

# Patterns of Opioid Analgesic Prescriptions for New York City Residents

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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. Data from 2008 to 2011 on schedule II and select schedule III opioid analgesics filled by New York City residents are presented here.

To access the related Epi Data Brief, go to www.nyc.gov/html/doh/downloads/pdf/epi/databrief32.pdf



#### Table 1. Demographics of New York City residents who filled an opioid analgesic prescription<sup>1</sup>, age-adjusted rates<sup>2</sup> per 1,000 residents, 2008-2011

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

	2008			2009			2010			2011			2008-2011
	Number	Percent	Rate	% change*									
Total number who filled a prescription	632,204	100%	75	687,515	100%	81	724,083	100%	84	764,917	100%	89	19%
Age <sup>3</sup>	i .			1			Ì						ĺ
0-14	2,872	1%	2	3,195	1%	2	3,220	0%	2	3,304	0%	2	14%
15-24	50,013	8%	43	56,834	8%	48	59,284	8%	50	63,847	8%	55	28%
25-34	110,968	18%	81	122,534	18%	88	127,977	18%	91	137,315	18%	96	19%
35-44	119,528	19%	101	127,187	19%	109	131,097	18%	113	135,448	18%	117	16%
45-54	130,302	21%	118	141,235	21%	127	148,758	21%	133	155,076	20%	140	18%
55-64	104,027	17%	122	113,295	17%	129	122,743	17%	136	130,751	17%	142	16%
65-84	98,303	16%	117	105,952	15%	124	112,275	16%	130	119,086	16%	137	18%
85+	16,191	3%	119	17,283	3%	123	18,729	3%	130	20,090	3%	137	15%
Age <sup>3</sup>													
≤ 44	283,381	45%	55	309,750	45%	59	321,578	44%	62	339,914	44%	65	19%
≥ 45	348,823	55%	119	377,765	55%	127	402,505	56%	133	425,003	56%	139	17%
Mean age (years)	47.9			47.7			47.9			47.9			
Gender	i			İ	0%		i			İ			İ
Male	270,332	43%	70	293,140	43%	75	310,461	43%	78	327,654	43%	82	18%
Female	361,820	57%	80	393,921	57%	86	413,454	57%	90	437,171	57%	95	19%
Unknown	52	0%	Х	454	0%	Х	168	0%	Х	92	0%	Х	1
Borough of Residence <sup>4</sup>	-			1			ļ			1			1
Bronx	101,549	16%	77	117,881	17%	89	126,943	18%	94	133,784	18%	99	28%
Brooklyn	150,827	24%	60	165,923	24%	65	175,783	24%	68	190,241	25%	74	23%
Manhattan	161,493	26%	93	171,305	25%	98	177,752	25%	102	187,105	25%	106	14%
Queens	158,404	25%	67	170,121	25%	71	179,818	25%	75	189,639	25%	79	18%
Staten Island	59,931	10%	126	62,285	9%	130	63,787	9%	132	64,148	8%	131	4%
Number who received at least one hydrocodone prescription	411,711	65%	49	409,669	60%	48	397,160	55%	46	391,932	51%	46	-7%
By borough of residence	1												1
Bronx	54,814	13%	42	56,612	14%	42	56,026	14%	42	55,348	14%	41	-3%
Brooklyn	100,606	24%	40	101,445	25%	40	97,933	25%	38	98,007	25%	38	-5%
Manhattan	106,250	26%	61	105,159	26%	60	102,988	26%	59	103,838	26%	59	-4%
Queens	109,012	26%	47	107,256	26%	45	103,691	26%	43	100,296	26%	42	-10%
Staten Island	41,029	10%	86	39,197	10%	81	36,522	9%	75	34,443	9%	70	-19%
Number who received at least one oxycodone prescription	253,953	40%	30	318,356	46%	37	369,451	51%	43	415,473	54%	48	60%
By borough of residence	1						1						1
Bronx	51,724	20%	39	67,585	21%	51	78,195	21%	58	85,681	21%	63	60%
Brooklyn	56,612	22%	22	73,104	23%	29	86,894	24%	34	101,477	24%	40	76%
Manhattan	63,600	25%	36	75,640	24%	43	84,674	23%	48	93,053	22%	52	44%
Queens	57,572	23%	24	72,982	23%	31	86,368	23%	36	100,082	24%	42	71%
Staten Island	24,445	10%	51	29,045	9%	61	33,320	9%	69	35,180	8%	73	41%
Number who received at least one prescription > 100 MED <sup>5</sup>													
Yes	35,327	6%	4	40,895	6%	5	50,362	7%	6	62,256	8%	7	73%

<sup>1</sup>Analysis includes prescriptions written for Schedule II (excluding Codeine-2) + Hydrocodone. Prescriptions written by veterinarians, or written under institutional licenses, or missing prescriber ID, or missing patient ID are excluded.

<sup>2</sup>Age adjusted rates are calculated using intercensal estimates updated July 2013, and are weighted to Census 2000.

<sup>3</sup>Patient age is an average of their age at all their prescriptions in the year.

<sup>4</sup>Borough 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.

<sup>5</sup>Morphine Equivalent Dose (MED) is equivalent of 1 mg of morphine. High MED is prescriptions greater than 100 MED.

\*Percent change based on age-adjusted rate and significant at P<0.05.

## Table 2. Median day supply<sup>1</sup> of short-acting opioid analgesic prescriptions<sup>2</sup> filled, by age<sup>3</sup>, borough<sup>4</sup>, and gender, NYC, 2008-2011

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

		2008		2009		2010	2011		
	Number	Median Day Supply	Number	Median Day Supply	Number	Median Day Supply	Number	Median Day Supply	
Total short-acting prescriptions filled	1,426,018	10	1,625,200	12	1,770,998	14	1,941,885	15	
Age									
0-14	3,425	6	3,879	6	3,920	5	4,118	5	
15-24	71,543	5	81,842	5	87,003	5	93,399	5	
25-34	200,204	6	226,806	7	244,933	7	269,777	7	
35-44	264,319	10	291,347	10	310,873	12	332,778	15	
45-54	345,639	15	397,245	15	432,626	17	480,356	22	
55-64	268,627	15	314,029	15	353,543	15	393,112	20	
65-84	234,506	15	266,811	15	290,937	15	317,151	15	
85 and over	37,766	15	43,241	15	47,163	15	51,194	15	
Gender				l		l			
Male	642,787	12	735,084	15	808,137	15	892,718	16	
Female	783,170	10	889,169	10	962,566	12	1,049,019	13	
Missing/Unknown	72	8	947	23	295	25	148	30	
Borough of Residence		l							
Bronx	232,110	11	281,749	12	318,601	14	365,084	15	
Brooklyn	332,718	13	388,943	15	424,845	15	477,003	15	
Manhattan	331,564	8	363,124	8	385,203	8	421,521	10	
Queens	344,336	10	389,689	12	421,928	13	457,285	15	
Staten Island	185,301	19	201,695	20	220,421	25	220,992	25	

<sup>1</sup>Median day supply is calculated for prescriptions with non-missing day supply.

<sup>2</sup>Analysis includes prescriptions written for short-acting Schedule II (excluding Codeine-2) + Hydrocodone . Opioid analgesic formulations are classified as short-acting or long-acting on the basis of their duration of action.

Prescriptions written by veterinarians, or written under institutional licenses, or missing prescriber ID, or missing patient ID are excluded.

<sup>3</sup>Patient age is an average of their age at all their prescriptions in the year.

<sup>4</sup>Borough 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.

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

## Table 3. Number and rate of high-dose (greater than 100 morphine equivalent dose)<sup>1</sup> opioid analgesic prescriptions<sup>2</sup> filled, by borough of residence<sup>3</sup>, NYC, 2008-2011

Rates per 1,000 New Yorkers are age adjusted, except those for specific age groups. Rates are calculated using intercensal population estimates updated July 2013. 2008 2009 2010 2011 2008-2011 Number Percent Rate Number Percent Rate Number Percent Rate Number Percent Rate % change\* 348,972 Total high-dose prescriptions filled 189,380 100% 22 226,851 100% 26 286,283 100% 33 100% 40 80% Age 0-14 128 0 160 0 181 0% 0 0 0% 0% 183 0% 43% 15-24 5,528 3% 5 6,929 3% 6 9,852 3% 8 11,494 3% 10 108% 25-34 23,666 12% 17 29,106 13% 21 41,435 14% 29 52,586 15% 37 114% 35-44 41,200 22% 35 46,937 21% 40 59,126 21% 51 70,493 20% 61 76% 45-54 61,954 33% 56 73,886 33% 66 89,364 31% 80 108,935 31% 98 74% 55-64 38,089 20% 45 47,433 21% 54 59,341 21% 66 72,234 21% 78 75% 65-84 17,190 9% 20 20,444 9% 24 24,471 9% 28 29,611 8% 34 67% 85+ 1,625 1% 12 1,956 1% 14 2,513 1% 17 3,436 1% 23 95% Gender 27 127,800 32 164,266 57% 41 199,025 49 83% Male 106,234 56% 56% 57% 77% Female 83,142 44% 18 98,917 44% 21 121,966 43% 26 149,926 43% 32 **Borough of residence** Bronx 37 22% 31 50,393 22% 60,455 21% 44 76,739 22% 56 77% 41,862 Brooklyn 38,285 20% 15 48,899 22% 19 22% 25 82,900 32 114% 63,454 24% Manhattan 41,787 22% 24 19% 31 48,016 21% 28 54,901 66,976 19% 38 57% Queens 17% 29,006 15% 12 15% 47,838 20 18% 27 121% 34,704 14 64,519 Staten Island 82 95 128 57,838 38,440 20% 44,839 20% 59,635 21% 17% 121 48%

<sup>1</sup>Morphine Equivalent Dose (MED) is equivalent of 1 mg of morphine. High MED is prescriptions greater than 100 MED.

<sup>2</sup>Analysis includes prescriptions written for Schedule II (excluding Codeine-2) + Hydrocodone. Prescriptions written by veterinarians, or written under institutional licenses, or missing prescriber ID, or missing patient ID are excluded.

<sup>3</sup>Borough 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.

\*Percent change based on age-adjusted rate and significant at P<0.05.

### Table 4. Opioid analgesic prescriptions filled by New York City residents by drug type, 2008-2011

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

		2008	3*	2009*		2010*		2011*		2010-2011	2009-2011	2008-2011
<b>Opioid Analgesic</b>	Brand Names	Number	%†	Number	%†	Number	%†	Number	%†	% change^	% change^	% change^
TOTAL		1,661,381	100%	1,883,364	100%	2,035,010	100%	2,172,238	100%	7%	15%	31%
FENTANYL	Duragesic®, Fentanyl®	76,108	4.6%	76,973	4.1%	76,617	3.8%	76,750	4.0%	0%	0%	1%
HYDROCODONE	Vicodin®, Lortab®	774,414	46.6%	804,449	42.7%	772,130	37.9%	742,052	34.0%	-4%	-8%	-4%
HYDROMORPHONE	Dilaudid®	36,930	2.2%	39,915	2.1%	46,705	2.3%	54,287	3.0%	16%	36%	47%
MEPERIDINE	Demerol®	2,543	0.2%	2,133	0.1%	2,117	0.1%	1,952	0.1%	-8%	-8%	-23%
METHADONE	Dolophine®, Methadose®	34,892	2.1%	37,366	2.0%	38,114	1.9%	40,112	1.9%	5%	7%	15%
MORPHINE	MS Contin®, Kadian®	66,791	4.0%	75,419	4.0%	78,157	3.8%	82,037	3.8%	5%	9%	23%
OXYCODONE	Percocet®, OxyContin®	663,616	39.9%	837,659	44.5%	1,006,862	49.5%	1,145,200	52.7%	14%	37%	73%
OXYMORPHIONE	Opana®	6,087	0.4%	9,450	0.5%	14,308	0.7%	29,848	1.4%	109%	216%	390%

\*Year based on the date the prescription was filled. Data on schedule II and select schedule III opioid analgesics are presented here.

<sup>+</sup>Column percent is presented using total prescription drugs as denominator.

^Percent change calculated based on the number of prescriptions.