

Unintentional Drug Poisoning (Overdose) Deaths in New York City in 2020

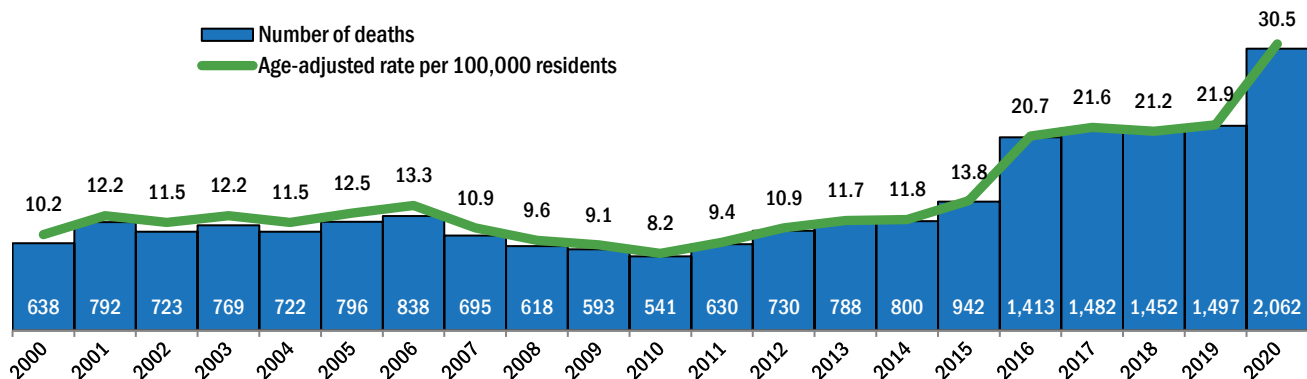
Nationally, the number of drug overdose deaths more than quadrupled from 2000 to 2019, and opioid overdose was declared a Nationwide Public Health Emergency in 2017. This Epi Data Brief presents provisional 2020 unintentional drug poisoning death data for New York City (NYC). Unintentional drug poisoning deaths are hereafter referred to as overdose deaths or overdose mortality. The NYC Department of Health and Mental Hygiene reports overdose deaths annually, reflecting deaths during the prior calendar year. To support efforts to prevent overdose deaths and ensure equitable distribution of resources, overdose deaths are reported for a range of factors, particularly by neighborhood and race/ethnicity.

Key findings

- In 2020 there were 2,062 overdose deaths in NYC, compared with 1,497 in 2019, an increase of 565 deaths.
- The rate of overdose death increased to 30.5 per 100,000 NYC residents, compared with 21.9 in 2019.
- Black New Yorkers had the highest rate of overdose death (38.2 per 100,000 residents), and the largest absolute increase in rate from 2019 to 2020 (+14.2 per 100,000).
- In 2020, opioids were involved in 85% of overdose deaths.
- For the fourth year in a row, fentanyl was the most common substance involved in overdose deaths, present in 77% of overdose deaths in 2020.
- Approximately half (48%) of all overdose deaths in 2020 involved more than one central nervous system depressant, such as alcohol, benzodiazepines, or opioids.

In New York City, rates of overdose death are the highest since reporting began in 2000

Number and age-adjusted rate per 100,000 residents of unintentional drug poisoning (overdose) deaths, New York City, 2000 to 2020



Sources: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2000–2020; 2020 data are provisional and subject to change.

Definitions:

Unintentional drug poisoning (overdose) deaths exclude poisonings where the manner of death was classified as intentional (suicide), undetermined, or a homicide. Referred to as overdose deaths or overdose mortality.

Opioids include substances derived from “natural” opium, such as morphine or heroin, and synthetic drugs, such as methadone or fentanyl. **Opioid analgesics** are commonly known as prescription pain relievers, such as oxycodone (Percocet®) and hydrocodone (Vicodin®). For this analysis, opioid analgesics exclude fentanyl and tramadol.

Fentanyl includes fentanyl and fentanyl analogs. Fentanyl analogs, such as acetylfentanyl and furanylfentanyl, are similar in chemical structure to fentanyl. Fentanyl can be one of two types: synthetic opioid analgesics pharmaceutically manufactured to manage severe pain or non-pharmaceutically manufactured.

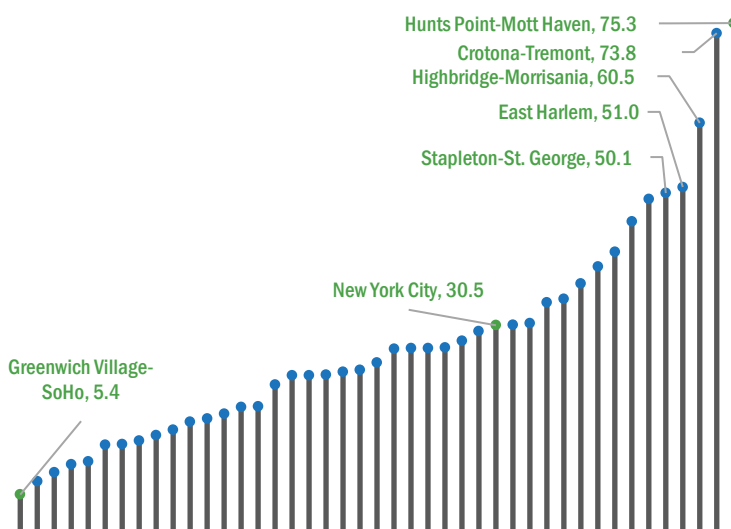
Drugs involved in overdose deaths are not mutually exclusive; percent will not equal 100%. Drug-involvement reported based on the detection of substances in post-mortem toxicology.

Overdose death rates are higher and growing faster for some groups and places

- In 2020, the rate of overdose death among male New Yorkers (49.8 per 100,000 males) was nearly four times as high as the rate among female New Yorkers (13.1 per 100,000 females).
- Black New Yorkers had the highest rate of overdose death (38.2 per 100,000 residents), and the largest absolute increase in rate from 2019 to 2020 (+14.2 per 100,000).
- From 2019 to 2020, rates of overdose death increased among White New Yorkers (24.3 to 32.7 per 100,000 residents) and Latino/a New Yorkers (27.1 to 33.6 per 100,000 residents). The rate of overdose remained the same among Asian/Pacific Islander New Yorkers (3.3 per 100,000 residents).
- In 2020, New Yorkers ages 55 to 64 years had the highest rate of overdose death (52.4 per 100,000 residents, up from 39.7 per 100,000 in 2019). Rates of overdose death also increased among New Yorkers ages 15 to 24 years (+5.8 per 100,000 residents), 25 to 34 years (+7.0), 35 to 44 years (+11.3), and 45 to 54 years (+14.7).
- Residents of the Bronx had the highest rate of overdose death in 2020 (48.0 per 100,000 residents) followed by residents of Staten Island (37.0 per 100,000 residents), Manhattan (25.2 per 100,000 residents), Brooklyn (21.1 per 100,000 residents), and Queens (19.9 per 100,000 residents).
- From 2019 to 2020, rates of overdose death increased the most among residents of the Bronx (+11.5 per 100,000 residents) followed by residents of Staten Island (+8.5 per 100,000 residents) and Queens (+7.4 per 100,000 residents).

Substantial disparities in rates of overdose death exist by neighborhood of residence

Rate of unintentional drug poisoning (overdose) death, per 100,000 residents



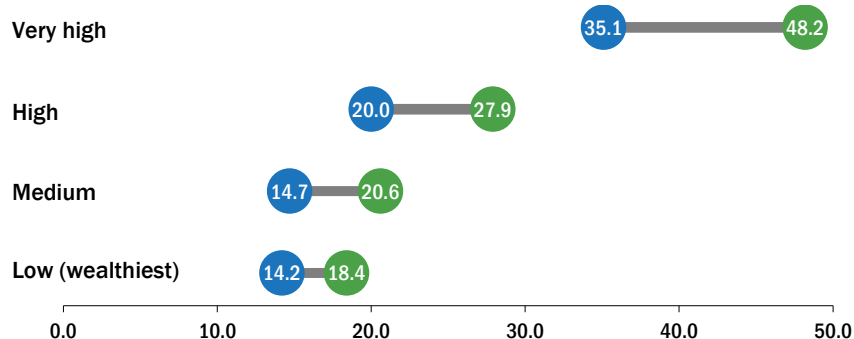
The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous ZIP codes. For more information visit:

<http://www1.nyc.gov/assets/doh/downloads/pdf/ah/zipcodetable.pdf>.

Sources: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2020; 2020 data are provisional and subject to change.

Residents of very high poverty neighborhoods had the highest and fastest growth in rate of overdose death

Rate of unintentional drug poisoning (overdose) death per 100,000 residents, by neighborhood poverty level, 2019 and 2020



Neighborhood poverty based on ZIP code and defined as the percentage of residents with incomes below 100% of the federal poverty level (FPL), per American Community Survey 2008–2012, in four groups: low (<10% FPL), medium (10% - <20% FPL), high (20% - <30% FPL), and very high (>=30% FPL).

Sources: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2019-2020; 2020 data are provisional and subject to change.

- Rates of overdose death among South Bronx^ residents increased from 2019 to 2020 (from 50.1 to 68.7 per 100,000 residents).
- Residents of very high poverty neighborhoods had a higher rate of overdose death in 2020 (48.2 per 100,000 residents) than residents of high, medium, and low poverty neighborhoods (27.9, 20.6, and 18.4 per 100,000 residents respectively).

^The South Bronx includes the UHF-42 neighborhoods of Crotona-Tremont, Highbridge-Morrisania, and Hunts Point-Mott Haven.

Fentanyl continues to drive overdose deaths in 2020

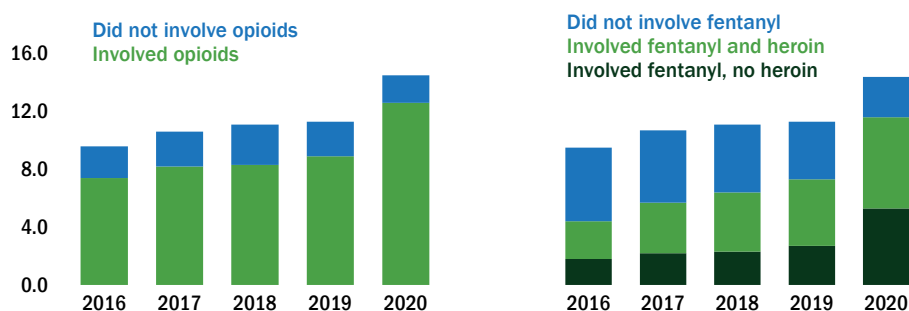
- In 2020, fentanyl was the most common opioid involved in overdose deaths (77%), followed by heroin (47%), opioid analgesics (16%), and methadone (14%).
- The rate of opioid-involved overdose death was highest among Black New Yorkers (30.8 per 100,000 residents), followed by Latino/a (29.1 per 100,000 residents), White (28.7 per 100,000 residents), and Asian/Pacific Islander New Yorkers (2.6 per 100,000 residents).
- Approximately half (49%) of all opioid-involved overdoses also involved cocaine; alcohol was involved in 42% of opioid-involved deaths.
- Fentanyl was involved in 93% of heroin-involved overdoses, 81% of cocaine-involved overdoses, 80% of alcohol-involved overdoses, 77% of opioid analgesic-involved overdoses, and 66% of amphetamine-involved overdoses.
- Opioid analgesics, excluding fentanyl and tramadol, were involved in 16% of overdose deaths in 2020, compared with 12% of overdose deaths in 2019.

Cocaine overdose deaths most impact Black New Yorkers in 2020

- Cocaine was involved in 48% of overdose deaths in 2020.
- From 2019 to 2020, the rate of cocaine-involved overdose death increased from 11.3 to 14.5 per 100,000 residents.
- In 2020, Black New Yorkers had the highest rate of cocaine-involved overdose death (22.1 per 100,000), followed by Latino/a (16.2 per 100,000), White (12.6 per 100,000), and Asian/Pacific Islander New Yorkers (1.2 per 100,000).
- Opioids were involved in 87% of cocaine-involved overdoses.
- Cocaine-involved overdose deaths were less likely to involve an opioid among Black New Yorkers (81%) compared with Latino/a (91%) and White New Yorkers (90%).
- Fentanyl was the most common opioid in cocaine-involved overdose deaths.
- 359 overdose deaths involved cocaine and fentanyl without heroin, an increase from 184 deaths in 2019.
- 309 overdose deaths involved cocaine and fentanyl without any other opioid, an increase from 166 deaths in 2019.

Sharp increase in cocaine-involved deaths with greater share involving fentanyl

Rate of cocaine-involved unintentional drug poisoning (overdose) death, per 100,000 residents, by substances involved, 2016-2020



Other substances may be present unless otherwise specified.

Sources: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2016-2020; 2020 data are provisional and subject to change.

Change in post-mortem toxicology testing

During 2020, in response to the increased number of heroin and fentanyl seizures containing tramadol, the Office of the Chief Medical Examiner introduced a new, more sensitive test for tramadol.

During 2020, when a more sensitive test was implemented, tramadol was detected in 274 overdose deaths (13%), compared with 14 overdose deaths (1%) in 2019.

Definitions:

Neighborhood: The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous ZIP codes. For more information visit: www1.nyc.gov/assets/doh/downloads/pdf/ah/zipcodetable.pdf.

Neighborhood poverty: Based on ZIP code and defined as the percentage of residents with incomes below 100% of the federal poverty level (FPL), per American Community Survey 2008–2012, in four groups: low (<10% FPL), medium (10% - <20% FPL), high (20% - <30% FPL), and very high (>=30% FPL).

Race/ethnicity: For the purpose of this publication, Latino/a includes people of Hispanic origin based on ancestry reported on the death certificate, regardless of reported race; Latino/a excludes reported ancestry from non-Spanish speaking Central/South American countries, and non-Spanish speaking Caribbean islands. Black, White, and Asian/Pacific Islander race categories do not include people of Latino/a origin.

Implications

In 2020, overdose deaths in NYC were at their highest rate since reporting began in 2000. Data demonstrate an increase in racial, economic, age, and place-based disparities in overdose deaths, with the largest increases occurring among men, Black New Yorkers, residents of high-poverty neighborhoods, and neighborhoods with prior high rates of overdose death. This increase in disparities in overdose deaths occurred during the COVID-19 pandemic, which widened existing inequities in health, income, and wealth.

The most prominent disparity for overdose mortality rates in New York City is by geography, reflecting a highly segregated city. As in prior years, these geographic patterns reflect inequities in income, wealth, employment, education, criminal legal system involvement, and housing. All of these factors have been linked to an increased risk of overdose death and are the result of structural racism and disinvestment in communities.

On October 18th 2021, the New York City Board of Health passed a resolution declaring racism a public health crisis.¹ As part of this resolution, the Board of Health noted the Health Department had documented persistent racial disparities across a wide range of health conditions. The Board of Health also noted that longstanding structural racism impacts both the health and wellbeing of New Yorkers as well as the services and care they receive.

The Health Department has committed more resources in response to these historically high overdose mortality rates. This includes raising awareness of fentanyl and overdose through a citywide direct mailing campaign, media targeted in the most impacted neighborhoods, and distribution of fentanyl test strips to identify the presence of fentanyl in unregulated drugs. The Health Department is also working to reduce harm by expanding the hours of syringe service program (SSP) drop-in centers, outreach, and syringe litter clean-up. In New York City, drug overdose continues to be a leading cause of death among individuals experiencing homelessness; to continue addressing this challenge, the City is expanding access to treatment through provision of same-day buprenorphine prescriptions in multiple settings for people who are unstably housed.

Overdose prevention centers are an evidence-based approach to preventing overdose deaths adopted by countries around the world, yet remain unsanctioned in the United States. Overdose prevention centers offer supervised, hygienic spaces for people who use drugs to do so safely, as well as connections to harm reduction, health, mental health, substance use disorder, and social services. Overdose prevention centers improve individual and community health, increase public safety, and reduce the social consequences of drug use.

Health equity is attainment of the highest level of health and well-being for all people. Not all New Yorkers have the same opportunities to live a healthy life. Achieving health equity requires focused and ongoing efforts to address historical and contemporary injustices such as discrimination based on social position (e.g., class, immigration status) or social identities (e.g., race, gender, sexual orientation). For more information, visit the Centers for Disease Control and Prevention's [Health Equity](#) page.

Data Sources: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics: Mortality data for 2000–2020 were collected through an in-depth review of data from DOHMH Bureau of Vital Statistics and NYC Office of the Chief Medical Examiner. Data were limited to individuals ages 15 to 84. Data for 2020 are provisional and subject to change.

Rate calculation: DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000–2019, updated October 2020. Rates will differ from previously reported rates based on Census counts or previous versions of population estimates. Rates are age-adjusted to Census 2000 US standard population, except those for specific age groups.

Reference: 1. New York City Board of Health. Resolution of the NYC Board of Health Declaring Racism a Public Health Crisis, 2021. Accessed Oct 27, 2021. Available online: www1.nyc.gov/assets/doh/downloads/pdf/boh/racism-public-health-crisis-resolution.pdf

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New York City Department of Health and Mental Hygiene





Epi Data Tables

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Data Sources

NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics: Mortality data were collected through an in-depth review of data and charts from the Health Department's Bureau of Vital Statistics and the Office of the Chief Medical Examiner for 2000-2020. Data for 2020 are provisional and subject to change.

Rate Calculation: NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019, updated October 2020. These rates will differ from previously reported rates based on Census counts or previous versions of population estimates. Rates are age-adjusted to Census 2000, except those for specific age groups.

Table 1. Number and rate of unintentional drug poisoning (overdose) deaths, New York City, 2017-2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rates per 100,000 New Yorkers are age adjusted, except those for specific age groups.

	2017			2018			2019			2020*		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Total Unintentional Drug Poisoning Deaths	1482	100%	21.6	1452	100%	21.2	1497	100%	21.9	2062	100%	30.5
Sex												
Male	1168	79%	35.8	1108	76%	34.1	1152	77%	35.5	1608	78%	49.8
Female	314	21%	8.7	344	24%	9.5	345	23%	9.5	454	22%	13.1
Race/ethnicity†												
Asian and Pacific Islander	27	2%	2.7	32	2%	3.2	34	2%	3.3	30	1%	3.3
Black	417	28%	25.7	375	26%	22.5	392	26%	24.0	613	30%	38.2
Latino/a	456	31%	24.2	485	33%	25.6	510	34%	27.1	635	31%	33.6
White	555	37%	25.4	522	36%	24.5	527	35%	24.3	691	34%	32.7
Other/Missing	27	2%	-	38	3%	-	34	2%	-	93	5%	-
Age group (years)												
15-24	73	5%	7.3	65	4%	6.7	52	3%	5.4	107	5%	11.2
25-34	313	21%	20.8	267	18%	17.9	268	18%	18.1	372	18%	25.1
35-44	282	19%	24.5	250	17%	21.9	298	20%	26.2	426	21%	37.5
45-54	398	27%	36.9	407	28%	38.6	348	23%	33.8	499	24%	48.5
55-64	334	23%	33.6	353	24%	35.3	397	27%	39.7	523	25%	52.4
65-84	82	6%	7.8	110	8%	10.2	134	9%	12.2	135	7%	12.3
Age group (years)												
15-34	386	26%	15.4	332	23%	13.4	320	21%	13.1	479	23%	19.6
35-54	680	46%	30.5	657	45%	29.9	646	43%	29.8	925	45%	42.7
55-84	416	28%	20.4	463	32%	22.3	531	35%	25.3	658	32%	31.3
Borough of residence												
Bronx	362	24%	32.1	396	27%	35.3	405	27%	36.5	537	26%	48.0
Brooklyn	355	24%	17.1	275	19%	13.6	298	20%	14.3	424	21%	21.1
Manhattan	225	15%	17.0	268	18%	19.4	287	19%	20.4	352	17%	25.2
Queens	270	18%	14.3	215	15%	11.4	227	15%	12.5	359	17%	19.9
Staten Island	100	7%	27.1	114	8%	32.0	106	7%	28.5	132	6%	37.0
Non-New York City	137	9%	-	153	11%	-	140	9%	-	245	12%	-
Missing	33	2%	-	31	2%	-	34	2%	-	13	1%	-
Borough of death												
Bronx	399	27%	35.6	447	31%	40.2	438	29%	39.3	582	28%	52.6
Brooklyn	395	27%	19.1	310	21%	15.3	336	22%	16.2	478	23%	23.8
Manhattan	316	21%	23.7	368	25%	26.5	389	26%	28.1	495	24%	35.9
Queens	271	18%	14.3	216	15%	11.5	240	16%	13.2	375	18%	20.8
Staten Island	101	7%	27.3	111	8%	31.0	94	6%	25.4	132	6%	37.0
Neighborhood poverty^												
Low (wealthiest)	202	14%	15.0	182	13%	13.2	197	13%	14.2	242	12%	18.4
Medium	374	25%	14.8	337	23%	13.5	364	24%	14.7	503	24%	20.6
High	316	21%	18.7	348	24%	20.7	337	23%	20.0	469	23%	27.9
Very high	418	28%	34.7	395	27%	33.0	422	28%	35.1	581	28%	48.2
Non-New York City/Missing	172	12%	-	190	13%	-	177	12%	-	267	13%	-
Drug type**												
Alcohol	604	41%	8.9	577	40%	8.4	593	40%	8.7	823	40%	12.2
Amphetamines	64	4%	0.9	66	5%	1.0	75	5%	1.2	112	5%	1.6
Benzodiazepines	433	29%	6.4	423	29%	6.2	413	28%	6.0	398	19%	6.1
Cocaine	728	49%	10.7	758	52%	11.1	768	51%	11.3	980	48%	14.5
Fentanyl	832	56%	12.1	873	60%	12.9	1016	68%	14.9	1580	77%	23.4
Heroin	767	52%	11.1	738	51%	10.8	789	53%	11.4	972	47%	14.3
Methadone	197	13%	2.9	200	14%	2.9	196	13%	2.7	285	14%	4.1
Opioid Analgesics††	210	14%	3.1	151	10%	2.2	178	12%	2.5	325	16%	4.8
Top 5 NYC neighborhoods^^	2019 rate						2020* rate					
	Hunts Point-Mott Haven						Hunts Point-Mott Haven					
	53.7						75.3					
	Highbridge-Morrisania						Crotona-Tremont					
	50.9						73.8					
	Crotona-Tremont						Highbridge-Morrisania					
	47.1						60.5					
	Fordham-Bronx Park						East Harlem					
	40.5						51.0					
	East Harlem						Stapleton-St. George					
	36.1						50.1					

*Data for 2020 are provisional and subject to change.

†For the purpose of this publication, Latino/a includes people of Hispanic origin based on ancestry reported on the death certificate, regardless of reported race; Latino/a excludes reported ancestry from non-Spanish speaking Central/South American countries, and non-Spanish speaking Caribbean islands. Black, White and Asian/Pacific Islander race categories do not include people of Latino/a origin.

^Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level (FPL) per American Community Survey 2008-2012, in four groups: low (<10%), medium (10% - < 20%), high (20% - < 30%), and very high poverty (>=30%).

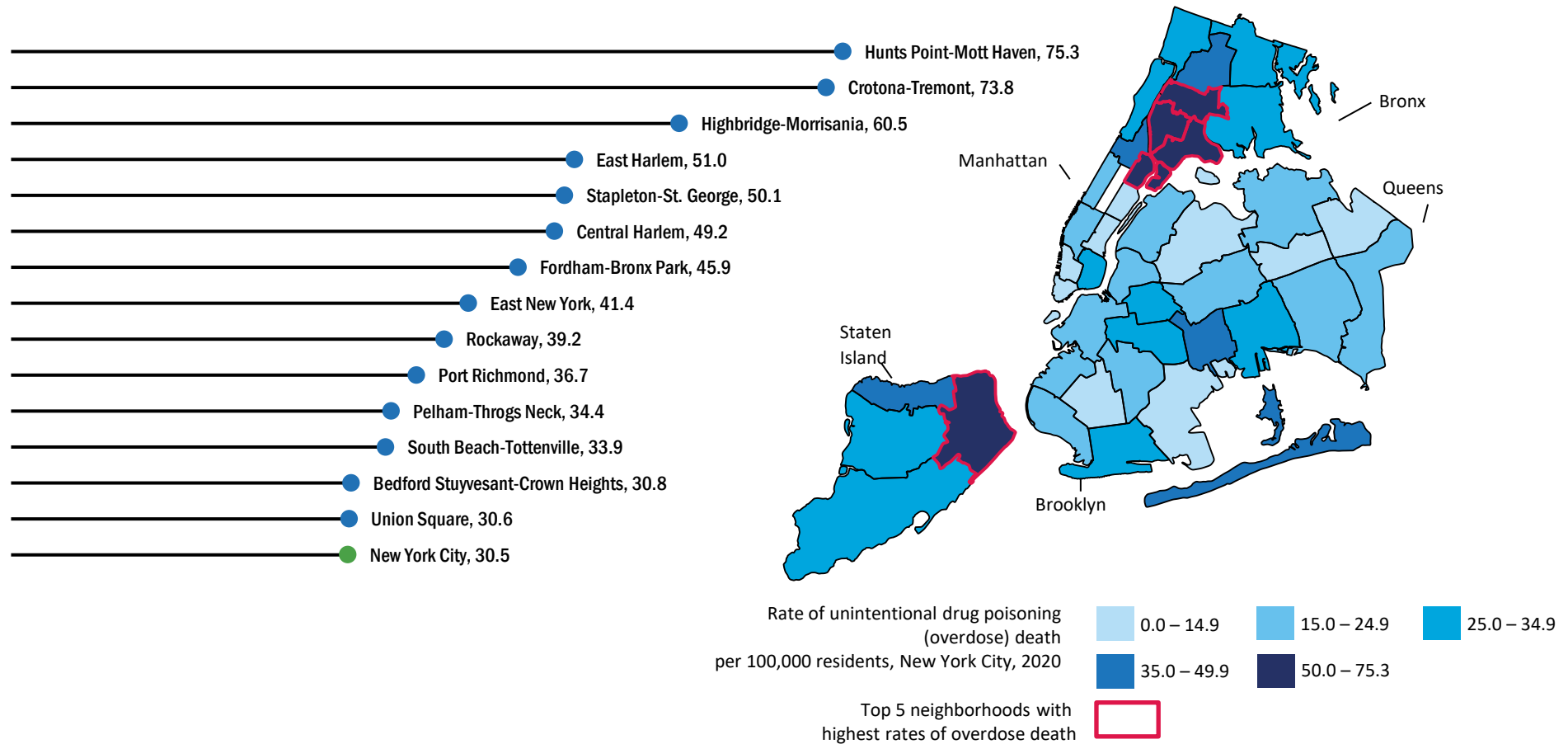
**Drug type, not mutually exclusive; percent will not equal 100%. ††For this analysis, opioid analgesics exclude fentanyl and tramadol.

^^Top five of 42 NYC Neighborhoods. Neighborhood refers to residence of decedent.

Map 1. Highest rates of unintentional drug poisoning (overdose) deaths by neighborhood of residence[^], New York City, 2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Neighborhoods with rates of overdose death among residents exceeding the New York City rate, 2020 Rate per 100,000 residents



*Data for 2020 are provisional and subject to change.

[^]The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous ZIP codes. Neighborhood refers to residence of decedent.

Table 2. Number and rate of unintentional drug poisoning (overdose) deaths involving opioids, New York City, 2017-2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rates per 100,000 New Yorkers are age adjusted, except those for specific age groups.

	2017			2018			2019			2020*		
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Total Unintentional Drug Poisoning Deaths	1482	100%	21.6	1452	100%	21.2	1497	100%	21.9	2062	100%	30.5
Total Unintentional Drug Poisoning Deaths Involving Opioids	1209	82%	17.6	1157	80%	17.0	1238	83%	18.1	1745	85%	25.9
Sex												
Male	968	80%	29.7	894	77%	27.6	947	76%	29.1	1368	78%	42.3
Female	241	20%	6.7	263	23%	7.3	291	24%	8.1	377	22%	10.9
Race/ethnicity†												
Asian and Pacific Islander	20	2%	2.0	18	2%	1.8	20	2%	2.0	24	1%	2.6
Black	299	25%	18.5	242	21%	14.5	294	24%	18.0	494	28%	30.8
Latino/a	383	32%	20.3	417	36%	22.1	446	36%	23.7	550	32%	29.1
White	487	40%	22.3	452	39%	21.3	452	37%	20.8	604	35%	28.7
Other/Missing	20	2%	-	28	2%	-	26	2%	-	73	4%	-
Age group (years)												
15-24	64	5%	6.4	50	4%	5.1	48	4%	5.0	94	5%	9.8
25-34	274	23%	18.2	235	20%	15.7	239	19%	16.1	328	19%	22.1
35-44	241	20%	21.0	211	18%	18.5	246	20%	21.6	362	21%	31.8
45-54	315	26%	29.2	330	29%	31.3	286	23%	27.8	418	24%	40.7
55-64	257	21%	25.8	250	22%	25.0	317	26%	31.7	433	25%	43.3
65-84	58	5%	5.5	81	7%	7.5	102	8%	9.3	110	6%	10.0
Age group (years)												
15-34	338	28%	13.5	285	25%	11.5	287	23%	11.8	422	24%	17.3
35-54	556	46%	25.0	541	47%	24.6	532	43%	24.6	780	45%	36.0
55-84	315	26%	15.4	331	29%	16.0	419	34%	19.9	543	31%	25.9
Borough of residence												
Bronx	291	24%	25.9	317	27%	28.7	336	27%	30.4	463	27%	41.4
Brooklyn	285	24%	13.8	206	18%	10.3	255	21%	12.3	371	21%	18.5
Manhattan	183	15%	13.9	208	18%	15.0	235	19%	16.7	290	17%	20.6
Queens	217	18%	11.5	169	15%	9.1	174	14%	9.5	292	17%	16.3
Staten Island	90	7%	24.6	103	9%	29.1	93	8%	25.1	112	6%	31.0
Non-New York City	115	10%	-	132	11%	-	116	9%	-	207	12%	-
Missing	28	2%	-	22	2%	-	29	2%	-	10	1%	-
Borough of death												
Bronx	326	27%	29.2	359	31%	32.7	367	30%	33.1	500	29%	45.3
Brooklyn	314	26%	15.3	247	21%	12.3	285	23%	13.7	419	24%	20.9
Manhattan	257	21%	19.3	283	24%	20.1	317	26%	22.9	404	23%	29.2
Queens	222	18%	11.7	166	14%	9.0	185	15%	10.1	308	18%	17.1
Staten Island	90	7%	24.6	102	9%	28.7	84	7%	22.8	114	7%	31.7
Neighborhood poverty^												
Low (wealthiest)	168	14%	12.6	151	13%	11.1	169	14%	12.3	206	12%	15.5
Medium	317	26%	12.5	269	23%	10.8	290	23%	11.7	426	24%	17.5
High	256	21%	15.2	269	23%	16.1	273	22%	16.1	388	22%	22.9
Very High	325	27%	27.0	309	27%	26.2	358	29%	29.9	500	29%	41.4
Non-New York City/Missing	143	12%	-	159	14%	-	148	12%	-	225	13%	-
Top 5 NYC neighborhoods^^	2019 rate						2020* rate					
	Hunts Point-Mott Haven						Hunts Point-Mott Haven					
	45.8						67.7					
	Highbridge-Morrisania						Crotona-Tremont					
	41.9						63.8					
	Crotona-Tremont						Highbridge-Morrisania					
	38.6						48.4					
	Fordham-Bronx Park						Central Harlem					
	34.1						41.5					
	South Beach-Tottenville						East Harlem					
	32.5						39.7					

*Data for 2020 are provisional and subject to change.

†For the purpose of this publication, Latino/a includes people of Hispanic origin based on ancestry reported on the death certificate, regardless of reported race; Latino/a excludes reported ancestry from non-Spanish speaking Central/South American countries, and non-Spanish speaking Caribbean islands. Black, White and Asian/Pacific Islander race categories do not include people of Latino/a origin.

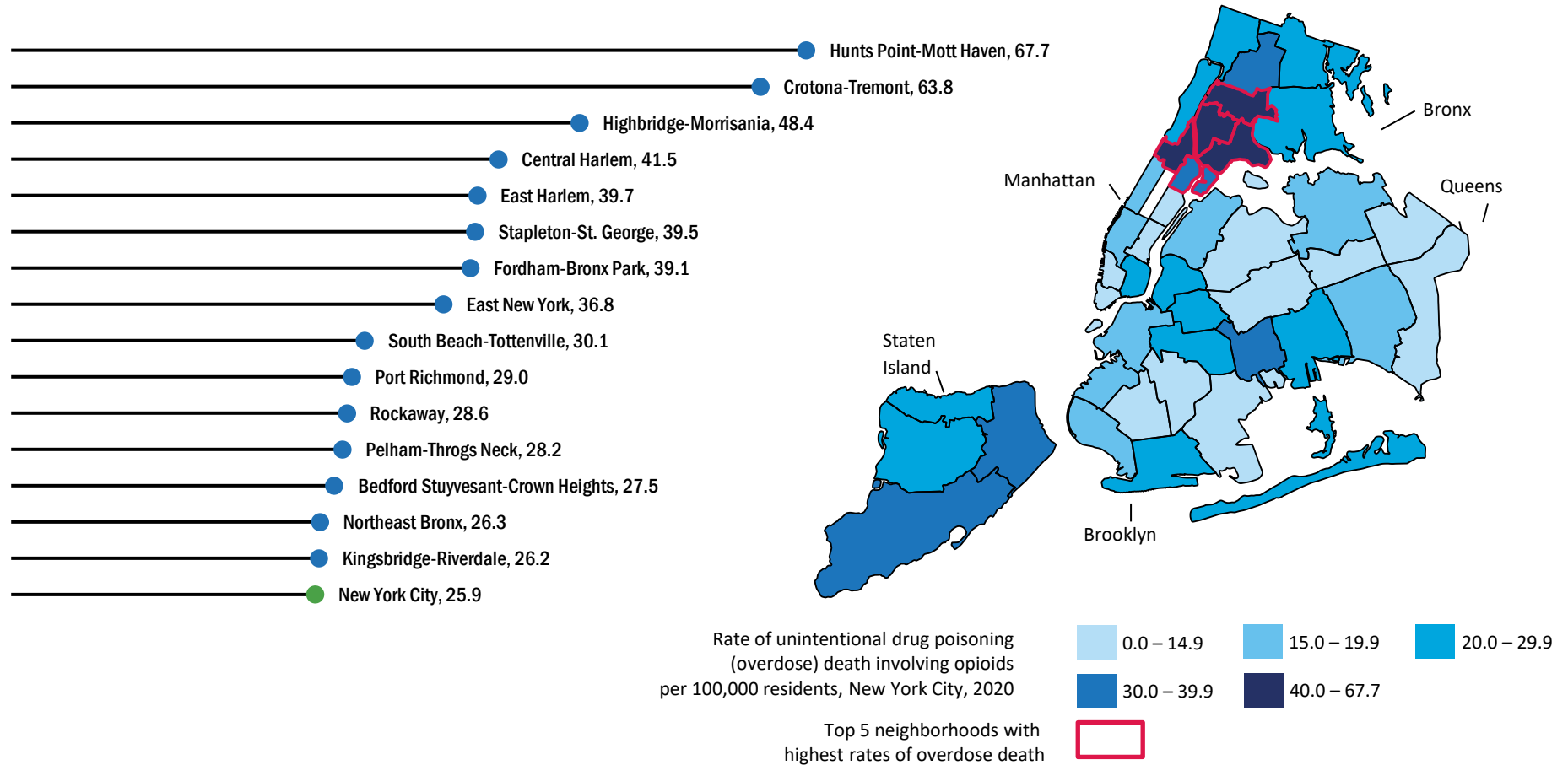
^Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level (FPL) per American Community Survey 2008-2012, in four groups: low (<10%), medium (10% - < 20%), high (20% - < 30%), and very high poverty (>=30%).

Map 2. Highest rates of unintentional drug poisoning (overdose) deaths involving opioids by neighborhood of residence[^], New York City, 2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Neighborhoods with rates of opioid-involved overdose death among residents exceeding the New York City rate, 2020

Rate per 100,000 residents



*Data for 2020 are provisional and subject to change.

[^]The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous ZIP codes. Neighborhood refers to residence of decedent.

Table 3. Number and rate of unintentional drug poisoning (overdose) deaths involving heroin, New York City, 2017-2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rates per 100,000 New Yorkers are age adjusted, except those for specific age groups.

	2017			2018			2019			2020*		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Total Unintentional Drug Poisoning Deaths	1482	100%	21.6	1452	100%	21.2	1497	100%	21.9	2062	100%	30.5
Total Unintentional Drug Poisoning Deaths Involving Heroin	767	52%	11.1	738	51%	10.8	789	53%	11.4	972	47%	14.3
Sex												
Male	628	82%	19.2	581	79%	17.9	608	77%	18.6	758	78%	23.3
Female	139	18%	3.8	157	21%	4.4	181	23%	5.0	214	22%	6.2
Race/ethnicity†												
Asian and Pacific Islander	12	2%	1.1	11	1%	1.1	9	1%	0.9	9	1%	1.0
Black	174	23%	10.6	151	20%	9.0	176	22%	10.4	255	26%	15.6
Latino/a	249	32%	13.2	261	35%	13.9	289	37%	15.3	309	32%	16.3
White	321	42%	14.6	293	40%	13.6	299	38%	13.8	354	36%	16.7
Other/Missing	11	1%	-	22	3%	-	16	2%	-	45	5%	-
Age group (years)												
15-24	34	4%	3.4	34	5%	3.5	21	3%	2.2	43	4%	4.5
25-34	179	23%	11.9	147	20%	9.8	152	19%	10.2	165	17%	11.1
35-44	158	21%	13.8	125	17%	10.9	151	19%	13.3	196	20%	17.2
45-54	186	24%	17.3	215	29%	20.4	179	23%	17.4	235	24%	22.9
55-64	173	23%	17.4	165	22%	16.5	211	27%	21.1	258	27%	25.8
65-84	37	5%	3.5	52	7%	4.8	75	10%	6.8	75	8%	6.8
Age group (years)												
15-34	213	28%	8.5	181	25%	7.3	173	22%	7.1	208	21%	8.5
35-54	344	45%	15.5	340	46%	15.5	330	42%	15.2	431	44%	19.9
55-84	210	27%	10.3	217	29%	10.5	286	36%	13.6	333	34%	15.9
Borough of residence												
Bronx	199	26%	17.7	201	27%	18.1	199	25%	17.6	245	25%	22.1
Brooklyn	180	23%	8.7	137	19%	6.9	191	24%	9.2	229	24%	11.3
Manhattan	113	15%	8.3	128	17%	9.2	141	18%	9.8	150	15%	10.6
Queens	128	17%	6.8	113	15%	6.1	100	13%	5.4	161	17%	8.8
Staten Island	57	7%	15.8	66	9%	19.2	62	8%	17.2	66	7%	18.4
Non-New York City	71	9%	-	78	11%	-	76	10%	-	117	12%	-
Missing	19	2%	-	15	2%	-	20	3%	-	4	0%	-
Borough of death												
Bronx	220	29%	19.6	230	31%	20.7	223	28%	19.9	258	27%	23.5
Brooklyn	201	26%	9.7	165	22%	8.2	212	27%	10.2	267	27%	13.2
Manhattan	159	21%	11.6	173	23%	12.4	194	25%	13.8	218	22%	15.7
Queens	132	17%	7.0	106	14%	5.7	107	14%	5.7	163	17%	8.8
Staten Island	55	7%	15.4	64	9%	18.3	53	7%	14.8	66	7%	18.4
Neighborhood poverty^												
Low (wealthiest)	104	14%	7.6	93	13%	6.9	105	13%	7.6	106	11%	8.1
Medium	200	26%	7.8	176	24%	7.1	188	24%	7.5	240	25%	9.8
High	155	20%	9.2	175	24%	10.5	178	23%	10.5	221	23%	13.1
Very High	218	28%	18.1	197	27%	16.7	220	28%	18.1	281	29%	23.3
Non-New York City/Missing	90	12%	-	97	13%	-	98	12%	-	124	13%	-
Top 5 NYC neighborhoods^^	2019 rate						2020* rate					
	Hunts Point-Mott Haven						Hunts Point-Mott Haven					
	27.5						38.9					
	Fordham-Bronx Park						Crotona-Tremont					
	22.1						38.6					
	Crotona-Tremont						Highbridge-Morrisania					
	21.9						25.2					
	East Harlem						Central Harlem					
	21.6						23.3					
	Highbridge-Morrisania						Stapleton-St. George					
	21.3						22.6					

*Data for 2020 are provisional and subject to change.

†For the purpose of this publication, Latino/a includes people of Hispanic origin based on ancestry reported on the death certificate, regardless of reported race; Latino/a excludes reported ancestry from non-Spanish speaking Central/South American countries, and non-Spanish speaking Caribbean islands. Black, White and Asian/Pacific Islander race categories do not include people of Latino/a origin.

^Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level (FPL) per American Community Survey 2008-2012, in four groups: low (<10%), medium (10% - < 20%), high (20% - < 30%), and very high poverty (>=30%).

Table 4. Number and rate of unintentional drug poisoning (overdose) deaths involving cocaine, New York City, 2017-2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rates per 100,000 New Yorkers are age adjusted, except those for specific age groups.

	2017			2018			2019			2020*		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Total Unintentional Drug Poisoning Deaths	1482	100%	21.6	1452	100%	21.2	1497	100%	21.9	2062	100%	30.5
Total Unintentional Drug Poisoning Deaths Involving Cocaine	728	49%	10.7	758	52%	11.1	768	51%	11.3	980	48%	14.5
Sex												
Male	570	78%	17.6	578	76%	17.8	573	75%	17.7	744	76%	23.0
Female	158	22%	4.4	180	24%	5.0	195	25%	5.4	236	24%	6.7
Race/ethnicity†												
Asian and Pacific Islander	10	1%	1.0	9	1%	0.9	16	2%	1.6	11	1%	1.2
Black	255	35%	15.7	247	33%	14.8	259	34%	15.9	353	36%	22.1
Latino/a	230	32%	12.2	245	32%	13.0	262	34%	13.9	306	31%	16.2
White	221	30%	10.3	232	31%	11.2	213	28%	10.0	267	27%	12.6
Other/Missing	12	2%	-	25	3%	-	18	2%	-	43	4%	-
Age group (years)												
15-24	30	4%	3.0	32	4%	3.3	20	3%	2.1	30	3%	3.1
25-34	132	18%	8.8	130	17%	8.7	124	16%	8.4	170	17%	11.5
35-44	141	19%	12.3	129	17%	11.3	145	19%	12.8	208	21%	18.3
45-54	213	29%	19.8	222	29%	21.1	211	27%	20.5	256	26%	24.9
55-64	168	23%	16.9	188	25%	18.8	210	27%	21.0	260	27%	26.0
65-84	44	6%	4.2	57	8%	5.3	58	8%	5.3	56	6%	5.1
Age group (years)												
15-34	162	22%	6.5	162	21%	6.6	144	19%	5.9	200	20%	8.2
35-54	354	49%	15.9	351	46%	16.0	356	46%	16.4	464	47%	21.4
55-84	212	29%	10.4	245	32%	11.8	268	35%	12.8	316	32%	15.0
Borough of residence												
Bronx	182	25%	16.1	223	29%	19.8	236	31%	21.4	286	29%	25.4
Brooklyn	171	23%	8.4	145	19%	7.2	147	19%	7.1	201	21%	10.0
Manhattan	121	17%	9.2	152	20%	10.9	148	19%	10.5	156	16%	11.1
Queens	140	19%	7.5	111	15%	5.9	102	13%	5.5	161	16%	9.0
Staten Island	39	5%	10.5	44	6%	12.5	50	7%	13.9	59	6%	16.5
Non-New York City	61	8%	-	67	9%	-	64	8%	-	111	11%	-
Missing	14	2%	-	16	2%	-	21	3%	-	6	1%	-
Borough of death												
Bronx	202	28%	18.1	248	33%	22.2	255	33%	23.0	308	31%	27.8
Brooklyn	188	26%	9.2	162	21%	8.0	157	20%	7.6	226	23%	11.2
Manhattan	159	22%	11.9	202	27%	14.4	192	25%	14.0	219	22%	16.0
Queens	139	19%	7.4	105	14%	5.6	119	15%	6.4	167	17%	9.3
Staten Island	40	5%	10.7	41	5%	11.7	45	6%	12.6	60	6%	16.8
Neighborhood poverty^												
Low (wealthiest)	99	14%	7.5	73	10%	5.5	82	11%	6.0	102	10%	7.8
Medium	170	23%	6.7	172	23%	6.8	161	21%	6.3	218	22%	8.8
High	180	25%	10.9	205	27%	12.3	183	24%	11.0	229	23%	13.6
Very High	204	28%	17.0	221	29%	18.4	255	33%	21.5	311	32%	25.7
Non-New York City/Missing	75	10%	-	87	11%	-	87	11%	-	120	12%	-
Top 5 NYC neighborhoods^^				2019 rate			2020* rate					
						38.2						43.3
						31.0						36.0
						30.7						30.2
						25.5						26.7
						22.1						25.6

*Data for 2020 are provisional and subject to change.

†For the purpose of this publication, Latino/a includes people of Hispanic origin based on ancestry reported on the death certificate, regardless of reported race; Latino/a excludes reported ancestry from non-Spanish speaking Central/South American countries, and non-Spanish speaking Caribbean islands. Black, White and Asian/Pacific Islander race categories do not include people of Latino/a origin.

^Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level (FPL) per American Community Survey 2008-2012, in four groups: low (<10%), medium (10% - < 20%), high (20% - < 30%), and very high poverty (>=30%).

Table 5. Number and rate of unintentional drug poisoning (overdose) deaths involving opioid analgesics††, New York City, 2017-2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rates per 100,000 New Yorkers are age adjusted, except those for specific age groups.

	2017			2018			2019			2020*		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Total Unintentional Drug Poisoning Deaths	1482	100%	21.6	1452	100%	21.2	1497	100%	21.9	2062	100%	30.5
Total Unintentional Drug Poisoning Deaths Involving Opioid Analgesics	210	14%	3.1	151	10%	2.2	178	12%	2.5	325	16%	4.8
Sex												
Male	152	72%	4.7	110	73%	3.4	108	61%	3.2	234	72%	7.2
Female	58	28%	1.7	41	27%	1.1	70	39%	1.8	91	28%	2.6
Race/ethnicity†												
Asian and Pacific Islander	5	2%	0.5	3	2%	0.3	1	1%	0.1	3	1%	0.3
Black	41	20%	2.7	24	16%	1.3	32	18%	2.0	68	21%	4.2
Latino/a	50	24%	2.6	46	30%	2.4	51	29%	2.6	85	26%	4.5
White	113	54%	5.3	77	51%	3.5	93	52%	4.2	158	49%	7.5
Other/Missing	1	0%	-	1	1%	-	1	1%	-	11	3%	-
Age group (years)												
15-24	15	7%	1.5	4	3%	0.4	5	3%	0.5	13	4%	1.4
25-34	43	20%	2.9	34	23%	2.3	48	27%	3.2	59	18%	4.0
35-44	43	20%	3.7	31	21%	2.7	31	17%	2.7	71	22%	6.2
45-54	55	26%	5.1	35	23%	3.3	35	20%	3.4	81	25%	7.9
55-64	42	20%	4.2	32	21%	3.2	47	26%	4.7	74	23%	7.4
65-84	12	6%	1.1	15	10%	1.4	12	7%	1.1	27	8%	2.5
Age group (years)												
15-34	58	28%	2.3	38	25%	1.5	53	30%	2.2	72	22%	3.0
35-54	98	47%	4.4	66	44%	3.0	66	37%	3.0	152	47%	7.0
55-84	54	26%	2.6	47	31%	2.3	59	33%	2.8	101	31%	4.8
Borough of residence												
Bronx	43	20%	3.8	28	19%	2.4	43	24%	3.8	72	22%	6.5
Brooklyn	51	24%	2.6	35	23%	1.9	39	22%	1.8	74	23%	3.7
Manhattan	30	14%	2.3	30	20%	2.1	27	15%	1.9	45	14%	3.1
Queens	38	18%	2.0	25	17%	1.4	28	16%	1.5	59	18%	3.3
Staten Island	30	14%	8.1	21	14%	5.8	22	12%	5.9	40	12%	10.8
Non-New York City	17	8%	-	12	8%	-	16	9%	-	32	10%	-
Missing	1	0%	-	0	0%	0.0	3	2%	-	3	1%	-
Borough of death												
Bronx	52	25%	4.6	30	20%	2.7	45	25%	3.9	79	24%	7.2
Brooklyn	51	24%	2.6	40	26%	2.1	43	24%	2.0	81	25%	4.0
Manhattan	36	17%	2.8	34	23%	2.3	35	20%	2.5	62	19%	4.4
Queens	41	20%	2.2	27	18%	1.5	32	18%	1.7	61	19%	3.4
Staten Island	30	14%	8.2	20	13%	5.5	23	13%	6.1	42	13%	11.5
Neighborhood poverty^												
Low (wealthiest)	39	19%	3.0	27	18%	1.8	41	23%	3.0	67	21%	4.9
Medium	64	30%	2.6	48	32%	1.9	49	28%	1.9	85	26%	3.7
High	47	22%	2.8	34	23%	2.2	26	15%	1.4	62	19%	3.7
Very High	42	20%	3.6	30	20%	2.3	43	24%	3.4	76	23%	6.2
Non-New York City/Missing	18	9%	-	12	8%	-	19	11%	-	35	11%	-

*Data for 2020 are provisional and subject to change.

†For the purpose of this publication, Latino/a includes people of Hispanic origin based on ancestry reported on the death certificate, regardless of reported race; Latino/a excludes reported ancestry from non-Spanish speaking Central/South American countries, and non-Spanish speaking Caribbean islands. Black, White and Asian/Pacific Islander race categories do not include people of Latino/a origin.

^Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level (FPL) per American Community Survey 2008-2012, in four groups: low (<10%), medium (10% - < 20%), high (20% - < 30%), and very high poverty (>=30%).

Table 6. Number and rate of unintentional drug poisoning (overdose) deaths involving fentanyl, New York City, 2020*

Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2019 updated October 2020. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rates per 100,000 New Yorkers are age adjusted, except those for specific age groups.

	Unintentional drug poisoning (overdose) deaths involving fentanyl**			Unintentional drug poisoning (overdose) deaths involving fentanyl, no other opioid**			Unintentional drug poisoning (overdose) deaths involving fentanyl, cocaine, no heroin**			Unintentional drug poisoning (overdose) deaths involving fentanyl, cocaine, no other opioid**		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Total Unintentional Drug Poisoning Deaths	2062	100%	30.5	2062	100%	30.5	2062	100%	30.5	2062	100%	30.5
Total Unintentional Drug Poisoning Deaths by Drug Type	1580	77%	23.4	553	27%	8.2	359	17%	5.3	309	15%	4.6
Sex												
Male	1252	79%	38.7	453	82%	14.1	279	78%	8.7	244	79%	7.6
Female	328	21%	9.4	100	18%	2.9	80	22%	2.2	65	21%	1.8
Race/ethnicity†												
Asian and Pacific Islander	20	1%	2.2	11	2%	1.2	7	2%	0.8	5	2%	0.5
Black	461	29%	28.7	189	34%	11.9	133	37%	8.3	121	39%	7.5
Latino/a	508	32%	26.8	177	32%	9.4	125	35%	6.6	104	34%	5.5
White	526	33%	24.9	154	28%	7.4	80	22%	4.0	65	21%	3.3
Other/Missing	65	4%	-	22	4%	-	14	4%	-	14	5%	-
Age group (years)												
15-24	87	6%	9.1	38	7%	4.0	15	4%	1.6	11	4%	1.1
25-34	307	19%	20.7	123	22%	8.3	70	19%	4.7	56	18%	3.8
35-44	324	21%	28.5	121	22%	10.6	81	23%	7.1	68	22%	6.0
45-54	373	24%	36.3	123	22%	12.0	90	25%	8.8	80	26%	7.8
55-64	392	25%	39.2	127	23%	12.7	91	25%	9.1	84	27%	8.4
65-84	97	6%	8.8	21	4%	1.9	12	3%	1.1	10	3%	0.9
Borough of residence												
Bronx	430	27%	38.4	164	30%	14.5	120	33%	10.7	110	36%	9.8
Brooklyn	336	21%	16.6	105	19%	5.2	68	19%	3.4	59	19%	2.9
Manhattan	256	16%	18.3	93	17%	6.7	61	17%	4.3	51	17%	3.6
Queens	256	16%	14.2	92	17%	5.2	50	14%	2.9	41	13%	2.3
Staten Island	94	6%	26.3	22	4%	6.3	15	4%	4.3	10	3%	2.9
Non-New York City	198	13%	-	72	13%	-	41	11%	-	35	11%	-
Missing	10	1%	-	5	1%	-	4	1%	-	3	1%	-
Borough of death												
Bronx	464	29%	41.9	179	32%	16.0	132	37%	11.8	119	39%	10.6
Brooklyn	382	24%	18.9	113	20%	5.6	72	20%	3.6	59	19%	3.0
Manhattan	367	23%	26.6	135	24%	9.9	86	24%	6.4	74	24%	5.5
Queens	272	17%	15.1	103	19%	5.9	55	15%	3.1	48	16%	2.7
Staten Island	95	6%	26.7	23	4%	6.6	14	4%	4.1	9	3%	2.6
Neighborhood poverty^												
Low (wealthiest)	171	11%	12.9	54	10%	4.0	34	9%	2.6	24	8%	1.8
Medium	383	24%	15.7	122	22%	5.1	75	21%	3.0	59	19%	2.4
High	343	22%	20.1	126	23%	7.3	75	21%	4.4	68	22%	4.0
Very High	467	30%	38.7	170	31%	14.1	128	36%	10.7	118	38%	9.8
Non-New York City/Missing	216	14%	-	81	15%	-	47	13%	-	40	13%	-

*Data for 2020 are provisional and subject to change.

†For the purpose of this publication, Latino/a includes people of Hispanic origin based on ancestry reported on the death certificate, regardless of reported race; Latino/a excludes reported ancestry from non-Spanish speaking Central/South American countries, and non-Spanish speaking Caribbean islands. Black, White and Asian/Pacific Islander race categories do not include people of Latino/a origin.

^Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level (FPL) per American Community Survey 2008-2012, in four groups: low (<10%), medium (10% - < 20%), high (20% - < 30%), and very high poverty (>=30%).

**Other substances may be present unless otherwise specified