

# Metro

BRIEF



## Drug-Related Emergency Department Visits in Metropolitan Areas

New York City

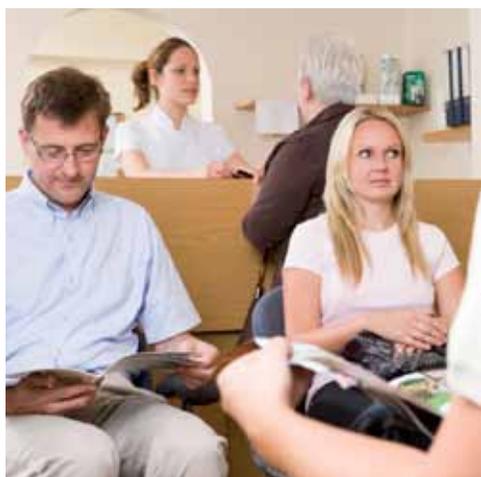
Center for Behavioral Health Statistics and Quality



*This report is one in a series of reports that provide a snapshot of drug-related emergency department (ED) visits in 11 metropolitan areas across the United States. This report focuses on drug-related ED visits in the New York City–Five Boroughs Division, hereafter referred to as “New York City.”<sup>1</sup>*

The Drug Abuse Warning Network (DAWN) is a public health surveillance system that monitors drug-related ED visits in the United States. DAWN uses a probability sample of hospitals to produce annual estimates of drug-related ED visits for the United States and selected metropolitan areas. To be a DAWN case, an ED visit must have involved a drug, either as the direct cause of the visit or as a contributing factor.

As a national public health resource, DAWN data can track trends, spot emerging problems, and gauge the impact of intervention programs. This information enables communities to manage resources more efficiently, target treatment efforts, and improve the well-being of individuals and their communities. This report uses national statistics as the comparison base for New York City statistics.<sup>2</sup> Statistical testing was used for comparisons of rates for the sociodemographic characteristics, trends, and drug types within New York City and between New York City and the Nation. Each comparison was tested independently and does not account for differences in other characteristics (e.g., geographic variations). A glossary is included at the end of this report to provide more information about the pharmaceuticals that are highlighted in the following analyses.



<sup>1</sup> Data for New York City are representative of the 24-hour, general purpose EDs in the New York City–Five Boroughs Division, which is a subset of the New York–Northern New Jersey–Long Island, NY–NJ–PA, Metropolitan Statistical Area. The New York City–Five Boroughs Division includes Bronx County, NY [Bronx], Kings County, NY [Brooklyn], New York County, NY [Manhattan], Queens County, NY [Queens], and Richmond County, NY [Staten Island].

<sup>2</sup> The percentage of missing data for age or gender in New York City was less than 0.1 percent.



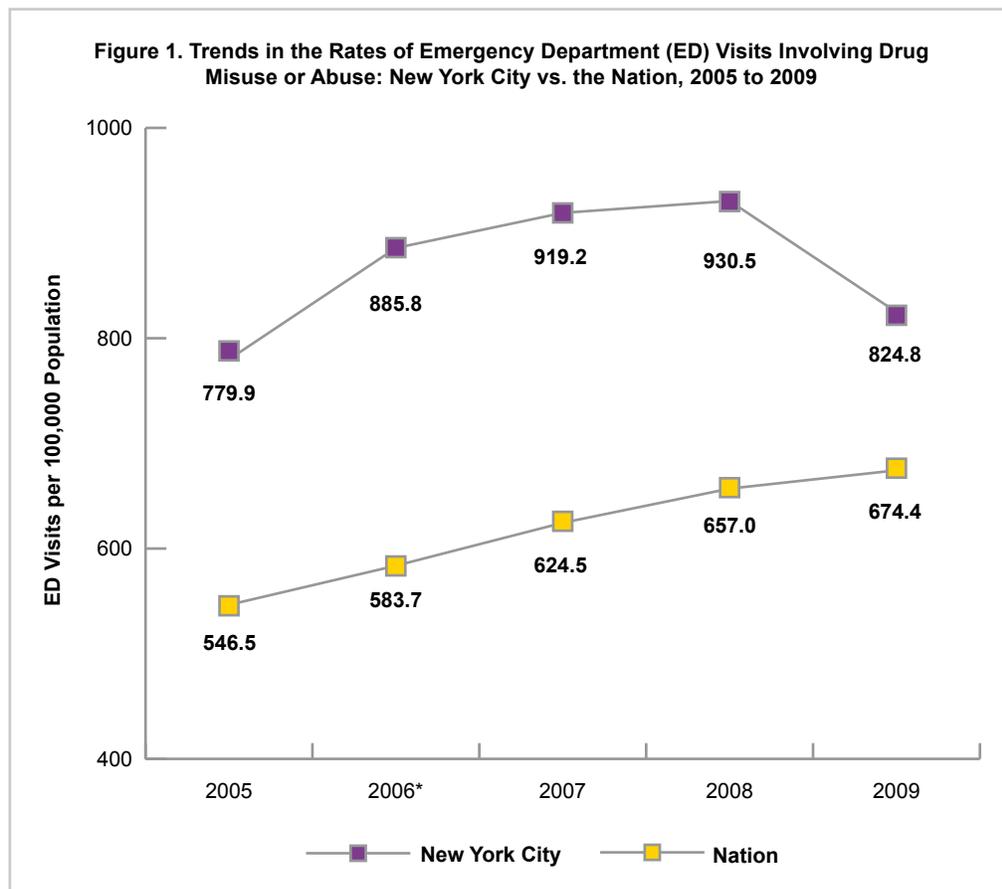
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
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## Overview

In 2009, DAWN data show an estimated 119,623 drug-related visits—a rate of 1,425.5 visits per 100,000 population—were made to New York City EDs. These data represent the total ED visits in which drugs were taken for any reason—not just drug abuse—and involve illegal drugs, prescription and over-the-counter pharmaceuticals (e.g., dietary supplements, cough medicine), nonpharmaceutical inhalants, alcohol in combination with other drugs, and alcohol only (for patients aged 20 or younger).

## ED Visits Involving Drug Misuse or Abuse

This section presents information about ED visits involving drug misuse or abuse, which is defined as a group of ED visits that includes all visits associated with illicit drugs, use of alcohol in combination with other drugs, use of alcohol only among those aged 20 or younger, and nonmedical use of pharmaceuticals. For 2005 and 2007 through 2009, New York City's rate of ED visits involving drug misuse or abuse was not statistically different from the national rate (Figure 1). However, in 2006, New York City's rate of ED visits involving drug misuse or abuse was significantly higher than the national rate (885.8 vs. 583.7 visits per 100,000 population).



\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2005 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

The demographic characteristics of patients in New York City who made ED visits involving drug misuse or abuse in 2009 show that

- patients aged 35 to 44 made 17,759 visits (or 25.7 percent);
- when population is taken into account, patients aged 45 to 54 had the highest rate of ED visits (1,493.8 visits per 100,000 population); and
- approximately 7 in 10 (69.9 percent) ED visits were made by male patients (Table 1).

**Table 1. Distribution of Emergency Department (ED) Visits Involving Misuse or Abuse of Drugs, by Gender\* and Age\*\*: New York City, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	69,219	100.0	824.8
Male	48,335	69.9	1,205.0
Female	20,834	30.1	475.6
Aged 0 to 11	444	0.6	34.0
Aged 12 to 17	3,679	5.3	632.9
Aged 18 to 24	9,657	14.0	1,251.6
Aged 25 to 34	13,534	19.6	948.8
Aged 35 to 44	17,759	25.7	1,445.4
Aged 45 to 54	17,268	25.0	1,493.8
Aged 55 to 64	5,015	7.2	554.8
Aged 65 or Older	1,844	2.7	181.2

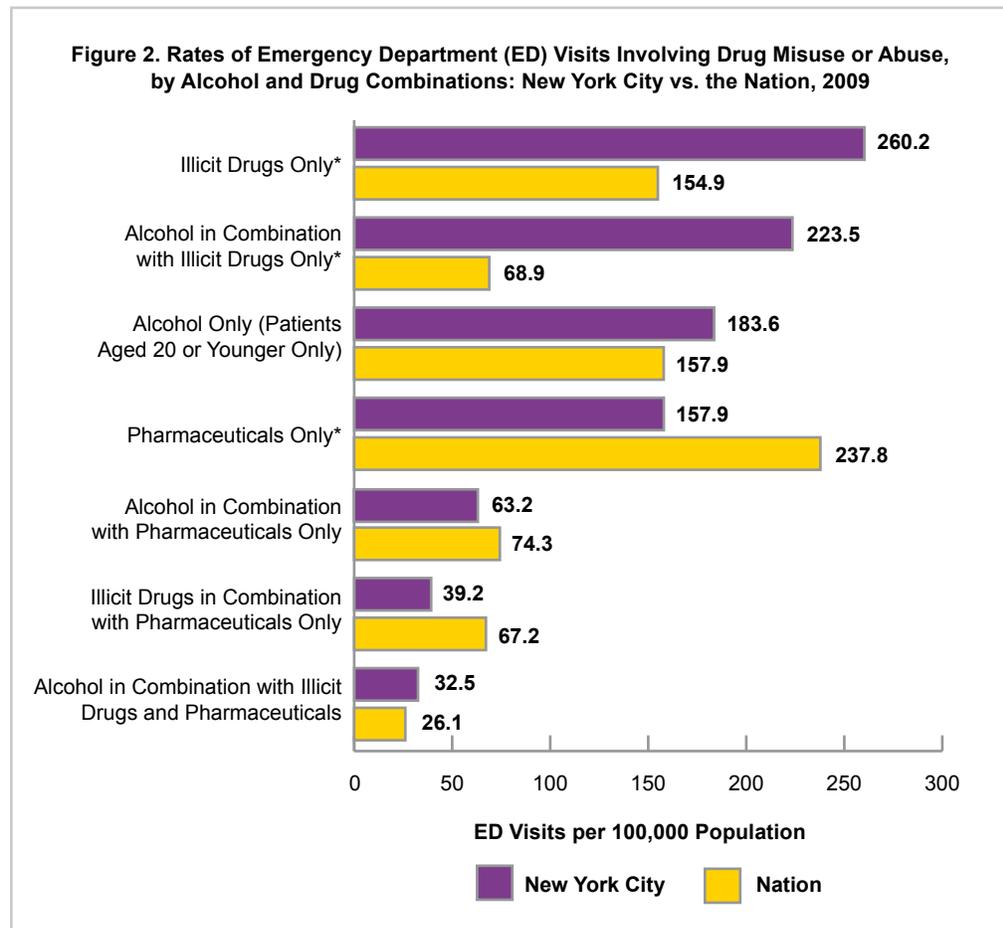
\*ED visits for which gender is unknown have been excluded.

\*\*ED visits for which age is unknown have been excluded.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

DAWN data also can provide information on the different drug combinations involved in ED visits related to drug misuse or abuse. In 2009, there were some differences between New York City and the Nation with respect to the types and combinations of drugs in ED visits involving drug misuse or abuse (Figure 2). New York's rates were significantly lower than those of the Nation as a whole for ED visits related to misuse or abuse of pharmaceuticals only (157.9 vs. 237.8 visits per 100,000 population). However, New York City's rates were significantly higher than those of the Nation for ED visits involving

- illicit drugs only (260.2 vs. 154.9 visits per 100,000 population); and
- alcohol in combination with illicit drugs only (223.5 vs. 68.9 visits per 100,000 population).

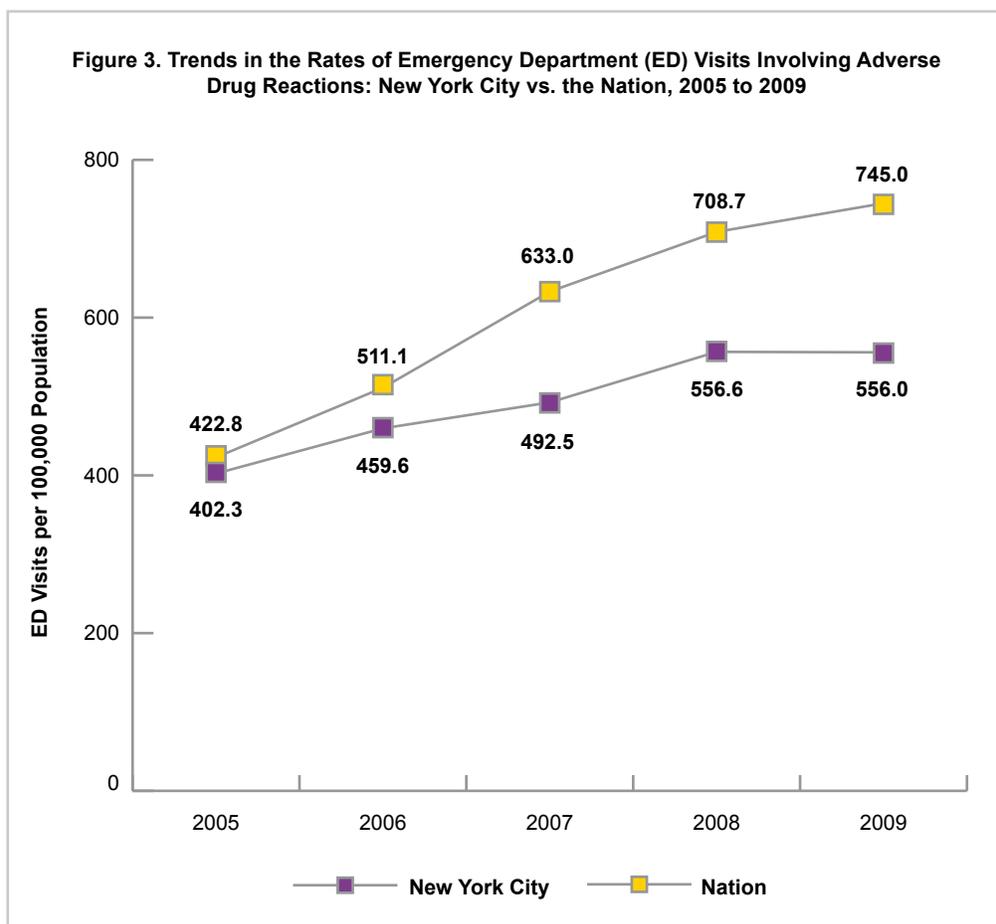


\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

## ED Visits Involving Adverse Drug Reactions

Within DAWN, adverse reactions are defined as ED visits in which an adverse health consequence results from taking prescription drugs, over-the-counter medications, or dietary supplements as prescribed or recommended. From 2005 to 2009, there were no significant differences between New York City and the Nation as a whole for the rate of visits involving adverse reactions to drugs. In 2009, the rate for ED visits in New York City involving adverse reactions was 556.0 visits per 100,000 population, and the national rate was 745.0 visits per 100,000 population.



Source: 2005 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

The demographic characteristics of patients in New York City who made ED visits involving adverse reactions to drugs in 2009 show that

- patients aged 65 or older made the most ED visits (11,547 visits, or 24.8 percent) and had the highest rate of ED visits (1,134.7 visits per 100,000 population); and
- about 3 in 5 ED visits (60.0 percent) were made by female patients (Table 2).

**Table 2. Distribution of Emergency Department (ED) Visits Involving Adverse Drug Reactions, by Gender\* and Age\*\*: New York City, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	46,656	100.0	556.0
Male	18,640	40.0	464.7
Female	27,999	60.0	639.2
Aged 0 to 11	6,721	14.4	514.4
Aged 12 to 17	1,295	2.8	222.7
Aged 18 to 24	3,714	8.0	481.4
Aged 25 to 34	5,341	11.5	374.5
Aged 35 to 44	5,233	11.2	425.9
Aged 45 to 54	6,649	14.3	575.2
Aged 55 to 64	6,138	13.2	679.1
Aged 65 or Older	11,547	24.8	1,134.7

\*ED visits for which gender is unknown have been excluded.

\*\*ED visits for which age is unknown have been excluded.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

In 2009, the rates of ED visits related to adverse reactions in New York City compared with the Nation varied by drug type (Table 3). Compared with the Nation, New York City had significantly lower rates of ED visits involving adverse reactions to

- central nervous system medications (116.5 vs. 192.6 visits per 100,000 population);
- pain relievers (77.4 vs. 126.1 visits per 100,000 population);
- opiates/opioids (30.7 vs. 73.5 visits per 100,000 population);
- narcotic pain relievers (30.0 vs. 71.1 visits per 100,000 population), including several specific types of these medications, such as oxycodone (11.6 vs. 21.2 visits per 100,000 population);

- drugs that treat anxiety or insomnia (17.1 vs. 34.0 visits per 100,000 population), including benzodiazepines (8.1 vs. 20.7 visits per 100,000 population) such as alprazolam (2.2 vs. 5.3 visits per 100,000 population) and lorazepam (1.6 vs. 6.3 visits per 100,000 population);
- anticonvulsants (14.5 vs. 28.3 visits per 100,000 population);
- cardiovascular system medications (48.1 vs. 80.8 visits per 100,000 population); and
- blood modifiers (37.6 vs. 70.8 visits per 100,000 population).

**Table 3. Rates of Emergency Department (ED) Visits Involving Adverse Drug Reactions, by Drug Category: New York City vs. the Nation, 2009**

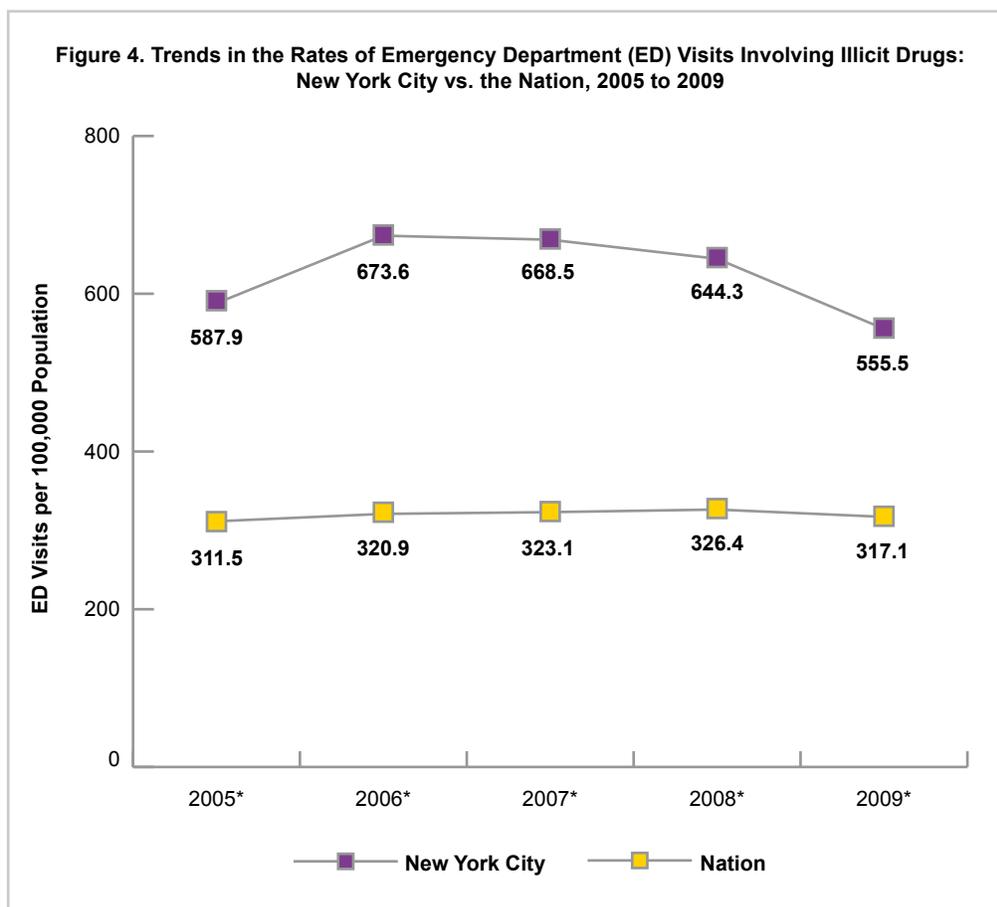
Drug Category and Selected Drugs	New York City Rate per 100,000 Population	National Rate per 100,000 Population
Central Nervous System Medications*	116.5	192.6
Pain Relievers*	77.4	126.1
Opiates/Opioids*	30.7	73.5
Narcotic Pain Relievers*	30.0	71.1
Oxycodone*	11.6	21.2
Codeine	6.1	6.0
Methadone*	4.9	3.2
Hydrocodone*	4.4	26.0
Morphine*	1.7	5.7
Fentanyl*	1.3	4.7
Drugs That Treat Anxiety or Insomnia*	17.1	34.0
Benzodiazepines*	8.1	20.7
Clonazepam	2.9	4.5
Alprazolam*	2.2	5.3
Lorazepam*	1.6	6.3
Anticonvulsants*	14.5	28.3
Anti-infection Medications	116.0	155.4
Drugs for Metabolic Disorders	58.5	56.6
Antidiabetic Agents	52.2	45.3
Cardiovascular System Medications*	48.1	80.8
Immune System Medications	39.2	32.7
Blood Modifiers*	37.6	70.8
Cancer Drugs	32.5	34.2
Hormones	27.7	38.8
Gastrointestinal System Medications	24.3	26.8
Nutritional Products	22.9	21.8
Respiratory System Medications	19.9	31.0
Topical Agents	13.7	16.4

\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

## ED Visits Involving Illicit Drug Use

Within DAWN, ED visits involving illicit drug use are defined as all visits related to the use of illicit or illegal drugs, such as cocaine, marijuana, heroin, and stimulants (e.g., amphetamines and methamphetamines). From 2005 through 2009, the rate of ED visits involving illicit drugs was consistently and significantly higher in New York City than in the Nation as a whole (Figure 4). Compared with the national rate of ED visits involving illicit drugs, New York City's rate was 97 percent higher in 2008 and 75 percent higher in 2009.



\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2005 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

The demographic characteristics of patients in New York City who made an illicit drug-related ED visit in 2009 show that

- patients aged 35 to 44 made the most ED visits (13,740 visits, or 29.5 percent);
- when population is taken into account, the rate of ED visits was highest for patients aged 35 to 44 (1,118.2 visits per 100,000 population) and patients aged 45 to 54 (1,102.7 visits per 100,000 population);
- and about 3 in 4 (75.7 percent) ED visits were made by male patients (Table 4).

**Table 4. Distribution of Emergency Department (ED) Visits Involving Illicit Drugs, by Gender\* and Age\*\*: New York City, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	46,615	100.0	555.5
Male	35,276	75.7	879.4
Female	11,306	24.3	258.1
Aged 0 to 11	***	***	***
Aged 12 to 17	1,613	3.5	277.5
Aged 18 to 24	5,024	10.8	651.1
Aged 25 to 34	10,178	21.8	713.6
Aged 35 to 44	13,740	29.5	1,118.2
Aged 45 to 54	12,747	27.4	1,102.7
Aged 55 to 64	2,821	6.1	312.1
Aged 65 or Older	434	0.9	42.7

\*ED visits for which gender is unknown have been excluded.

\*\*ED visits for which age is unknown have been excluded.

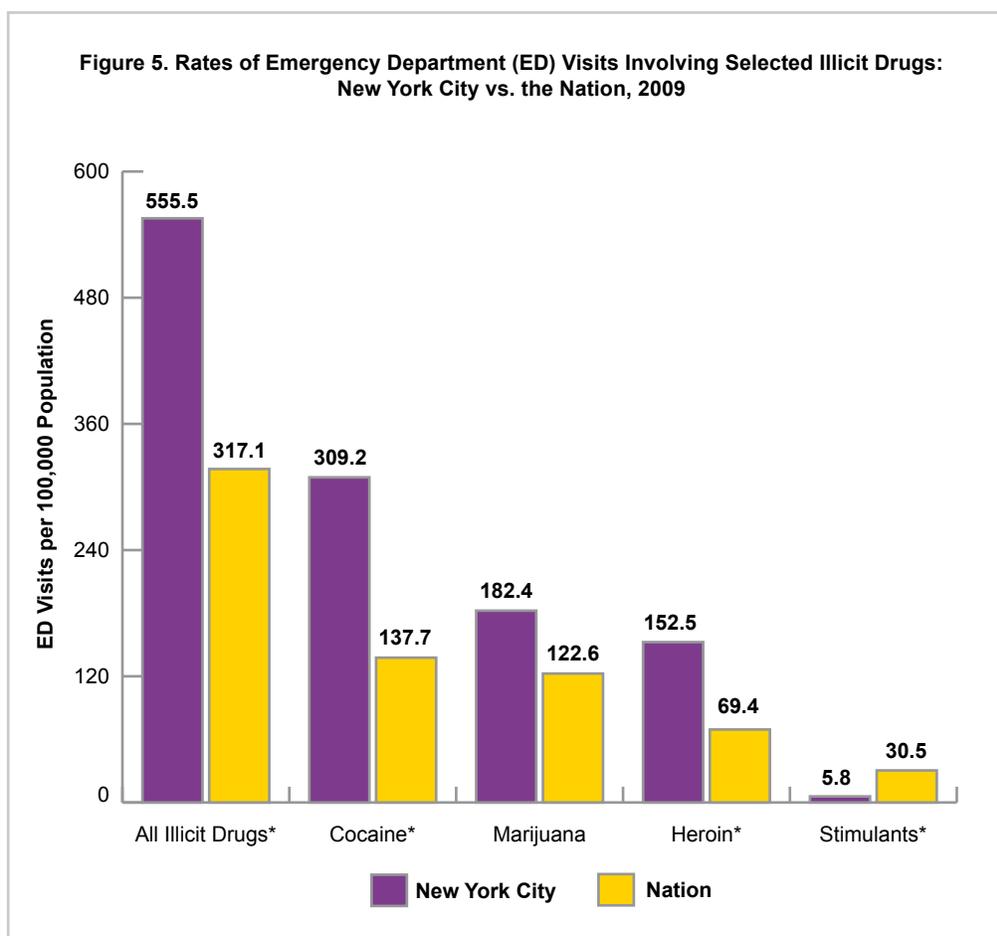
\*\*\*Estimate suppressed because of low statistical precision.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

In 2009, New York City's rates of drug-related ED visits involving illicit drugs varied when compared with the Nation as a whole. The rate of visits involving illicit drugs overall in New York was significantly higher than the national rate (555.5 vs. 317.1 visits per 100,000 population) (Figure 5). Compared with rates in the Nation as a whole, New York City also had significantly higher rates of ED visits involving

- cocaine (309.2 vs. 137.7 visits per 100,000 population); and
- heroin (152.5 vs. 69.4 visits per 100,000 population).

However, compared with the Nation, New York City had significantly lower rates of ED visits involving stimulants (5.8 vs. 30.5 visits per 100,000 population).

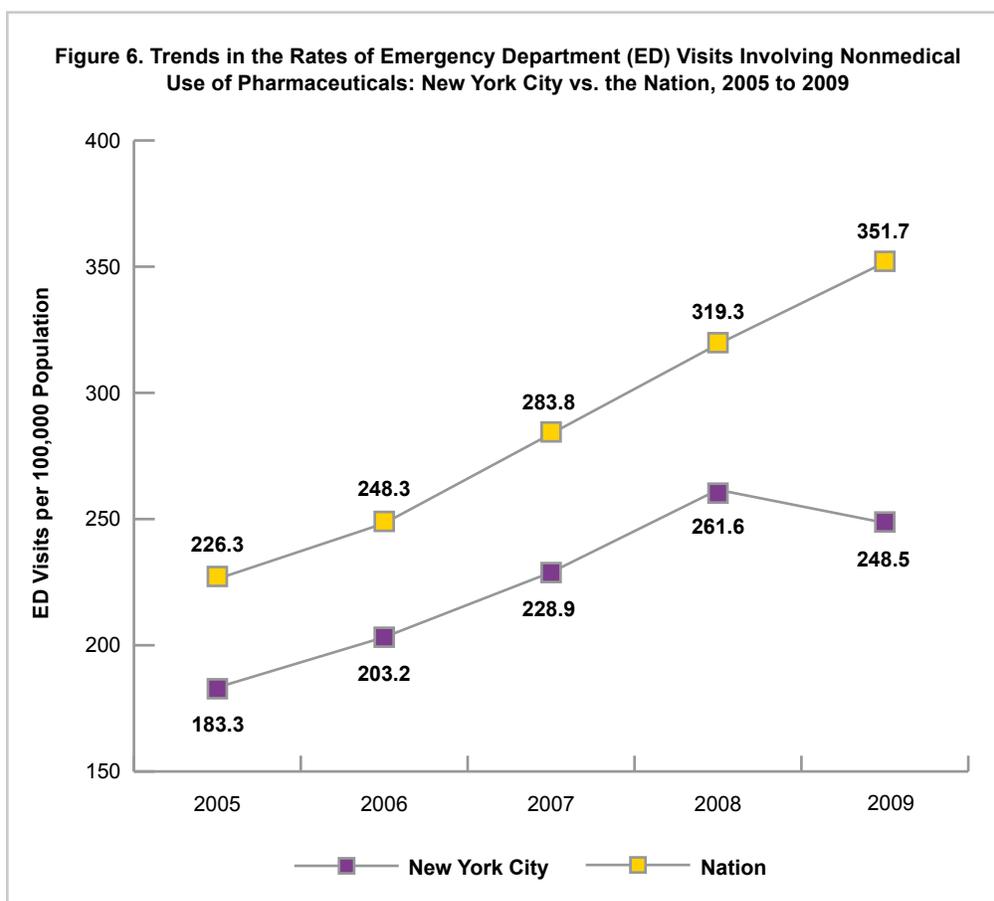


\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

## ED Visits Involving Nonmedical Use of Pharmaceuticals

In DAWN, the nonmedical use of pharmaceuticals includes taking more than the prescribed dose of a prescription pharmaceutical or more than the recommended dose of an over-the-counter pharmaceutical or supplement; taking a pharmaceutical prescribed for another individual; deliberate poisoning with a pharmaceutical by another person; and documented misuse or abuse of a prescription drug, an over-the-counter pharmaceutical, or a dietary supplement. Nonmedical use of pharmaceuticals may involve pharmaceuticals only or pharmaceuticals in combination with illicit drugs or alcohol. There was no difference in rate of visits between New York City and the Nation as a whole during all five of the years examined (Figure 6). In 2009, the New York City rate for visits involving nonmedical use of pharmaceuticals was 248.5 visits per 100,000 population, and the national rate was 351.7 visits per 100,000 population.



Source: 2005 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

The demographic characteristics of patients in New York City who made a drug-related ED visit involving nonmedical use of pharmaceuticals in 2009 show that

- patients aged 45 to 54 made 5,070 visits (or 24.3 percent) and had the highest rate of such visits (438.6 visits per 100,000 population); and
- about 3 in 5 ED visits (60.0 percent) were made by male patients (Table 5).

**Table 5. Distribution of Emergency Department (ED) Visits Involving Nonmedical Use of Pharmaceuticals, by Gender\* and Age\*\*: New York City, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	20,857	100.0	248.5
Male	12,512	60.0	311.9
Female	8,336	40.0	190.3
Aged 0 to 11	354	1.7	27.1
Aged 12 to 17	774	3.7	133.2
Aged 18 to 24	2,234	10.7	289.5
Aged 25 to 34	3,900	18.7	273.4
Aged 35 to 44	4,808	23.1	391.3
Aged 45 to 54	5,070	24.3	438.6
Aged 55 to 64	2,336	11.2	258.4
Aged 65 or Older	1,372	6.6	134.9

\*ED visits for which gender is unknown have been excluded.

\*\*ED visits for which age is unknown have been excluded.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

In 2009, there were differences between New York City and the Nation with regard to the rates of ED visits for nonmedical use of pharmaceuticals within selected drug categories (Table 6). For example, New York City's rate of ED visits involving nonmedical use of methadone was significantly higher than the national rate (52.3 vs. 20.5 visits per 100,000 population). However, compared with the Nation, New York City had significantly lower rates of ED visits involving

- central nervous system medications (161.4 vs. 257.8 visits per 100,000 population);
- several specific narcotic pain relievers, including oxycodone (11.1 vs. 48.4 visits per 100,000 population) and hydrocodone (5.0 vs. 28.1 visits per 100,000 population);

- drugs that treat anxiety and insomnia (57.0 vs. 118.3 visits per 100,000 population), including benzodiazepines (43.1 vs. 101.9 visits per 100,000 population);
- anticonvulsants (5.4 vs. 13.7 visits for 100,000 population);
- psychotherapeutic medications (21.9 vs. 43.2 visits per 100,000 population), including antidepressants (11.1 vs. 29.0 visits per 100,000 population);
- cardiovascular system medications (8.9 vs. 15.1 visits per 100,000 population); and
- respiratory system medications (4.9 vs. 11.7 per 100,000 population).

**Table 6. Rates of Emergency Department (ED) Visits Involving Nonmedical Use of Pharmaceuticals, by Drug Category: New York City vs. the Nation, 2009**

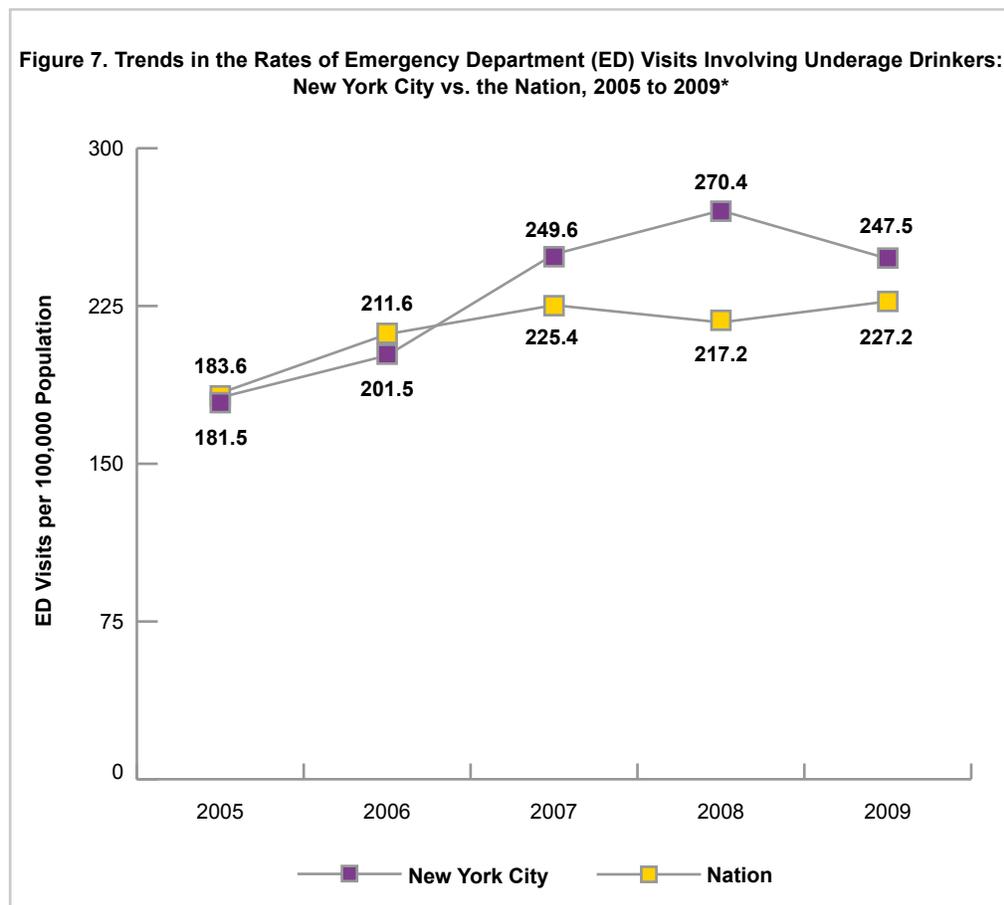
Drug Category and Selected Drugs	New York City Rate per 100,000 Population	National Rate per 100,000 Population
Central Nervous System Medications*	161.4	257.8
Pain Relievers	116.4	168.1
Opiates/Opioids	96.0	135.7
Narcotic Pain Relievers	73.5	111.6
Methadone*	52.3	20.5
Oxycodone*	11.1	48.4
Hydrocodone*	5.0	28.1
Codeine	2.6	2.6
Fentanyl*	1.0	6.8
Morphine*	2.3	10.3
Hydromorphone*	0.9	4.7
Drugs That Treat Anxiety or Insomnia*	57.0	118.3
Benzodiazepines*	43.1	101.9
Anticonvulsants*	5.4	13.7
Psychotherapeutic Medications*	21.9	43.2
Antipsychotics	13.1	18.9
Antidepressants*	11.1	29.0
Cardiovascular System Medications*	8.9	15.1
Drugs for Metabolic Disorders	7.2	10.0
Respiratory System Medications*	4.9	11.7

\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

## ED Visits Involving Underage Drinkers

Underage drinking continues to be a public health concern in many metropolitan areas and in the Nation as a whole. In DAWN, drug-related ED visits involving underage drinking are those visits related to alcohol use by patients aged 20 or younger. These visits may include alcohol only or alcohol in combination with other drugs. From 2005 through 2009, data show that New York City's rates of drug-related ED visits involving underage drinkers were similar to the national rates (Figure 7). For example, in 2009, the rate for underage drinking was 247.5 visits per 100,000 population in New York City, and the national rate was 227.2 visits per 100,000 population.



\*The rate includes visits involving alcohol only and alcohol in combination with other drugs.

Source: 2005 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

Demographic characteristics of underage drinkers who made drug-related visits to New York City EDs in 2009 indicate that

- young adults aged 18 to 20 made the most ED visits related to underage drinking (3,467 visits, or 63.5 percent) and had the highest rate of such visits (1,094.0 visits per 100,000 population); and
- nearly 3 in 5 (56.7 percent) ED visits related to underage drinking were made by male patients (Table 7).

**Table 7. Distribution of Emergency Department (ED) Visits Involving Underage Drinking, by Gender\* and Age\*\*: New York City, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	5,457	100.0	247.5
Male	3,092	56.7	275.5
Female	2,364	43.3	218.4
Aged 0 to 11	***	***	***
Aged 12 to 17	1,936	35.5	333.0
Aged 18 to 20	3,467	63.5	1,094.0

\*ED visits for which gender is unknown have been excluded.

\*\*ED visits for which age is unknown have been excluded.

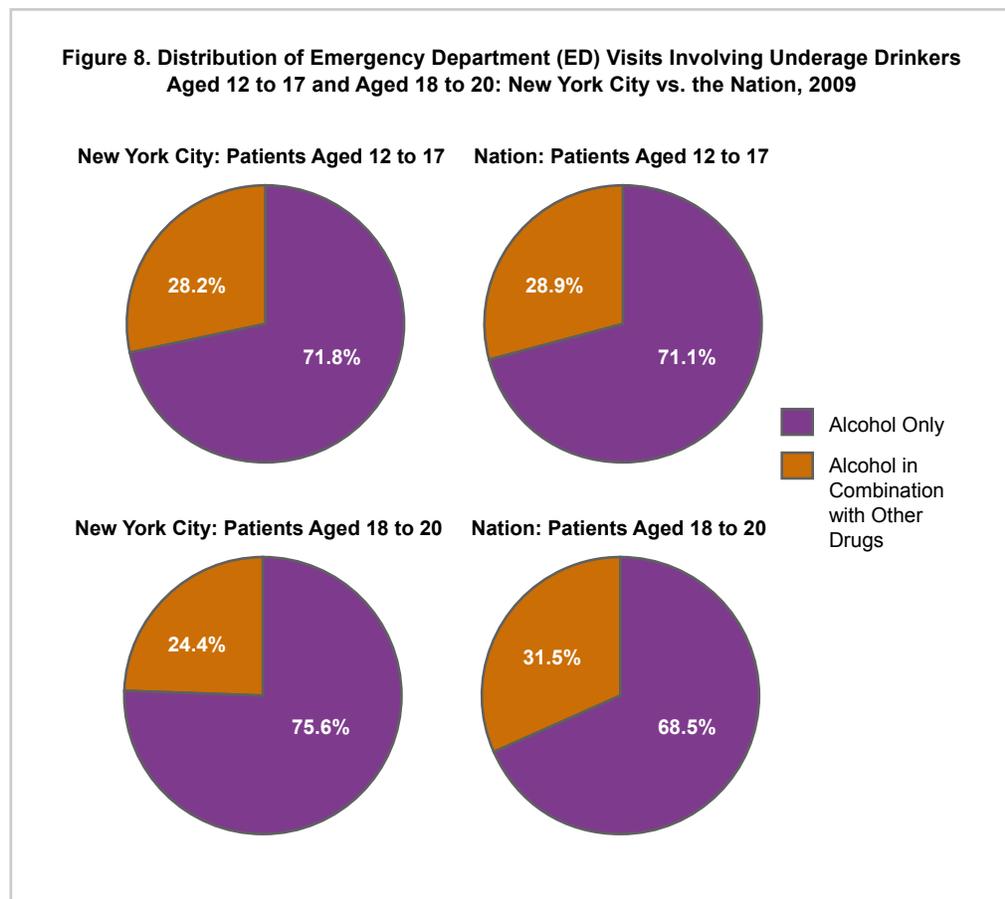
\*\*\*Estimate suppressed because of low statistical precision.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

In 2009, 25.7 percent of ED visits among New York City's underage drinkers aged 12 to 20 involved alcohol in combination with other drugs, and 30.5 percent of underage drinking ED visits in the Nation as a whole involved alcohol in combination with other drugs (data not shown).

Among underage drinkers aged 12 to 17, the proportion of ED visits involving alcohol in combination with other drugs in New York City was similar to that in the Nation as a whole (28.2 and 28.9 percent, respectively; Figure 8). Likewise, among underage drinkers aged 18 to 20, New York City had a proportion of ED visits involving alcohol in combination with other drugs similar to that in the Nation as a whole (24.4 and 31.5 percent, respectively).

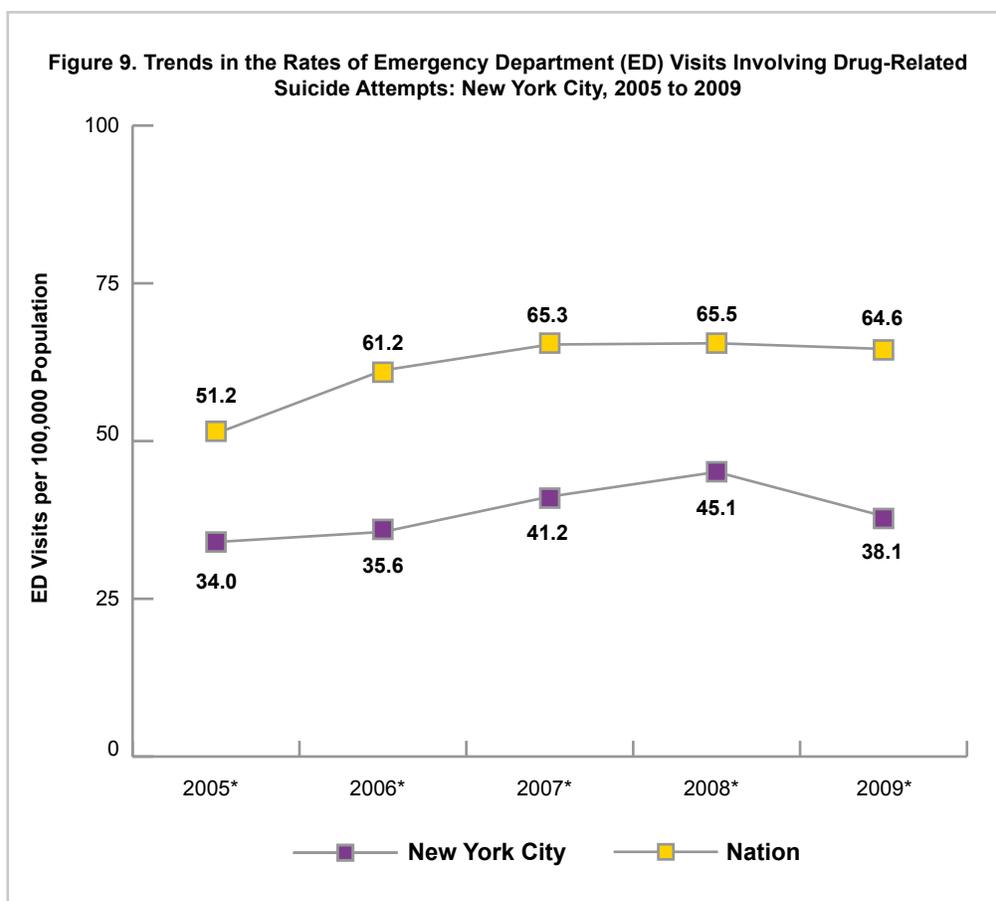
**Figure 8. Distribution of Emergency Department (ED) Visits Involving Underage Drinkers Aged 12 to 17 and Aged 18 to 20: New York City vs. the Nation, 2009**



Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

## ED Visits Involving Drug-Related Suicide Attempts

This section presents information on drug-related suicide attempts that resulted in ED visits. Drug-related suicide attempts are not limited to drug overdoses. If there is drug involvement in a suicide attempt by other means (e.g., if a patient cut his or her wrists while smoking marijuana), the case is considered to be drug related. Excluded are suicide-related behaviors other than actual attempts (e.g., suicidal ideation or suicidal thoughts). From 2005 through 2009, New York City’s rates of ED visits involving drug-related suicide attempts were significantly lower than the national rates (Figure 9). For example, in 2009, the rate in New York City for visits involving drug-related suicide attempts was 38.1 visits per 100,000 population compared with the national rate of 64.6 visits per 100,000 population.



\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2005 to 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

Demographic characteristics of patients who made visits to New York City EDs involving drug-related suicide attempts in 2009 indicate that

- patients aged 25 to 34 made 716 visits (or 22.4 percent);
- patients aged 18 to 24 had the highest rate of ED visits (90.7 visits per 100,000 population); and
- almost 3 in 5 (57.2 percent) of ED visits were made by female patients (Table 8).

**Table 8. Distribution of Emergency Department (ED) Visits Involving a Drug-Related Suicide Attempt, by Gender\* and Age\*\*: New York City, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	3,196	100.0	38.1
Male	1,367	42.8	34.1
Female	1,829	57.2	41.8
Aged 0 to 11	***	***	***
Aged 12 to 17	337	10.6	58.0
Aged 18 to 24	700	21.9	90.7
Aged 25 to 34	716	22.4	50.2
Aged 35 to 44	629	19.7	51.2
Aged 45 to 54	565	17.7	48.9
Aged 55 to 64	182	5.7	20.1
Aged 65 or Older	67	2.1	6.6

\*ED visits for which gender is unknown have been excluded.

\*\*ED visits for which age is unknown have been excluded.

\*\*\*Estimate suppressed because of low statistical precision.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

An examination of the rate of ED visits involving a drug-related suicide attempt in 2009 revealed that there were several differences between New York City and the Nation in the types of drugs involved (Table 9). For example, New York City’s rate of ED visits was significantly lower than the national rate for visits involving

- alcohol (11.8 vs. 20.1 visits per 100,000 population);
- marijuana (2.1 vs. 4.6 visits per 100,000 population); and
- central nervous system medications (25.7 vs. 46.8 visits per 100,000 population), including pain relievers (15.0 vs. 24.6 visits per 100,000 population).

**Table 9. Rates of Emergency Department (ED) Visits Involving a Drug-Related Suicide Attempt, by Drug Category: New York City vs. the Nation, 2009**

Drug Category and Selected Drugs	New York City Rate per 100,000 Population	National Rate per 100,000 Population
Alcohol*	11.8	20.1
Illicit Drugs	7.4	11.6
Cocaine	5.3	5.9
Marijuana*	2.1	4.6
Heroin	1.6	1.6
Central Nervous System Medications*	25.7	46.8
Pain Relievers*	15.0	24.6
Opiates/Opioids*	4.6	10.7
Narcotic Pain Relievers*	4.4	9.6
Oxycodone*	1.5	3.6
Hydrocodone*	1.4	4.5
Drugs That Treat Anxiety or Insomnia*	11.5	25.3
Benzodiazepines*	6.3	18.5
Anticonvulsants*	2.3	4.3
Psychotherapeutic Medications*	8.6	17.1
Antidepressants*	5.5	11.8
Antipsychotics	4.7	7.8
Respiratory System Medications	1.6	2.5
Cardiovascular System Medications*	1.5	3.5

\*The difference between New York City and the Nation was statistically significant at the .05 level.

Source: 2009 SAMHSA Drug Abuse Warning Network (DAWN).

## Glossary for the Pharmaceuticals Mentioned in This Report

- **Anticonvulsants**—These medications prevent the brain from seizure activity and include those that treat epilepsy as well as those that can alleviate the discomfort associated with nerve damage. Common anticonvulsants include phenytoin (Dilantin®) and carbamazepine (Carbatrol®).
- **Antidepressants**—This category of drugs includes psychotherapeutic medications that are used to treat depression and other mental disorders. There are several types of antidepressants including: selective serotonin reuptake inhibitors (e.g., fluoxetine, or Prozac®), serotonin and norepinephrine reuptake inhibitors (e.g., duloxetine, or Cymbalta®), norepinephrine and dopamine reuptake inhibitors (e.g., bupropion, or Wellbutrin®), and atypical antidepressants (e.g., trazodone, or Desyrel®; mirtazapine, or Remeron®), and monoamine oxidase inhibitors (e.g., phenelzine, or Nardil®).
- **Anti-infection Medications**—Anti-infection medications are used to treat conditions caused by bacteria, viruses, protozoa, worms, fungi, and yeast. Drugs that treat infections include penicillins, azithromycin (Zithromax®), cephalexin (Keflex®), clindamycin (Cleocin®), and fluconazole (Diflucan®).
- **Antipsychotics**—Antipsychotic pharmaceuticals are used to treat mental disorders; the antipsychotic category includes drugs such as chlorpromazine (Thorazine®), haloperidol (Haldol®), and clozapine (Clozaril®). See also *Antidepressants* and *Psychotherapeutic Medications*.
- **Blood Modifiers**—Medications that alter the blood, including drugs that prevent blood from clotting, that dissolve blood clots, or that cause the blood to clot. Examples of blood modifiers include warfarin (Coumadin®), alteplase (Activase®), and factor IX complex.
- **Cancer Drugs**—A category of drugs that treats cancer. Examples of cancer drugs include medications such as paclitaxel (Taxol®), cyclophosphamide (Cytosan®), and chlorambucil (Leukeran®).
- **Cardiovascular System Medications**—Cardiovascular system medications treat conditions of the cardiovascular system such as angina and arrhythmia. Examples of such medications include beta blockers and diuretics.
- **Central Nervous System Medications**—As used by DAWN, central nervous system medications are a broad class of pharmaceuticals that act on the central nervous system. Major drug types grouped under this heading are: narcotic pain relievers (e.g., OxyContin®), nonnarcotic pain relievers (e.g., tramadol), anticonvulsants (e.g., Depakote®), drugs to treat anxiety (e.g., Klonopin®), central nervous system stimulants (e.g., Adderall®), and muscle relaxants (e.g., Soma®).
- **Drugs for Metabolic Disorders**—A category of medications that treat disorders or conditions that impact the metabolism. Examples of such drugs include antidiabetic agents (e.g., insulin), lipid-lowering drugs (e.g., Zocor® and Lipitor®), and antiobesity drugs (e.g., Orlistat®).

- **Drugs That Treat Anxiety or Insomnia**—This category includes drugs to treat anxiety or insomnia and includes: barbiturates (e.g., Seconal®), benzodiazepines (e.g., Xanax®, Klonopin®, Ativan®), and medications to treat sleep disorders (e.g., Ambien®).
- **Gastrointestinal System Medications**—A category of drugs that includes antacids, antidiarrheals, digestive enzymes, and laxatives.
- **Hormones**—A category of drugs that supplies hormones to the body, such as adrenal cortical steroids, thyroid medications (e.g., Synthroid®), hydrocortisone, prednisone, and contraceptives.
- **Immune System Medications**—Used to treat immune system conditions, this category includes antivirals (e.g., influenza shot) and vaccines (e.g., tetanus shot).
- **Narcotic Pain Relievers**—Used to treat severe pain, the category of narcotic pain relievers includes codeine, fentanyl (e.g., Actiq®), hydrocodone (e.g., Lortab® and Vicodin®), hydromorphone (e.g., Dilaudid®), oxycodone (e.g., OxyContin®), morphine, and methadone.
- **Nutritional Products**—A broad category of pharmaceuticals that includes products such as minerals, electrolytes, and vitamins.
- **Opiates/Opioids**— This category comprises pain relievers that contain opiates or opioids (synthetic opiates). *Narcotic Pain Relievers* are in this category, as are drugs identified by toxicology as opiate/opioid metabolites.
- **Pain Relievers**—This category includes narcotic and nonnarcotic pain relievers.
- **Psychotherapeutic Medications**—A general grouping of drugs that primarily includes *Antidepressants* and *Antipsychotics*.
- **Respiratory System Medications**—Drugs that treat conditions or diseases of the respiratory system, including medications such as antihistamines, bronchodilators, decongestants, and expectorants.
- **Topical Agents**—A category of drugs that includes antiseptics and germicides, dermatological medications, and topical antibacterials.