

# New The DAWN Report

Issue 15, 2006R

DRUG ABUSE WARNING NETWORK

## Emergency Department Visits Involving Patients With Co-occurring Disorders

Mental health and substance abuse practitioners and researchers have become increasingly conscious of a link between substance use and mental disorders in recent years.<sup>1</sup> A substantial number of persons in the United

States experience co-occurring substance use and mental disorders. In 2004, an estimated 4.6 million adults in the United States met criteria for both serious psychological distress (SPD) and substance abuse and dependence.<sup>2</sup> Approximately 50 percent of persons with a substance use disorder have had a co-occurring mental disorder in their lifetime.<sup>3</sup>

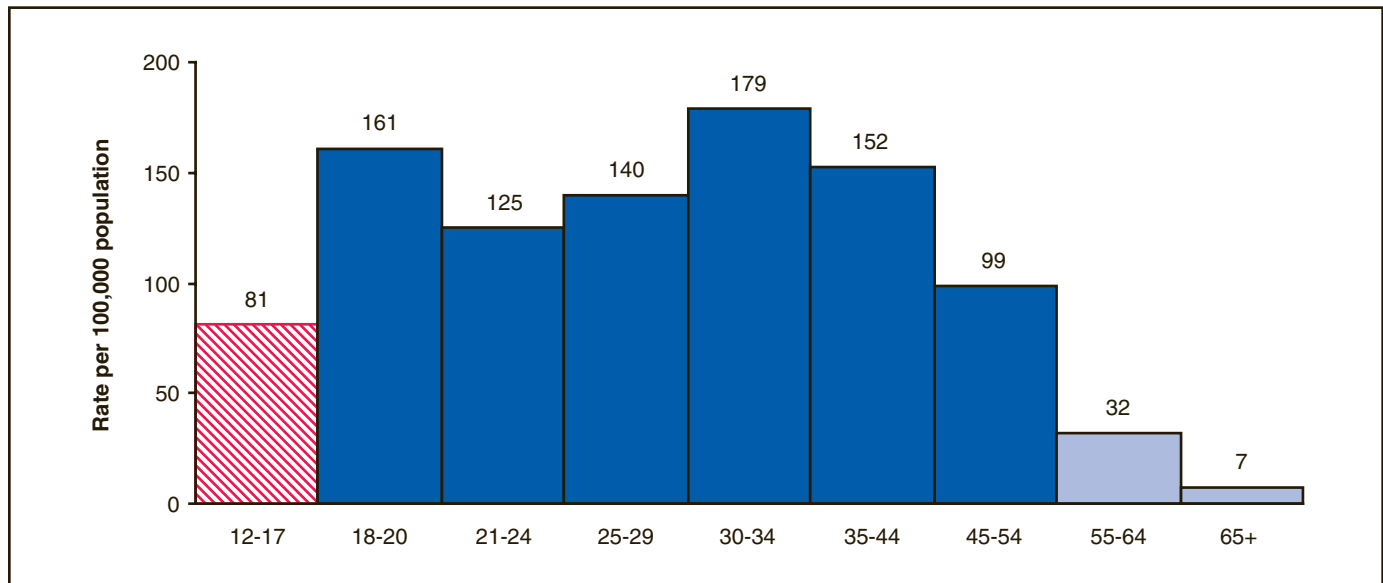
Individuals with co-occurring substance use and mental disorders often are more difficult to treat and experience worse outcomes than other patients.<sup>4</sup> Persons with these co-occurring disorders also have higher rates of emergency department (ED) use than those with mental disorders alone.<sup>5</sup> Identifying those individuals with co-occurring disorders and the problems they experience is essential to developing appropriate treatment strategies at all points of contact, including the ED visit.

The Drug Abuse Warning Network (DAWN) collects data from a national sample of hospitals on ED visits related to recent drug use. Using data on patient diagnoses, we are able to identify those drug-related ED visits where patients were diagnosed with both substance use and mental disorders.<sup>6</sup> This report presents findings on these ED visits involving co-occurring substance use and mental disorders.

### In Brief

According to the Drug Abuse Warning Network (DAWN):

- During 2004, an estimated 246,800 patients in drug-related emergency department (ED) visits were diagnosed with co-occurring substance use and mental disorders.
- When ED visits involved co-occurring disorders, 49 percent of patients were admitted to inpatient units, and 37 percent were treated and released.
- Alcohol and cocaine (in 37% and 36% of visits, respectively) were the drugs most frequently reported for ED visits with co-occurring diagnoses.

**Figure 1. Rates of ED visits involving co-occurring disorders, by age**

Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (03/2008 update).

## Overview

During 2004, an estimated 246,800 patients in drug-related ED visits were diagnosed with co-occurring substance use and mental disorders. This number accounted for nearly 10 percent of all drug-related ED visits. In more than half (57%) of the ED visits with co-occurring disorders, the mental disorder diagnosis was depression. Among diagnoses for substance use disorders, more than half (54%) involved a diagnosis of “drug abuse,” and nearly a third (31%) were diagnosed with an “overdose.”

However, not all ED visits involving patients with co-occurring disorders will have such diagnoses documented in the ED chart. For instance, a patient with depression controlled by medication may come to the ED for an injury related to his or her abuse of another drug. In such cases, the diagnoses may document drug abuse but not depression.

## Age

Patients in age groups between 18 and 54 had similar rates of ED visits with co-occurring disorder diagnoses, ranging from 99 to 179 visits

per 100,000 population (Figure 1). In general, the rates for patients aged 18 to 54 were higher than those found for younger patients (aged 12 to 17) and older patients (aged 55 and older), but only the larger differences were statistically significant.

## Gender

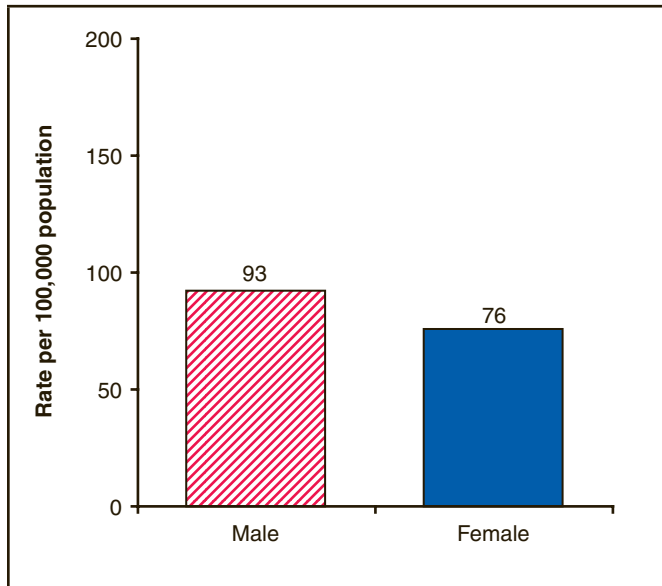
Male and female patients experienced similar levels of ED visits with co-occurring disorder diagnoses (Figure 2).

## Discharge from the ED

Where ED visits involved co-occurring disorders, 49 percent of patients were admitted to inpatient units, and 37 percent were treated and released (Figure 3). Of patients who were treated and released, most were discharged home (72%), but a quarter (25%) were referred to detoxification or other drug treatment.

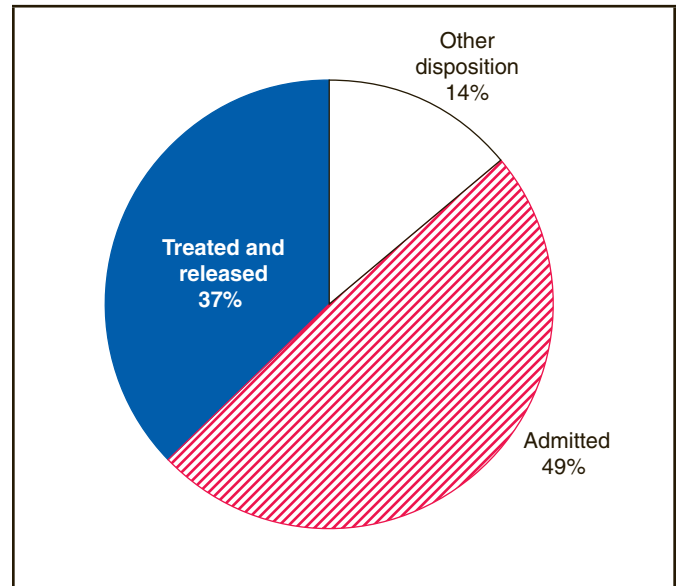
Among patients admitted for inpatient care, 72 percent were admitted to psychiatric units. Nearly 10 percent of admitted patients required intensive or critical care.

**Figure 2. Rates of ED visits involving co-occurring disorders, by gender**



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (03/2008 update).

**Figure 3. Discharge status of ED visits involving co-occurring disorders**



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (03/2008 update).

### Most frequent drugs in combination

Alcohol (in 37% of visits) was the most frequently reported drug for ED visits with co-occurring diagnoses (Table 1). In addition, cocaine, marijuana, and stimulants (in 36%, 18%, and 13% of visits, respectively) also were involved often in co-occurring ED visits. Besides illicit drugs, medically prescribed benzodiazepines (15% of visits) were also among the five drugs most often reported in ED visits for those with co-occurring substance use and mental disorders.

**Table 1. Top 5 drugs in ED visits involving co-occurring disorders**

Rank	Drug	Visits	Percent of visits
<b>Total co-occurring ED visits</b>		<b>246,800</b>	<b>100%</b>
1	Alcohol (ethanol)	91,426	37%
2	Cocaine	88,318	36%
3	Marijuana	43,799	18%
4	Benzodiazepines	37,275	15%
5	Stimulants	33,291	13%

Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (03/2008 update).

### Notes

1. Substance use disorders include substance abuse and dependence.
2. Office of Applied Studies. (2005). *Results from the 2004 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 05-4062, NSDUH Series H-28). Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved September 30, 2006, from <http://www.oas.samhsa.gov/p0000016.htm#2k4>
3. Kessler, R. C., Nelson, C. B., McGonagle, K. A., Edlund, M. J., Frank, R. G., & Leaf, P. J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry*, 66(1), 17–31.
4. O'Brien, C. P., Charney, D. S., Lewis, L., Cornish, J. W., Post, R. M., Woody, G. E., et al. (Depression and Bipolar Support Alliance [DBSA] conference statement). (2004). Priority actions to improve the care of persons with co-occurring substance abuse and other mental disorders: A call to action. *Biological Psychiatry*, 56, 703–713.
5. Curran, G. M., Sullivan, G., Williams, K., Han, X., Collins, K., Keys, J., & Kotrla, K. J. (2003). Emergency department use of persons with comorbid psychiatric and substance abuse disorders. *Annals of Emergency Medicine*, 41, 659–667.
6. Up to four verbatim diagnoses are collected for each DAWN case. The diagnoses are reviewed and assigned to one or more diagnosis categories developed empirically. Mental disorders include diagnoses such as depression, bipolar disorder, schizophrenia/schizoaffective disorders, and others. Substance use disorders include diagnoses such as drug abuse, dependence, addiction, and overdose. DAWN does not use ICD-9-CM diagnosis codes.

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The **Drug Abuse Warning Network (DAWN)** is a public health surveillance system that monitors drug-related morbidity and mortality. DAWN uses a probability sample of hospitals to produce estimates of drug-related emergency department (ED) visits for the United States and selected metropolitan areas annually. DAWN also produces annual profiles of drug-related deaths reviewed by medical examiners or coroners in selected metropolitan areas and States.

Any ED visit or death related to recent drug use is included in DAWN. All types of drugs—licit and illicit—are covered. Alcohol is included for adults when it occurs with another drug. Alcohol is always included for minors. DAWN's method of classifying drugs was derived from the Multum *Lexicon*, Copyright © 2008, Multum Information Services, Inc. The Multum Licensing Agreement can be found in DAWN annual publications and at <http://www.multum.com/license.htm>.

DAWN is one of three major surveys conducted by the Substance Abuse and Mental Health Services Administration's Office of Applied Studies (SAMHSA/OAS). For information on other OAS surveys, go to <http://www.oas.samhsa.gov/>. SAMHSA has contracts with Westat (Rockville, MD) and RTI International (Research Triangle Park, NC) to operate the DAWN system and produce publications.

For publications and additional information about DAWN, go to <http://DAWNinfo.samhsa.gov>.