



**Testing the Social Norms Model to Reduce
High Risk College Drinking
1999 – 2002
Final Report**

Part I - Executive Summary

Prepared by the Alcohol and Drug Abuse Division,
Colorado Department of Human Services, BACCHUS & GAMMA
Peer Education Network, and the University of Denver
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The Alcohol and Drug Abuse Division (ADAD), Colorado Department of Human Services conducted a three-year generalization study, "Testing the Social Norms Model to Reduce High Risk College Drinking," in collaboration with the University of Denver (DU) and the BACCHUS & GAMMA Peer Education Network. The study targeted all undergraduate students at DU, a private, co-educational, urban liberal arts university with an undergraduate enrollment of 4,300. The Colorado College in Colorado Springs, Colorado, served as the comparison site for this evaluation. The research project took place from September 1999 through December 2002.

Statement of the Problem: High risk drinking (binging) among college students continues despite widespread efforts to implement prevention intervention programs at both the college and community levels. Binge drinking, defined as having at least five drinks in one sitting for males and four drinks for females, has been labeled the number one public health hazard and a primary source of preventable morbidity and mortality among college students (Wechsler et al., 1995). In addition to serious injuries and death in accidents related to drinking and driving, binge drinkers are at risk for date rape, sexually transmitted diseases, HIV disease, and unwanted pregnancy (Martin & Hoffman, 1993).

ADAD initiated this project to increase resources to address the high-risk drinking problem on Colorado's college campuses. The University of Denver administration agreed to participate due to concerns regarding the high risk drinking behaviors of DU undergraduate students (identified in 1997 by CORE survey data), with a goal of creating a more positive and healthy campus climate.

Theoretical Approach: The selected prevention model, social norms marketing, is a research-based approach that targets the environment in which college students live. The approach involves using a mass media campaign to correct students' misperceptions of the campus norms for alcohol use. This approach is based on the social norms theory that college students generally overestimate the permissive drinking behaviors of their peers, which influences their own drinking behaviors. As an intervention to reduce high risk drinking they should be given accurate information on their peers' drinking attitudes and behaviors (Berkowitz and Perkins, 1986, 1987).

Several colleges have successfully used the social norms model to reduce student alcohol abuse: Northern Illinois University (NIU), University of Arizona, Hobart and William Smith Colleges, and Western Washington University. At NIU, Haines (1996, 1998) implemented a campus-wide social influence campaign to reduce binge drinking in 1989 and in six years reduced that rate by 35%. During the same period, alcohol-related injuries to self declined 31.2% and alcohol-related injuries to others decreased by almost 54%.

Research Hypothesis: Over the period of the grant, collected pre-test data was used as a baseline against which to assess the following hypotheses: 1) Hypothesis: The implementation of a social marketing campaign at the University of Denver will lead to a decrease in the reported rate of heavy drinking among undergraduate students when compared to students attending a comparison, non-intervention site. 2) Hypothesis: The implementation of a social norms marketing campaign will lead to a more accurate perceptions of alcohol and drug use among undergraduate students at the University of Denver when compared to students attending a comparison, non-intervention site. 3) Hypothesis: Students who develop a more realistic perception of the normative environment at the University of Denver will experience a reduction in alcohol-related problems when compared to students attending a comparison, non-intervention site.

INTERVENTION SUMMARY: The project based its implementation plan on Linkenbach and D’Atrie’s *7-Step Montana Model on Social Norms Marketing* (1999), which includes Planning and Environmental Advocacy; Baseline Data; Message Development; Market Plan; Pilot Test & Refine Materials; Implement the Campaign; and Evaluation.

Step One - Planning and Environmental Advocacy:

Oversight Committee: In Year 01 the Oversight Committee convened to oversee all project implementation and evaluation activities. This group consisted of project staff and representatives from state government agencies and business. During Years 02 and 03 the committee continued to meet and played an important role in the campaign’s direction.

Early in the first year, the Oversight Committee and DU Vice-Provost met with key DU administrators and faculty to announce the grant and review the Social Norms Model. Backing by university leaders is vital to a project’s success, as the group provides the “top-down” support as positive carriers of the true norms at DU regarding student alcohol use.

Stakeholders group: The Stakeholders group, formed in February of Year 01, advised the grant committee on developing campaign materials, legitimizing the campaign, and identifying those campus groups or individuals who might limit or strengthen the campaign. The committee consisted of undergraduate students, graduate assistants, various student activities staff, wellness staff, residence life staff, health/counseling center staff, and project staff.

This group’s knowledge and familiarity with social norming and the specific materials used was critical to the project’s success. In Year 01, members were trained on the social norms model and their role in the project. Participation of both students and staff members increased throughout the remainder of the project. Through training and participation, members corrected their own misperceptions through knowledge of the actual alcohol use norms at DU. Participants also became a vital force to validate the campaign by sharing their knowledge with other students and staff during campaign implementation. A number of stakeholders received stipends to distribute campaign materials and to staff a “prize patrol” that tested student recall of campaign statistics.

At the advice of the Stakeholders group, ongoing trainings took place for other campus leaders, including those from the Greek system, to gain campus-wide support for the project, increase the number of people able to validate the campaign if questions arose, and reduce the number of carriers of the misperceptions of student alcohol use.

Step Two: Baseline Data

In Year 01, students at DU and The Colorado College participated in the *Core Alcohol and Drug Survey* and the *Survey of Campus Norms*. This data was used to develop the campaign messages that were implemented in Years 02. In Years 02 and 03, a supplemental survey measured the messages' believability and determined the extent of message saturation across campus.

Step Three: Message Development

In Year 01, following the collection and tallying of baseline data, the grant staff met to identify positive norms and to develop a data distribution plan. Messages with these norms were then presented to the Oversight Committee and Stakeholders group on sample materials. Due to the limited time available to focus group the messages and create materials to target specific populations, messages and materials were created for broad campus change and tested simultaneously by the student stakeholders.

The key statistical message for year 01 was, "Most DU Students drink moderately or not at all. 66% of DU students use alcohol 1 time or less per week." Three additional messages were promoted during Year 02 of the grant, in October, November, and January: "Most DU students (66%) drink alcohol only once per week or less;" "Most DU students (89%) have not damaged property due to drinking or drug use;" and "Most DU students (64%) have zero-5 drinks per week." Anecdotally, the project team learned that students were confused by too many messages and by the different percentages used on the materials. Subsequently, using data from the Year 02 Core and supplemental survey, the team used only one message on new materials: "Most DU students drink 5 or fewer when they party," a message that was continued in Year 03 with the clarification that 5 or fewer "means 0-5." In addition, the project developed materials to address concerns and misperceptions about the campaign, including a series of table tents to dispute five myths that were being communicated anecdotally across the campus, and a poster clarifying campaign facts.

The Stakeholders group also developed the "URDU" ("You are DU") campus theme and license plate logo to establish an inclusive feeling for the campaign and to maintain continuity across materials and campaign years.

Step Four: Market Plan

The Stakeholders group and SOAR leaders recommended a market plan that included purchasing posters and table tents as the main source of message dissemination. Complimentary items selected for distribution included static cling decals, refrigerator magnets, lanyards, visors and dry-erase markers (Year 01); post-it pads, pens, granola bars, and highlighters (Year 02); and

microwave popcorn, zipper pulls attached to post cards, lip balm, multiple message pens, travel mugs, key chains, water bottles and post it notepads (Year 03). Other marketing ideas included creating a URDU website; posting project information on DU's homepage; and placement of occasional ads and student-written articles in the student newspaper. In Year 02 and 03 the project targeted the Greek student population with specialized campaign materials including postcards, granola bars, and laundry bags for students pledging Greek organizations. Two student stakeholders designed a campaign poster distributed in Year 03.

Step Five: Pilot Test & Refine Materials

Throughout the project, this step was challenging due to the one month time period staff had to develop, pilot test and refine pilot messages before students left for the summer. During Year 01 the materials were pilot tested only with the Stakeholders Committee. In Year 02 the project staff made pilot-testing a priority in materials development and refinement. Informal and formal focus grouping took place at Greek houses, on residence floors, and among classmates, with the Stakeholders group, and on line via a URDU web page. In addition, the project collected data on students' knowledge of actual alcohol use norms among DU undergraduates, how they learned about this information, and why they believed or did not believe the information. Methods used were informal feedback, short interviews, and the supplemental survey included with the Year 02 Core survey. In Year 03 the project carried over the Year 02 campaign message and conducted only informal pilot testing of materials.

Step Six: Implement the Campaign

On September 1, 2000, the first phase of the URDU campaign was rolled out, one day prior to the arrival of new students and one week prior to the arrival of returning students. This phase included the dissemination of posters, table tents, letters to faculty and department chairpersons, and lanyards in all student residence hall boxes. Since the grant year ended on September 30, 2000, little implementation was undertaken in Year 01.

During Years 02 and 03 the social norms campaign was continually implemented on campus. Not only were various materials posted; the project team also worked to integrate the campaign and the social norms message into campus culture by participating in campus activities.

By posting and distributing these marketing materials across campus, the population was saturated with valid information regarding alcohol use, directly contradicting the misperceptions of most students, staff and faculty. The anticipated result was an increase in dialogue among students, faculty and staff regarding alcohol use and an increase in the number of students who believe moderate and non-drinkers are the norm among DU undergraduates.

Keys points about a social norms campaign are as follows: 1) It is a harm reduction model designed to provide information; 2) It is designed to highlight positive attributes of the target group, rather than attack negative attributes; 3) Although the messages contain information on use

and behavior patterns, the campaign does not advocate nor oppose a specific behavior; it simply states the actual student norms.

Step Seven: Evaluation

This step leads directly back to Step Two, Baseline Data. Each year, the same survey was administered to undergraduate students during the months of February and March. This data provided critical information on the program’s success and also provided data to develop the next generation of messages. This step is absolutely essential to conducting a social norms campaign.

METHODOLOGY:

Research Design: The project involved a quasi-experimental design outcome study to: 1) determine the effectiveness of the social norms model in preventing, delaying, and/or reducing binge drinking among DU undergraduate students as compared with students at the Colorado College; and to 2) measure and document reductions in alcohol abuse and associated problems at the intervention site as compared with the comparison site.

The evaluation conducted an ongoing collection of quantitative data, which served as both process and outcome data, through administration of the *Core Alcohol and Drug Survey* and a Supplemental Survey that measured dosage and believability. Subsequently these data were used to construct specific messages for an effective social marketing campaign. Data were collected over a three-year period from DU and The Colorado College.

Population and Sample Strategy & Size: The target sample was 1000 (500 students pre-test and 500 students post-test at each site). At DU the evaluator used a cluster sampling process to collect first-year baseline data from 439 DU students in 25 classrooms and follow-up data from 434 and 421 students in years 02 and 03 of the intervention. At CC, 220, 298 and 131 questionnaires were collected using a similar sampling procedure over the three years.

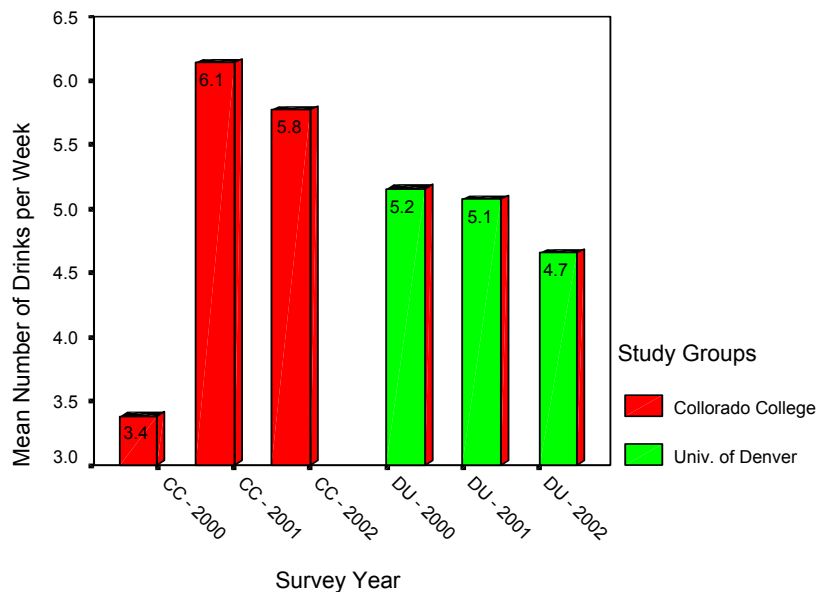
Table 2. Population and Sample Characteristics: University of Denver

		Total Population						Sample					
		N			Percent			N			Percent		
Gender		1999	2000	2001	1999	2000	2001	2000	2001	2002	2000	2001	2002
	Male	1566	1645	1757	48%	48%	48%	171	195	157	45%	45%	41%
	Female	1667	1787	1890	52%	52%	52%	215	244	235	55%	55%	59%
Ethnicity													
	African Am.	83	85	87	2.7%	2.6%	2.5%	11	4	14	2.8%	1.0%	3.4%
	Amer. Indian	33	37	45	1.1%	1.1%	1.3%	3	1	4	.8%	.3%	1.0%
	Asian	171	180	186	5.4%	5.5%	5.4%	28	30	27	7.1%	7.2%	6.4%
	Hispanic	169	180	204	6.4%	5.5%	5.9%	20	23	20	5.0%	5.5%	4.8%
	White	2522	2735	2910	84%	85%	84.8%	335	335	322	84%	81.0%	79.0%

Statistical Results: T-test comparisons and regression analyses were conducted on data within the intervention site and across intervention and comparison sites.

Results: Outcome data indicate that there were moderate changes in drinking at the intervention site after the implementation of the intervention. While there was little demonstrated change in the general population of the intervention site, there were significant differences over the three years reported for women. Women at the intervention site reported a reduction in the frequency of alcohol use. Also, there were consistent differences between the intervention and comparison sites with regards to the frequency and quantity of alcohol consumption. Students at the comparison site significantly increased their use of alcohol over the three years in comparison to DU students. Also, students at the comparison site indicated experiencing a higher rate of problems associated with alcohol use. In addition, students at the intervention site reported significant reductions in the perceptions of alcohol use on campus.

Figure 9: Amount of Alcohol Use per Week by Females Colorado College and University of Denver



Data on dosage and implementation also were collected. Dosage was measured through the use of a supplemental survey developed in Year 02 to measure degree of message saturation as well as message believability. Comparisons between year 02 and year 03 indicate a significant increase in the believability of normative messages disseminated throughout the campus. Finally, the fidelity of the intervention was assessed and was found to achieve a high compliance rate with the social norms model utilized in this project.

COST ANALYSES:

Total approximate costs per year were as follows: Year 01 \$123,326 (direct) and \$2,645 (indirect) for a total grant-funded budget of \$125,971; Year 02 \$121,971 (direct) and \$3,210 (indirect), for a total of \$125,181; and Year 03 \$122,102 (direct) and \$3,079 (indirect) for a total of \$125,181. Based on a thorough per-participant cost analysis, the average cost per undergraduate student at the University of Denver for the three-year period was \$34.96.