

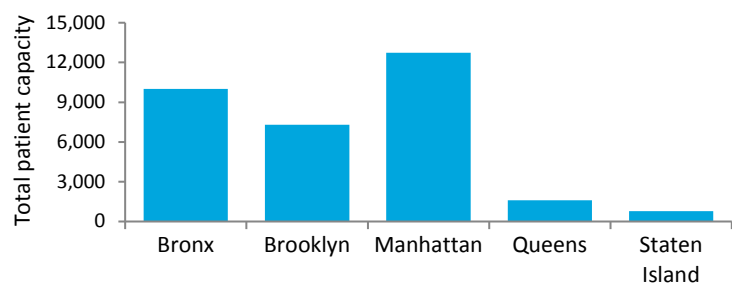
Buprenorphine and Methadone Treatment in New York City

Buprenorphine and methadone are opioid agonist medications that are both safe and effective in the treatment of opioid use disorders. Methadone dispensing has been available through certified New York State Office of Alcoholism and Substance Abuse Services (OASAS) Opioid Treatment Programs in New York City (NYC) since the late 1970s. Buprenorphine has been approved for treatment of opioid use disorders since 2002, and is now available by prescription from physicians, nurse practitioners, and physician assistants trained and approved to prescribe it. In this report “buprenorphine” refers to prescriptions for buprenorphine combined with naloxone, the formulation that is recommended for treatment of opioid use disorders rather than for pain.

Opioid Treatment (Methadone) in New York City, 2016

- In 2016, there were 69 OASAS-certified opioid treatment programs in NYC with a capacity to dispense methadone to approximately 32,000 patients with opioid use disorders.
- Almost half of all NYC opioid treatment programs were located in Manhattan (n = 33, 48%), followed by 20% in the Bronx (n = 14), and 20% in Brooklyn (n = 14). Queens (n = 5) and Staten Island (n = 3) had the fewest number of opioid treatment programs in 2016.

Methadone patient capacity by borough, New York City, 2016



Source: New York State Office of Alcoholism and Substance Abuse Services, 2016

Characteristics of New Yorkers enrolled in methadone treatment, 2016

- In 2016, there were approximately 30,000 NYC residents in methadone treatment (4.0 per 1,000 residents).
- Over half (55%) of methadone patients were over 45 years old.
- One-third of methadone patients (n = 9,674) were new to methadone treatment in 2016, a rate of 1.3 per 1,000 residents.
- There were more men in methadone treatment than women (69% men vs. 31% women). The rate of men in methadone treatment was nearly three times that of women (5.8 per 1,000 men vs. 2.4 per 1,000 women).
- The rate of New Yorkers in methadone treatment was highest for Latinos (7.4 per 1,000 residents, n = 15,729), thirty-seven times higher than the rate for Other/Asian New Yorkers (0.2 per 1,000 residents, n = 740) who had the lowest rate, three times higher than the rate for White New Yorkers (2.5 per 1,000 residents, n = 6,296) and almost double the rate for Black or African-American New Yorkers (4.1 per 1,000 residents, n = 6,963).
- Most new patients in methadone treatment were Latino and Black or African-American (50% and 20%, respectively). One in three (27%) new patients in methadone treatment were White.

Definitions: Methadone patient: NYC resident who received methadone as of December 31, 2016.

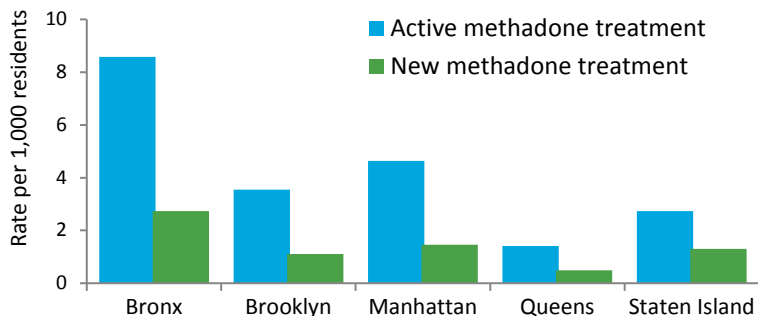
New methadone patient: NYC resident with new intake at a NYC methadone program January 1, 2016 to December 31, 2016. New patients excludes current patients with an intake in prior years.

Buprenorphine patient: NYC resident who filled a buprenorphine/naloxone prescription from January 1, 2016 to December 31, 2016.

New buprenorphine patient: NYC resident who did not fill a buprenorphine prescription in 2015. Patients with a fill history in 2015 were captured as patients not new to buprenorphine.

Race/ethnicity: Information on race/ethnicity is not collected in PMP data. For methadone data, White, Black or African-American, and Other/Asian race categories exclude Latino ethnicity. Latino includes Hispanic or Latino of any race. Other/Asian includes Alaskan Native, American Indian, Asian, Hawaiian/Pacific Islander, and Other unspecified.

Rate of methadone treatment by borough of residence, New York City, 2016



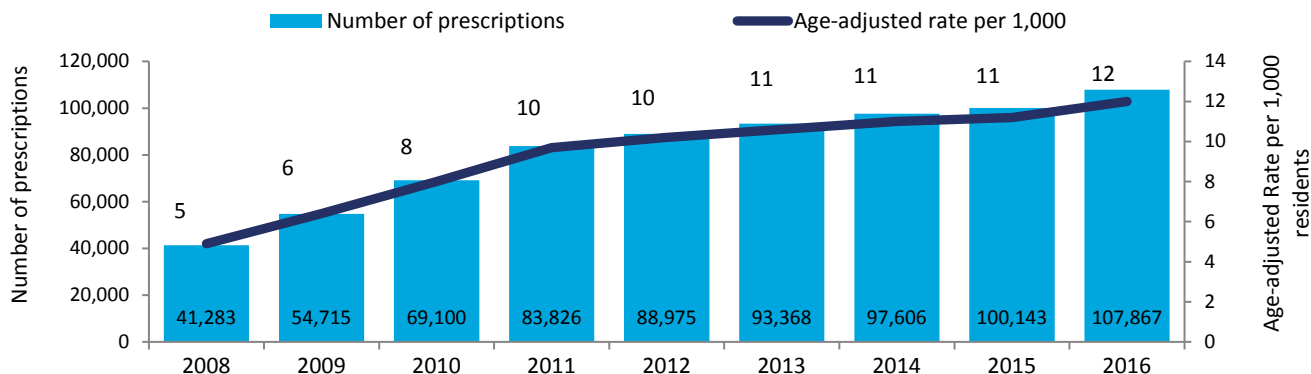
Source: New York State Office of Alcoholism and Substance Abuse Services, 2016

- Bronx residents had the highest rate of methadone treatment (8.6 per 1,000 residents), and also had the highest rate of new patients in methadone treatment (2.7 per 1,000 residents).
- The rate of new patients in methadone treatment for Bronx residents was six times higher than residents of Queens (0.5 per 1,000 residents), and double the rates in Manhattan (1.5 per 1,000 residents), Staten Island (1.3 per 1,000 residents), and Brooklyn (1.1 per 1,000 residents).

Buprenorphine for the treatment of opioid use disorders in New York City, 2016

- From 2008 to 2016, the rate of buprenorphine prescriptions filled by NYC residents increased by 145%, from 4.9 per 1,000 residents in 2008 to 12.0 per 1,000 residents in 2016.
- In 2016, 1,861 prescribers wrote 107,867 buprenorphine prescriptions.
- The number of prescribers in 2016 increased 16%, from 1,611 prescribers in 2008.
- Two-thirds (62%) of prescribers had only one to three patients who filled buprenorphine prescriptions in 2016.
- Only 9% (n = 170) of prescribers had more than 30 patients for whom they prescribed buprenorphine in 2016.

Buprenorphine prescriptions filled by New York City residents, 2008 – 2016



Source: New York State Prescription Monitoring Program, 2008-2016

Data Sources:

New York State (NYS) Prescription Monitoring Program (PMP): The Prescription Monitoring Program (PMP), managed by the New York State Department of Health Bureau of Narcotics, collects data from drug dispensers on schedule II-V controlled substances. Patient diagnosis was unavailable, so the reason for buprenorphine prescriptions could not be determined. Data from 2008 to 2016 on buprenorphine prescriptions filled by New York City residents are presented here. For demographic characteristics, we are limited to age, sex, borough of residence. Information on race/ethnicity is not collected in PMP data.

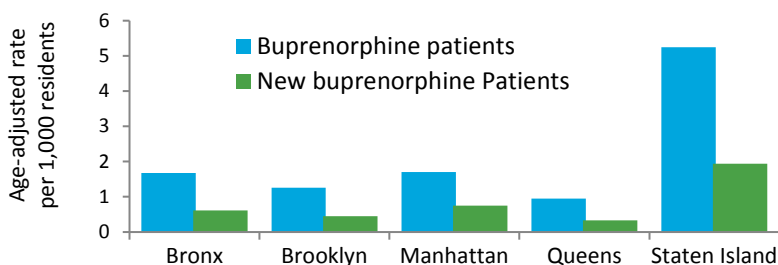
NYS Office of Alcoholism and Substance Abuse Services (OASAS) Client Data System includes data on admissions (not unique individuals) to OASAS-certified methadone programs. Data extracted November 8, 2017.

NYC DOHMH population estimates: Modified from US Census Bureau interpolated intercensal population estimates, 2000-2015. Updated August 2016. The population estimates were used in calculating rates for methadone and buprenorphine treatment among NYC residents.

Characteristics of New Yorkers who filled buprenorphine prescriptions

- In 2016, 13,612 New Yorkers (1.5 per 1,000 residents) filled at least one prescription for buprenorphine.
 - One in three New Yorkers were new to buprenorphine treatment in 2016; two-thirds had filled at least one buprenorphine prescription in 2015.
- Men were more likely to fill buprenorphine prescriptions than women (2.3 per 1,000 men vs. 0.8 per 1,000 women).
 - Men filled 73% of buprenorphine prescriptions (total prescriptions = 78,645 compared with women: total prescriptions = 29,222 or 27%).
- New Yorkers ages 45 to 54 filled buprenorphine prescriptions at the highest rate (3.1 per 1,000 residents), followed by New Yorkers ages 35 to 44 (2.7 per 1,000 residents), and New Yorkers ages 25 to 34 (2.4 per 1,000 residents).
- Fewer New Yorkers ages 15 to 24 had a history of buprenorphine prescriptions in 2015 (45%), compared with older age groups (percentage with a history of buprenorphine prescription in 2015 for other 10 year age groups ranged from 57% to 74%).
- The rate of Staten Island residents who filled buprenorphine prescriptions (5.3 per 1,000 residents) was three to five times higher than residents of all other boroughs in 2016 (Bronx: 1.7 per 1,000 residents; Brooklyn: 1.3 per 1,000 residents; Manhattan: 1.7 per 1,000 residents; Queens: 1.0 per 1,000 resident).

Rate of buprenorphine patients overall and rate of new buprenorphine patients, by borough of residence, New York City, 2016

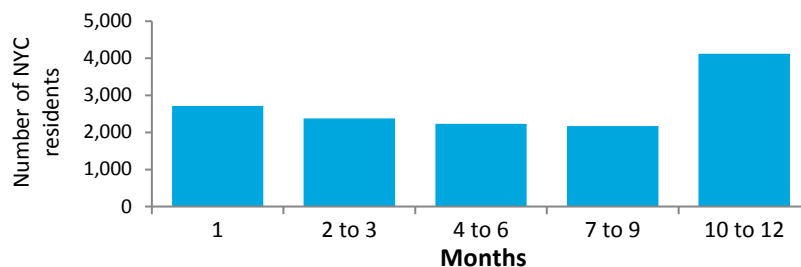


- The rate of new patients was highest among Staten Island residents (1.9 per 1,000 residents).
- Manhattan had the second highest rate (0.8 per 1,000 residents).

Source: New York State Prescription Monitoring Program 2016

- Twenty percent of NYC residents filled one buprenorphine prescription in 2016 (n = 2,718).
- Thirty percent of NYC residents filled ten to twelve months of buprenorphine prescriptions in 2016, (n = 4,119).

Number of months of buprenorphine prescriptions filled by New York City residents, 2016



Source: New York State Prescription Monitoring Program 2016

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Epi Data Tables

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Data Source

NYS PMP: The Prescription Monitoring Program (PMP), managed by the New York State Department of Health Bureau of Narcotics, collects data from drug dispensers on schedule II-V controlled substances. Patient diagnosis was unavailable, so the reason for buprenorphine prescriptions could not be determined. Data from 2008 to 2016 on buprenorphine prescriptions filled by New York City residents are presented here. For demographic characteristics, we are limited to age, sex, borough of residence. Information on race/ethnicity is not collected in PMP data.

New York State Office of Alcoholism and Substance Abuse Services (NYS OASAS) Client Data System includes data on admissions (not unique individuals) to OASAS-certified methadone programs. Data extracted November 8, 2017.

Rate calculation: DOHMH population estimates, modified from US Census Bureau intercensal population estimates 2000-2015, updated August 2016. Rates from 2016 use estimates from 2015. These rates will differ from previously reported rates based on Census counts or previous versions of population estimates. Rates for methadone data are crude rates. Rates for buprenorphine data are age-adjusted to Census 2000 US standard population, except those for specific age groups.

Table 1. Buprenorphine prescriptions filled by New York City residents by drug type, age-adjusted rates per 1,000 residents, 2008-2016

Source: Prescription Monitoring Program; analysis by NYC DOHMH Bureau of Alcohol and Drug Prevention, Care and Treatment

¹Analysis includes prescriptions written for buprenorphine hydrochloride and buprenorphine hydrochloride/naloxone. Prescriptions written by veterinarians, or written under institutional licenses, or missing prescriber ID, or missing patient ID are excluded.

²Age adjusted rates are calculated using intercensal estimates updated October 2016, and are weighted to Census 2000.

	2008			2009			2010			2011			2012			2013			2014			2015			2016			
	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate	
Total buprenorphine prescriptions	44,368	100.0	5.2	58,622	100.0	6.9	73,733	100.0	8.6	91,585	100.0	10.6	97,746	100.0	11.2	102,452	100.0	12.2	107,934	100.0	12.2	110,624	100.0	12.3	119,005	100.0	13.3	
By drug type																												
Buprenorphine (<i>Butrans</i> ®)	-	0.0		-	0.0		-	0.0		3,175	3.5	0.4	3,867	4.0	0.4	3,620	3.5	0.4	4,038	3.7	0.4	3,826	3.5	0.4	3,978	3.3	0.4	
Buprenorphine Hydrochloride (<i>Subutex</i> ®)	3,050	6.9	0.4	3,837	6.5	0.4	4,632	6.3	0.5	4,569	5.0	0.5	4,868	5.0	0.6	5,433	5.3	0.6	5,837	5.4	0.7	6,047	5.5	0.7	6,434	5.4	0.7	
Buprenorphine Hydrochloride/Naloxone (<i>Suboxone</i> ®)	41,283	93.0	4.9	54,715	93.3	6.4	69,100	93.7	8.0	83,826	91.5	9.7	88,975	91.0	10.2	93,368	91.1	10.6	97,606	90.4	11.0	100,143	90.5	11.2	107,867	90.6	12.0	
Not specified	35	0.1	X	70	0.1	X	1	0.0	X	15	0.0	X	36	0.0	X	31	0.0	X	453	0.4	X	608	0.5	X	726	0.6	X	

Table 2 . Payment method for buprenorphine prescriptions, New York City, 2009-2016

Source: Prescription Monitoring Program; analysis by NYC DOHMH Bureau of Alcohol and Drug Prevention, Care and Treatment

	2009		2010		2011		2012		2013		2014		2015		2016	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
hydrochloride/naloxone (Suboxone®) prescriptions	54,715	100.0%	69,100	100.0%	83,826	100.0%	88,975	100.0%	93,368	100.0%	97,606	100.0%	100,143	100.0%	107,867	100.0%
<i>Payment method</i>																
Commercial insurance	18,509	33.8%	23,329	33.8%	33,199	39.6%	64,426	72.4%	70,812	75.8%	73,584	75.4%	77,279	77.2%	82,068	76.1%
Medicaid	21,906	40.0%	31,149	45.1%	30,922	36.9%	11,136	12.5%	9,020	9.7%	9,379	9.6%	10,024	10.0%	11,766	10.9%
Medicare	1,048	1.9%	1,205	1.7%	1,549	1.8%	2,354	2.6%	3,044	3.3%	3,710	3.8%	3,527	3.5%	3,962	3.7%
Military Install	-	0.0%	6	0.0%	1	0.0%	28	0.0%	27	0.0%	66	0.1%	70	0.1%	74	0.1%
Workers Comp	9	0.0%	15	0.0%	48	0.1%	39	0.0%	14	0.0%	61	0.1%	69	0.1%	90	0.1%
Private pay	7,142	13.1%	6,709	9.7%	5,953	7.1%	6,516	7.3%	7,616	8.2%	7,072	7.2%	4,356	4.4%	4,595	4.3%
Other	5,466	10.0%	6,608	9.6%	11,994	14.3%	4,395	4.9%	2,822	3.0%	3,732	3.8%	4,818	4.8%	5,303	4.9%
Missing	635	1.2%	79	0.1%	160	0.2%	81	0.1%	13	0.0%	2	0.0%	-	0.0%	9	0.0%

Table 3. Total number of prescribers of buprenorphine hydrochloride/naloxone (Suboxone) and New York City residents who filled buprenorphine hydrochloride/naloxone (Suboxone), 2008-2016*Source: Prescription Monitoring Program; analysis by NYC DOHMH Bureau of Alcohol and Drug Prevention, Care and Treatment*

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total number of prescribers who wrote a buprenorphine naloxone prescription	1,611	1,985	2,059	2,334	2,627	2,464	2,107	2,144	1,861
Total number of NYC residents who filled a buprenorphine naloxone prescription	7,774	9,607	11,244	12,884	13,413	13,854	13,150	13,293	13,612

Table 4. Demographic characteristics of buprenorphine prescriptions,¹ rates² per 1,000 New York City residents, 2016

Source: Prescription Monitoring Program; analysis by NYC DOHMH Bureau of Alcohol and Drug Prevention, Care and Treatment

Total buprenorphine prescriptions, 2016			
	Number	Percent	Rate
Total prescriptions	107,867	100%	12.0
Sex			
Male	78,645	73%	18.3
Female	29,222	27%	6.3
Age³			
0-14	X	--	X
15-24	5,288	5%	4.9
25-34	26,727	25%	17.5
35-44	25,934	24%	21.9
45-54	28,408	26%	25.4
55-64	18,078	17%	18.3
65-84	3,411	3%	3.5
85+	X	--	X
Borough of residence⁴			
Bronx	18,987	18%	13.2
Brooklyn	27,310	25%	10.2
Manhattan	21,378	20%	11.9
Queens	18,349	17%	7.3
Staten Island	21,843	20%	47.5

¹Analysis includes prescriptions written for buprenorphine hydrochloride and buprenorphine hydrochloride/naloxone. Prescriptions written by veterinarians, or written under institutional licenses, or missing prescriber ID, or missing patient ID are excluded.

²Age adjusted rates are calculated using intercensal estimates updated October 2016, and are weighted to Census 2000.

³Patient age is an average of their age at all their prescriptions in the year.

⁴Borough of residence is derived from the 3-digit zip code listed for patient zip on prescription. Most frequent borough of residence per patient is reported.

Table 5. Demographic characteristics of unique New York City residents who filled at least one buprenorphine prescription,¹ rates² per 1,000 residents, 2016

Source: Prescription Monitoring Program; analysis by NYC DOHMH Bureau of Alcohol and Drug Prevention, Care and Treatment

	Total NYC residents who filled at least one buprenorphine prescription, 2016			History of buprenorphine prescription in 2015							
	Number	Percent	Rate	Yes				No			
				Number	Column Percent	Row Percent	Rate	Number	Column Percent	Row Percent	Rate
Total number who filled a prescription	13,612	100%	1.5	8,506	100%	62%	0.9	5,106	100%	38%	0.6
Sex											0.0
Male	10,043	74%	2.3	6,220	73%	62%	1.5	3,823	75%	38%	0.9
Female	3,569	26%	0.8	2,286	27%	64%	0.5	1,283	25%	36%	0.3
Age³											
0-14	--	--	--	--	--	--	--	--	--	--	--
15-24	883	6%	0.8	398	5%	45%	0.4	485	9%	55%	0.5
25-34	3,584	26%	2.4	2,043	24%	57%	1.3	1,541	30%	43%	1.0
35-44	3,219	24%	2.7	2,040	24%	63%	1.7	1,179	23%	37%	1.0
45-54	3,458	25%	3.1	2,301	27%	67%	2.1	1,157	23%	33%	1.0
55-64	2,057	15%	2.1	1,422	17%	69%	1.4	635	12%	31%	0.6
65-84	408	3%	0.4	300	4%	74%	0.3	108	2%	26%	0.1
85+	--	--	--	--	--	--	--	--	--	--	--
Mean age (years)		42			43				40		
Borough of residence⁴											
Bronx	2,407	18%	1.7	1,539	18%	64%	1.1	868	17%	36%	0.6
Brooklyn	3,397	25%	1.3	2,186	26%	64%	0.8	1,211	24%	36%	0.5
Manhattan	3,045	22%	1.7	1,709	20%	56%	1.0	1,336	26%	44%	0.8
Queens	2,359	17%	1.0	1,538	18%	65%	0.6	821	16%	35%	0.3
Staten Island	2,404	18%	5.3	1,534	18%	64%	3.3	870	17%	36%	1.9
Number of months of prescriptions in 2016											
1	2,718	20%	0.3	745	9%	27%	0.1	1,973	39%	73%	0.2
2	1,404	10%	0.2	547	6%	39%	0.1	857	17%	61%	0.1
3	970	7%	0.1	466	5%	48%	0.1	504	10%	52%	0.1
4	797	6%	0.1	408	5%	51%	0.1	389	8%	49%	0.04
5	730	5%	0.1	404	5%	55%	0.1	326	6%	45%	0.04
6	701	5%	0.1	422	5%	60%	0.1	279	5%	40%	0.03
7	678	5%	0.1	473	6%	70%	0.1	205	4%	30%	0.02
8	712	5%	0.1	523	6%	73%	0.1	189	4%	27%	0.02
9	783	6%	0.1	650	8%	83%	0.1	133	3%	17%	0.01
10	990	7%	0.1	873	10%	88%	0.1	117	2%	12%	0.01
11	1,274	9%	0.1	1,191	14%	93%	0.1	83	2%	7%	0.01
12	1,855	14%	0.2	1,804	21%	97%	0.2	51	1%	3%	0.01

¹Analysis includes prescriptions written for buprenorphine hydrochloride and buprenorphine hydrochloride/naloxone. Prescriptions written by veterinarians, or written under institutional licenses, or missing prescriber ID, or missing patient ID are excluded.²Age adjusted rates are calculated using intercensal estimates updated October 2016, and are weighted to Census 2000.³Patient age is an average of their age at all their prescriptions in the year.⁴Borough of residence is derived from the 3-digit zip code listed for patient zip on prescription. Most frequent borough of residence per patient is reported.

Table 6. Total number of methadone admissions* among New York City residents, 2008- 2016

Source: New York State Office of Alcoholism and Substance Abuse Services (OASAS) Client Data System, Extract November 8, 2017

*Includes enrolled and active as of December 31, 2016, and new admissions from January 1-December 31, 2016

Crude rates per 1,000 residents calculated using 2015 intercensal estimates. Age-specific rates not calculated due to differing population denominator estimates.

	2008		2009		2010		2011		2012		2013		2014		2015		2016	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Total enrolled and active	31,742	4.2	31,718	4.2	30,577	4.1	30,009	4.0	30,042	4.0	30,176	4.0	31,057	4.1	29,577	3.9	29,728	4.0
Total new admissions	12,259	1.6	12,651	1.7	9,946	1.3	10,195	1.4	10,768	1.4	10,909	1.5	11,372	1.5	14,931	2.0	9,674	1.3

Table 7. New York City residents active in methadone treatment programs, NYC, 2016*

Source: New York State Office of Alcoholism and Substance Abuse Services (OASAS) Client Data System, November 8, 2017

*enrolled and active as of December 31, 2016

Crude rates per 1,000 residents calculated using 2015 intercensal estimates. Age-specific rates not calculated due to differing population denominator estimates.

	2016		
	Number	Percent	Rate
Total admissions	29,728	100%	4.0
Sex			
Male	20,373	69%	5.8
Female	9,355	31%	2.4
Age			
12 to 18	20	0%	--
19 to 21	151	1%	--
22 to 25	749	3%	--
26 to 35	4,549	15%	--
36 to 45	7,858	26%	--
46 to 55	10,719	36%	--
56 +	5,682	19%	--
Race/Ethnicity[^]			
Black or African American	6,963	23%	4.1
Latino	15,729	53%	7.4
White	6,296	21%	2.5
Other/Asian	740	2%	0.2
Borough of Residence			
Bronx	10,682	36%	8.6
Brooklyn	8,065	27%	3.6
Manhattan	6,940	23%	4.6
Queens	2,899	10%	1.4
Staten Island	1,142	4%	2.7

[^]Race/ethnicity: White, Black or African-American, and Other/Asian race categories exclude Latino ethnicity. Latino includes Hispanic or Latino of any race. Other/Asian includes Alaskan Native, American Indian, Asian, Hawaiian/Pacific Islander, and Other unspecified.

Table 8. Demographic characteristics of New York City residents with new admissions to methadone treatment, 2016

Source: New York State Office of Alcoholism and Substance Abuse Services (OASAS) Client Data System, Extract November 8, 2017

*new admissions from January 1-December 31, 2016

Crude rates per 1,000 residents calculated using 2015 intercensal estimates. Age-specific rates not calculated due to differing population denominator estimates.

	2016		
	Number	Percent	Rate
Total admissions	9,674	100%	1.3
Sex			
Male	7,001	72%	2.0
Female	2,673	28%	0.7
Age			
12 to 18	8	0%	--
19 to 21	82	1%	--
22 to 25	388	4%	--
26 to 35	2,017	21%	--
36 to 45	2,319	24%	--
46 to 55	3,099	32%	--
56 +	1,761	18%	--
Race/Ethnicity[^]			
Black or African American	1,940	20%	1.2
Latino	4,823	50%	2.3
White	2,651	27%	1.1
Other/Asian	260	3%	0.2
Borough of Residence			
Bronx	3,409	35%	2.7
Brooklyn	2,527	26%	1.1
Manhattan	2,178	23%	1.5
Queens	1,014	10%	0.5
Staten Island	546	6%	1.3

[^]Race/ethnicity: White, Black or African-American, and Other/Asian race categories exclude Latino ethnicity. Latino includes Hispanic or Latino of any race. Other/Asian includes Alaskan Native, American Indian, Asian, Hawaiian/Pacific Islander, and Other unspecified.