



understanding Underage Drinking

Alcohol is the drug of choice among youth. Many young people are experiencing the consequences of drinking too much, at too early an age. As a result, underage drinking is a leading public health problem in this country.

Research shows that alcohol drinking is widespread among adolescents. For example, 2002 data from Monitoring the Future, an annual survey of U.S. youth, show that more than three-fourths of 12th graders, two-thirds of 10th graders, and nearly half of 8th graders have drunk alcohol at some point in their lives. And when youth drink, they tend to drink heavily. Underage drinkers between the ages of 12 and 17 consume on average 4 to 5 drinks per occasion, about 5 times a month. By comparison, adult drinkers aged 26 and older consume on average 2 to 3 drinks per occasion, about 9 times a month.

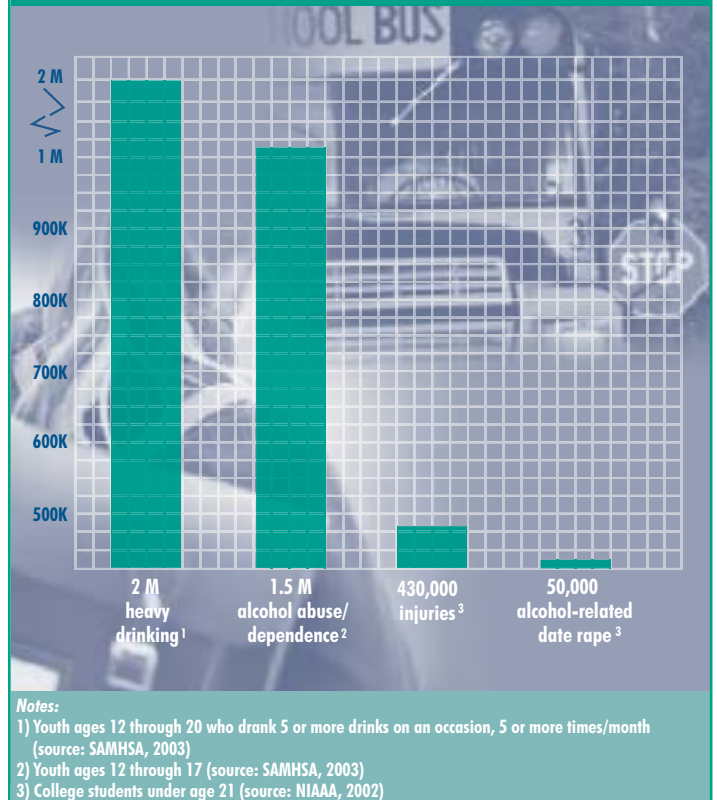
Underage drinking can result in a range of adverse short- and long-term consequences, including academic and/or social problems; physical problems such as hangovers or illnesses; unwanted, unintended, and unprotected sexual activity; physical and sexual assault; memory problems; increased risk of suicide and homicide; alcohol-related car crashes and other unintentional injuries such as burns, falls, and drownings; and death from alcohol poisoning.

Understanding the Problem

Recent research suggests that the kind of serious drinking problems previously associated with middle adulthood (including alcoholism) often emerge during adolescence and young adulthood. Analyses of data from the National Longitudinal Alcohol Epidemiologic Survey of persons 18 and older in the United States show that drinking early in life increases the likelihood of developing an alcohol use disorder later. For example, the survey showed that young people who began drinking before age 15 were 4 times more likely to develop alcoholism than those who began drinking at age 21.

The college drinking initiative, launched by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in 1998, has advanced our understanding of drinking by college students, particularly the heavy

STATISTICS ON UNDERAGE DRINKING



episodic consumption commonly called “binge” drinking. It has also underscored the fact that while some students begin drinking in college, most begin much earlier—in high school, middle school, and even elementary school.

These and other findings that have helped scientists develop a better understanding of alcohol consumption during adolescence have led to a fundamental change in the way researchers think about alcohol abuse and dependence. Scientists now believe that alcohol problems are probably best characterized as developmental disorders, with consequences that play out over the life span.

Significant changes occur in the body during adolescence, including rapid hormonal alterations and the formation of new neural networks in the brain. Adolescence is also a time for trying new experiences and activities that emphasize socializing with peers

and conforming to peer-group standards. These new activities may place young people at particular risk for initiating and continuing alcohol consumption. Exposing the brain to alcohol during this period may interfere with important developmental processes and possibly result in short- and/or long-term cognitive impairment. It may also increase the risk for alcohol dependence.

Scientists now believe that alcohol problems are probably best characterized as developmental disorders, with consequences that play out over the life span.

A recent brain imaging study has shown structural differences in the brains of 17-year-olds being treated for alcohol dependence as compared with the brains of those who are not alcohol dependent. Specifically, the hippocampus—a part of the brain important for learning and memory—was smaller in alcohol-dependent research participants than it was in nondependent participants.

It is not clear whether starting to drink at an early age actually causes alcoholism or whether it simply indicates an existing vulnerability to

alcohol use disorders. Some evidence indicates that genetic, physiologic, and psychiatric factors may contribute to the relationship between early drinking and subsequent alcoholism. Environmental factors may also be involved, especially in alcoholic families, where children may start drinking earlier because of easier access to alcohol at home, family acceptance of drinking, and lack of parental monitoring.

Future Directions

The immediate and long-term effects of adolescent alcohol use demand the development of effective prevention and treatment programs. Research toward those ends is a top priority at NIAAA. As the lead Federal agency supporting and conducting basic and applied research on alcohol problems, NIAAA has spearheaded an Initiative on Underage Drinking to intensify our research, evaluation, and outreach related to underage drinking.

Advances in scientific research have helped shed light on several important aspects of this problem, and we will continue to learn about effective prevention and treatment options through ongoing and planned studies. At the same time, however, underage drinking

rates have remained constant—and unacceptably high—for about a decade. Clearly, more work remains to be done on all aspects of this problem, a need acknowledged by the Institute of Medicine in its recent report on underage drinking.

A variety of prevention and intervention tools directed at the individual, family, school, and community have brought about some positive behavioral change with regard to underage drinking. To determine whether these interventions are enduring and broadly applicable or whether other strategies are needed will require further studies to follow cohorts of young people from childhood through college. Finding lasting solutions to such an entrenched problem will not be easy, but we are confident that diligent research efforts will meet this urgent challenge.

To fully understand the risk and protective factors for, and consequences of, alcohol consumption during the first decades of life, we must study alcohol consumption as a developmental phenomenon that begins in childhood and continues through adolescence and into young adulthood. A single approach for preventing or treating underage drinking will likely be less effective than multiple, developmentally appropriate approaches.

About NIAAA

NIAAA, one of the 27 Institutes and Centers of the National Institutes of Health, provides leadership in the national effort to reduce alcohol-related problems by

- ▲ Conducting and supporting research in a wide range of scientific areas, including genetics, neuroscience, epidemiology, health risks and benefits of alcohol consumption, prevention, and treatment
- ▲ Coordinating and collaborating with other research institutes and Federal programs on alcohol-related issues
- ▲ Collaborating with international, national, State, and local institutions, organizations, agencies, and programs engaged in alcohol-related work
- ▲ Translating and disseminating research findings to health care providers, researchers, policymakers, and the public

For More Information

National Institute on Alcohol Abuse and Alcoholism
National Institutes of Health
U.S. Department of Health and Human Services
www.niaaa.nih.gov