Cocaine Use in New York City: Morbidity and Mortality

- Cocaine is the second most common drug involved in unintentional drug poisoning deaths (overdose)[1] and the most frequently cited in drug-related emergency departments (ED) visits.[2]
- In 2012-2013, approximately 150,000 (2.4%) New Yorkers aged 12 and older reported using cocaine in the past year, a 36% decrease from 2006–2007.[3]
- In 2013, 5% of public school students in grades nine through 12 in New York City reported using cocaine at least once in their lifetime.[4]
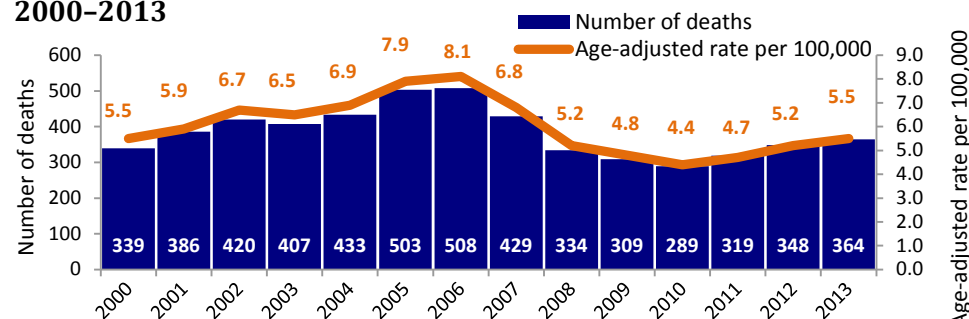
Cocaine-related morbidity[2,5]

- In 2011, there were nearly 80,000 drug-related ED visits (960.0 per 100,000 New Yorkers); cocaine represented more than a third (27,752) of all drug-related ED visits (336.6 per 100,00 New Yorkers).[2]
- New Yorkers aged 45 to 54 had the highest rate of cocaine-related ED visits (901.7 per 100,000), followed by 35 to 44 year olds (723.9 per 100,000) in 2011.[2]
- In 2012, there were an estimated 59,000 drug-related hospitalizations (876.1 per 100,000); more than one-third (21,637) were cocaine-related (328.8 per 100,000).[5]
- Black New Yorkers had the highest rate of cocaine-related hospitalizations in 2012 (727.3 per 100,000), nearly seven times higher than White New Yorkers (108.6 per 100,000).[5]

Unintentional drug poisoning (overdose) deaths involving cocaine[1]

- The rate of unintentional overdose deaths involving cocaine was highest in 2006 (a total of 508 deaths, 8.1 per 100,000 New Yorkers).
- Beginning in 2007, the rate of cocaine-involved overdose deaths decreased for four consecutive years (from 6.8 per 100,000 in 2007 to 4.4 per 100,000 in 2010, a 35% decrease).
- Since 2010, the rate of cocaine-involved overdoses increased by 25%, from 4.4 to 5.5 per 100,000 in 2013.
- In 2013, cocaine was involved in 46% of all unintentional overdose deaths; 67% of cocaine overdoses also involved an opioid and 55% involved alcohol.

Unintentional overdose deaths involving cocaine, New York City, 2000–2013

Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics

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- In 2013, New Yorkers aged 45 to 54 had the highest rate of cocaine involved deaths (12.0 per 100,000).

- From 2000 to 2013, the rate of cocaine-involved overdoses among individuals aged 55 to 64 increased 209% (from 2.2 per 100,000 in 2000 to 6.8 per 100,000 in 2013).

- Age stratified by birth year cohorts identified "Baby Boomers" (born 1946 to 1964) and "Generation Xers" (born 1965 to 1980) accounted for a consistent proportion of overdose deaths from 2000-2013.

Number of unintentional overdose deaths involving cocaine, by birth cohort, New York City, 2000–2013
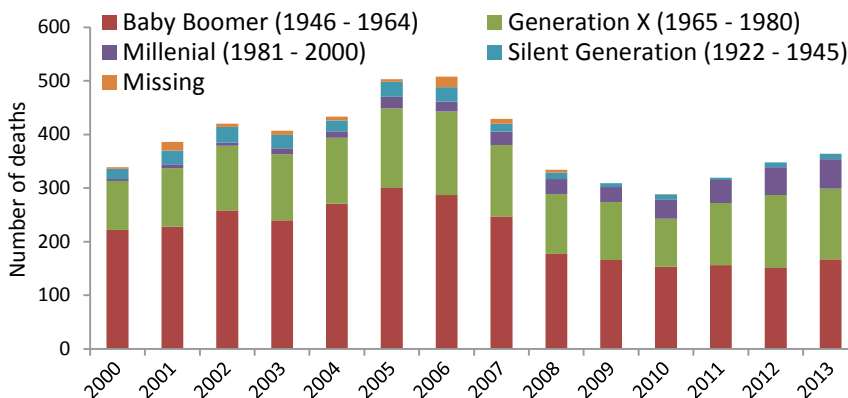
Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics

Unintentional overdose deaths involving cocaine by race/ethnicity, New York City, 2000–2013

Source: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics

- In 2006, Black New Yorkers had the highest rates of cocaine-involved deaths (12.5 per 100,000 residents).

- From 2006 to 2013, racial disparities in cocaine overdose mortality rates narrowed, and, in 2013, rates of cocaine-involved mortality were similar among Black, White, and Hispanic New Yorkers.

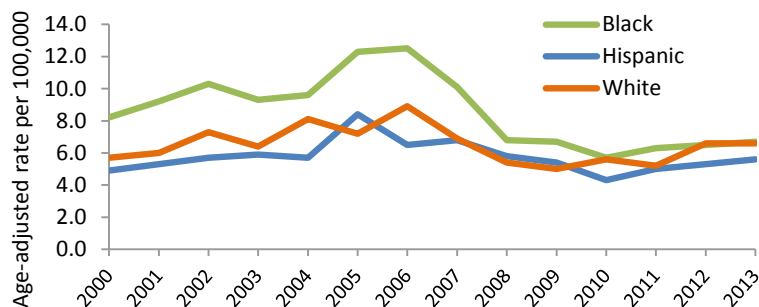- Since 2000, residents of very high poverty neighborhoods had the highest rate of cocaine-involved deaths; in 2013 the rate was 7.7 per 100,000 residents.

- Since 2000, the disparity between rates in high poverty and low poverty neighborhoods narrowed. From 2000 to 2013, the rate of cocaine-involved deaths decreased in high poverty neighborhoods by 27%, from 10.5 to 7.7 per 100,000 residents, and increased in low poverty neighborhoods by 150%, from 1.8 to 4.5 per 100,000.

- In 2013, residents of the Bronx had the highest rate of overdose deaths involving cocaine (7.7 per 100,000) followed by residents of Staten Island (7.5 per 100,000).

- From 2000 to 2013, the rate of cocaine-involved overdoses among Staten Island residents increased 341% from 1.7 per 100,000 to 7.5 per 100,000.

Definitions:

Rate calculation: NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2013, updated October 8, 2014. 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 US standard population, except those for specific age groups.

Neighborhood poverty: Based on ZIP code and defined as the percentage of residents with incomes below 100% of the federal poverty level (per American Community Survey 2007-2011) in four groups: low (<10%), medium (10 %-< 20%), high (20 %-< 30%), and very high (≥30%).

Unintentional drug poisoning deaths referred to as overdose deaths: Derived from death certificates and includes deaths from both illicit drugs and licit drugs taken for non-medical reasons. Excludes drug poisonings where the manner of death was intentional (suicide), undetermined, or homicide. Toxicology findings were abstracted from medical examiner files. Drugs are not mutually exclusive.

Cocaine: Includes all forms of cocaine (i.e., powder cocaine and crack).

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Epi Data Tables

New York City Department of Health and Mental Hygiene

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Cocaine Use in New York City: Morbidity and Mortality

Data Tables

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Data Sources

Bureau of Vital Stastics/Office of the Chief Medical Examiner: 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 2000-2013. Methadone is reported separately and not included in opioid analgesic analyses.

NSDUH: The National Survey on Drug Use and Health (NSDUH) conducted annually by Substance Abuse and Mental Health Services Administration [SAMHSA] includes a representative sample of NYC residents aged 12 years and older. Two-year averages are presented.

NYC YRBS: The NYC Youth Risk Behavior Survey (YRBS), conducted by the NYC Departments of Health and Education, is an anonymous, self-administered biennial study of NYC public high school students in grades 9 to 12.

DAWN: The Drug Abuse Warning Network (DAWN), managed by SAMHSA, is a database of drug-related visits to hospital emergency departments (EDs), including 61 NYC EDs. Data were weighted to produce citywide estimates of drug-related ED visits for 2004-2011.

SPARCS: The Statewide Planning and Research Cooperative System currently collects patient level detail for each hospital inpatient stay and outpatient emergency department visits. Data on inpatient hospital stays are presented.

Rate Calculation: NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2013, updated October 8, 2014. 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.

Neighborhood poverty is based on ZIP code and is defined as the percentage of residents with incomes below 100% of the Federal Poverty Level, per American Community Survey 2007-2011, in four groups: low (<10%), medium (10 %-< 20%), high (20 %-< 30%), and very high (>=30%).

Table 1. Any self-reported past-year substance use among persons aged 12 or older in New York City (NYC), and United States (US), 2012-2013

Source: The National Survey on Drug Use and Health (NSDUH) conducted annually by Substance Abuse and Mental Health Services Administration [SAMHSA] includes a representative sample of NYC residents aged 12 years and older. Two-year averages NYC Data presented as two-year average of 2012-2013. National (US) data presented for the year 2013.

	NYC 2012–2013		US 2013	
	N	%	N	%
Any Drug[1]	1,279,000	20.1	41,591,000	15.9
Marijuana	1,043,000	16.4	32,952,000	12.6
Cocaine	150,000	2.4	4,182,000	1.6
Heroin	4,000	0.1	681,000	0.3
Opioid Analgesics[2]	290,000	4.6	11,082,000	4.2
Benzodiazepines[2]	168,000	2.6	5,269,000	2.0
Any Drug Except Marijuana[3]	626,000	9.9	19,868,000	7.6

[1] Any Drug include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

[2] Nonmedical use of prescription-type psychotherapeutics includes the nonmedical use of pain relievers, tranquilizers, stimulants, or sedatives and does not include over-the-counter drugs.

[3] Any Drug Except Marijuana include cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

Table 2. Any self-reported lifetime illicit drug use and cocaine use among New York City public school youth, 2013

Source: NYC Youth Risk Behavior Survey 2013

	Any illcit drug[1] (lifetime use)			Cocaine (lifetime use)		
	%	95% C.I.	P-value	%	95% C.I.	P-value
Total	8.0	(6.8-9.3)	~	4.7	(3.8-5.6)	~
Gender						
Female	5.3	(4.3-6.6)	Referent	2.9	(2.3-3.6)	Referent
Male	10.2	(8.5-12.3)	**<0.001**	6.2	(5.0-7.6)	**<0.001**
Grade						
9	6.6	(5.2-8.4)	**0.025**	3.9	(2.7-5.6)	0.281
10	7.6	(5.4-10.4)	0.175	4.5	(3.3-6.2)	0.679
11	6.9	(5.6-8.6)	**0.025**	4.4	(3.3-5.9)	0.581
12	9.8	(7.7-12.4)	Referent	5.0	(3.6-7.0)	Referent
Race/Ethnicity						
White Non-Hispanic	10.0	(7.5-13.3)	Referent	5.9	(3.8-9.2)	Referent
Black Non-Hispanic	5.9	(4.2-8.2)	**0.023**	2.5	(1.6-3.7)	**0.016**
Hispanic	9.1	(7.7-10.7)	0.497	5.9	(4.9-7.3)	0.986
Asian	5.4	(3.6-7.9)	**0.010**	3.0	(1.7-5.0)	0.088
Other[2]	11.1	(7.1-16.7)	0.711	6.1	(3.4-10.8)	0.935
Borough of Residence						
Bronx	7.3	(6.0-8.9)	**0.002**	4.4	(3.1-6.2)	**0.004**
Brooklyn	7.0	(4.6-10.4)	**0.001**	4.0	(2.7-5.9)	**<0.001**
Manhattan	11.0	(7.3-16.4)	0.506	7.0	(4.3-11.3)	0.447
Queens	7.0	(5.7-8.6)	**<0.001**	3.7	(2.9-4.8)	**<0.001**
Staten Island	12.8	(10.1-16.1)	Referent	8.7	(6.5-11.7)	Referent
Borough of School						
Bronx	8.7	(7.5-10.1)	0.070	5.2	(3.7-7.4)	0.363
Brooklyn	7.7	(4.6-12.4)	0.115	4.2	(2.4-7.5)	0.154
Manhattan	7.4	(5.1-10.6)	**0.038**	4.5	(2.9-7.0)	0.160
Queens	7.4	(6.1-8.9)	**0.008**	4.4	(3.6-5.4)	**0.044**
Staten Island	11.3	(9.0-14.2)	Referent	6.4	(4.9-8.3)	Referent

[1] Any illicit drugs: Cocaine, Heroin, Methamphetamines, or Ecstasy use

[2] Other category includes non-Hispanic students who selected American Indian/Alaska Native, Native Hawaiian/other Pacific Islander, or multiple race categories.

Bolded values indicate statistically different from the referent group (i.e., p-value < 0.05).

Table 3. Rates of drug-related emergency room visits, overall and by age, New York City, 2011

Source: Drug Abuse Warning Network; analysis by SAMHSA

2011 rates per 100,000 New Yorkers presented

	All Drugs[1]	Cocaine	Heroin	Marijuana	Opioid Analgesics[2]	Benzodiazepines
Total NYC	960.0	336.6	145.7	233.2	141.3	86.8
Age (years)						
18-20	1,939.7	104.0	39.3	551.9	40.3	52.3
21-24	1,161.5	209.0	126.9	557.2	96.8	96.1
25-29	1,093.5	295.5	160.4	408.1	142.1	123.7
30-34	1,243.7	467.7	219.0	379.2	184.2	134.6
35-44	1,516.9	723.9	310.9	317.3	259.7	160.3
45-54	1,767.6	901.7	337.7	266.7	316.7	161.3
55-64	659.9	236.6	114.3	69.5	181.7	81.5
≥65	197.0	31.2	13.1	*	41.3	20.6

[1]Not including alcohol only related visits.

[2]Methadone-related visits included in Opioid Analgesics estimate.

The asterisk symbol (*) indicates that the figure does not meet standards of precision. An estimate with a relative standard error greater than 50% or an unweighted count or estimate less than 30 is suppressed.

Table 4. Number and rate of cocaine-related hospitalizations, New York City, 2012

Source: New York State Department of Health, Statewide Planning and Research Cooperative System (SPARCS), 2012 (Data Update: April 2014)

	Hospital discharges		
	N	Col %	AAR[4]
Any drug-related hospitalizations[1]	58,665	100%	876.1
Cocaine-related hospitalizations[1]	21,637	37%	328.8
Gender			
Female	7,216	33%	209.9
Male	14,416	67%	462.9
Unknown	5	X	X
Race/Ethnicity[2]			
Black	11,217	61%	727.3
Hispanic	4,702	26%	262.9
White	2,348	13%	108.6
Other	3,370	X	X
Age-group			
15-24	613	3%	53.7
25-34	2,444	11%	168.4
35-44	4,612	21%	397.0
45-54	8,721	40%	787.2
55-64	4,194	19%	448.1
65-84	1,053	5%	117.7
Borough of Residence			
Bronx	7,041	33%	667.5
Brooklyn	6,252	29%	320.7
Manhattan	5,841	27%	449.3
Queens	1,991	9%	107.6
Staten Island	512	2%	141.6
Borough of Hospital			
Bronx	6,135	28%	580.5
Brooklyn	5,660	26%	290.6
Manhattan	7,826	36%	603.5
Queens	1,538	7%	83.2
Staten Island	478	2%	132.4
Neighborhood poverty[3]			
Group 1: 0 to <10%	1,030	5%	136.9
Group 2: 10 to <20%	4,836	22%	168.7
Group 3: 20 to <30%	3,401	16%	259.8
Group 4: 30 to 100%	12,318	57%	760.8
Unknown/Other	52	X	X

[1] NYC residents 15-84 discharged from a NYC hospital. Excludes detox and rehab discharges, self-inflicted injuries, injuries purposely inflicted by other persons, and injuries undetermined whether accidentally or purposely inflicted (based on ICD-9 E-codes).

[2] Other race/ethnicity or missing race/ethnicity are collapsed into "Other", and are not included in the percent of total calculation.

[3] Neighborhood poverty (based on UHF) defined as percent of residents with incomes below 100% of the Federal Poverty Level per American Community Survey Census 2000.

[4] Age adjusted rates are calculated using 2012 NYC intercensal estimates updated June 2013, and are weighted to U.S. Census 2000.

Table 5. Number and rate of unintentional drug poisoning (overdose) deaths, New York City, 2010-2013

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, 2010-2012. Updated July 22, 2013. 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.

	2010			2011			2012			2013		
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Total Unintentional Drug Poisoning Deaths	**541**	**100%**	**8.2**	**630**	**100%**	**9.4**	**730**	**100%**	**10.9**	**788**	**100%**	**11.6**
Total Cocaine-involved Poisoning Deaths	**289**	**100%**	**4.4**	**319**	**44%**	**4.8**	**348**	**45%**	**5.2**	**364**	**46%**	**5.5**
Gender												
Male	386	71%	12.4	455	72%	14.2	534	73%	16.6	570	72%	17.7
Female	155	29%	4.4	175	28%	5.0	196	27%	5.7	218	28%	6.2
Race/Ethnicity												
Black (non-Hispanic)	128	24%	8.1	158	25%	10.0	180	25%	11.7	172	22%	10.7
Hispanic	150	28%	8.7	157	25%	8.8	192	27%	10.5	222	28%	12.1
White (non-Hispanic)	250	46%	11.6	300	48%	13.5	336	47%	15.6	358	45%	16.3
Age (years)												
15-24	30	6%	2.5	37	6%	3.2	48	7%	4.2	45	6%	4.0
25-34	85	16%	6.0	125	20%	8.7	140	19%	9.6	137	17%	9.3
35-44	121	22%	10.4	133	21%	11.5	158	22%	13.5	159	20%	13.6
45-54	194	36%	17.4	206	33%	18.5	245	34%	22.0	251	32%	22.6
55-64	93	17%	10.3	122	19%	13.2	122	17%	13.0	163	21%	17.1
65-84	17	3%	2.0	7	1%	0.8	17	2%	1.9	33	4%	3.6
Borough of Residence												
Bronx	128	24%	12.3	140	22%	13.3	171	26%	16.1	162	21%	15.0
Brooklyn	145	27%	7.3	158	25%	7.8	179	27%	8.9	165	21%	8.2
Manhattan	69	13%	5.3	103	16%	7.7	131	20%	9.8	136	17%	9.8
Queens	91	17%	5.0	97	15%	5.2	105	16%	5.5	145	18%	7.6
Staten Island	46	9%	12.2	69	11%	18.4	74	11%	19.9	64	8%	17.6
Borough of Death												
Bronx	132	24%	12.8	147	23%	13.8	175	24%	16.5	184	23%	17.2
Brooklyn	166	31%	8.4	172	27%	8.5	188	26%	9.4	197	25%	9.9
Manhattan	102	19%	7.6	134	21%	9.9	172	24%	12.9	191	24%	13.8
Queens	96	18%	5.3	100	16%	5.4	120	16%	6.4	152	19%	8.0
Staten Island	45	8%	12.0	77	12%	20.6	75	10%	20.1	64	8%	17.5
Neighborhood Poverty*												
Low (wealthiest)	80	15%	6.0	124	20%	8.8	119	18%	8.6	147	19%	10.6
Medium	150	28%	6.0	158	25%	6.2	194	29%	7.5	183	23%	7.1
High	112	21%	7.2	130	21%	8.4	164	25%	10.6	160	20%	10.0
Very High	130	24%	11.8	155	25%	13.9	182	28%	16.2	181	23%	15.9
Drug Type**												
Alcohol	243	45%	3.7	273	43%	4.1	316	43%	4.7	342	43%	5.0
Benzodiazepines	227	42%	3.5	210	33%	3.1	278	38%	4.2	298	38%	4.4
Cocaine	289	53%	4.4	319	51%	4.7	348	48%	5.2	364	46%	5.4
Heroin	209	39%	3.1	284	45%	4.2	382	52%	5.7	424	54%	6.2
Methadone	142	26%	2.2	146	23%	2.2	184	25%	2.7	169	21%	2.5
Opioid Analgesics	173	32%	2.6	220	35%	3.3	201	28%	3.0	220	28%	3.2

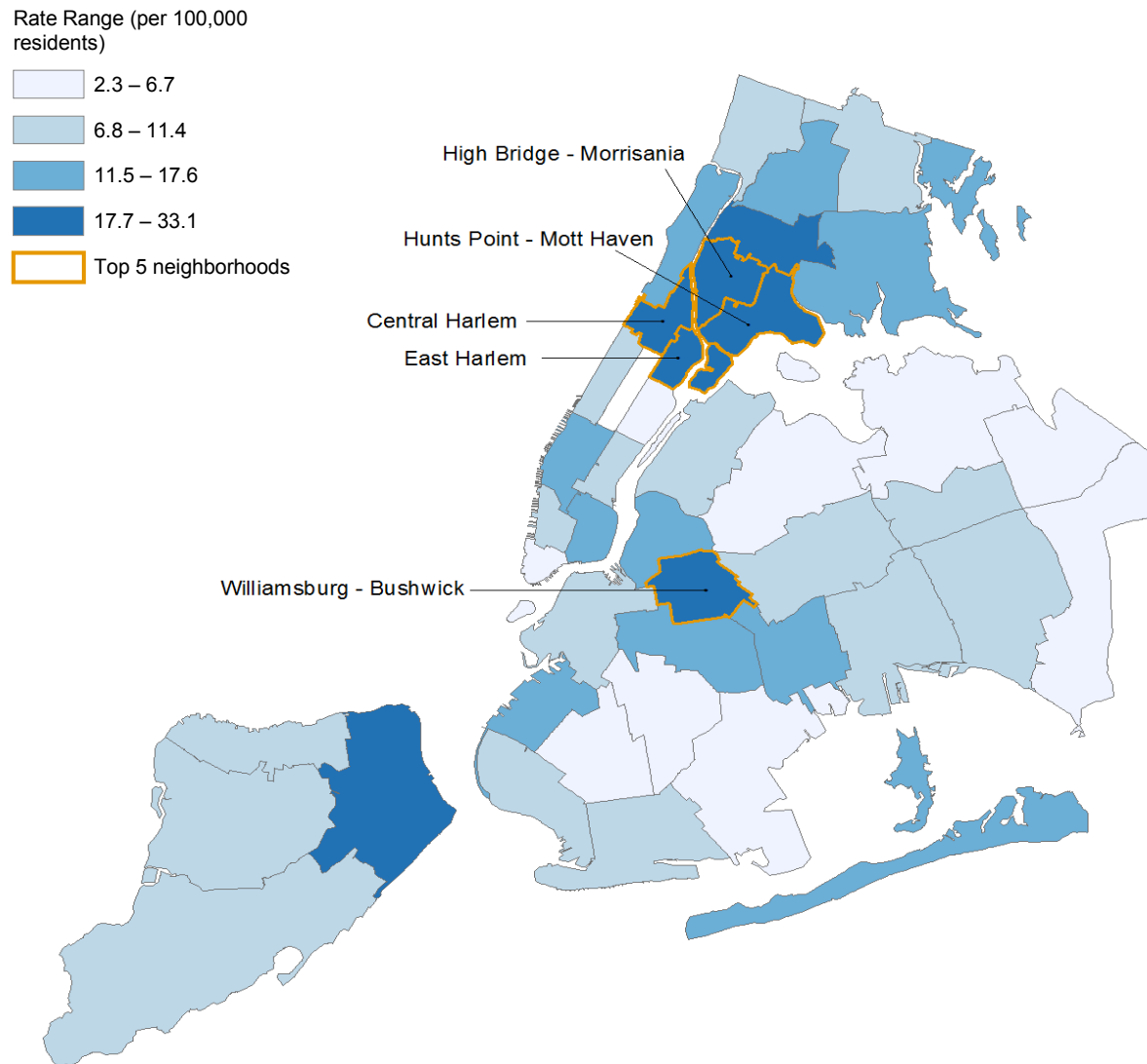| Top 5 NYC Neighborhoods^	2005-2006 Rate		2012-2013 Rate	
	East Harlem	33.1	Hunts Point-Mott Haven	28.2
	Hunts Point-Mott Haven	31.4	South Beach-Tottenville	23.2
	Highbridge-Morrisania	24.6	Willowbrook	21.0
	Williamsburg-Bushwick	23.9	Highbridge-Morrisania	19.1
	Central Harlem	23.6	Central Harlem	18.8

*Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level (Census 2000), separated into four groups: low (<10%), medium (10%-<20%), high (20%-<30%) and very high (>=30%).

**Drug Type, not mutually exclusive.; percent will not equal 100%.

^Top five of 42 NYC Neighborhoods

Map 1. Top five New York City neighborhoods: Rates of unintentional drug poisoning (overdose) deaths by neighborhood* of residence, 2005-2006

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, 2005-2006. Updated July 22, 2013. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rate Range (per 100,000 residents)

2.3 – 6.7

6.8 – 11.4

11.5 – 17.6

17.7 – 33.1

Top 5 neighborhoods

High Bridge - Morrisania

Hunts Point - Mott Haven

Central Harlem

East Harlem

Williamsburg - Bushwick

*The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous zip codes.

Map 2. Top five New York City neighborhoods: Rates of unintentional drug poisoning (overdose) deaths by neighborhood* of residence, 2012-2013
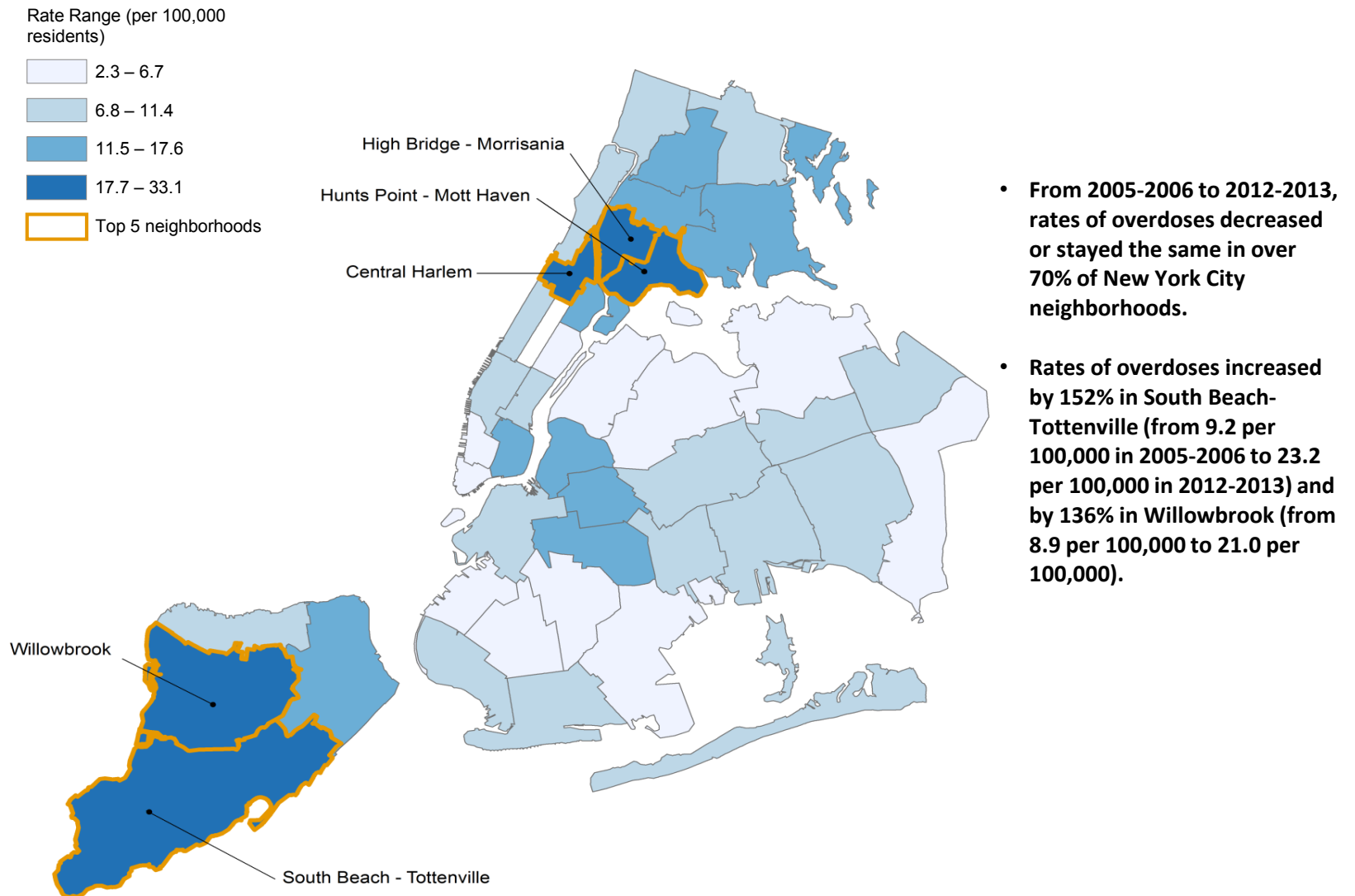
Source: Bureau of Vital Statistics/Office of the Chief Medical Examiner, New York City; Rates calculated using NYC DOHMH population estimates, modified from US Census Bureau intercensal population estimates, 2013. Updated October 8, 2014. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rate Range (per 100,000 residents)

2.3 – 6.7
6.8 – 11.4
11.5 – 17.6
17.7 – 33.1
Top 5 neighborhoods

High Bridge - Morrisania

Hunts Point - Mott Haven

Central Harlem

Willowbrook

South Beach - Tottenville

- From 2005-2006 to 2012-2013, rates of overdoses decreased or stayed the same in over 70% of New York City neighborhoods.

- Rates of overdoses increased by 152% in South Beach-Tottenville (from 9.2 per 100,000 in 2005-2006 to 23.2 per 100,000 in 2012-2013) and by 136% in Willowbrook (from 8.9 per 100,000 to 21.0 per 100,000).

*The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous zip codes.

Table 6. Number and rate of unintentional drug poisoning (overdose) deaths involving cocaine, New York City, 2010-2013

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, 2010-2013. Updated October 8, 2014. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

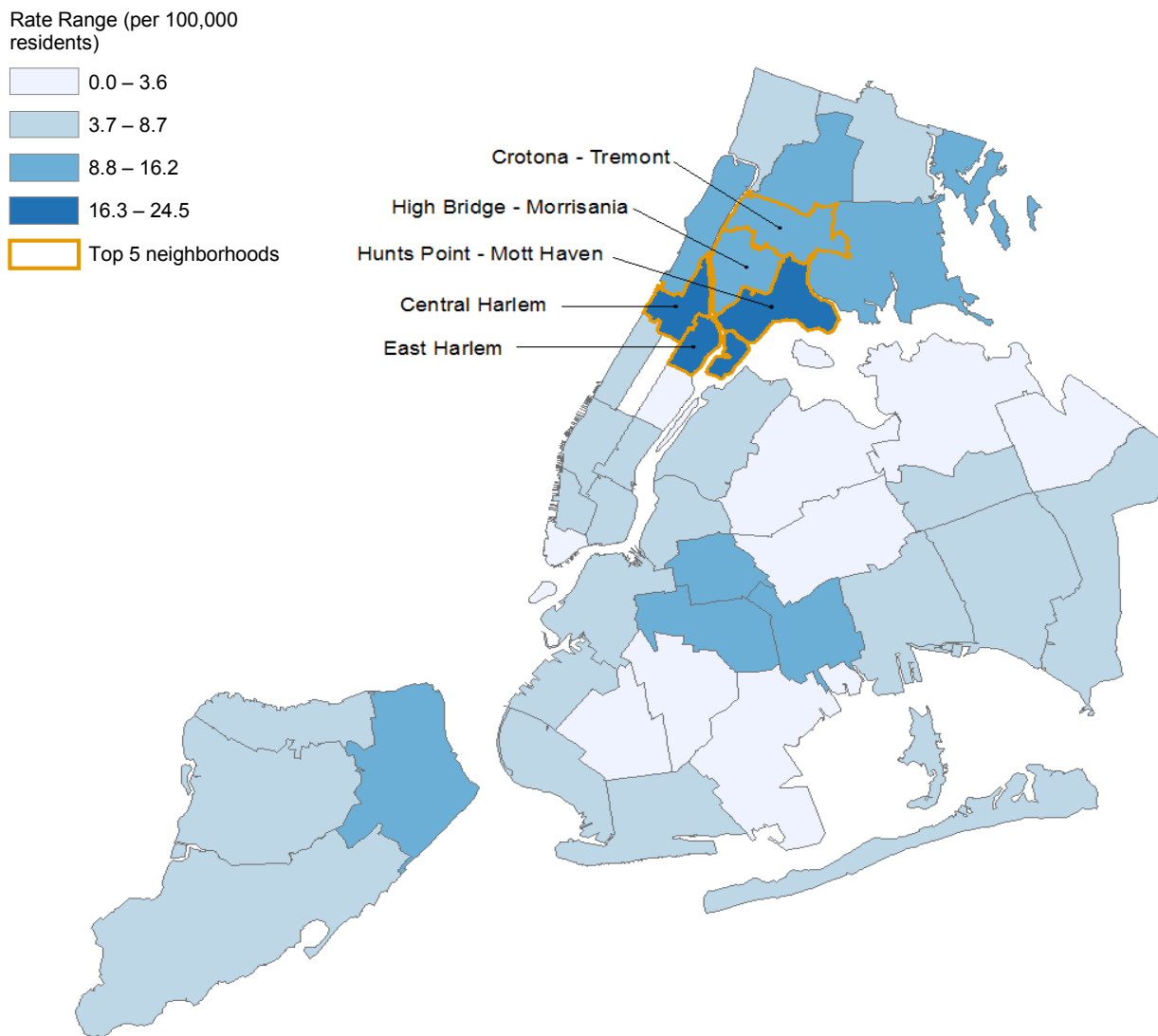Rates per 100,000 New Yorkers are age adjusted, except those for specific age groups.

	2010			2011			2012			2013		
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Total Unintentional Drug Poisoning Deaths Involving Cocaine	289	53%	4.4	319	51%	4.7	348	48%	5.2	364	46%	5.5
Gender												
Male	217	75%	7.0	234	73%	7.3	259	74%	8.1	263	72%	8.3
Female	72	25%	2.0	85	27%	2.4	89	26%	2.6	101	28%	2.9
Race/Ethnicity												
Black (non-Hispanic)	92	32%	5.7	101	33%	6.3	103	30%	6.5	108	31%	6.7
Hispanic	74	26%	4.3	89	29%	5.0	98	29%	5.3	103	29%	5.6
White (non-Hispanic)	119	42%	5.6	117	38%	5.2	140	41%	6.6	139	40%	6.6
Age (years)												
15-24	15	5%	1.3	14	4%	1.2	20	6%	1.8	20	5%	1.8
25-34	43	15%	3.1	64	20%	4.5	61	18%	4.2	53	15%	3.6
35-44	59	20%	5.1	62	19%	5.4	73	21%	6.3	74	20%	6.3
45-54	113	39%	10.1	114	36%	10.3	125	36%	11.2	134	37%	12.0
55-64	48	17%	5.3	61	19%	6.6	58	17%	6.2	65	18%	6.8
65-84	10	3%	1.2	4	1%	0.5	11	3%	1.2	18	5%	2.0
Age (years-collapsed)												
15-34	58	20%	2.2	78	24%	3.0	81	13%	3.1	73	20%	2.8
35-54	172	60%	7.5	176	55%	7.7	198	40%	8.7	208	57%	9.1
55-84	58	20%	3.3	65	20%	3.6	69	47%	3.8	83	23%	4.4
Borough of Residence												
Bronx	77	30%	7.4	81	27%	7.7	76	24%	7.2	83	27%	7.7
Brooklyn	73	29%	3.6	87	29%	4.3	90	28%	4.5	75	24%	3.9
Manhattan	42	16%	3.2	57	19%	4.1	81	25%	6.1	65	21%	4.8
Queens	44	17%	2.4	43	15%	2.3	50	16%	2.6	58	19%	3.0
Staten Island	19	7%	5.0	27	9%	7.5	23	7%	6.2	26	8%	7.5
Borough of Death												
Bronx	77	27%	7.4	86	27%	8.1	78	22%	7.4	92	25%	8.6
Brooklyn	85	29%	4.3	90	28%	4.4	89	26%	4.5	94	26%	4.8
Manhattan	60	21%	4.4	71	22%	5.2	102	29%	7.7	84	23%	6.1
Queens	48	17%	2.7	42	13%	2.3	55	16%	2.9	66	18%	3.5
Staten Island	19	7%	4.9	30	9%	8.3	24	7%	6.4	27	7%	7.6
Neighborhood Poverty*												
Low (wealthiest)	35	14%	2.7	51	17%	3.6	49	15%	3.5	60	20%	4.5
Medium	73	29%	3.0	75	25%	3.0	94	29%	3.7	79	26%	3.2
High	68	27%	4.3	78	26%	5.0	84	26%	5.4	83	27%	5.2
Very High	74	30%	6.7	91	31%	8.1	93	29%	8.3	85	28%	7.7

Top 5 NYC Neighborhoods^	2005-2006 Rate		2012-2013 Rate	
	East Harlem	24.5	East Harlem	13.2
	Hunts Point-Mott Haven	22.4	Hunts Point-Mott Haven	11.7
	Central Harlem	18.5	Central Harlem	11.5
	Highbridge-Morrisania	16.5	Crotona-Tremont	9.8
	Crotona-Tremont	15.3	South Beach-Tottenville	9.8

*Neighborhood poverty (based on ZIP code) was defined as percent of residents with incomes below 100% of the federal poverty level per American Community Survey 2007-2011, separated into four groups: low (<10%), medium (10%-<20%), high (20%-<30%) and very high (>=30%).

^Top five of 42 NYC Neighborhoods

Map 3. Top five New York City neighborhoods: Rates of unintentional drug poisoning (overdose) deaths involving cocaine by neighborhood* of residence, 2005-2006

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, 2005-2006. Updated July 22, 2013. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

Rate Range (per 100,000 residents)

- 0.0 – 3.6
- 3.7 – 8.7
- 8.8 – 16.2
- 16.3 – 24.5
- Top 5 neighborhoods

Crotona - Tremont
High Bridge - Morrisania
Hunts Point - Mott Haven
Central Harlem
East Harlem

*The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous zip codes.

Map 4. Top five New York City neighborhoods: Rates of unintentional drug poisoning (overdose) deaths involving cocaine by neighborhood* of residence, 2012-2013

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, 2013 Updated October 8, 2014. Analysis by Health Department's Bureau of Alcohol and Drug Use Prevention, Care and Treatment.

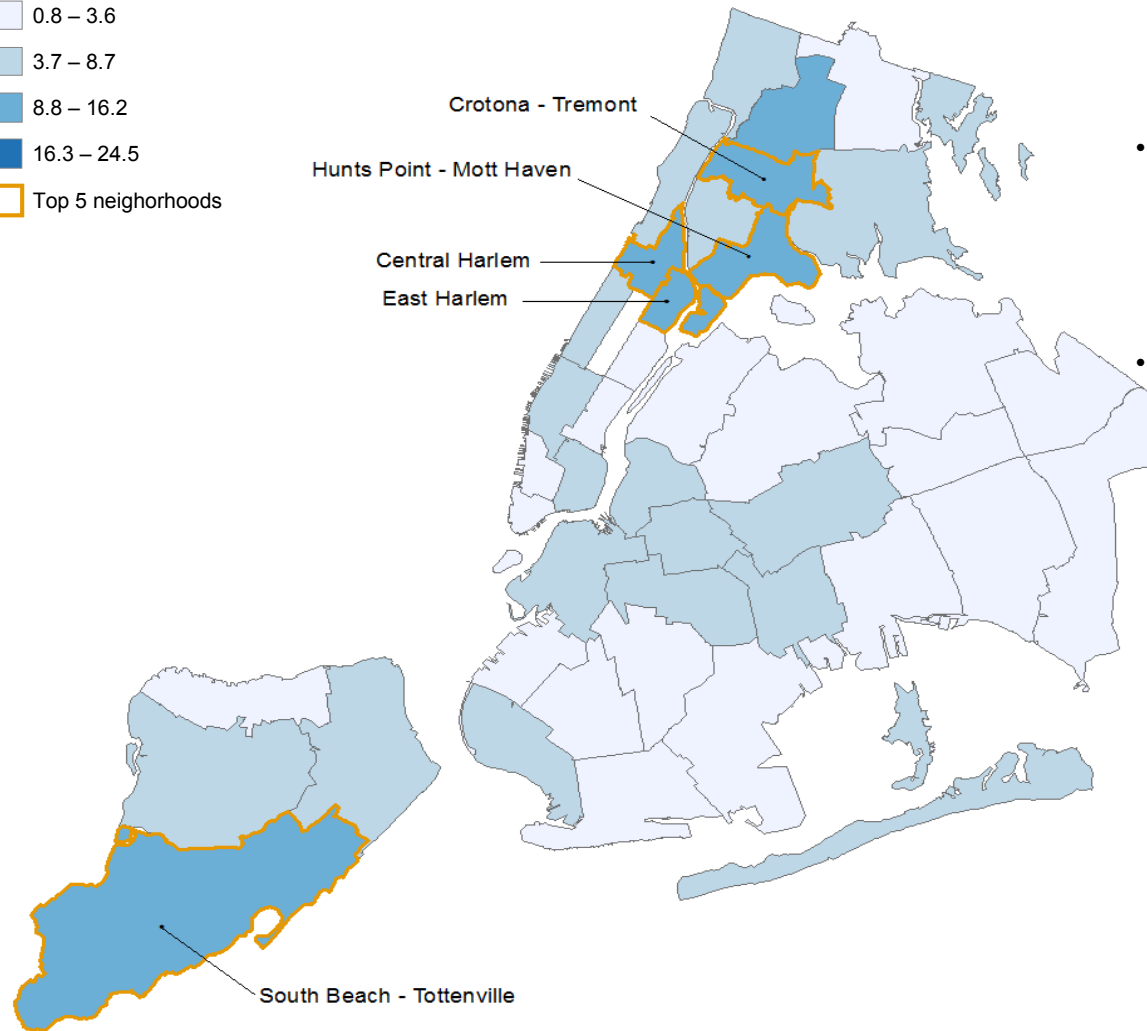Rate Range (per 100,000 residents)

- 0.8 – 3.6
- 3.7 – 8.7
- 8.8 – 16.2
- 16.3 – 24.5
- Top 5 neighorhoods

Crotona - Tremont

Hunts Point - Mott Haven

Central Harlem

East Harlem

South Beach - Tottenville

- **From 2005-2006 to 2012-2013, rates of cocaine-involved overdoses decreased in almost all New York City neighborhoods.**

- **Rates of cocaine-involved overdoses increased by 84% in South Beach-Tottenville (from 5.3 per 100,000 in 2005-2006 to 9.8 per 100,000 in 2012-2013) and by 28% in Greenpoint (from 6.5 per 100,000 to 8.3 per 100,000).**

*The United Hospital Fund (UHF) classifies New York City into 42 neighborhoods, comprised of contiguous zip codes.