Reunited
Integrating Social Norms Marketing and Environmental Management to Reduce Student Alcohol Use

* * * * *

William DeJong, PhD
Boston University School of Public Health

May 18, 2009
Social Norms Marketing Research Project

National Institute on Alcohol Abuse and Alcoholism

and

U.S. Department of Education

R01 AA 12471
Students have exaggerated views of how much other students drink

Students perceive greater normative expectations to drink

Students increase alcohol consumption
Social Norms Marketing

Use campus-based media to report accurate drinking norms

Decrease in perceived normative expectations to drink

Decrease in alcohol consumption
1 drink = one 12 oz. beer = 4-5 oz. wine = 1 oz. liquor

*Based on survey data collected by Campus Health Service (1998) from 317 U of A students in a randomly selected mailing.

Funded by the US Dept. of Health and Human Services.
Early Case Studies

Impact on Heavy Drinking Rates

• University of Arizona (3 years)
  – 5+ drinks in one sitting in the past 2 weeks
  – 40% \( \Rightarrow \) 31%
  – Message changed from 0—5 to 0—4 drinks

• Hobart and William Smith Colleges (3+ years)
  – Drinking 5+ in a row 3-plus times in the last 2 weeks
  – 41% \( \Rightarrow \) 28%
Social Norms Marketing Research Project

Findings for Study 1
Cohort A = 18 Colleges and Universities
Selection of Participating Institutions

- Sent open invitation
- Applicants completed questionnaire
  - Never had a social norms campaign
  - Willing to be in control group, if assigned
  - Demonstrated commitment to the project
- Secured IRB approval (Study 1 = 18 sites)
- Matched schools (region, size, governance, student demographics)
- Randomly assigned schools to treatment group or control group
Study Timeline: Study 1

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5+</th>
</tr>
</thead>
</table>

All Schools

Survey of College Alcohol Norms and Behavior

Contextual data collection

Treatment Group Schools (9)

Just the Facts Implementation

Control Group Schools (9)

Just the Facts Implementation
SNM Message Guidelines

Campaign messages must:

- Be targeted to the entire undergraduate population
- Convey information about a behavior typical of a majority of students
- Correct an identified student misperception
- Be simple statements of fact (i.e., should not have a judgmental or moralistic tone)
Sample Campaign Materials

67% of students have 4 or fewer drinks when they party.

1 drink = 12 oz beer = 4 oz wine = 1 oz liquor

For more information:
Student Wellness Office in HALL

59% of students have 0 to 4 drinks when they party.

Source: Survey of College Alcohol Norms and Attitudes, 2008
This message brought to you by the Office of Student Life and Health Education Office, Division of Student Affairs.
Media Channels

- Newspaper Ads
- Radio and TV ads
- Flyers/Posters
- Billboards
- Table Tents
- Item Giveaways
- Talks/Presentations
- Student Orientation
- Reinforcement Activities
- Newsletters
- Press Releases
- Other
<table>
<thead>
<tr>
<th>Outcome Variable</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>n=1,515</em> M (SD)</td>
<td><em>n=1,536</em> M (SD)</td>
</tr>
<tr>
<td>Greatest number of drinks on one occasion in past two weeks</td>
<td>3.57 (4.57)</td>
<td>3.95 (4.86)</td>
</tr>
<tr>
<td>BAC for greatest number of drinks on one occasion in past two weeks</td>
<td>0.0830 (.0979)</td>
<td>0.0859 (.1023)</td>
</tr>
<tr>
<td>Drinks when students party</td>
<td>3.30 (3.34)</td>
<td>3.57 (3.48)</td>
</tr>
<tr>
<td>Drinks per week</td>
<td>4.67 (7.92)</td>
<td>4.62 (8.00)</td>
</tr>
</tbody>
</table>
Study 1: Summary

• **Relative risk of alcohol consumption was lower** at schools with a JTF campaign

• **Pattern:**
  – Minor changes at treatment group schools
  – Heavier alcohol consumption at control schools

• **Core Institute data suggest a national trend for increased heavy drinking between 2000 and 2003**
Social Norms Marketing Research Project

Findings for Study 2
Cohort B = 14 Colleges and Universities
<table>
<thead>
<tr>
<th>Outcome Variable</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>n=1,117</td>
<td>n=979</td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Greatest number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of drinks on one</td>
<td>4.87</td>
<td>5.12</td>
</tr>
<tr>
<td>occasion in past</td>
<td>(5.00)</td>
<td>(5.84)</td>
</tr>
<tr>
<td>two weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAC for greatest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>number of drinks</td>
<td>.1364 (0.1003)</td>
<td>.1420 (0.1107)</td>
</tr>
<tr>
<td>on one occasion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in past two weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinks when</td>
<td>4.33</td>
<td>4.35</td>
</tr>
<tr>
<td>students party</td>
<td>(3.63)</td>
<td>(4.00)</td>
</tr>
<tr>
<td>Drinks per week</td>
<td>6.07</td>
<td>6.59</td>
</tr>
<tr>
<td></td>
<td>(8.50)</td>
<td>(10.37)</td>
</tr>
</tbody>
</table>
Overall Summary

Study 1
Students attending an institution with a SNM campaign have a lower relative risk of heavy alcohol consumption

Study 2
Replication failure
<table>
<thead>
<tr>
<th>Outcome Variable</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001 ( n=1,117 )  ( M \ (SD) )</td>
<td>2004 ( n=979 )  ( M \ (SD) )</td>
</tr>
<tr>
<td>Greatest number of drinks on one occasion in past two weeks</td>
<td>4.87 (5.00)</td>
<td>5.12 (5.84)</td>
</tr>
<tr>
<td></td>
<td>4.70 (4.91)</td>
<td>4.78 (5.23)</td>
</tr>
<tr>
<td></td>
<td>.1364 (.1003)</td>
<td>.1420 (.1107)</td>
</tr>
<tr>
<td></td>
<td>.1337 (.0970)</td>
<td>.1296 (.0990)</td>
</tr>
<tr>
<td>BAC for greatest number of drinks on one occasion in past two weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinks when students party</td>
<td>4.33 (3.63)</td>
<td>4.35 (4.00)</td>
</tr>
<tr>
<td></td>
<td>4.16 (3.55)</td>
<td>4.37 (3.85)</td>
</tr>
<tr>
<td>Drinks per week</td>
<td>6.07 (8.50)</td>
<td>6.59 (10.37)</td>
</tr>
<tr>
<td></td>
<td>6.24 (8.85)</td>
<td>6.20 (9.16)</td>
</tr>
</tbody>
</table>
Alcohol Outlet Density

Social norms marketing campaigns are less likely to work in campus communities with high alcohol outlet density.

– Richard Scribner, LSU
Alcohol Outlet Density

- **Density** = Number of on-premise alcohol outlets (bars, restaurants) within 3 miles of campus boundary, per 1,000 total students enrolled
Alcohol Outlet Density

• Results
  – Mean = 26.81 (SD = 33.24)
  – Median = 10.78
  – Range = 2.3 to 128.0

• High density = 10.78+ outlets per 1,000 enrolled
Summary

• Significant interaction between on-premise alcohol outlet density and the intervention effect (Experimental Group x Time x Outlet Density)
  – Number of drinks when partying
  – Recent maximum consumption
  – Composite drinking scale

• High density: no intervention effect

• Low density: intervention effect
Mean Number of Drinks When Partying by Experimental Group & Alcohol Outlet Density

Year 1
Low-Density Campus
Year 4
Year 1
High-Density Campus
Year 4

Control
Treatment
Alcohol Outlet Density
Explains Study 1 v. Study 2 Results

• **Study 1:**
  – 18 sites, 5 at or above the median
    • 3 treatment group sites
    • 2 control group sites

• **Study 2:**
  – 14 experimental sites, 11 at or above the median
    • 6 treatment group sites
    • 5 control group sites
Implications

• Social norms marketing can work to reduce student alcohol use

• But it does *not* work as well in alcohol-rich environments
  – Need an even more intensive social norms marketing campaign
  – Need to work to change the campus community’s alcohol environment
Environmental Management: A Comprehensive Approach to Prevention

College officials should take an active role in giving shape to a campus community environment that will help students make healthier decisions about drinking.
Contributing Factors in the Campus Environment

Many students arrive at college believing that heavy, even dangerous drinking is the norm, which can be reinforced by campus life.
Contributing Factors in the Campus Environment

Students are bombarded by alcohol advertising, which glorifies the student drinking culture and promotes high-risk consumption.
Contributing Factors in the Campus Environment

It is easy for college students to obtain free or inexpensive alcohol, either from acquaintances or local retail outlets.
Contributing Factors in the Campus Environment

Many students have a great deal of free, unstructured time with few social and recreational options that do not involve alcohol consumption.
Contributing Factors in the Campus Environment

Campus rules and local and state laws are not consistently and vigorously enforced.
A Matter of Degree

A National Effort to Reduce High-Risk Drinking Among College Students

- National Program Office: American Medical Association
- $8.6 million, 7-year program
- Designed to foster campus-community collaboration
Campus-Community Partnerships

• Florida State University – Tallahassee, FL
• Georgia Institute of Technology – Atlanta, GA
• Lehigh University – Bethlehem, PA
• Louisiana State University – Baton Rouge, LA
• University of Colorado – Boulder, CO
• University of Delaware – Newark, DE
• University of Iowa – Iowa City, IA
• University of Nebraska at Lincoln – Lincoln, NE
• University of Vermont – Burlington, VT
• University of Wisconsin – Madison, WI
AMOD Evaluation

Harvard School of Public Health

• Case studies, with repeated cross-sectional student surveys (1997-2001)
  - Alcohol consumption
  - Alcohol-related harms
  - Secondhand effects of other’s alcohol use

• Quasi-experimental study of program effects
  - 10 AMOD sites
  - 32 comparison sites from College Alcohol Study
Hypotheses

- Coalitions will change alcohol environment on campus and in the community
- 10 AMOD sites will see more improvement than the 32 comparison sites
- Degree of improvement will depend on the extent to which environmental strategies are implemented
  - Compare “high” (n=5) and “low” (n=5) AMOD sites
<table>
<thead>
<tr>
<th>Intervention</th>
<th>High</th>
<th>Low</th>
<th>Selected Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>26</td>
<td>5</td>
<td>Keg registration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mandatory RBS training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Over-service enforcement</td>
</tr>
<tr>
<td>Legal Sanction</td>
<td>21</td>
<td>4</td>
<td>Increasing penalties and sanctioning policies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Campus-community police collaboration</td>
</tr>
<tr>
<td>Physical Context</td>
<td>8</td>
<td>2</td>
<td>Substance-free housing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Enforcement of bar capacity</td>
</tr>
<tr>
<td>Intervention</td>
<td>High</td>
<td>Low</td>
<td>Selected Examples</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------</td>
<td>-----</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Advertising &amp; Promotion</td>
<td>7</td>
<td>4</td>
<td>Advertising bans</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ban on alcohol-related items in bookstore</td>
</tr>
<tr>
<td>Key Influencers</td>
<td>16</td>
<td>8</td>
<td>Parental notification</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Peer intervention teams</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Outreach to faculty</td>
</tr>
<tr>
<td>Sociocultural Context</td>
<td>79</td>
<td>23</td>
<td>Alcohol-free programming</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Faculty senate resolution</td>
</tr>
</tbody>
</table>
Summary of Findings

- No statistically significant change found for the 10 AMOD sites overall
- Statistically significant change found for the 5 programs that most closely implemented the AMOD model of environmental change
  - Reduced alcohol consumption
  - Fewer drinking-related harms
  - Fewer secondhand effects from others’ drinking
## Results for Key Measures

<table>
<thead>
<tr>
<th>Measures (1997⇒2001)</th>
<th>High</th>
<th>Low</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent heavy drinking</td>
<td>34.6%</td>
<td>30.7%</td>
<td>28.1%</td>
</tr>
<tr>
<td></td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>34.4%</td>
<td>31.3%</td>
<td>31.1%</td>
</tr>
<tr>
<td>5+ alcohol-related problems</td>
<td>31.6%</td>
<td>25.0%</td>
<td>25.2%</td>
</tr>
<tr>
<td></td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>26.0%</td>
<td>24.7%</td>
<td>24.7%</td>
</tr>
</tbody>
</table>
# Results for Key Measures

<table>
<thead>
<tr>
<th>Measures (1997→2001)</th>
<th>High</th>
<th>Low</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drove after 5+ drinks</td>
<td>19.0%</td>
<td>16.6%</td>
<td>15.3%</td>
</tr>
<tr>
<td></td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>15.9%</td>
<td>12.6%</td>
<td>16.6%</td>
</tr>
<tr>
<td>3+ secondhand effects</td>
<td>60.8%</td>
<td>56.0%</td>
<td>56.9%</td>
</tr>
<tr>
<td></td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>54.5%</td>
<td>52.1%</td>
<td>52.6%</td>
</tr>
</tbody>
</table>
Controversy
Social Norms Marketing
Versus
Environmental Prevention
Can’t We All Just Get Along?

- **Henry Wechsler, Harvard School of Public Health**
  - SNM Campaigns = Tool of “Big Alcohol”

- **Michael Haines, Northern Illinois University**
  - Environmental Prevention = Fascism

- **William DeJong, Boston University School of Public Health**
  - Why can’t we do both?
Possible Strategy...

Use social norms marketing to help build the case for environmental prevention.
Survey Questions
(32 Colleges and Universities)

To what extent do you support or oppose the following possible policies or procedures?

* * * * * *

To what extent do you think other students at this school support or oppose the following possible policies or procedures?
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Proposed Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>65.2</td>
<td>Use stricter disciplinary sanctions for students who engage in alcohol-related violence</td>
</tr>
<tr>
<td>40.9</td>
<td>Use stricter disciplinary sanctions for students who repeatedly violate campus alcohol policies</td>
</tr>
<tr>
<td>24.2</td>
<td>Apply stricter penalties for the use of false IDs to purchase alcohol illegally</td>
</tr>
<tr>
<td>16.3</td>
<td>Conduct undercover operations at bars, restaurants, and liquor stores to increase compliance with underage laws</td>
</tr>
</tbody>
</table>
## Perceived Versus Actual Support: Strict Enforcement (% of Respondents)

<table>
<thead>
<tr>
<th></th>
<th>Perceived Support</th>
<th>Actual Support</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use stricter disciplinary sanctions for students who engage in alcohol-related violence</td>
<td>65.2</td>
<td>90.1</td>
<td></td>
</tr>
<tr>
<td>Use stricter disciplinary sanctions for students who repeatedly violate campus alcohol policies</td>
<td>40.9</td>
<td>72.6</td>
<td></td>
</tr>
<tr>
<td>Apply stricter penalties for the use of false IDs to purchase alcohol illegally</td>
<td>24.2</td>
<td>59.5</td>
<td></td>
</tr>
<tr>
<td>Conduct undercover operations at bars, restaurants, and liquor stores to increase compliance with underage laws</td>
<td>16.3</td>
<td>45.8</td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td>Support</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>21.8</td>
<td>52.1</td>
<td>Restrict advertising that promotes alcohol consumption at on-campus parties or events</td>
<td></td>
</tr>
<tr>
<td>17.8</td>
<td>40.0</td>
<td>Ban alcohol industry sponsorship of school events</td>
<td></td>
</tr>
<tr>
<td>14.3</td>
<td>34.6</td>
<td>Make all residences on campus alcohol-free</td>
<td></td>
</tr>
<tr>
<td>6.6</td>
<td>16.5</td>
<td>Require more early morning and Friday classes to discourage alcohol use during the week</td>
<td></td>
</tr>
<tr>
<td>Perceived Support (%)</td>
<td>Actual Support (%)</td>
<td>Recommendation</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>24.0</td>
<td>56.1</td>
<td>Prohibit kegs on campus</td>
<td></td>
</tr>
<tr>
<td>14.6</td>
<td>38.4</td>
<td>Increase taxes on alcohol to help pay for programs to prevent minors from drinking</td>
<td></td>
</tr>
<tr>
<td>10.8</td>
<td>32.8</td>
<td>Eliminate low-price bar and liquor store promotions targeted to college students</td>
<td></td>
</tr>
<tr>
<td>9.6</td>
<td>28.1</td>
<td>Limit the days or hours of sale for alcohol outlets near campus</td>
<td></td>
</tr>
</tbody>
</table>
Student Majorities

- Use stricter disciplinary sanctions for students who engage in alcohol-related violence: 32 colleges
- Conduct undercover operations at bars, restaurants, and liquor stores to increase compliance with underage laws: 12 colleges
- Eliminate low-price bar and liquor store promotions targeted to college students: 8 colleges
- Require more early morning and Friday classes to discourage alcohol use during the week: 0 colleges
Conclusion

• A majority of students support environmental management policies, especially stricter enforcement

• College administrators and community officials should *not* assume a lack of student support for policy change

• Students can be effective partners in community-based prevention
Social Norms Marketing Can Set the Stage for Environmental Management

• Begin by correcting misperceptions of student drinking norms
  – High outlet density: Need a high-intensity social norms marketing campaign

• Then publicize high levels of student support for law and policy enforcement

• Position specific environmental prevention strategies as a response to students’ concerns
The Role of a Media Campaign in Publicizing Environmental Prevention Initiatives in a College Community

Fran Cohen¹, Anne Fairlie¹, Andrea Resendes¹, Doreen Lawson¹, Mark Wood¹, and William DeJong²

¹ University of Rhode Island
² Boston University School of Public Health
Common Ground Initiatives

- **Increased Enforcement**
  - Fall 2005-Spring 2007: $50K in grants from Common Ground to campus and local police

- **Decreased Alcohol Access**
  - Signed agreements for *Cooperative Tavern and Package Store Programs* in two municipalities bordering the URI campus
Common Ground Initiatives (cont.)

• **Policy**
  - Strengthened policy governing University jurisdiction over off-campus conduct
  - Urged town to adopt tougher sanctions for residents causing neighborhood disturbances

• **Harm Reduction**
  - Supported URI student organizations to implement and publicize student-run safe ride program (*Rhody Rides*)
  - Worked with Greek Advisory Council:
    - Reduce risks at formal and informal Greek social events
Publicizing the Initiatives: RhodeMap to Safety (RMS)

• Phase I
  – Inform students that a majority of URI students support alcohol policy and enforcement efforts to create a safer and healthier campus

• Phase II
  – Make students aware of increased alcohol enforcement efforts and other initiatives in Narragansett, South Kingstown, and on campus
  – Educate students about Rhode Island drinking and driving laws and URI alcohol policies
Phase 1

• Publicize student support for law and policy enforcement

• Position RMS initiatives as a response to student concerns
Phase 2

- Publicize ongoing initiatives:
  - Increased local police enforcement
  - Existing *per se* and “zero tolerance” laws
  - Cooperative Tavern and Package Store Programs
    - Responsible beverage service
    - MLDA enforcement
Awareness of Enforcement Initiatives

“How many times have you heard about any formal efforts to...”

Reduce underage access to alcohol in the community?
Implement RBS in the community?
Implement RBS at “Greek” events?
Increase enforcement of DUI laws?

* p < .05, **** p < .0001
Perceptions of Alcohol Availability

Likelihood of ...

< 21 purchase alcohol at a local liquor store?

< 21 served alcohol at a local bar?

Intoxicated student served alcohol at a local bar?

* * p < .05, ** p < .01
Perception of Enforcement (cont.)

“How likely is it that...”

- School would be notified of fake ID seizure
- Police would be notified of fake ID seizure?
- Police would show up at an off-campus party?
- You would be arrested for DUI?

**p < .01, ****p < .0001

Not at all likely

Extremely likely
Police Records: Total URI Student Incidents

RhodeMap to Safety

Incidents by Address

2004-05 | 2005-06 | 2006-07
175 | 150 | 125
150 | 125 | 100
125 | 100 | 75
100 | 75 | 50
75 | 50 | 25
50 | 25 | 0

Academic Year
Conclusions

• Encouraging results
  – Awareness of ongoing initiatives
  – Perceptions of police enforcement (DUI and MLDA), alcohol availability in bars/liquor stores (RBS, MLDA)
  – Student perceptions related to DUI and DUI arrest
  – Narragansett police records of student incidents

• Largely positive student reaction to RhodeMap to Safety campaign

• Positioning initiatives as a response to student concerns facilitates implementation
Reunited

Reunited and it feels so good
Reunited 'cause we understood
There's one perfect fit
And, sugar, this one is it
We both are so excited 'cause we're reunited, hey, hey

—Peaches & Herb
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