SUBSTANCE USE AND ABUSE ON CAMPUS:
RESULTS FROM THE UNIVERSITY OF MICHIGAN
STUDENT LIFE SURVEY
(2009)

PREPARED BY:
CAROL J. BOYD, PH.D., JANET MALLEY, PH.D.,
SEAN ESTEBAN MCCABE, PH.D., & JAMES A. CRANFORD, PH.D.
SUBSTANCE ABUSE RESEARCH CENTER & ADDICTION RESEARCH CENTER
UNIVERSITY OF MICHIGAN
Significance

• The abuse of alcohol and other drugs remains the number one public health problem for colleges and universities throughout the United States. For example, over 1,700 college students 18 to 24 year of age die each year from alcohol-related unintentional causes (Hingson et al., 2005; Perkins, 2002).

• Alcohol and other drug abuse continues to pose a serious threat to the intellectual, psychological, and physical development of college students. The nonmedical use of prescription medications has increased over the past decade among college students (Johnston et al., 2007; McCabe et al., 2007; Wechsler et al., 2002).

• College students who abuse alcohol and other drugs experience significantly higher rates of motor vehicle fatalities, unsafe sex, emergency care visits, sexual assault and poor academic performance (Abbey, 2002; Perkins, 2002).
About the Student Life Survey….

In 2009, the University of Michigan Substance Abuse Research Center (UMSARC), with financial support from the several University of Michigan units, conducted an Internet-based survey using a random sample of full-time undergraduate students attending the University of Michigan. Undergraduates self-administered the 2009 Student Life Survey: Beliefs, Behaviors and Substance Use, a questionnaire that was first developed as a paper and pencil survey in 1993 and later adapted for the Internet. The 1993 survey was developed by Drs. A. Foote and F. Glaser (with substantive assistance from UMSARC researchers). Funds for the Student Life Survey have been provided by the State of Michigan (1993) and the University of Michigan (1993, 1999, 2001, 2003, 2007) and the National Institute on Drug Abuse (2005).
Methods – 2009 Student Life Survey

• Upon receiving IRB approval, a random sample of 2,000 full-time U-M undergraduate students was drawn from the Registrar in 2009.

• Our initial contact was made with a letter, mailed through the United States Postal Service (USPS), with a $10 check tucked inside as an incentive for participation.

• The letter provided a rationale for the study, information about sponsorship and confidentiality, and a link to the web-based survey application. They were also informed about a sweepstakes for 13 cash prizes: check for $1000 (n=1), check for $500 (n=2), and check for $100 (n=10).
Methods – 2009 Student Life Survey

• Several days after sending the initial letter, the entire sample was sent an email inviting them to participate in the 2009 SLS.

• Up to three additional emails were sent to nonrespondents as a reminder about the study

• Several security measures were taken to ensure confidentiality.
Methods – 2009 Student Life Survey

• The 2009 Student Life Survey questionnaire was used in the present study.

• The questionnaire drew from several survey instruments including national college-based drug surveys such as *Monitoring the Future* (Johnston et al., 2004) *Core Survey* (Presley et al., 1996) and *College Alcohol Study* (Wechsler et al., 2002).

• Previous versions of the Student Life Survey were tested in Web surveys in 1999, 2001, 2003, 2005, and 2007 to make any necessary changes prior to using it in the present study.
Methods – 2009 Student Life Survey

- Data were collected for approximately 6 weeks during the 2009 Winter semester.

- N=1,088 randomly selected undergraduate students completed the Web survey with a mean age of 20.3 years (SD = 2.3).

- The response rate for the Web survey was approximately 54%.

- The average time to complete the survey was 23 minutes.
2009 Sample
### Demographic Characteristics of Sample and Population

<table>
<thead>
<tr>
<th>Sample (n = 1,088)</th>
<th>Total</th>
<th>Population (N = 24,754)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>56.1%</td>
<td>Female</td>
<td>49.7%</td>
</tr>
<tr>
<td>Male</td>
<td>43.9%</td>
<td>Male</td>
<td>50.3%</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African-American</td>
<td>7.9%</td>
<td>African-American</td>
<td>6.6%</td>
</tr>
<tr>
<td>Asian</td>
<td>11.5%</td>
<td>Asian</td>
<td>12.6%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>4.6%</td>
<td>Hispanic/Latino</td>
<td>4.7%</td>
</tr>
<tr>
<td>Native American</td>
<td>0.5%</td>
<td>Native American</td>
<td>0.8%</td>
</tr>
<tr>
<td>White</td>
<td>62.5%</td>
<td>White</td>
<td>69.0%</td>
</tr>
<tr>
<td>Other</td>
<td>13.0%</td>
<td>Other</td>
<td>6.3%</td>
</tr>
</tbody>
</table>
Alcohol Use
Definitions

• Binge drinking was defined as having five or more drinks in a row for men and four or more drinks for women in the past two weeks.

• Frequent binge drinking was defined as having 3 or more binge episodes in a two week period.
Binge Drinking in Past Two Weeks by Gender

<table>
<thead>
<tr>
<th></th>
<th>Frequency Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Binge Drinking</td>
</tr>
<tr>
<td></td>
<td>Occasional Binge (1 or 2 times)</td>
</tr>
<tr>
<td></td>
<td>Frequent Binge (3 or more times)</td>
</tr>
<tr>
<td>Total (n=1013)</td>
<td>52%</td>
</tr>
<tr>
<td>Female (n=573)</td>
<td>55%</td>
</tr>
<tr>
<td>Male (n=440)</td>
<td>54%</td>
</tr>
</tbody>
</table>

Percent of Respondents
Binge Drinking in Past Two Weeks by Living Arrangement

<table>
<thead>
<tr>
<th>Residence</th>
<th>No binge drinking</th>
<th>Occasional binge (1-2 times)</th>
<th>Frequent binge (3 or more times)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (n=1013)</td>
<td>54</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Co-op (n=16)</td>
<td>56</td>
<td>38</td>
<td>6</td>
</tr>
<tr>
<td>Outside Ann Arbor (n=31)</td>
<td>81</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Ann Arbor House/Apt. (n=512)</td>
<td>46</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Fraternity/Sorority (n=41)</td>
<td>32</td>
<td>39</td>
<td>29</td>
</tr>
<tr>
<td>Residence Hall (n=391)</td>
<td>63</td>
<td>23</td>
<td>14</td>
</tr>
</tbody>
</table>

Note: Binge drinking differed significantly by residence (p < .05)
Alcohol Use and Binge Drinking by Race/Ethnicity

Note: Alcohol use and binge drinking differed significantly by race/ethnicity (p < .05).
Usual Number of Drinks per Drinking Occasion in Past 30 Days by Living Arrangement
Usual number of drinks differed significantly by living arrangement (p < .05). Error bars are ± 1 standard error.
Maximum Drinks on One Occasion by Living Arrangement
Maximum Drinks in 2 Hour Period During the Past 1 Year by Living Arrangement

- Maximum number of drinks differed significantly by living arrangement ($p < .05$).
- Error bars are $\pm 1$ standard error.

<table>
<thead>
<tr>
<th>Living Arrangement</th>
<th>Maximum Drinks in Past Year</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>6.0</td>
<td>842</td>
</tr>
<tr>
<td>Co-Op (ICC)</td>
<td>4.9</td>
<td>14</td>
</tr>
<tr>
<td>Outside Ann Arbor</td>
<td>4.3</td>
<td>22</td>
</tr>
<tr>
<td>Ann Arbor House/Apt.</td>
<td>6.1</td>
<td>467</td>
</tr>
<tr>
<td>Fraternity/Sorority</td>
<td>7.4</td>
<td>39</td>
</tr>
<tr>
<td>Residence Hall</td>
<td>5.7</td>
<td>300</td>
</tr>
</tbody>
</table>
Primary Drinking Consequences:
Blackouts by Living Arrangement
Experienced Blackouts Due to Drinking in Past 1 Year by Living Arrangement

Percentage reporting blackouts differed significantly by living arrangement ($p < .05$). Error bars are ± 1 standard error.
Primary Drinking Consequences:
Driven a Car While Under the Influence of Alcohol By Living Arrangement
Driven a Care While Under Influence of Alcohol in Past 1 Year by Living Arrangement

Percentage reporting drink driving differed significantly by living arrangement ($p < .05$). Error bars are ± 1 standard error.
Primary Drinking Consequences: Seriously Thought About Suicide as a Result of Drinking By Gender
Seriously Thought About Suicide in Past Year as a Result of Drinking by Gender

Note: Gender difference was statistically significant (χ² = 5.1, p < .05).
Error bars are ± 1 standard error.
Secondary Drinking Consequences:
Property Damaged by Someone Drunk by Living Arrangement
Percent reporting property damage by someone drunk differed significantly by living arrangement ($p < .05$). Error bars are ± 1 standard error.
Secondary Drinking Consequences: Had to Take Care of Someone Who Was Drunk by Living Arrangement
Had to Take Care of Someone Drunk in Past Year by Living Arrangement

Percent of Respondents

Percent reporting having to take care of someone drunk differed significantly by living arrangement ($p < .05$). Error bars are ± 1 standard error.
Other Drug Use
Prevalence of Other Drug Use in the Past Year

- Marijuana: 38.7% (Males) vs. 30.8% (Females), p < .05
- Illicit Rx Stimulants: 9.1% (Males) vs. 5.2% (Females), p < .05
- Illicit Rx Opioids: 7.6% (Males) vs. 3.9% (Females), p < .05
- Other Psychedelics: 6.5% (Males) vs. 1.7% (Females), p < .05
- Cocaine: 4.1% (Males) vs. 2.7% (Females)
- LSD: 3.0% (Males) vs. 1.5% (Females)
- Illicit Rx Sedatives: 2.6% (Males) vs. 1.7% (Females)
- Illicit Rx Sleeping: 2.4% (Males) vs. 2.5% (Females)
- Ecstasy: 2.4% (Males) vs. 1.2% (Females)
- Inhalants: 1.5% (Males) vs. 0.2% (Females)

Note: The past-year prevalence rate was 0.3% for heroin use and 0.1% for crystal methamphetamine use.
Student Life Survey
Trends from 1999 – 2009
Cigarette Smoking
Past 1-Month Smoking among Undergraduate Students

Prevalence of past 1 month smoking showed a statistically significant decrease every year between 1999 and 2007. There was no change in smoking prevalence from 2007 to 2009.
Binge Drinking
There was a statistically significant increase \((p<.05)\) in the percentage of binge drinkers from 1999 to 2001.

There was a statistically significant decrease \((p<.05)\) in the percentage of binge drinkers from 2007 to 2009.
Potential Alcohol Abuse

• Assessed in the SLS with the 4-item CAGE Questionnaire.

• “During the past 12 months, have you…
  1. felt that you should Cut down your drinking?”
  2. been Annoyed by people criticizing your drinking?”
  3. felt Guilt or remorse after drinking?”
  4. had a drink first thing in the morning as an ‘Eye opener’ or to get rid of a hangover?”

• A positive response to 2 or more of these questions is indicative of potential alcohol abuse or dependence (Ewing, 1984).

- 1993 (n=353): 23%
- 1999 (n=777): 26%
- 2001 (n=1022): 24%
- 2003 (n=3445): 29%
- 2005 (n=1390): 24%
- 2007 (n=610): 26%
- 2009 (n=370): 25%

2003 > 2001 and 2005, p<.05.

- 1993 (n=386): 18%
- 1999 (n=798): 20%
- 2001 (n=1483): 22%
- 2003 (n=4625): 25%
- 2005 (n=1651): 23%
- 2007 (n=783): 27%
- 2009 (n=490): 22%

2007 > 1993, p<.05.
Trends in Past 1 Year Nonmedical Use of Prescription Medications