New York City Department of Health and Mental Hygiene

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# Unintentional Opioid Analgesic Poisoning (Overdose) Deaths in New York City, 2011

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#### **Data Sources**

**OVS/OCME:** 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 2005-2011. Rates are age adjusted to the 2000 U.S. Standard Population, except those for specific age groups. Methadone mortality is reported separately and is excluded from unintentional opioid analyses presented here.

**NYS PDMP:** The Prescription Drug Monitoring Program (PDMP) managed by the New York State Department of Health 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 are presented here.

**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.

**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.

To access the related Epi Data Brief, go to www.nyc.gov/html/doh/downloads/pdf/epi/databrief27.pdf





Table 1. Number and rate of unintentional opioid analgesic poisoning (overdose) deaths, NYC, 2005 and 2011

Source: OVS/OCME; analysis by BADUPCT

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

		2005		i i	2011		2005-2011
	Number	Percent	Rate	   Number 	Percent	Rate	Percent Change in Rate*
Total Unintentional Poisoning Deaths	796	100%	12.2	630	100%	9.5	-22%*
Total Unintentional Opioid Analgesic-	130	16%	2.0	220	35%	3.3	65%
Involved Poisoning Deaths	130	10/0	2.0	, 220 I	33/0	5.5	1 05% 1
Gender							:
Female	35	27%	1.0	60	27%	1.7	70%
Male	95	73%	3.1	160	73%	5.1	65%*
Race/Ethnicity				<u> </u>			ļ
Black	26	21%	1.6	24	11%	1.5	-6%
Hispanic	20	16%	1.2	40	19%	2.2	83%
White	79	63%	3.6	152	70%	7.0	94%*
Age (years)							
15-24	10	8%	0.9	24	11%	2.0	122%*^
25-34	15	11%	1.1	50	23%	3.6	227%*^
35-44	28	21%	2.3	49	22%	4.3	87%*
45-54	58	44%	5.4	59	27%	5.3	-2%
55-64	18	14%	2.3	35	16%	3.9	70%*^
65-84	2	1.5%	0.2	3	1.4%	0.4	100%
Borough of Residence				1			1
Bronx	22	19%	2.1	40	20%	3.7	76%
Brooklyn	23	20%	1.2	48	24%	2.5	108%
Manhattan	34	29%	2.5	31	15%	2.3	-8%
Queens	26	22%	1.4	42	21%	2.3	64%
Staten Island	11	9%	3.1	40	20%	11.2	261%*
Borough of Death				! !			! !
Bronx	25	19%	2.4	41	19%	3.8	58%
Brooklyn	24	18%	1.3	52	24%	2.7	108%*
Manhattan	42	32%	3.2	38	17%	2.9	-9%
Queens	29	22%	1.6	45	20%	2.4	50%
Staten Island	10	8%	2.8	44	20%	12.4	343%*
Neighborhood Poverty***				ĺ			İ
Low (wealthiest)	17	15%	2.1	32	16%	4.4	110%
Medium	36	31%	1.3	80	40%	2.8	115%*
High	21	18%	1.6	35	17%	2.7	69%
Very High	42	36%	2.7	54	27%	3.3	22%
Top 5 NYC Neighborhoods***				i I	2010-2011		I I
				Ag	e-Adjusted Rat	es	!
Stapleton-St. George					12.8		
South Beach				i I	10.7		i I
Willowbrook					8.8		
Rockaway				! !	6.7		I I
Port Richmond					6.6		

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

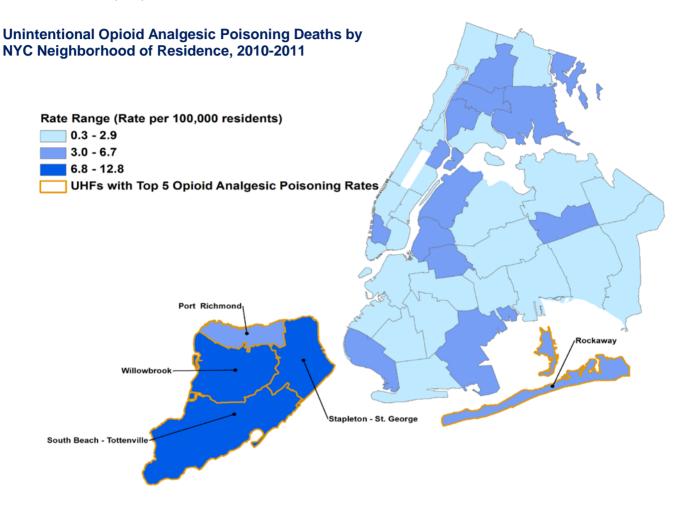
<sup>^</sup> Low Precision - Interpret with caution small cell size considered unstable

<sup>\*\*\*</sup>The United Hospital Fund (UHF) classifies NYC into 42 neighborhoods, comprised of contiguous zip codes. Neighborhood income was defined by the percent of households below 200% of the federal poverty level (Census 2000) and separated into four groups: low (<10% below poverty) medium (10%-<20%), high (20%-<30%) and very high (>30%).



# ${\it Map 1. Top 5 NYC Neighborhoods: Rates of unintentional opioid analgesic poisoning (overdose) by NYC neighborhood of residence, 2010-2011}$

Source: OVS/OCME; analysis by BADUPCT





### Table 2. Opioid analgesic prescriptions by drug type, 2008-2011

Source: PDMP; analysis by BADUPCT

		200	8*	200	9*	201	0*	201	2011*		2009-2011	2008-2011
<b>Opioid Analgesic</b>	<b>Brand Names</b>	Number	% <sup>†</sup>	% change^	% change^	% change^						
TOTAL		1,661,465	100%	1,883,364	100%	2,035,010	100%	2,172,238	100%	7%	15%	31%
FENTANYL	Duragesic®, Fentanyl®	76,117	4.6%	76,973	4.1%	76,617	3.8%	76,750	4.0%	0%	0%	1%
HYDROCODONE	Vicodin®, Lortab®	774,442	46.6%	804,449	42.7%	772,130	37.9%	742,052	34.0%	-4%	-8%	-4%
HYDROMORPHONE	Dilaudid®	36,939	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®	34,901	2.1%	37,366	2.0%	38,114	1.9%	40,112	1.9%	5%	7%	15%
MORPHINE	MS Contin®, Kadian®	66,797	4.0%	75,419	4.0%	78,157	3.8%	82,037	3.8%	5%	9%	23%
OXYCODONE	Percocet®, OxyContin®	663,639	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%

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

 $<sup>\</sup>ensuremath{^{\dagger}}\xspace$  Column percent is presented using total prescription drugs as denominator.

<sup>^</sup>Percent change calculated based on the number of prescriptions.



#### Table 3. Any self-reported drug use in the past year, NYC and US, 2010-2011

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2010 and 2011.

NYC Data presented as two-year average of 2010-2011.

National (US) data presented for the year 2011

NYC and National data presented on those aged 12+

	NYC 2010	)-2011	US 201	11
	N	%	N	%
Any Drug	1,055,555	16.5%	38,287,000	14.9%
Marijuana	794,000	12.4%	29,739,000	11.5%
Cocaine	138,000	2.2%	3,857,000	1.5%
Heroin	13,000	0.2%	620,000	0.2%
Opioid Analgesics (misuse*)	256,000	4.0%	11,143,000	4.3%
Benzodiazepines (misuse*)	134,000	2.1%	5,109,000	2.0%
Any Drug Except Marijuana	516,000	8.0%	18,959,000	7.4%

<sup>\*</sup>Misuse: Defined as use of these drugs without a prescription or use that occurred simply for the experience or feeling the drug caused



### Table 3a. Any self-reported opioid analgesic misuse\* in the past year by age group, NYC , 2002-2011

Source: NSDUH; analysis by SAMHSA

NYC Data presented as two-year averages of 2002-2003, 2004-2005, 2006-2007, 2008-2009, 2010-2011.

Past-year Opioid	t-year Opioid 2002-2003		2004-2005		2006-2007		2008-	2009	2010-2011	
Analgesic Misuse	N	%	N	%	N	%	N	%	N	%
Overall	181,000	3.0%	145,000	2.3%	263,000	4.3%	263,000	4.2%	256,000	4.0%
Age (years)			! ! 		! ! !		! ! 		! ! 	
12-17	25,000	4.1%	18,000	3.5%	28,000	5.0%	23,000	4.3%	24,000	4.5%
18-25	57,000	6.5%	44,000	5.6%	49,000	5.4%	85,000	9.0%	60,000	6.2%
26-34	45,000	3.7%	57,000	5.5%	54,000	5.1%	85,000	6.9%	39,000	3.3%
>35	54,000	1.6%	26,000	0.7%	133,000	3.7%	70,000	2.0%	134,000	3.6%

<sup>\*</sup>Misuse: Defined as use of these drugs without a prescription or use that occurred simply for the experience or feeling the drug caused



## Table 4. Rates of opioid analgesic-related emergency room visits, overall and by age, NYC, 2004-2011

Source: DAWN; analysis by SAMHSA

Rates per 100,000 New Yorkers presented.

	2004 2005		2006 2007		2008		2009		2010		2011					
	NYC	US	NYC	US	NYC	US	NYC	US	NYC	US	NYC	US	NYC	US	NYC	US
Total	54.8	67.7	80.0	82.6	90.0	93.7	103.5	108.9	113.5	138.0	110.8	155.9	129.2	177.1	141.3	178.6
Age (years)			; 		; 		; 						i		; 	
18-20	*	91.0	*	109.2	33.7	125.1	35.5	133.6	50.6	200.1	36.3	214.6	46.9	217.9	40.3	210.3
21-24	46.7	115.2	55.6	155.7	61.8	180.1	89.9	187.2	67.9	270.6	70.9	278.9	113.7	358.4	96.8	394.3
25-29	52.6	103.2	78.6	137.8	86.4	164.9	107.8	208.2	115.9	270.7	102.7	350.3	137.4	352.3	142.1	355.5
30-34	74.3	117.5	119.1	124.2	108.0	138.8	137.5	179.7	139.7	220.0	131.1	261.8	175.0	327.9	184.2	339
35-44	121.3	117.9	190.6	140.9	217.7	149.7	234.2	169.8	244.9	207.5	235.0	231.4	240.6	258.2	259.7	252.5
45-54	123.2	100.5	174.0	118.6	200.5	141.3	232.9	166.6	269.4	188.4	262.9	209.5	285.3	257.6	316.7	223.2
55-64	48.3	5.2	69.9	11.8	83.6	10.9	98.9	14.1	122.3	13.9	135.3	24.1	165.1	34.1	181.7	36.4
<u>&gt;</u> 65	10.9	26.4	12.6	33.5	21.4	39.6	20.4	42.8	27.7	66.3	29.6	64.7	43.7	68.7	41.3	85.5

<sup>\*</sup> No estimate available.