

# Consequences of Underage Drinking



All text in this fact sheet is excerpted directly from *Reducing Underage Drinking: A Collective Responsibility*, a 2004 report from The National Academies.

## Social Costs

A recent report concluded that the cost of alcohol use by youth was \$53 billion in 1996, including \$19 billion from traffic crashes and \$29 billion from violent crime<sup>1</sup> (*Reducing Underage Drinking: A Collective Responsibility*, 67).

## Consequences of Acute Impairment

Acute consequences of underage drinking include unintentional death and injury associated with driving or engaging in other risky tasks after drinking, including homicide and violence, suicide attempts, sexual assault, risky sexual behavior, and vandalism and property damage. In addition, these consequences appear to be more severe for those who start drinking at a young age (*Reducing Underage Drinking*, 59).

## Drinking and Driving

- Youth are overrepresented in alcohol-related fatal car crashes compared with the older population<sup>2</sup> (*Reducing Underage Drinking*, 60).
- While only 7 percent of licensed drivers in 2000 were aged 15 to 20, they represented approximately 13 percent of drivers involved in fatal crashes who had been drinking<sup>3</sup> (*Reducing Underage Drinking*, 60).
- According to Grunbaum et al. (2002), 38.3 percent of Latinos, 30.3 percent of whites, and 27.6 percent of African Americans [in the 9th to 12th grades] rode with a driver who had been drinking alcohol. And 14.7 percent of whites, 13.1 percent of Latinos, and 7.7 percent of African Americans ... admitted to driving a car after drinking alcohol<sup>4</sup> (*Reducing Underage Drinking*, 60).
- Young people who have been drinking are less likely to wear a safety belt. They are more likely to get in a car with an intoxicated driver: 41 percent of frequent heavy drinkers reported riding with an intoxicated driver, compared with only 14 percent of those who never drank<sup>5</sup> (*Reducing Underage Drinking*, 60).

## Homicide, Suicide, and Crime

- Alcohol has been reported to be involved in 36 percent of homicides, 12 percent of male suicides, and 8 percent of female suicides involving people under 21—a total of about 1,500 homicides and 300 suicides in 2000. Homicide is the second leading cause of death for 15- to 24-year-olds<sup>6</sup> (*Reducing Underage Drinking*, 61).
- Individuals under the age of 21 commit 45 percent of rapes, 44 percent of robberies, and 37 percent of other assaults,<sup>7</sup> and it is estimated that 50 percent of violent crime is alcohol-related<sup>8</sup> (*Reducing Underage Drinking*, 61).

- On college campuses 95 percent of all violent crime and 90 percent of college rapes involve the use of alcohol by the assailant, victim, or both<sup>9</sup> (Reducing Underage Drinking, 61).

## Sexual Activity

- More than 70,000 students aged 18-24 are victims of alcohol-related sexual assault or date rape<sup>10</sup> (Reducing Underage Drinking, 62).
- Young people seem to be aware that using alcohol influences their decisions about sexual behavior: 29 percent of 15- to 17-year-olds and 37 percent of 18- to 24-year-olds said that alcohol or drugs influenced their decision to do something sexual<sup>11</sup> (Reducing Underage Drinking, 62).
- A college survey conducted by the Boston University School of Public Health showed that among drinkers, those who [were first drunk] before the age of 13 were twice as likely to have unplanned sex and more than twice as likely to have unprotected sex<sup>12</sup> (Reducing Underage Drinking, 62).

## Effects on the Adolescent Brain

New research on adolescent brain development suggests that early heavy alcohol use may also have negative effects on the actual physical development of brain structure<sup>13</sup> (Reducing Underage Drinking, 64).

Youth with alcohol use disorders also performed worse on memory tests than nondrinkers, further suggesting that the structural difference in hippocampus size was affecting brain functioning<sup>14</sup> (Reducing Underage Drinking, 65).

Alcohol use during adolescence may have a direct effect on brain functioning: negative effects included decreased ability in planning and executive functioning, memory, spatial operations, and attention<sup>15</sup> (Reducing Underage Drinking, 65).

<sup>1</sup>D. Levy, T. Miller, and K. Cox, *Costs of Underage Drinking* (Calverton, MD: prepared by Pacific Institute for Research and Evaluation for the Office of Juvenile Justice and Delinquency Prevention, 1999). <sup>2</sup>National Highway Traffic Safety Administration, *Youth Fatal Crash and Alcohol Facts 2000* (Washington, DC: U.S. Department of Transportation, 2002). <sup>3</sup>Ibid. <sup>4</sup>J.A. Grunbaum et al., "Youth Risk Behavior Surveillance—United States, 2001," *MMWR* 51, no. SS-4 (June 28, 2002): 4. <sup>5</sup>R. Hingson and D. Kenkel, "Social and Health Consequences of Underage Drinking," in *Reducing Underage Drinking: A Collective Responsibility, Background Papers* (Washington, DC: The National Academies Press, 2004). <sup>6</sup>Centers for Disease Control and Prevention, National Center for Health Statistics Vital Statistics System, "[10 Leading Causes of Death, United States: 2000, All Races, Both Sexes](#)," from *WISQARS Leading Causes of Death Reports, 1999-2000*. <sup>7</sup>D. Levy, T. Miller, and K. Cox, *Costs of Underage Drinking*, 4. <sup>8</sup>H. Harwood, D. Fountain, and G. Livermore, *Economic Costs of Alcohol and Drug Abuse in the United States, 1992* (Rockville, MD: National Institute on Drug Abuse, 1998). <sup>9</sup>National Center on Addiction and Substance Abuse at Columbia University, *Rethinking Rites of Passage: Substance Abuse on America's Campuses* (New York City: CASA, 1994), 4. <sup>10</sup>R. Hingson et al., "Magnitude of Alcohol-Related Mortality and Morbidity among U.S. College Students Ages 18-24," *Journal of Studies on Alcohol* 63, no. 2 (March 2002): 141. <sup>11</sup>The Henry J. Kaiser Foundation, "[Substance Use and Risky Sexual Behavior: Attitudes and Practices Among Adolescents and Young Adults](#)," *Survey Snapshot* (February 2002). <sup>12</sup>R. Hingson, T. Heeren, M.R. Winter, and H. Wechsler, "Early Age of First Drunkenness as a Factor in College Students' Unplanned and Unprotected Sex Attributable to Drinking," *Pediatrics* 111 (2003): 34-41. <sup>13</sup>S.A. Brown and S. F. Tapert, "Health Consequences of Adolescent Alcohol Use," in *Reducing Underage Drinking: A Collective Responsibility, Background Papers* (Washington, DC: The National Academies Press, 2004). <sup>14</sup>S.F. Tapert et al., "fMRI Measurement of Brain Dysfunction in Alcohol-Dependent Young Women," *Alcoholism: Clinical and Experimental Research* 25, no. 2 (2001): 236-245. <sup>15</sup>P.R. Giancola and A.C. Mezzich, "Neuropsychological Deficits in Female Adolescents with a Substance Use Disorder: Better Accounted for Conduct Disorder," *Journal of Studies on Alcohol* 61, no. 6 (2000): 809-817; S.A. Brown et al., "Neurocognitive Functioning of Adolescents: Effects of Protracted Alcohol Use," *Alcoholism: Clinical and Experimental Research* 24, no. 2 (2000): 164-71; S.F. Tapert and S.A. Brown, "Neuropsychological Correlates of Adolescent Substance Abuse: Four-year Outcomes," *Journal of the International Neuropsychological Society* 5 (1999): 481-493.