

The DAWN Report

September 13, 2011

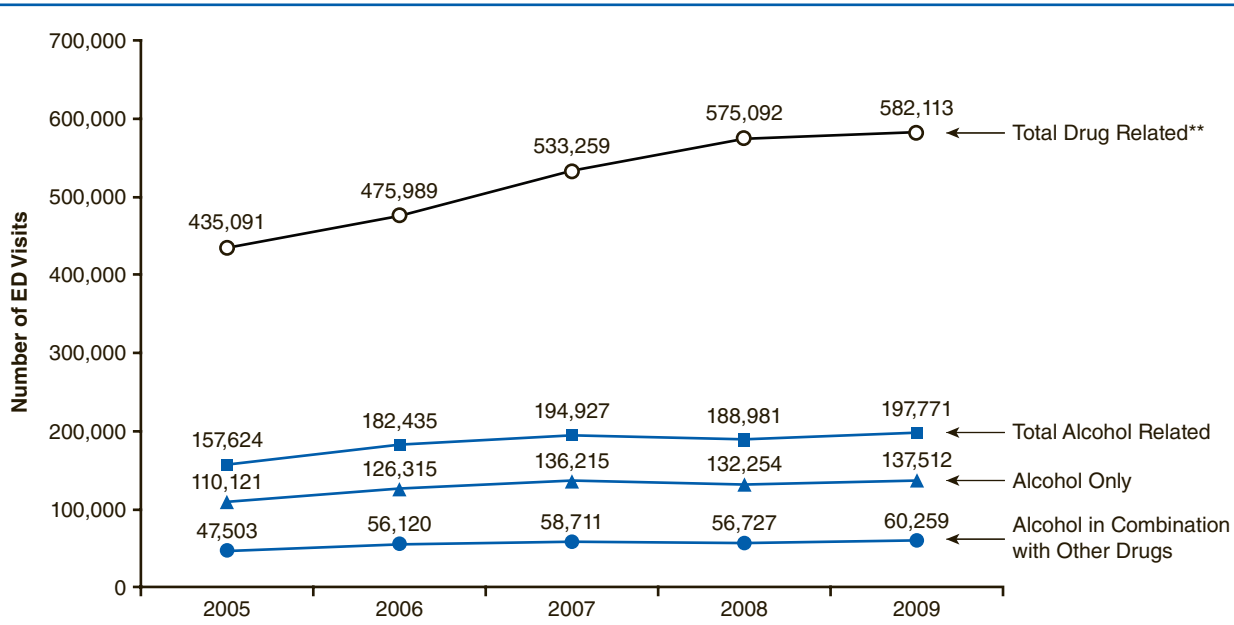
Trends in Emergency Department Visits Involving Underage Alcohol Use: 2005 to 2009

In Brief

- Among patients aged 12 to 20, emergency department (ED) visits involving alcohol comprised one third of all drug-related ED visits in 2005 (36.2 percent, or 157,624 visits) and 2009 (34.0 percent, or 197,771 visits)
- The majority of alcohol-related ED visits among patients aged 12 to 20 from 2005 to 2009 involved alcohol only (110,121 visits in 2005; 137,512 visits in 2009)
- There was an increase in alcohol-related visits of 38.3 percent from 2005 (37,218 visits) to 2009 (51,464 visits) by female young adults, reflecting the overall population growth of women aged 18 to 20

Alcohol is widely used by people younger than the legal drinking age of 21 and continues to be a national public health issue. Data from the National Survey on Drug Use and Health (NSDUH) show that rates of current, binge, and heavy alcohol use declined between 2002 and 2008, but then increased in 2009.¹ This uptick is of particular concern given the well-documented association between underage drinking and a host of other public health problems, such as motor vehicle accidents, risky sexual behavior, violence, illicit drug use, and damage to the developing brain.² Furthermore, early onset of drinking is known to increase the risk for alcohol dependence later in life.³ Early intervention efforts targeting youths to prevent patterns of substance abuse are a vital part of the *Surgeon General's Call to Action* to address the ongoing and serious public health and safety problem posed by underage drinking.²

Figure 1. Number of Emergency Department (ED) Visits among Patients Aged 12 to 20, Total Drug Related and by Alcohol Involvement: 2005 to 2009*



*ED visits for which age is unknown have been excluded from analysis.

**The difference in the number of drug-related ED visits between 2005 and 2009 was statistically significant at the .05 level.

Source: 2005 and 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

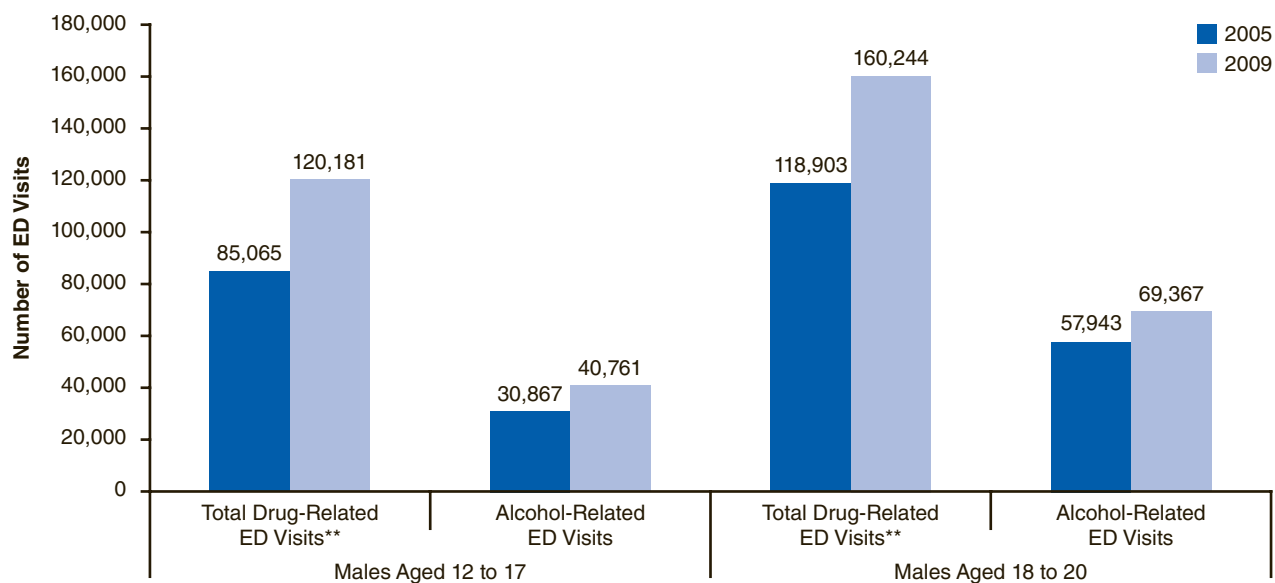
One indicator of alcohol abuse among youths is the number of alcohol-related visits made to emergency departments (EDs). Alcohol-related medical emergencies can be examined using data from the Drug Abuse Warning Network (DAWN). DAWN is a public health surveillance system that monitors drug-related ED visits in the United States. To be a DAWN case, the ED visit must involve a drug, either as the direct cause of the visit or as a contributing factor. Such a visit is referred to as a “drug-related visit.” Drugs include alcohol, pharmaceuticals, and illegal drugs such as cocaine, heroin, and marijuana. DAWN tracks ED visits for underage persons involving alcohol only and alcohol in combination with illicit drugs and/or pharmaceuticals. Demographic information on these ED patients can be used to identify the adolescents and young adults that are most at risk for alcohol abuse. Using 2005 and 2009 data, this issue of *The DAWN Report* focuses on trends in ED visits involving alcohol

among persons aged 12 to 20, and refers to those aged 12 to 17 as “adolescents” and those aged 18 to 20 as “young adults.”

Overview

From 2005 to 2009, the number of drug-related ED visits among persons aged 12 to 20 significantly increased from 435,091 to 582,113 (Figure 1). Among patients aged 12 to 20, ED visits involving alcohol comprised one third of all drug-related ED visits in 2005 (36.2 percent, or 157,624 visits) and 2009 (34.0 percent, or 197,771 visits). The majority of alcohol-related ED visits among patients aged 12 to 20 from 2005 to 2009 involved alcohol only (110,121 visits in 2005; 137,512 visits in 2009). There was no significant change in the overall number of alcohol-related visits from 2005 to 2009, indicating no improvement in the trend for visits involving underage drinking.

Figure 2. Number of Underage Drinking–Related Emergency Department (ED) Visits among Males, by Age Group: 2005 vs. 2009*



*ED visits for which age is unknown have been excluded from analysis.

**The difference in the number of drug-related ED visits between 2005 and 2009 was statistically significant at the .05 level.

Source: 2005 and 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

Gender and Age

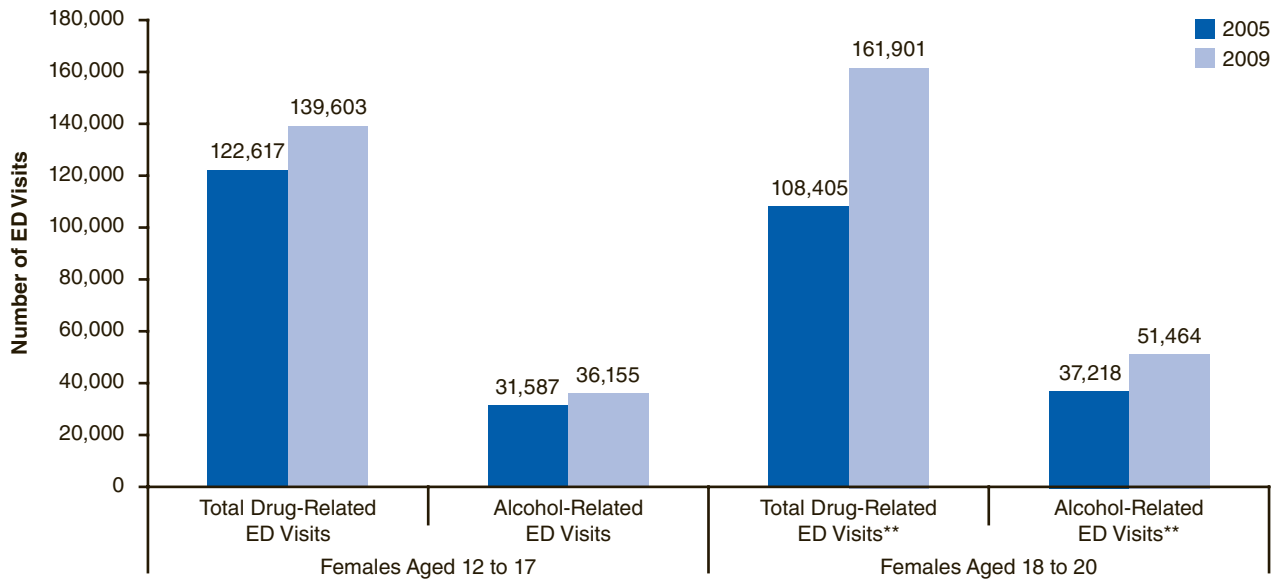
From 2005 to 2009, there was little progress in the reduction of alcohol-related visits among both adolescents and young adults. Furthermore, the number of alcohol-related ED visits changed little between 2005 and 2009 for most gender subgroups by age (Figures 2 and 3). Visits among male adolescents, male young adults, and female adolescents remained unchanged. There was an increase in alcohol-related visits of 38.3 percent from 2005 (37,218 visits) to 2009 (51,464 visits) by female young adults, reflecting the overall population growth of women aged 18 to 20.

Involvement of Alcohol Only and Alcohol in Combination by Age

Between 2005 and 2009, the majority of alcohol-related ED visits among underage patients involved alcohol only for both adolescents and young adults. In 2009, adolescents made 54,726 visits that involved alcohol only, whereas young adults made 82,786 such visits (Figure 4). The trends for both adolescents and young adults showed modest—but not statistically different—increases between 2005 and 2009.

In 2009, there were an estimated 22,192 visits (8.5 percent of all alcohol-related visits) made by adolescents involving alcohol combined with another drug, while young adults made 38,067 such visits (11.8 percent of all alcohol-related visits). The trends for both adolescents and young adults did not show any statistical differences between 2005 and 2009.

Figure 3. Number of Underage Drinking–Related Emergency Department (ED) Visits among Females, by Age Group: 2005 vs. 2009*

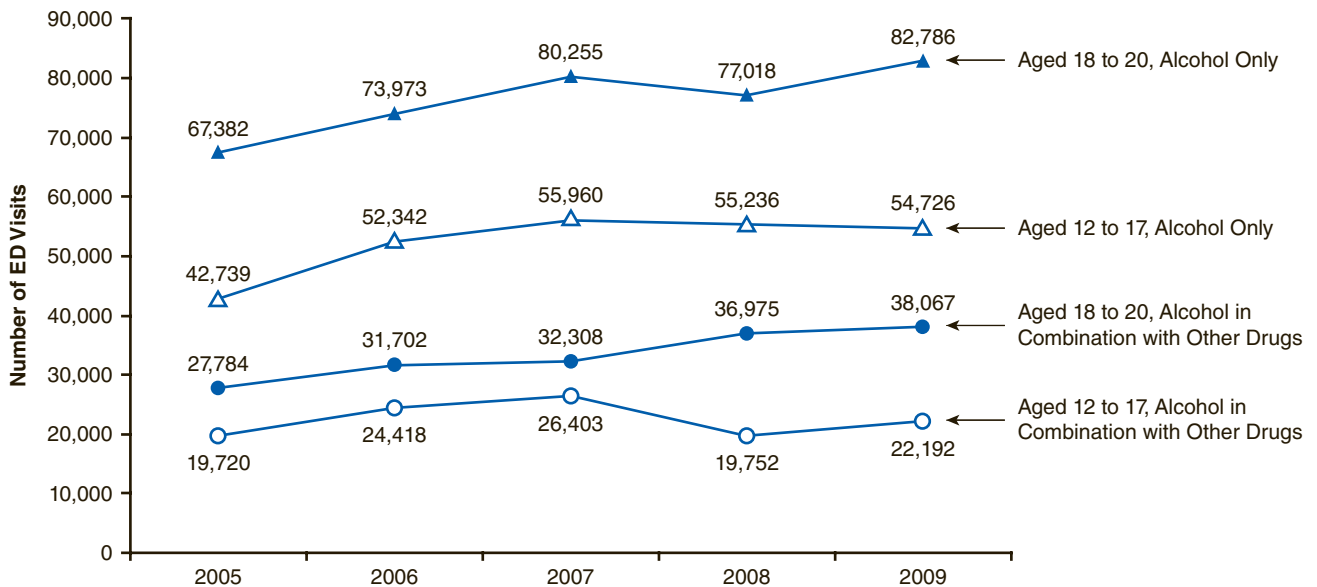


*ED visits for which age is unknown have been excluded from analysis.

**The difference in the number of drug-related ED visits between 2005 and 2009 was statistically significant at the .05 level.

Source: 2005 and 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

Figure 4. Number of Underage Drinking–Related Emergency Department (ED) Visits, by Age Group and Type of Alcohol-Related Visit: 2005 to 2009*



*ED visits for which age is unknown have been excluded from analysis.

Source: 2005 and 2009 estimates from the 2009 SAMHSA Drug Abuse Warning Network (DAWN).

Discussion

Each year, thousands of adolescents and young adults visit the ED for alcohol-related illnesses, injuries, and other problems. This report reveals little or no progress in reducing alcohol-related ED visits for this population, emphasizing the importance of concerted public health action to reduce underage drinking. Increased efforts to screen young people for alcohol and drug use and refer them for treatment may help reduce alcohol abuse and, in turn, the occurrence of such visits.

Communities can confront underage drinking problems by considering proven approaches such as policies and practices restricting youth access to alcohol, local media campaigns, and school-based curricula. It is critical to raise awareness about the dangers of underage drinking and to dispel cultural attitudes that support underage drinking as a “rite of passage.”⁴ Although both young males and females can benefit from such initiatives, the growing population of young adult females, which has resulted in a greater number of alcohol-related ED visits for this group, warrants enhanced prevention and/or treatment efforts for this group.

The ED can be an effective venue for identifying the presence and severity of substance use disorders, and the ED visit experience can provide a stimulus for change. Guidelines for screening young people for alcohol problems have been developed, and alcohol screens for the ED have been evaluated.^{5,6} Research has shown that brief interventions in the ED help reduce abusive behaviors, which can also reduce the negative consequences of alcohol use.⁷ Such timely interventions in the ED can capitalize on “teachable moments” when the harmful consequences of substance use problems become apparent to patients and their families and challenge the common misconception that underage drinking is acceptable or an inevitable part of becoming an adult.

Referrals to appropriate substance abuse treatment programs that are geared to address treatment among young people are especially

important, as is subsequent follow-up by primary care providers. Incorporating motivational interventions and matching other treatment components to individual needs can influence important behavioral changes. For example, approaches targeting adolescents that involve therapeutic communities or family therapy have been found to be successful in treating youths with substance use disorders.⁸

End Notes

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Suggested Citation

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Findings from SAMHSA's 2005 to 2009 Drug Abuse Warning Network (DAWN)

Trends in Emergency Department Visits Involving Underage Alcohol Use: 2005 to 2009

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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 involvement is documented for patients of all ages if it occurs with another drug. Alcohol is considered an illicit drug for minors and is documented even if no other drug is involved. The classification of drugs used in DAWN is derived from the Multum *Lexicon*, copyright 2010 Lexi-Comp, Inc., and/or Cerner Multum, Inc. The Multum Licensing Agreement governing use of the *Lexicon* can be found at http://dawninfo.samhsa.gov/drug_vocab.

DAWN is one of three major surveys conducted by the Substance Abuse and Mental Health Services Administration's Center for Behavioral Health Statistics and Quality (SAMHSA/CBHSQ). For more information on other CBHSQ 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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