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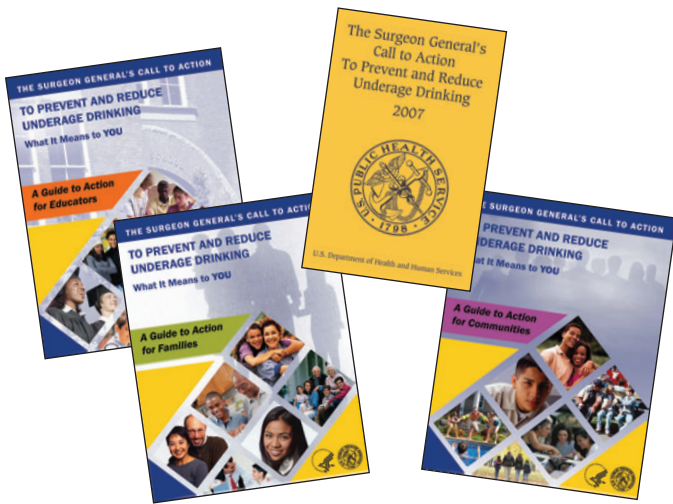
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UNDERAGE DRINKING— Highlights From *The Surgeon General's Call to Action To Prevent and Reduce Underage Drinking*

In March 2007, the Acting Surgeon General of the United States issued a *Call to Action To Prevent and Reduce Underage Drinking*. The National Institute on Alcohol Abuse and Alcoholism's (NIAAA's) Underage Drinking Research Initiative provided much of the scientific foundation for that document. The *Call to Action* highlights the nature and extent of underage drinking and its consequences. It suggests a new, more comprehensive and developmentally sensitive approach to understanding, preventing, and reducing underage drinking. Importantly, the *Call to Action* emphasizes that everyone has a role in preventing and reducing underage drinking—parents, schools, communities, colleges and universities, the health care system, the criminal and juvenile justice systems and law enforcement, and governments and policymakers. Later in 2007, the Surgeon General also issued three separate guides—for families, educators, and communities—based on the *Call to Action*.

Goals of the *Call to Action*

In order to prevent and reduce underage drinking, the Surgeon General's *Call to Action* sets forth the following six goals:

- Goal 1:** Foster changes in American society that facilitate healthy adolescent development and that help prevent and reduce underage drinking.
- Goal 2:** Engage parents and other caregivers, schools, communities, all levels of government, all social systems that interface with youth, and youth themselves in a coordinated national effort to prevent and reduce underage drinking and its consequences.
- Goal 3:** Promote an understanding of underage alcohol consumption in the context of human development and maturation that takes into account individual adolescent characteristics as well as environmental, ethnic, cultural, and gender differences.
- Goal 4:** Conduct additional research on adolescent alcohol use and its relationship to development.
- Goal 5:** Work to improve public health surveillance on underage drinking and on population-based risk factors for this behavior.
- Goal 6:** Work to ensure that policies at all levels are consistent with the national goal of preventing and reducing underage alcohol consumption.

Strategies outlined in the *Call to Action* address:

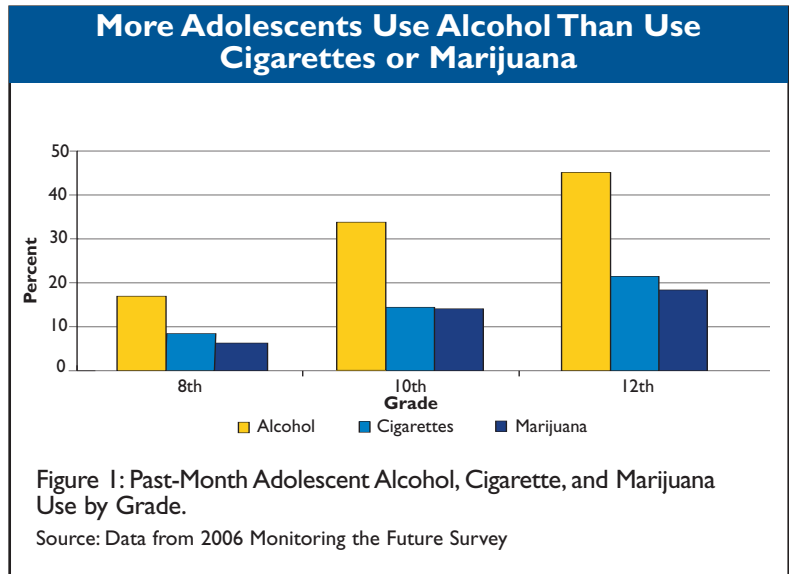
- 1) Changing the culture by challenging norms and expectations surrounding underage drinking;
- 2) Preventing adolescents from starting to drink;
- 3) Delaying initiation of drinking;
- 4) Intervening early, especially with high-risk youth;
- 5) Reducing drinking and its negative consequences, including the progression to alcohol use disorders (AUDs) among those who already have started drinking; and
- 6) Identifying adolescents who have AUDs and therefore could benefit from treatment and recovery support services (1).

THE NATURE AND EXTENT OF UNDERAGE ALCOHOL USE

Underage drinking is a significant but often overlooked problem in the United States. Young people between the ages of 12 and 20 are more likely to use alcohol than use tobacco or illicit drugs, including marijuana (2–4) (see figure 1). Although adolescents tend to drink less frequently than adults, they drink considerably more per occasion—5 drinks on average. Underage alcohol use, and especially binge drinking¹—a particularly harmful pattern of drinking—puts individuals at risk for a range of problems (4).

Despite the high prevalence of and the problems associated with underage drinking, many adults do not realize the extent of the problem, or do not view underage drinking as harmful. Many see alcohol use by teens as a “rite of passage” and may even facilitate it (1). Challenging this culture of acceptance is key to preventing and reducing underage drinking.

Alcohol use is intertwined with growing up in the United States. Both drinking and binge drinking ramp up dramatically during the teen years and into early adulthood (4). By age 15, approximately 50 percent of boys and girls have had a whole drink of alcohol; by age 21, approximately 90 percent have done so (see figure 2). Even more worrisome is the fact that many youth engage in binge drinking. National surveys indicate an increase in binge drinking days for girls through age 18 and boys through age 20 (see figure 3). Among college students, about 80 percent drink alcohol, about 40 percent binge drink, and about 20 percent binge drink three or more times within a 2-week period (5). Among underage military personnel, 62.3



percent report drinking alcohol at least once a year, and 21.3 percent report heavy alcohol use (6).²

The number of young people who drink and the way they drink results in a wide range of negative consequences affecting large numbers of underage drinkers and those around them. These consequences include risky sexual behavior; physical and sexual assaults; potential effects on the developing brain; problems in school, at work, and with the legal system; various types of injury; car crashes; homicide and suicide; and death from alcohol poisoning.

In addition, early initiation of drinking is associated with alcohol dependence both during adolescence and later in life. According to a landmark survey on the drinking habits of Americans, the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), the highest prevalence of alcohol dependence³ is among 18- to 20-year-olds (7).

“*Research tells us that underage drinking can derail healthy development.*”

— TING-KAI LI, M.D., DIRECTOR,
NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM

¹ Most college drinking studies define binge drinking as “5 or more drinks in a row for men and 4 or more drinks in a row for women” (National Institute on Alcohol Abuse and Alcoholism [NIAAA], National Advisory Council). However, in 2004, the National Advisory Council revised the definition of binge drinking as follows: “a pattern of drinking alcohol that brings blood alcohol concentration (BAC) to 0.08 gram percent or above. For the typical adult, this pattern corresponds to consuming 5 or more drinks (male) or 4 or more drinks (female) in about 2 hours” (NIAAA National Advisory Council).

² In this survey, heavy alcohol use refers to drinking 5 or more drinks at least once a week per typical drinking occasion.

³ As defined in the most recent editions of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV and DSM-IV-TR)*.

Alcohol Use Increases Dramatically During Adolescence

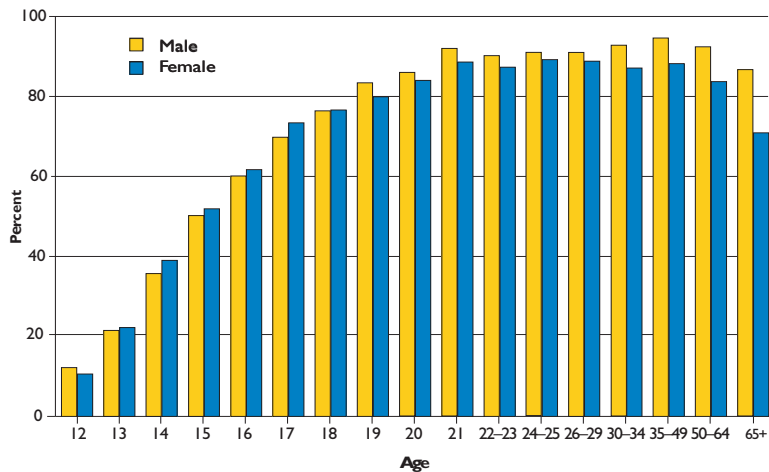


Figure 2: Percentage of Americans Who Have Ever Drunk Alcohol (A Whole Drink).

Source: SAMHSA data from 2005 National Survey on Drug Use and Health (NSDUH)

THE CONNECTION BETWEEN ADOLESCENT DEVELOPMENT AND ALCOHOL USE

Why is alcohol so appealing to young people, and why does drinking escalate so dramatically during adolescence? As detailed in the *Call to Action*, research shows that a variety of social, cultural, and biological factors influence an adolescent’s decision to drink, and that drinking is linked not only to individual risk factors but also to adolescent development. Recognizing that adolescents operate within many different social systems, all of which can influence their drinking behavior, environmental factors must also be considered. Understanding all these factors, including the processes of adolescent development, is vital to creating effective interventions and identifying young people who may be especially vulnerable to developing problems with alcohol.

Developmental factors. Adolescence is a key period in human development, a time of dramatic changes—both biological and social. Puberty, the hallmark of early adolescence, brings important physical and psychological changes. A number of social transitions also characterize adolescence, both those imposed on youth, such as the transitions from elementary to middle to high school, and those

initiated by young people themselves, such as changing peer groups and spending less time with family and more with friends. Each of these transitions can increase social pressures, stresses, and expectations that contribute to underage drinking.

During adolescence the tendency to take risks also increases, as adolescents seek greater independence and new experiences. Research indicates that risk taking during adolescence is in part biologically driven. Normal changes in structure, neuron connectivity (e.g., “wiring”), and physiology that occur at different times in various regions of the developing brain may help explain the changing balance between emotions and self-regulation in adolescence (8). For example, the limbic system, a part of the brain associated with risk taking and novelty- and sensation-seeking, matures earlier than the frontal cortex, which is associated with judgment, self-regulation, and impulse control (9).

Research with animals suggests that adolescents may experience alcohol’s effects differently from adults, and this may affect their drinking behavior, in particular their tendency to binge drink. Animal studies suggest that adolescents tend to be more sensitive than adults to the stimulating effects of alcohol and less sensitive to some of its more unpleasant effects, including sedation, hangover, and loss of muscular coordination

Among Adolescents Who Drink, the Number of Binge Drinking Days Increases With Age

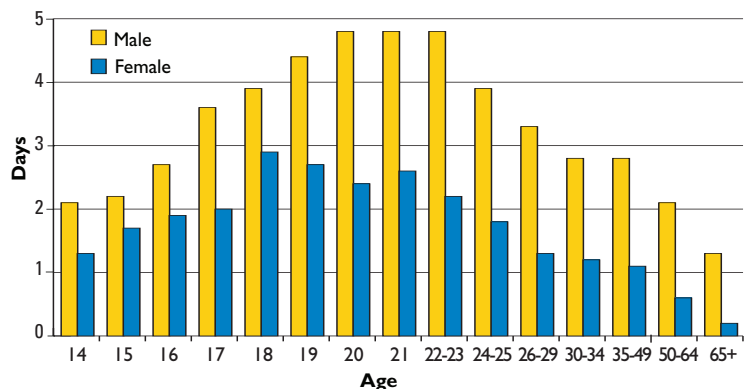


Figure 3: Number of Days in the Past 30 in Which Drinkers Consumed 5 or More Drinks, by Age and Gender.

Source: SAMHSA data from 2005 NSDUH



(ataxia) (for review, see 10 and 11). This may contribute to binge drinking, a practice common among adolescents that puts them at high risk for negative consequences. For example, they may engage in activities that they are too intoxicated to perform (such as driving) or to drink to the point of coma (1).

Finally, research shows that adolescents' expectations about alcohol use—that is, what they “expect” to experience when drinking—influence their drinking. As discussed in the *Call to Action*, adolescents who view alcohol more positively are more likely to drink than those who view alcohol negatively (1). It also is worth noting that expectations change as children mature. Between the ages of 9 and 13, children's expectations about alcohol shift from primarily negative to primarily positive (12,13).

Individual risk factors. Although adolescence in general brings increased risk for alcohol use, certain factors put some individuals at particular risk for abusing alcohol. These include high levels of impulsiveness, novelty seeking, and aggression; conduct or behavior problems (14); and low harm avoidance, or a tendency not to consider the negative consequences of one's actions (15). Additionally, engaging in risky behaviors in childhood and early adolescence may be associated with later alcohol use (16). Mental disorders, including depression and anxiety, also are correlated with adolescent alcohol use. Mental disorders and underage alcohol use can be interdependent: adolescents may use alcohol to cope with depression and anxiety, and alcohol consumption may raise levels of depression and anxiety (1). It also is important to recognize that children of alcoholics are at increased risk for developing prob-

lems with alcohol. These individuals are between 4 and 10 times more likely to become alcoholics than those with no family history of alcoholism (17).

CONCLUSION: CHALLENGING A CULTURE OF ACCEPTANCE

As demonstrated in the *Call to Action*, underage drinking is linked to a complex array of social, cultural, and biological factors. Efforts to address it must therefore take into account the complex dynamics of adolescent development, environmental influences, and the role of individual characteristics in an adolescent's decision to drink (1). In addition, because adolescents become increasingly involved in social systems outside the family as they mature, it is incumbent on these systems to take an active role along with parents in discouraging the use of alcohol by young people and helping those already using alcohol to change their behavior. In the *Call to Action* the Surgeon General calls on all Americans to commit to changing the culture around underage drinking in the United States. Parents, schools, communities, colleges and universities, the health care system, the criminal and juvenile justice systems and law enforcement, and governments and policymakers—all must work to prevent and reduce underage drinking.

According to the Acting Surgeon General, “a significant point of the *Call to Action* is this: Underage alcohol use is not inevitable, and schools, parents, and other adults are not powerless to stop it” (1). The *Call to Action* is a wake-up call to American society. The Nation as a whole must mobilize to prevent and reduce underage drinking and the adverse personal, social, and economic consequences associated with it.

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“*We can no longer ignore what alcohol is doing to our children.*”

— **REAR ADMIRAL KENNETH MORITSUGU, M.D., M.P.H.,
ACTING SURGEON GENERAL OF THE UNITED STATES**

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Resources

- ▶ **The Surgeon General's Call to Action To Prevent and Reduce Underage Drinking.** This *Call to Action* was developed by the U.S. Surgeon General's Office in collaboration with NIAAA and the Substance Abuse and Mental Health Services Administration (SAMHSA) to focus national attention on the persistent problem of underage drinking. It contains concrete and practical suggestions for parents, schools, communities, colleges and universities, the health care system, the criminal and juvenile justice systems and law enforcement, and governments and policymakers on how they can make a difference.
- ▶ **A Guide to Action for Educators, A Guide to Action for Families, and A Guide to Action for Communities.** The Surgeon General's Office has developed three guides specifically for parents, educators, and members of the community based on the *Call to Action*. These guides offer practical suggestions on what members of each of these groups can do to prevent and reduce underage drinking.

To order this *Call to Action* or any of the *Guides*, contact SAMHSA's National Clearinghouse for Alcohol and Drug Information at 1-800-729-6686 or visit <http://ncadi.samhsa.gov/>. These publications are also available online at <http://www.surgeongeneral.gov/topics/underagedrinking>.



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