

# The NSDUH Report

August 27, 2004

## Underage Drinking in Rural Areas

### In Brief

- In 2002, about 10 percent of persons aged 12 to 20 (an estimated 4 million persons) lived in rural areas
- Youths aged 12 to 17 who lived in rural areas reported higher rates of past month and binge alcohol use than nonrural youths; among those aged 18 to 20, rural persons reported lower rates of past month use than nonrural persons
- Youths aged 12 to 17 in rural areas reported lower levels of perceived risk from alcohol use, less disapproval of alcohol use, and less perceived parental disapproval of youth alcohol than those in nonrural areas

Prior studies show that underage persons (aged 20 or below) in rural areas use alcohol at rates similar to or higher than underage persons in urban areas. However, little research has focused on how this pattern varies across geographic and demographic subgroups.<sup>1,2</sup> The National Survey on Drug Use and Health (NSDUH) asks persons aged 12 or older to report on their use of alcohol during the past 30 days. Binge alcohol use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

This report presents comparisons from the 2002 NSDUH on the prevalence of any past month and binge alcohol use among persons below the legal drinking age (aged 12 to 20) who lived in rural and nonrural areas. Rural areas were defined as counties that were not part of metropolitan statistical areas (MSAs), as defined by the Office of Management and Budget,<sup>3</sup> and were classified as less urbanized (at least 2,500 but fewer than 20,000 population in urbanized areas) or completely rural (fewer than 2,500 population in urbanized areas).

### Alcohol Use among Underage Persons in Rural and Nonrural Areas

According to the 2002 NSDUH, an estimated 3.8 million persons aged 12 to 20 in the United States (about 10 percent of all persons aged 12 to 20) lived in rural areas. Approximately 3.1 million of those persons lived in less-urbanized counties that were not part of MSAs, and approximately 700,000 lived in completely rural counties.

In 2002, persons aged 12 to 20 who lived in rural areas reported a similar level of past month alcohol use compared with those who lived in nonrural areas (29 percent in both rural and nonrural areas). Underage persons in rural areas reported a slightly higher rate of binge alcohol use than those in nonrural areas (21 percent vs. 19 percent), though this difference was not statistically significant.

### Demographic Differences in Alcohol Use

The prevalence of past month alcohol use was higher in rural than nonrural areas for youths in age groups 12 or 13, 14 or 15, and 16 or 17 (Table 1).<sup>4</sup> In contrast, the prevalence of past month alcohol use was lower in rural than nonrural areas for persons aged 18 to 20. This pattern for 18 to 20 year-olds was partially due to a higher percentage of college students in nonrural than rural areas, as well as to higher rates of past month alcohol use among nonrural than rural college students.<sup>5</sup> Youths aged 12 to 17 who lived in rural areas also reported higher levels of binge drinking than youths who lived in nonrural areas. The rates of binge drinking were similar among rural and nonrural persons aged 18 to 20.

Underage males who lived in rural areas had a similar rate of past month alcohol use, but a higher rate of binge alcohol use, compared with underage males who lived in nonrural areas (Table 1). There were no differences between rural and nonrural females for either past month or binge alcohol use.

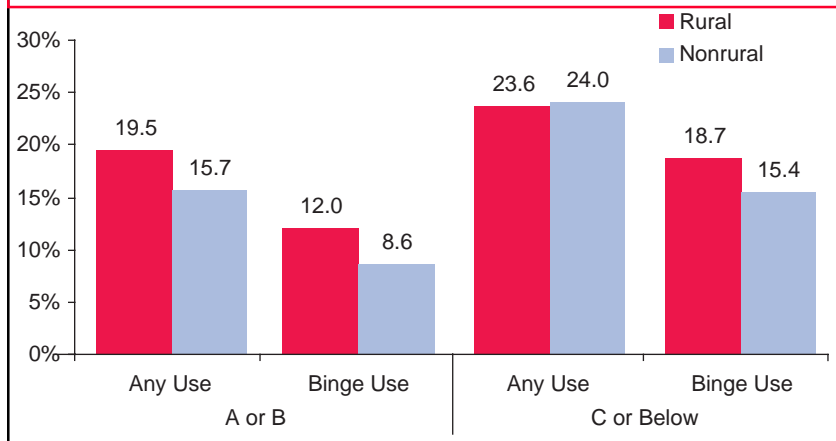
Underage white persons who lived in rural areas reported a lower level of past month alcohol use compared with those who lived in nonrural areas (Table 1). Rates of binge drinking were similar between underage white persons in rural and nonrural areas. Underage Hispanic persons who lived in rural areas reported higher levels of past month alcohol use (39 percent vs. 25 percent) and binge alcohol use (30 percent vs. 16 percent) compared with underage Hispanic persons who lived in nonrural areas.<sup>6</sup> There were no differences between rural and nonrural blacks for either past month or binge alcohol use.

Among underage persons who lived in the West, those who lived in rural areas reported higher rates of past month alcohol use and binge alcohol use compared with

**Table 1. Percentages of Persons Aged 12 to 20 Who Lived in Rural and Nonrural Areas Reporting Binge and Heavy Alcohol Use, by Age Group, Gender, Race/Ethnicity, and Geographical Region: 2002**

Characteristic	Any Past Month Use*		Binge Alcohol Use*	
	Rural**	Nonrural***	Rural**	Nonrural***
<b>Total</b>	28.6	28.8	20.9	19.1
<b>Age Group</b>				
12 or 13	6.6	4.0	4.1	1.6
14 or 15	18.1	16.4	12.0	8.9
16 or 17	36.0	32.2	25.0	21.0
18 or 20	46.1	51.6	35.9	36.5
<b>Gender</b>				
Male	30.8	29.4	25.0	21.4
Female	26.0	28.2	16.2	16.7
<b>Race/Ethnicity*</b>				
Non-Hispanic white	28.8	33.3	21.5	22.9
Non-Hispanic black	20.5	19.1	11.3	9.7
Hispanic	38.8	24.5	30.4	16.3
<b>Geographic Region</b>				
Northeast	32.9	31.6	25.3	20.5
Midwest	31.5	31.3	22.7	21.5
South	25.4	28.2	18.3	18.5
West	31.2	25.3	23.9	16.7

**Figure 1. Percentages of Rural\*\* and Nonrural\*\*\* Youths Aged 12 to 17 Reporting Any Past Month and Binge Alcohol Use,\* by Grades in Last Semester: 2002**



those who lived in nonrural areas (Table 1). There were no significant differences between rural and nonrural underage persons in the other three geographic regions.

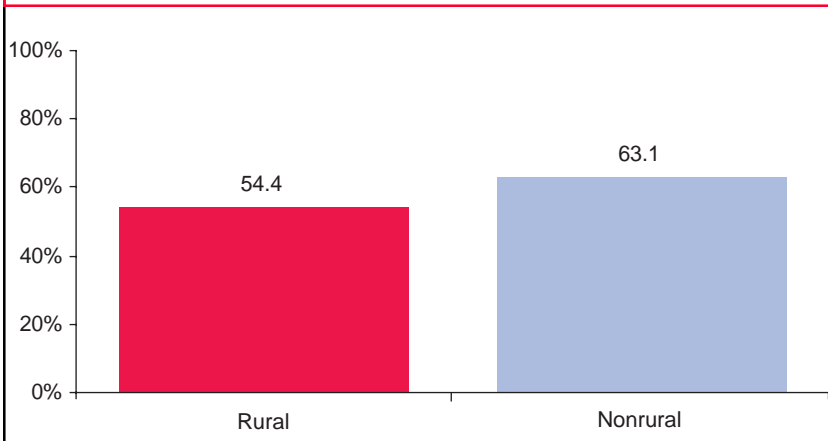
### Risk Factors for Alcohol Use

Youths aged 12 to 17 were asked to report their grades in the last semester, their perception of risk from alcohol use, and their own and their parents' disapproval of daily alcohol use. Among youths who received grades of A or B in

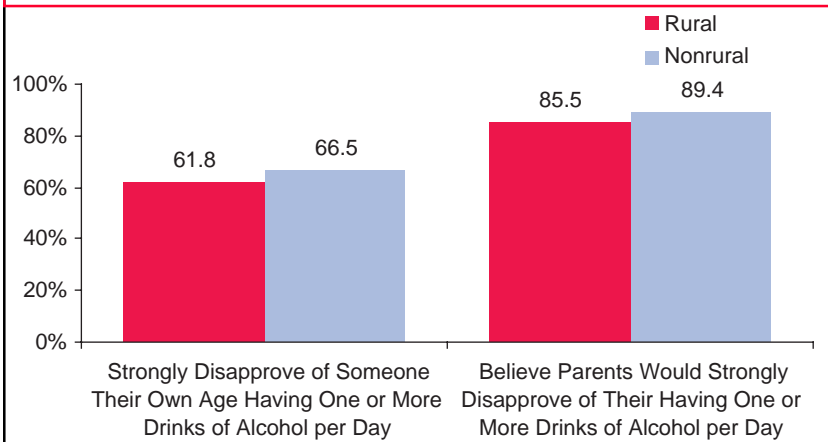
their last semester,<sup>7</sup> rural youths reported higher rates of past month alcohol use and binge alcohol use than nonrural youths (Figure 1). Among youths who received grades of C or below in their last semester, rural youths reported a higher rate of binge alcohol use than nonrural youths, though this difference did not reach statistical significance.

Youths aged 12 to 17 who lived in rural areas were less likely to perceive great risk from having four or five drinks of alcohol nearly every day than those who lived in nonrural areas

**Figure 2. Percentages of Youths Aged 12 to 17 in Rural\*\* and Nonrural\*\*\* Areas Who Perceived a Great Risk from Having Four or Five Drinks of Alcohol Nearly Every Day: 2002**



**Figure 3. Percentages of Youths in Rural\*\* and Nonrural\*\*\* Areas Who Disapprove of Daily Drinking or Believe Their Parents Disapprove of Daily Drinking: 2002**



(Figure 2). Youths in rural areas were less likely than youths in nonrural areas to strongly disapprove of someone their own age having one or more drinks nearly every day or to report that their parents would strongly disapprove if he or she were to have one or more drinks nearly every day (Figure 3).

**End Notes**

1. Cronk, C. E., & Sarvela, P. D. (1997). Alcohol, tobacco, and other drug use among rural/small town and urban youth: A secondary analysis of the Monitoring the Future data set. *American Journal of Public Health, 87*, 760-764.
2. Edwards, R. W. (1997). Drug and alcohol use among youth in rural communities. In E. B. Robertson, Z. Sloboda, G. M. Boyd,

L. Beatty, & N. J. Kozel (Eds.), *Rural substance abuse: State of knowledge and issues* (pp. 53-78, NIH Publication No. 97 - 4177, NIDA Research Monograph 168). Rockville, MD: National Institute on Drug Abuse. [Available as a PDF at <http://www.nida.nih.gov/pdf/Monographs/Monograph168/Download168.html>]

3. Office of Management and Budget. (2003, June 6). *OMB Bulletin No. 03-04: Revised definitions of metropolitan statistical areas, new definitions of micropolitan statistical areas and combined statistical areas, and guidance on uses of the statistical definitions of these areas*. Retrieved June 7, 2004, from <http://www.whitehouse.gov/omb/bulletins/b03-04.html>
4. The difference for past month alcohol use was significant at  $p < 0.05$  for persons aged 12 to 13, but  $p = 0.2676$  for persons aged 14 to 15 and  $p = 0.0664$  for persons aged 16 to 17.
5. Approximately 31 percent of persons aged 18 to 20 who lived in rural areas were full-time college students, compared to 42 percent who lived in nonrural areas. Approximately 51 percent of full-time college students who lived in rural areas reported past month alcohol use, compared with 58 percent of full-time college students who lived in nonrural areas. In comparison, 44 percent of persons not enrolled in college full-time who lived in rural areas reported past month alcohol use, compared with 47 percent of persons not enrolled in college full-time who lived in nonrural areas.
6. Estimates are based on a sample of 4,553 Hispanic persons aged 12 to 20, 251 of whom lived in rural areas. The 2002 NSDUH estimated that 3.5 percent (weighted) of Hispanic persons aged 12 to 20 lived in rural areas.
7. Estimates are based on a sample of 20,625 youths aged 12 to 17 who reported attending school, 2,936 of whom lived in rural areas.

**Figure Notes**

\* Binge alcohol use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days. Heavy alcohol use is defined as drinking five or more drinks on the same occasion on 5 or more days in the past 30 days; all heavy alcohol users are also binge alcohol users.

\*\* Counties classified as completely rural and counties that are not part of a metropolitan statistical area with an urban population under 20,000.

\*\*\*Counties with an urban population of 20,000 or more.

+ Small sample sizes prevented comparative analysis with Asians, American Indian or Alaska Natives, or Native Hawaiian or other Pacific Islanders.

Source: SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health, 2002.

The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). Prior to 2002, this survey was called the National Household Survey on Drug Abuse (NHSDA). The 2002 data are based on information obtained from 68,126 persons aged 12 or older, including 37,369 persons aged 12 to 20, 4,482 of whom lived in rural counties. The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their places of residence.

*The NSDUH Report* is prepared by the Office of Applied Studies (OAS), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a trade name of Research Triangle Institute.)

Information and data for this report are based on the following publication and statistics:

Office of Applied Studies. (2003). *Results from the 2002 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 03-3836, NHSDA Series H-22). Rockville,

MD: Substance Abuse and Mental Health Services Administration.

Also available online: <http://www.oas.samhsa.gov>

Because of improvements and modifications to the 2002 NSDUH, estimates from the 2002 survey should not be compared with estimates from the 2001 or earlier versions of the survey to examine changes over time.

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES  
Substance Abuse & Mental Health Services Administration  
Office of Applied Studies  
[www.samhsa.gov](http://www.samhsa.gov)

