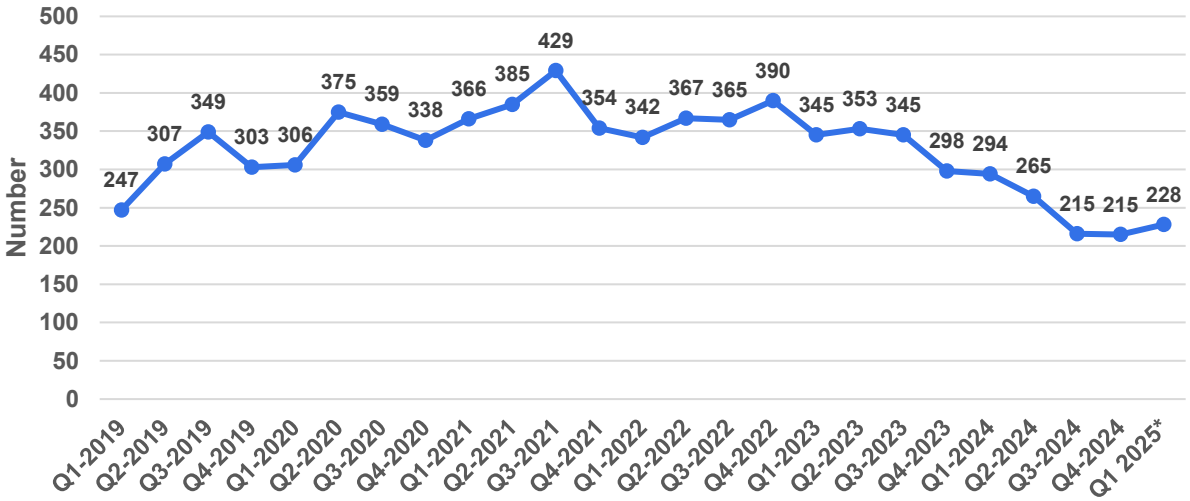
Fatal Unintentional and Undetermined Intent Drug Overdose Report, Connecticut

Key Findings About Drug Overdose Decedents, 2019 – May 2025*
• The current monthly report is based on confirmed fatal drug overdose cases from 2019 to the 2nd week of June 2025. Data from 2025 are preliminary and may change due to pending cases.
• **2025*:** As of the 2nd week of June, there were 389 confirmed drug overdose deaths for 2025 (January=59, February=86, March=84, April=68, May=72 and June=20) with many pending cases. Fentanyl (71.2%; N=277) and Xylazine (13.9%; N=54) continue to be a problem in 2025 as seen in previous years.
• **2024:** The data show that there were 989 confirmed drug overdose deaths in 2024 (N=100 in January, 93 in February, 101 in March, 86 in April, 84 in May, 95 in June, 74 in July, 78 in August, 63 in September, 77 in October, 57 in November and 81 in December). There were 758 Fentanyl-involved (76.6%) deaths in 2024.
• **New and emerging substances:** The Injury and Violence Surveillance Unit (IVSU) at the Department of Public Health (DPH) continues to watch for new and emerging substances. **Carfentanil:** A dangerous analog of fentanyl, carfentanil, a known elephant tranquilizer, was involved in 10 drug overdose deaths in 2025 as of the 2nd week of June, 10 deaths in 2024 and 7 in 2023. In prior years, deaths involving carfentanil varied (2017=7, 2018=0, 2019=0, 2020=2, 2021=1, 2022=0). **Designer benzodiazepines:** There have been 31 deaths in 2025, 39 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):** As of the 2nd week of June 2025, there has been one death involving nitazenes, a family of synthetic opioids, and in 2023 and 2024 there were 10 deaths in each of the years. In prior years, there were fewer nitazene-involved deaths (2019=0, 2021=2 and 2022=1). **Medetomidine,** an emerging illicit drug adulterant and a veterinary sedative which is more potent than xylazine was found in one (1) fatal overdose in 2024 and none are seen in 2025 as of the 2nd week of June.
• **Comparison between 2023-2024 data:** There were 349 less deaths, a 26.1% decrease) in 2024 compared to 2023 (N=1,338). A decreasing trend in drug overdose deaths has been seen consecutively for the last three years from 2021-2024.
• **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 age-adjusted death rate (55.0 vs 36.7) and the female age-adjusted death rate (17.2 vs 16.0) decreased in 2024. The non-Hispanic Black population has had increased mortality rates since 2020 (51.5). In 2021, 2022 and 2023 the age-adjusted rates increased further to 65.3, 65.4, and 65.3 respectively, before decreasing to 46.4 in 2024.
• **Xylazine, an animal tranquilizer, in drug overdose deaths:** In 2024, the lethal xylazine/fentanyl combination was involved in 34.7% (N=344) of overdose deaths. 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%). Although xylazine was at its highest average percentage in 2024, the number of xylazine deaths decreased each quarter in 2024 from 105 to 59 from Q1-Q4. Preliminary data for 2025 show that 13.9% (N=54) of the deaths involved xylazine in combination with fentanyl and other substances.

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

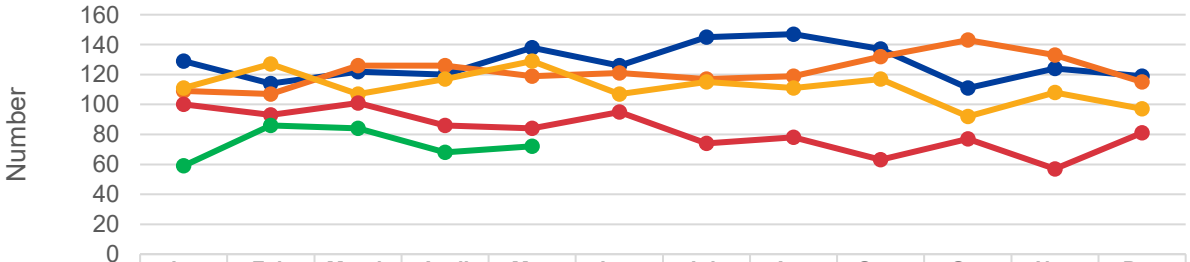
1: Number of Unintentional and Undetermined Intent Drug Overdose Deaths, Connecticut, Q1 2019-Q1 2025*. The charts below represent counts of confirmed drug overdose deaths by quarter (Figure 1a) and by month (Figure 1b). Quarterly drug overdose data (Figure 1a) show that for the years 2019, 2020, and 2022, Quarter 1 had the lowest number of unintentional and undetermined intent drug overdose deaths within each specific year. Between 2019-2024, Quarter 4 of 2024 had the lowest number. Monthly data (Figure 1b) show that July and August of 2021 had the highest number of deaths. In 2022, October had the highest number of deaths, and in 2023, it was May. The data from 2025 are preliminary and subject to change due to pending cases.

Figure 1a: Number of Unintentional and Undetermined Intent Drug Overdose Deaths, by Quarter, Connecticut, Q1 2019-Q1 2025*



*Data subject to change

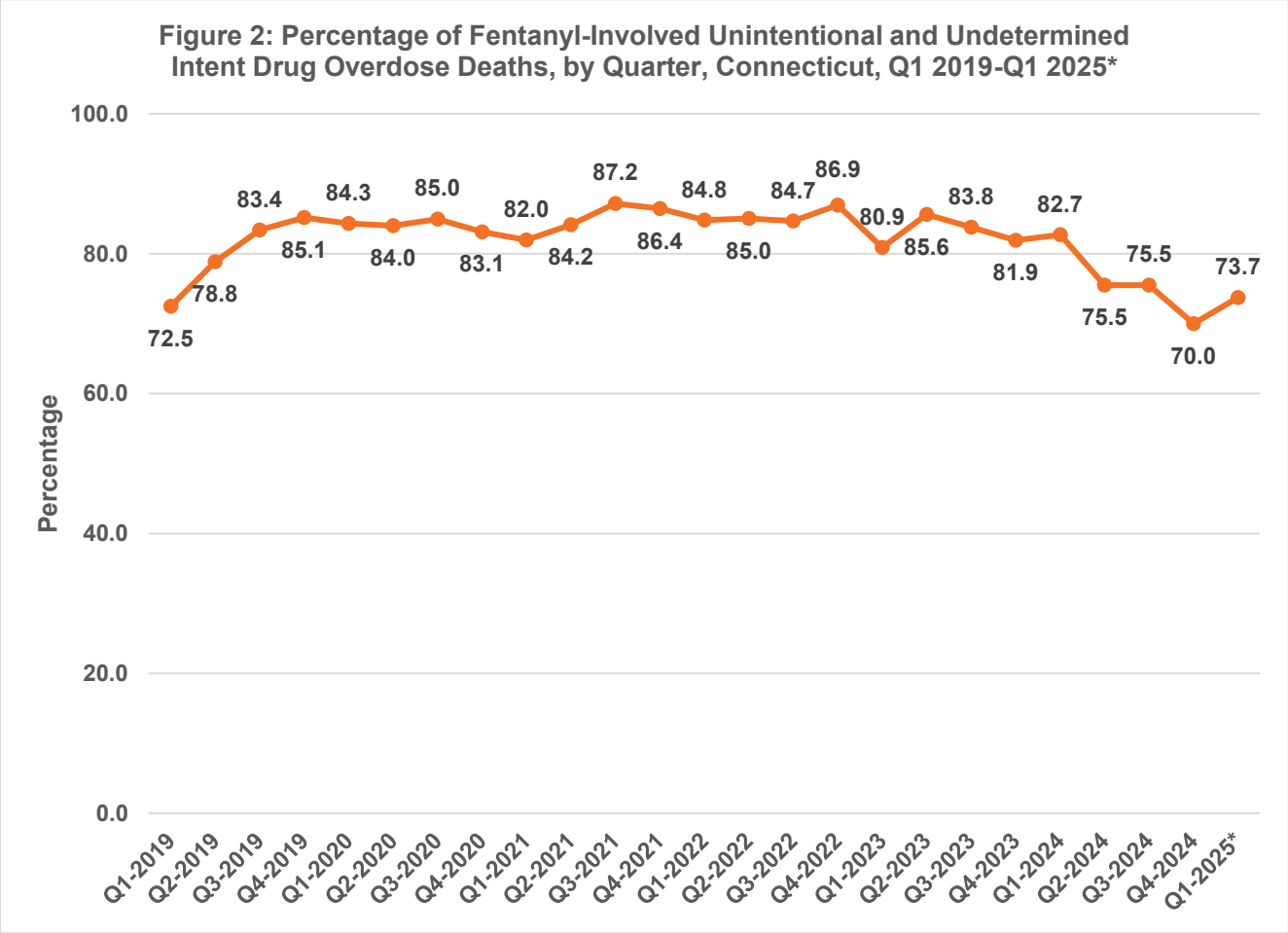
Figure 1b: Number of Unintentional and Undetermined Intent Drug Overdose Deaths, by Month, Connecticut, 2021-May 2025*



	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2021	129	114	122	120	138	126	145	147	137	111	124	119
2022	109	107	126	126	119	121	117	119	132	143	133	115
2023	111	127	107	117	129	107	115	111	117	92	108	97
2024	100	93	101	86	84	95	74	78	63	77	57	81
2025*	59	86	84	68	72							

*Data subject to change

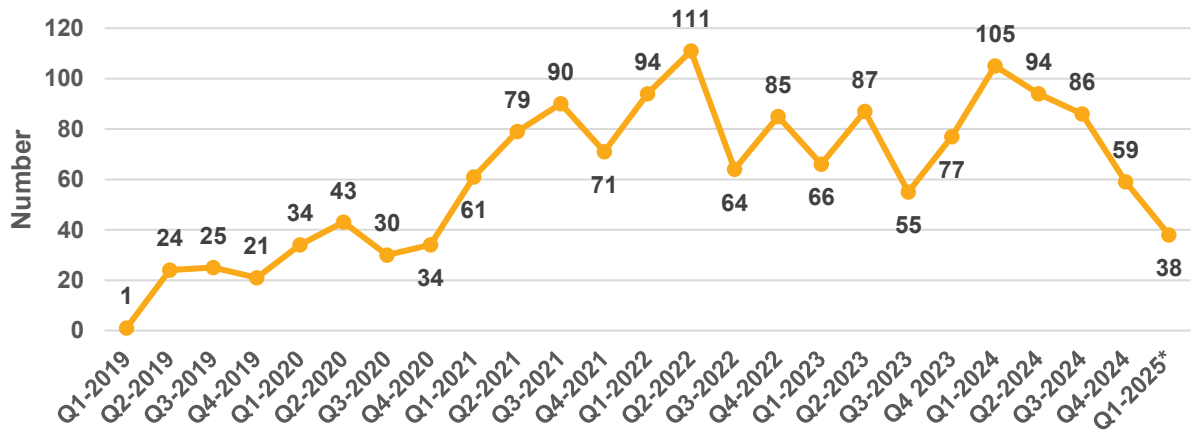
2: Percentage of Fentanyl-Involved Unintentional and Undetermined Intent Drug Overdose Deaths, by Quarter, Connecticut, Q1 2020-Q1 2025*. The average percentage of fentanyl-involved deaths remained high between 2020 and 2024. The chart below represents the percentage of fentanyl-involved drug overdose 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. The data for 2024 show that the percentage of fentanyl-involved deaths decreased from Q1 to Q4 (72.7% vs 70.0%) with an approximate reduction of 12.7%. When Q3, 2023 (83.8%) is compared to Q3, 2024 (75.5%), there was an 8.3% reduction of fentanyl-involved deaths. As of this report, Q4, 2024 (70.0%) had the lowest percentage of fentanyl-involved deaths in recent years. The average annual percentage of fentanyl-involved deaths for 2024 was 76.6%. Preliminary data show that there were 73.7% fentanyl involved deaths in Q1 of 2025* and this percentage is subject to change due to pending cases that are waiting for toxicology confirmation.



*Data subject to change

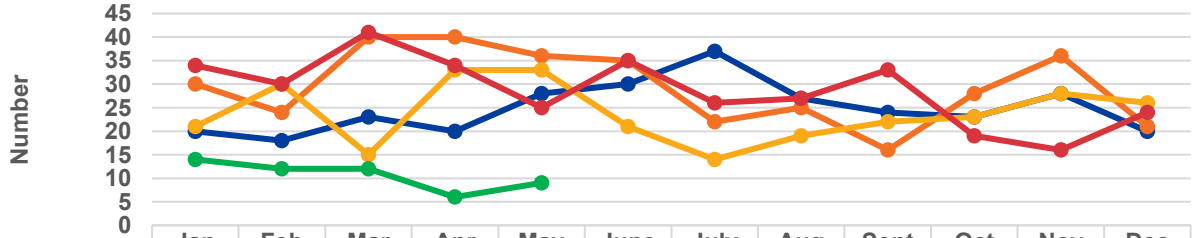
3: Number of Xylazine-Involved Unintentional and Undetermined Intent Drug Overdose Deaths, Connecticut, Q1 2019-Q1 2025*. Xylazine, a veterinary sedative not intended for human use, is added to illicit drugs for an enhanced effect. In Connecticut, xylazine first emerged as a novel adulterant in fatal 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 2024. The average annual percentage of xylazine-involved deaths was higher in 2024 (34.7%) compared to previous years (2021=20%; 2022=24%; 2023=22%). As per preliminary data of 2025, xylazine was involved in 13.9% of the deaths and the data are subject to change due to pending cases.

Figure 3a: Number of Xylazine-Involved Unintentional and Undetermined Intent Drug Overdose Deaths, by Quarter, Connecticut, Q1 2019-Q1 2025*



*Data subject to change

Figure 3b: Number of Xylazine-Involved Drug Overdose Deaths, by Month, Connecticut, 2021-May 2025*



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
2021	20	18	23	20	28	30	37	27	24	23	28	20
2022	30	24	40	40	36	35	22	25	16	28	36	21
2023	21	30	15	33	33	21	14	19	22	23	28	26
2024	34	30	41	34	25	35	26	27	33	19	16	24
2025*	14	12	12	6	9							

*Data subject to change

Other Emerging Substances in Fatal Drug Overdoses, Connecticut, 2019-2025*. Illicit drug markets are constantly evolving, and new substances are being added, distributed, and sold. 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 and 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. A novel class of veterinary anesthetic drug with potent sedative effects called (d) **Medetomidine** is emerging as an illicit drug adulterant, particularly in the US, and has been linked to overdoses. This veterinary drug is an alpha 2- adrenergic agonist and has 200-fold higher potency than xylazine and provides consistent anesthesia. In Connecticut there was one medetomidine involved drug overdose death in 2024 and none are seen in 2025 as of 2nd week of June.

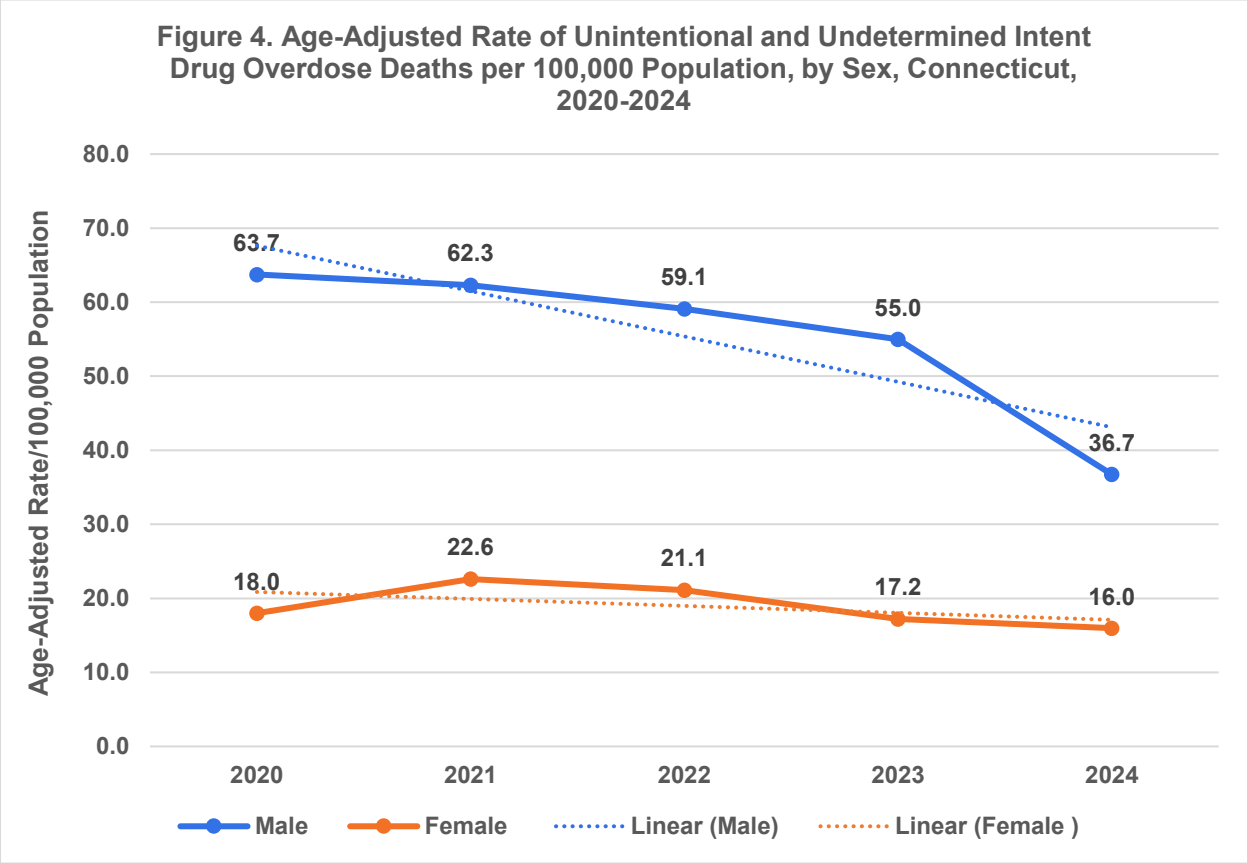
In year 2023, there were 7 fatal drug overdoses involving carfentanil, and in 2024 there were 10. As of the 2nd week of June 2025, there were 10 deaths involving carfentanil. Designer benzodiazepine-involved drug overdose deaths sharply increased in 2023 to 31 (bromazolam=30 and bromazolam+flubromazolam=1) with a further increase to 39 cases in 2024. Preliminary data for January to June 2025* show that there were 31 bromazolam-involved deaths. Since 2021, the Nitazene family of substances, which are synthetic opioids, have been seen in fatal drug overdose toxicology (2021=1; 2022=1), and in 2023 and 2024, the number of cases with this substance increased to 10. As of the 2nd week of June, there has been one nitazene-involved death in 2025. Medetomidine, a veterinary anesthetic drug, was seen for the first time in fatal overdoses in Connecticut in December 2024 along with another veterinary tranquilizer, xylazine, and other substances. The Connecticut Department of Public Health's IVSU (Injury and Violence Surveillance Unit) remains vigilant about these new emerging substances and will inform the local communities as needed. Please see Table 1 for more details.

Table 1: Other Emerging Substances in Fatal Drug Overdoses, Connecticut, 2019-June 2025*.

Substance	2019	2020	2021	2022	2023	2024	2025*
Carfentanil	0	2	1	0	7	10	10
Designer benzodiazepines**	0	3	5	5	31	39	31
Nitazenes	0	0	2	1	10	10	1

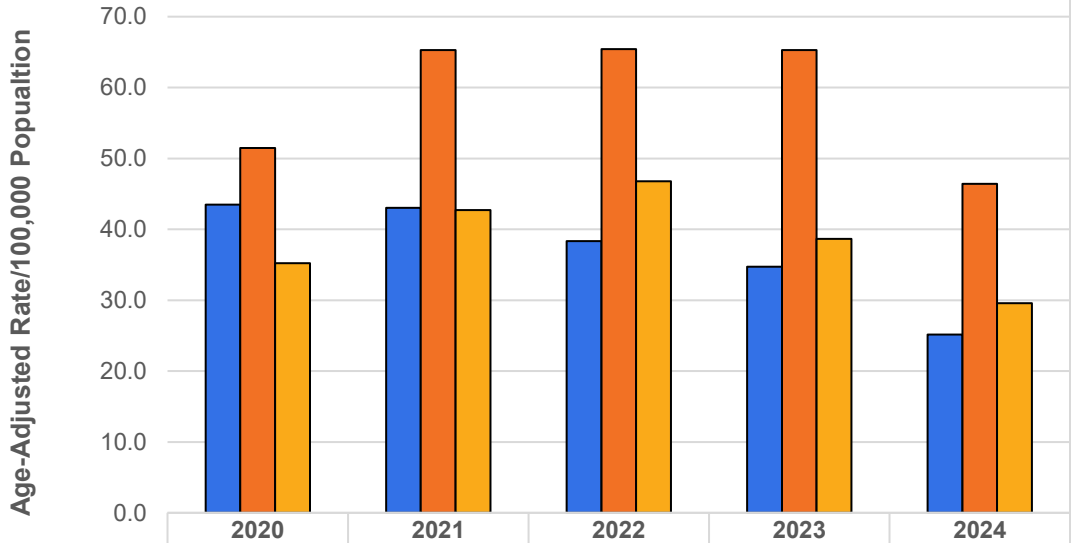
*Data from 2025 are subject to change
**Designer benzodiazepines include bromazolam and flubromazolam

4: Age-adjusted drug overdose death rates were higher in males compared to females during 2020 through 2024. Age-adjusted rates of unintentional and undetermined intent drug overdose-related deaths were consistently higher among males when compared to females. The line graph below (Figure 4) represents the age-adjusted rates of drug overdose death by sex during 2020 through 2024. Overall linear trends from 2020 to 2024 show that the age-adjusted drug overdose death rates decreased in males whereas there was very little change in female death rates.



5: Age-adjusted 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 age-adjusted mortality rate was substantially higher in the non-Hispanic Black population compared to 2020. The data show that age-adjusted death rates for non-Hispanic Black Race and Hispanic All Races have been decreasing since 2023, while non-Hispanic White Race started decreasing in 2022. The bar chart below (Figure 5) represents the unintentional and undetermined intent drug overdose age-adjusted mortality rate (per 100,000 population) by race/ethnicity in Connecticut, for years 2020-2024. Overall, year 2024 data show that rates decreased across all race/ethnicity populations compared to the previous years, 2020-2023.

Figure 5: Age-Adjusted Rate of Unintentional and Undetermined Intent Drug Overdose Deaths per 100,000 Population, by Race/Ethnicity, Connecticut, 2020-2024

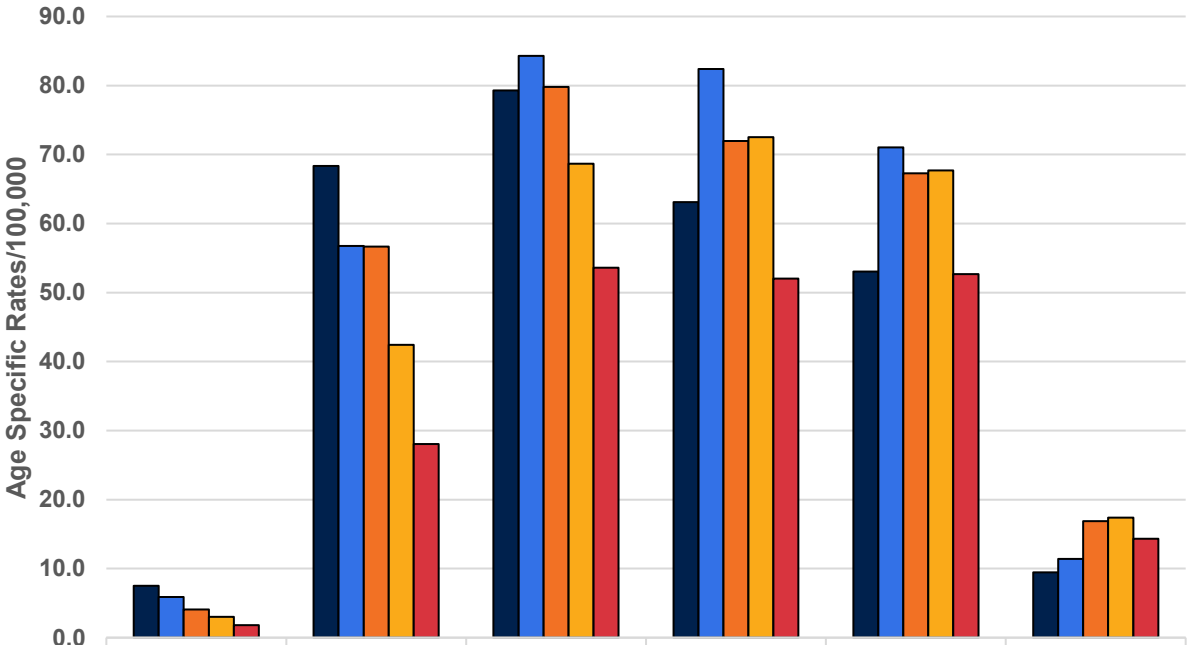


	2020	2021	2022	2023	2024
Non Hispanic White race	43.5	43.0	38.3	34.7	25.2
Non Hispanic Black race	51.5	65.3	65.4	65.3	46.4
Hispanic all races	35.2	42.7	46.8	38.6	29.6

Note: Hispanic ethnicity includes all races.

6: Age-specific drug overdose death rates were highest among 35–64-year-old in Connecticut, 2020-2024. Age specific drug overdose death rates were calculated per 100,000 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 across all age groups there has been a declining trend in 2024 compared to the previous years. The chart below (Figure 6) represents the annual age-specific unintentional and undetermined intent drug overdose mortality rates in Connecticut, by age group 2020-2024.

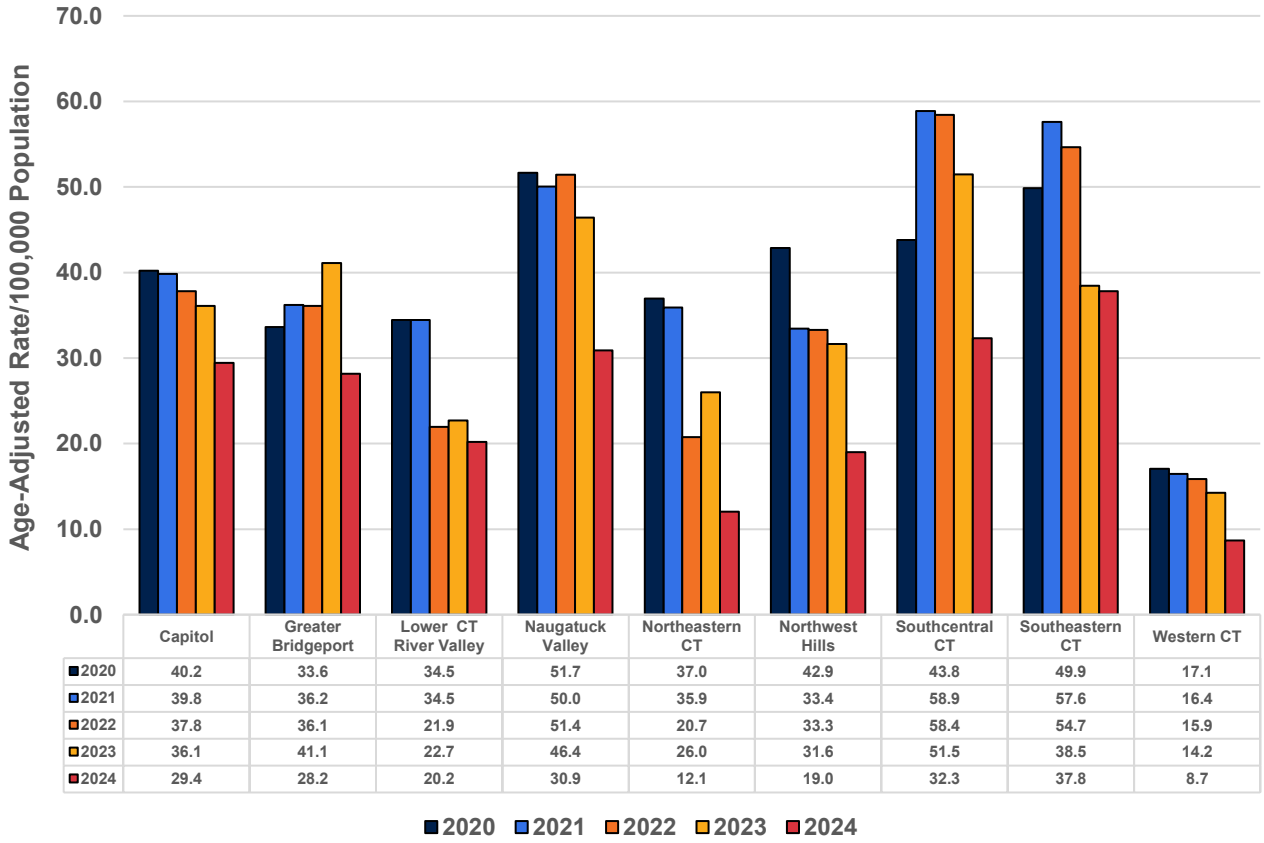
Figure 6: Age Specific Rates of Unintentional and Undetermined Drug Overdose Deaths per 100,000 Population, by Age Group, Connecticut, 2020-2024



	<25 yr	25-34 yr	35-44 yr	45-54 yr	55-64 yr	65+ yr
2020	7.5	68.4	79.3	63.1	53.0	9.5
2021	5.9	56.7	84.3	82.4	71.0	11.4
2022	4.1	56.7	79.8	71.9	67.3	16.9
2023	3.0	42.4	68.7	72.5	67.7	17.4
2024	1.8	28.1	53.6	52.0	52.7	14.3

7: Age-adjusted drug overdose death rates in Connecticut, by Injury County Equivalent Planning Region (CEPR), 2020-2024. The chart below (Figure 7) shows the age-adjusted mortality rates per 100,000 population for County Equivalent Planning Region (CEPR), 2020-2024 in Connecticut. Overall, Southeastern Connecticut (includes major cities/towns such as New London, Norwich, and Windham), Southcentral Connecticut (includes major cities/towns such as New Haven, Meriden, and Branford) and Naugatuck valley (includes major cities/towns such Waterbury, Bristol and Naugatuck) CEPRs had the highest age-adjusted mortality rates between 2020-2024. The lowest age-adjusted 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). Please see the note regarding CEPRs and visit 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

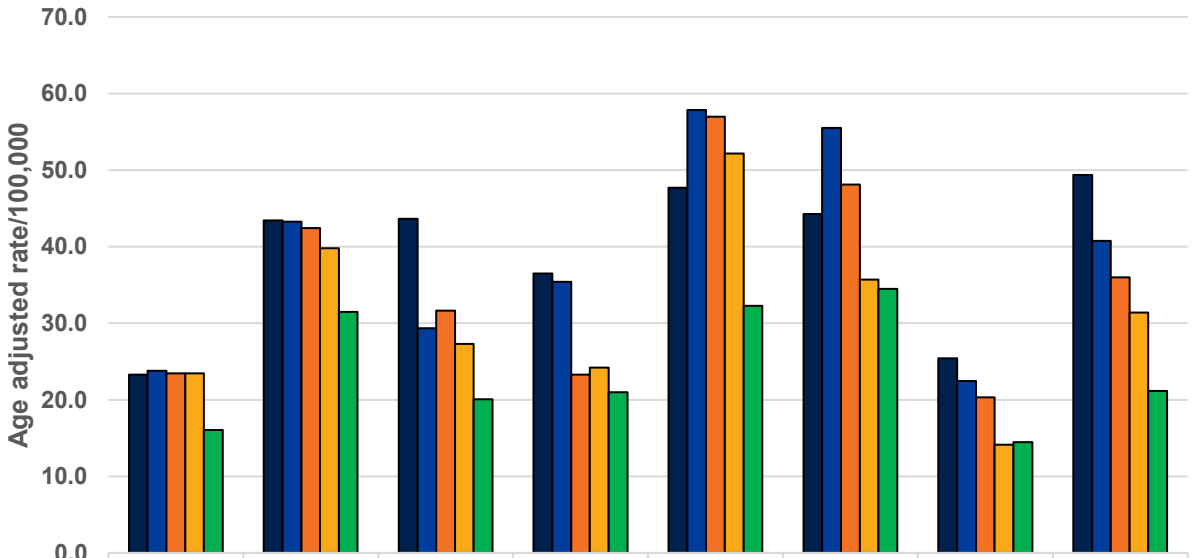
Figure 7: Age-Adjusted Rate of Unintentional and Undetermined Intent Drug Overdose Deaths per 100,000 Population, by Injury County Equivalent Planning Region, Connecticut, 2020-2024



	Capitol	Greater Bridgeport	Lower CT River Valley	Naugatuck Valley	Northeastern CT	Northwest Hills	Southcentral CT	Southeastern CT	Western CT
2020	40.2	33.6	34.5	51.7	37.0	42.9	43.8	49.9	17.1
2021	39.8	36.2	34.5	50.0	35.9	33.4	58.9	57.6	16.4
2022	37.8	36.1	21.9	51.4	20.7	33.3	58.4	54.7	15.9
2023	36.1	41.1	22.7	46.4	26.0	31.6	51.5	38.5	14.2
2024	29.4	28.2	20.2	30.9	12.1	19.0	32.3	37.8	8.7

8: Age-adjusted drug overdose death rates in Connecticut, by County of Injury, 2020-2024. The chart below (Figure 8) represents the unintentional and undetermined intent drug overdose age-adjusted mortality rates in Connecticut, by injury county, for 2020-2024. The 2024 data show that New London County had the highest age-adjusted death rate followed by New Haven County and Hartford County, whereas Tolland County had the lowest age-adjusted death rate. Overall, in 2024 the age-adjusted mortality rate decreased across all the counties except Tolland County when compared to previous years.

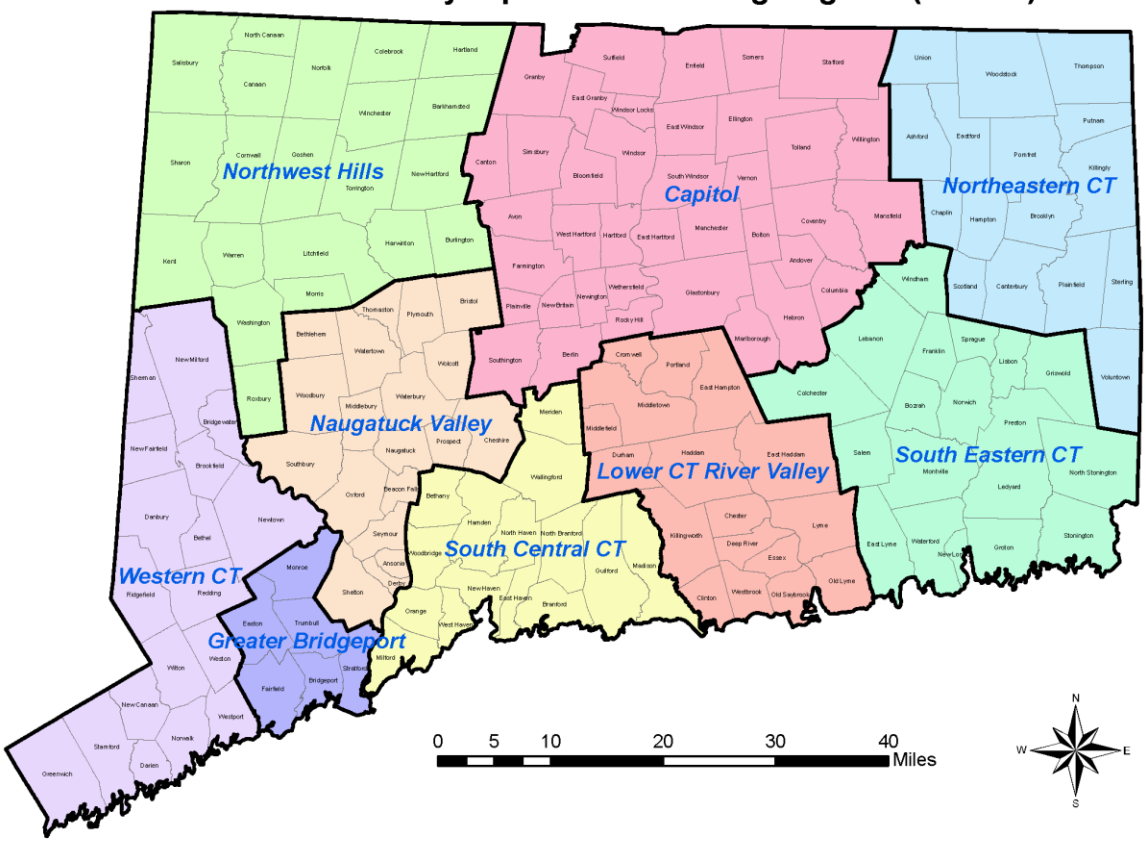
Figure 8: Age-Adjusted Rate of Unintentional and Undetermined Drug Overdose Deaths per 100,000 Population, by Injury County, Connecticut, 2020-2024



	Fairfield	Hartford	Litchfield	Middlesex	New Haven	New London	Tolland	Windham
2020	23.3	43.4	43.7	36.5	47.7	44.2	25.4	49.4
2021	23.8	43.3	29.3	35.4	57.9	55.5	22.5	40.8
2022	23.5	42.4	31.7	23.3	57.0	48.1	20.3	36.0
2023	23.5	39.8	27.3	24.2	52.2	35.7	14.1	31.4
2024	16.1	31.5	20.1	21.0	32.3	34.5	14.5	21.1

Note about the CEPRs shown in Figure 7: In 2017, Connecticut requested that the US Census Bureau adopt the State's nine planning regions as county-equivalent geographic units for the purposes of collecting, tabulating, and disseminating statistical data, replacing the State's eight counties. Although the Connecticut planning regions and counties do not align perfectly, there is substantial overlap. The nine CEPRs are: Capitol Planning Region, Greater Bridgeport (also known as Metropolitan), Lower Connecticut Valley, Naugatuck Valley, Northeastern Connecticut, Northwest Hills, South Central Connecticut, and Western Connecticut. By 2024, all internal and external Census Bureau operations and publications are expected to use the nine new planning region boundaries, names, and codes, except for 2020 where decennial census data publications and other datasets referencing the eight legacy counties were published before June 1, 2022. Weblink for map of Regional Councils of Governments in Connecticut: https://libguides.ctstatelibrary.org/regionalplanning/maps

Connecticut County Equivalent Planning Regions (CEPRs)



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