

New The DAWN Report

Issue 1, 2006

DRUG ABUSE WARNING NETWORK

Emergency Department Visits Involving Underage Drinking

In Brief

According to the Drug Abuse Warning Network (DAWN):

- During 2004, an estimated 142,701 alcohol-related emergency department (ED) visits were made by patients aged 12 to 20.
- Nearly half (42%) of drug-related ED visits among patients aged 12 to 20 involved alcohol.
- Patients aged 18 to 20 were approximately 3 times as likely as patients aged 12 to 17 to have an alcohol-related ED visit.
- Visits involving alcohol with other drugs were almost 2 times as likely as visits involving only alcohol to result in admission to the hospital for inpatient care (19% vs. 10%).

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

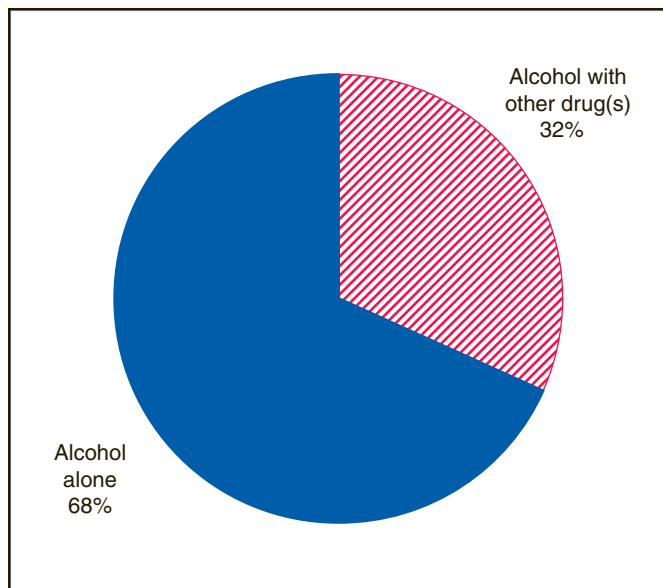
Underage use of alcohol can have both immediate and long-lasting consequences. According to the National Highway Traffic Safety Administration, nearly 25 percent of drivers aged 16 to 20 who were involved in fatal motor vehicle crashes in 2003 had been drinking alcohol.² Among 14 million adults who could 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

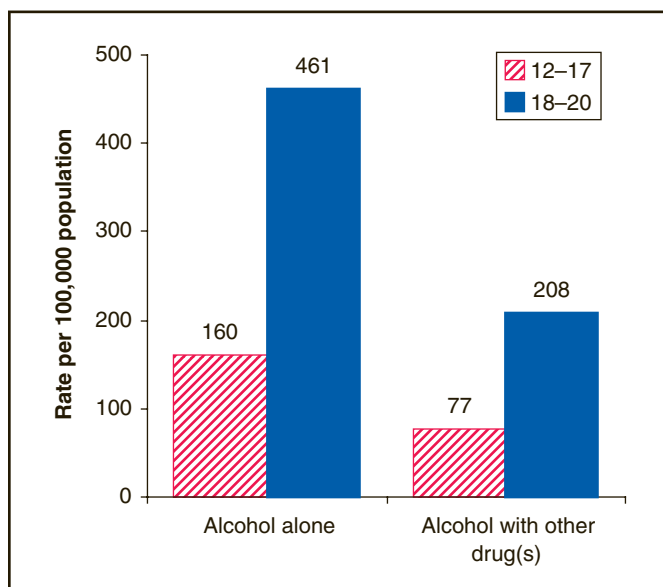
During 2004, an estimated 343,250 drug-related ED visits were made by patients aged 12 to 20. Nearly half of these visits (42%) involved alcohol. Of the alcohol-related ED visits, more than two-thirds (68%) were for alcohol and no other drugs (Figure 1).

Figure 1. Underage alcohol-related ED visits



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004.

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



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004.

Age

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

Gender

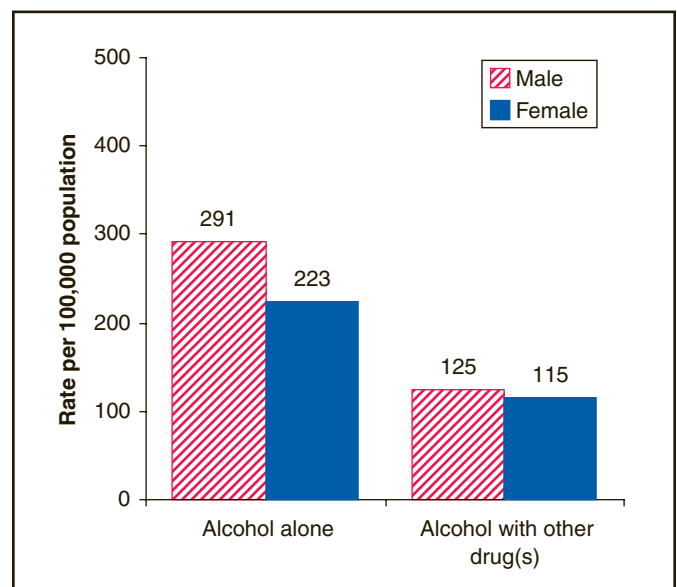
Other studies have found binge or heavy drinking behavior to be more frequent among underage males than females.¹ However, as shown in Figure 3, there were no significant differences between males and females in the rates of alcohol-related ED visits.

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, 84 percent were treated and released, usually to home (Figure 4a). However, among those admitted for inpatient care, more than 4 in 10 required intensive or critical care.

When the visits involved alcohol with other drugs, more than two-thirds (68%) of the patients were treated

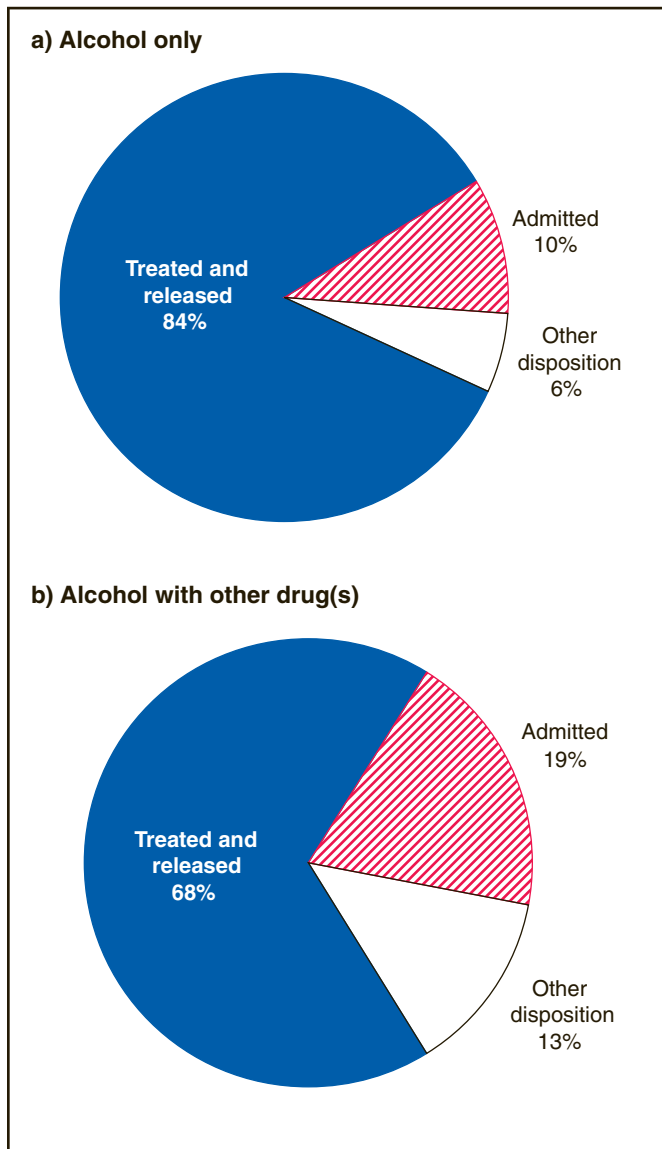
Figure 3. ED visit rates for alcohol only and alcohol with other drug(s), by gender



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004.

and released (Figure 4b). However, visits involving alcohol with other drugs were almost 2 times as likely to result in admission to the hospital for inpatient care (19% vs. 10%). Among the admissions, the visits involving alcohol with other drugs were most likely to require intensive or critical care (35%), but nearly 1 in 5 (19%) were admitted to psychiatric units.

Figure 4. Discharge status of alcohol-related ED visits



Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004.

Most frequent drugs in combination

Marijuana and cocaine (in 49% and 22% of visits, respectively) were the drugs most frequently found in combination with alcohol in ED visits of patients aged 12 to 20. Major stimulants, including amphetamine and methamphetamine, were also found frequently in combination with alcohol (8%). However, not all of the drugs found in combination with alcohol in patients aged 12 to 20 were illicit substances. Prescription and over-the-counter medications, such as alprazolam (7%), ibuprofen (3%), and acetaminophen (3%), often were involved 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)		45,282	100%
1	Marijuana	22,244	49%
2	Cocaine	10,066	22%
3	Stimulants (amphetamine/methamphetamine)	3,805	8%
4	Alprazolam	3,057	7%
5	Drug unknown	1,835	4%
6	Ibuprofen	1,585	3%
7	Acetaminophen	1,524	3%
8	Methylenedioxymethamphetamine (MDMA)	1,502	3%
9	Acetaminophen-hydrocodone	1,436	3%
10	Heroin	1,323	3%

Source: Office of Applied Studies, SAMHSA, Drug Abuse Warning Network, 2004.

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. [Available at <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. [Available as a PDF at <http://www.nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/Rpts/2005/809822.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. [Available at <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 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 (a trade name of Research Triangle Institute, 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>.