

# Metro

BRIEF

Chicago

## Drug-Related Emergency Department Visits in Metropolitan Areas

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 Chicago-Naperville-Joliet, IL-IN-WI, Metropolitan Statistical Area, hereafter referred to as “Chicago.”<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 Chicago statistics.<sup>2</sup> Statistical testing was used for comparisons of rates for the sociodemographic characteristics, trends, and drug types within Chicago and between Chicago 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 Chicago are representative of the 24-hour, general purpose EDs in the Chicago-Naperville-Joliet, IL-IN-WI, Metropolitan Statistical Area. The area includes: Cook County, IL, De Kalb County, IL, DuPage County, IL, Grundy County, IL, Kane County, IL, Kendall County, IL, Lake County, IL, McHenry County, IL, Will County, IL, Jasper County, IN, Lake County, IN, Newton County, IN, Porter County, IN, and Kenosha County, WI.

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



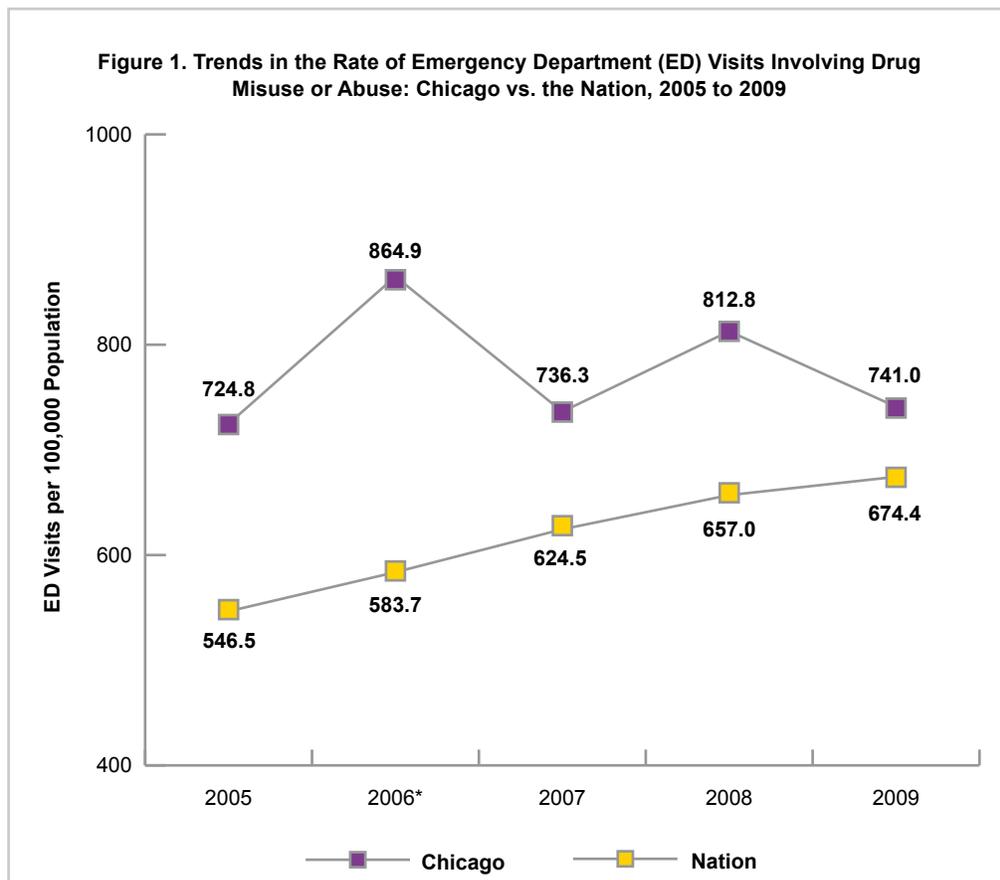
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## Overview

In 2009, DAWN data show an estimated 136,993 drug-related visits—a rate of 1,429.9 visits per 100,000 population—were made to Chicago 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. Chicago's rate of ED visits involving drug misuse or abuse was significantly higher than the national rate in 2006. However, in remaining years, Chicago's rate was not significantly different from the national rate (Figure 1). For example, in 2009, Chicago's rate for ED visits involving drug misuse or abuse was 741.0 visits per 100,000 visits, and the national rate for these visits was 674.4 visits per 100,000 population.



\*The difference between Chicago 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 Chicago who made an ED visit involving drug misuse or abuse in 2009 show that

- patients aged 35 to 44 made 17,407 visits (24.5 percent) and had a rate of 1,279.4 visits per 100,000 population; and
- about 3 in 5 (61.2 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\*\*: Chicago, 2009**

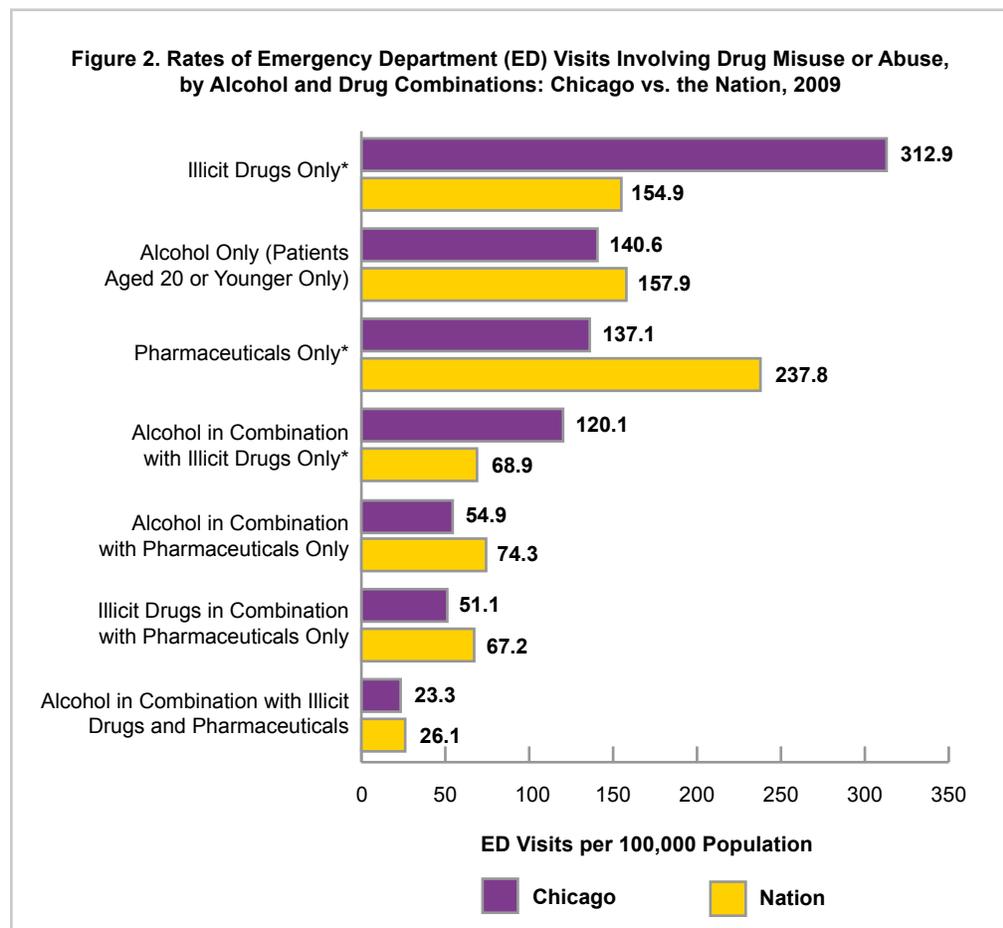
Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	70,995	100.0	741.0
Male	43,380	61.2	920.5
Female	27,526	38.8	565.5
Aged 0 to 11	382	0.5	23.3
Aged 12 to 17	5,335	7.5	665.9
Aged 18 to 24	10,924	15.4	1,206.8
Aged 25 to 34	12,748	18.0	921.7
Aged 35 to 44	17,407	24.5	1,279.4
Aged 45 to 54	17,117	24.1	1,224.4
Aged 55 to 64	5,480	7.7	538.3
Aged 65 or Older	1,571	2.2	146.3

\*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 differences between Chicago and the Nation with respect to the types and combinations of drugs in ED visits involving drug misuse or abuse (Figure 2). Specifically, Chicago's rates were significantly higher than those of the Nation as a whole for ED visits involving illicit drugs only (312.9 vs. 154.9 visits per 100,000 population) and ED visits involving alcohol in combination with illicit drugs only (120.1 vs. 68.9 visits per 100,000 population). In contrast, Chicago's rate was lower than that of the Nation as a whole for visits involving pharmaceutical drugs only (137.1 vs. 237.8 visits per 100,000 population).

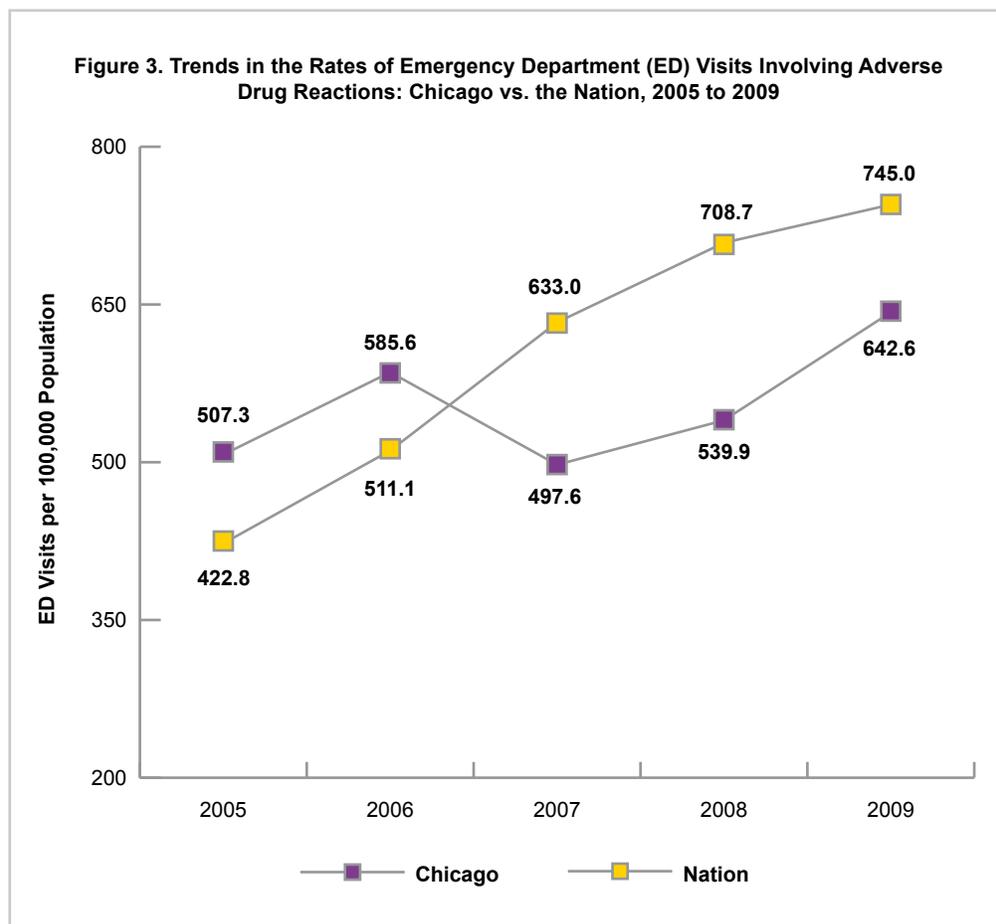


\*The difference between Chicago and the Nation was statistically significant at the .05 level.

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 through 2009, Chicago's rate of ED visits involving adverse drug reactions was similar to the national rate (Figure 3). For example, in 2009, Chicago's rate for visits involving adverse reactions to drugs was 642.6 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 Chicago who made an ED visit involving adverse reactions to drugs in 2009 show that

- patients aged 65 or older made the most ED visits (17,651 visits, or 28.7 percent) and had the highest rate of ED visits (1,643.9 visits per 100,000 population); and
- 61.3 percent of ED visits were made by female patients (Table 2).

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

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	61,560	100.0	642.6
Male	23,844	38.7	505.9
Female	37,699	61.3	774.5
Aged 0 to 11	7,992	13.0	487.1
Aged 12 to 17	2,124	3.5	265.1
Aged 18 to 24	4,129	6.7	456.2
Aged 25 to 34	6,831	11.1	493.9
Aged 35 to 44	7,217	11.7	530.5
Aged 45 to 54	8,130	13.2	581.5
Aged 55 to 64	7,479	12.2	734.7
Aged 65 or Older	17,651	28.7	1,643.9

\*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, the rates of adverse reaction-related ED visits in Chicago compared with the Nation varied by drug type (Table 3). Compared with the Nation, Chicago had significantly lower rates of ED visits involving adverse reactions to

- narcotic pain relievers (38.6 vs. 71.1 visits per 100,000 population), including morphine (2.0 vs. 5.7 visits per 100,000 population), oxycodone (1.8 vs. 21.2 visits per 100,000 population), and hydromorphone (1.6 vs. 3.6 visits per 100,000 population);

- drugs that treat anxiety and insomnia (22.0 vs. 34.0 visits per 100,000 population), including benzodiazepines (12.6 vs. 20.7 visits per 100,000 population) in general and clonazepam in particular (2.6 vs. 4.5 visits per 100,000 population); and
- respiratory system medications (19.4 vs. 31.0 visits per 100,000 population).

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

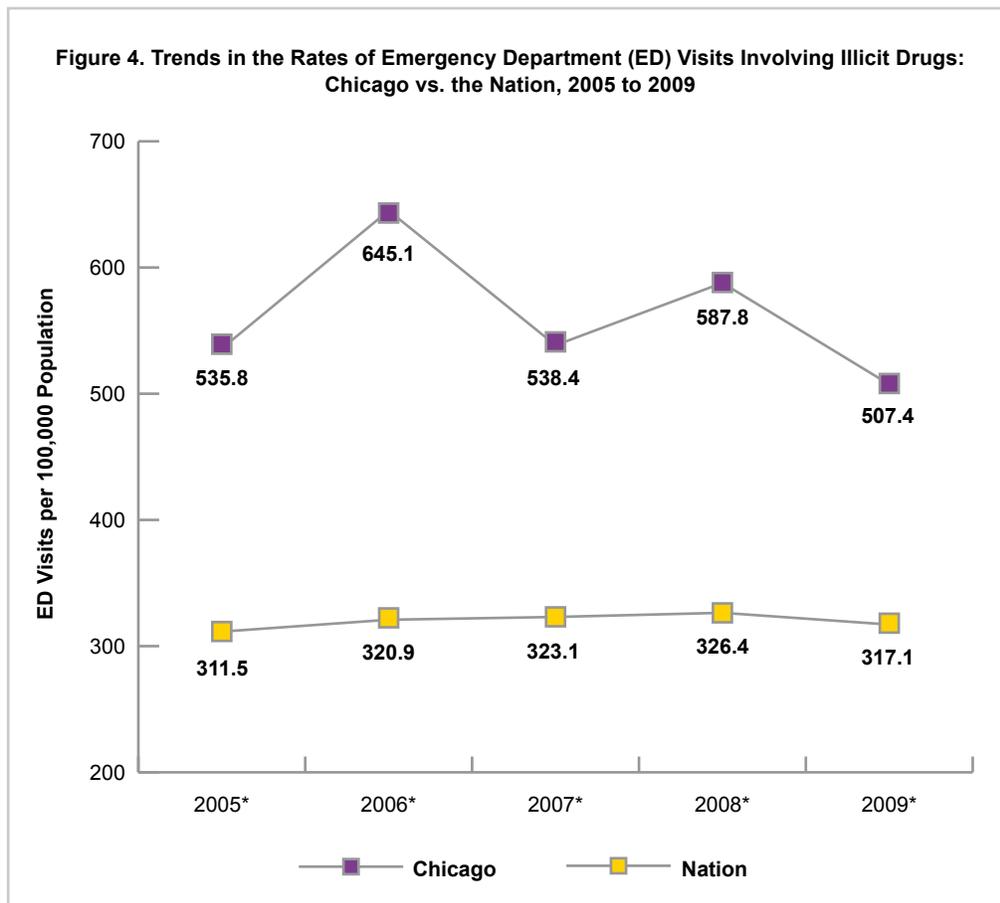
Drug Category and Selected Drugs	Chicago Rate per 100,000 Population	National Rate per 100,000 Population
Central Nervous System Medications	138.7	192.6
Pain Relievers	89.5	126.1
Opiates/Opioids*	40.4	73.5
Narcotic Pain Relievers*	38.6	71.1
Hydrocodone	21.0	26.0
Codeine	5.4	6.0
Fentanyl	3.2	4.7
Methadone	2.2	3.2
Morphine*	2.0	5.7
Oxycodone*	1.8	21.2
Hydromorphone*	1.6	3.6
Drugs That Treat Anxiety or Insomnia*	22.0	34.0
Benzodiazepines*	12.6	20.7
Lorazepam	4.0	6.3
Alprazolam	3.5	5.3
Clonazepam*	2.6	4.5
Anticonvulsants	19.5	28.3
Anti-infection Medications	138.2	155.4
Blood Modifiers	69.6	70.8
Cardiovascular System Medications	53.9	80.8
Cancer Drugs	49.9	34.2
Drugs for Metabolic Disorders	42.7	56.6
Immune System Medications	36.3	32.7
Hormones	31.7	38.8
Gastrointestinal System Medications	20.1	26.8
Nutritional Products	19.9	21.8
Respiratory System Medications*	19.4	31.0
Topical Agents	12.9	16.4

\*The difference between Chicago 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 Chicago than in the Nation as a whole (Figure 4). In particular, compared with the national rate of ED visits involving illicit drugs, Chicago's rate was 101 percent higher in 2006 (645.1 vs. 320.9 visits per 100,000 population, respectively) and 80 percent higher in 2008 (587.8 vs. 326.4 visits per 100,000 population, respectively).



\*The difference between Chicago 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 Chicago who made ED visits related to illicit drugs in 2009 show that

- patients aged 35 to 44 (13,660 visits, or 28.1 percent) and patients aged 45 to 54 (13,334 visits, or 27.4 percent) made the most ED visits;
- when population is taken into account, the rate of ED visits was highest for patients aged 35 to 44 (1,004.0 visits per 100,000 population), followed by patients aged 45 to 54 (953.8 visits per 100,000 population); and
- 67.5 percent of ED visits were made by male patients (Table 4).

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

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	48,611	100.0	507.4
Male	32,812	67.5	696.2
Female	15,778	32.5	324.1
Aged 0 to 11	***	***	***
Aged 12 to 17	2,226	4.6	277.9
Aged 18 to 24	6,039	12.4	667.2
Aged 25 to 34	9,223	19.0	666.8
Aged 35 to 44	13,660	28.1	1,004.0
Aged 45 to 54	13,334	27.4	953.8
Aged 55 to 64	3,617	7.4	355.4
Aged 65 or Older	448	0.9	41.8

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

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

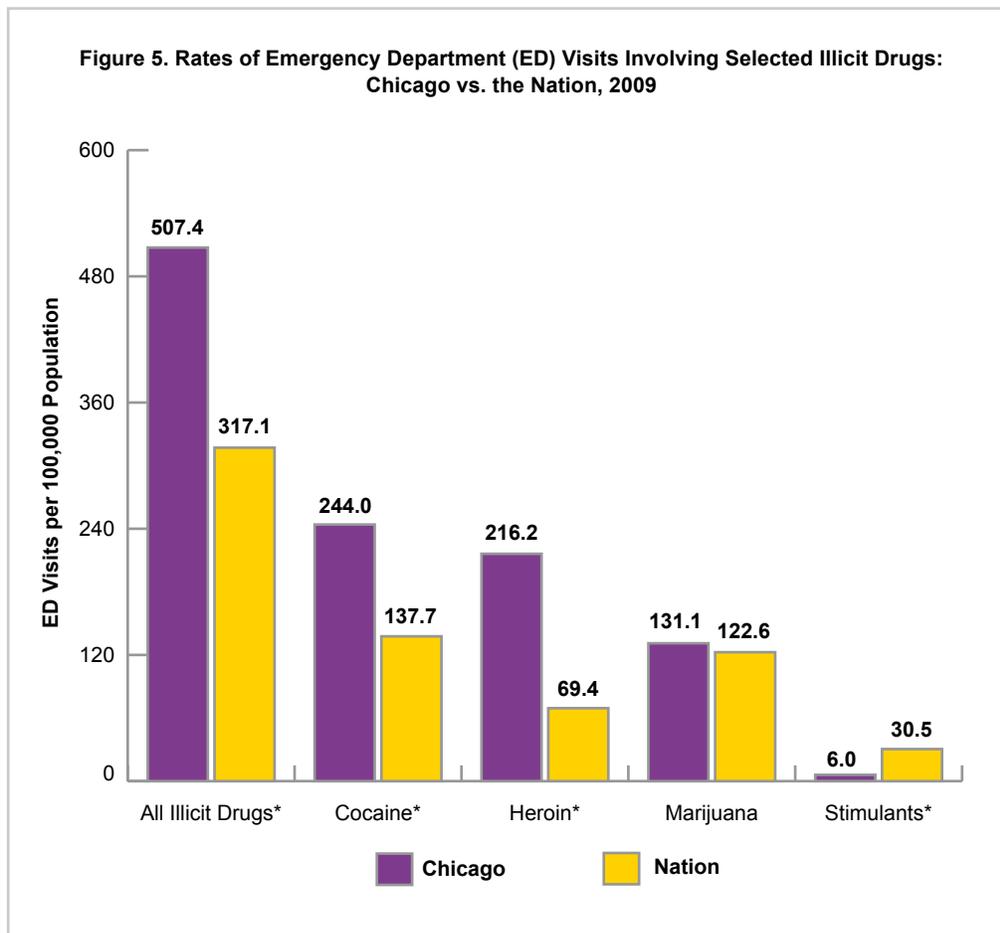
\*\*\*Estimate suppressed because of low statistical precision.

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

In 2009, Chicago's rate of drug-related ED visits involving illicit drugs in general was significantly higher than the national rate (507.4 vs. 317.1 visits per 100,000 population) (Figure 5). Compared with the Nation as a whole, Chicago also had significantly higher rates of ED visits involving

- cocaine (244.0 vs. 137.7 visits per 100,000 population); and
- heroin (216.2 vs. 69.4 visits per 100,000 population).

In contrast, Chicago's rate was lower than that of the Nation for visits involving stimulants (6.0 vs. 30.5 visits per 100,000 population), which included both amphetamines (3.8 vs. 12.2 visits per 100,000 population) and methamphetamine (2.2 vs. 20.9 visits per 100,000 population) (data not shown for amphetamines and methamphetamine).

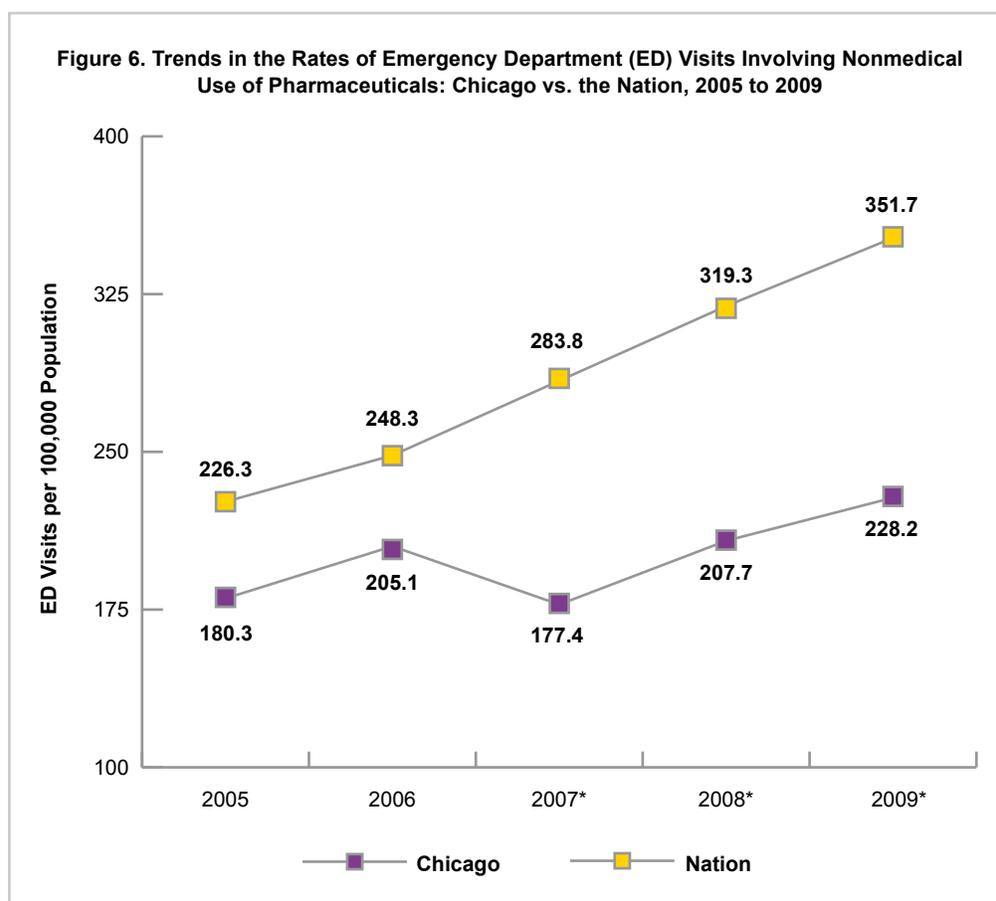


\*The difference between Chicago and the Nation was statistically significant at the .05 level.

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. From 2007 to 2009, the rate of visits in Chicago was significantly lower than the national rate (Figure 6).



\*The difference between Chicago 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 Chicago who made a drug-related ED visit involving nonmedical use of pharmaceuticals in 2009 show that

- patients aged 35 to 44 made 4,663 visits (21.3 percent); and
- 51.8 percent ED visits were made by female patients (Table 5).

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

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	21,861	100.0	228.2
Male	10,496	48.2	222.7
Female	11,288	51.8	231.9
Aged 0 to 11	309	1.4	18.8
Aged 12 to 17	1,833	8.4	228.8
Aged 18 to 24	3,115	14.3	344.2
Aged 25 to 34	4,285	19.6	309.8
Aged 35 to 44	4,663	21.3	342.7
Aged 45 to 54	4,460	20.4	319.0
Aged 55 to 64	2,056	9.4	202.0
Aged 65 or Older	1,125	5.1	104.7

\*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, there were differences between Chicago and the Nation with regard to the rates of ED visits for nonmedical use of pharmaceuticals within selected drug categories (Table 6). For example, Chicago's rate of ED visits involving nonmedical use of pharmaceuticals was significantly lower than the national rate for visits involving

- central nervous system medications (163.1 vs. 257.8 visits per 100,000 population);
- pain relievers (100.5 vs. 168.1 visits per 100,000 population);
- narcotic pain relievers (45.2 vs. 111.6 visits per 100,000 population), including methadone (12.9 vs. 20.5 visits per 100,000 population), oxycodone (3.9 vs. 48.4 visits per 100,000 population), morphine (2.8 vs. 10.3 visits per 100,000 population), fentanyl (2.5 vs. 6.8 visits per 100,000 population), and hydromorphone (1.5 vs. 4.7 visits per 100,000 population);

- psychotherapeutic medications (26.3 vs. 43.2 visits per 100,000 population), including antidepressants (15.4 vs. 29.0 visits per 100,000 population);
- cardiovascular system medications (8.9 vs. 15.1 visits per 100,000 population);
- respiratory system medications (6.8 vs. 11.7 visits per 100,000 population); and
- drugs for metabolic disorders (5.3 vs. 10.0 visits per 100,000 population).

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

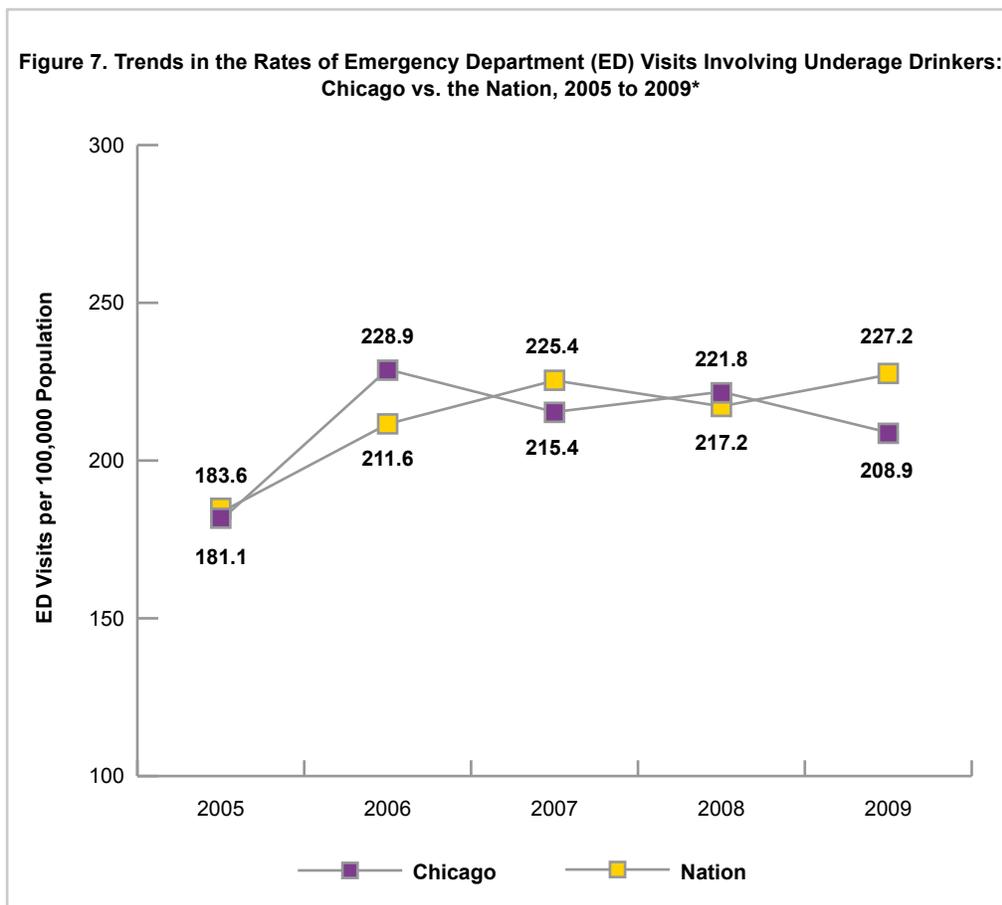
Drug Category and Selected Drugs	Chicago Rate per 100,000 Population	National Rate per 100,000 Population
Central Nervous System Medications*	163.1	257.8
Pain Relievers*	100.5	168.1
Opiates/Opioids*	73.8	135.7
Narcotic Pain Relievers*	45.2	111.6
Hydrocodone	19.3	28.1
Methadone*	12.9	20.5
Oxycodone*	3.9	48.4
Codeine	2.9	2.6
Morphine*	2.8	10.3
Fentanyl*	2.5	6.8
Hydromorphone*	1.5	4.7
Drugs That Treat Anxiety or Insomnia	70.0	118.3
Benzodiazepines	58.2	101.9
Anticonvulsants	9.9	13.7
Psychotherapeutic Medications*	26.3	43.2
Antidepressants*	15.4	29.0
Antipsychotics	13.7	18.9
Cardiovascular System Medications*	8.9	15.1
Respiratory System Medications*	6.8	11.7
Drugs for Metabolic Disorders*	5.3	10.0

\*The difference between Chicago 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 Chicago's rate of drug-related ED visits involving underage drinkers was similar to the national rate (Figure 7). For example, in 2009, the rate of underage drinking in Chicago was 208.9 visits per 100,000 population, 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 Chicago EDs in 2009 indicate that

- young adults aged 18 to 20 made the most ED visits related to underage drinking (3,424 visits, or 57.8 percent) and had the highest rate of visits (867.5 visits per 100,000 population); and
- 58.0 percent of 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\*\*: Chicago, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	5,926	100.0	208.9
Male	3,431	58.0	236.4
Female	2,481	42.0	179.1
Aged 0 to 11	***	***	***
Aged 12 to 17	2,460	41.5	307.1
Aged 18 to 20	3,424	57.8	867.5

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

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

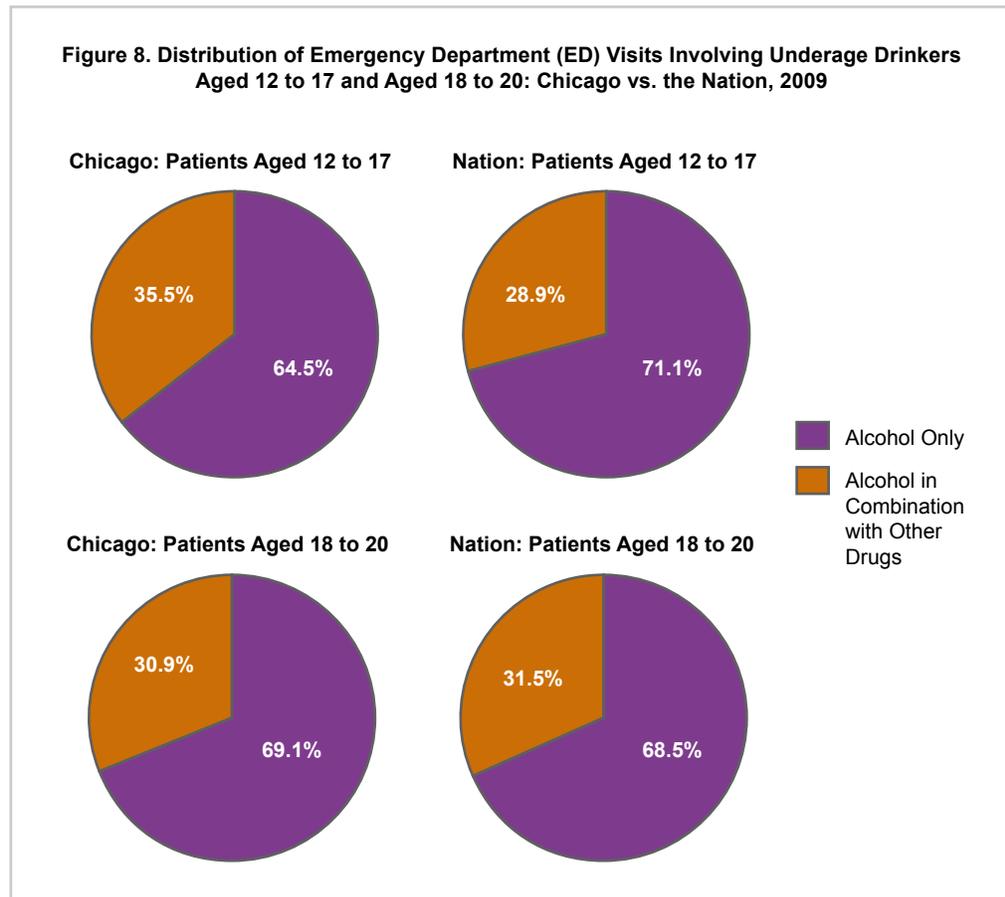
\*\*\*Estimate suppressed because of low statistical precision.

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

In 2009, 32.9 percent of ED visits among Chicago’s underage drinkers aged 12 to 20 involved alcohol in combination with other drugs, which was similar to the proportion of such visits in the Nation as a whole (30.5 percent) (data not shown).

Among underage drinkers aged 12 to 17, the proportion of ED visits involving alcohol in combination with other drugs in Chicago was similar to that in the Nation (35.5 and 28.9 percent, respectively) (Figure 8). Likewise, among underage drinkers aged 18 to 20, Chicago had a proportion of ED visits involving alcohol in combination with other drugs similar to that in the Nation as a whole (30.9 and 31.5 percent, respectively).

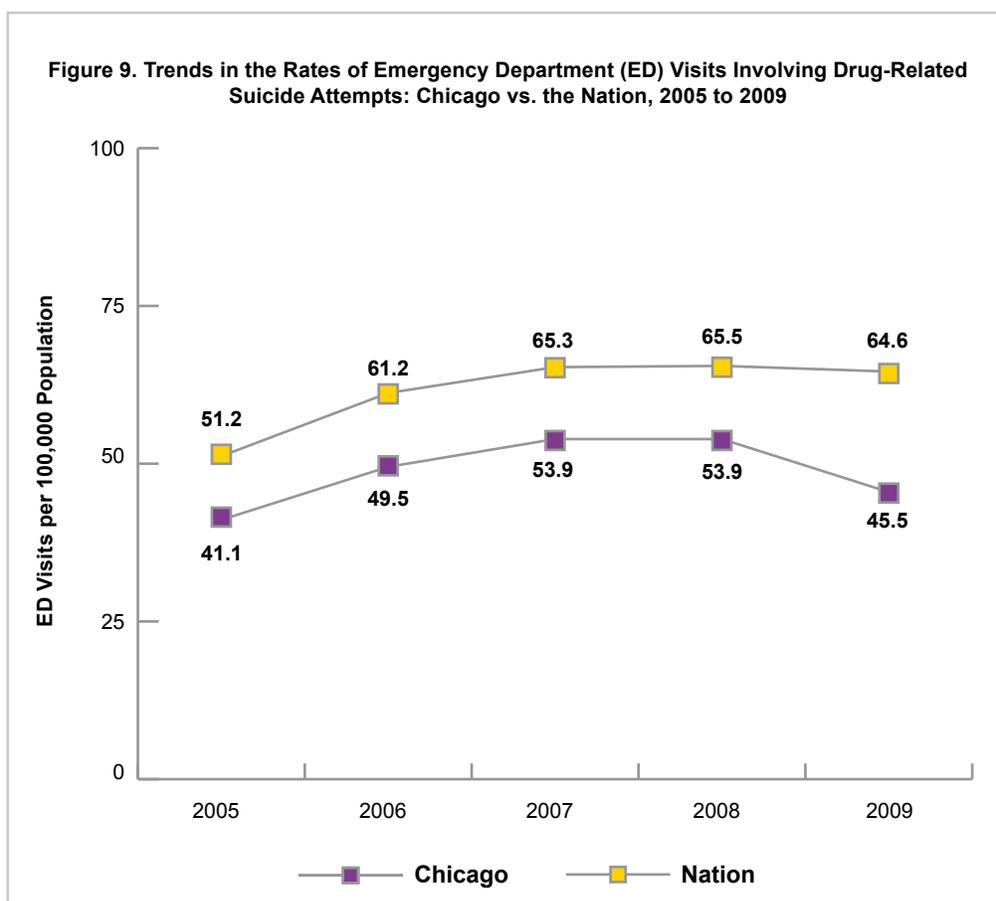
**Figure 8. Distribution of Emergency Department (ED) Visits Involving Underage Drinkers Aged 12 to 17 and Aged 18 to 20: Chicago vs. the Nation, 2009**



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, Chicago's rate of ED visits involving drug-related suicide attempts was not different from the national rate (Figure 9).



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

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

- patients aged 25 to 34 made 970 visits (22.3 percent);
- when population is taken into account, patients aged 18 to 24 had a rate of 96.8 visits per 100,000 population; and
- 56.3 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\*\*: Chicago, 2009**

Demographic Characteristic	Estimated Number of ED Visits	Percentage of ED Visits	Rate of ED Visits per 100,000 Population
Total ED Visits	4,356	100.0	45.5
Male	1,904	43.7	40.4
Female	2,453	56.3	50.4
Aged 0 to 11	***	***	***
Aged 12 to 17	601	13.8	75.0
Aged 18 to 24	877	20.1	96.8
Aged 25 to 34	970	22.3	70.1
Aged 35 to 44	875	20.1	64.3
Aged 45 to 54	728	16.7	52.1
Aged 55 to 64	211	4.8	20.7
Aged 65 or Older	***	***	***

\*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 drug-related suicide attempts in 2009 revealed that there were a few differences between Chicago and the Nation in the types of drugs involved (Table 9). For example, Chicago's rates of ED visits were significantly lower than the national rates for visits involving

- alcohol (13.3 vs. 20.1 visits per 100,000 population);
- marijuana (2.4 vs. 4.6 visits per 100,000 population);
- opiates/opioids (5.1 vs. 10.7 visits per 100,000 population), including narcotic pain relievers (4.3 vs. 9.6 visits per 100,000 population);

- drugs that treat anxiety and insomnia (14.6 vs. 25.3 visits per 100,000 population), including benzodiazepines (10.4 vs. 18.5 visits per 100,000 population); and
- psychotherapeutic medications (10.6 vs. 17.1 visits per 100,000 population), including antidepressants (7.2 vs. 11.8 visits per 100,000 population).

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

Drug Category and Selected Drugs	Chicago Rate per 100,000 Population	National Rate per 100,000 Population
Alcohol*	13.3	20.1
Illicit Drugs	8.3	11.6
Cocaine	5.0	5.9
Heroin	2.6	1.6
Marijuana*	2.4	4.6
Central Nervous System Medications	32.8	46.8
Pain Relievers	19.6	24.6
Opiates/Opioids*	5.1	10.7
Narcotic Pain Relievers*	4.3	9.6
Drugs That Treat Anxiety or Insomnia*	14.6	25.3
Benzodiazepines*	10.4	18.5
Anticonvulsants	2.7	4.3
Psychotherapeutic Medications*	10.6	17.1
Antidepressants*	7.2	11.8
Antipsychotics	5.2	7.8
Cardiovascular System Medications	2.2	3.5
Respiratory System Medications	2.1	2.5

\*The difference between Chicago 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.