69	19.9%	70	17.2%
Amphetamines ^b	14	4.2%	14	4.0%	16	3.9%
Benzodiazepines ^c	11	3.3%	16	4.6%	16	3.9%
NPS Benzodiazepines ^d	10	3.0%	10	2.9%	10	2.5%
Gabapentin	10	3.0%	14	4.0%	14	3.4%
Cyclobenzaprine	4	1.2%	5	1.4%	5	1.2%
Mitragynine (Kratom)	4	1.2%	5	1.4%	5	1.2%

^aNote: 27 cases were deaths attributed to prescription opioids in addition to fentanyl/analogs or heroin/morphine, whereas 13 cases contained opioids other than fentanyl/analogs or heroin/morphine. "Prescription opioids" here include buprenorphine, hydrocodone, methadone, oxycodone, and tramadol.

^bIncludes amphetamine, methamphetamine, 3,4-methylenedioxymethamphetamine (MDMA, ecstasy), and 3,4-methylenedioxyamphetamine (MDA)

^cIncludes clonazepam, alprazolam, diazepam, and lorazepam

^dIncludes flualprazolam, flubromazolam, clonazolam, estazolam, flubromazepam, desalkylflurazepam, bromazepam, etizolam, and bromazolam