

New The DAWN Report

Issue 1, 2006R

DRUG ABUSE WARNING NETWORK

Emergency Department Visits Involving Underage Drinking

In Brief

According to the Drug Abuse Warning Network (DAWN):

- During 2004, an estimated 202,902 alcohol-related emergency department (ED) visits were made by patients aged 12 to 20.
- Nearly half (45%) of drug-related ED visits among patients aged 12 to 20 involved alcohol.
- Patients aged 18 to 20 were approximately 4 times more likely than patients aged 12 to 17 to have an alcohol-related ED visit.
- Visits involving alcohol with other drugs were more likely than visits involving only alcohol to result in admission to the hospital for inpatient care (30% vs. 19%).

All 50 States have a legal drinking age of 21; however, many underage people obtain and use alcohol. In 2004, 10.8 million persons aged 12 to 20 (29%) used alcohol in the past month, according to the National Survey on Drug Use and Health (NSDUH).¹

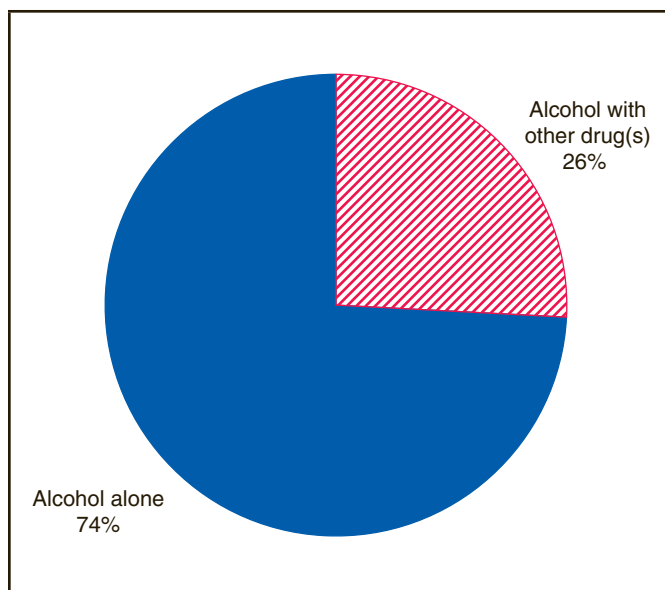
Underage use of alcohol can have both immediate and long-term consequences. According to the National Highway Traffic Safety Administration, nearly 25 percent of drivers aged 16 to 20 who were involved in fatal motor vehicle crashes in 2003 had been drinking alcohol.² Among 14 million adults who could be classified as dependent on or abusing alcohol in the past year, 95 percent started drinking alcohol before age 21.³

The Drug Abuse Warning Network (DAWN) collects data from a national sample of hospitals on emergency department (ED) visits related to recent drug use. Since 2003, DAWN has included ED visits involving alcohol alone or in combination with other drug(s) for patients younger than age 21. This report presents findings on these alcohol-related ED visits for patients aged 12 to 20.

Overview

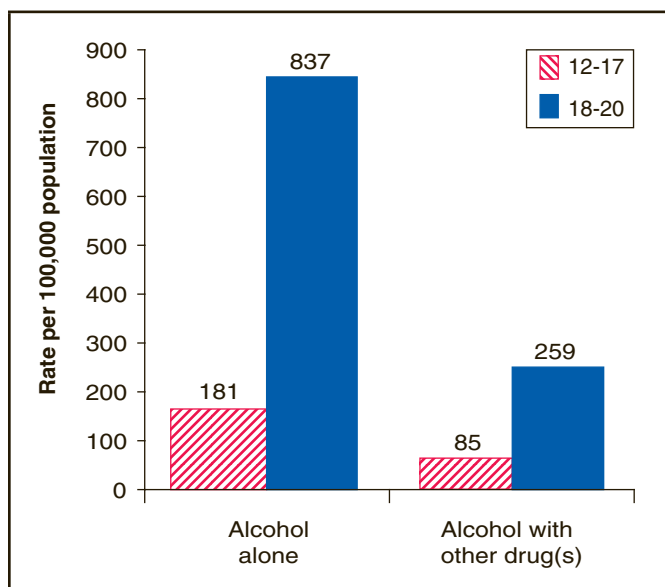
During 2004, an estimated 451,909 drug-related ED visits were made by patients aged 12 to 20. Nearly half of these visits (45%) involved alcohol. Of the alcohol-related ED visits, nearly three quarters (74%) were for alcohol and no other drugs (Figure 1).

Figure 1. Underage alcohol-related ED visits



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

Figure 2. ED visit rates for alcohol alone and alcohol with other drug(s), by age



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

Age

As patient age increases, the rate of ED visits due to alcohol-related problems increases. Patients aged 18 to 20 were approximately 4 times more likely than patients aged 12 to 17 to have an alcohol-related ED visit. This difference by age was more than 4 times higher for alcohol alone and 3 times higher for alcohol with other drugs (Figure 2).

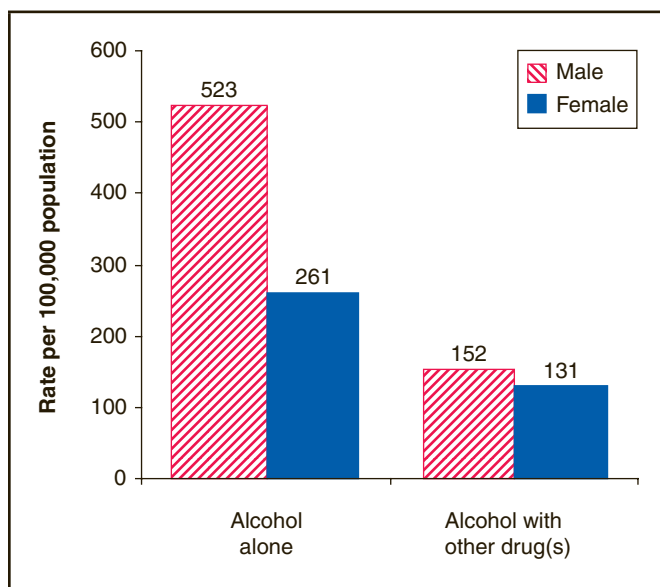
Gender

While other studies have found binge or heavy drinking behavior to be more common among underage males than underage females,¹ the differences in the rates of alcohol-related ED visits for males and females were not significant (Figure 3).

Discharge from the ED

The disposition of the underage drinkers from the ED appeared to be related to whether the alcohol was used alone or with other drugs. When the ED visits involved alcohol alone, 76 percent were treated and released, usually to home (Figure 4). Nineteen percent were admitted for inpatient care, and among those, 16 percent required intensive or critical care.

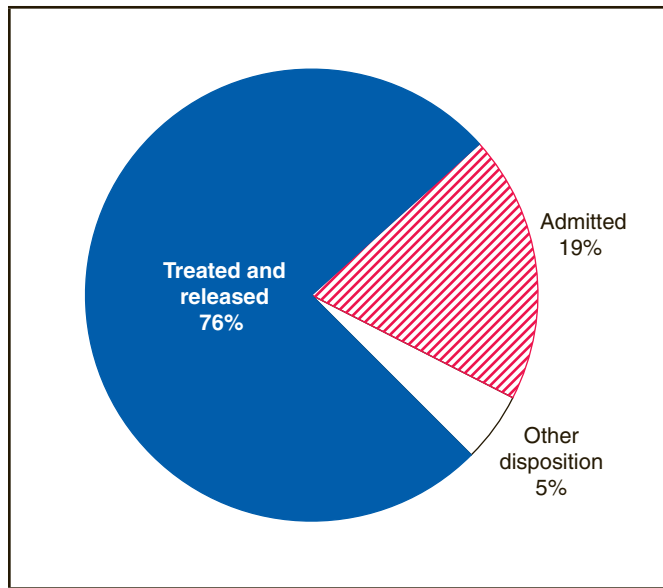
Figure 3. ED visit rates for alcohol alone and alcohol with other drug(s), by gender



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

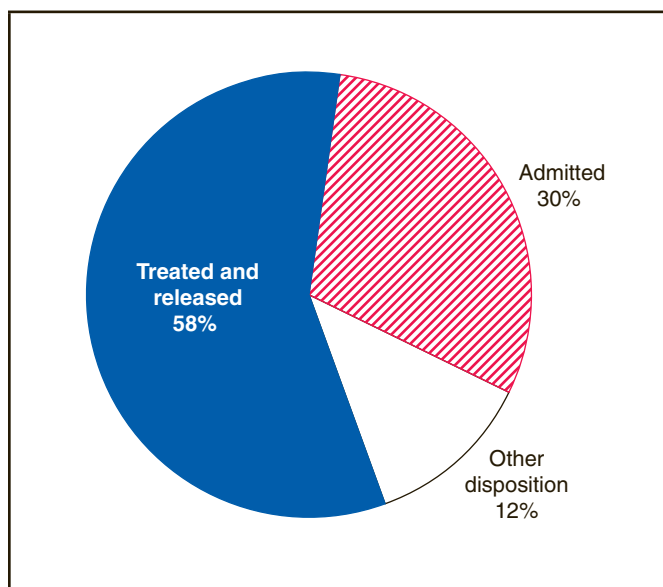
When the visits involved alcohol with other drugs, just over half (58%) of the patients were treated and released (Figure 5). Thirty percent were admitted as inpatients, and among those, 21 percent required intensive or critical care and 46 percent were admitted to psychiatric units.

Figure 4. Discharge status of alcohol-related ED visits involving alcohol alone



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

Figure 5. Discharge status of alcohol-related ED visits involving alcohol with other drug(s)



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

Most frequent drugs in combination

Of the 53,481 alcohol-related ED visits by patients aged 12 to 20 where alcohol was combined with another drug, 69 percent involved an illicit drug. Marijuana and cocaine (in 47% and 19% of visits, respectively) were the most frequent illicit drugs in alcohol polydrug ED visits, followed by stimulants, including amphetamine and methamphetamine, in 10 percent of visits. However, not all of the drugs found in combination with alcohol were illicit substances: 44 percent involved a prescription or over-the-counter medication, and 13 percent involved both an illicit drug and a medication. Medications such as alprazolam (5%), acetaminophen (3%), and ibuprofen (2%) were found in underage alcohol-related ED visits (Table 1).

Table 1. Top 10 other drugs in alcohol-related ED visits

Rank	Drug	Visits	Percent of visits
Total alcohol with other drug(s)		53,481	100%
1	Marijuana	25,021	47%
2	Cocaine	10,323	19%
3	Stimulants (amphetamine/methamphetamine)	5,463	10%
4	Alprazolam	2,739	5%
5	Acetaminophen	1,863	3%
6	Heroin	1,414	3%
7	Ibuprofen	1,265	2%
8	Clonazepam	1,215	2%
9	MDMA (Ecstasy)	1,131	2%
10	Sertraline	1,121	2%

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

Notes

- 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 March 9, 2009, from <http://www.oas.samhsa.gov/p0000016.htm#2k4>
- National Highway Traffic Safety Administration, National Center for Statistics and Analysis. (2005, March). *Alcohol involvement in fatal motor vehicle traffic crashes, 2003* (DOT HS 809 822). Springfield, VA: Author. Retrieved March 9, 2009, from www.nrd.nhtsa.dot.gov/Pubs/809822.PDF
- Office of Applied Studies. (2004, October 22). *The NSDUH Report: Alcohol dependence or abuse and age at first use*. Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved March 9, 2009, from <http://www.oas.samhsa.gov/facts.cfm>

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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 only 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>.