The Social Norms Review

Volume 2 Issue 1 ~ August 2006

National Conference Issue

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Editor's Note

This issue is a compilation of the major articles published in the first four issues of *The Social Norms Review*, and is principally designed for distribution in a limited print run at the 2006 National Conference on the Social Norms Approach in Denver, Colorado. Given that a number of the authors will be presenting at the conference—some on topics that are related, if not identical, to those discussed in detail here—we thought that it would worthwhile to bring these articles together under one cover. Each year a sizeable number of conference attendees tell us that they have just begun to investigate the social norms approach; since many of them may not be familiar with *The Review*, it is largely with them in mind that we decided to produce this omnibus issue.

As always, we hope that you find *The Social Norms Review* to be informative and helpful, and we welcome your comments, suggestions, and submissions.

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Critical Concerns for Evaluating Social Norms Interventions with Survey Data
H. Wesley Perkins, Ph.D

The social norms approach is an intensely data-driven process. For example, data are gathered in social norms projects in order to establish baseline measures, to provide verifiable information for normative messages, to identify effective media channels and credible messages (sometimes called market research), to perform process evaluation and, as part of outcome evaluation, to assess the effectiveness of the intervention. Each of these areas is important, of course, and has its own particular challenges. In this article I would like to focus solely on a number of key issues related to outcome evaluation; specifically, I want to examine in detail seven concerns that are critically important for the proper evaluation of survey data gathered in a social norms project.

I. Establishing Clean Reliable Data
A. Consistent Coding
The importance of an accurate listing of the codes assigned to the response options of each survey item cannot be over-stressed. As a general rule, one should maintain consistent coding across multiple survey administrations. For example, if gender is coded as "1" for "female" and "2" for "male" at baseline (also called Time 1), then this coding should be maintained for subsequent survey administrations. Simple coding errors are more likely to occur when different people edit the survey or manage the data from year to year.

While the above suggestion may seem obvious, simple coding errors often mask positive findings or suggest an effect where one did not occur. It is good idea to perform "spot checks" of your data. If your surveys are scanned using an optical scanner, check with the scanner operator to ensure that he or she is using the correct codes. If the data is hand entered, randomly select several bundles to check the consistency of the data entry team. It is also a good idea to scan the frequency data for findings that are inconsistent with your expectations as these may suggest coding errors. For example, in looking at data on alcohol use one might be understandably surprised to discover that women were 5 times more likely than men to get arrested. A check on the coding may reveal that the gender values had been reversed from previous iterations of the survey.

B. Decision rules for malicious data and outliers.
Extremely aberrant responses (outliers), respondents' accidental reporting errors, intentionally false responses, and logical impossibilities must be dealt with and documented in a consistent fashion. Such odd data (often referred to as "noise") can distort the data analysis and potentially mask the impact of an intervention and/or lead to inappropriate conclusions. One must establish rules to filter aberrant response data from the data set before analysis. Examples of aberrant data might include: 1) A respondent who indicates a weight of 800 lbs. or that they consumed 99 alcoholic drinks at their last party, or 2) A respondent who indicates having no alcoholic drinks during the past 30 days on one survey item and having driven a car after drinking on four occasions during the last month on a separate survey item.

If a single inconsistency appears amidst an otherwise cogent set of responses provided by a survey respondent it may be appropriate to simply treat the aberrant response as missing data (assuming an unintentional error by the respondent). If, however, the respondent provides several inconsistencies or preposterous answers, then it is likely that the entire case record should be omitted from further analyses with the data set.

C. Decision rules for items left blank.

Blank responses must be addressed for each survey item and documented. For example, respondents might be presented with a list of survey items about negative consequences of drinking or a list of intervention messages they may have seen and asked to indicate by checking a corresponding box which items they had experienced during the past school year. A non-response to survey items such as these is usually inferred to mean "I did not experience this consequence" or "I did not see this message."

Respondents will occasionally skip over survey items, however, and if none of the boxes is checked in these examples, one should attempt to determine if the lack of response to these items really means "no" or if the data should be coded as "missing" for that respondent. One might examine items preceding or following such a list to see if the rest of the page was completed as one indication. Ideally, a box indicating "no" for each item or a box at the end of the list indicating "none of the above" should be included to make the response clear.

II. Demographic Variation across Samples

It is important to identify any demographic variability in your samples when comparing the results from different survey administrations. Ideally, the sample demographics should be representative of the populations from which they were drawn and similar across survey administrations if the population has not changed. Because this is not always the case, demographic variation from sample to sample must be addressed. For example, a sample drawn at baseline (Time 1) is 45% male and 55% female. A sample drawn after your intervention (Time 2) is 35% male and 65% female. If the data from both genders are combined, it is possible that any changes seen in the outcome variables at Time 2 (e.g., drinking behavior) are simply the result of the higher percentage of females at Time 2 and not the intervention.

Although sample weighting is sometimes used to minimize the impact of demographic variability, it is safer and easier to analyze the demographic categories separately if sample sizes are large and variation has occurred in only one or two demographic variables. By comparing the Time 1 and Time 2 males and females separately, for example, the effect of this demographic variability is eliminated. This also allows you to assess the impact of an intervention on different subsets of your population. If there is demographic variation on several demographic dimensions from sample to sample, then it is best to simultaneously control for all to these differences by using a multivariate analytic procedure such as regression analysis where each of the demographic variables is allowed to predict the variable under investigation (e.g. amount of drinking) simultaneously with the introduction of a variable representing the Time1/Time 2 periods.

III. Who is the Intended Target for the Evaluation?

In social norms projects, data is often collected for a variety of purposes. Some information is collected explicitly to develop messages and media content. Other information is collected for outcome evaluation. Still other information is used in both media development and outcome evaluation. If a project uses only one data collection method (i.e., a survey), it is likely that the data collected will be used for both purposes (two "masters"). Sometimes these two masters may demand different answers from the data. It is easy to confuse the two. One should consider if a portion of the data is more appropriate for evaluating the impact of an intervention rather than automatically including the entire database in an assessment.

For example, in some social norms projects drinking behavior data are collected from graduate students as well as undergraduates. Graduate students typically drink fewer drinks per occasion than undergraduates, thereby generating a more appealing media message (i.e., lower) and more

realistic picture of the drinks-per-occasion norm for the entire university student community. However, when evaluating an intervention, the inclusion of the graduate students in the data analysis will likely diminish the significance of any reductions in drinks-per-occasion among the undergraduates (i.e., the likely target of your intervention) because very few graduate students may be changing their behavior.

Similarly, a cogent argument can be made that the greatest impact of a social norms alcohol intervention may occur first or most notably among the heaviest drinkers (for example, men drinking 8+ and women drinking 6+). These heavy drinkers, although relatively few in the population, account for the most negative consequences. Although an effective social norms campaign should address the entire student body, a well-conceived outcome evaluation should isolate and target specific portions of the sample to determine the effectiveness of an intervention. By eliminating the "dead weight" of the relatively unchanging low-impact portions of the population within the data set (non-drinkers, light drinkers, and moderate drinkers), one may be able to more easily identify any real effect in a Time1-Time2 comparison.

IV. Turnover in Student Populations Each Year/Term

Correcting misperceived social norms using various marketing efforts is a process that requires a population to be exposed to true norm messages. When comparing baseline (Time 1) data to post-intervention (Time 2) data for evaluation purposes, it is important to identify the portion of the post-intervention sample that was never exposed to the social norms messages. Incoming first-year or transfer students who were not on campus during the initial year of the social norm effort might have been present at the institution for only a small portion of the exposure period at the time of the post sample. To effectively assess the impact of an intervention, it is appropriate to consider only those students at the post-intervention who were likely to have been available for the full intervention period. Students who could not have been influenced by the intervention because they were physically not present at the institution represent another form of "dead weight." Their presence in the data set makes it more difficult to observe any real change. (This selection issue concerning whom to analyze becomes more complex and even more care must be taken in assessment research when the social norms intervention extends over a multi-year timeframe including measurements at Time 3, Time 4, etc.)

V. Measures of Exposure to Intervention

As previously stated, correcting misperceived social norms using various marketing efforts is a process that requires a population to be exposed to true norm messages. That said, there should be some pre-post measure of exposure to the social norms messages of an intervention. The measure should explicitly describe the project's messages in such a way that it is unlikely that the respondent would mistakenly include background messages from other sources in his or her response.

Example of a survey item: About how many times, if ever, during this school year have you seen or heard information about what the majority or most students think and do regarding alcohol use based on data from your school?

VI. Assessing Perceptions of Norms

Social norms theory states that behavior is strongly influenced by perception of group norms. Consequently, any program claiming to use a social norms approach for population behavior change must have pre and post measures of the perceptions of social norms. Remember, it may be that perceptions have changed in only a subgroup of the population. Therefore it is important to assess the perception status of the various subgroups making up the sample as well as the sample as a whole.

VII. Assessing Outcome Impact on Personal Behavior and Experience

Generally speaking, a median is the best measure when identifying population norms for measures such as Number of drinks per occasion, Occasions of drinking per week, etc. because this type of data can be highly skewed in its distribution. Means (averages) give undo weight to outliers within the data and may not be a good reflection of the majority of the target population. When it comes to assessment of impact, however, comparing the medians at pre- and post-intervention times may not show any change as the majority may not have changed their behavior and thus the median might not have shifted. Likewise the mean may change only slightly overall as the more problematic individuals begin to respond to changes in the perceived norm. One way to protect against masking impact is to use cut-points. Looking at the percent of college students who consume more than 7 drinks per occasion, for example, may provide a different and more meaningful evaluative perspective than simply looking at the median or mean drinks per occasion. (This is true for perception data as well.)

Tracking negative consequences is another good evaluative measure. Indeed, most projects are funded to improve the health and safety of the target population. When assessing alcohol-related negative consequences within the sample, it is often wise to differentiate items and analyses by gender. Many alcohol-related negative consequences show a strong gender bias. Specifically, men are more likely to report anti-social negative behaviors affecting others as well as themselves. Women tend to report mostly self-destructive consequences.

The Snowball Survey as a Component of a High School Social Norms Marketing Intervention: A Pilot Study
Sara Christensen

Evanston's Social Norms Marketing Campaign, ***Strength in Numbers***, was launched in November 2001. In partnership with Evanston Township High School (ETHS), *Strength in Numbers* is sponsored by the Evanston Substance Abuse Prevention Council, a coalition that was founded in Evanston in 1984. The campaign was initially comprised of interventions for high school students (approximately 3,000), their parents and school staff (approximately 500). The stated goals of the campaign are to reduce parent, staff, and student overestimations of student alcohol and tobacco use, to increase the frequency with which parents and staff communicate true norm statements to students, and to reduce the prevalence of student alcohol and tobacco consumption. Given that, a comprehensive marketing strategy has been employed—including posters, postcards/mailers, newspaper and theatre ads, brochures, presentations, and promotional items—to communicate to students, parents, and teachers accurate information about ETHS student norms of non-use of alcohol, tobacco, and other drugs. In addition, real-life strategies that have been gathered from the students themselves for protecting oneself from the pressure to use are routinely communicated to students.

Project Outcome Data
Students, parents and school staff are surveyed each spring. Student surveys are administered during Homebase, an 18-minute class period that all students attend each school day. Students are questioned anonymously about their personal use and perception of peer ATOD use, sources of ATOD-related information, and the frequency with which respondents have heard a variety of ATOD-related statements from parents or teachers. In addition, ETHS parents are surveyed as a part of the optional parent/teacher conferences held at the school, and school staff members are surveyed via inter-office mail. The anonymous parent and staff surveys assess perceptions of student ATOD use, the frequency with which respondents made a variety of ATOD-related statements to their children/students, and exposure to social norms marketing information.

Since its inception in 2001, alcohol, tobacco and marijuana use among high school students has declined. Over the course of the project (from 2001 – 2005) there has been a 13% reduction in past month student tobacco use, an 11% reduction in past month student alcohol use and a 10% reduction in past month student marijuana use.   While quantitative analysis has shown positive results, qualitative analyses have indicated areas for improvement. Although the intervention was successful in regards to message dose and retention, our target populations still seemed to have many questions that could not be answered through our marketing strategies. Skeptical students frequently commented on the believability and credibility of the data utilized in the campaign. Misperceptions such as "seniors didn't take the survey," or "everyone lied on the survey" were surfacing.

Strategies to Enhance the Credibility of Messages
When we talked with students in small group settings where they were able to ask questions, share their feelings about the campaign, and receive accurate information in response to their questions, students seemed to walk away with a much better understanding of the message. It seemed that these discussions allowed students to think more critically about both their perceptions and the campaign messages. As a result of the vast primary and secondary misperceptions ("most students use alcohol and other drugs", and "the survey data in the campaign aren't accurate"), and in order to more broadly capture the success of the small group

discussions, additional strategies have been devised. The purpose of the new strategies is to support and strengthen the initial campaign interventions by providing students with accurate information about the survey, giving students the opportunity to think critically and discuss their perceptions in a supportive environment, and allowing students to more closely examine their peer group's norms first-hand.

The new strategies include interventions for middle school students, parents and staff, and a broadening of the campaign message for all populations to include additional normative messages and protective strategies. For example, the messages marketed to middle school students promote the fact that most Evanston high school students choose not to use alcohol or tobacco, and also reinforce information which all 6th and 7th graders receive in Project ALERT, an anti-drug curriculum (refusal skills, benefits of non-use and reasons to stay drug-free). Parents are provided with normative messages regarding teen behavior as well as parent norms (e.g. most parents have set clear rules for their children to not use alcohol). In addition, a review of the ETHS freshmen and sophomore health education curriculum was conducted by a team of teachers and prevention staff, who reviewed the current drug education units in both grade levels. The units were then revised and updated to meet current prevention standards, and they now include lessons that complement the *Strength in Numbers* campaign.

The Snowball Survey

The Evanston Township High School Freshmen Health Drug Prevention unit now begins with a variation of Linda Hancock's Snowball Survey, first used at Virginia Commonwealth University. All freshmen students complete this lesson as part of their freshmen health class. Teachers receive an in-depth lesson plan and training in order to prepare them to administer the lesson. Project staff members also assist in administering the lesson in select classes.

The lesson begins with a brief, 10-question survey. The anonymous survey asks students how serious they are about their schoolwork, whether they have used alcohol, tobacco or marijuana in the past 30 days, whether they answered the above questions truthfully, and their perceptions of their peers' behaviors regarding each of the questions. (See Table 1 for a copy of the survey.) Once each student in the class has completed the survey, students are asked to crumple the survey and then engage in a "snowball fight" to disperse the surveys throughout the room. After the "snowball fight" each student should have someone else's survey.

Snowball Survey Instructions

The snowball survey is a structured activity. In order for it to have the intended effect, students need to be guided through a series of very specific steps. These steps are enumerated and briefly explained below.

1. The class discusses the concepts of norms and perceptions. It is important that students have the opportunity to think about and discuss how their perceptions are developed and how our perceptions might impact behavior. Key points include:
   - The difference between a "norm" and "normal"
   - A brief discussion of the bell curve, and
   - A discussion about how we know whether information is true and accurate

Table 1. ETHS Snowball Survey

ETHS SNOWBALL SURVEY

Do not put your name or any stray marks on this form! This survey is optional and anonymous.
If you choose to do this exercise, please use the pen/pencil you will be given to circle one response for each question. When you finish, crumple the paper into a ball and wait for further instructions.

1. **How serious do you think MOST ETHS students are about their studies and schoolwork?**

    a. not at all serious   b. a little serious c. moderately serious   d. very serious

2. **How serious are YOU about your studies and schoolwork?**

    a. not at all serious   b. a little serious c. moderately serious   d. very serious

3. **What percentage of ETHS students do you think smoked at least one tobacco cigarette in the past month (30 days)?**

    a. less than 25%   b. 25-50%   c. 51-75%   d. more than 75%

4. **Did you smoke any tobacco cigarettes in the past month (30 days)?**

    a. yes   b. no

5. **What percentage of ETHS students do you think drank alcohol in the past month (30 days)?** (not including religious reasons)

    a. less than 25%   b. 25-50%   c. 51-75%   d. more than 75%

6. **Did you drink alcohol in the past month (30 days)?** (not including religious reasons)

    a. yes   b. no

7. **What percentage of ETHS students do you think used marijuana in the past month (30 days)?**

    a. less than 25%   b. 25-50%   c. 51-75%   d. more than 75%

8. **Did you use marijuana in the past month (30 days)?**

    a. yes   b. no

9. **What percentage of students in this class do you think answered this survey truthfully?**

    a. less than 25%   b. 25-50%   c. 51-75%   d. more than 75%

10. **Did you answer this survey truthfully?**

    a. yes   b. no

2. Students are given information about how the school-wide survey is conducted. Key points touched upon include:
   - All students are given the opportunity to participate,
   - The survey is anonymous, and
   - Both the size and representative quality of the survey sample are discussed

3. Students discuss whether the results of the snowball survey will be valid and accurate. The discussion includes concepts such as anonymity and sample size. The class then discusses how to process surveys where the respondent answered that they did not answer the survey truthfully. The class will ultimately come to the conclusion that those surveys should be considered invalid. Students holding those surveys are asked to help the instructor tally the results or are asked to sit aside.

4. With the help of the teacher and a project staff member, students tally the results of the snowball survey in class.

5. Students compare their class results to the freshmen class results from the most recent school-wide survey. For each question students can compare their perception with their health class' behavior and freshmen class data from the most recent survey. Results show the gap between perception and reality and generally show that the norms for the health class closely match those of the freshmen class as a whole.

6. Students are led through a reflection activity to process their thoughts. Discussion questions include:
   - Were you surprised by the results of the snowball survey?
   - Do you think the data obtained from the snowball survey accurately reflects the behavior of this class?
   - What other types of behaviors besides substance use might we have misperceptions about?
   - Why might it be important for us to have accurate perceptions about what happens around us?

Important Considerations
A number of important considerations should be borne in mind before utilizing the snowball survey in a high school setting. In our case, project staff took care to address each of the following issues:

- Passive parental consent was obtained for the snowball survey at that same time consent was obtained for the all-school student survey via a parent mailing from the school.
- Each health class was read an informed consent statement, and every student was provided with the opportunity to decline to take the survey.
- It is important that all students use the same type of writing implement (i.e. pencil, black pen etc.) during this activity so that no survey can be identified with any particular student. For this reason, project staff provided facilitators with enough pencils for each class.
- It is recommended that this activity be conducted with a minimum of 20 students. This smaller the group, the more difficult it is to generalize the results to the larger population and the less likely it is that the results will closely match the larger population.

- We specifically conducted this activity with freshmen because we were confident that the class data would compare well with the aggregate school norm of non-use. We would caution against using this activity with older students since use rates often increase with age during high school. For instance, senior class norms may not be reflect the school-wide majority norm of non-use.
- It is important that the facilitators are well trained and allow students to discuss their thoughts and beliefs in a non-threatening, neutral environment.
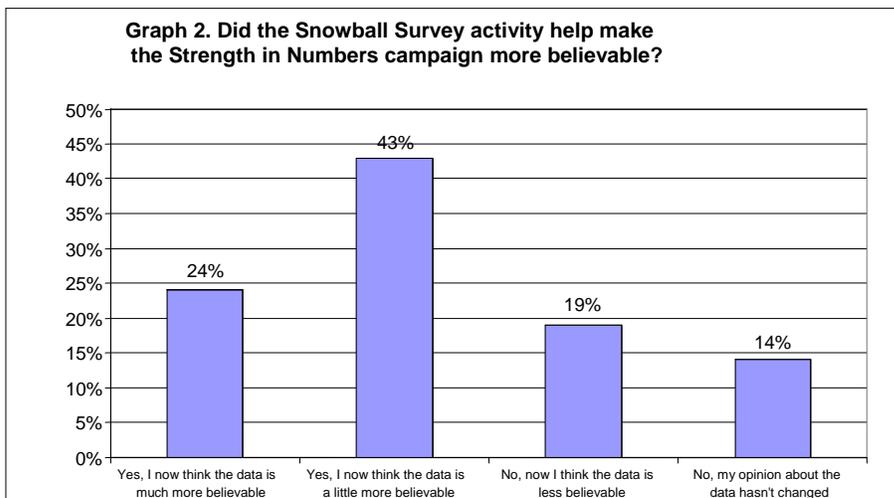
Results

Feedback about the snowball survey activity was obtained through a series of 3 focus groups approximately one month after students participated in the activity. A total of 28 freshmen took part in the focus groups. The participants closely mirrored the demographics of the school population. Forty-six percent of participants were female; fifty-four percent were male. Thirty-nine percent were African American; thirty-two percent were Caucasian; seven percent were Latino; four percent were Asian and eighteen percent identified as multi-racial or "other".

Focus group participants were asked to complete an initial written ballot which included the following questions (students completed the ballot as they entered the room, prior to *any* discussion):
- "Did you participate in the Snowball Survey during your Health Class about a month ago (survey about drug use and perceptions, tallied results in class)?"
- "If you answered yes (to the previous question), did the activity change your perception about teen drug use (drugs = alcohol, tobacco and marijuana)?"
- "If you answered yes (to the first question), did the activity help make the *Strength in Numbers* posters/campaign more believable?"

The focus group results showed that 57% of students either maintained or increased accurate perceptions and 67% of students responded that the Snowball Survey activity increased believability of the campaign message. (See Table 1 and Graphs 1 and 2.)

Table 2: Freshmen Focus Group Results				
Did you participate in the snowball survey?	Yes	No	Not Sure	
Number Responded	24	3	1	
Percent Responded	86%	11%	4%	
Did the activity change your perception about teen drug use?	No, I still think most teens *don't* use drugs.	Yes, I now think *less* teens use drugs than I used to	No, I still think most teens use drugs	Yes, I now think more teens use drugs than I used to.
Number Responded	5	8	7	3
Percent Responded	22%	35%	30%	13%
Did the activity help make the Strength in Numbers campaign more believable?	Yes, I now think the data is much more believable	Yes, I now think the data is a little more believable	No, now I think the data is less believable	No, my opinion about the data hasn't changed
Number Responded	5	9	4	3
Percent Responded	24%	43%	19%	14%

Graph 1. Did the Snowball Survey activity change your perception about teen drug use?

Response	Percentage
No, I still think most teens don't use drugs.	22%
Yes, I now think less teens use drugs than I used to	35%
No, I still think most teens use drugs	30%
Yes, I now think more teens use drugs than I used to.	13%

Graph 2. Did the Snowball Survey activity help make the Strength in Numbers campaign more believable?

Response	Percentage
Yes, I now think the data is much more believable	24%
Yes, I now think the data is a little more believable	43%
No, now I think the data is less believable	19%
No, my opinion about the data hasn't changed	14%

Discussion

The Snowball Survey activity can be a useful tool to provide students with accurate information about data collection and evaluation for social norms marketing campaigns, give students the opportunity to think critically and discuss their perceptions in a supportive environment, and allow students to more closely examine their peer groups' norms first-hand. It seems clear that high school students benefit from guidance and structured discussion opportunities in order to help them process information that challenges their long-held beliefs about peer substance use. The Snowball Survey activity and similar opportunities can play a critical role in supporting social norms marketing campaigns by offering the normative message in an alternative setting and learning format.

The Snowball Survey: A Social Norms Classroom Activity
Sam Gitchel, M.A., Lynnette Zelezny, Ph.D.

The Snowball Survey is an interactive learning activity that reduces students' misperceptions and stimulates discussion about social norms. We found it to be an effective enhancement of our social norms marketing project, with both short-term and long-term (4-week) effects on students' perceptions.

Background
California State University, Fresno's social norms marketing project was initiated in the fall of 2003. By the end of the 03-04 academic year most students indicated that they recognized project media and had a positive opinion of it. But many students' recall of message content was vague, and some were doubtful about the accuracy of its normative messages.

The Snowball Survey offered a way to address this doubt and stimulate discussion of our media. The activity uses data supplied by students to contrast their self-reported behavior with their perceptions of peer behavior. The activity was developed by Linda Hancock (Virginia Commonwealth University) and has been described elsewhere (Vatalaro and Hancock, *The Report on Social Norms* 2004, 3(7):54-6,8).

We conducted the activity in "University 1" first-year orientation courses. This class offered an opportune time to reach incoming students, who, as a group, are acutely interested in the normative behavior of their newfound peers. It was also fitting in that the text, Gardner and Jewler's *Your College Experience,* takes a normative perspective on alcohol.

Classroom Implementation
Before taking the activity to the classroom, we:
- Made minor modifications in Hancock's survey questionnaire to better suit our student population and available data (see Table 1)
- Created transparency overheads
- Pilot tested the activity.

Our classroom sessions typically proceed in this way:
- We briefly introduce ourselves. To protect the anonymity of students' responses, we ask that they use a pencil to complete the survey, and not to write their name on it. We provide pencils.
- Students complete the snowball survey questionnaire (pretest), then are told to have a "snowball fight" with their crumpled questionnaires, throwing at least three "snowballs" to randomize their distribution. There is usually a perceptible rise in class energy during this part of the activity. We tell students not to say anything if, by chance, they end up with their own questionnaire.
- We present a brief lecture:
  Briefly flashing an image of a hand with an unapparent extra finger, we ask students what they see. We make the point that "things are not always as they first appear," and introduce key words: "Our *perceptions* may or may not be an accurate reflection of *reality.*"

Table 1. Snowball Survey

SNOWBALL SURVEY

Please do not put your name or any stray marks on this form! This survey is optional and anonymous. If you choose to do this exercise, please use a pencil, and circle one response for each question. When you finish, fold the paper in half and wait for instructions.

1. What health issue do you think about the most? _____

2. How serious do you think most Fresno State students are about their studies and schoolwork?
   a. Not at all serious   b. A little serious   c. Moderately serious   d. Very serious

3. How serious are *you* about your studies and schoolwork?

   a. Not at all serious   b. A little serious   c. Moderately serious   d. Very serious

4. How often do you think most Fresno State students wear a seatbelt when they ride in a car?

   a. Never   b. Rarelyc. Sometimes   d. Most of the time   e. Always

5. How often do *you* wear seatbelt when you ride in a car?
   a. Never   b. Rarelyc. Sometimes   d. Most of the time   e. Always

6. In the last 30 days, on *how many days* do you think most Fresno State students smoked a cigarette? _____ **(insert a number 0-30)**

7. In the last 30 days, on how many days did *you* smoke a cigarette? _____ (insert a number 0- 30)

8. How many drinks do you think the typical Fresno State student had the last time s/he
   partied/socialized?   (One drink is 12 ounces of beer, 4-5 ounces of wine, or 1 shot of liquor)
      0   1   2   3   4   5   6   7   8   9   10   11   12   13   14 or more

9. How many drinks did *you* have the last time you partied/socialized?
   (One drink is 12 ounces of beer, 4-5 ounces of wine, or 1 shot of liquor)
      0   1   2   3   4   5   6   7   8   9   10   11   12   13   14 or more

10. What percentage of Fresno State students *do not* smoke marijuana in a typical month? (make your best estimate)
   a. 12%   b. 22%   c. 32%   d. 42%   e. 52%   f. 62%   g. 72%   h. 82%   i. 92%   j. 98%

11. How many sex partners do you think most Fresno State students have in a school year?
      a. 0   b. 1   c. 2   d. 3   e. 4   f. 5 or more

- We propose to use the class's survey data to conduct an experiment to test the hypothesis "healthy behavior is underestimated." Explain how we will use the transparency grid to compare students' perceptions of peers with the actuality of their self-reported behavior (see Table 2).

- Address sample size and the variability of small samples, i.e., note that smaller groups are more likely to vary from population norms. Count the number of participants in that day's experiment.

- Ask if there are any questions about how we will proceed.

We then go question-by-question, starting with question 2. (Question 1, "What health issue do you think about the most?" was not a part of the Snowball Survey activity.) With each question, we ask students to raise their
hand or stand to indicate the response on the survey they are holding. We then count, calculate, and record the percentage in the grid. After each pair of questions, we ask: "Is perceived *under* or *over* actual?"

Questions 10 and 11, which ask about perceptions of marijuana use and number of sex partners, are not paired with questions about personal behavior due to the sensitivity of their content in a classroom setting. For these questions we compare the class's responses to campus-wide survey norms, treating them as an interesting corroboration but not part of our "formal" experiment. By this point in the process, students can see the pattern of underestimation of healthy behaviors in the preceding questions.

Table 2. Transparency Grid for Comparison of Actual and Perceived Behaviors

Behavior	Perceived	Actual	Is perceived over or under actual?
Studying *very serious*			
Seatbelt use *usually or always*			
Cigarettes *don't smoke*			
Alcohol *0 to 3 drinks*			

We then review the findings and encourage students to discuss factors that contribute to the pervasive underestimation of healthy behavior. Students generate more ideas about the sources of misperceptions when we refer to specific behaviors—studying, drinking, etc.—rather than asking global questions about misperceptions. During this discussion, we make it a point to distinguish between this speculation and the irrefutable fact, evident in the data just gathered, that healthy behavior was consistently underestimated.

Finally, for evaluative purposes, we ask students to complete the posttest-1.

Method
In this study, the intervention group consisted of students in 18 sections of University 1 who participated in the activity (n=443). At the beginning and end of these sessions students completed the pretest and posttest-1, respectively. Four weeks later students completed posttest-2.

The two sections of the course that we were unable to schedule served as a convenience control group (n=43). They completed the pretest and, about four weeks later, completed posttest-2. They did not participate in the Snowball Survey activity.

Students in both groups were presumably exposed to the campus-wide social norms marketing campaign, as well as textbook material and class discussion of alcohol and other health topics. Thus, our findings pertain to the snowball survey as an *augmentation* of a social norms marketing campaign.

The design of the study is presented in Table 3.

Table 3. Study Design

Intervention Group (n = 443)	Pretest	**Snowball Survey** + campus campaign + curriculum	Posttest-1 (end of class period)	Posttest-2 ~ 4 weeks later
Control group (n = 43)	Pretest	Campus campaign + curriculum	--	Posttest-2 ~ 4 weeks later

The survey
Our survey included a series of eight paired questions addressing (a) students' own attitudes and behaviors and (b) perceptions of peer attitudes and behavior in four domains: seriousness about studies, seatbelt use, tobacco use, and alcohol use (see Table 1). These eight questions served as the basis for our evaluation.

The survey also asked about perceived prevalence of marijuana use and perceived number of sexual partners. In keeping with Hancock's approach, our questionnaire did not ask students to disclose their personal behavior in these areas, given the sensitivity of these behaviors and concern about privacy in the classroom. Question 1, "What health issue do you think about the most?" was included for other purposes; it was not part of the Snowball Survey activity.

Results
Did it demonstrate misperceived norms?
As the data in Table 4 indicate, students consistently underestimated their peers' healthy behavior/attitude in all four domains.

Table 4: Reported and perceived norms (based on pretest data from intervention and control groups)

	Self-reported	Perceived	Significance*
Studies -- very serious	50%	15%	p<.05
Seat belt use -- usually or always	96%	74%	p<.05
Cigarettes – 0 days in the last 30	87%	2%	p<.05
Alcohol – 0-3 drinks	73%	34%	p<.05

*t-tests

Furthermore, healthy behavior/attitude was underestimated in *every* comparison in *every* class (i.e. four paired-question comparisons in each of 18 classes). While we expected most classes to fall into this pattern, we were surprised that there was *never* an exception.

Incidentally, both the self-reported and perceived figures for use of seat belts, cigarettes, and tobacco obtained in this sample are within 3% of our campus-wide survey findings using the National College Health Assessment (NCHA).

Did it increase the accuracy of students' perceptions?
As the data in Table 5 indicate, the activity reduced misperceptions in all four domains. The effect was greatest immediately after the activity, but persisted several weeks later at posttest-2.

Table 5: Percentage of students accurately perceiving norms at pretest, posttest-1 and posttest-2 (intervention group)

	Pretest	Posttest-1	Posttest-2	Significance*
Studies -- very serious	15%	43%	25%	p<.001
Seat belt use -- usually or always	74%	94%	89%	p<.001
Cigarettes – 0 days in last 30	2%	20%	7%	p<.001
Alcohol – 0-3 drinks	34%	69%	62%	p<.001

*Tukey's HSD test

How did the intervention and control groups compare?
The accuracy of students' perceptions improved in both groups, with greater change in the intervention group for three of the four measures. Interestingly, the control group showed slightly more improvement than the intervention group in the accurate perception of cigarette use, though this was not statistically significant (see Table 6). However, this question seems to have had validity problems. It would appear that many students responded by giving an estimated prevalence of cigarette use rather than the number of days students smoked. For example, a student who perceived that half the students smoked responded with a "15" (i.e., 50% of 30 days). Therefore, this question may not have measured what it was intended to measure. This question has since been changed to match the wording of the question (#10) on marijuana.

Table 6: Increase in percentage of students accurately perceiving norm, from pretest to posttest-2 (posttest minus pretest = percent increase)

	Intervention group	Control group	Significance*
Studies	10%	0%	$p<.005$
Seat belt	15%	5%	$p<.005$
Cigarettes	5%	7%	NS
Alcohol	28%	7%	$p<.005$

* ANOVA

How did students like the activity?
The posttest-2 questionnaire asked students to rate the activity on two seven-point scales, the results of which are noted in Table 7. Most students found the activity fun and interesting.

Table 7: Student ratings of the snowball survey

	It was fun	*It was interesting*
1- Strongly disagree	4%	4%
2	3%	2%
3	6%	3%
4	23%	17%
5	21%	20%
6	22%	31%
7 - Strongly agree	22%	23%
Total Positive	**65%**	**74%**

Speaking subjectively, the presenters found the activity to be an effective way to engage students in a discussion of social norms and the prevalence of misperceptions.

Discussion
We found that the Snowball Survey activity:
- Demonstrated the prevalence of students' misperceptions
- Increased the accuracy of students' perceptions, and
- Stimulated discussion about health behavior and our social norms marketing project.

In addition, most students found the activity interesting and fun.

The activity reduced misperceptions across a range of issues. The reduction was greatest with alcohol. We can only speculate about the reasons. There may have been a synergistic effect with our ongoing social norms campaign, which focuses on alcohol consumption, and with the textbook's emphasis on normative behavior with regard to alcohol. Also, in the discussion phase of these presentations we often emphasized alcohol.

The data we collected in the course of this activity have turned out to be useful as corroboration of campus-wide survey findings. A common challenge to our media is couched in terms such as "the survey must be biased – big partiers don't return their surveys". In these classes, the response rate was nearly 100%. (Students were given the choice of opting out of the activity, but only a handful—those arriving late to class—did so.)

When we began planning this activity, we were concerned we would encounter occasional groups that would not go as we predicted, i.e., the level of their self-reported healthy behavior would be less than the perceived level. To our surprise, however, we did not encounter a single such instance in these 18 classes. We *did* encounter groups with higher-than-average tobacco and alcohol consumption (which, as Hancock points out, often go hand-in-hand), but their perceptions of peer use were always higher than their self-reported use.

Since conducting these classes, we have continued using the activity with other groups, and we have, in two instances, had groups where a particular unhealthy behavior exceeded perceived levels. In both instances the group size was less than 15, and our explanation of sample size and the high variability of small samples adequately prepared us.

Limitations

Practically, the intervention would not be feasible as population-level intervention on large campuses, due to the staff time required. Also, as pointed out by Vatalaro and Hancock, the activity is most effective if the presenters are conversant in their campus survey data, and are able to "think on their feet." It is not a cookie-cutter, scripted presentation.

Methodologically, there were several limitations. Our survey was self-designed and was not validated. (Several questions resembled, but were not identical to, questions on the NCHA.)

We tested the snowball survey as an augmentation of a campus-wide social norms marketing campaign and a norms-oriented textbook. The results may not generalize to use as a stand-alone intervention. Even working in concert with other social norms messages, the activity reduced, but did not eliminate, misperceptions.

Implementation Tips

Seek to model an attitude of open-mindedness. Encourage critical thinking.

Always count healthy behavior (thus the wording of question 10). Doing so keeps the process clearer to students (and presenters), and keeps the focus on positive norms.

Be familiar with relevant campus-wide survey data, and bring it into the discussion. We carry overheads with these data, which we use as appropriate.

Provide bits of relevant health information while reviewing the surveys, such as:
- The effectiveness of seat belts in reducing vehicular injuries
- Campus smoking policy
- Why we call 0-3 drinks the "safer zone," and
- The relationship of blood alcohol content to negative consequences.

The activity is well suited for groups of 20-30 students. Smaller groups are more likely to vary from population norms. With larger groups, it's helpful to have an assistant or two to help with the counting, in order to keep the activity moving. (Hancock has avoided this problem by simply asking students to stand, creating a visual demonstration of their number.)

Practice! Pilot testing was invaluable.

Materials
Questionnaires, pencils, calculator, transparencies, transparency pen.

An Interview with Malcolm Gladwell
Michael P. Haines, Rich Rice

Malcolm Gladwell's latest book, *Blink,* has been on many best-seller lists of late. In Gladwell's own words, it is "a book about rapid cognition, about the kind of thinking that happens in a blink of an eye…when …your mind takes about two seconds to jump to a series of conclusions." In *Blink*, Gladwell strives to understand those two seconds. "What is going on inside our heads when we engage in rapid cognition?" he asks. "When are snap judgments good and when are they not? What kinds of things can we do to make our powers of rapid cognition better?"

Gladwell's previous book, *The Tipping Point: How Little Things Can Make a Big Difference,* first published in 2000, was a compelling examination of how and why social change happens so rapidly. In 2002, Mr. Gladwell presented the keynote address at the National Conference on the Social Norms Model that was held in Philadelphia. After his address, he sat down with Michael Haines and Rich Rice of the National Social Norms Resource Center to discuss the implications of his concept of "social epidemics" for the field of social norms. What follows is a slightly edited transcript of that conversation.

In The Tipping Point and in your talk today you discussed the important role that two kinds of people have in affecting social change: mavens, who are repositories of specialized knowledge, and connectors, who are "people specialists" and circulate in many different worlds. How does one identify the mavens and connectors in a community?

Malcolm Gladwell: Well, for people on the local level, like teachers in schools, I think they *know*, because they know the kids and they can watch the interactions. It's harder to identify mavens and connectors in a larger context. I've been very impressed recently with some tools that have been developed for use in the corporate world by anthropologists, where they survey a group, asking about its communication patterns, and then construct social maps of those institutions. It can be a very easy and an extremely useful way of getting a handle on how communication is flowing in a particular community.

A fundamental tenet of the social norms approach is that the essential wellness and goodness of people is under-appreciated and underestimated. This gives rise to a false norm, particularly among young people. One comment that you made near the end of your talk—that young people are "looking for truth"—suggests that you share this notion that young people are essentially good folks…

Malcolm Gladwell: One of the reasons that I'm enthusiastic about the application of some of the ideas I describe in my book to the social norms movement is that I think there's a very good fit. I'm particularly interested in the roles that mavens play because, as I see it, they're the guardians of truth. We rely on them because they know more and they have more expertise, and they are closer to the truth than we are. In my talk I used the example of how people use mavens as specialized information resources when they want to buy laptops, say, or choose a restaurant in Manhattan to go to…But it's really no different when you're a kid and you're trying to figure out much more global questions, like: How ought I live my life? I don't think that teens are

predisposed toward negative behaviors; rather, I think they engage in them because they lack someone in their life who is in a position to give them a more accurate answer to that question. And that's where mavens can really come in.

In your talk you also discussed the issue of "immunity to information," and not just among young people, where it's perhaps more pronounced, but in the larger community as well. This "immunity" is especially troubling for a social norm campaign that, in a sense, is trying to "inoculate" a population with a message that's intended to protect it...

Malcolm Gladwell: Well, this immunity question is something that has consumed me a great deal, because I don't think you can endlessly multiply the amount of information that you throw at people without there being some kind of consequence. You know, at a certain point the sponge becomes saturated, and I think the sponge is saturated now. We're all searching for ways around this particular problem. It is the first and most serious impediment to anyone who is trying to spread a corrective message. The window for new messages is a lot smaller now than it was, because the cost of competing for attention is so much greater now. And that's why I think it's so critical for people who are interested in this movement to learn more sophisticated social strategies of reaching kids.

But there's a second part to this, which is that immunity is striking the more traditional sources of information. I don't think that mass media is nearly as important, as powerful today as it was ten or fifteen years ago. That is, we're also becoming immune to the messages on the television. When you have 200 channels, the notion that television as a medium is a trustworthy source begins to be undercut, because right in front of you is evidence of how extraordinarily, almost absurdly diverse it is. There's no way that you can grant the medium some kind of special status because the medium is preposterous: it's kids doing stupid stunts on MTV, it's not just Walter Cronkite. So that process will also effect those who are purveying the orthodoxy.

One of the things that is central to the social norms approach stems from marketing, and that is: going to the target population and asking them questions about where they're getting information, how they're getting it, who they're getting it from, and who they deem to be credible sources. What you seemed to suggest in your comments today is that we need to redouble those efforts and ask those questions again and again in order to determine if there are shifts in where people are getting information...

Malcolm Gladwell: You're absolutely right. One of the things that marketers are realizing is that you need to have a constant, almost real-time sense of the direction in which communities are moving and people and ideas are flowing.

Couple that with your observation about the isolation of adolescents from the moderating influence of beneficial adults in the culture, and how the cell phone, among other electronic media, just increases that isolation. If you could comment on that...

Malcolm Gladwell: I talk about immunity to information, and isolation, to me, is the second profound social change that is affecting our community and our world at the moment. What I mean is, our kids are replacing more and more adult time with peer time, and they're using all the things we would expect them to use: the internet, cell phones in particular—cell phones to me

are the really big issue here. They effectively crowd out alternate, mature voices from their world. I mean, kids construct their reality from all kinds of different sources, and what we're doing is just narrowing the range of sources that they're using, and that's problematic. It's not terminal,

and it doesn't mean that they're all going to go off and do crazy things, but it just means that we have to find another way to bring moderating voices into their lives.

Your general comments and impressions of the social norms field now that you've looked into it…

Malcolm Gladwell: Actually, when *The Tipping Point* was published there was a review of it in *The New Republic* by Cass Sunstein, and he talked extensively about social norms. That was my first exposure to it. He pointed out how sympathetic a lot of what I was writing was to this very, very powerful social idea. I think you guys are right. I mean, this is an extremely powerful social tool. And this larger perspective that there's not something terribly wrong with kids, but that they just need to have better access to information to form their perspective on who they are and how they ought to behave is something that I'm fundamentally in sympathy with.

Preventing Alcohol-Related Harm among Australian Rural Youth: Investigating the Social Norms Approach
Clarissa Hughes (Cook), Ph.D.

There is a sense of urgency surrounding a key health problem of our time: high-risk drinking (NHMRC, 2001). Misuse of alcohol is responsible for much of the acute and chronic disease burden, and is associated with mental health problems, suicides, and motor vehicle and other accidents (Australian Institute of Health and Welfare, 1999; Baker et al., 1992; Chikritzhs et al., 2003; Collins and Messerscmidt, 1993; d'Abbs et al., 1994; Heale et al., 2002; Jonas et al., 2000; Mason and Wilson, 1989; McBride et al., 2000; Fombonne, 1998; Hall and Farrell, 1997; White and Humeniuk, 1994). Risky drinking among young people, in particular, is widely regarded as an important public health issue not only because of the various harms incurred in the short term, but also because of the multitude of health, personal and social implications that are likely to affect people later in the life-course if such drinking patterns become entrenched (Loxley et al., 2004). Australian youth in rural and remote communities are of particular concern since they consume alcohol at more harmful levels than their metropolitan counterparts (Williams, 1999).

Despite substantial public investment and an array of different approaches, the 'problem' of binge-drinking has shown itself to be a highly complex and particularly intractable issue:

> In our efforts to solve the problem of binge drinking, we have none of the precision that we like; it is not an infectious disease that can be controlled or eradicated by the application of so many units of some treatment, or prevented by the careful removal of clearly defined personal, social, or environmental factors that lead to illness (Keeling, 2000).

In Australia, as elsewhere, there is growing recognition that it is preferable to take a preventive approach to youth binge-drinking and alcohol problems more generally, rather than wait until the problem is apparent. Preventive programs are by no means a 'new invention,' however school-based alcohol abuse prevention programs have been part of Australian primary and high school education for many decades. Commentators have noted a number of phases of development in this country which have tended to mirror developments overseas (Steffian, 1999).

Early prevention work within schools tended to focus on the provision of information to students, particularly concerning the pharmacological dangers of substance use and the possible risky consequences of drinking. These programs often incorporated deliberate scare-tactics and have been labeled 'health terrorist' approaches due to the underlying assumption that scaring the living daylights out of people will 'scare the health into them' (Perkins, 2003). Put simply, it was believed that 'if young people just knew how horrible drugs were and what they did to their brains and bodies, then they would not use them' (Hogan, 2002). Sometimes more comprehensive school-based alcohol and drug education programs were delivered in conjunction with law enforcement agencies, with the aim of educating young people about the likely legal, social and health implications of the use of illicit drugs and the misuse of licit drugs.

Despite some residual 'scare tactic' elements within contemporary programs, the information approach as a stand-alone method of tackling high-risk drinking among youth was 'an acknowledged failure by the late 1970s' (Midford, 2002). Ironically, some information-based programs have resulted in 'more educated drug users' as well as increased levels of use (Hogan, 2002).The ensuing phase of school-based prevention took a more holistic approach: seeking to build the self-esteem of young people so that they were less vulnerable to the vagaries of substance abuse. Sometimes these programs included resistance training components that sought

to 'inoculate' youth against overt peer-pressure to engage in risky behaviors. Over time such 'affective' programs suffered the same fate as their predecessors the 'information' programs: they were gradually, if reluctantly, recognized as having only limited efficacy.

With the exception of some more recent and more sophisticated 'social influence' programs (Midford, 2002),alcohol programs for young people have not achieved great success, either in Australia or elsewhere despite 'good intentions and a parade of promising practices' (Keeling, 2000).On the whole, alcohol educators here and overseas find themselves in a frustrating and disheartening position whereby, despite determined efforts, prevention programs generally fail to deliver sustained behavioral modification (Steffian, 1999).

Looking for Alternative Approaches
In searching for possible explanations for lack of effect it is necessary to examine the assumptions underpinning the various prevention efforts. With respect to alcohol programs, information-based approaches assume that young people will be motivated to change by appeals to long-term health consequences or mortality. With respect to the so-called 'affective' and 'inoculation' approaches, there is an underlying assumption that low self-esteem is a significant causal factor in harmful patterns of alcohol consumption among young people. Similarly, although peer factors have repeatedly been shown to be fundamental to youth drinking behaviors (Borsari and Carey, 2001), it is conceivable that peer pressure doesn't operate in precisely the way program designers assumed that it does.

With such issues in mind, there is merit in the development of a 'sociology of drinking'. D'Abbs recognized that although the public health approach to alcohol-related problems is valuable from a descriptive and risk-factor identification perspective, it "fails to acknowledge the extent to which, and the many ways in which, drinking is a social as well as an individual act (d'Abbs, 2002)". There is strong evidence that a sociological approach to alcohol consumption 'matters very much'

> not only because drinking is a social act, but because virtually the entire public health repertoire of policies and measures are… attempts to intervene in the social control of drinking (d'Abbs, 2002).

As noted earlier, some of the more recent 'social influence' approaches to alcohol abuse prevention are yielding promising results. This could be because they incorporate environmental/cultural factors and acknowledge and utilize complex social control processes, rather than having a blinkered focus on the individual's knowledge, values or personality.

The pursuit of a theoretically sophisticated sociological approach to alcohol consumption represents an important way forward for rational program design and evidence-based policy development. One recent prevention approach that is gaining in popularity and deemed worthy of the label of 'sociologically-informed', is known as 'Social Norms' (SN). SN has a theoretical basis in social-psychology, and draws upon theories of peer identity formation, conformity and cognitive dissonance (Perkins, 1997). A distinctive feature of SN is its clarification and utilization of peer-related influences on behavior. As explained by a pioneer of the approach:

> Research has long pointed to the dramatic power of peer influence in adolescence and young adulthood, but what has not been adequately considered in previous research and prevention strategy is whether this peer influence comes simply from what other peers actually believe is the right thing to do and how they behave, or from what young people think their peers believe is right and how they think most others behave (Perkins, 2003).

The SN approach has been extensively employed in the United States, and has been heralded as an effective strategy for reducing alcohol-related harm in youthful populations by identifying and correcting such attitudinal and behavioral misperceptions. The following section of this paper, sketches out how the approach has developed since the foundational research was conducted nearly two decades ago, and considers whether or not the encouraging results achieved overseas would be likely to be achieved in the Australian context.

About the Social Norms Approach
The foundational research was undertaken in the late 1980s by social scientists Perkins and Berkowitz, who discovered widespread misperception of alcohol-related attitudes and behaviors among college students at Hobart and William Smith Colleges in upstate New York. Specifically, they found that students consistently overestimated how often and how much their peers drank, as well as overestimating their peers' support of risky drinking behaviors. Perkins and Berkowitz subsequently theorized that much high-risk activity stems from people wishing to, or feeling pressured to, conform to the behavior and expectations of 'imaginary peers' (Perkins, 2003).

These early contentions have been supported by more recent studies–for instance, Beck and Trieman's finding that "teens' drinking behaviors are not driven so much by a need for peer approval or to be accepted by a group, but rather by what is perceived of as normal behavior among one's close friends (Hogan, 2002; Beck and Treiman, 1996)." Essentially, what is problematic about misperception is the self-fulfilling prophecy (Merton, 1957) effect whereby the (often erroneous) assumption that 'everyone is doing it' leads to a situation where 'everyone does it'. Certainly, many studies demonstrate that perceptions of drinking norms predict, or are at least positively correlated with, individual drinking behaviors (Borsari and Carey, 2001; Thombs et al., 1997; Page et al., 1999). However, just as inflated perceptions of drinking norms contribute to a social environment that is supportive of high-risk drinking, accurate norm perceptions will tend to have the opposite effect (Steffian, 1999). Therein lies the 'secret weapon' of this important alternative to 'health terrorism':

> The strategy of the social norms approach, put simply, is to communicate the truth about peer norms in terms of what the majority of students actually think and do, all on the basis of credible data drawn from the student population that is the target (Perkins, 2003).

The basic stages of an SN intervention are as follows: The initial phase involves the collection of baseline self-report data about use and attitudes. These data are then analyzed and the key messages are crafted, with an emphasis on positivity. (For example, '70% of Greentown High students have three or fewer drinks when they party'). Scare tactics and negative slants are notably absent. The next phase involves the incorporation of the key messages (i.e. the 'actual norms') into a media campaign utilizing radio, flyers, screensavers, and newspaper ads, for example, that is then delivered intensively to the target population. The population from which the baseline data were collected is always the intended recipient of the media campaign, but sometimes additional groups (such as parents and teachers) are included. The media phase is then monitored for impact in terms of recognition and understanding of the message, changes to norm perceptions and resultant changes in behavior.

Social norms interventions are rapidly gaining in popularity in the United States. In a survey of 4-year colleges nationwide in 1999, 20% of the colleges surveyed reported having conducted social norms marketing campaigns, and by 2001 this figure had risen to nearly 50% (Weschler, 2004).There is a growing body of evidence of encouraging and often dramatic reductions in high-risk drinking among target populations in metropolitan and non-metropolitan settings. For instance, the University of Arizona reported a 29% reduction in 'heavy episodic drinking' over a

three-year period (Glider et al., 2001). Equivalent figures for other institutions include a 21% reduction over two years at the University of Missouri-Columbia, and a 44% reduction over 10 years at Northern Illinois University (Haines, 1996). Other institutions (Peeler et al., 2000) reported significant increases in the proportion of abstainers (teetotalers) among their student populations. Although the majority of SN interventions have been conducted at colleges and universities, the approach is also yielding promising results at high-schools (Linkenbach, 1999; Johannessen et al., 1999).

Despite a growing band of enthusiastic followers, the SN approach does have its critics. Weschler, for example, recently argued that "...there is no evidence from scientifically rigorous evaluations supporting the effectiveness of…social norms marketing campaigns (Weschler, 2004)." Although their conclusions have been refuted on methodological grounds (Perkins and Linkenbach, 2003), this group of Harvard-based academics remain vocal critics of the SN approach. Admittedly, there have been isolated examples of 'failed' SN interventions. Werch, for instance, reported that an intervention designed to prevent heavy episodic drinking among first-year college students "failed to produce any differences in self-reported alcohol use or alcohol-use risk indicators" (Werch, 2000; Clapp et al., 2003; Trockel et al., 2003).However, ineffective interventions do not, in themselves, constitute a satisfactory basis for dismissing the SN approach. The evidence base in support of the method is sufficiently large and robust to warrant detailed consideration of the potential 'fit' of SN within the Australian social, cultural and policy environments.

Would Social Norms Interventions Work in Australia?
Having learned something of the theoretical underpinnings of SN and the details of some interventions, is the task of considering whether or not the 'fit' between SN and the Australian policy and social environments is likely to be a comfortable one? Certainly, there are reasons to think that SN interventions might not be readily 'transplantable'. With few exceptions, virtually the entire body of evidence is U.S.-based. There may be important cultural or social differences between Australia and the U.S. (for instance, less pervasive peer orientation among adolescents) that would render SN interventions less effective in the former than in the latter. The American legal drinking age is 21 as opposed to 18, which might also have implications for program implementation.

Furthermore, the United States' 'War on Drugs' is often held as the 'bastion of opposition' to Australia's drug policy position that is based on a 'harm reduction' approach (Roche et al., 1997; Wink, 1996).A detailed discussion of the similarities and differences between the drug policies of the two countries is not only outside the scope of this article, it is of limited value for the current discussion. What matters is not how different the Australian and U.S. drug policies are, but whether SN is itself compatible with a harm minimization framework.

Although there has been some controversy surrounding the terms 'harm minimization' and 'harm reduction' (Single and Rohl, 1997) and the extent to which they are interchangeable, broadly speaking they refer to:

> a policy of preventing the potential harms related to drug use rather than trying to prevent the drug use itself. Harm reduction accepts as a fact that drug use has persisted despite all efforts to prevent it and will continue to do so (Duncan et al., 1994).

The principle of harm minimization or hard reduction provided the basis for Australia's National Campaign Against Drug Abuse (launched in 1985) as well as its successor, the National Drug Strategy (d'Abbs, 2002). Critics of harm minimization have suggested that it condones illicit drug

use and other risky behaviors because it does not promote non-use, or even necessarily aim for a reduction in use. However, as Plant and his colleagues explain, harm minimization is 'neutral on the virtue or shame attached to such behaviors'(Plant et al., 1997) and although it does not seek to minimize alcohol intake *per se*, it is by no means incompatible with abstentionist aims.

There are good indications that SN interventions will fit comfortably within our harm minimization policy framework. Unlike health promotion approaches that seek to scare people off behaviors because they are risky (or shame people out of them because they are 'bad'), SN approaches takes a neutral stance: they do not present alcohol consumption as either evil or virtuous. Importantly, there is an assumption that many young people do and will continue to consume alcohol—the challenge lies in finding evidence-based ways to diminish the likelihood of them harming either themselves or others in the process. SN is a promising candidate in this regard.

Trialing Social Norms in Australia
We are currently exploring the possibility of running the first Australian trial of the SN approach to substance abuse prevention. Although the finer details of the trial are yet to be determined, it is possible to sketch out some of the defining features at this point. It is envisaged that the trial will be both multi-state and multi-site, and will initially focus upon reducing binge-drinking among high-school aged children in a Tasmanian rural community.

The initial trial will take a collaborative, multidisciplinary approach, with the involvement of both the University Department of Rural Health and the Tasmanian Institute of Law Enforcement Studies from the University of Tasmania, as well as Tasmania Police, health service providers and various community/non-government organizations, local government and schools. This is in recognition of the importance of involving a diverse mix of individuals and institutions in prevention efforts (Roche and Stockwell, 2004). A subsequent phase (dependent on ongoing funding) is planned to trial the approach with an indigenous community in another Australian state. If this later phase of the trial proceeds as planned, it will be a 'world first', as no SN interventions to date have focused exclusively on an indigenous population.

The target population will be students in early high school, with the possibility of also including upper primary school students. The focus on youth in these particular age-groups is well-supported by the literature (Johnston et al., 1989; Dielman, 1994; Duncan et al., 1994), with strong agreement that the late primary/early high school years represent 'the optimal time for initiating youth drug interventions' since it tends to coincide with the onset of experimentation (Midford et al., 2002).

Like many of the more recent SN interventions in the U.S., the Australian trial will take a broad community focus involving teachers and parents as well as students. Again, the inclusion of a parenting component in a youth-focused substance abuse prevention intervention is well supported by the literature (Rohrbach et al., 1994; Beck and Lockhart, 1992). The trial will aim to identify and correct any misperceptions the parents might have of youth alcohol consumption in that community. An additional, though no less significant aim is to use the SN approach to strengthen parenting behaviors that are supportive of safe alcohol consumption. Just like teens, parents' behavior can by influenced by erroneous perception of 'peer' (i.e. other parents') behaviors and attitudes:

> "if parents underestimate how frequently other parents are using certain protective strategies, this misperception may serve to undermine their own resolve to adopt those strategies or apply them consistently. Stated simply, it is harder for parents to uphold firm

rules and standards when they believe they are among the few parents trying to do so (Hancock and Henry, 2003)."

The parenting component might be crucial to the success of an indigenous community intervention; there are indications that parental/guardian influence is stronger among indigenous youth than it is among non-indigenous youth. As O'Leary points out, this "presents the opportunity to revive cultural responsibility for younger relatives/community members as a strategy to prevent early, excessive, and prolonged alcohol use" (O'Leary, 2002).

The broad, community-based approach of the proposed trial maximizes potential reinforcement of the key messages (Perry and Kelder, 1992; Perry et al., 1996). Furthermore, it seeks to prompt the 'environmental' level changes deemed necessary by Midford and colleagues, who argue that:

> curing or removing the individual problem drinker will not result in a reduction in alcohol-related harm, because the community dynamics which caused these problems are unchanged. In order to change the aggregate level of alcohol-related harm, environmental changes have to occur (Midford et al., 2002).

Conclusion

We are enthusiastic about the potential of the SN approach to reducing high-risk alcohol consumption among young people. It is an evidence-based prevention model that will hopefully avoid some of the 'unintended consequences' of media coverage and many of the standard scare-tactic health promotion approaches, which themselves contribute to the perception of the 'normality' of youth binge-drinking:

> News accounts and other messages about student drinking that are designed to underscore the seriousness of the problem can have the unintended consequence of reinforcing the misperception that heavy drinking is the norm. Ironically, the very information that is designed to motivate corrective action may instead bolster a set of beliefs that make the problem more resistant to change (Linkenbach and Perkins, 2003).

Although alcohol consumption has been the focus of most SN interventions in the U.S and will also be the focus of the Australian trial, the approach is by no means restricted to the area of substance abuse. There is a growing body of evidence that a variety of health and social justice issues are amenable to change via the correction of misperceptions. For instance, encouraging results have been gained in relation to smoking (Hancock and Henry 2003; Linkenbach and Perkins, 2003), homophobic and racist behavior (Smolinsky, 2002; Berkowitz, 2002), teenage pregnancy and sexual assault (Berkowitz, 2002; Bruce, 2002).

TILES and UDRH are excited about conducting the first Australian trial of the SN approach, and are confident that the collaboration involving the University of Tasmania, Tasmania Police, local and state government representatives, health care professionals, schools and rural community will work effectively towards achieving shared objectives. In the process of meeting important research priorities identified by the Australian government) this collaborative work will stimulate Australian debate about SN and provide evidence concerning its potential 'transplantation' to this country as a method for reducing alcohol-related harm. Adding to the body of knowledge about socio-cultural determinants of alcohol consumption will also contribute to the long-overdue development of a 'Sociology of Drinking'. All partners in this project enthusiastically embrace the opportunity to examine an alternative approach that could revolutionize health promotion and make significant contributions to the health of rural and remote Australians.

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Project Update

At the time of the original publication of this article, Clarissa Hughes (Cook) and colleagues had just submitted a funding application to the Alcohol Education and Rehabilitation Foundation.

The funding bid was successful and the collaboration has been awarded $500,000(AU) to conduct the first Australian trial of the Social Norms approach. The two-year project is due to commence in 2006 and will target adolescent alcohol use and alcohol-related harm in two rural municipalities in Tasmania.

References

Australian Institute of Health and Welfare. Drug Use in Australia and its Health Impact. Canberra: Australian Institute of Health and Welfare, 1999.

Baker S., O'Neill B., Ginsburg M., Li M. *The Injury Fact Book*. New York: Oxford University Press, 1992.

Beck K., Lockhart S. A model of parental involvement in adolescent drinking and driving. Journal of Youth and Adolescence. 21: 35-51, 1992.

Beck K., Treiman K. The relationship of social context of drinking, perceived social norms, and parental influence to various drinking patterns of adolescents. Addictive Behaviors. 21: 633-644, 1996.

Berkowitz A. "Fostering Men's Responsibility for Preventing Sexual Assault." In Schewe P. [Ed.]. *Preventing Violence in Relationships: Interventions across the Life Span*. Washington, D.C, 2002.

Borsari B., Carey K. Peer influences on college drinking: a review of the research. Journal of Substance Abuse. 13: 391-424, 2001.

Bruce S. The 'A Man' campaign: Marketing social norms to men to prevent sexual assault. The Report on Social Norms. Little Falls, NJ: PaperClip Communications, 2002.

Chikritzhs T. et al. Australian Alcohol Indicators 1990-2001. Perth: National Drug Research Institute, Curtin University of Technology and Turning Point Alcohol and Drug Centre, 2003.

Clapp J. et al.. A failed social marketing campaign. Journal of Studies on Alcohol 64: 409-414, 2003.

Collins J., Messerschmidt P. Epidemiology of alcohol-related violence. Alcohol Health and Research World 17: 93-100, 1993.

Commonwealth of Australia. National Alcohol Research Agenda: A Supporting Paper to the National Alcohol Strategy A Plan for Action 2001 to 2003-4. Canberra: Publications Production Unit, Commonwealth Department of Health and Ageing, 2002.

D'Abbs P. Silence of the sociologists: Indigenous alcohol use, harm minimisation and social control. Health Sociology Review10: 33-52, 2002.

D'Abbs P., Hunter E., Reser .J, Martin D. Alcohol Related Violence in Aboriginal and Torres Strait Islander Communities: A Literature Review. Canberra: Australian Government Publishing Service, 1994.

Dielman T. School-based research on the prevention of adolescent alcohol use and misuse: Methodological issues and advances. Journal of Research on Adolescence. 4: 271-293, 1994.

Duncan T, Duncan S, Hops H. The effects of family cohesiveness and peer encouragement on the development of adolescent alcohol use: A cohort-sequential approach to the analysis of longitudinal data. Journal of Studies on Alcohol. 55: 588-599, 1994.

Duncan D, Nicholson T, Clifford P, Hawkins W, Petosa R. Harm reduction: an emerging new paradigm for drug education. Journal of Drug Education. 24: 281-290, 1994.

Fabiano P. Using a Social Norms approach for building just and non-violent communities.Third Annual Conference on Social Norms: Science-based prevention from theory to practice. Denver, Colorado, 2000.

Fombonne E. Suicidal behaviours in vulnerable adolescents: Timetrends and their correlates. British Journal of Psychiatry. 154-159, 1998.

Glider P, Midyett S, Mills-Novoa B, Johannessen K, Collins C, 2001. Challenging the collegiate rite of passage: a campus-wide social marketing media campaign to reduce binge-drinking. Journal of Drug Education. 31: 207-220, 2001.

Haines M. P. *A Social Norms Approach to Preventing Binge Drinking at Colleges and Universities*. Newton, MA: Higher Education Centre for Alcohol and other Drug Prevention, Education Development Center Inc, 1996.

Hall W, Farrell M. Co-morbidity between substance use and other mental disorders. Sydney: National Drug and Alcohol Research Centre, 1997.

Hancock H, Henry N. "Perceptions, norms and tobacco use in college residence hall freshmen: evaluation of a social norms marketing intervention." In: Perkins H.W. [Ed.] *The Social Norms Approach to Preventing School and College Age Substance Abuse: A Handbook for Educators, Counselors and Clinicians*. San Francisco: Jossey Bass, pp. 247-258, 2003.

Heale P., Chikritzhs T., Jonas H., Stockwell T., Dietze P. Estimated alcohol-caused deaths in Australia, 1990-1997. Drug and Alcohol Review. 21: 121-129, 2002.

Hogan J. *Substance Abuse Prevention: The Intersection of Science and Practice*. Boston: Allyn & Bacon, 2002.

Johannessen K., Collins C., Mills-Novoa B., Glider P. *A Practical Guide to Alcohol Abuse Prevention: A Campus Case Study in Implementing Social Norms and environmental management approaches*. Tucson, Arizona: Campus Health Service, University of Arizona, 1999.

Johnston L., O' Malley P., Bachman J. *Drug Use, Drinking and Smoking: National Survey Results from High School, College and Young Adult Populations, 1975-1988*. Washington, DC: National Institute on Drug Abuse, 1989.

Jonas H., Dobson A., Brown W. Patterns of alcohol consumption in young Australian women: socio-demographic factors, health-related behaviors and physical health. Australian and New Zealand Journal of Public Health. 24: 185-191, 2000.

Keeling R, 2000. The Political, Social and Public Health Problems of Binge Drinking in College. Journal of American College Health 48: 195-198, 2000.

Linkenbach J. Imaginary peers and the reign of error. Prevention Connection 3: 1-5, 1999.

Linkenbach J., Perkins H.W., 2003. "MOST of Us are Tobacco Free: An eight-month social norms marketing campaign reducing youth initiation of smoking in Montana." In Perkins H.W. [Ed.] *The Social Norms Approach to Preventing School and College Age Substance Abuse: A Handbook for Educators, Counselors and Clinicians*. San Francisco: Jossey Bass, pp. 247-258, 2003.

Loxley W. et al. The prevention of substance abuse, risk and harm in Australia: a review of the evidence: National Drug Research Institute, 2004.

Mason G., Wilson P. Alcohol and Crime. Canberra: Australian Institute of Criminology, 1989.

McBride N., Farringdon F., Midford R. What harms do young Australians experience in alcohol use situations. Australian and New Zealand Journal of Public Health 21: 54-59, 2000.

Merton R. *The Self-Fulfilling Prophecy. Social Theory and Social Structure*. New York: Free Press, 1957.

Midford R., Munro G., McBride N., Ladzinski U. Principles that underpin effective school-based drug education. Journal of Drug Education. 32: 363-386, 2002.

Midford R., Stockwell T., Gray D. *Prevention of alcohol-related harm: community-based interventions. National Alcohol Research Agenda: A Supporting Paper to the National Alcohol Strategy A Plan for Action 2001 to 2003-4*. Canberra: Publications Production Unit, Commonwealth Department of Health and Ageing, pp. 91-99, 2002.

NHMRC, 2001. National Alcohol Guidelines: risks and benefits of consumption. Canberra: Commonwealth Department of Health and Aged Care, 2001.

O'Leary C. Prevention of alcohol-related harm: early childhood and adolescent risk and protective factors. Canberra: Publications Production Unit, Commonwealth Department of Health and Ageing, 2002.

Page R., Scanlan A., Gilbert L. Relationship of the estimation of binge drinking among college students and personal participation in binge drinking: Implications for health education and promotion. Journal of Health Education. 30: 98-103, 1999.

Peeler M., Far J., Miller J., Brigham T. An analysis of the effects of a program to reduce heavy drinking among college students. Journal of Alcohol and Drug Education 45: 39-54, 2000.

Perkins H. W. College student misperceptions of alcohol and other drug norms among peers: exploring causes, consequences, and implications for prevention programs. Designing alcohol and other drug prevention programs in higher education: bringing theory into practice. Newton, Mass: Higher Education Center for Alcohol and other Drug Prevention, 1997.

Perkins H. W. [Ed.] *The Social Norms Approach to Preventing School and College Age Substance Abuse: A Handbook for Educators, Counselors and Clinicians*. San Francisco: Jossey Bass, 2003.

Perkins H.W., Linkenbach J. Harvard Study of Social Norms Deserves "F" Grade for Flawed Research Design.University of Florida:Alcohol Problems and Drug Committee, 2003. Available at: http://www.ufsa.ufl.edu/OVP/alcohol/news/harvard_social.html.

Perry C., Kelder S. Prevention. Annual Review of Addictions Research and Treatment: 453-472, 1992.

Perry C. et al. Project Northland: Outcomes of a community-wide alcohol use prevention program during early adolescence. American Journal of Public Health 86: 956-965, 1996.

Plant M., Single E., Stockwell T. 1997. Introduction: Harm minimisation and alcohol. In: Plant M., Single E., Stockwell T. [eds.]. *Alcohol: Minimising the Harm*. London: Freedom Association Books, 1997.

Roche A., Evans K., Stanton W. Harm reduction: roads less travelled to the Holy Grail. Addiction 92: 1207-1212, 1997.

Roche A., Stockwell T. Prevention of alcohol-related harm: public policy and health. National Alcohol Research Agenda: A Supporting Paper to the National Alcohol Strategy A Plan for Action 2001 to 2003-4. Canberra: Publications Production Unit, Commonwealth Department of Health and Ageing, p. 57-73, 2002.

Roche A., Stockwell T. Putting prevention back on the agenda. Drug and Alcohol Review 23: 3-4, 2004

Rohrbach L. et al. Parental participation in drug use prevention: Results from the Midwestern Prevention Project. Journal of Research on Adolescence 4: 295-317, 1994.

Single E., Rohl T. The National Drug Strategy: Mapping the future. An evaluation of the National Drug Strategy 1993-1997: Ministerial Council on Drug Strategy. Canberra: Australian Government Publishing Service, 1997.

Smolinsky T. What do we really think? A group exercise to increase heterosexual ally behavior. The Report on Social Norms. Little Falls, NJ: Paperclip Communications, 2002.

Steffian G. Correction of Normative Misperceptions: An Alcohol Abuse Prevention Program. Journal of Drug Education 29: 115-138, 1999.

Thombs D., Wolcott B., Farkash L. Social context, perceived norm and drinking behavior in young people. Journal of Substance Abuse 9: 257-267, 1997.

Trockel M., Williams S., Reis J. Considerations for more effective social norms based alcohol education on campus: An analysis of different theoretical conceptualizations in predicting drinking among fraternity men. Journal of Studies on Alcohol 64: 50-59, 2003.

Werch C. Results of a social norm intervention to prevent binge-drinking among first-year residential college students. Journal of American College Health 49: 85-92, 2000.

Weschler H. Colleges respond to student binge drinking: Reducing student demand or limiting access. Journal of American College Health 52: 159-168, 2004.

White J., Humeniuk R. Alcohol Misuse and Violence: Exploring the Relationship. Adelaide: The Drug Offensive, National Symposium on Alcohol Misuse and Violence, 1994.

Williams P. Alcohol-related Social Disorder and Rural Youth: Part 1 - Victims. Canberra: Australian Institute of Criminology, 1999.

Wink W. Getting off drugs: the legalisation option. Friends Journal, 1999.

Social Norms as Treatment: Clinical Uses of a Prevention Strategy
Robert J. Chapman, Ph.D.

Social Norms Marketing: An Overview
The social norms approach has its roots in the social psychological research of Solomon Asch's social conformity experiments dating back 50 years (Baron and Byrne, 1997). As a prevention strategy, it has been specifically studied regarding the issue of high-risk collegiate alcohol use since the early work of H. Wesley Perkins and Alan Berkowitz at Hobart William Smith Colleges in the 1980s (Perkins, 2003). Their research documented that misperceptions often exist between what most students think their peers are doing with alcohol—and other drugs, sexual practices, support for collegiate policies, and other issues as well—and the actual norms for their peer group. The quintessential focus of a social norms marketing campaign is an effort to publicly alert specific groups of students to the inaccuracies that exist in their perceptions of normative behavior for their peer group and permissiveness of personal attitude toward peer substance use and the documented reality. In essence, the intent of the strategy is to re-center personal perceptions around the actual peer group norm. This approach to prevention has become a popular way to approach the seemingly intractable problem of high-risk or dangerous collegiate drinking.

The tipping point for this model of prevention occurred in the early to mid 1990s, and the approach became more popular during the ensuing decade. Although anecdotal reports of the strategy's effectiveness began to surface with regularity, empirical evidence regarding its efficacy is only now surfacing in the literature. That said, the anecdotal evidence and preliminary quantitative research on the prevention model led the National Institute on Alcohol Abuse and Alcoholism to rank the social norms approach as a Tier 3 prevention strategy, or one of the *Promising Strategies That Require Research* (National Institute on Alcohol Abuse and Alcoholism, 2005).

As awareness of the social norms model grew and anecdotal evidence of success began to be reported, professionals started to view the model with greater respect. With wider use came more anecdotal reports of success, which sparked even greater interest. Consequently, many prevention practitioners, health educators, and student affairs professionals in general began see social norms programs as an important arrow in the quiver in the quest to combat the persistent problem of high-risk collegiate drinking.

With this increased interest in and attention to the social norms approach came greater scrutiny from many in higher education. Curiously, however, although most of the attention to social norms has been due to its utility in preventing high-risk or dangerous drinking, little attention has been paid to its potential for use as a treatment modality with individual students already diagnosed with an alcohol or other substance use disorder. This brief essay will present an argument that social norms theory may represent a strategy that counselors and other treatment professionals may wish to consider as they engage clients individually or in groups for counseling.

From Prevention to Treatment
In the late 1990s a paradigmatic shift occurred in how prevention was viewed. No longer were health educators and student affairs professionals simply advocating *primary, secondary and tertiary prevention*, i.e., preventing, intervening, and treating disorders, respectively. Rather, the emphasis began to be placed on conducting prevention efforts with *universal, selective, and*

indicated populations. In essence, the field shifted from focusing on *what was done* to *with whom* it was done.

A *universal* population is the general population. In the case of higher education, this would be the entire student body. Some of these students are at risk of engaging in high-risk and dangerous drinking, but most are not. Therefore, these preventive interventions tend to be general, consciousness and awareness-raising activities designed to inform the population about general information, i.e., the *FYI* of prevention (Dimeff et al., 1999).

A *selective* population is a subpopulation of the universal or general population thought to be at risk of engaging in high-risk or dangerous drinking, e.g., first-year students, members of Greek-lettered organizations, and athletes. These are the students that research has suggested tend to be vulnerable and who show a proclivity towards high-risk behaviors (Dimeff et al., 1999)

An *indicated* population is one already showing signs of having developed a problem. These are students with multiple alcohol or other drug violations or individuals who already display indications of difficulties that result from personal choices, e.g., individuals with legal, social, academic, familial, or health-related consequences related to their alcohol or other drug use (Dimeff et al.; 1999).

Social norms campaigns have historically targeted all students on a campus, i.e., the *universal* population. Such campaigns can also be adapted to address misperceptions about the normative attitudes and behavior of peers and applied effectively with selective populations, as when social norms marketing is targeted at certain subpopulations, such as first-year students or athletes. Working with an indicated population, however, presents a somewhat more challenging group to reach with social norms techniques. Although campaigns have been mounted to address populations (like Greek letter organizations) known to have a proclivity for high-risk behavior, the use of social norms as a treatment tool in individual and group counseling with students recognized as having a substance use disorder has yet to become widely practiced. To understand how social norms (SN) strategies can be effective treatment tools we must first understand the basic underpinnings of effective interventions with students engaging in high-risk behaviors.

Motivating Change
Now classic research suggests that individuals that change their behavior—frequently on their own and without benefit of formal treatment—do so by moving along a continuum: from a current, high-risk pattern of behavior to a lower-risk pattern (Prochaska et al., 1994). This continuum is composed of stages of readiness to make change that range from *pre-contemplation* or, in the nomenclature of traditional counseling efforts, *capital "D" denial* where there is no intent of changing behavior in the foreseeable future, and ends with a stage of maintaining the new, lower-risk behavior, what traditional counseling might refer to as *relapse prevention.* Further, we have learned that when stage-appropriate interventions are employed, that is, interventions shown to be effective in motivating movement from the client's current stage of readiness to change to the next stage on this continuum, steady progress towards lower-risk treatment objectives is noted (Prochaska et al., 1992).

The most challenging clients for any counselor or student affairs professional to engage are the pre-contemplative and contemplative students. These are students who do not believe that their behavior is high-risk let alone a problem, or, if the issue of change has occurred to them—the contemplative student—it has been fleeting and certainly not something they intend to pursue *right now.* The literature suggests that intervention strategies designed to increase the individual awareness of personal behavior and its consequence and/or raise consciousness about the *cause-*

and-effect relationship that exists between short-term choices and longer term outcomes tend to motivate such students movement along the continuum of readiness to change. It is with these clients—the pre-contemplative and contemplative students—that a treatment strategy steeped in SN theory may prove to be quite effective.

So, how do we take a Tier-3 prevention strategy and apply it to the individual or small group as a treatment strategy? It is likely that once practitioners recognize that SN interventions can be effective in motivating students in treatment to move through the earlier stages of readiness to change their high-risk behaviors—be that cigarette smoking, alcohol consumption, or sexual practices—they will individually create techniques to address the misperceptions that their clients hold regarding normative behavior in their immediate and universal peer groups, thereby motivating movement through the stages of change. Here are two specific strategies that may prove useful in employing SN as an approach to treat substance use disorders in students. The first is intended for use with individual clients, while the second can be employed in a small group.

Social Norms and Confirmation Bias
Confirmation bias occurs when one has made a decision or subscribes to a particular belief and then actively looks for information that will confirm the appropriateness of the decision or belief. Such practices inoculate the individual against facing the dissonance associated with *being wrong*. If a student believes that personal patterns of drinking or smoking are consistent with what *most* normal students are doing, then those individual patterns will not seem inappropriate and the student is prevented from seeing the connection to longer term, detrimental consequences to academic performance or social success. In fact, students in a pre-contemplative stage of readiness to change will seek out those individuals and situations that confirm a fallacious view of normalcy in one's peer group. Old-school addiction counselors speak of changing one's friends in order to maintain desired drinking/using practices as being a symptom of dependence. Steps taken by a counselor that can help students discover the dissonance between their current pattern of behavior and what truly is normal behavior in their peer group may facilitate movement through the stages of readiness to change. In short, as I become more aware that my personal behavior lies *outside* the range of what is considered normal in my peer group, the resulting dissonance is assuaged by moving to the next stage on the continuum of readiness to change.

In this technique, intended for use with individuals—but it may be adapted for use in a small group—ask the client how many large parties are typically hosted on a typical weekend evening around campus, e.g., a Thursday, Friday or Saturday night. Most students will be fairly accurate as they proffer a guess. Next, ask how many students are likely to be at each one of these events and then do the math: "A" parties multiplied by "B" students = "C" students at parties. Subtract "C" from the total student population matriculated at the institution and ask, "What are the rest of the students doing?" It is not uncommon for the student to respond that the rest are drinking in their room. Acknowledge this and then ask how many students are drinking in their room—most students with whom the author has used this technique have suggested 10 to 15% of the student population. This is probably high, but "run with it" in order to gain credibility in the eyes of the student and encourage the end result to be the product of the student's perceptions of the norms at school. Now, repeat the math exercise and ask, "What are the rest doing?" Again, most students will respond with something like, "Drinking downtown"—remember the role of confirmation bias here as the student struggles to avoid the dissonance associated with being outside the norm. Repeat this process until the student has run out of *places students might be drinking*. Now ask again, "What are the rest of the students doing?"

If you are at a relatively small school, there will be a correspondingly small number of parties, larger schools have more parties, but a larger student body resulting in a relative net similarity in percentages of students at these events. Almost invariably 50 to 60% of the students at the institution are doing something other than drinking on any given night. The result of this observation is that the student is presented with an opportunity to discover that personal perceptions of who is doing what on any given night may not be accurate. Also, this is likely to set up the student to react differently to other social norms messages that may be encountered on campus as part of an ongoing social norms marketing campaign. In essence, the use of social norms as a treatment strategy may increase the likelihood that the student in treatment is more receptive to SN marketing that is targeting the universal population of the institution.

In Vivo Social Norms
This use of SN as a treatment technique is designed for small groups, between 12 and 25. It can be used as a psycho-educational activity as well as an icebreaker in a group counseling setting. The objective of this activity is to invite pre-contemplative and contemplative students in treatment for high-risk behavior to increase their awareness of the risk associated with their behavior and become more cognizant of that fact that their behavior may be further outside the norm than they think.

This is a spontaneous, brief group survey technique, designed to bring personal misperceptions of the norms in a client peer group to light. Have survey sheets with no more than 4 to 6 simple questions ready to distribute in the group. Design the surveys to reflect the focus of the group, for example, "How often did *members of this group* drink last week?" (smoke-up, have sex, whatever) and "How often did *you* drink last week?" In typical social norms survey style, make sure that the questions you ask are simple, straight forward and present the opportunity to identify individual perceptions about what each member of the group has done as well as what the individual student has done. You can take an extra step if you choose and actually offer some ranges for each question. For example, for the question, "How often did members of this group drink last week?" you could offer choices like "0," "1," "2 - 3," "4 – 5," "6 or more" or divide the categories in any way you believe will best present you with the opportunity to illustrate the point you wish to make in that particular group. If you know everyone in the group drinks several times every week and you would be happy to see a reduction to 1 or 2 times a week, then you may offer 2 simple categories, "3 or less" and "4 or more": The point being, *you* set the bench marks.

Once the surveys have been completed, collect them. As you are doing this you can make a bit of small talk about what you are going to do next with the surveys, assuring students that their survey results will be anonymous, etc. Then as you continue to talk with the group about what you are doing with this exercise, obviously shuffle the surveys in your hands. After the surveys have been mixed up thoroughly, go around the group and ask each student to take one. Assure them that they are likely to get someone else's survey, but if they get their own, *pretend* it is someone else's. Then ask questions of the group based on the survey each member of the group is holding. For example, if having used the graduated, "How often did members of this group drink last week?" version, ask, "Who has a low number?" "Who has a high number?" This establishes a range, which is probably going to be quite broad. Ask all those holding a survey where the person who completed it drank "0" times stand up…"1" time…"2." It is not uncommon that where the perceived norm is 4 or more times a week, half or more of the group may be standing when asking if they drank 2 or less times a week. Again, be creative with the specifics, but this use of a SN strategy opens the door to individuals group members being confronted with the dissonance in their perceptions of the norms.

Processing this exercise is based on allowing members of the group to actually see that their perceptions of the norm may be skewed. Again, the purpose of the exercise is to allow those individuals in a pre-contemplative or contemplative stage of readiness to change to have their beliefs drawn into question, but to do this not so much with a frontal assault of those beliefs, which can breed resistance and resulting resentment, but rather by inviting students to discover the misperceptions they hold.

A variation on this approach can be to employ the "snowball survey" which is used in many social norms campaigns. In such approaches, students are instructed to take the surveys once completed and ball them up into paper "snowballs" and then toss them around the room for a minute of so. Then everyone is invited to pick-up a survey and this essentially satisfies the need to "shuffle" the surveys in the group (Christensen, 2005; Gitchell and Zelezny, 2005). This is likely a bit too cavalier for a formal counseling group, but the practitioner can make that determination.

Conclusion

Social norms techniques have been around for some time. Their roots are in the social psychological literature of the past 50 years and borrow heavily from the research on social influence. As this approach to preventing high-risk collegiate behavior has gained attention and respect, the question occurs: Can social norms techniques be used to pursue treatment objectives with students diagnosed with substance use disorders? Although this question remains to be answered, it would at least seem plausible that this is possible, hence the argument presented in this essay.

To pursue this issue further, it is recommended that the reader consider the nexus of the literature concerning Motivational Interviewing as a counseling technique, social influence as a phenomenon in social psychology, and social norms as an approach to preventing high-risk student behavior.

References

Baron, R. A. and Byrne, D. *Social psychology* (8th ed.). Boston: Allyn and Bacon, 1997.

Christensen, S. The snowball survey as a component of a high school social norms marketing intervention: a pilot study. *The Social Norms Review*, 2005, 1(2):3-9.

Dimeff, L. A., Baer, J. S., Kivlahan, D. R., & Marlatt, G. A. *Brief alcohol screening and intervention for college students: A harm reduction approach.* New York: The Guilford Press, 1999.

Gitchell, S., Zelezny, L. The snowball survey: a social norms classroom activity. *The Social Norms Review*, 2005, 1(2):10-16.

National Institute on Alcohol Abuse and Alcoholism. Accessed on November 29, 2005: http://www.collegedrinkingprevention.gov/Reports/TaskForce/CallToAction_02.aspx#CallAction _02_a)

Perkins, H. W. The emergence and evolution of the social norms approach to substance abuse prevention. Pp. 3-17 in
Perkins, H. W. (Ed.), *The Social Norms Approach to Preventing School and College Age Substance Abuse:*

A Handbook for Educators, Counselors, and Clinicians. San Francisco, CA: Josey-Bass, 2003.

Prochaska, J. O., DiClemente C. C., and Norcross J.C.. In search of how people change: applications to addictive
behaviors. *American Psychologist,* 1992, 47(9):1102-1114.

Prochaska, J. O., Norcross, J. C., and DiClemente, C. C. *Changing for Good.* New York: William Morrow, 1994.

Audience Response Technology in Social Norms Marketing: Getting Students to Believe with the Click of a Button
Linda Hancock, Ph.D., FNP

Introduction
Social norms practitioners may soon be assisted in their projects by the use of new "clicker" technology that allows for immediate and anonymous communication with groups. This technology has recently become much more affordable and user-friendly. Over the past two decades, immediate response systems have been called by many names including "classroom communication systems," "audience response systems," "real-time polling," and "clickers in the classroom." In this article, we will refer to the technology as "clickers" and we will define a clicker as any hand-held remote device that allows for immediate audience feedback.

This article will provide an overview of the history of clicker development, some facts about the current state-of-the-art including costs, comments about active learning research, and a summary of the use of quasi-anonymous versus anonymous clickers. Next, suggestions for possible application of audience response technology to improving social norms marketing (SNM) efforts will be discussed. Clickers can be adapted for use in media channel surveys, focus group testing, and pilot-testing of media. In addition, these systems may be a new and powerful way to make health norms more credible. Several small group social norming pilot projects that are currently underway at Virginia Commonwealth University (VCU) and lessons learned so far will be described.

Background
Immediate response technology has been under development since the mid 1980s. In the early years of development this technology was very expensive: systems could cost as much as one-half million dollars. Large organizations such as IBM and the U.S. military pioneered the use of these systems to increase active learning. Over time, marketing agencies began to adapt the use of these systems for product development and media testing. The systems are growing in application and today they can be found on many middle school, high school and university campuses.

Systems consist of hand-held remotes for individuals, a receiver, and software to be used with a laptop and a computer projection device. This combination of equipment allows for responses from the group to be instantaneously and anonymously displayed as feedback to the entire group. Responses are usually displayed as histograms for multiple choice and true/false questions. This allows instructors/facilitators to accurately assess attitudes and learning in the group and for members of the group to see what others think.

Current Technology
A plethora of clicker systems are available on the market today. Typically, systems use some combination of hardware and software. It is important to be aware of the most recent technological improvements if you plan to invest in a system. In the past, many systems used infrared (IR) technology which had limited response speed and distance issues. More recently, radio-frequency (RF) technology has overcome those limitations. Some RF systems can now accept input from over 1000 remotes at a time and accept all of that input in 5 to 7 seconds. The website www.campusclickers.com provides an itemized check list for system capabilities on clicker products from five major manufacturers. Some of the larger companies offering this technology are QuizWisdom, InterWrite, H-ITT, Connect Pro, TurningPoint and eInstruction.

At Virginia Commonwealth University we use an RF system created by eInstruction called Classroom Participation Systems or (CPS). CPS is designed to be used by installing the CPS software on a personal computer. A PowerPoint is created that includes all the questions to be asked of participants. The PowerPoint is then loaded into the CPS software. A receiver is plugged into a USB port on your computer and is used with a typical office or classroom projection system. The data from all responses are saved in a file that can then be downloaded to Excel or SPSS for later analysis, if desired. In addition to being used with PowerPoint, CPS has a group game format available as well.

Clickers and "Active Learning"
Research has shown that within a few minutes of beginning a traditional lecture participants' attention starts to fade. Even the most exemplary lecture is limited by the way people learn. Many learners need to be actively engaged in what is going on in the room in order to process and learn new information. Clickers are one way to keep learners engaged.

Douglas Duncan, author of *Clickers in the Classroom: How to Enhance Science Teaching Using Clickers in the Classroom*, has years of experience with clickers and learning. He makes the point that incorrect, entrenched beliefs are very difficult to change (Duncan, 2005). By assessing immediately how people respond an instructor can see if students have grasped difficult concepts. If the clicker responses show that the group's misconceptions about a particular concept are in fact entrenched, then the instructor knows that more energy needs to be invested in teaching that concept. Duncan advocates that "peer-to-peer" instruction be used in conjunction with clickers. This strategy harnesses the power of dialogue. By one-to-one or small group discussion, those who "get it" can instruct others on a personal level. The group can be re-assessed by clicker questions after the discussion to see if overall learning has improved.

Clickers also help to improve group interaction. Although discussion is an active learning strategy, it is limited by the fact that 10-20% of the participants often dominate the conversation. Clickers help to make visible the thoughts of the majority. This diversification of opinions can open-up discussion and encourage the quieter majority to speak up.

Quasi-Anonymous *versus* Anonymous Clickers
At VCU, clickers are used in two ways: quasi-anonymously and anonymously. First, quasi-anonymous clickers are used by classroom professors to increase active learning. VCU's Center for Teaching Excellence has a contract with eInstruction. Professors have been educated about how to use CPS and receivers have been incorporated into classroom technology. Last semester VCU had over 8,000 students with a clicker on our campus.

Each professor who wants to use clickers for a course requires students to buy and register a clicker. Students buy a clicker once for about $20 from the VCU bookstore. Then, depending on how many instructors are using clickers that semester, the student goes online to www.eInstruction.com and pays a $10-15 registration fee for each course. From campus to campus, registration fees and clicker costs vary depending upon each college's contract and if the textbook manufacturer for a specific course offers a discount for clickers. Individual clickers are *quasi-anonymous* because, although the group never knows how any one individual responded, the instructor does have access to this information after class. The data storage portion of the CPS allows professors to keep attendance, grade quizzes, and give credit for in-class activities.

A second way to use the technology is *anonymously*. For example, VCU's Office of Health Promotion purchased 32 clickers for about $2,500. This one-time purchase included a sturdy carrying bag with the 32 clickers, an RF receiver, software, and lifetime anonymous registration

for the clickers in the bag. The one-time fee also provides unlimited online technical assistance and free updates on CPS software. There are no extra charges based on how many classes we teach or on how many focus group sessions we conduct.

VCU's Office of Health Promotion now owns several bags of clickers. CPS clickers are like "Legos" in that you can build onto your system. We recently purchased another bag of 32 clickers for $2,000. It cost less than the original system because we chose not to buy another receiver.

Applications of Clickers to Social Norms Marketing
From start to finish, SNM involves the collection and analysis of data. Baseline data are collected, media habits evaluated, focus groups conducted to provide insight into the target market, media balloting/pilot testing done to help refine media, market saturation surveys administered to track the progress of the campaign, and final evaluation data collected. Clickers can have application to almost all of these areas.

- Media Habits Surveys: These are frequently collected by mall intercept, but it is also possible to conduct media habits surveys in larger groups. Media habits can be surveyed in the classroom or group setting and here is where the clickers would be very helpful. Clickers allow for the rapid collection of a large amount of data. This method also provides impetus for the group discussion and feedback about media channels that weren't asked about in the original survey.

- Focus group testing: There is great power in focus groups, but there is also risk. One or two individuals in a group can dominate the discussion. Dominating individuals can skew focus group findings. Clickers provide a way to avoid a vocal minority taking over the focus group process. By periodically bringing the discussion back to this anonymous and immediate feedback, support is given to those with differing opinions.

- Pilot Testing & Media Balloting: In media balloting and pilot testing, it is very helpful to have people write down their initial impressions and comments about the media before beginning group interaction. This helps to avoid the influences of group think. However, by then having the audience click in their responses, the group can see the opinions of others and it can help the facilitator quickly focus on important issues. Since time is limited, visual feedback focuses the attention to the media issues that most needed to be explored. For example, if the group overwhelmingly prefers one piece of media, limited discussion would be needed. However, if participants are divided in preferences, more in-depth discussion would tease out important issues. Clickers, combined with personal comment sheets, may allow pilot testing to be effective even in fairly large groups.

- Market Saturation: While mall intercepts give a snapshot of saturation, it is also possible to combine market saturation when working with any group composed of people from the target market. In addition, since this technology is visual, media can be scanned into the PowerPoint to accurately get feedback about when, where and how often participants saw certain media pieces.

Closing the Credibility Gap: Real-Time Small Group Social Norming
Despite the best SNM efforts, practitioners always struggle with the issues of credibility and believability. As noted before, preconceptions are very difficult to change. The misperception of health norms is deeply entrenched in our culture.

Currently, VCU is pilot-testing the application of clicker systems to Small Group Social Norming interventions. Students are asked perception questions followed immediately by actual behavioral or attitudinal questions. While we have conducted interventions
with over 50 freshmen orientation classes and launched the first wave of data collection in an intervention with athletic teams, follow-up data and analysis of the pre-post data is pending.

What we have learned so far is that many students do admit to being surprised by the healthy norms in their groups. Students tell us that they feel secure using the systems and don't feel the need to lie. However, once the healthy norms are displayed, some students still find the results to good to be true and express the belief that people lie. This is where peer-to-peer instruction may be a powerful tool. We work hard to make sure students know there is no way a clicker answer can be tracked back to any one person. *Students can even pass their clickers back and forth to mix them up in the middle of a session if that helps the group feel more secure.* We are still learning what works best in our pilot-testing. In general however, we have found that students stay very engaged because of the real-time nature of data that is specific to them. FREE PowerPoints and instructors guides will soon be available at our website (see announcement at end of article).

Overcoming Barriers
The adoption of any new technology can be intimidating. Everyone needs some practice and needs to make a few mistakes before feeling comfortable with it. This process can be made less stressful with commonsense attention to detail. In addition, we believe that by freely sharing common mistakes ahead of time, others can avoid the same problems. For example, the use of clicker technology requires multiple pieces of equipment: a laptop, projector, and clicker bag with receiver have to be connected and kept organized. This was causing us some problems. Three bags of equipment are required, at a minimum. All pieces of equipment have at least one or two cords. In our office we have simplified and demystified the process by labeling all the cords and bags so that they match. The laptop bag has "green frog" stickers. Everything that belongs in that bag has a green frog. The clicker bag is labeled with "zebra" stickers. (Actually, we were going to use boring colored dots, but one of the office members is color blind. Animal stickers are more fun and even less threatening than dots. Our equipment is always organized and ready to go.) All of these hints will be included in our instructors guide by the end of 2006.

Conclusion
It is difficult to say when clicker technology will reach the "tipping point" and become universally accepted. But, in light of the recent improvements in the technology and its rapidly decreasing cost, it won't be long until the use clickers in education is very widespread. Social norms practitioners can benefit now from this technology in many ways. Nevertheless, more research is needed about how to most effectively use this new tool, and to evaluate its relative value in enhancing message credibility compared to other methods, such as the snowball survey (Vatalaro and Hancock, 2004; Christensen, 2005; Gitchell and Zelezny, 2005). For any questions, please feel free to call the Office of Health Promotion Staff at Virginia Commonwealth University (804) 828-9355. Thanks to grant funding from the U.S. Department of Education, FREE educational and PowerPoint materials will be available at VCU's social norms website www.yourstrategy.org in the near future.

References

Duncan, Douglas. *Clickers in the Classroom: How to Enhance Science Teaching Using Classroom Response Systems*. Pearson Education Inc.: San Francisco, CA., 2005.

Vatalaro, K. and Hancock, L. "Increasing the Credibility of Social Norms Marketing Campaigns Using "Snowball Survey Intervention," The Report of Social Norms, 2004, 3(7):4-6,8.

Christensen, S. "The Snowball Survey as a Component of a High School Social Norms Marketing Intervention: A Pilot Study," The Social Norms Review, 2005, 1(2): 3-9.
Gitchell, S. and Zelezny, L. "The Snowball Survey: A Social Norms Classroom Activity," The Social Norms Review, 2005, 1(2): 10-16.

Facebook Flyer Advertising: A New Media Channel
Linda Hancock

Facebook is a popular social networking service that allows members of high school, college and university communities to post profiles and to join on-line groups. Given its popularity, Facebook is a new media channel for social norms marketing campaigns. By December 2005, Facebook had over six million U.S. college student accounts created. At Virginia Commonwealth University, in the spring of 2006, our media habits survey revealed that 90% of our students had a Facebook account. We also found that the average time spent on Facebook for those with an account was 30 minutes per day.

Anyone with a valid email from over 2,000 universities can register and start a profile, including faculty, alumni and staff. Recently, Facebook utilization has moved to the high school level and over 25,000 American high schools are now registered. The site is free to users and is financed by advertising.

Any group or individual at a local campus can purchase inexpensive ads on Facebook. The ads are called "Facebook Flyers." The flyer is displayed on the left-hand side of an individuals opening screen page. A locally purchased flyer may have text only and has three potential parts: title (25 characters or less), the body of the ad (max of 150 characters) and an optional link for a website (URL). The cost is $5/day for displaying your ad 10,000 times for the day selected. It is $10/day for 20,000 displays on the selected day. Your "Flyer" will always be visible on the "Flyer Board" for your selected days. For more in-depth information, email flyers@facebook.com.

At Virginia Commonwealth University, our first use of a "facebook flier" was to advertise a social norms raffle where students could register to "win" a free video iPod at www.yourstrategy.org. We found that seeing the print media, in addition to being reminded while they were on the computer, encouraged more students to complete raffle forms and interact with our online website.

Additional information about Facebook flyers is available on its FAQ page: http://www.facebook.com/adfaq.php
Some of the questions addressed include:

Basics

What are Facebook Flyers?
What is the Flyer Board?
How much do Flyers cost?
Display

Where will my Flyer be displayed?
Can I include HTML or images in my Flyer?
Can I post Flyers at any school?
Why do I need to specify a number of days for my campaign?
How will my Flyers be distributed during my campaign?
Can I post different Flyers at different schools?
How can I maximize the exposure of my campaign?
Other

Can I change my Flyer once I've purchased it?

What are your standards for Flyer content?

College Students and "Celebration Drinking"
Dennis Martell, Ph.D., Charles K. Atkin, Ph.D., Larry A. Hembroff, Ph.D.
Sandi Smith, Ph.D., Amy J. Baumer, MPA, Jasmine Greenamyer, MPH

Introduction

Michigan State University (MSU) is the site of a successful global social norms campaign that began in 2000. Students' misperception that the norm for drinking at parties and social occasions was 5 or more drinks had declined more than one-third by 2004 and more than two-thirds by 2005, while the average number of drinks consumed by the majority of students declined from 6 or fewer to 4 or fewer by 2005.   In addition to the global campaign that broadly addresses typical drinking, in 2001 MSU researchers sought to find evidence regarding the existence of, and social norms surrounding, "celebration drinking." Initially funded by a grant from the U.S. Department of Education and later by a grant from the Anheuser-Busch Foundation, the research team sought to answer the following questions: (1) Are there occasions during which larger proportions of students consume alcohol, drink to excess, and commit more time to drinking, and thereby increase the risk of negative consequences? (2) What is the difference between the perceived percentage of other MSU students versus the self-reported percentage of those who engage in drinking during various celebratory occasions?

Method

Research Question 1

Based on discussions in focus groups with MSU students, seven special occasions of "celebration drinking" were selected as the primary focus of a telephone survey administered between March and May, 2002 to 1,162 MSU undergraduate students selected at random from the university enrollment roster. The typical interview lasted 14.8 minutes (s.d., 6.5) with a median of 15 minutes. Using AAPOR's Standard Definitions as a guide for outcome disposition codes and response rate formulas, the overall response rate for the survey was 63.3% with an upper bound of 65.5%. The refusal rate was 19.6%, the cooperation rate was 76.6%, and the contact rate was 85.9%.

The demographic profile of the respondent sample matched that of the undergraduate population well, but minor non-response adjustments were made for race/ethnicity by sex within each academic class. The final weighted data matched the population profile very closely. Results reported for this survey are based on the weighted data file.

Drinking patterns were measured for these focal occasions of celebration: Welcome Week, Halloween, the home MSU football Saturday with rival University of Michigan, other home football Saturdays, the end of the semester, St. Patrick's Day, and Spring Break. The questions for each of these occasions included whether or not the respondents drank at all during the occasion, whether or not they self-reported getting drunk, how many drinks they drank, and over how many hours they drank.

In order to establish comparison points for typical drinking, respondents were also asked the same questions about their drinking on the Thursday, Friday, and Saturday evenings immediately prior to the interview; these data provided the basis for constructing appropriate baselines that had comparable lengths of time and days of the week as the celebratory occasions.

Research Question 2
During fall semester 2003, a web-based survey called the Social and Academic Life Survey of Attitudes (SALSA) was conducted at MSU with 1,302 respondents. The Office of Student Services drew a random sample of undergraduate students for the survey, and incentives such as pizza coupons were offered to those who completed the web survey. The demographic characteristics of the sample closely matched MSU's undergraduate population: the proportion of males was 47% in the sample vs. 46% in the population; the distribution by year in school was identical (26% Freshmen, 22% Sophomore, 25% Junior, and 27% Senior); and the average age was 20.2 years in the sample vs. 20.3 years among MSU undergraduates at large. The ethnic comparisons were also similar: Caucasian (84% sample vs. 82% MSU), African American (6% vs. 8%), Hispanic (3% vs. 3%), Native American (1% vs. 1%), and Asian Pacific Islander (6% vs. 6%). The data file was weighted by sex within class to correct for minor differential non-response rates. Results for this survey are based on the weighted data file.

Among other questions, respondents were asked to estimate the percentage of other MSU students that they believed consumed alcohol on at least one day of welcome week and Spring Break as well as on a typical football Saturday, Halloween, and St. Patrick's Day during the 2003-04 academic year. In addition, the respondents reported whether or not they drank alcohol on each of these occasions so that a comparison of the mean percentages of perceived student body drinking versus actual self-reported drinking could be made to determine if differences in these estimates exist for celebratory occasions.

Results
Research Question 1

In Table 1 (see page 16), drinking that occurred during a typical week[1] is compared to drinking that occurred during welcome week, spring break, and the end of the fall semester. In Table 2, a comparison is made between the drinking that occurred during the Saturday of the UM-MSU football game, the Saturdays of any other football game, and a typical Saturday. In Table 3, drinking taking place on St. Patrick's Day and Halloween[2] are compared to a typical Thursday.

Surprisingly, Table 1 indicates that a larger percentage of students drank during a typical week (47%) than during welcome week (40%) or at the end of fall semester (24%); the typical week figure was roughly equivalent to the percentage for spring break (48%). It is notable that these data indicate—even during celebratory drinking occasions—that drinking is not the campus norm. Nevertheless, especially during welcome week and spring break, students who consumed alcohol reported a greater average number of daily drinks consumed (8.3 and 7.8 drinks, respectively) than did students during a typical week (6 drinks), and time spent drinking also increased, which is potentially a protective behavior mitigating negative consequences. Finally, a higher percentages of the drinkers reported getting drunk during the three "celebratory" occasions (72%, 55%, and 62%, respectively) than during a typical week (48%).

Table 2 shows clearly that drinking is not the campus norm during the noted time periods. Nevertheless, the data show that higher percentages of students drank at UM-MSU football and other football Saturdays than they did on a typical Saturday. The differences are even greater with respect to the percentages of drinkers who reported getting drunk. Fully 56% of the drinkers reported getting drunk the Saturday of the UM-MSU football game (and 50% on other football Saturdays), compared to 39% who reported getting drunk on non-football Saturdays.

The average number of drinks respondents reported consuming on the Saturday of the UM-MSU football game (7.8 drinks) was 44% greater than the average number reported for the typical

Saturday (5.4 drinks); the quantity was 13% greater than usual on other football Saturdays (6.1 drinks).

Table 3 shows the relevant results regarding drinking on Halloween and St. Patrick's Day compared to a typical weekday. In 2001, Halloween occurred during the middle of the week while St. Patrick's Day occurred on a Sunday. Since these are not typical drinking days among college students, we have chosen to compare both occasions to a typical Thursday.

The survey found appreciably lower numbers of students consume alcohol on the typical Thursday (19%) than they do on Halloween (32%) and on St. Patrick's Day (26%). Furthermore, Table 3 indicates that roughly 57 percent of those who drank on Halloween or St. Patrick's Day said they got drunk compared to only about 48 percent of those who drank on the typical Thursday. Results also reveal that students consumed a higher number of drinks and spent more time drinking on Halloween and especially on St. Patrick's Day, compared to an ordinary Thursday.

Across the comparisons in all three tables there is a consistent pattern: those who drink on celebration days tend to drink more and over a longer period of time; and larger percentages of students report getting drunk on celebration days. These findings are all consistent with the proposition that there is a particular phenomenon that we have termed "celebration drinking."

These data were also examined to develop a profile of celebratory drinkers. In order to understand the "celebration drinking" phenomenon, it is necessary to disaggregate students who drink into categories from which comparisons can be drawn. To do this, respondents were divided into four groupings: 54% who drank during a typical weekend and drank at one or more of the celebration occasions (labeled *Anytime Drinkers*); 35% who did not drink during a typical weekend but did drink during one or more of the other celebration occasions (labeled *Celebration Drinkers*); 9% who drank neither during the typical weekend nor during any of the celebration occasions but drank alcohol at some other time (labeled *Seldom Drinkers*); and 2% who drank during a typical weekend but not during any of the celebration occasions (labeled *Non-Celebration Drinkers*). This categorizing of respondents excludes all those who said they had not drunk alcohol since coming to the university.

Table 4 compares the demographic profiles of these four groupings of drinkers. Males were somewhat more likely than females to be Anytime Drinkers, while females were somewhat more likely to be Seldom Drinkers; males and females were similarly likely to be Celebration Drinkers. There were also no significant differences across the academic classes of respondents, although there was a somewhat lower likelihood that freshmen were Anytime Drinkers.

Caucasian respondents were more likely than other student respondents to be Anytime Drinkers, while African American students were much more likely than others to be Seldom Drinkers. Slightly greater percentages of African American and other student respondents were categorized as Celebration Drinkers than were Caucasian student respondents.

Finally, the data in Table 4 (see page 17) indicate that students who had not consumed alcohol in high school were somewhat more likely than those who had to be among the Seldom Drinkers. Those who had consumed alcohol in high school were more likely than their counterparts to be categorized as Anytime Drinkers, but both groups were similarly likely to be Celebration Drinkers.

During the seven celebration occasions examined in this study, other data not tabulated here revealed that Anytime Drinkers reported drinking at an average of 3.8 occasions compared to an average of 2.6 occasions among Celebration Drinkers. The average number of such occasions during which Anytime Drinkers reported getting drunk was 2.4, compared to an average of 1.2 among the Celebration Drinkers. The Anytime Drinkers were also more likely to drink more than Celebration Drinkers, especially during celebration events. During a celebration occasion, Anytime Drinkers generally reported consuming 1-2 more drinks than they would during a typical weekend. In general, Celebration Drinkers tended to drink less than Anytime Drinkers; moreover, the Anytime Drinkers tended to drink more during celebration events than they did during a typical weekend.

The answer to Research Question 1 is that there are celebration events during which larger proportions of students who drink do so to excess, commit more time to drinking, and thereby increasing their risk of negative consequences. There is a consistent pattern across the findings that a substantially higher percentage of students who drink report getting drunk on celebratory occasions than do so on typical days. It should be noted, however, that a self-report of drunkenness is a subjective measure that may be sensitive to situational factors.

As the results of the SALSA survey indicate, students overestimated the percentage of students who drank alcohol on each of the five celebratory occasions during the 2003-04 school year: at least one day during Welcome Week (73% estimation versus 58% actual), at a tailgate during a typical football weekend (64% estimation versus 31% actual), during Halloween (67% estimation versus 62% actual), on St. Patrick's Day (64% estimation versus 39% actual), and at least one day during Spring Break (76% estimation versus 70% actual). The answer to Research Question 2 is that there is a difference between perceived and actual percentages of alcohol consumption on all five of the celebration events investigated in the survey; these differences ranged from 6% and 7% for Halloween and Spring Break to 15% for welcome week, and 26% and 33% for St. Patrick's Day and a typical football tailgate respectively.[3]

Discussion
The results provide evidence that "celebration drinking" is a distinct phenomenon that differs from college students' typical drinking. In its cultural context, celebration drinking is associated with particular events and these are recognized as occasions when even those who may not typically drink will do so, and those who are drinkers see these as occasions to drink more than usual or to get drunk. Furthermore, our findings that students overestimate the percentage of their peers who engage in celebratory drinking suggest that the social norms approach may be an effective way to reduce high-risk consumption and negative consequences during such occasions.

Future studies will need to focus on ways to reduce perceived and actual alcohol consumption, and to increase the expression of disapproval of getting drunk, during celebratory occasions. The high rates of self-reported drunkenness found here also suggest the need to increase the use of protective behaviors during these events. Our research has shown that a number of protective behaviors—such as keeping track of drinks, pacing drinks, going out as a part of group and staying with the same individuals, staying in the same place while drinking, and drinking only one kind of alcohol—lower the likelihood of getting drunk and experiencing negative consequences during both typical and celebratory drinking occasions (Michigan State University, 2002).

This study focused on seven celebratory drinking occasions, each of which falls on the same date for the entire student body. The dates of other celebratory occasions, however—such as

birthdays, friends' birthdays, or weddings—will obviously vary from person to person. Nevertheless, Neighbors, Oster-Aaland, Bergstrom, and Lewis (2006) examined 21st birthday celebrations and football tailgating and found that students not only overestimated the number of drinks consumed during both types of occasions but that this overestimation positively correlated with heavier drinking.

Reshaping the celebratory drinking culture about safe levels of drinking, about where to drink, with whom, and what to drink may reduce the pressure to drink excessively on all celebration occasions. Our research has shown that even on a campus where typical drinking levels have steadily declined over time due to an effective social norms campaign, students' perceived and actual drinking behaviors during celebratory occasions remain a source of concern that a more targeted normative campaign may be able to address.

(The authors would like to thank and acknowledge Rebecca Allen, Karen Clark, and Tom Fediuk for their help with these campaigns.)

Table 1
Drinking Behavior During Typical Week (TW) , Welcome Week (WW), End of Semester (ES), Spring Break (SB)

	TW	WW	ES	SB
Percent of All Students who Drank	47%	40%	24%	48%
Mean Number of Drinks Consumed	6.0	8.3	6.2	7.8
Mean Number of Hours Spent Drinking	3.9	5.1	4.3	5.6
Percent of Drinkers who Report Drunkenness	48%	72%	55%	62%

Table 2
Drinking Behavior on Typical Saturday, UM-MSU Football Saturday, Other Football Saturday

	Typical	UM-MSU	Other
Percent of All Students who Drank	23%	38%	37%
Mean Number of Drinks Consumed	5.4	7.8	6.1
Mean Number of Hours Spent Drinking	4.1	5.6	4.7
Percent of Drinkers who Report Drunkenness	39%	56%	50%

Table 3
Drinking Behavior on Typical Weekday, Halloween, St. Patrick's Day

	Typical Thursday	Halloween	St. Patrick's Day
Percent of All Students Who Drank	19%	32%	26%
Mean Number of Drinks Consumed	5.9	6.5	7.7
Mean Number of Hours Spent Drinking	3.6	4.1	5.6
Percent of Drinkers who Report Drunkenness	48%	57%	58%

Table 4
Percentage Distribution of Drinking Types, by Demographic Characteristics

		N	Anytime	Celebration	Seldom	Non-Celeb
Gender	Female	514	49.8%	35.0%	12.5%	2.7%
	Male	431	58.9%	34.1%	4.9%	2.1%
Status	Freshman	180	47.2%	39.4%	11.7%	1.7%
	Sophomore	212	54.7%	35.8%	6.6%	2.8%
	Junior	242	55.0%	33.1%	8.7%	3.3%
	Senior	313	56.5%	31.9%	9.6%	1.9%
Race	Caucasian	793	56.6%	33.7%	7.9%	1.8%
	African American	61	32.8%	37.7%	26.2%	3.3%
	Other	91	45.1%	40.7%	6.6%	7.7%
Drank in	Yes	666	57.8%	34.1%	6.0%	2.1%
H.S.	No	280	44.6%	36.1%	16.4%	2.9%

Footnotes

[1]Based on the aggregated responses to the questions regarding drinking on the previous Thursday, previous Friday, or previous Saturday during the field period of the survey (i.e., the latter half of the Spring Semester).

[2] Midweek day occasions in 2001 and 2002.

[3]The phone survey results are consistently lower than the web survey results and raise the possibility of a mode effect. Dillman (2000) reports consistent results due to mode effects. Social desirability to appear less extreme when talking to someone versus near anonymity of a web survey has been found to result in findings much like ours.

References

Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons, Inc.

Michigan State University, "Executive Summary: College Students and "Celebration Drinking." Available at: http://www.ippsr.msu.edu/Documents/CelebrationWithAppendices.pdf Accessed March 29, 2006.

Neighbors, C., Oster-Aaland, L., Bergstrom, R. L., & Lewis, M. A. (2006). Event- and context-specific normative misperceptions and high-risk drinking: 21st birthday celebrations and football tailgating. *Journal of Studies on Alcohol*, 67, 282-289.