



YOUTH AND ALCOHOLISM:

Just What Does the Latest Research Show?



According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA), National surveys make it clear that alcohol drinking among youth is both widespread and harmful. Surveys provide data not only on the numbers of middle and high school students who drink but also on how they drink. The data show that when youth drink, they drink heavily in comparison with adults, consuming on average four to five drinks per occasion about five times a month, compared with two to three drinks per occasion about nine times a month for adults. Studies also find that drinking often begins at very young ages; a recent survey found that more than one-fourth of 14-year-olds reported drinking within the last year.

The negative consequences of underage drinking include a range of physical, academic, and social problems. Perhaps most frightening, alcohol is the leading contributor to injury death, the main cause of death for people under age 21. However, alcohol also plays a powerful role in risky sexual behavior, including unwanted, unintended, and unpro

tected sexual activity, and sex with multiple partners. Alcohol is associated with academic failure and drug use. Over the longer term, data have shown that drinking early in life is associated with an increased

risk of developing an alcohol use disorder at some time during the life span.

Although almost all U.S. youth grow up in a culture permeated by alcohol, they are not uniformly at risk for alcohol consumption or its consequences. Epidemiology provides clues to risk and protective

factors associated with youth drinking, including family history and genetic vulnerability, comorbid conditions, sociodemographic characteristics, social stressors such as poverty and lack of social support, family characteristics, alcohol availability, temperament, and other individual factors. Epidemiology also provides a profile of how specific populations of young people differ in their drinking patterns. Drinking, including heavy drinking, is common and accepted among college students, with consequences affecting both those who do the drinking and those who do not. Rates of heavy drinking among 18- to 25-year-olds in the military are much higher than among civilians. There is considerable variation between Whites and other ethnic/racial minority youth with respect to drinking, but also significant variation within these populations. Research is needed to determine how national origin, tribal affiliation, acculturation, immigration status, and language all influence drinking patterns among youth.

EPIDEMIOLOGY OF UNDERAGE



DRINKING

Alcohol is the drug of choice among youth. Young people drink too much and at too early an age, thereby creating problems for themselves, for people around them, and for society as a whole. Hence, underage drinking is a leading public health problem in this country.

Prevalence and Age of Initiation

Nationwide surveys, as well as studies in smaller populations, show that alcohol drinking is widespread among adolescents. For example, 2004 data from Monitoring the Future (MTF), an annual survey of U.S. youth, show that more than three-fourths of 12th graders, nearly two-thirds of 10th graders, and more than two in five 8th graders have consumed alcohol at some point in their lives (Monitoring the Future Web

site). And when youth drink, they tend to drink heavily. Underage drinkers consume on average four to five drinks per occasion about five times a month (Substance Abuse and Mental Health Services Administration [SAMHSA] 2003). By comparison, adult drinkers ages 26 and older consume on average two to three drinks per occasion about nine times a month. A particularly worrisome aspect of underage drinking is the high prevalence of heavy episodic drinking, defined as drinking five or more drinks in a row in the past 2 weeks. MTF data show that 12 percent of 8th graders, 22 percent of 10th graders, and 28 percent of 12th graders engage in heavy episodic drinking (Johnston et al. 2004). It should come as no surprise, then, that about three-fifths of 12th graders, two-fifths of 10th graders, and one-fifth of 8th graders say they have been drunk (Monitoring the Future Web site). In fact, the highest prevalence of dependence is seen in people ages 18–24.

Studies also indicate that drinking often begins at very young ages. Data from recent surveys show that approximately 10 percent of 9- to 10-year-olds have already started drinking (Donovan et al. 2004), nearly a third of youth begin drinking before age 13 (Grunbaum et al. 2004), and more than one-fourth of 14-year-olds report drinking within the past year (SAMHSA 2003). Other researchers have documented that drinking becomes increasingly common through the teenage years (e.g., O'Malley et al. 1998). In addition, a number of studies have documented that the early onset of alcohol use (usually set at age 13 and younger) as well as the escalation of drinking in adolescence are both risk factors for the development of alcohol-related problems in adulthood (e.g., Gruber et al. 1996; Grant and Dawson 1998; Hawkins et al. 1997; Schulenberg et al. 1996a).

These findings clearly are cause for concern, as are recent data suggesting that the age of first use of alcohol is declining (SAMHSA, National Household Survey on Drug Abuse [NHSDA] for years prior to 2000). These data indicate that the average age of first use

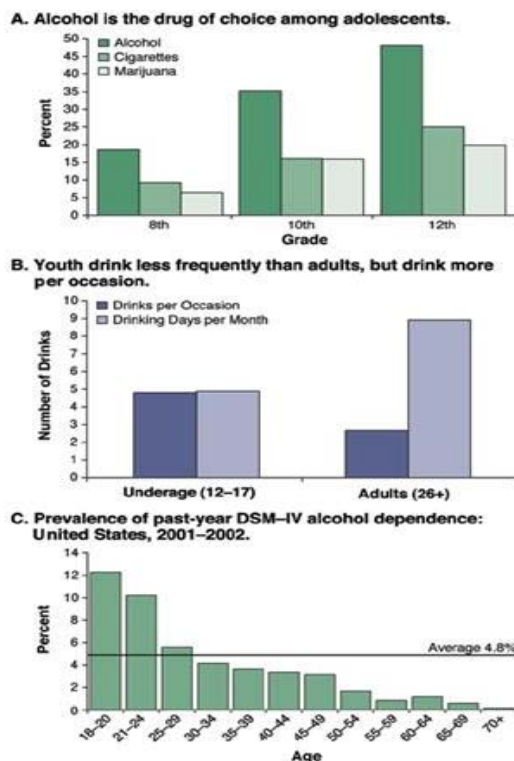


Figure 1 Nationwide surveys, as well as studies in smaller populations, show that drinking is widespread among people under age 21.



among young people of all ages was about 16 in 1999, compared with about 17 1/2 in 1965 (SAMHSA 2003). Looking at underage drinkers only, 12- to 18-year-olds who report drinking report that they began doing so between 2 and 3 years earlier, when they were about 9 to 15, respectively (SAMHSA 2003). This is important because, as already noted, initiating alcohol consumption earlier in adolescence or in childhood is a marker for later problems, including heavier use of alcohol and other drugs during adolescence (e.g., Robins and Przybeck 1985; Hawkins et al. 1997) and meeting criteria for an alcohol dependence diagnosis in adulthood (Grant and Dawson 1998).

Most of what we know about underage drinking derives from studies of youth ages 12 to 21. To address alcohol-related problems as developmental phenomena, we will need to understand more about what happens before age 12 with regard to alcohol consumption, alcohol awareness, and alcohol expectancies among children who have started to drink and among those who have not. A recent Medline search found a dearth of studies addressing drinking by younger children, and the few existing studies that turned up in this search were conducted among non-U.S. populations. Two national data sets, however, address alcohol use by children in sixth grade or below (typically age 12 and younger), albeit imperfectly and far from comprehensively. One is the Partnership Attitude Tracking Study (PATS), carried out for the Partnership for a Drug-Free America in 1993, and annually from 1995 through 1999. The other is the collection of PRIDE surveys carried out during the academic years 1997–1998 through 2001–2002. PATS data reveal a tripling of alcohol experience between fourth and sixth grade: 9.8 percent of fourth graders, 16.1 percent of fifth graders, and 29.4 percent of sixth graders report trying more than a sip of alcohol (Donovan et al. 2004). PRIDE data show similar rates of use in this population. Despite methodological problems with these data sets, PATS and PRIDE show

that a nontrivial level of alcohol consumption occurs among a significant proportion of the 12-and-under population.

Consequences

Underage drinking can result in a range of adverse short-term and long-term consequences, including:

- Academic problems
- Social problems
- Physical problems such as hangovers or medical illnesses
- Physical and sexual assault
- Memory problems
- Increased risk for suicide and homicide
- Alcohol-related car crashes and other unintentional injuries such as burns, falls, and drownings
- Death from alcohol poisoning
- Alterations in brain development that may have consequences reaching far beyond adolescence.

Alcohol is a leading contributor to injury death, the main cause of death for people under age 21. Annually, about 5,000 youth under age 21 die from alcohol-related injuries that involve underage drinking. This includes injuries sustained in motor vehicle crashes (about 1,900), homicides (about 1,600), and suicides (about 300), as well as unintentional injuries not related to motor vehicle crashes (National Highway Traffic Safety Administration [NHTSA] 2003; Centers for Disease Control and Prevention [CDC] 2004; Smith et al. 1999; Levy et al. 1999; Hingson and Kenkel 2004). Furthermore, the role of alcohol in both fatalities and injuries may be significantly underreported, in part because in many States, alcohol involvement in an injury relieves insurance providers of liability for medical expenses, so health care providers may not ask victims



about, or report, alcohol use.

Numerous cases of alcohol poisoning, the result of the acute toxic effects of alcohol that can range from gastritis to severe gastrointestinal bleeding to respiratory arrest and death, have been reported in the news media. Although many of these tragedies occur on college campuses, especially striking was the recent report of two 11-year-old boys found dead of alcohol poisoning in a snowy field on the Flathead Indian Reservation in Montana, with blood alcohol concentration (BAC) levels of 0.20 percent and 0.50 percent. Although alcohol poisoning is by no means a major cause of death among youth, reports such as this underscore the tragic influence that hazardous drinking can wield over youth culture.

In the National Longitudinal Alcohol Epidemiologic Survey (NLAES) of people ages 18 and older in the United States, people who reported starting to drink before the age of 15 were four times more likely to also report meeting the criteria for dependence at some point in their lives (Grant and Dawson 1998). This survey also shows that children who drink at age 14 or younger are much more likely during their lifetimes to sustain unintentional injuries, to get into physical fights, and to become involved in motor vehicle crashes after drinking (Hingson et al. 2000, 2001, 2002).

**Consequences of Underage Drinking:
Mortality From Alcohol-Related Injuries**

Annually, about 5,000 people under age 21 die from alcohol-related injuries involving underage drinking, including:

- Motor vehicle crashes - 1,900
- Homicides - 1,600
- Suicides - 300

SOURCE: National Highway Traffic Safety Administration 2003; Centers for Disease Control and Prevention 2004; Smith et al. 1999; Levy et al. 1999; Hingson and Kenkel 2004. All statistics are approximate.

Similarly, other survey data indicate that the younger children and adolescents are when they start to drink, the more likely they are to engage in behaviors that can harm themselves and others (Grunbaum et al. 2004). Those who start to drink before age 13, for example, are nine times more likely to binge¹ drink frequently (five or more drinks on an occasion at least six times per month) as high school students than those who begin drinking later. (¹ SAMHSA's definitions of binge and heavy drinking: binge drinkers report that they had consumed five or more drinks on the same occasion at least once in the past 30 days; heavy drinkers report that they had consumed five or more drinks on the same occasion on at least 5 different days in the past 30 days (SAMHSA 2003). The National Institute on Alcohol Abuse and Alcoholism's (NIAAA's) definition of binge drinking: a "binge" is a pattern of drinking alcohol that brings blood alcohol concentration (BAC) to 0.08 grams percent or above. For the typical adult, this pattern corresponds to consuming five or more drinks (men), or four or more drinks (women), in about 2 hours. Binge drinking is clearly dangerous for the drinker and for society. [The NIAAA National Advisory Council approved this definition of binge drinking on February 5, 2004.] And compared with nondrinkers, a greater proportion of frequent binge drinkers (nearly 1 million high school students nationwide) engaged in other risky behavior in the past 30 days (Grunbaum et al. 2004), including carrying a gun (22 percent vs. 3 percent), using marijuana (73 percent vs. 7 percent), using cocaine (26 percent vs. 0 percent), and having sex with six or more partners (31 percent vs. 4 percent). In addition, these youth were more likely than abstainers to earn grades that are mostly Ds or Fs in school (15 percent vs. 5 percent), be injured in a fight (13 percent vs. 2 percent), or be injured in a suicide attempt (9 percent vs. 1 percent). The extent to which alcohol use per se makes these other outcomes more likely is yet to be determined. However, the longitudinal evidence is very strong that the risk factors predicting earlier alcohol use also are strong predictors of virtually all of these



other consequences (Biglan et al. 2004; Caspi et al. 1997).

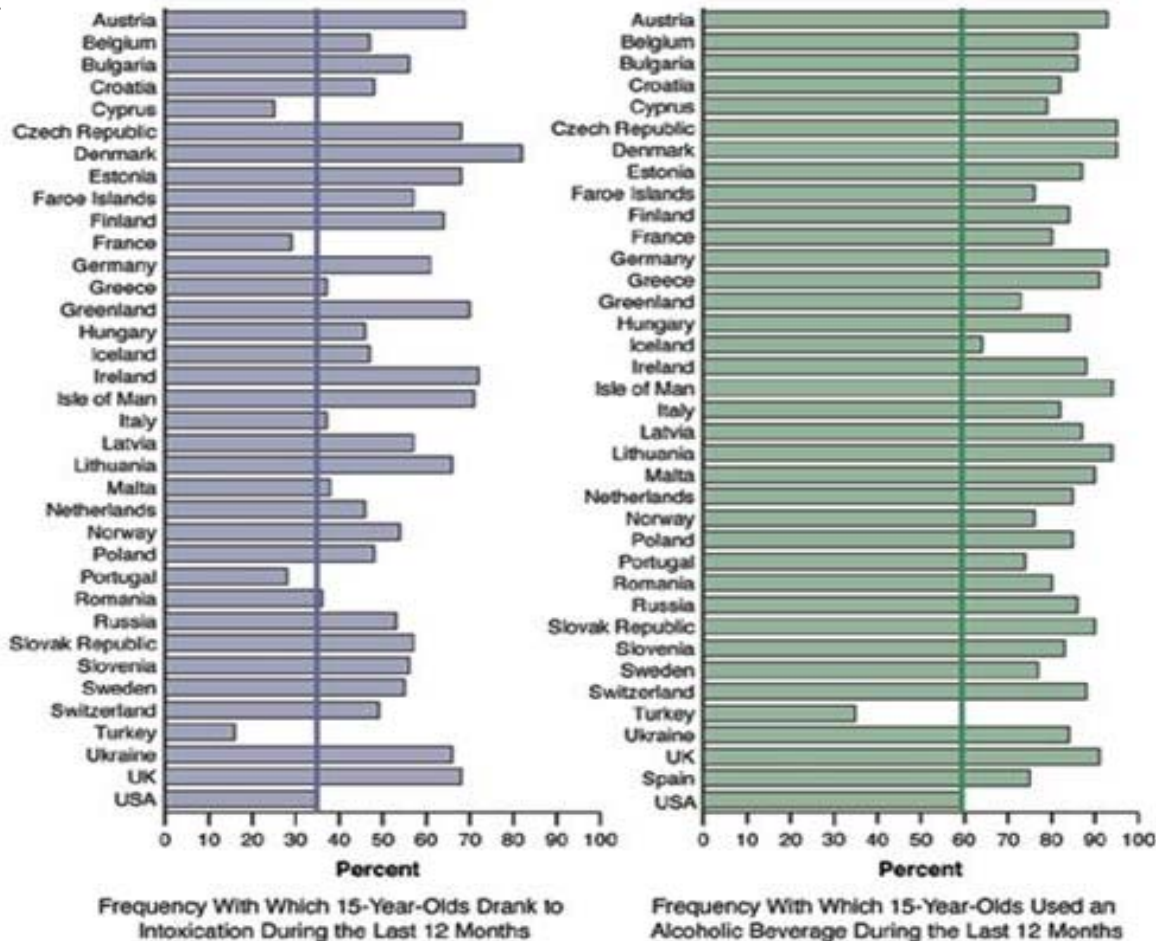


Figure 2 Alcohol use by youth is an international phenomenon. The 2003 European School Survey Project on Alcohol and Other Drugs (ESPAD) surveyed 15-year-olds in 35 European countries where legal drinking ages are lower (typically ages 16–18) than in the United States. The ESPAD questions were similar to those used with 10th graders in the U.S. Monitoring the Future study. In all European countries except the predominantly Moslem nation of Turkey, a greater percentage of 15-year-olds drank alcohol than in the United States; and in more than three-quarters of the countries, a greater percentage reported drinking to intoxication in the previous year than in the United States.
SOURCE: <http://www.espad.org/reports.html>

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Reference: <http://www.niaaa.nih.gov>