

The DAWN Report

July 29, 2010

Emergency Department Visits Involving Underage Alcohol Use: 2008

In Brief

- In 2008, an estimated 188,981 alcohol-related emergency department (ED) visits were made by patients aged 12 to 20, accounting for about one third of all drug-related ED visits (32.9 percent) made by this age group
- Of these ED visits, 70.0 percent involved alcohol only, and 30.0 percent involved alcohol in combination with other drugs
- Nearly one in five (19.1 percent) alcohol-related ED visits made by patients aged 12 to 20 had evidence of follow-up care

Despite laws in all 50 States and the District of Columbia that prohibit underage drinking, consumption of alcohol by adolescents and young adults younger than 21 remains a significant public health concern. More adolescents and young adults younger than 21 use alcohol than tobacco or illicit drugs, making it the most widely abused substance by this age group.¹ The 2008 National Survey on Drug Use and Health (NSDUH) shows that 26.4 percent of persons aged 12 to 20 had consumed alcohol in the past month and 17.4 percent were binge drinkers (i.e., drank five or more drinks on the same occasion on at least 1 day in the 30 days prior to the survey).² NSDUH data also show that adolescents and young adults who consumed alcohol in the past month drank more alcoholic drinks per occasion, on average, than persons over the legal drinking age (4.9 vs. 2.8 drinks).³

In recognition of the scope of the underage drinking problem, in 2007 the Surgeon General issued the *Call to Action to Prevent and Reduce Underage Drinking*.⁴ The report noted the association between underage drinking and a host of negative consequences, including risky sexual behavior, violence, illicit drug use, injury, damage to the developing brain, and death. Adolescents and young adults that experience medical emergencies severe enough to require treatment in an emergency department (ED) may be at higher risk for such negative consequences. ED visits involving underage drinking therefore provide a unique opportunity to identify these high-risk adolescents and young adults.

The Drug Abuse Warning Network (DAWN) is a public health surveillance system that monitors drug-related ED visits in the United States.⁵ 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. DAWN includes ED visits for underage persons involving alcohol only or in combination with other drug(s) and can, therefore, be used to examine underage alcohol use that results in ED visits. Using 2008 data, this issue of *The DAWN Report* focuses on alcohol-related ED visits among adolescents and young adults aged 12 to 20 and provides an update to a similar report.⁶

Overview

In 2008, an estimated 575,092 drug-related ED visits were made by patients aged 12 to 20. About one third of these visits (32.9 percent, or 188,981 visits) involved alcohol. Of all alcohol-related ED visits made by patients aged 12 to 20, 70.0 percent involved alcohol only, and 30.0 percent involved alcohol in combination with other drugs.

Of the 56,727 alcohol-related ED visits by patients aged 12 to 20 in which alcohol was combined with another drug, 57.3 percent involved marijuana. Anti-anxiety drugs, narcotic pain relievers, and cocaine were indicated in 17.8, 15.3, and 13.3 percent of these visits, respectively.

Gender and Age

The majority (58.6 percent) of alcohol-related ED visits made by patients aged 12 to 20 were made by males. Patients aged 18 to 20 accounted for about 6 in 10 (60.3 percent) alcohol-related ED visits made by adolescents and young adults. Of ED visits made by underage drinkers, 62.1 percent of patients aged 18 to 20 were male compared with 53.4 percent of patients aged 12 to 17 (Figure 1).

Figure 1. Alcohol-Related Emergency Department (ED) Visits by Patients Aged 12 to 20, by Age Group and Gender: 2008

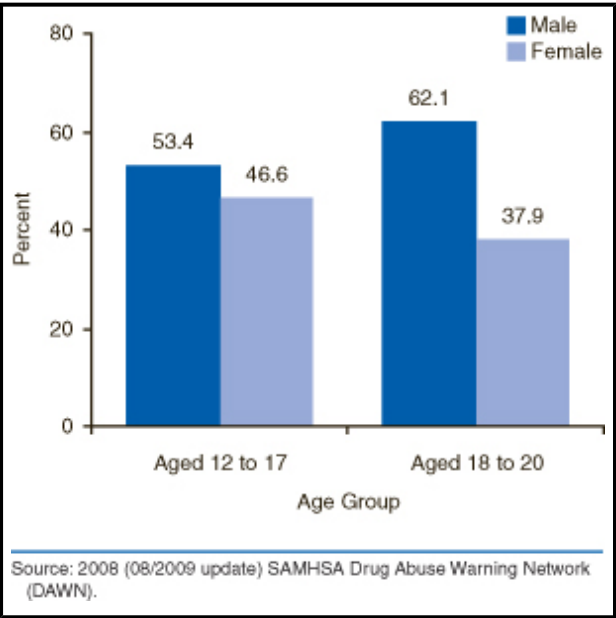


Figure 1 Table. Alcohol-Related Emergency Department (ED) Visits by Patients Aged 12 to 20, by Age Group and Gender: 2008

Age Group	Male	Female
Aged 12 to 17	53.4%	46.6%
Aged 18 to 20	62.1%	37.9%

Source: 2008 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

Discharge of Underage Drinkers from the ED

Follow-up care in DAWN is defined as admission to an inpatient unit in the hospital, transfer to another health care facility, or referral to a detoxification program or substance abuse treatment. About one in five (19.1 percent) alcohol-related ED visits made by patients aged 12 to 20 had evidence of follow-up care (Table 1). Most patients were treated and released to home (72.3 percent).

Evidence of follow-up care for patients from EDs was related to whether visits involved alcohol only or alcohol in combination with other drugs. When ED visits involved alcohol only, 12.0 percent had evidence of follow-up care. However, when visits involved alcohol in combination with other drugs, 35.5 percent had evidence of follow-up care. This pattern held for both age groups and genders (Figures 2 and 3).

Table 1. Follow-up Status and Disposition of Alcohol-Related Emergency Department (ED) Visits by Patients Aged 12 to 20: 2008		
Follow-up and Disposition	Estimated Number of ED Visits	Percent of Visits
Total	188,981	100.0%
No Follow-up	152,921	80.9%
Released to Home	136,548	72.3%
Released to Police/Jail	11,437	6.1%
Left against Medical Advice	1,939	1.0%
Other*	2,998	1.6%
Follow-up	36,060	19.1%
Admitted to Same Hospital	18,018	9.5%
Intensive Care Unit/Critical Care Unit	4,546	2.4%
Psychiatric Unit	4,346	2.3%
Chemical Dependency/Detoxification Unit	1,959	1.0%
Other Inpatient Unit	7,166	3.8%
Transferred to Another Hospital or Health Care Facility	12,868	6.8%
Referred to Detoxification or Substance Use Treatment Facility	5,174	2.7%

* "Other" includes Other, Died, and Unknown.
 Source: 2008 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

Figure 2. Evidence of Follow-up for Emergency Department (ED) Visits Involving Alcohol Only and Visits Involving Alcohol in Combination with Other Drugs by Patients Aged 12 to 20, by Age Group: 2008



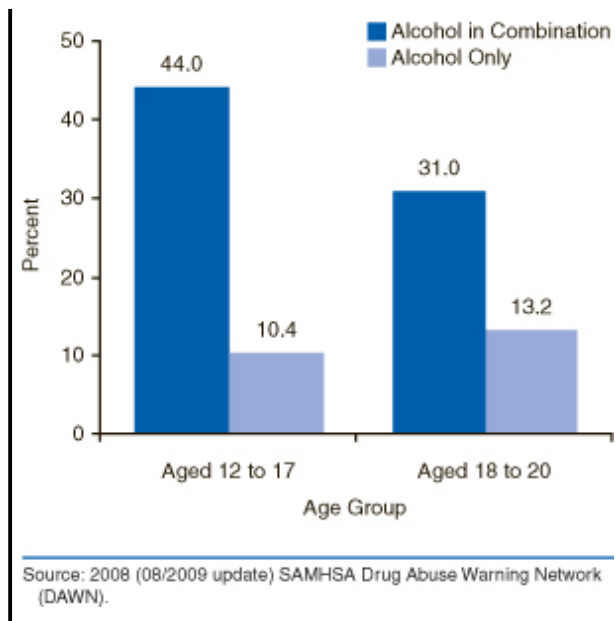


Figure 2 Table. Evidence of Follow-up for Emergency Department (ED) Visits Involving Alcohol Only and Visits Involving Alcohol in Combination with Other Drugs by Patients Aged 12 to 20, by Age Group: 2008

Age Group	Alcohol in Combination	Alcohol Only
Aged 12 to 17	44.0%	10.4%
Aged 18 to 20	31.0%	13.2%

Source: 2008 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

Figure 3. Evidence of Follow-up for Emergency Department (ED) Visits Involving Alcohol Only and Visits Involving Alcohol in Combination with Other Drugs by Patients Aged 12 to 20, by Gender: 2008

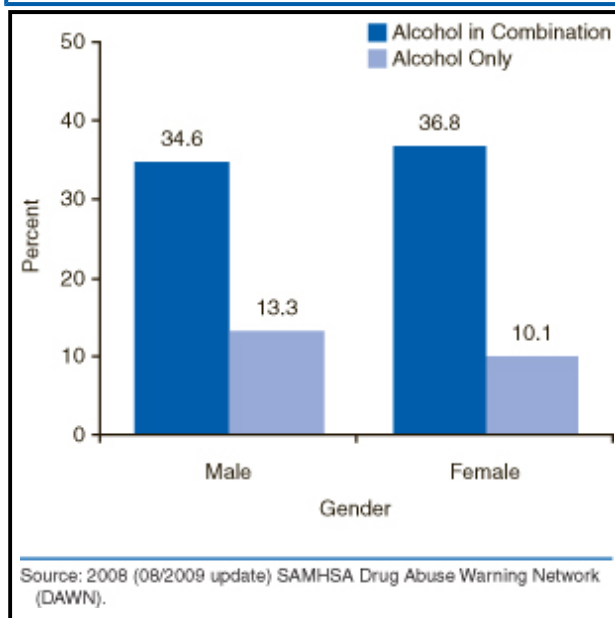


Figure 3 Table. Evidence of Follow-up for

Emergency Department (ED) Visits Involving Alcohol Only and Visits Involving Alcohol in Combination with Other Drugs by Patients Aged 12 to 20, by Gender: 2008

Gender	Alcohol in Combination	Alcohol Only
Male	34.6%	13.3%
Female	36.8%	10.1%

Source: 2008 (08/2009 update) SAMHSA Drug Abuse Warning Network (DAWN).

Discussion

DAWN data show the extent of the underage drinking problem through the lens of alcohol-related ED visits made by patients aged 12 to 20. The findings in this report point to underage drinking as a costly public health concern and suggest the need for continued efforts to prevent and reduce underage drinking.

The ED offers a unique opportunity to identify and intervene with underage drinkers, particularly those at greatest risk for severe and negative long-term consequences of alcohol abuse. In this report, most alcohol-related ED visits involving adolescents and young adults resulted in a discharge home without any evidence of follow-up care. Adolescents and young adults who experience alcohol-related episodes severe enough to require ED treatment likely require a substance abuse assessment at a minimum. Health professionals in the ED are well placed to provide referrals for assessment and treatment, as well as brief interventions for these adolescents and young adults. Brief interventions in the ED, particularly brief motivational interventions, have been found to be effective in reducing alcohol use among adolescents and young adults as well.⁷ The use of a brief intervention in EDs may be particularly important in reducing future alcohol use and abuse and improving the long-term health and well-being of adolescents and young adults prone to alcohol misuse.

End Notes

¹ Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2009). *Monitoring the future: National results on adolescent drug use: Overview of key findings, 2008* (NIH Publication No. 09-7401). Bethesda, MD: National Institute on Drug Abuse. [Available as a PDF at <http://monitoringthefuture.org/pubs/monographs/overview2008.pdf>]

² Office of Applied Studies. (2009). *Results from the 2008 National Survey on Drug Use and Health: National findings* (DHHS Pub. No. SMA 09-4434, NSDUH Series H-36). Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at <http://oas.samhsa.gov/nsduh/2k8nsduh/2k8Results.cfm>]

³ Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (March 31, 2008). *The NSDUH report: Quantity and frequency of alcohol use among underage drinkers*. Rockville, MD. [Available at <http://oas.samhsa.gov/2k8/underage/underage.cfm>]

⁴ Department of Health and Human Services, Office of the Surgeon General. (2007). *The Surgeon General's call to action to prevent and reduce underage drinking*. Washington, DC: Author. [Available at <http://surgeongeneral.gov/topics/underagedrinking/>]

⁵ Data are collected from a nationally representative sample of short-term, general, non-Federal hospitals across the Nation. Specialty hospitals, including children's hospitals, are not included in the DAWN sample.

⁶ Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (June 2009). *The DAWN report: Emergency department visits involving underage drinking*. Rockville, MD. [Available at <http://dawninfo.samhsa.gov/files/TNDR/2006-02R/TNDR02UnderageDrinking.htm>]

⁷ D'Onofrio, G., & Degutis, L. C. (2004/2005). Screening and brief intervention in the emergency department. *Alcohol Research & Health*, 28(2), 63-72. [Available at <http://pubs.niaaa.nih.gov/publications/arh28-2/63-72.htm>]

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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 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 reported for minors even if no other drug is present. 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 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 more 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/>.

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SAMHSA, an agency in the Department of Health and Human Services, is the Federal Government's lead agency for improving the quality and availability of substance abuse prevention, addiction treatment, and mental health services in the United States.

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