

# New The DAWN Report

Issue 15, 2006

DRUG ABUSE WARNING NETWORK

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

**M**ental 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> Co-occurring substance use and mental disorders

are experienced by a substantial number of individuals in the United States. 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 those with a substance use disorder have had a co-occurring mental disorder in their lifetime.<sup>3</sup>

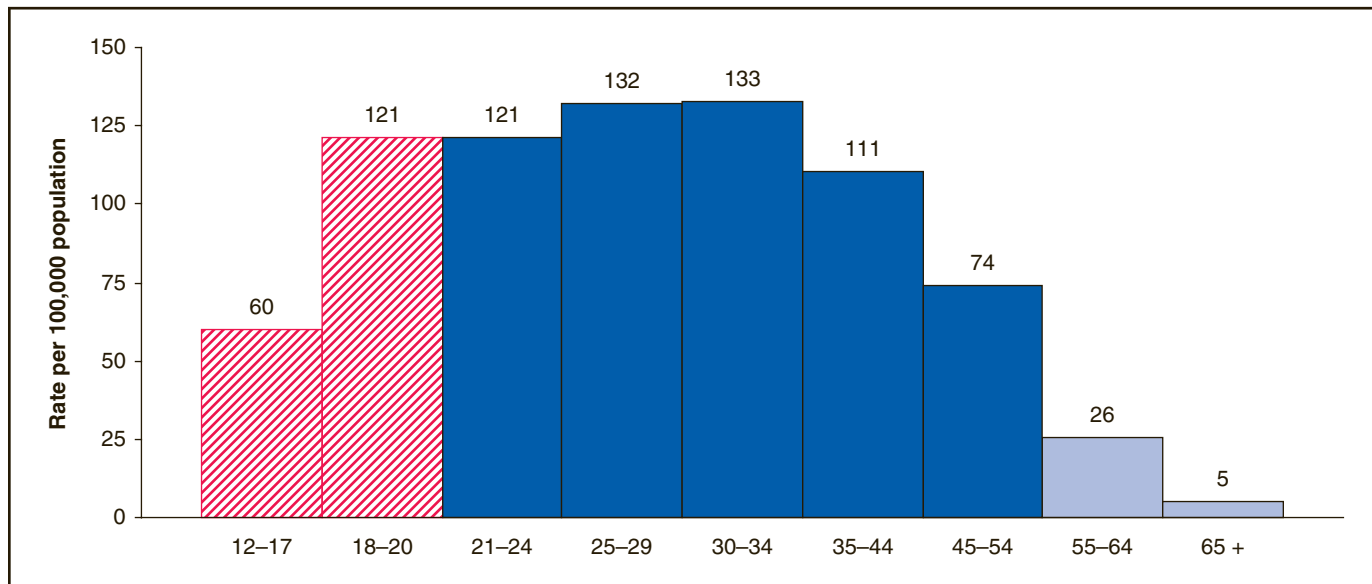
### In Brief

According to the Drug Abuse Warning Network (DAWN):

- During 2004, an estimated 192,690 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, nearly as many patients were treated and released as were admitted to inpatient units (40.4% and 42.2% of visits, respectively).
- Cocaine and alcohol (in 31.8% and 29.3% of visits, respectively) were the drugs most frequently reported for ED visits with co-occurring diagnoses.

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 a mental disorder(s) 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.

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

Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (09/2005 update).

## Overview

During 2004, an estimated 192,690 patients in drug-related ED visits were diagnosed with co-occurring substance use and mental disorders. This accounted for nearly 10 percent of all drug-related ED visits. In more than two thirds (68.2%) of the ED visits with co-occurring disorders, the mental disorder diagnosis was depression. Of substance use disorder diagnoses, nearly half (49.7%) involved a diagnosis of “drug abuse,” while over a third (38.7%) were diagnosed with an “overdose.”

However, it is important to note that not all ED visits involving patients with co-occurring disorders will have such diagnoses documented in the ED chart. For instance, a patient may have depression controlled by medication and come to the ED for an injury related to their abuse of another drug. In this case, the diagnoses may document drug abuse but not depression.

## Age

Patients between the ages of 18 and 44 had similar rates of ED visits with co-occurring disorder diagnoses, ranging from 111 to 133 visits per 100,000 population. However, younger and older age groups (under age 18 or over age 55) had significantly lower rates of ED visits involving co-occurring disorders (Figure 1).

## Gender

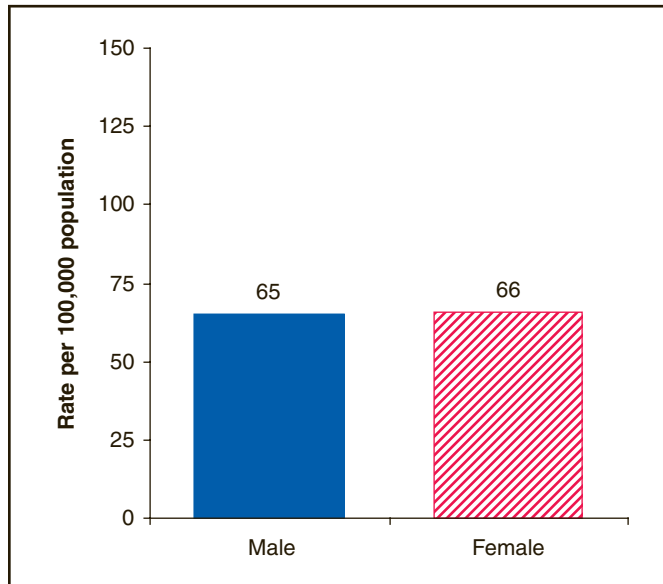
Male and female patients experienced ED visits with co-occurring disorder diagnoses at virtually the same rate (Figure 2).

## Discharge from the ED

When ED visits involved co-occurring disorders, nearly as many patients were treated and released as were admitted to inpatient units (40.4% and 42.2% of visits, respectively) (Figure 3). Of patients who were treated and released, most were discharged home (69.3%), but more than a quarter (26.6%) were referred to detoxification or other drug treatment.

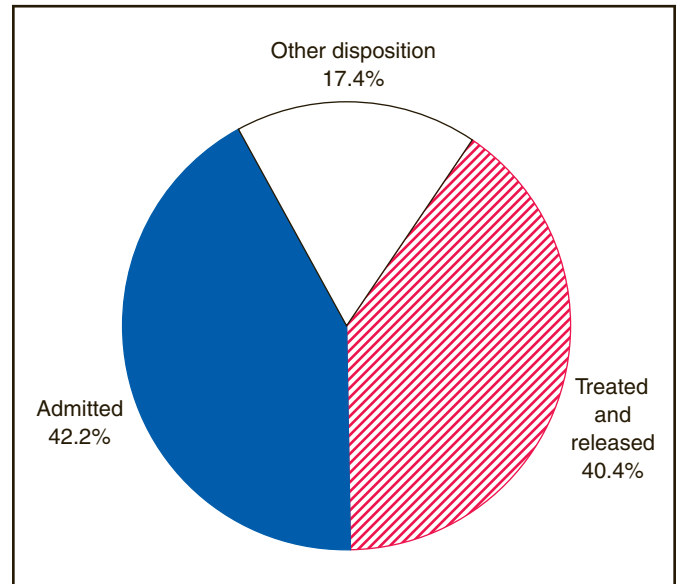
Among patients admitted for inpatient care, 4 in 10 (40.0%) were admitted to psychiatric units. Nearly one quarter (24.1%) of admitted patients were admitted to chemical dependency or detoxification units.

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



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (09/2005 update).

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



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (09/2005 update).

### Most frequent drugs

Cocaine and alcohol (in 31.8% and 29.3% of visits, respectively) were the drugs most frequently reported for ED visits with co-occurring diagnoses (Table 1). Prescription medications, such as opioid analgesics (18.0%) and benzodiazepines (12.9%), also were involved often in co-occurring ED visits. Marijuana was among the top five drugs most often reported in ED visits for those with co-occurring substance use and mental disorders (16.3%).

**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>192,690</b> | <b>100%</b>       |
| 1                                   | Cocaine           | 61,184         | 31.8%             |
| 2                                   | Alcohol (ethanol) | 56,416         | 29.3%             |
| 3                                   | Opiates/opioids   | 34,597         | 18.0%             |
| 4                                   | Marijuana         | 31,435         | 16.3%             |
| 5                                   | Benzodiazepines   | 24,808         | 12.9%             |

Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004 (09/2005 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. [Available at <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., 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. We do not collect ICD-9-CM diagnosis codes, but instead all 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.

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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 © 2005, 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>.