

Fatal Unintentional and Undetermined Intent Drug Overdose Report, Connecticut

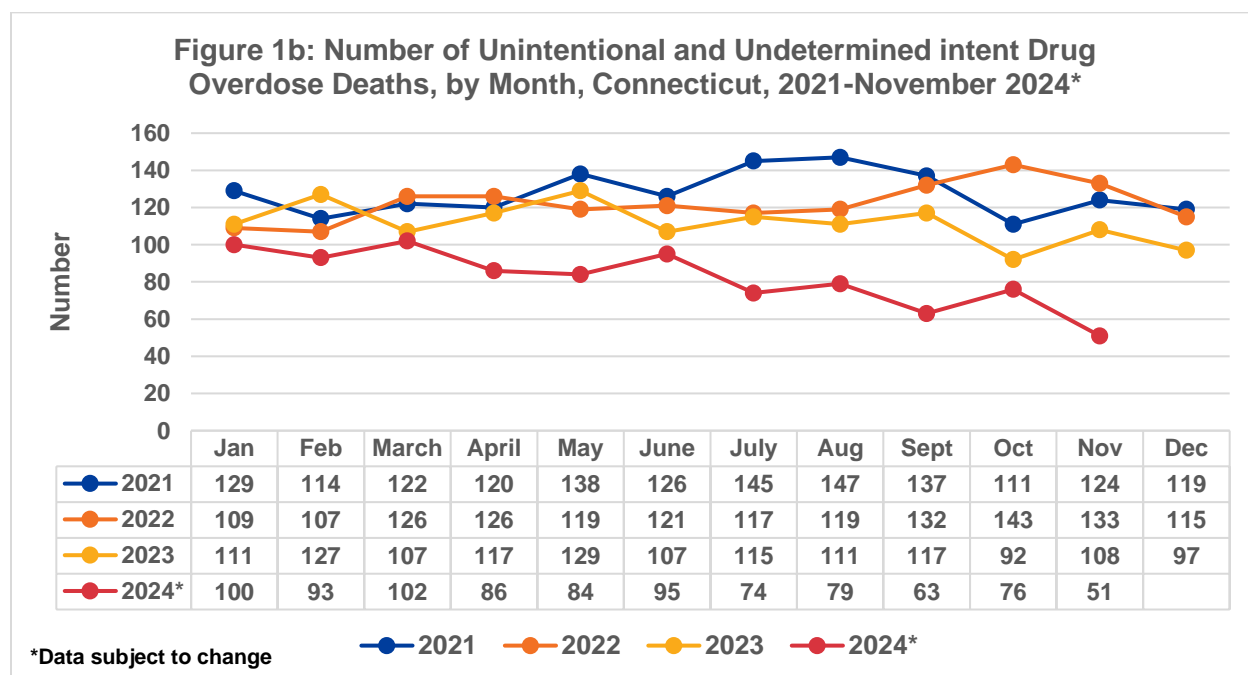
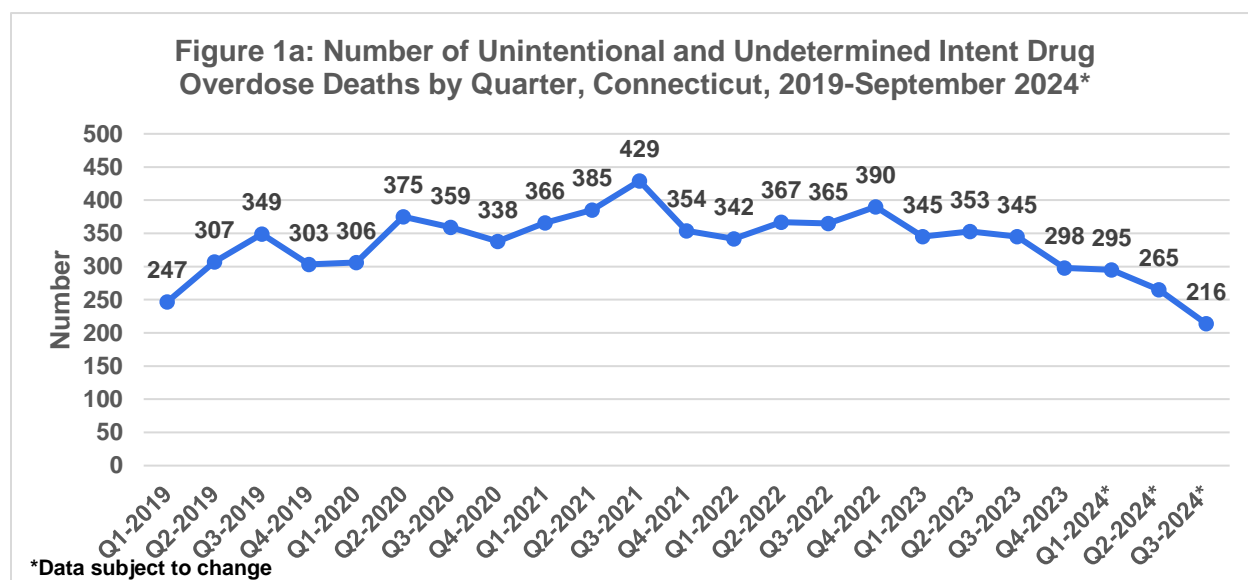
Key Findings About Drug Overdose Decedents, 2019 – December 2024*

- The current monthly report is based on confirmed fatal drug overdose cases from 2019 to the 2nd week of December 2024. Data from 2024 are preliminary and may change due to pending cases.
- The preliminary data show that there were 928 drug overdose deaths in 2024 (N=100 in January, 93 in February, 102 in March, 86 in April, 84 in May, 95 in June, 74 in July, 79 in August, 63 in September, 76 in October and 51 in November. December data are incomplete with only 25 confirmed deaths. Fentanyl- (77.6%; N=720) and fentanyl/xylazine- (35.1%; N=326) involved deaths were still a major threat and need for concern as seen in previous years.
- **January-June 2024* data:** As per preliminary data from January-June of 2024*, there were 559 confirmed drug overdose deaths. Based on annualized data, the predicted number of deaths for 2024 will be 1,118.
- **New and emerging substances:** The Injury and Violence Surveillance Unit (IVSU) at the Department of Public Health (DPH) continues to monitor for new and emerging substances.
Carfentanil: A dangerous analog of fentanyl, carfentanil, also known as an elephant tranquilizer, was involved in 9 drug overdose deaths as of the 2nd week of December 2024 and 7 in 2023. Prior to 2023, there were 7 deaths in 2017, 2 in 2020, 1 in 2021, and zero (0) in 2022 involving carfentanil. **Designer benzodiazepines:** As of the 2nd week of December, there were 32 deaths in 2024 and 31 deaths in 2023 involving designer benzodiazepines (e.g., bromazolam, flubromazolam) and these numbers were much higher than the previous years (2019=0; 2020=3; 2021=5; 2022=5). **Nitazenes (synthetic opioids):** In 2023 there were 10 deaths involving the nitazene family of substances. In prior years there were fewer nitazene-involved deaths (2019=0, 2021=2 and 2022=1). There were 9 nitazene-involved deaths in 2024 as of the 2nd week of December.
- **Comparison between 2023-2024* data:** Based on the predicted annualized number for 2024 (N=1,118), it is expected that there will be a decrease of 220 deaths (-16.4%) when compared to 2023 (N=1,338), which would result in a decreasing trend in drug overdose deaths for the last three years in a row, from 2022-2024*.
- **Demographic data for 2023 and 2024*:** Overall, males had a higher mortality rate (per 100,000 population) compared to females. Compared to 2023, the male death rate is expected to decrease in 2024* (57.1 vs 43.4) whereas the female death rate is expected to slightly increase (17.9 vs 18.9). The non-Hispanic Black population have had increased mortality rates since 2021 (70.0), reaching the highest level in 2022 (74.4) before decreasing in 2023 (68.4) and expecting to decrease as well as in 2024* (59.6).
- **Xylazine, an animal tranquilizer, in drug overdose deaths:** In 2024, the lethal xylazine/fentanyl combination was at the highest point since it was first identified in 2019. As of the 2nd week of December 2024, 35.1% (N=326) of the deaths involved xylazine. Prior years are as follows: 2020 (N=141; 10.2%), 2021 (N=298; 19.8%), 2022 (N=354, 24.2%), and 2023 (N=285; 21.3%).

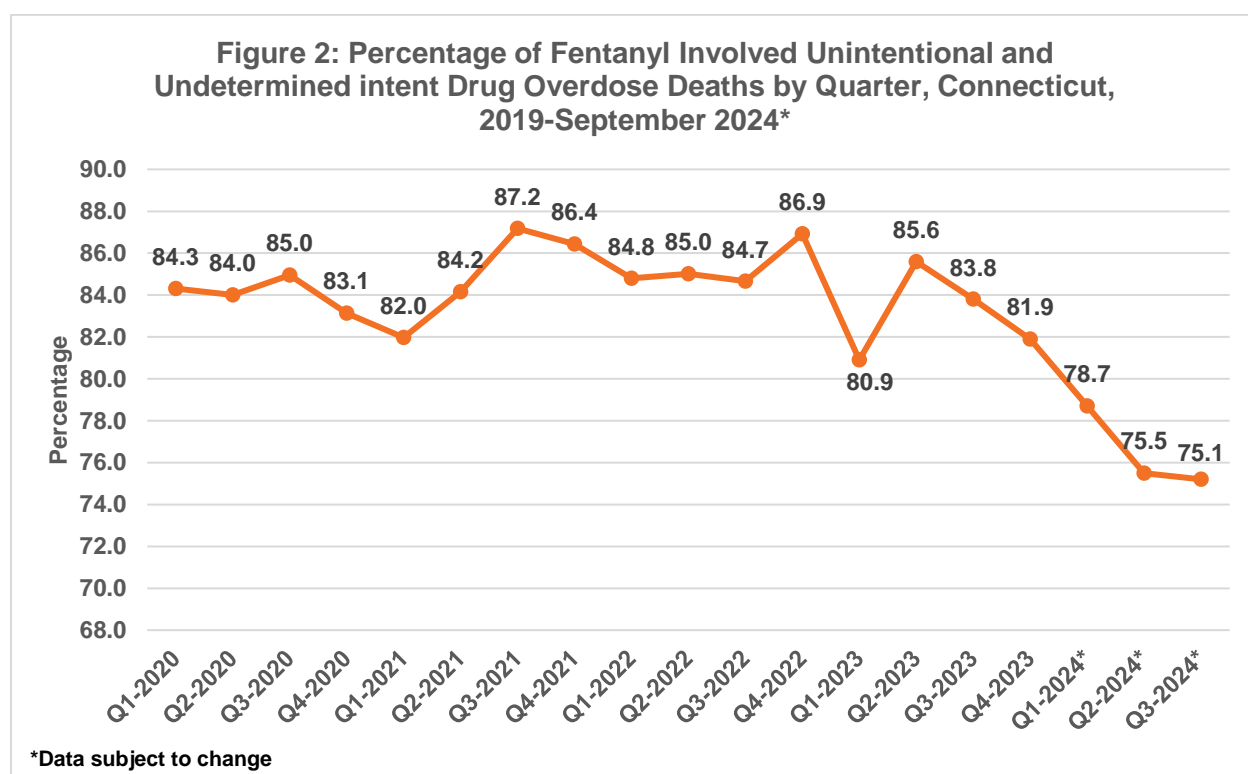
Data source: Office of the Chief Medical Examiner (OCME) and SUDORS (State Unintentional Drug Overdose Reporting System)

*Data subject to change

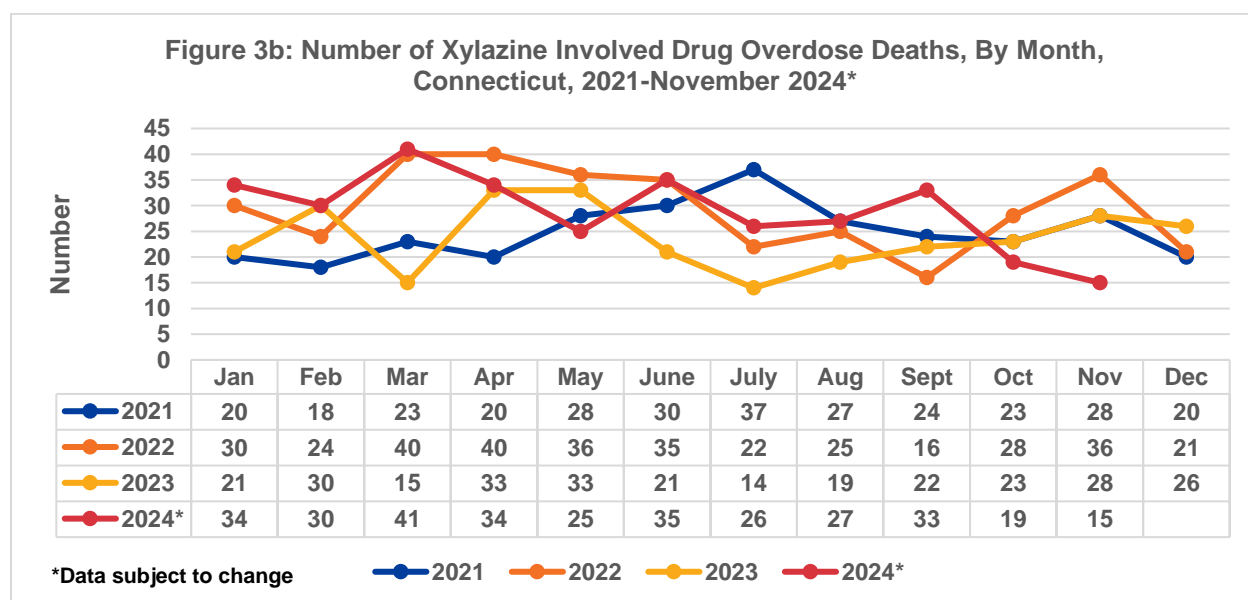
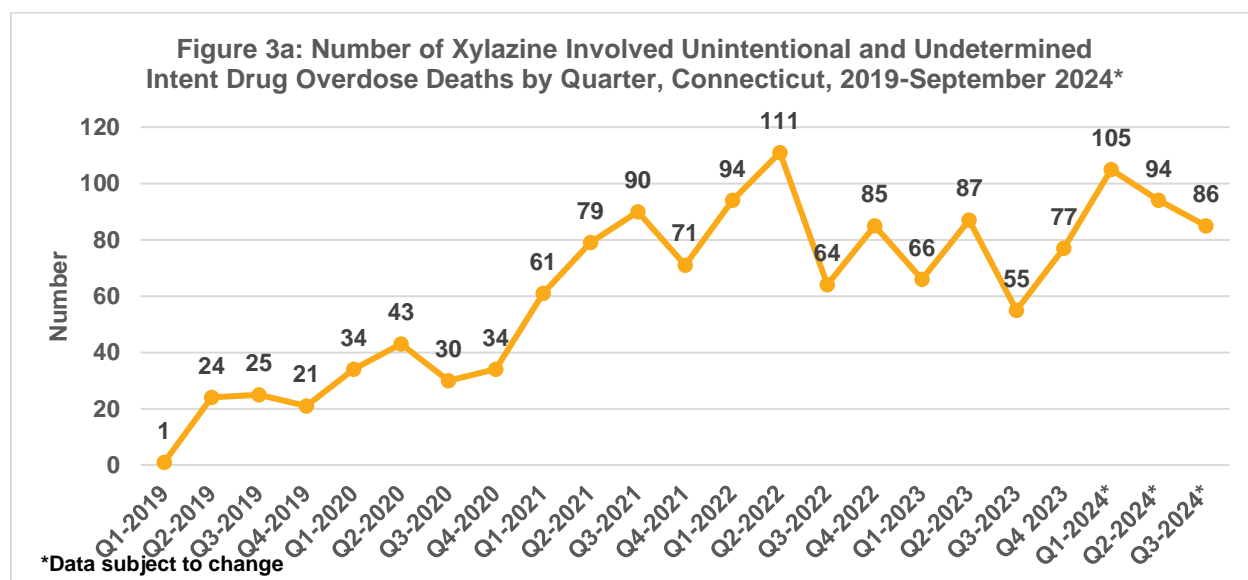
1: Number of Unintentional and Undetermined Intent Drug Overdose Deaths, Connecticut, 2019-November 2024*. The charts below represent counts of confirmed drug overdose deaths by quarter (Figure 1a) and by month (Figure 1b). Quarterly drug overdose data (Figure 1a) show that for years 2019, 2020 and 2022, Quarter 1 had the lowest number of unintentional and undetermined intent drug overdose deaths within each specific year. In 2023, Quarter 4 had the lowest number. Between 2019-2024*, Quarter 3 of 2024 had the lowest number but data for 2024 may change due to the processing of pending cases. Monthly data (Figure 1b) show that July and August of 2021 had the highest number of deaths. In 2022, the month of October had the highest number of deaths, and in 2023, it was May. Overall, in 2023 the drug overdose death numbers were lower compared to previous years, and we continue to see this downward trend in Quarters 1, 2 and 3 of 2024.



2: Percentage of Fentanyl-Involved Unintentional and Undetermined Intent Drug Overdose Deaths, by Quarter, Connecticut, 2020-September 2024*. The average percentage of fentanyl-involved deaths remained high between 2020 and 2023. The chart below represents the percentage of fentanyl-involved drug overdose deaths by quarter (Q) (Figure 2). The average annual percentage of fentanyl- or fentanyl analog-involved deaths was 84.1% for 2020 and subsequently increased to 84.9% in 2021 and 85.3% in 2022. In 2023, an average of 83.1% of the deaths involved fentanyl. Preliminary data for Q2, 2024 (75.5%) show that the percentage of fentanyl-involved deaths was lower than Q1, 2024 (78.7%) with an approximate reduction of 3.2%. When Q3, 2023 (83.8%) is compared to Q3, 2024 (75.1%), there was an 8.7% reduction of fentanyl-involved deaths. As of this report, Q3, 2024 had the lowest percentage of fentanyl-involved deaths in recent years. However, 2024* data may change due to the processing of pending cases.



3: Number of Xylazine-Involved Unintentional and Undetermined Intent Drug Overdose Deaths, Connecticut, 2019-November 2024*. Xylazine, a veterinary sedative not intended for human use, is added to illicit drugs for an enhanced effect. In Connecticut, xylazine first emerged as a novel adulterant in fatal drug overdoses in 2019. The charts below represent the number of xylazine-involved drug overdose deaths by quarter (Figure 3a) and by month (Figure 3b). The number of xylazine-involved deaths was highest in Quarter 2 of 2022 and, although the numbers fluctuated each quarter thereafter, overall, there were fewer xylazine-involved drug overdose deaths in 2023. However, in 2024 the number increased again compared to Q1-Q4 data of 2023. Figure 3b shows the monthly numbers of xylazine-involved deaths from 2021 to October 2024*. As of the 2nd week of December (December data not shown), the percentage of xylazine-involved deaths were higher in 2024 (35.1%) compared to previous years (2021=20%; 2022=24%; 2023=22%). Data from 2024 are subject to change due to pending cases.



Other Emerging Substances in Fatal Drug Overdoses, Connecticut, 2019-December 2024*.

Illicit drug markets are constantly evolving, and new substances are being added and distributed by drug dealers. In recent times, Connecticut has seen an increase in (a) **carfentanil**, an analog of fentanyl which is 100 times more potent than fentanyl, (b) **designer benzodiazepines** (e.g. bromazolam) which have similar chemical structures and clinical effects to “traditional” benzodiazepines but have higher potency & longer durations of effects, and (c) novel synthetic opioids called **nitazenes** (e.g. isotonitazene, metonitazene and protonitazene) that have different chemical structures from fentanyl and can be much more potent than fentanyl. In year 2023, there were 7 fatal drug overdoses involving carfentanil and in 2024, as of the 2nd week of December there were 9 deaths. Designer benzodiazepines sharply increased in 2023 (N=31; bromazolam=30 and bromazolam+flubromazolam=1) and in 2024 there were 32 bromazolam-involved deaths so far. The novel drugs called the nitazene family of substances started emerging in 2021 with 2 deaths and that number increased to 10 in 2023. In 2024, as of the 2nd week of December there were 9 deaths involving nitazenes. Please see Table-1 for more details. The Connecticut Department of Public Health’s IVSU remains vigilant about these new emerging substances and will inform the local communities as needed.

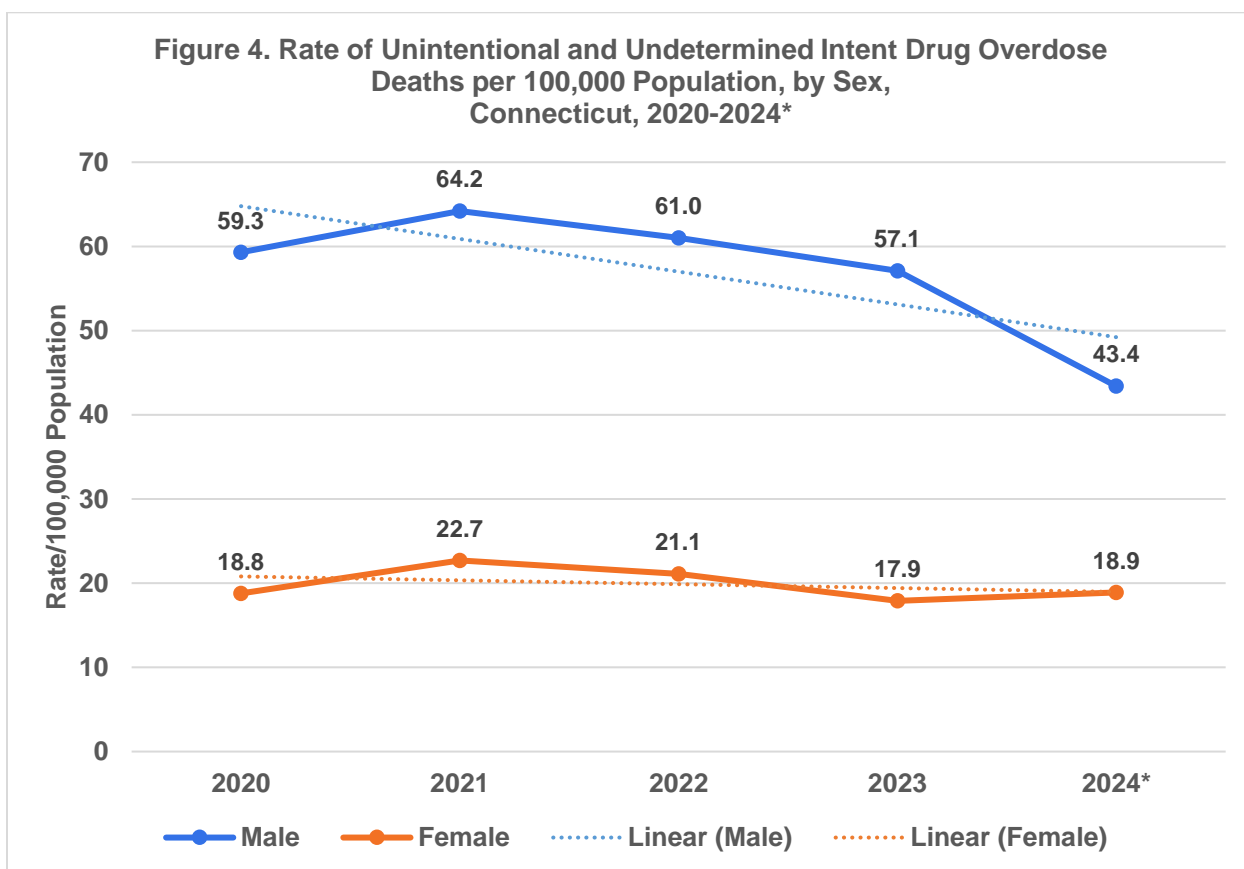
Table 1: Other Emerging Substances in Fatal Drug Overdoses, Connecticut, 2019-2024*.

Substance	2019	2020	2021	2022	2023	2024*
Carfentanil	0	2	1	0	7	9
Designer benzodiazepines**	0	3	5	5	31	32
Nitazenes	0	0	2	1	10	9

*Data are as of the 2nd week of December 2024 and are subject to change

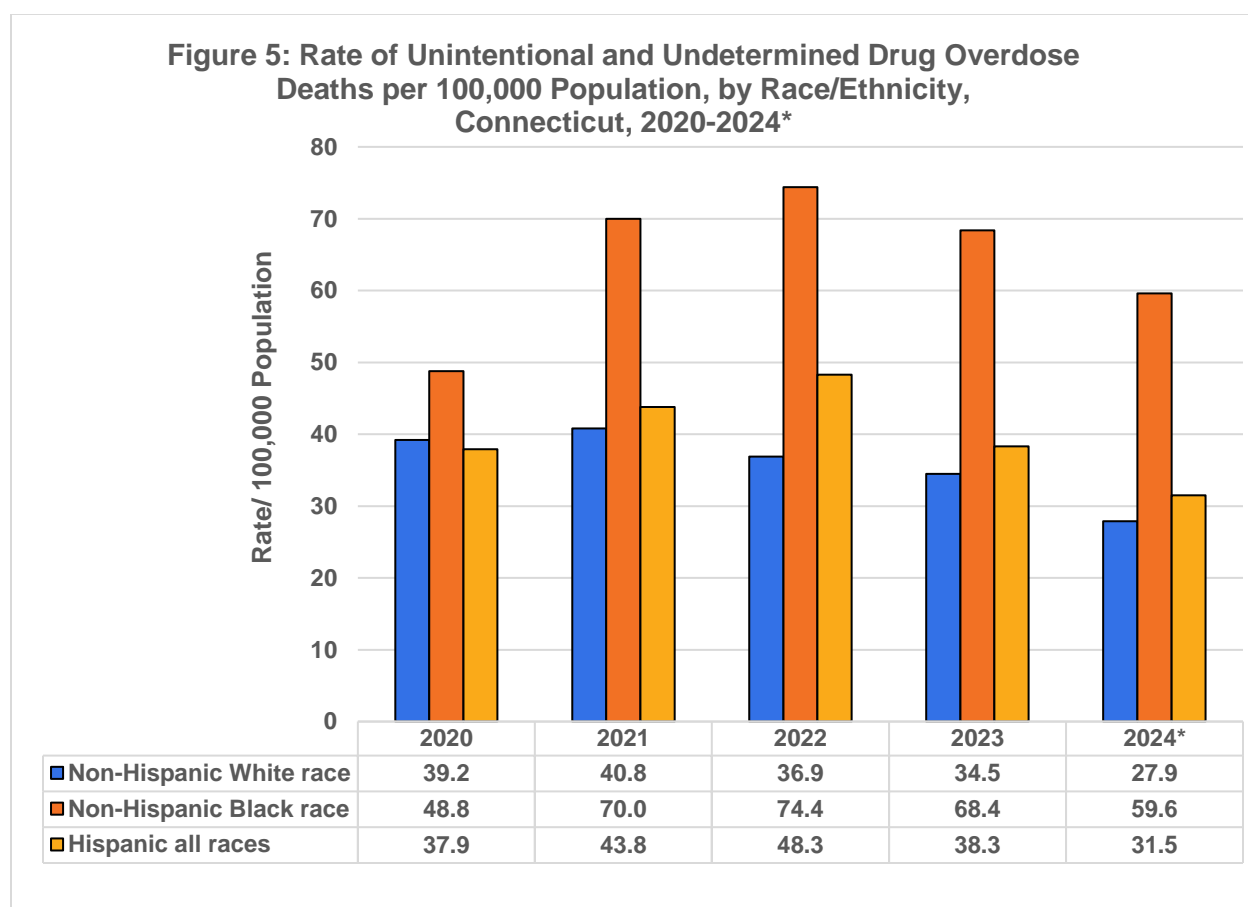
**Designer benzodiazepines include bromazolam and flubromazolam

4: Drug overdose death rates were higher in males compared to females during 2020 through 2024*. Rates of unintentional and undetermined intent drug overdose-related deaths were consistently higher among males when compared to females. The line chart below (Figure 4) represents the rates of unintentional and undetermined intent drug overdose death by sex (rate per 100,000 sex-specific population) during 2020 through 2024*. Overall linear trends from 2020 to 2024* show that the drug overdose death rates have decreased in males whereas there was very little change in female death rates. Year 2024 data are annualized based on the number of drug overdose deaths from January to June and data are subject to change due to pending cases waiting for toxicological confirmation.



*Annualized data based on January-June 2024 numbers. Data are subject to change.

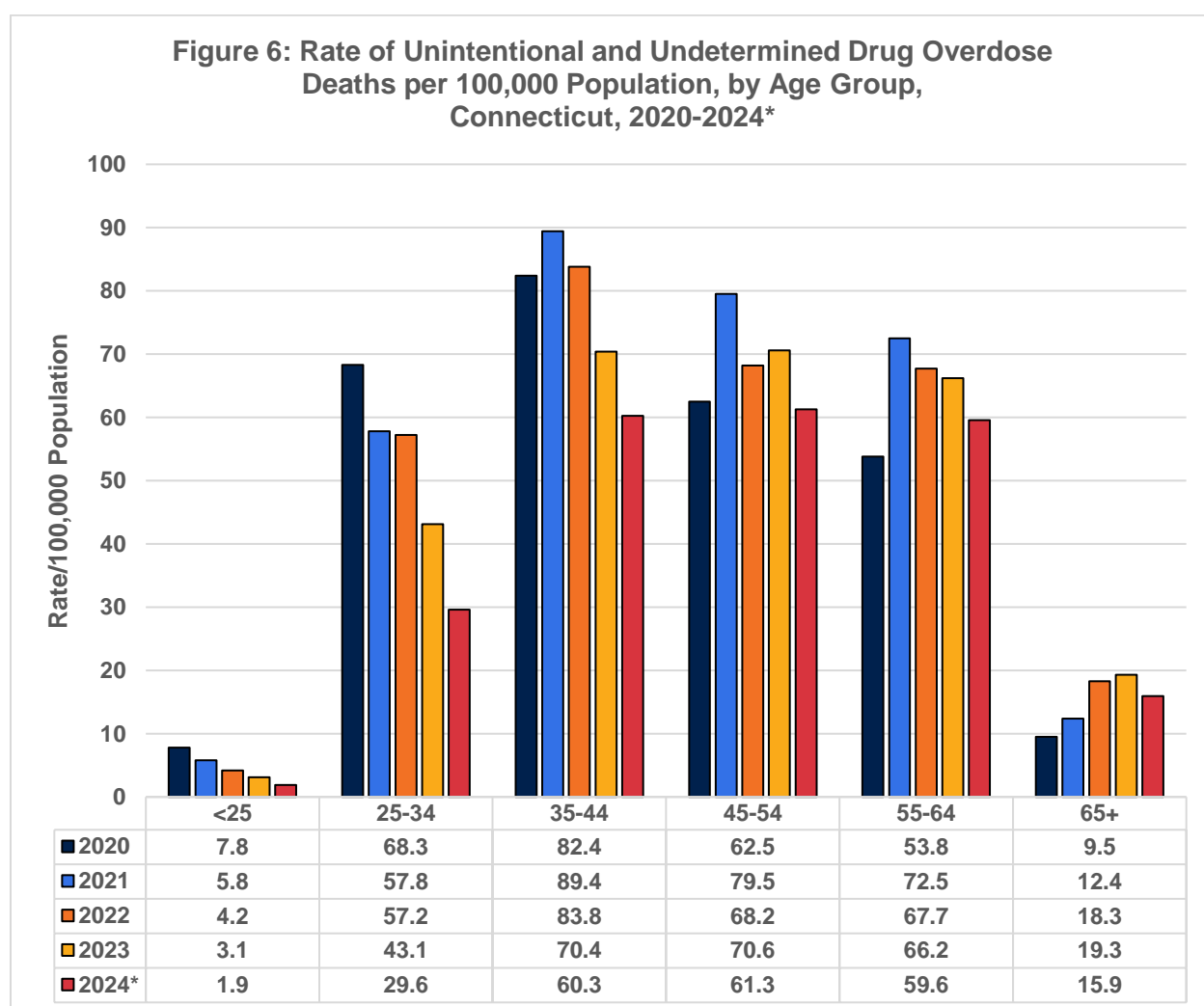
5: Drug overdose death rates were higher among the non-Hispanic Black and Hispanic populations compared to the non-Hispanic White population. Between 2021 and 2024*, the unintentional and undetermined intent drug overdose mortality rate was substantially higher in the non-Hispanic Black population compared to 2020. The data show that non-Hispanic Black Race and Hispanic All Races have been decreasing since 2023 while non-Hispanic White Race started decreasing in 2022. The Hispanic population had the lowest death rate in 2024* compared to the previous years of 2021-2023. The bar chart below (Figure 5) represents the unintentional and undetermined intent drug overdose mortality rate (per race/ethnicity-specific 100,000 population) in Connecticut, by race/ethnicity for years 2020-2024*. Overall, year 2024* preliminary data show that rates are expected to decrease across all race/ethnicity populations compared to the previous years, 2020-2023.



*Annualized data based on January-June 2024 numbers and data are subject to change.

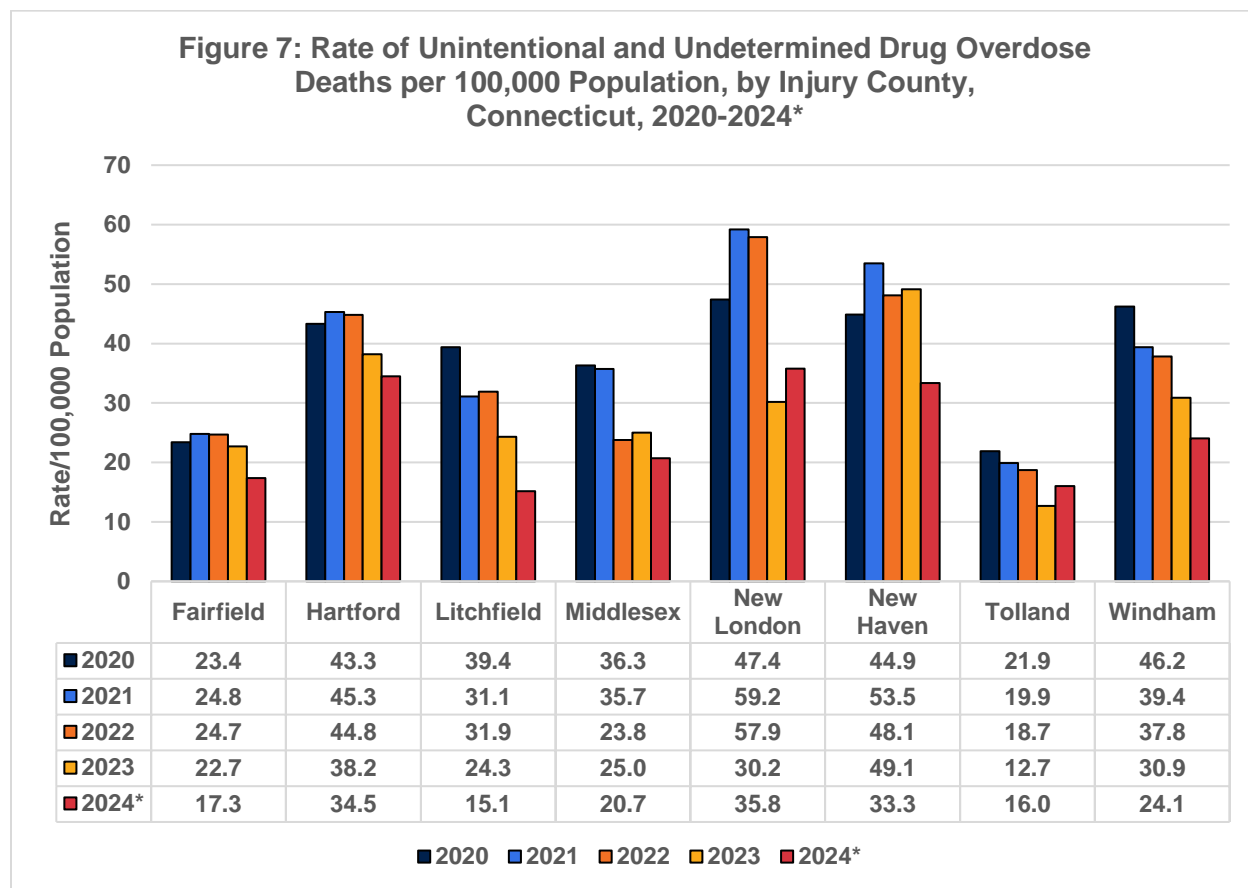
Note: Hispanic ethnicity includes all races.

6: Drug overdose death rates were highest in the 35–44- and 45–54-year-old age groups in Connecticut, 2020-2024*. Drug overdose death rates were calculated per 100,000 age-specific population and were highest among the middle-aged population, specifically the 35–44, 45–54 and 55–64-year-old age groups in 2020-2024*. The data show that for all age groups, except for the 65+ age group, there have been declining trends since 2021, but the 65+ year-olds increased over time since 2020 with the exception of 2024*. Preliminary data show that there is expected to be a decrease in the drug overdose death rates in 2024*, across all age groups. The chart below (Figure 6) represents the unintentional and undetermined intent drug overdose mortality rate in Connecticut, by age group, by year for 2020-2024*. Year 2024* data are preliminary and subject to change due to the processing of pending cases.



*Annualized data based on January-June 2024 death numbers and data are subject to change.

7: Drug overdose death rates in Connecticut, by County of Injury, 2020-2024*. The chart below (Figure 7) represents the unintentional and undetermined intent drug overdose mortality rate in Connecticut, by injury county, for 2020-2024*. The annualized data from 2024* show that New London and Tolland Counties are expected to see an increase in death rates whereas all other counties are expected to see a decrease when compared to 2023 data. Year 2024 data are preliminary and subject change due to pending cases.



*Annualized data based on January-June 2024 death numbers and data are subject to change

8: Drug overdose death rates in Connecticut, by Injury County Equivalent Planning Region (CEPR), 2020-2023. As shown in the chart below (Figure 8), the data from 2020 to 2023 show that Greater Bridgeport (also known as *Metropolitan*) was trending upwards over the past 4 years, whereas Naugatuck Valley, Northwest Hills, and Western Connecticut show a decreasing trend. Specifically, the South-Central Connecticut CEPR (which includes major cities/towns such as New Haven, West Haven, and Meriden) had the highest drug overdose death rate in 2021-2023 followed by the Naugatuck Valley CEPR (which includes major cities/towns such as Waterbury and Bristol). The lowest drug overdose death rates, year over year, were seen in the Western Connecticut CEPR (which includes major cities/towns such as Danbury, Norwalk, and Stamford) and the Lower Connecticut River Valley CEPR (which includes the major city/town of Middletown). Please see the following website for more information on the CEPRs: <https://www.federalregister.gov/documents/2022/06/06/2022-12063/change-to-county-equivalents-in-the-state-of-connecticut>

Figure 8: Rate of Unintentional and Undetermined Intent Drug Overdose Deaths per 100,000 Population, by Injury County Equivalent Planning Region, Connecticut, 2020-2023

