

NC OCME Data on Overdose Deaths, 2020

About OCME

The **North Carolina Office of the Chief Medical Examiner (NC OCME)** investigates all sudden, unexpected, and violent deaths in North Carolina, including all suspected drug-related or poisoning deaths, and oversees the operations of the state’s entire medical examiner system. The NC OCME collects data from autopsy reports, death certificates, investigation reports, and toxicology reports on all deaths investigated by the medical examiner system in NC.

The **NC OCME Toxicology Laboratory** is accredited by the American Board of Forensic Toxicology (ABFT) and performs toxicology testing on all-drug related deaths in NC to assist the pathologist in determining cause and manner of death.

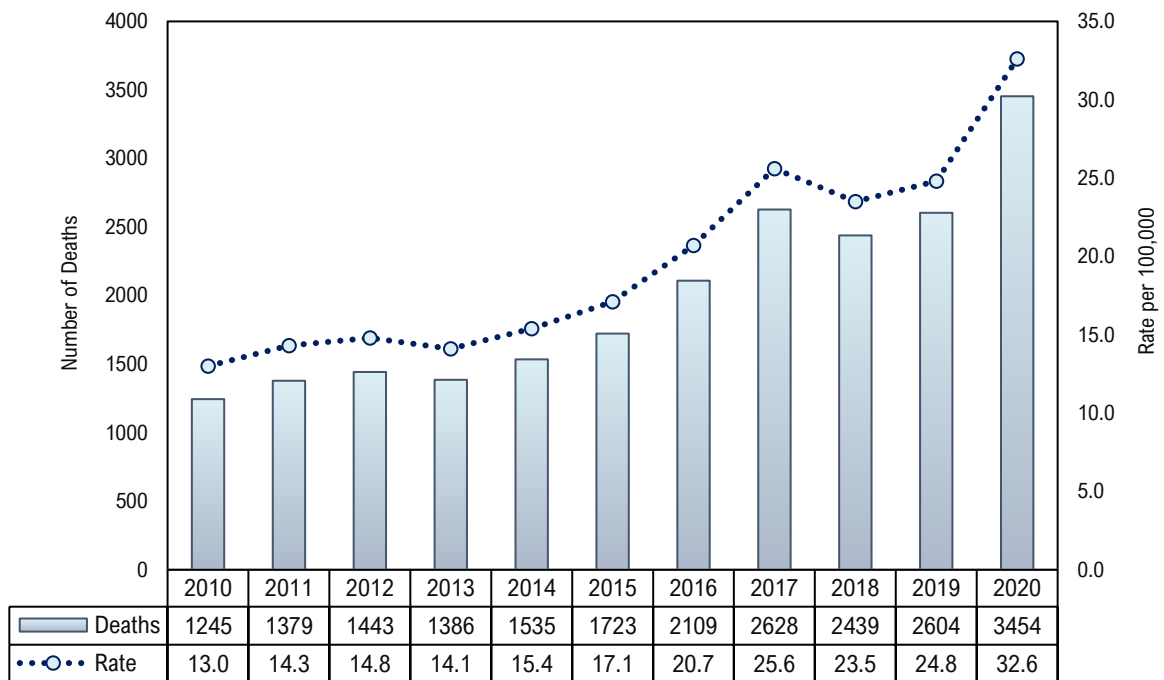
NOTES: 2020 data are provisional and subject to change. Poisoning deaths solely attributed to carbon monoxide and natural deaths from chronic alcoholism are excluded.

Overdose deaths in 2020 reached a record high, according to provisional data from the North Carolina Office of the Chief Medical Examiner (NC OCME). This report uses the most recent data from the NC medical examiner system to update statistics on deaths from overdose. Overdose deaths included in this report are deaths that have been confirmed as poisonings, regardless of intent, based on the results of comprehensive investigation.

In 2020, there were 3,454 overdose deaths certified by the medical examiner system, a 32.6% increase in overdose deaths compared to 2019 (n=2,604).

- Accidental overdoses accounted for nearly 95% of overdose deaths in 2020 (n=3,263).
- In 2020, 25.5% of deaths investigated by the medical examiner system (n=13,552) were deaths from overdose.
- Overdose deaths in 2020 increased 63.8% compared to 2016 (n=2,109).
- Illicit and prescription opioids were involved in 81.8% of overdoses (n=2,825).

Figure 1. Number and Rate of Overdose Deaths by Year, 2010 – 2020

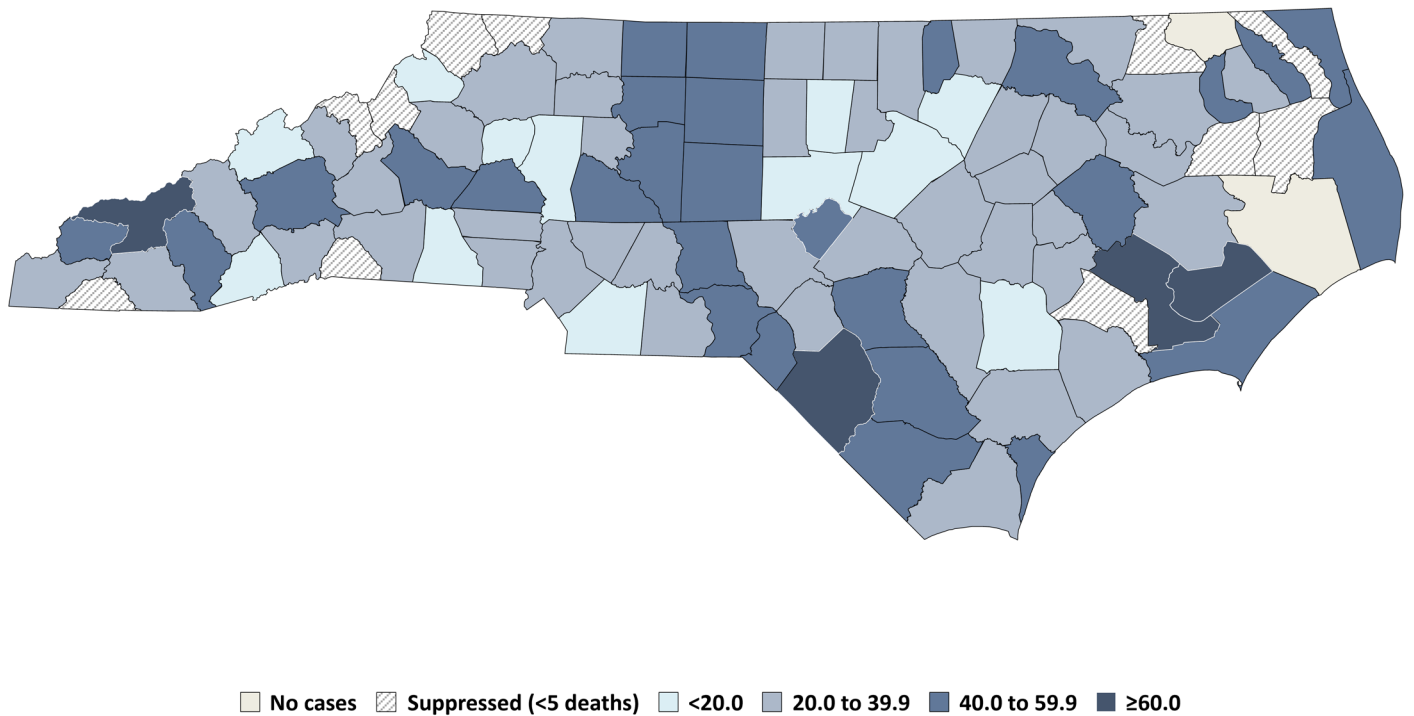


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Overdose Death Rates by County of Death, 2020

Figure 2. Number and Rate of Overdose Deaths by County of Death, 2020*



*Rates per 100,000 NC Residents. Data shown represents the county of death for deaths certified by the medical examiner system.

Table 1. Top 10 Overdose Deaths Rates by County of Death, 2020

County of Death	Overdose Deaths	
	Deaths	Rate
Swain	11	77.6
Robeson	86	66.2
Lee	40	64.2
Pamlico	8	62.9
Craven	61	60.3
Graham	5	59.0
Richmond	26	58.6
Pasquotank	23	57.0
Rockingham	52	57.0
Cumberland	180	53.5
Total	3,454	32.6

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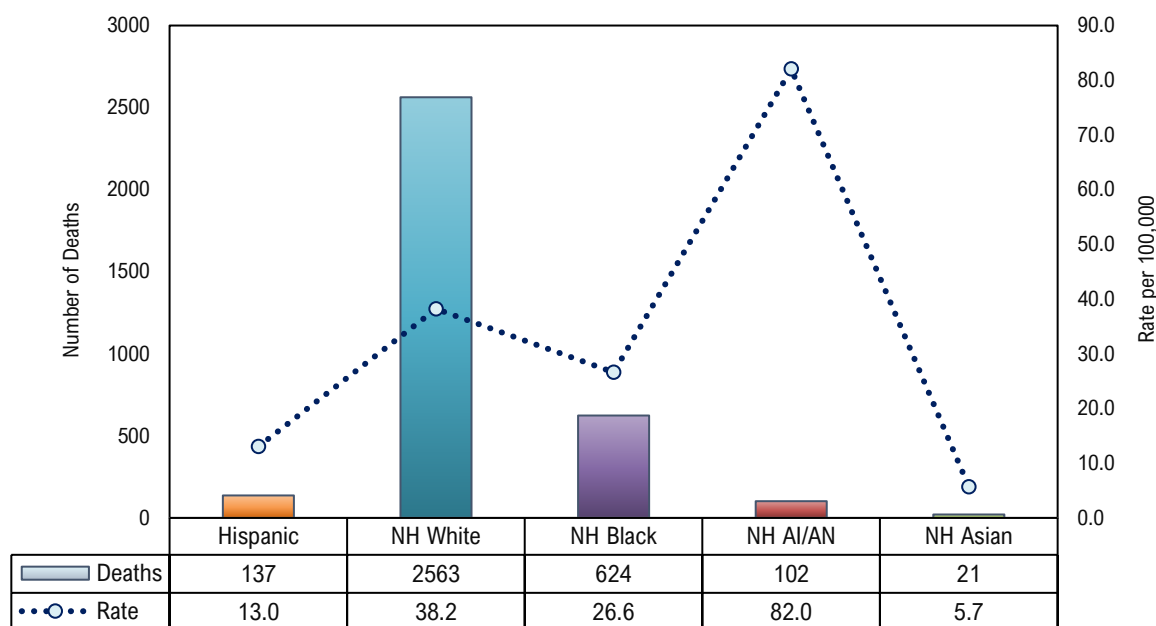
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Overdose Death Rates by Race/Ethnicity, 2020

While the majority of overdose deaths were among non-Hispanic White persons (n=2,563), the overdose death rate among non-Hispanic American Indian/Alaskan Native persons (82.0 deaths per 100,000) was more than double the rate among non-Hispanic White persons (38.2 deaths per 100,000).

- Non-Hispanic Asian persons had the fewest overdose deaths (n=21) and lowest overdose death rate (5.7 deaths per 100,000).
- The overdose death rate among non-Hispanic White persons was nearly three times the rate among Hispanic persons (13.0 deaths per 100,000).

Figure 3. Number and Rate of Overdose Deaths by Race/Ethnicity, 2020



Note: NH (Non-Hispanic); AI/AN (American Indian/Alaskan Native)

Overdose Death Rates by Gender, 2020

Males had more than double the overdose death rate (45.8 deaths per 100,000) compared to females (20.0 deaths per 100,000).

Table 2. Number and Rate of Overdose Deaths by Gender, 2020

Gender	Overdose Deaths		
	Deaths	%	Rate
Female	1,092	31.6	20.0
Male	2,360	68.4	45.8

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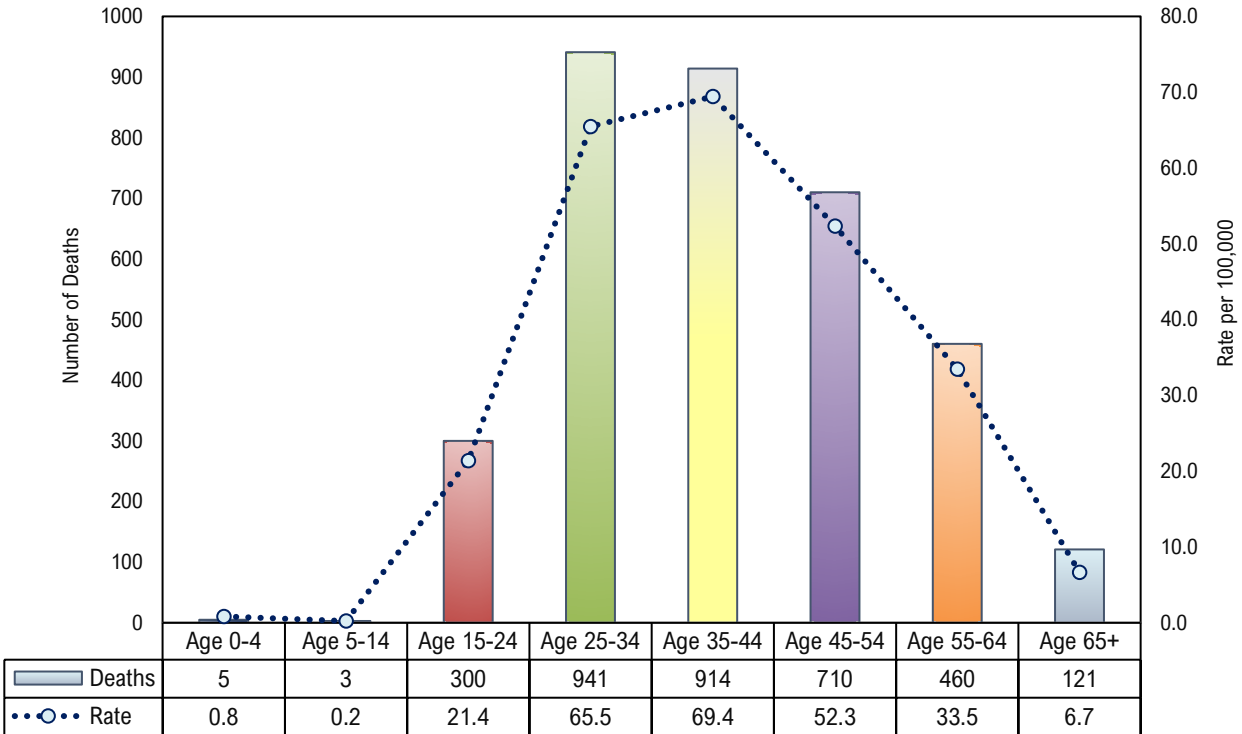
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Overdose Death Rates by Age Group, 2020

More than half of overdose deaths occurred among 25- to 34-year-olds (n=941) and 35- to 44-year-olds (n=914).

- Compared to the statewide overdose death rate (32.6 deaths per 100,000), the rates among 25-34 year-olds and 35- to 44-year-olds was more than double (65.5 deaths per 100,000 and 69.4 deaths per 100,000, respectively).

Figure 4. Number and Rate of Overdose Deaths by Age Group, 2020



Overdose Death Rates by Gender and Age Group, 2020

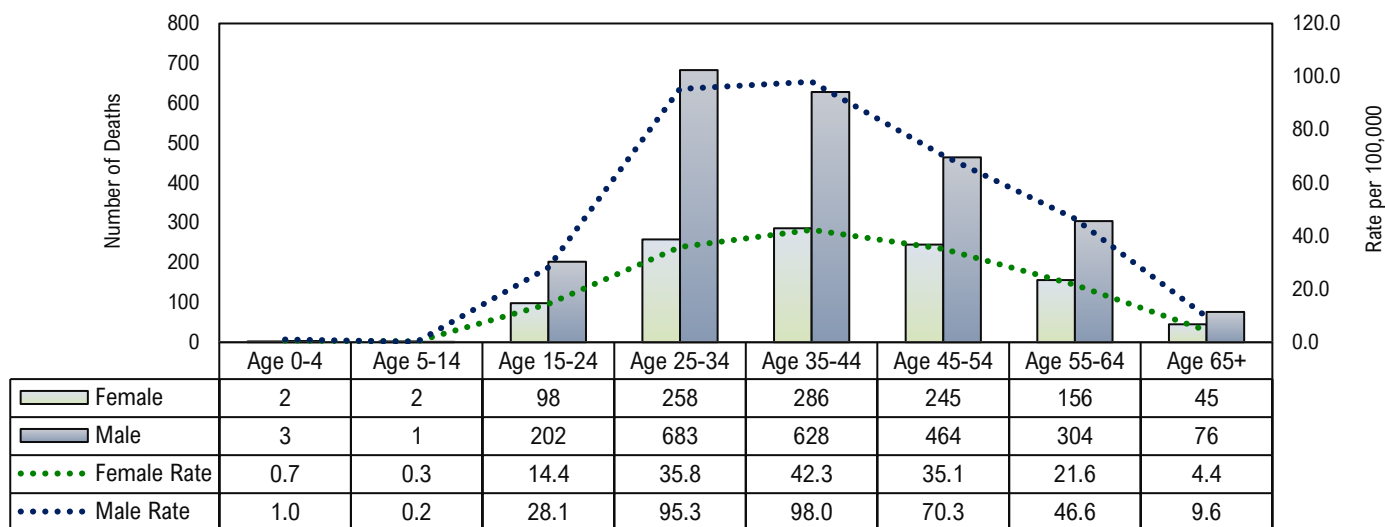
Compared to females of the same age, males had more than double the overdose death rate starting at age 25.

- Males aged 25-34 had 2.7 times the overdose death rate (95.3 deaths per 100,000) compared to females of the same age (14.4 deaths per 100,000).
- Among both females and males, the highest overdose death rate occurred in the 35- to 44-year-old age group (42.3 deaths per 100,000 and 98.0 deaths per 100,000, respectively).

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Figure 5. Number and Rate of Overdose Deaths by Gender and Age Group, 2020



Trends in Drugs/Substances Involved in Overdose Deaths

Overdose deaths attributed to acute alcohol toxicity, cocaine, stimulants, fentanyl/fentanyl analogues, and opioids (illicit and prescription) surpassed previous records in 2020.

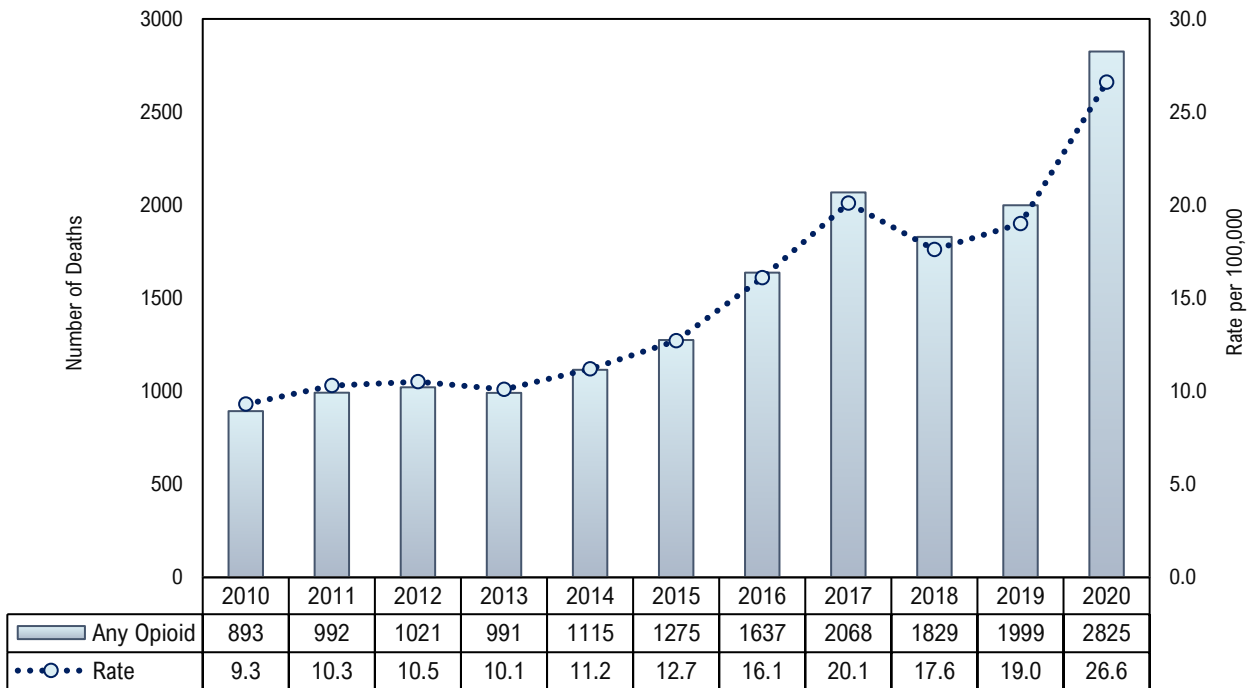
- Overdose deaths attributed to *acute alcohol toxicity*¹ (n=657) increased 50.0% from 2019 (n=438). **The number of overdose deaths involving acute alcohol toxicity increased 46.9% from 2016 (n=349) to 2020.**
- Overdose deaths attributed to *cocaine* (n=1,093) increased 20.9% from 2019 (n=904). **The number of overdose deaths involving cocaine increased 85.6% from 2016 (n=589) to 2020.**
- Overdose deaths attributed to *stimulants*² (n=631) increased 64.8% from 2019 (n=383). **The number of overdose deaths involving stimulants increased nearly 400% from 2016 (n=127) to 2020.**
- Overdose deaths attributed to *illicit and prescription opioids*³ (n=2,825) increased 41.3% from 2019 (n=1,999). **The number of overdose deaths involving illicit and prescription opioids increased 72.6% from 2016 (n=1,637) to 2020.**
- Overdose deaths attributed to *fentanyl and/or fentanyl-analogues*⁴ (n=2,346) increased 63.6% from 2019 (n=1,434). **The number of overdose deaths involving fentanyl and fentanyl analogues increased more than 300% from 2016 (n=569) to 2020.**
- Overdose deaths attributed to *heroin* (n=550) decreased 14.2% from 2019 (n=641).

Note: Overdose deaths may have multiple substances attributed. Categories in this report are not mutually exclusive.

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Figure 6. Number and Rate of Overdose Deaths Involving Opioids^ by Year, 2010 – 2020



^Any illicit and prescription opioid, including heroin and fentanyl/fentanyl analogues.

Table 3. Overdose Deaths by Drugs/Substances Involved, 2016 – 2020*

	2016		2017		2018		2019		2020	
	Deaths	%	Deaths	%	Deaths	%	Deaths	%	Deaths	%
Alcohol¹	349	16.5	458	17.4	315	12.9	438	16.8	657	19.0
Cocaine	589	27.9	841	32.0	801	32.8	904	34.7	1,093	31.6
Stimulant²	127	6.0	202	7.7	264	10.8	383	14.7	631	18.3
Any Opioid³	1,637	77.6	2,068	78.7	1,829	75.0	1,999	76.8	2,825	81.8
Fentanyl/Analogues⁴	569	27.0	1,287	49.0	1,241	50.9	1,434	55.1	2,346	67.9
Heroin	584	27.7	561	21.3	612	25.1	641	24.6	550	15.9
Total Overdose Deaths	2,109		2,628		2,439		2,604		3,454	

*Categories not mutually exclusive.

¹Acute alcohol toxicity; excludes deaths due to chronic alcoholism (natural deaths).

²Stimulants included: 3-Fluorophenmetrazine, Amphetamine, Atomoxetine, Benzphetamine, Cathinone, Dibutylone, Ephedrine, Eutylone, Fluorophenmetrazine, Homoamphetamine, Mephedrone, Methamphetamine, Methylphenidate, n-Ethylpentylone, Phentermine

³Any opioids included: Buprenorphine, Codeine, Fentanyl/Fentanyl Analogues, Heroin, Hydrocodone, Hydromorphone, Loperamide, Meperidine, Methadone, Mitragynine, Morphine, Oxycodone, Oxymorphone, Propoxyphene, Tapentadol, Tramadol

⁴Fentanyl analogues included: 2-Fluorofentanyl, 3-Methylfentanyl, 4-Fluorofentanyl, Acetyl Fentanyl, Acrylfentanyl, Butyrylfentanyl, Carfentanil, Cyclopropylfentanyl, Fentanyl, Fluorobutyrylfentanyl, Fluorofentanyl, Fluoroisobutyryl, Fluoroisobutyrylfentanyl, Furanylfentanyl, Isobutyrylfentanyl, Methoxyacetylfentanyl, o-Methyl-Acetylfentanyl, Phenylfentanyl, U-47700, U-48800, U-49900, Valerylfentanyl

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NC Office of the Chief Medical Examiner | <http://www.ocme.ncdhhs.gov>

Overdose deaths in this report reflect deaths that have been confirmed as poisonings, regardless of intent, based on the results of a comprehensive investigation. Poisoning deaths attributed to carbon monoxide and natural deaths from chronic alcoholism are excluded.

Data source: North Carolina Office of the Chief Medical Examiner (OCME); The NC OCME collects data from autopsy reports, death certificates, investigation reports, and toxicology reports on all deaths investigated by the medical examiner system in North Carolina.

2020 data are considered provisional and subject to change as cases continue to be finalized. NC OCME will update this report to reflect recently confirmed poisoning deaths. For questions and more information, please contact ocme.data.request@dhhs.nc.gov. Additional reports using NC OCME data are posted on the NC OCME website: <http://www.ocme.dhhs.nc.gov/annreport/index.shtml>.

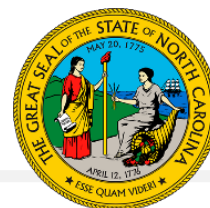
NC OCME | Data and Information Unit (DIU)

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