



Office of the Medical Examiner

Monroe County, New York

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2023 Overdose Deaths in Monroe County

Foreword: Earlier versions of this report focused on opioids (in particular, heroin/morphine, fentanyl, and/or fentanyl analogs), in deference to the so-named “Opioid Crisis” and consistency in reporting across years. In recent years, as the situation has evolved, it has become increasingly clear that overdoses contributing to the crisis now comprise a broader spectrum of drugs than these specific opioids. Therefore, the 2023 data shall be presented—with 2021-2022 data for comparison where available—as more general overdose deaths (opioids and/or cocaine), with the following caveats:

Drug search parameters were expanded to include frequently-encountered compounds such as cocaine, as well as a more comprehensive list of prescription and illicit opioid compounds, based upon the observations of the Office of the Medical Examiner (OME) of commonly encountered substances contributing to overdose. However, less-frequent or more unusual substances upon which to overdose (e.g., general prescription or over-the-counter medications, other recreational substances, etc.) were not all able to be included as separate search terms, and thus these data may not necessarily encapsulate 100% of all Monroe County overdose deaths. For heroin/morphine/fentanyl “opioid” data as presented in previous years’ reports, see the below subsection ***Opioid Deaths in Monroe County in 2023***.

A note on scope: *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 substance(s) 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.*

In 2023, there were 512 deaths in Monroe County that were attributed, in whole or in part, to the use of opioids and/or cocaine, continuing a pattern of increase from 346 in 2021 and 406 in 2022 (Table 1). This represents 44% of the total deaths investigated with toxicology by the OME (versus 32% and 36% of such cases in 2021 and 2022, respectively).

Table 1. Number of deaths in Monroe County attributed to opioid and/or cocaine overdose.

Year	Number of Deaths	Percent Change (Year Over Year)
2021	346	--
2022	406	+17%
2023	512	+26%

The racial/ethnic heritage (Table 2) and sex distribution (Table 3) of fentanyl/heroin overdose deaths reflects considerable diversity, with the Black or African American community disproportionately affected (representing 31.5% of Monroe County overdoses in 2021, 35.0% in 2022, and 39.6% in 2023).



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Table 2. Race/ethnicity distribution among opioid and/or cocaine deaths in 2023, and estimates of the general population demographic distribution of Monroe County.

Race	Percent of Overdose Deaths	Monroe County General Population Estimate ^a
Caucasian	59.0%	76.0%
Black or African American	39.6%	16.5%
Asian	1.0%	3.9%
Other ^b	0.4%	3.7%
Hispanic ^c	10.4%	10.1%

^aSource: <https://www.census.gov/quickfacts/monroecountynewyork> Accessed 27 August 2024.
^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 opioid and/or cocaine deaths in 2023, and estimates of the general population demographic distribution of Monroe County.

Sex	Percent of Overdose Deaths	Monroe County General Population Estimate ^a
Male	74.2%	48.5%
Female	25.8%	51.5%

^aSource: <https://www.census.gov/quickfacts/monroecountynewyork> Accessed 27 August 2024.

Almost 3 times as many males as females were overdose victims, continuing a consistent pattern.

In 2023, the ages of the overdose victims ranged from <20 to 85 years with a median age of 50 years (Figure 1), illustrating that overdoses affect people of all ages. As can be seen from the figure, there has been a general trend of increase in overall age, with a particularly stark increase in overdoses among individuals over 60.

A further examination of the demographic patterns in comparison with Monroe County populations¹ can be seen in Figure 2 for 2022 (for comparison) and 2023. It suggests that overdose rates per hundred thousand increased most notably among Black or African American people (across age groups) and among Hispanic people (any race) ages 50-69.

¹ Source: 2020 Census



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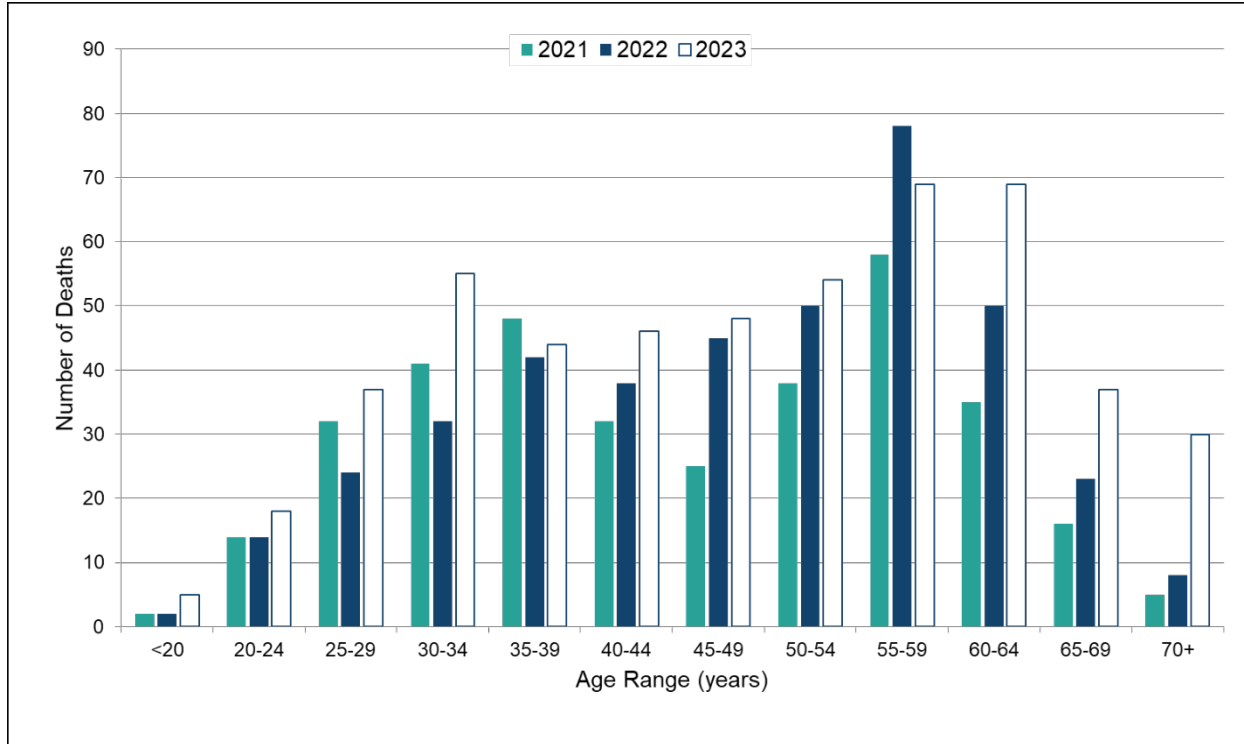


Figure 1. Age distribution of opioid and/or cocaine deaths by year.

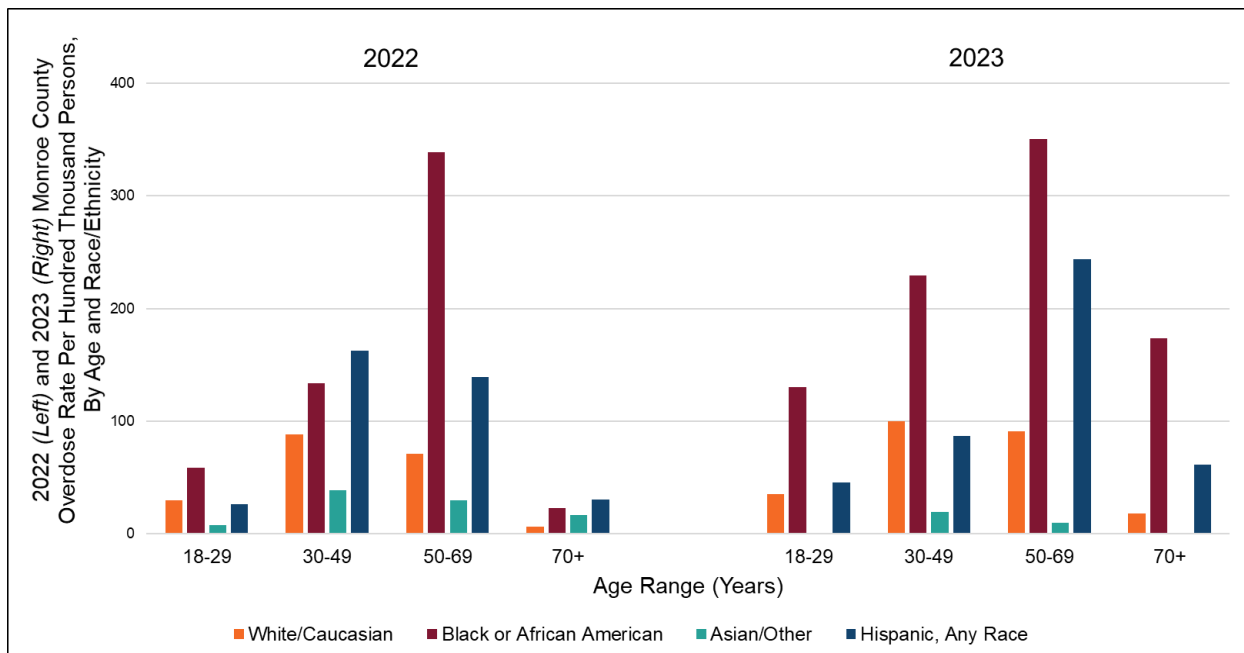


Figure 2. Overdose rates per hundred thousand persons, for 2022 and 2023.



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Fentanyl remains the most common opioid associated with overdose deaths. Fentanyl/analogs were present in 83.4% of these cases in 2023 (Table 4). The currently prevalent fentanyl analogs continue to be fluoro fentanyl (88 cases, 10.4%) and acetyl fentanyl (38 cases, 7.4%). Meanwhile, most of the other fentanyl analogs detected in previous years had largely dropped away by 2021. These analog compounds vary in potency, but are rarely detected in the absence of fentanyl.

The fentanyl analogs fall under a broader category of novel psychoactive substances (**NPS**), which refers to compounds without a licit use which are consumed for their similar effects to controlled substances. Usually (but not necessarily) they have similar structures to controlled substances, but with a change to the molecule so that they are not actually the scheduled compound. They may be used to avoid scheduling/regulation (e.g., so-called “legal highs”) and/or evade drug testing. There

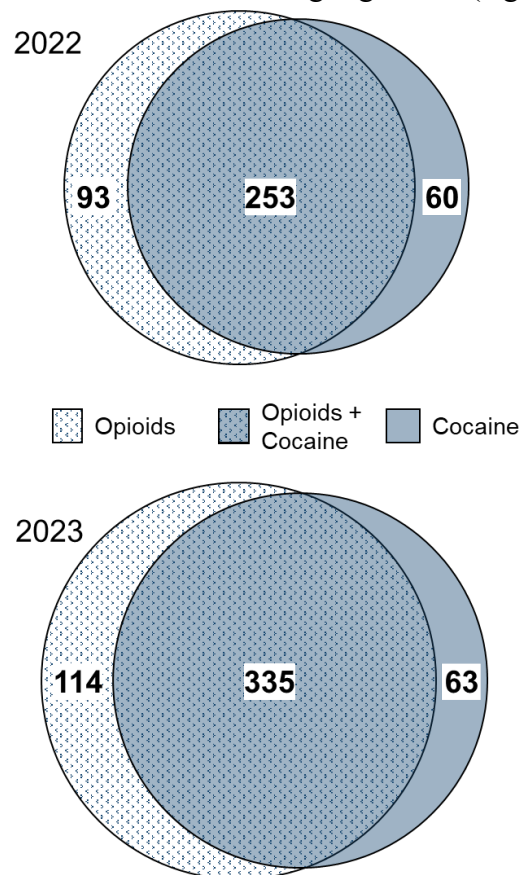


Figure 3. Opioids and cocaine overdose deaths in 2022 and 2023.

are NPS of several drug classes, including opioids, benzodiazepines, cannabinoids, and stimulants. Availability, potency and/or composition of drugs on the street—including NPS—varies over time and by region. The dynamic and frequently changing 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.

In contrast to fentanyl and related compounds, the **heroin/morphine**² prevalence continued a sharp decline from its peak (circa 2017) in an earlier wave of the opioid crisis—having been superseded and largely replaced by the more-potent fentanyl in recent years. By 2021, heroin/morphine represented just 5.2% of the overdose deaths, dropping still further in 2022 and 2023 to 3.7% and finally 2.0%, respectively. Only 5 (1.0%) of the overdose deaths contained heroin/morphine in the absence of fentanyl, consistent with the past two years.

Cocaine also continues to represent a growing concern. Whereas opioids are central nervous system (CNS) depressants and narcotic analgesics, cocaine contrastingly falls under the class of CNS stimulants.

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. Six (1.2%) 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.



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Although cocaine is not an opioid, it does not represent a safer alternative. Because of the resultant increase in heart rate and blood pressure, stimulants can lead to arrhythmias, exacerbate underlying heart disease, or cause heart attack or stroke. As can be seen from Figure 3, the vast majority of overdose cases in the past couple of years have been combinations of opioids and cocaine; however, cocaine *without* opioids still accounted for 63 cases (12.3% of the 2023 overdose cases), or approximately 5 per month.

Ethyl **alcohol** (ethanol) is another substance frequently contributing to overdose deaths. As a CNS depressant, it can produce an additive or synergistic effect with opioids. Concurrent alcohol consumption with cocaine can also lead to production of a toxic metabolite which further increases the likelihood of heart complications compared to cocaine alone.

Xylazine, a veterinary sedative not approved for human use, has also appeared frequently in overdose deaths in the last few years. Xylazine is most often utilized as a cutting agent for illicit fentanyl formulations. Taking off notably in 2021, it appeared in 17.1-17.2% of the 2021-2022 overdose deaths and 14.1% of those from 2023.

Polypharmacy (using multiple drugs simultaneously) is the most typical finding among overdose deaths. As described above, varying **combinations** of opioids, ethanol (alcohol), and cocaine are still among the most common findings in overdose deaths. Among the 512 overdose cases described herein, the tendency was to have at least two of these types of substances on board: 72.9% had at least two, and 23.6% had all three of these classes. Another common CNS depressant class that is often found in these polypharmacy cases is the **benzodiazepines**. Again—as CNS depressants, benzodiazepines can add to or exacerbate the effects of opioids. Considering all of the opioids, cocaine, alcohol, and benzodiazepines classes, 26.8% of the cases had at least three, and 4 cases (0.8%) had all four types of substances listed as direct contributors to the cause of death. Although preparations vary, when cocaine and opioids appear together it is generally not possible to establish whether they 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 4. Amphetamines also contribute to overdose deaths with notable frequency.



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Table 4. Number of 2023 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=433)	Number of Cases	Percent of All Opioid Overdose Deaths (N=449)	Number of Cases	Percent of All Opioid & Cocaine Overdose Deaths (N=512)
Fentanyl/Analogs	427	98.6%	427	95.1%	427	83.4%
Cocaine	331	76.4%	335	74.6%	398	77.7%
Alcohol	139	32.1%	139	31.0%	159	31.1%
Heroin	5	1.2%	5	1.1%	5	1.0%
Morphine	6	1.4%	6	1.3%	6	1.2%
Prescription Opioids ^a	35	8.1%	51	11.4%	51	10.0%
Xylazine	72	16.6%	72	16.0%	72	14.1%
Amphetamines ^b	35	8.1%	36	8.0%	38	7.4%
Classic Benzodiazepines ^c	16	3.7%	22	4.9%	22	4.3%
NPS Benzodiazepines ^d	14	3.2%	17	3.8%	17	3.3%
Gabapentin	11	2.5%	17	3.8%	19	3.7%
Cyclobenzaprine	3	0.7%	4	0.9%	4	0.8%
Mitragynine (Kratom)	4	0.9%	4	0.9%	4	0.8%

^aNote: There were 16 2023 cases containing prescription opioids in the absence of fentanyl/analogs or heroin/morphine. The other prescription opioid-related deaths were attributed to prescription opioids in addition to 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

Opioid Deaths in Monroe County in 2023

In 2023, there were 433 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") (Table 4)—an increase of 100 (30%) since the previous maximum of 333 in 2022 (Table 5). This represents over a third (37%) of the Monroe County deaths investigated with toxicology by the OME—a substantive increase over the previous five years (20-29% in 2018-2022).

In addition, there were 16 further opioid overdose cases with only prescription opioids (usually including other substances, but no heroin/morphine or fentanyl/analogs) including oxycodone (6), methadone (6), hydrocodone (6), and hydromorphone (2)—for a total of 449 (39% of Monroe County deaths investigated with toxicology).³

³ Previous years' iterations of this report (prior to 2022) did not include opioid deaths which did not contain heroin/morphine/ fentanyl/analogs because illicit opioids were the primary focus. For consistency and comparison purposes, the 2023 opioid data are presented in the same way as previous reports except as otherwise indicated (see Table 4 for comparison data). The additional 16 cases included 62% male and 38% female individuals; 6% Black/African American, 94% White, and 19% Hispanic.



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Table 5. 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	Percent Change (Year Over Year)
2011-2013 (aggregate)	78	--
2014	81	+3.8%
2015	69	-15%
2016	169	+45%
2017	220	+30%
2018	195	-11%
2019	181	-7.2%
2020	238	+31%
2021	293	+23%
2022	333	+14%
2023	433	+30%

The racial/ethnic heritage (Table 6) and sex distribution (Table 7) of fentanyl/analog or heroin/morphine overdose deaths reflects considerable diversity, with the Black or African American community continuing to be increasingly (13.3% of the opioid deaths in 2018 up to 41.8% in 2023) and disproportionately affected.

Table 6. Race/ethnicity distribution among fentanyl/analog and heroin/morphine deaths in 2023, and estimates of the general population demographic distribution of Monroe County.

Race	Percent of Fentanyl/Analog or Heroin/Morphine Overdose Deaths	Monroe County General Population Estimate ^a
Caucasian	56.8%	76.0%
Black or African American	41.8%	16.5%
Asian	0.9%	3.9%
Other ^b	0.5%	3.7%
Hispanic ^c	9.9%	10.1%

^aSource: <https://www.census.gov/quickfacts/monroecountynewyork> Accessed 27 August 2024.

^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 7. Sex distribution among fentanyl/analog and heroin/morphine deaths in 2023, and estimates of the general population demographic distribution of Monroe County.

Sex	Percent of Fentanyl/Analog or Heroin/Morphine Overdose Deaths	Monroe County General Population Estimate ^a
Male	76.2%	48.5%
Female	23.8%	51.5%

^aSource: <https://www.census.gov/quickfacts/monroecountynewyork> Accessed 27 August 2024.



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In 2023, the ages of the victims of fentanyl/heroin overdose ranged from <20 to 77 years with a median age of 48 years (Figure 4). Of note, there has also been a steady trend of increase in the overall ages of overdose victims over the last several years, from a median age of 38 years in 2018 to 48 years in 2023.

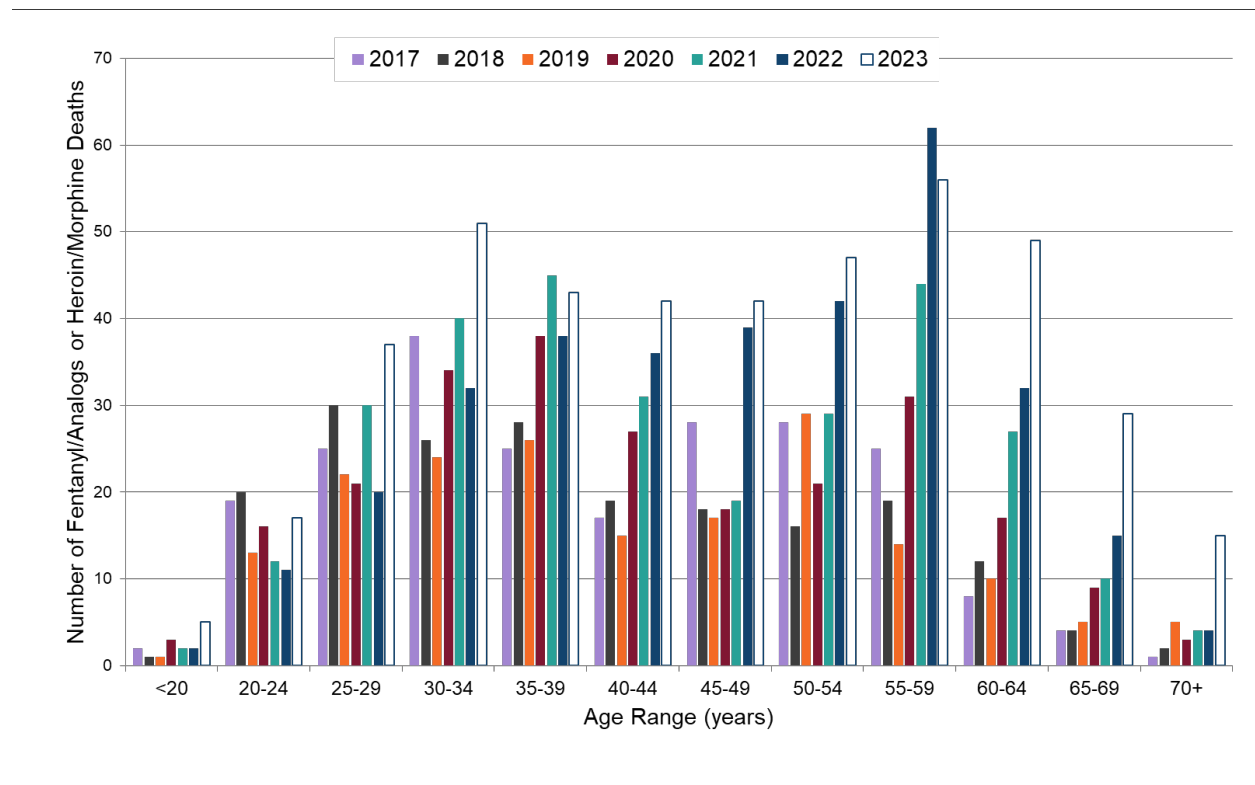


Figure 4. Age distribution of fentanyl/analogs and heroin/morphine deaths by year.