Iowa Substance Abuse Brief

Issue 2

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Alcohol: Binge Drinking

Drowning in the Field of Dreams

Binge drinking by Iowans is a serious problem. Binge drinking is commonly defined as five or more drinks of alcohol on the same occasion for men and four or more for women. The 2006 National Survey on Drug Use and Health (NSDUH) estimated that 11% (approximately 28,000) of Iowans 12-17 years of age and 51% (approximately 177,000) of Iowans ages 18-25 had engaged in binge drinking during the past month. Favorable community and peer norms about alcohol use and easy access both contribute to this problem.

Consequences of binge drinking can be immediate, like alcohol poisoning or injury, or much more delayed such as an increased risk for stroke or alcoholism. In either case the results can be severe.

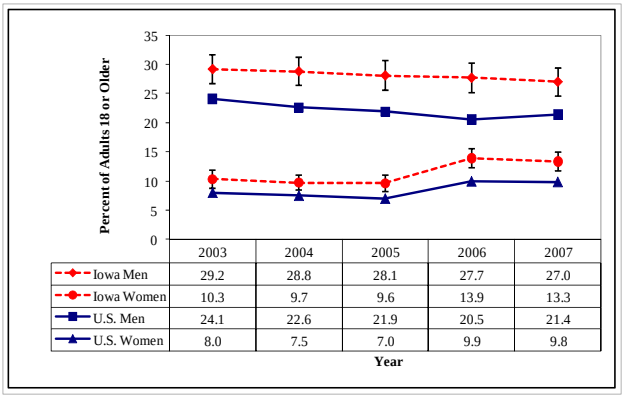
In Brief

- The percent of 18-25 year-old Iowans who engaged in binge drinking in the past month was higher than the national rate of 42%.
- Binge drinking among women increases the risk for breast cancer by 55%.
- Binge drinking nearly doubles the risk of stroke for men and women.
- 1 in 4 students in 11th grade report binge drinking in the past 30 days.
- College students who binge drink are 10 times more likely to suffer an injury.
- Fewer Iowans over age 12 view drinking five or more drinks of alcohol once or twice a week as a great risk (as defined by NSDUH), compared with the national rate.

Binge Drinking

Iowa binge drinking rates, as estimated by the 2007 Behavioral Risk Factor Surveillance System (BRFSS), for women (13.3%) and men (27%) are markedly higher than the respective national rates (Figure 1).

Figure 1: Percent of Adults Binge Drinking in the Past Month



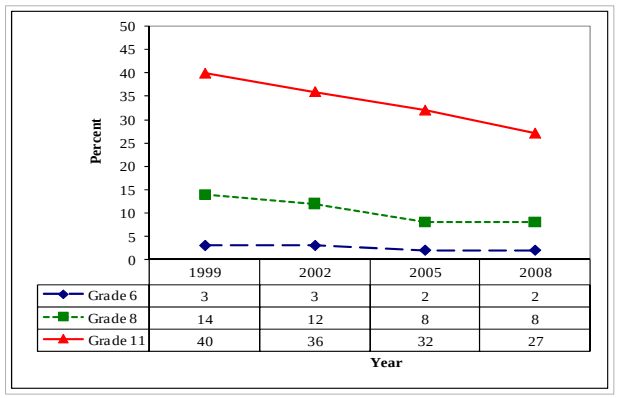
	2003	2004	2005	2006	2007
Iowa Men	29.2	28.8	28.1	27.7	27.0
Iowa Women	10.3	9.7	9.6	13.9	13.3
U.S. Men	24.1	22.6	21.9	20.5	21.4
U.S. Women	8.0	7.5	7.0	9.9	9.8

Source: Behavioral Risk Factor Surveillance System
Notes 1: Confidence intervals allow comparison of Iowa and U.S. **2:** The binge drinking question was changed in 2006; the number of drinks per occasion to be considered binge drinking for women was lowered from five to four.

All age groups except 65+ had a higher binge drinking rate than the national average. The largest gap between the Iowa and national rates was for 25-34 and 35-44 year-olds; both were higher than the national rates.

Binge drinking among Iowa youth appears to be on the decline. In 2008, more than one in four 11th graders in Iowa engaged in binge drinking in the past month; the ratio for 8th graders was about one in ten (Figure 2).

Figure 2: Percent of 6th-, 8th-, and 11th-Graders Binge Drinking



	1999	2002	2005	2008
Grade 6	3	3	2	2
Grade 8	14	12	8	8
Grade 11	40	36	32	27

Source: 2008 Iowa Youth Survey

Consequences of Binge drinking

The consequences of binge drinking are multi-faceted, far-reaching, and long-lasting. A review of available literature shows that binge drinking by youth has many adverse effects. Adolescent heavy episodic drinking is associated with high blood pressure in the mid-20s[1]; and higher blood pressure can lead to many other problems. Similarly, heavy drinking in adolescence and young adulthood is associated with adverse heart and metabolic profiles later in life[2].

Research has identified some of the harmful affects of binge drinking on college students. College students who binge drink are over ten times more likely to have an injury, eight times more likely to argue with friends, and six times more likely to get into trouble with police. Students who binge drink also adversely affect other students around them, including insulting and humiliating other students, assault, damaging other's property, and unwanted sexual advances[3].

[1] Oesterle S, Hill KG, Hawkins JD, Guo J, Catalano RF, Abbott. RD: **Adolescent heavy episodic drinking trajectories and health in young adulthood** *Journal of Studies on Alcohol* 2004, **65:**204-209.

[2] Fan AZ, Russell M, Stranges S, Dorn J, Trevisan M: **Association of Lifetime Alcohol Drinking Trajectories with Cardiometabolic Risk.** *J Clin Endocrinol Metab* 2008, **93:**154-161.

[3] Wechsler H, Davenport A, Dowdall G, Moeykens B, Castillo S: **Health and behavioral consequences of binge drinking in college. A national survey of students at 140 campuses.** *JAMA* 1994, **272:**1672-1677.

Female college students who binge drink report over six times more sexual assaults than non binge drinkers[4].This research shows that binge drinking can have a wider impact than just on the individual.

Binge drinking can affect people at any age, not just youth or young adults. Binge drinking nearly doubles the risk of stroke[5]. It also reduces the body's ability to react to traumatic injury[6]. Binge drinking among women increases the risk of breast cancer by 55%[7]. These potential consequences of binge drinking are life changing. Unfortunately, many Iowans fail to realize the potential impact of binge drinking.

[4] Howard DE, Griffin MA, Boekeloo BO: **Prevalence and psychosocial correlates of alcohol-related sexual assault among university students.** *Adolescence* 2008, **43:**733-750

[5] Sundell L, Salomaa V, Vartiainen E, Poikolainen K, Laatikainen T: **Increased Stroke Risk Is Related to a Binge Drinking Habit.** *Stroke* 2008, **39:**3179-3184

[6] Greiffenstein P, Mathis KW, Stouwe CV, Molina PE: **Alcohol Binge Before Trauma/Hemorrhage Impairs Integrity of Host Defense Mechanisms During Recovery.** *Alcoholism: Clinical and Experimental Research* 2007, **31:**704-715.

[7] Morch LS, Johansen D, Thygesen LC, Tjonneland A, Lokkegaard E, Stahlberg C, Gronbaek M: **Alcohol drinking, consumption patterns and breast cancer among Danish nurses: a cohort study.** *Eur J Public Health* 2007, **17:**624-629.

Conclusions about Binge drinking in Iowa

1. Binge drinking is a major problem in Iowa.
2. According to estimates, nearly 675,000 Iowans over the age of 12 engaged in binge drinking at least once in a 30 day period.
3. For every four 11th graders in Iowa, one engaged in binge drinking in the past month; the rate was 1 in 10 for 8th graders.
4. Consequences of binge drinking occur at all ages. Binge drinking while young can lead to higher blood pressure and other adverse heart problems, as well as the likelihood of injury, fighting with friends, and trouble with the police. Binge drinking also increases the risk for stroke in men and women, and for breast cancer in women.

For more information

For more information or to learn about prevention and treatment resources contact the Iowa Substance Abuse Information Center at 1-866-242-4111 or www.drugfreeinfo.org.

Developed by the State Epidemiological Outcomes Workgroup: Iowa Department of Public Health, Division of Behavioral Health; Iowa Department of Human Rights, Division of Criminal and Juvenile Justice Planning; Iowa Department of Corrections; Iowa Department of Education; Governor's Office of Drug Control Policy; Iowa Consortium for Substance Abuse Research and Evaluation; and the Minnesota Institute of Public Health