

# The NSDUH Report

December 10, 2009

## Alcohol Use Before and After the 21st Birthday

There is an ongoing debate among legislators, educators, and public health officials concerning the optimal age at which young adults should be given the right to purchase and possess alcohol. The National Minimum Drinking Age Act of 1984

(23 U.S.C. § 158) required all States to set that age at 21. Recent research examining alcohol use behaviors among young adults in the weeks leading up to and following their 21st birthdays has found that the 21st birthday is often marked by an increase in alcohol consumption and its negative consequences and related risk factors.<sup>1</sup> Examination of patterns of alcohol use among a nationally representative sample of 20 and 21 year olds may further inform this line of research.

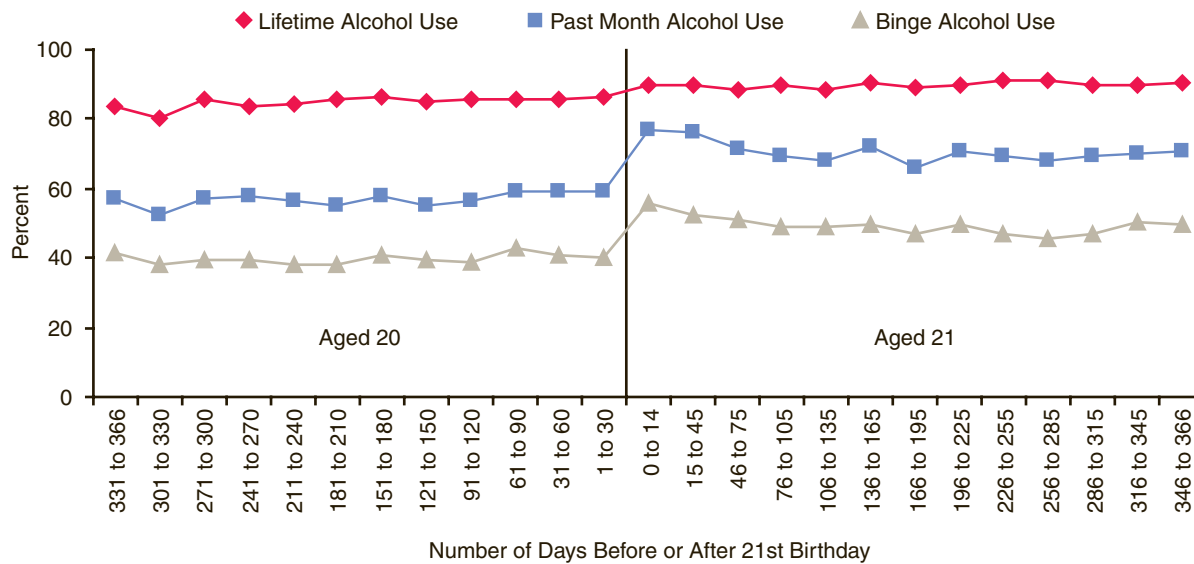
The National Survey on Drug Use and Health (NSDUH) includes questions about lifetime, past month (i.e., current), and binge alcohol use, as well as the age at first alcohol use. Binge alcohol use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

This issue of *The NSDUH Report* examines alcohol use before and after the 21st birthday. Using the information on the respondents' date of birth along with the date they were interviewed, it is possible to examine lifetime, current, and binge alcohol use among persons aged 20 or 21 in time intervals before and after the 21st birthday. All findings in this report are annual averages from combined 2002 to 2008 NSDUH data.

### In Brief

- Among young adults approaching their 21st birthdays (i.e., persons surveyed in the 30 days prior to their 21st birthdays), 86.1 percent had used alcohol in their lifetime, including 62.8 percent who had initiated use before their 18th birthdays
- Rates of past month and binge alcohol use were higher among young adults who had recently turned 21 than among those who were still 20 years old
- Rates of past month and binge alcohol use among 21 year olds declined and then stabilized in the months following their 21st birthdays, but their rates still remained higher than those for 20 year olds

**Figure 1. Lifetime, Past Month, and Binge Alcohol Use\* among Persons Aged 20 or 21, by Number of Days Surveyed Before or After 21st Birthday: 2002 to 2008**



\* 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.

Source: 2002 to 2008 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

## Age of Alcohol Use Initiation

Among young adults approaching their 21st birthdays (i.e., persons surveyed in the 30 days prior to their 21st birthday), 86.1 percent had used alcohol in their lifetime, including 62.8 percent who had initiated use before their 18th birthdays.

## Lifetime and Past Month Alcohol Use

The 21st birthday was generally associated with an increase in lifetime and past month alcohol use. Past month use was generally consistent across time during the year before the young adults reached their 21st birthdays, with past month alcohol use indicated by 57.4 percent of 20 year olds who were surveyed 331 to 366 days from their 21st birthdays and by 59.3 percent of those who were surveyed in the 30 days prior to their 21st birthdays (Figure 1; Table 1). This rate increased to 77.0 percent for 21 year olds surveyed on or within 14 days after their 21st birthdays and to 75.9 percent for those surveyed 15 to 45 days after their 21st birthdays. Following this increase associated with the 21st birthday, however, the rate of past month drinking decreased and stabilized at approximately 70 percent for 21 year olds who were surveyed 46 days or more after their 21st birthdays.

## Binge Alcohol Use

Similarly, the 21st birthday was associated with higher rates of past month binge alcohol use. This rate was 41.2 percent among 20 year olds who were surveyed 331 to 366 days before their 21st birthdays and approximately 40 percent for other 20 year olds. Binge drinking increased to 55.8 percent among 21 year olds who were surveyed on or within 14 days after their 21st birthdays, 52.5 percent among those who were surveyed 15 to 45 days after their 21st birthdays, and 51.3 percent among those who were surveyed 46 to 75 days after their 21st birthdays. The rate of past month binge drinking stabilized in the range of 45.6 to 50.2 percent among 21 year olds surveyed 76 or more days after their 21st birthdays.

## Discussion

The debate on lowering the legal drinking age is based partially on the belief that lowering it would not have a significant effect on the rate of drinking among young adults. The results in this report indicate that a large majority of 21 year olds initiated alcohol use before age 21, but the data also indicate that the occurrence of a person's 21st birthday results in higher rates of past month and binge alcohol use. The highest rates of past month and binge drinking occurred among 21 year olds who were

**Table 1. Lifetime, Past Month, and Binge Alcohol Use\* among Persons Aged 20 or 21, by Number of Days Surveyed Before or After 21st Birthday: 2002 to 2008**

Age	Days to/from 21st Birthday	Lifetime Alcohol Use, % (SE)	Past Month Alcohol Use, % (SE)	Past Month Binge Alcohol Use, % (SE)
20 Years	331-366	83.7 (1.16)	57.4 (1.54)	41.2 (1.51)
	301-330	80.5 (1.40)	52.7 (1.62)	38.1 (1.59)
	271-300	85.6 (1.16)	57.4 (1.64)	39.4 (1.63)
	241-270	83.4 (1.35)	57.8 (1.67)	39.2 (1.59)
	211-240	84.6 (1.18)	56.7 (1.66)	38.4 (1.57)
	181-210	85.8 (1.14)	54.9 (1.66)	38.2 (1.64)
	151-180	86.4 (1.11)	58.1 (1.64)	40.8 (1.66)
	121-150	84.7 (1.43)	55.1 (1.78)	39.4 (1.66)
	91-120	85.4 (1.16)	56.2 (1.65)	38.5 (1.56)
	61-90	85.9 (1.10)	59.5 (1.61)	42.7 (1.61)
	31-60	85.5 (1.20)	59.1 (1.68)	40.6 (1.65)
<31	86.1 (1.19)	59.3 (1.55)	39.9 (1.51)	
21 Years	<15	89.6 (1.59)	77.0 (2.08)	55.8 (2.29)
	15-45	90.0 (0.98)	75.9 (1.37)	52.5 (1.63)
	46-75	88.4 (1.18)	71.1 (1.55)	51.3 (1.66)
	76-105	90.0 (1.05)	69.2 (1.57)	48.9 (1.67)
	106-135	88.1 (1.17)	68.3 (1.60)	49.2 (1.61)
	136-165	90.5 (0.95)	72.1 (1.47)	49.8 (1.69)
	166-195	89.0 (1.07)	66.1 (1.58)	47.0 (1.63)
	196-225	89.9 (0.94)	70.9 (1.54)	49.9 (1.64)
	226-255	90.0 (1.00)	69.4 (1.46)	46.7 (1.55)
	256-285	90.9 (0.92)	68.0 (1.54)	45.6 (1.65)
	286-315	90.1 (0.94)	69.1 (1.48)	47.1 (1.65)
	316-345	90.1 (0.99)	70.1 (1.53)	50.2 (1.73)
	346-366	90.8 (1.21)	70.6 (1.88)	49.6 (2.06)

SE = Standard error.

\* 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.

Source: 2002 to 2008 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

surveyed on or within 14 days of their 21st birthdays; rates subsequently declined somewhat but remained higher than those found among 20 year olds. This suggests some celebratory drinking associated with the occasion, in addition to the attainment of legal drinking status. Given the association between alcohol use among young adults and negative consequences, such as car crashes and violent behavior, young adults who reach the legal drinking age are at increased risk for these negative consequences.

#### End Note

<sup>1</sup> Lewis, M. A., Lindgren, K. P., Fossos, N., Neighbors, C., & Oster-Aaland, L. (2009). Examining the relationship between typical drinking behavior and 21st birthday drinking behavior among college students: Implications for event-specific prevention. *Addiction, 104*, 760-767.

#### Suggested Citation

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Findings from the SAMHSA 2002 to 2008 National Surveys on Drug Use and Health (NSDUHs)

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The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The combined 2002 to 2008 data used in this report are based on information obtained from 39,065 persons aged 20 or 21. The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place 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 on the most recent NSDUH is available in the following publication:

Office of Applied Studies. (2009). *Results from the 2008 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 09-4434, NSDUH Series H-36). Also available online: <http://oas.samhsa.gov>.



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