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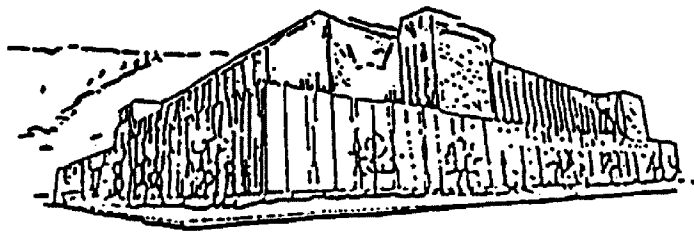
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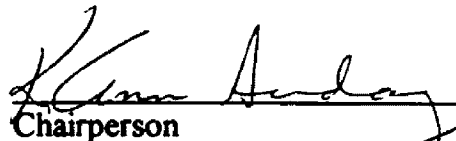
**ALCOHOL AND  
UNIVERSITY OF MONTANA FRESHMEN:  
USE, PERCEPTIONS AND ATTITUDES**

By  
**Julee Noelle Stearns**  
B.L.S., Western Montana College, 1995  
Dillon, Montana

**Presented in partial fulfillment of the requirements  
for the degree of  
Master of Science**

**Department of Health and Human Performance  
School of Education Graduate School  
The University of Montana  
May 15, 1999**

Approved by:

  
Chairperson

  
Dean, Graduate School

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## **Thesis Abstract**

**Stearns, Julee Noelle, M.S., May 1999**

**Health and Human Performance**

**Alcohol and University of Montana Freshmen: Use, Perceptions and Attitudes.**

**Committee Chair: K. Ann Sondag, Ph.D.** 

The purpose of this study was to explore alcohol-related behaviors, perceptions and attitudes of freshmen attending the University of Montana and to identify differences between perceived and actual alcohol use. The Campus Survey of Alcohol and Other Drug Norms was used to gain insight on the alcohol-related behaviors, perceptions and attitudes of University of Montana freshmen. The surveys were administered in numerous 100 level, general education classes in a variety of departments in order to capture a large, diverse sample.

This study explored alcohol-related behaviors and differences among four sub-groups: males, females, on-campus and off-campus freshmen. A combination of descriptive statistics, *t*-tests, chi-squared tests, and correlations were run to explore alcohol-related behaviors, perceptions and attitudes, and to identify the differences and relationships between perceived and actual alcohol use. Males and students living on campus reported drinking more frequently, drank larger quantities, and held more permissive attitudes than females or students living off-campus. The study revealed that University of Montana freshmen believe their peers drink more often, binge drink more and hold more permissive attitudes than they do personally. Actual amount of alcohol consumption was moderately correlated with perceived amount of alcohol consumption.

The results of this study provided population-specific information for use in health promotion programming by The University of Montana's Health Education Office. Because freshmen believe that their peers drink more often, binge drink more and hold more permissive attitudes than they do personally, social norming techniques focused on promoting the actual healthy behaviors of the majority may prove to be effective in reducing the discrepancy between perceived and actual alcohol use and thus, problem drinking.

## **Acknowledgments**

**You gain strength, courage and confidence by every experience in which you really stop to look fear in the face. ... You must do the thing you think you cannot do.**

**- Eleanor Roosevelt**

I would like to extend my deepest gratitude to all those individuals without whose support this project would have been insurmountable.

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## **CHAPTER I**

### **Introduction to the Study**

The college years are characteristically considered a period of transition for young adults. Students entering college leave the security of friends and family and must make important choices defining their personal and social identity. However, these important decisions are often made in an environment where heavy alcohol use is accepted as normal student behavior.

Although a college education has been shown to increase the likelihood an individual will adopt healthier behaviors, heavy alcohol consumption is more prevalent among college students than among their peers who do not attend college (Crowley, 1991; Prendergast, 1994; Wechsler et al., 1994; CDC, 1995). It is heavy alcohol consumption or “binge” drinking that places college students at risk for dealing with a wide array of alcohol-related problems (Wechsler & Dowdall, 1995; Wechsler et al., 1998).

Binge drinking is defined as the consumption five or more drinks in a row and is a large part of college culture locally as well as nationally (Center for Substance Abuse Prevention, 1994). According to a study which surveyed 90,000 students from 171 college campuses, 42 percent of the student sample had reported engaging in binge drinking during the previous two weeks (Presley, Meilman, & Cashin, 1996). However, on The University of Montana campus, the frequency of binge drinking is even higher. A study conducted in 1996 reported that 51 percent of University of Montana students had engaged in binge drinking during the two weeks prior to survey administration (Green, 1996).

The dangerous drinking behaviors of University of Montana students are concerning due to the personal, social and academic ramifications associated with binge drinking. As a result of their “normal” alcohol use, students commonly report performing poorly on exams, missing classes, achieving a lower grade point average, getting into trouble with authorities, engaging in unplanned and unprotected sex, and driving under the influence (Meilman, 1993; Presley, 1996).

Wide spread use of alcohol among college students and the consequences associated with heavy alcohol consumption have ignited an abundance of prevention efforts. However, the most common prevention efforts focused mainly on imparting knowledge, invoking fear and passing legislation have proven to be largely ineffective at decreasing high-risk drinking behaviors (Perkins & Berkowitz, 1986; Moskowitz, 1989; Haines, 1996).

Failure of primary prevention efforts may, in part, be due to the lack of attention given to the social environment in which the behaviors are taking place (Perkins & Berkowitz, 1986). Prevention efforts which ignore the peer context of the behavior are not addressing a primary factor determining student behavior - peer influence.

College can be seen as “peer intensive” where students have little contact with parents, siblings and other reference groups (Perkins, 1997). The influence peers have in terms of how they act is only part of the problem. What students *believe* the attitudes and behaviors of fellow students are is crucial in determining student actions (Perkins, 1997). However, peer influences may actually result from incorrect perceptions of peer attitudes and behaviors rather than actual peer behavior (Perkins & Berkowitz, 1986).

A student's perception of the campus norms, regardless of their accuracy, significantly contributes to his or her own drinking behavior (Perkins & Wechsler, 1996). Unfortunately, students typically overestimate the alcohol use and permissiveness of their peers while themselves holding responsible attitudes and drinking moderately (Perkins & Berkowitz, 1986). It may be that the exaggeration of campus drinking norms fuels excessive drinking behaviors.

Exaggeration of campus drinking norms is a common phenomenon. According to Perkins (1995), the gap between actual and perceived norms exists on most college campuses. Students come to college with a misperception of drinking norms that worsens after arrival, and misperceptions span across gender, extracurricular and housing sub-populations (Perkins, 1995).

If students believe the campus norm to be tolerant of substance abuse, they can be pressured to conform to an illusion of permissiveness. However, the alcohol-related attitudes of students are an important determinant of conformity to exaggerated drinking norms. If students have a restrained attitude of alcohol use, they are not likely to be pressured to "drink up," but if students already hold a moderate or permissive attitude, they are either pressured to conform to a moderate norm or encouraged to drink by an exaggerated norm (Perkins & Wechsler, 1996).

The power of peer influence can be used to curb rather than to encourage excessive alcohol use. Social norming theory uses key principles of commercial marketing to "advertise" information focused on the healthy behaviors of the majority rather than on the problem suffered by the minority. The campaigns use positive messages about actual

behaviors to prevent and correct misperception of the accepted social norms. Knowing that an exaggerated view of peers' behavior will serve as a self-fulfilling prophecy, this theory attempts to correct the imaginary norms by replacing them with the actual, safer norms.

The effectiveness of a social norming campaign relies on extensive research conducted at every step of the process. The problem, target audience, messages, and channels of communication must be thoroughly investigated before creation or dissemination of materials (Zimmerman, 1997). The first step in research for a social norming campaign is the exploration of the target population and its health problem. The more a problem and target group are defined, the greater the chances for success. Social norming campaigns are most effective when they are based on detailed information specific to a population or sub-population (Haines, 1996).

Although conventional programs strategies such as increasing knowledge, scare tactics, peer education, and creating policies have proven ineffective for reducing excessive alcohol use, social norming campaigns are showing promise (Haines & Spear, 1996). Northern Illinois University began a social norming campaign during the 1989-1990 academic year and has been successful in reducing the discrepancy between perceived and actual norm and thus, overall frequency of binge drinking (Haines, 1996).

After just one year, Northern Illinois University found an 18 percent reduction in perceived binge drinking and a 16 percent reduction in actual binge drinking (Haines, 1996). Five years later, perceptions of binge drinking decreased by 43 percent and actual binge drinking decreased by 28 percent (Haines, 1996). The campaign has continued for

nine years and has seen a 44 percent reduction in reported binge drinking rates (Haines, 1998).

After seeing no change in campus drinking behaviors through their many attempts at using a conventional education-based prevention programs, NTU began to target the social environment in which the behaviors were taking place. By influencing the peer contexts of drinking, their social norming campaign changed the perceptions, attitudes and behaviors of their students.

### **Statement of Purpose**

The purpose of this study is provide information regarding perceived and actual alcohol consumption by freshmen students attending the University of Montana. Specifically, this study will describe the frequency of alcohol use, binge drinking behavior and alcohol-related attitudes. Differences between students' actual use and their perceptions of use among students in general will be explored. The information provided by the study will be used by The University of Montana's Student Health Services to develop a social marketing campaign focused on correcting misperceptions of alcohol use in the freshman population.

### **Research Questions**

All research questions posed by this study focus on freshmen attending the University of Montana during the fall semester of 1998. Questions that use the statement "students in general" are referring to students attending the University of Montana.

The questions addressed by this study are as follows:

1. How often do freshmen report consuming alcohol?
  - a) How often do freshman females report consuming alcohol?
  - b) How often do freshman males report consuming alcohol?
  - c) How often do freshmen living on-campus report consuming alcohol?
  - d) How often do freshmen living off-campus report consuming alcohol?
  
2. What are the perceptions of freshmen regarding the frequency of alcohol consumption among students in general?
  - a) What are the perceptions of freshman females?
  - b) What are the perceptions of freshman males?
  - c) What are the perceptions of freshmen living on-campus?
  - d) What are the perceptions of freshmen living off-campus?



3. **What percentage of freshmen report consuming five or more drinks in a row on at least one occasion during the two weeks prior to survey administration?**
  - a) **What percentage of freshman females?**
  - b) **What percentage of freshman males?**
  - c) **What percentage of freshmen living on-campus?**
  - d) **What percentage of freshmen living off-campus?**
  
4. **What are the perceptions of freshmen regarding the percentage of students who consumed five or more drinks in a row on at least one occasion during the previous two weeks?**
  - a) **What are the perceptions of freshman females?**
  - b) **What are the perceptions of freshman males?**
  - c) **What are the perceptions of freshmen living on-campus?**
  - d) **What are the perceptions of freshmen living off-campus?**
  
5. **What are the alcohol-related attitudes reported by freshmen?**
  - a) **What are the attitudes reported by freshman females?**
  - b) **What are the attitudes reported by freshman males?**
  - c) **What are the attitudes reported by freshmen living on-campus?**
  - d) **What are the attitudes reported by freshmen living off-campus?**

6. **What do freshmen perceive are the most common alcohol-related attitudes among students in general?**
  - a) **What do freshman females perceive are the most common attitudes?**
  - b) **What do freshman males perceive are the most common attitudes?**
  - c) **What do freshmen living on-campus perceive are the most common attitudes?**
  - d) **What do freshmen living off-campus feel are the most common attitudes?**
  
7. **What are the differences between perceived and actual frequencies of alcohol use by freshmen?**
  - a) **What are the differences among freshman females?**
  - b) **What are the differences among freshman males?**
  - c) **What are the differences among freshmen living on-campus?**
  - d) **What are the differences among freshmen living off-campus?**
  
8. **What are the differences between the perceived and actual proportion of students who report consuming five or more drinks during a social drinking occasion?**
  - a) **What are the differences among freshman females?**
  - b) **What are the differences among freshman males?**
  - c) **What are the differences among freshmen living on-campus?**
  - d) **What are the differences among freshmen living off-campus?**

### **Justification of Study**

Heavy alcohol consumption is a large part of The University of Montana's college life and carries with it many negative consequences. Conventional health education programs focused primarily on imparting knowledge, invoking fear and passing legislation have seen little success in reducing rates of dangerous consumption (Perkins & Berkowitz, 1986; Moskowitz, 1989; Haines & Spear, 1996). However, social norming campaigns are showing exceptional promise in minimizing the discrepancy between perceived and actual use and thus, reducing overall binge drinking (Haines & Spear, 1996; Zimmerman, 1997). This study serves as an essential first step by providing population-specific information that will be used by Student Health Services and the Office of Student Affairs to design social norming programs targeting reduction of alcohol use by University of Montana students.

Freshman are particularly vulnerable to initiating or increasing alcohol use during their first year of college (Baer et al., 1995). According to Perkins (1995), students come to college with an overestimation of alcohol use that grows worse after arrival and their misperceptions of alcohol use are carried from one year to the next. If the perceptions of freshmen are corrected, the problem is addressed before it can take hold or worsen.

With the knowledge that most students do not engage in dangerous drinking practices, freshmen will continue to be encouraged to drink responsibly during the rest of their college careers. Because binge drinking causes personal, social and academic strife, students who engage in the behavior with less frequency will have greater chances for personal well being and academic success.

### **Delimitations**

The delimitations of the study are as follows:

1. The study is delimited to freshmen attending The University of Montana.
2. Data is collected via survey.
3. Data is restricted to self report of respondents.

### **Limitations**

The limitations of the study are as follows:

1. The accuracy of the study is dependant on the truthfulness of the responses.
2. The results of the study can only be referred to the students who took the survey.
3. Female problem drinking may be underestimated due to having one definition of binge drinking for both genders (Wechsler, Austin, & Dejong, 1996).
4. Conducting the surveys in the school environment can lead to socially desirable responding (Wessinger & Wodarski, 1994)
5. Since surveys will be administered during class session, absenteeism may lead to under-reporting of problem substance use. Students who are not attending class may have alcohol-related behaviors that differ from those students in attendance(Wessinger & Wodarski, 1994).

### **Definition of Terms**

**Binge drinking:** "Consumption of five or more drinks in a row" (Center for Substance Abuse Prevention, 1994)

**Frequent binge drinking:** "binge drinking three or more times in the past two weeks" (Wechsler, Austin, & Dejong, 1996)

**One Drink:** "12 ounce bottle of beer, 12 ounces of wine cooler, a four-ounce glass of wine, a shot of liquor, or a mixed drink" (Wechsler, Austin, & Dejong, 1996).

**Perception:** "the act of becoming aware of something through the senses: SEE, OBSERVE" (Merriam-Webster, 1989).

**Perception:** "the process that organizes sensations into meaningful patterns" (Sdorow, 1990).

**Attitude:** "An evaluation containing cognitive, emotional, and behavioral components of an idea, event, object, or person" (Sdorow, 1990).

**Norm:** "A rule of proper social behavior that guides group members" (Sdorow, 1990).

## **CHAPTER II**

### **Review of Related Literature**

The purpose of this study was to explore the alcohol-related behaviors, attitudes and perceptions of freshmen students attending The University of Montana and to identify differences between perceived and actual alcohol use. This study also explored alcohol-related behaviors and differences among four freshmen subgroups: males, females, on-campus and off-campus students.

### **College Students and Alcohol Use**

The college years are characteristically considered a period of transition for young adults. The move from high school to college involves making tough choices about one's personal and social identity. Students must make new friends, choose a career, and begin taking on adult responsibilities. However, many times these transitions are made in an environment inhospitable to sound choices where heavy alcohol use is assumed to be normative.

Although a college education has shown to increase the likelihood an individual will adopt healthier behaviors, it is widely documented that alcohol consumption is more prevalent among college students than among their peers who do not attend college (Crowley, 1991; Prendergast, 1994; Wechsler et al., 1994; CDC, 1995). The high levels of alcohol use by this population suggests a strong positive norm for drinking on college campuses and in the surrounding communities (Prendergast, 1994).

As a result of their "normal" alcohol use, college students are dealing with many

social, personal and academic consequences. Problems associated with alcohol consumption and its widespread use are reasons why it is considered a primary health-risk behavior of this age group (CDC, 1995). This age group is of particular concern not only because they drink more often, but they also tend to drink more heavily than any other population (Crowley, 1991; Prendergast, 1994; Wechsler et al., 1994; CDC, 1995).

Binge drinking is defined as the consumption of five or more drinks in a row and is commonly recognized as a rite of passage for young adults (Center for Substance Abuse Prevention, 1994). According to a study which surveyed approximately 90,000 students from 171 college campuses, almost half (42 percent) of students from the sample had engaged in binge drinking during the two weeks prior to survey administration (Presley, 1996).

Binge drinking behavior has attracted the attention of the media, researchers and prevention professionals because it is this behavior that puts college students at the highest risk for dealing with alcohol-related problems. Students who engage in binge drinking have a higher likelihood they will exhibit alcohol-related problems (Wechsler & Dowdall, 1995; Wechsler et al., 1998). Unsurprisingly, as the frequency of binge drinking increases, so too does the potential of dealing with negative outcomes (Wechsler & Dowdall, 1995; Wechsler et al., 1998). Frequent binge drinkers are seven to sixteen times more likely than non-binge drinkers to suffer these consequences (Wechsler & Dowdall, 1995). Of students who reported binge drinking three or more times in a two week period of time, almost half suffered five or more different types of alcohol-related problems (Bohlmann, 1995).

The alcohol-related problems of college students are personal, social and academic

in nature. Personally, students have experienced trouble with relationships, suffered injury, dealt with thoughts of suicide, and have engaged in unplanned and unprotected sex (Meilman, 1993; Presley, Meilman, & Cashin, 1996). Socially, students get into arguments or fights, engage in vandalous acts, get in trouble with authorities, and drive under the influence of alcohol (Presley, Meilman, & Cashin, 1996).

Along with personal and social problems, academic consequences of alcohol use exist. A negative relation between alcohol consumption and academic performance has been documented for some time (Perkins & Berkowitz, 1986; Eigen, 1991; Presley, 1997). Although other factors may influence academic performance, alcohol can play a role in academic problems. Wood and colleagues (1997) found that alcohol involvement during the freshmen year is predictive of academic problems over the course of a student's college career.

Specifically, grade point average can be related to the frequency of alcohol use. A negative relationship between average number of drinks consumed per week and grade point average has surfaced in recent studies. A Core Alcohol and Drug Survey of 78 campuses revealed that students who consumed an average of 3.4 drinks a week earned an "A" average while students who consumed 9.8 drinks per week earned a "D" average (Presley, Meilman, & Cashin, 1996).

Not only are binge drinkers socially, personally and academically affected by their habits, but their non-binge drinking counterparts are also suffering. On campuses where over 50 percent of students are classified as binge drinkers, 87 percent of non-binge drinkers complained of dealing with secondary effects of gratuitous alcohol use (Wechsler,



Austin, & Dejong, 1996). These students suffered consequences such as being insulted or humiliated, arguing or fighting, being pushed or assaulted, having sleep or studies interrupted, and having to take care of drunken students (Wechsler, Austin, & Dejong, 1996).

In particular, freshmen have reported a high prevalence of heavy alcohol consumption. This group seems to have the most trouble with irresponsible alcohol-related behaviors. Thus, careful attention must be paid to this group of students.

### **Alcohol Use and Class Rank**

Freshmen appear to be at a particularly high risk of developing alcohol problems (Baer et al., 1995). In most cases, students are leaving the security of friends and family for the first time and are entering an insecure, unknown world of campus life. However, they are arriving in an environment where most people use alcohol, alcohol is readily available, and alcohol is an important part of the college socialization process (Prendergast, 1994).

The culture of the campus, the new sense of independence, the drive to conform, and the insecurity of a new and intimidating setting all make a freshmen particularly vulnerable to beginning or increasing alcohol use (Eigen, 1991). Studies show that alcohol use increases during the transition from high school to college (Leibsonhn, 1994; Baer et al., 1995).

Baer and colleagues (1995) found that drinking rates of first year college students increased in three main areas: frequency of use, typical quantity consumed, and peak quantity consumed. Freshmen reported drinking more often, drinking more alcohol when

they did drink and elevating their peak consumption threshold as compared with their high school drinking behavior (Baer et al., 1995).

Although it seems that heavy alcohol consumption may be learned before college, it is suggested that the freshmen year is volatile time a student's drinking career. Studies propose that freshmen not only report increased alcohol consumption during the transition from high school to college, but also during their first to second semester in college (Prendergast, 1994).

The first year of college seems to be a defining moment in setting a student's drinking behavior. Few students who drank during their first year of college stopped drinking in their second year (Wechsler et al., 1994). Students who abstained from alcohol during their freshmen year continued to abstain or drink very moderately (Wechsler et al., 1994). Most students who reported binge drinking during their freshman continued this behavior into their second year and most students who did not report this behavior during their first year also did not report binge drinking during their second year (Wechsler et al., 1994).

It appears that heavy alcohol consumption is at its peak during the freshman year. Studies suggest that students increase their alcohol consumption when they arrive for their first year but that drinking rates tend to decline with age (Crowley, 1991; Baer, 1994; Marlatt et al., 1998). It is suggested that this may be a function of peer approval. In a study focusing on perceived peer approval, Baer (1994) found that students perceived their friends as becoming more disapproving of heavy alcohol use over time. Peers may be the driving force for alcohol use behaviors, both to increase and decrease use.

### **Alcohol Use and Gender**

It is well documented that male college students tend to engage in heavier alcohol consumption than female students (Wechsler et al. 1998; Baer, 1995; Prendergast, 1994). Wechsler and colleagues (1995) conducted a national survey of 140 campuses and discovered that only 39 percent of female students reported binge drinking while 50 percent of males reported the behavior.

Due to the smaller body mass and lower ethanol metabolism of females, this and other studies have defined binge drinking as four drinks in a row for women and five drinks in a row for males. Defining binge drinking differently by gender is justified by comparing alcohol-related problems reported by each gender. Women who report drinking four drinks in a row describe roughly the same number of negative consequences as males who report drinking five or more drinks in a row (Wechsler, Austin, & Dejong, 1996) If the same standard is used for both men and women, underestimation of the extent to which females engage in problem drinking must be considered.

Although many studies show that the prevalence of heavy drinking is higher in men, it has recently been suggested that the gap between genders is lessening. Female college students are reporting “drinking to get drunk” three times more than what was reported 15 years ago (CASA, 1996). Also, this high-risk behavior is more prevalent in female college students than that of their female non-student counterparts (Crowley, 1991). The pattern of increased heavy alcohol use by college females suggests that it is becoming increasingly more acceptable for women to drink in college.

The narrowing gap in the drinking practices of men and women is probably due to

changing norms surrounding drinking by women (Prendergast, 1994). Drinking frequency and initiation of use increases in both genders during the transition from high school to college, but the increases appear to be much greater for women (Prendergast, 1994). Studies are indicating that the effect of environmental influences of campus life on women produces greater change in women's drinking patterns during the transition from high school to college (Prendergast, 1994).

### **Alcohol Use and Place of Residence**

Students who enter college often times are changing their place of residence. More often than not, students are leaving their parents home and moving into residence halls. This may be the first step a student takes toward engaging in dangerous alcohol consumption.

Studies suggest that heavy drinking is greatest among students living on campus and lowest among students living at home and that living in a dorm is strongly associated with heavy drinking and alcohol-related problems (Prendergast, 1994). Baer and colleagues (1995) found that freshmen who lived off-campus their first year reported drinking less frequently and had lower peak consumption. Off-campus students did increase their drinking habits during the first year of college but at levels considerably less than students who moved on-campus (Baer et al., 1995).

For freshmen, living in greek housing can elevate the likelihood of engaging in dangerous alcohol consumption. Increasing alcohol use during the first year of college was most strongly associated with students who resided in fraternities or sororities (Baer et al., 1995). Members of fraternities and sororities have been shown, on average, to

drink more frequently, consume more on typical drinking occasions, more often engage in binge drinking, and report more alcohol-related negative consequences than students not residing in greek housing (Larimer et al., 1997).

### **Alcohol Use and The University of Montana**

The prevalence of alcohol consumption by students attending The University of Montana's is higher than the national average. According to the 1996 Core Alcohol and Drug Survey administered to over 1000 students attending The University of Montana, 82 percent of the sample reported using alcohol in the previous 30 days (Green, 1996). By contrast, a national survey of 171 college campuses revealed that 72 percent of students reported using alcohol in the previous thirty days (Presley, Meilman, & Cashin, 1996).

University of Montana students also report higher rates of binge drinking. The 1996 U of M Core Alcohol and Drug Survey states that 51 percent of students reported engaging in binge drinking behavior while binge drinking behavior was reported by only 41 percent of students nation wide.

In accordance with studies that suggest alcohol-related problems increase as use increases, University of Montana students also suffer a higher frequency of negative consequences resulting from their drinking (Wechsler & Dowdall, 1995; Wechsler et al., 1998). In particular, U of M students more frequently reported driving under the influence, getting in trouble with authorities, missing classes, and performing poorly on an exams than what was reported nationally (Green, 1996).

The most disparity between local and national statistics was seen in reported rates of driving under the influence and missing classes. Over half (51 percent) of University of

Montana students reported driving under the influence where only 35 percent of students reported this behavior nationally (Green, 1996; Presley, Meilman, & Cashin, 1996). Forty percent of University of Montana students reported missing class as a result of their substance use where nation wide only 29 percent of students reported suffering this consequence (Green, 1996; Presley, Meilman, & Cashin, 1996).

Congruent with current research, heavy alcohol use by University of Montana students declines with age (Crowley, 1991; Baer, 1994; Marlatt et al., 1998). Freshmen report binge drinking with the highest frequency and seniors report the behavior least (Green, 1996). As a result of this high-risk behavior, freshmen are compromising their personal, social and academic well being. The negative consequences associated with alcohol use by University of Montana students illustrate the need for prevention efforts on this campus.

### **Primary Prevention Efforts**

Due to the widespread social, personal, and academic problems associated with alcohol use by college students, efforts to prevent irresponsible alcohol consumption have become commonplace. Primary prevention efforts often times include educational programs to increase the knowledge of responsible consumption and the consequences of irresponsible consumption while building skills to deal with peer pressure. Prevention programs also include community-based efforts which modify the campus environment by passing policies targeting availability of alcohol and enforcement of alcohol-related restrictions. However, the effectiveness of primary prevention in reducing high-risk

drinking behaviors seems to be limited (Perkins & Berkowitz, 1986; Moskowitz, 1989; Haines, 1996).

Although prevention efforts are found in colleges across the nation, Wechsler and colleagues (1998) discovered little change in binge drinking behavior and some rise in the instances of dangerous drinking practices and alcohol-related problems of college students nation wide. The four-year follow-up study of 130 campuses found binge drinking rates decreased by one percent over the four-year interval while frequent binge drinking increased by six percent (Wechsler, 1998). Drinking to get drunk increased by eleven percent and alcohol-related problems increased by 22 percent (Wechsler, 1998).

What can be surmised by Wechsler's study is the ineffectiveness of conventional primary prevention programs. Apparently, imparting knowledge, invoking fear and passing regulations are not effecting the drinking practices of college students.

Perkins and Berkowitz (1986) suggest that the failure of prevention efforts may, in part, be the result of ignoring the peer contexts of drinking and the social norms of the behavior. No matter how much expertise and effort is applied to preventive programs, peer influence is a primary factor determining student actions. College can be viewed as "peer intensive" where students typically have little contact with parents, siblings and other reference groups (Perkins, 1997). In this case, peers become paramount in dictating attitudes and behaviors.

### **Perceptions of Alcohol Use**

The influence peers have in terms of how they act and what they think is only part of the problem. What students believe the attitudes and behaviors of fellow students are is just as crucial in determining student actions (Perkins, 1997). However, peer influences may actually result from incorrect perceptions of peer attitudes and behaviors rather than from actual peer behavior (Perkins & Berkowitz, 1986).

The incorrect perceptions of peer behavior may, in part, fuel the problem of excessive alcohol use. A student's perception of the campus norms, regardless of its accuracy, significantly contributes to his or her own drinking behavior (Perkins & Wechsler, 1996). The problem is that students typically overestimate the alcohol use and permissiveness of their peers while themselves holding responsible attitudes and drinking moderately (Perkins & Berkowitz, 1986). The belief that heavy, irresponsible consumption is the campus norm encourages conformity to a dangerous illusion.

The concept of misperceived norms and their consequences on alcohol use was first introduced by Perkins and Berkowitz in 1986. In their landmark study, they found that on every campus, regardless of drinker type or level of use, the drinker thought the campus norm was greater than his or her own personal use. With further research, Perkins (1995) has surmised five basic points about norm misperception which apply on most campuses.

1. The gap between actual and perceived norms exists regardless the type of drug.



2. **Misperceptions persist across historical cohorts. Left unattended, these misperceptions of the campus norms are passed on from one class to the next.**
3. **Similar misperceptions of peers exist in junior high and high school. Students come to college with a misperception of the campus norm that grows worse after arrival.**
4. **Misperceptions extend across gender, extracurricular, and housing sub-populations. Regardless of constituency and personal alcohol use, students are likely to be carriers of the misperception, passing it on in conversations and reinforcing it in the culture.**
5. **These misperceptions have a potentially significant effect on most students' personal alcohol use in addition to and independent of the influenced of personal attitudes and actual norms on campus. Misperceptions help activate and reinforce the already permissive attitudes leading to heavier consumption and adverse consequences regardless of whether the campus' actual alcohol norm are moderate or relatively permissive.**

### **Pluralistic Ignorance**

The process of creating and then conforming to exaggerated norms can be partially explained by the theory of pluralistic ignorance. The idea of pluralistic ignorance suggests that students make the mistake of assuming that even though their actions are similar to others, they feel differently (Prentice & Miller, 1993). Students who resist asking a question in class because they believe they are alone in their confusion is a perfect example

of this theory. The student keeps quiet for fear of asking a dumb question and interprets the other students' similar behavior as a sign that they understand the material.

In terms of alcohol use, a student may feel unsettled by excessive consumption, but perceives that other students are comfortable with it. The strategy that is most commonly used to reduce the discomfort originating from the discrepancy between personal feelings and the perceived norm is to move personal attitudes and behaviors closer to the norm (Prentice & Miller, 1993). This encourages greater use of alcohol even when most students may be hesitant, and thus, perpetuates the inflated norm. Students entering college are at a particularly high risk of pluralistic ignorance due to the new and intimidating environment of campus life. Studies show that pluralistic ignorance accompanies periods of social change and intensifies during times of personal change (Berkowitz, 1997).

### **Attribution Theory**

Another theory which may explain how individuals acquire incorrect norms is the attribution theory. This theory proposes that we see other people's behavior as stemming from their personalities, not from their current situation or environment (Perkins, 1997). For example, when a student engages in heavy drinking to celebrate the end of final exams, outsiders may see this behavior as more a function of personality than of circumstance. Others attribute the careless behavior to the student's demeanor, thinking it usual behavior when it may be an anomaly.

Conversation may also serve to facilitate exaggerated norms. Experiences which are entertaining, unpleasant or shocking, are remembered more vividly than everyday

occurrences (Perkins, 1997). Seeing a heavily intoxicated peer is likely to make a more vivid impression than other students who are consuming responsibly. Although a majority of students behaved responsibly, what will be discussed are the individuals who got sick or started a fight. Thus, norm misperceptions are reinforced by the lack of conversation about responsible attitudes and behaviors (Perkins, 1997).

### **Alcohol-Related Attitudes**

As with perceptions, attitudes about alcohol use are also being exaggerated. The majority of students describe their own attitude toward alcohol consumption as moderate, but believed their peers to be much more tolerant of abuse (Perkins & Berkowitz, 1986a).

Personal attitudes of students can dictate the extent to which they conform to exaggerated social norms. If a student personally believes in restrained drinking, the perception of campus permissiveness has a weak effect on his or her own drinking behavior (Perkins & Wechsler, 1996). However, the student who already holds a permissive attitude toward alcohol can be pressured to act in accordance with the social drinking norms. If the perceived campus norm is one of permissiveness toward alcohol use, the student will be encouraged to act on personal tendencies, but if the perceived norm is one of responsible alcohol consumption, the student is pressured to conform to the perceived less permissive norm (Perkins & Wechsler, 1996).

This is evidenced in a study by Wechsler and colleagues (1994) that explored the initiation and continuation of alcohol use from the first to second year in college. Only two percent of students who abstained from alcohol during their freshmen year reported

binge drinking in their second year. However, of students who reported using alcohol but not at a binge drinking level during their freshman year, 23 percent reported binge drinking in their second year.

The findings of this study may suggest that students who hold restrictive attitudes toward alcohol use are less likely to conform to social drinking norms of college than are students who have a more permissive attitude. The students who chose to abstain from alcohol their freshman year were less likely to report binge drinking during their second year than were students who used alcohol but did not binge drink.

Most college students do use some alcohol during their first year of college. As noted above, these students run the risk of being encouraged to drink more in order to conform to their perceived campus drinking norms. The power of peer influence must be used to curb rather than to encourage heavy alcohol use. To do this, students need to be made aware that their idea of what is normal drinking behavior is much higher than the actual campus norm.

In order to keep students in check with the actual campus drinking norm, they must be aware of what the majority of students are doing. The concept of social norming revolves around the idea of promoting actual behaviors and attitudes of a population as a way of preventing and correcting misperceptions. Through social marketing techniques, social norming “advertises” the actual norm of the population in order to reduce the inconsistency between perceived and actual campus norms.

## **Social Marketing**

**Social marketing utilizes the guidelines of commercial marketers to sell ideas rather than products. In the case of health promotion, social marketing promotes the idea of healthy behaviors by way of mass media. This theory recognizes that an individual's decisions are not made entirely separate from the social environment and provides techniques to improve the effectiveness of conventional health education focused primarily on imparting information (Zimmerman, 1997).**

**The strategies adopted from commercial marketing revolve around the four Ps: *product, price, place* and *promotion* (Zimmerman, 1997). In the health arena, the *product* may be a change in behavior and the *price* of the product may be the cost of giving up comfortable habits. The *place* is where the behavior will take place or the environment that encourages the change and *promotion* is the means by which messages are conveyed.**

**The most important element adopted from commercial marketing is the effort applied to the planing of the program and careful evaluation of the entire process. A successful social marketing campaign must be preceded by extensive research. The primary areas of research are the problem, target audience, messages, and channels of communication (Zimmerman, 1997).**

**Thorough understanding of the problem is essential. The more a problem is defined, the more effective the preventive measures will become. A problem must also be made specific to the population being targeted. Social marketing campaigns are most effective when they are based on information specific to one population or sub-population (Haines, 1996; Zimmerman, 1997).**

The target audience should be clearly delineated and fully investigated. Surveys, interviews and focus groups are common ways to gather information about the target population and will give useful information about planning the campaign, designing materials and evaluation of the process (Zimmerman, 1997).

### **Social Norming**

The social norming theory employs principles of social marketing in order to promote behaviors of the majority. Knowing that an exaggerated view of peers' behavior will serve as a self-fulfilling prophesy, this theory attempts to correct the imaginary norms by replacing them with the actual, safer norms.

Social norming “markets” the actual behaviors of a population with the use of positive messages. Reporting data which focuses on the majority and creates a positive mind set about acceptable social norms is more helpful than highlighting the incidence of the problem (Perkins, 1995). An example of positive messaging would read, “98 percent of university students are not arrested for DUI.” The idea of viewing the glass as half full will have a greater impact on students perceiving the actual norms accurately. Students are not likely to transform the information from incident statistics and see the majority who are not engaging in the behavior (Perkins, 1995). Instead of realigning perceptions, focusing on the incidence of the problem would reinforce the idea that most students are engaging in dangerous alcohol consumption.

Social norming has proven to be successful not only correcting inflated norms about alcohol use, but also in reducing the reported rates of binge drinking (Haines & Spear, 1996). Northern Illinois University began a social norming campaign during the

1989-1990 academic year. The campaign was effective in reducing both the discrepancy between perceived and actual norms as well as reported binge drinking behavior.

After just one year, NIU found a 18 percent reduction in perceived binge drinking and a 16 percent reduction in actual binge drinking (Haines, 1996). NIU continued the campaign for five years and found a 43 percent reduction in perceptions and actual binge drinking was reduced by 28 percent (Haines, 1996). After nine years, NIU has seen a 44 percent reduction in reported binge drinking (Haines, 1998).

Northern Illinois University's campaign results illustrate the success that can be gained through social norming techniques. After many attempts, conventional education-based prevention programs failed to reduce dangerous drinking habits. Thus, NIU began to target the social environment in which the behaviors were taking place. By influencing the peer contexts of drinking, their social norming campaign changed the perceptions, attitudes and behaviors of their students.

### **Social Desirability**

Social desirability is the tendency for respondents to answer questions in a way consistent with the "expected" or "ideal" answer in an effort to appear normal or nondeviant (Embree & Whitehead, 1993). In the context of alcohol use, studies suggest that socially desirable responding bias results in moderately underestimated rates of heavy drinking. Respondents skew their answers to better fit social norms.

Social norming campaigns strive to change the social norms of a population from an exaggerated view to the actual behavior of the majority. By doing this, the campaign

could cause students to move their responses, not necessarily their behavior, more in accordance with the advertised norm.

It makes sense that as the social norms of a population favor heavy alcohol consumption less, the more respondents will under-report their alcohol use to better fit the new norms. However, it also makes sense that as heavy alcohol consumption decreases in a population, so too would the instances of alcohol-related problems. Although gathering data on substance use by self-report may result in a moderate underestimation, other indirect measures such as alcohol-related accidents can also indicate substance abuse.

Outcome evaluation of social norming campaigns need to recognize the effects of social desirability. In the case of measuring the success of a social norming campaign, self-report data could be complimented by measures of alcohol-related problems in order to give a more valid measure of heavy alcohol consumption.



## **CHAPTER III**

### **Methodology**

The purpose of this study is to explore the alcohol related behaviors, attitudes and perceptions of freshmen students attending The University of Montana and to identify differences between perceived and actual alcohol use. This study also explored alcohol related behaviors and differences among four freshmen subgroups: males, females, on-campus and off-campus students.

#### **Sample Selection**

The target population for this study was freshmen attending the University of Montana. The freshman population at the University of Montana during Fall semester 1998 consisted of 3,338 students. The goal of this study was to survey 339 or 10 percent of the total freshmen population.

In order to ensure a high return rate, surveys were administered during class sessions. To maximize the number of freshman participants, 100 level, general education classes were selected for survey administration. The surveys were administered in a variety of departments as a means of representing students from a wide array of disciplines. See appendix A for a complete listing of classes, dates, and non-response percentages.

After approval from The University of Montana Institutional Review Board for survey administration was attained (Appendix B), a letter signed by the university president requesting faculty assistance was sent to respective professors one month prior to administration (Appendix C). Academic deans for each department were also

contacted regarding the request made of their faculty. This was done to alleviate any possible confusion which may arise on the part of the deans and faculty. Permission was secured through follow-up phone calls.

### **Instrumentation**

The instrument used in this study was the Campus Survey of Alcohol and Other Drug Norms (Appendix D). The questionnaire was developed in 1997 by Wesley Perkins in conjunction with the Core Institute to assess respondents' alcohol and other drug use and their perceptions of campus norms and substance use by other students (Presley, Austin, & Jacobs, 1998). Although the Campus Survey has only been available for use for a short time, many of its items have been utilized in research for the past ten years (Presley, 1998).

The survey consists of 17 behavioral, perceptual and attitudinal questions and nine demographic questions. Respondents mark their responses to items with two to ten response options. The time-frame response options range from never to everyday.

The Campus Survey has shown to be valid and reliable. Alternate form reliability was ascertained through the use of *t*-test comparisons on two different campuses in a pretest/posttest format. Content and face validity was ascertained by unanimous interrater agreement by a panel of experts and through the use of focus groups (Presley, 1998).

This survey is an extension to the Core Alcohol and Drug Survey. The Core survey was developed in 1988 by The Core Institute Advisory Group, a branch of the Fund for the Improvement of Postsecondary Education (FIPSE). The survey was created as an evaluation tool that would assist institutions of higher education in investigating

alcohol and drug use on their campuses. By the year 1994, the Core survey has been administered to nearly half a million students on 800 campuses, and the findings have been aggregated to create what is presently the largest national database on substance abuse in the higher education setting (Presley et al., 1994).

### **Data Collection**

Once permission by the professor was secured, trained peer educators from the Student Health Services administered the surveys during the first or last twenty minutes of class session. In accordance with the Core Alcohol and Drug Survey User's Manual, the procedure to which all trained administrators adhered is as follows (Presley, Meilman, & Leichliter, 1998):

- 1) The test administrator arrived at the class ten minutes before the survey was conducted. A sufficient supply of surveys, return envelopes and #2 pencils for everyone in class was provided.
- 2) The instructor turned the class over to the test administrator during either the first or last twenty minutes of class - depending on the instructor's preference.
- 3) Students who had taken the survey in another class were instructed not to take it a second time.
- 4) The administrator provided a brief background of the survey and instructions on how to complete and return the surveys. The commentary on the survey and the instructions was put on a script for the administrator to follow (Appendix E).

- 5) **The survey participants were given guarantees of absolute confidentiality regarding their responses. To achieve confidentiality the following precautions were taken:**
- **Participants are asked to look only at their own responses.**
  - **The administrators and instructor did not to walk around the room as the survey was completed.**
  - **Once all participants were finished, a manilla envelope was given to and passed down each isle for survey pick up. The participants deposited only their own survey in the envelope to ensure that they were the only person to view their survey. The last person in each isle sealed the envelope.**
  - **The administrator collected the surveys and pencils, thanked the instructor, and left class. The completed surveys were returned to the Health Education Office in the Student Health Services building.**

### **Data Analysis**

**Once completed, the questionnaires were sent to the Core Institute for machine scoring by optical scanner. A floppy disk was obtained which had an SPSS formatted data file containing the data as scanned directly from the survey forms. The analysis which were conducted included descriptive statistics, paired comparison *t*-tests, a single sample chi-square test, Pearson Product-Moment Correlations, and Cronbach's alpha. The purpose for each test is as follows:**

- 1) **Descriptive statistics were used to report findings about usage, perceptions of, and attitudes about alcohol use among University of Montana freshmen.**

- 2) **Paired comparison *t*-tests were performed to determine differences in perceived and actual frequency of alcohol use.**
- 3) **A single sample chi-squared test was run to determine differences between perceived and actual binge drinking.**
- 4) **Pearson Product-Moment Correlations were run to explore the strengths of the relationships between actual and perceived drinking behaviors.**
- 5) **Cronbach's (1951) alpha was computed to evaluate the reliability of items pertaining to reported consumption frequency and binge drinking behavior.**

## **CHAPTER IV**

### **Results**

The purpose of this study was to explore alcohol related behaviors, attitudes and perceptions of freshmen students attending The University of Montana and to identify differences between perceived and actual alcohol use. This study also explored alcohol related behaviors and differences among four subgroups: males, females, on-campus and off-campus students.

Students were surveyed using the Campus Survey of Alcohol and Other Drug Norms. Of the 500 surveys distributed in various 100 level general education classes (see Appendix A), 485 were completed for a return rate of 97 percent. The number of freshmen respondents was 323 which was 9.7 percent of the total freshmen population for fall semester 1998. The number of respondents in each freshmen subgroup were 179 females, 143 males, 237 living on campus and 86 living off campus.

The average age of participants was 19.14. The majority (81.1 percent) of freshmen were age 19 or younger with roughly half of freshmen at age 18. The gender breakdown for the sample was 55 percent female and 44 percent male. Most freshmen (73.4 percent) lived on campus while 25 percent resided off campus. Four percent were members of a fraternity or sorority and 8 percent were intercollegiate athletes. Most (96 percent) participants were registered as full time students. The ethnicity of the participants was mostly (93 percent) white students with Native Americans comprising 2.2 percent of the sample.

### **Frequency of Alcohol Use**

Students were asked to report how often they typically consume alcohol. They were asked to choose a response which best represented their own alcohol use. The response categories were listed as follows: never; 1-2 times per year; 6 times per year; once per month; twice per month; once per week; 3 times per week; 5 times per week; and everyday.

Table 1 illustrates the percent and frequency of responses in each category as well as by sex and place of residence. This data is summarized below.

#### **All Freshmen**

Thirteen percent of freshmen reported never using alcohol. The majority of freshmen (59.8 percent) reported using once per week or less. The students who reported using alcohol three to five days per week comprised 26.5 percent of the respondents and 1.3 percent reported using alcohol everyday.

#### **Freshman Males**

Roughly eleven percent of males reported never using alcohol while half (51.4 percent) reported using once per week or less often. Using alcohol three to five times per week was reported by 35.2 percent of males. Three percent of freshman males reported using alcohol everyday.

### **Freshman Females**

Abstaining from alcohol use was reported by 14 percent of females. The majority of females (66.5 percent) reported using once per week or less often. Females who reported consuming alcohol three to five times per week were 19.5 percent of the this group. No females reported using alcohol everyday.

### **Freshmen Living On Campus**

On-campus students who reported never consuming alcohol comprised 11 percent of this group. Using alcohol once a week or less often was reported by 61.4 percent of on-campus freshmen. Consuming alcohol three to five times per week was reported by 27.1 of on-campus students and .4 percent reported using everyday.

### **Freshmen Living Off Campus**

Abstaining from alcohol was reported by 16.3 percent of freshmen living off campus. Roughly half (55.7 percent) reported using once per week or less often. Consuming alcohol three to five times per week was reported by 24.4 percent of off-campus freshmen. Freshmen living off campus who reported using alcohol everyday comprised 3.5 percent of that group.



**Table 1: Frequency of Reported Alcohol Consumption**

Response Categories	All N = 321		Males N = 142		Females N = 179		On-campus N = 236		Off-campus N = 86	
	%	n	%	n	%	n	%	n	%	n
Never	12.5	40	10.6	15	14.0	25	11.0	26	16.3	14
1-2 times per year	6.5	20	4.2	6	8.4	15	5.9	14	8.1	7
6 times per year	5.9	19	3.5	5	7.8	14	5.5	13	7.0	6
Once per month	9.7	31	7.7	11	11.2	20	8.9	21	11.6	10
Twice per month	10.0	32	10.6	15	9.5	17	11.0	26	8.1	7
Once per week	27.7	89	25.4	36	29.6	53	30.1	71	20.9	18
3 times per week	23.4	75	31.0	44	17.3	31	23.7	56	22.1	19
5 times per week	3.1	10	4.2	6	2.2	4	3.4	8	2.3	2
Everyday	1.3	4	2.8	4	0.0	0	0.4	1	3.5	3

### **Perceptions Regarding the Frequency of Alcohol Use**

Participants were asked to estimate how often “students in general typically consume alcohol.” Students in general was defined as students attending the University of Montana. Participant were asked to choose a response that best represents how often they think University of Montana students typically consume alcohol. The response categories were listed as follows: never, 1-2 times per year, 6 times per year, once per month, twice per month, once per week, 3 times per week, 5 times per week, and everyday.

Table 2 illustrates the perceptions of University of Montana freshmen regarding the frequency of alcohol consumption among students in general. The table depicts the percentage of students who believe a particular alcohol consumption behavior is typical of University of Montana students. This data is summarized below.

#### **All Freshmen**

No freshmen believed that students in general typically do not consume alcohol. The majority of freshmen (56.5 percent) thought students attending the University of Montana consumed alcohol once per week or less often. Freshmen who estimated typical use as three to five times per week comprised 42.5 percent of this group. Everyday alcohol use as typical behavior was estimated by .9 percent of freshmen.

#### **Freshman Males**

There were no males who thought students in general do not typically consume alcohol and 58.8 percent of males estimated typical use as once per week or less often. Using alcohol three to five times per week was what 39.3 percent of males estimated as usual behavior. Everyday use of alcohol was thought to be usual behavior by 1.4 percent of freshman males.

#### **Freshman Females**

No females reported abstaining from alcohol as behavior typical of students in general. Most females (54.8 percent) estimated that students typically consume alcohol once per week or less often. Consuming alcohol three to five time per week was thought to be usual behavior by 44.7 percent of females. Everyday alcohol use as typical student behavior was reported by .6 percent of females.

### **Freshmen Living On Campus**

All freshmen living on campus thought abstaining from alcohol was not typical student behavior. About half of on-campus students (56.2 percent) thought students in general typically consume alcohol once per week or less often. Drinking alcohol three to five times per week was thought to be usual student behavior by 43.4 percent of students living on campus. Everyday alcohol consumption was thought typical by .6 percent of on-campus students.

### **Freshmen Living Off Campus**

No students who lived off campus estimated that students in general typically abstain from alcohol use. Most off-campus students (57 percent) thought students in general consume alcohol once per week or less often. Using alcohol three to five times per week was estimated as usual behavior by 40.7 percent of off-campus freshmen. Freshmen residing off campus who thought everyday use is typical of students attending the University of Montana comprised 2.3 percent of the off-campus respondents.

**Table 2: Perceptions Regarding Frequency of Alcohol Consumption**

Response Categories	All N = 320		Males N = 142		Females N = 179		On-campus N = 236		Off-campus N = 86	
	%	n	%	n	%	n	%	n	%	n
Never	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
1-2 times per year	0.3	1	0.0	0	0.6	1	0.4	1	0.0	0
6 times per year	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Once per month	2.5	8	2.8	4	2.2	4	2.6	6	2.3	2
Twice per month	8.1	26	7.8	11	8.4	15	7.2	17	10.5	9
Once per week	45.6	146	48.2	68	43.6	78	46.0	108	44.2	38
3 times per week	36.6	117	35.0	50	37.4	67	37.9	89	32.6	28
5 times per week	5.9	19	4.3	6	7.3	13	5.5	13	8.1	7
Everyday	0.9	3	1.4	2	0.6	1	0.4	1	2.3	2

### **Binge Drinking Behavior**

Freshmen were asked to report how many times they have consumed five or more drinks in a row in the two weeks prior to the survey. Table 3 depicts what proportion of students did not engage in this behavior, those who did at least once, and those who reported binge drinking three or more times. Frequent binge drinking is defined as binge drinking three or more times in a two week period of time.

**Table 3: Binge Drinking Behavior in the Two Weeks Prior to Survey Administration**

Reported Binge Drinking	All N = 309		Males N = 134		Females N = 174		On-campus N = 229		Off-campus N = 80	
	%	n	%	n	%	n	%	n	%	n
0 times	40.6	131	35.8	48	47.1	82	36.7	87	51.2	44
One or more times	59.4	178	64.2	85	52.9	92	63.3	142	48.8	36
Three or more times	32.5	91	38.8	52	22.4	39	31.0	71	25.0	20

### Perceptions of Binge Drinking

Respondents were asked to estimate what proportion of students they think consumed five or more drinks in a row on at least one occasion in the two weeks prior to the survey. Table 4 depicts what proportion of freshmen estimated a particular percentage of University of Montana students who engaged in binge drinking in the previous two weeks. This data is summarized below.

#### All Freshmen

Twenty three percent of freshmen believed that less than half of students in general engaged in binge drinking at least once in the two weeks prior to the survey. Most freshmen (77.5 percent) believed that 50 percent or more students had engaged in binge drinking. Almost half of freshmen students perceived that 70 percent or more students engaged in binge drinking.

### **Freshman Males**

Twenty three percent of males thought that less than half of University of Montana students engaged in binge drinking during the previous two weeks. The majority of males (77.1 percent) believed that 50 percent or more students had binge drank. Almost half (44 percent) of males thought at least 70 percent of students engaged in binge drinking.

### **Freshman Females**

Twenty two percent of females believed that fewer than 50 percent of students engaged in binge drinking in the two weeks prior to the survey. Most females (77.6 percent) thought that at least 50 percent of students had engaged in binge drinking. Almost half of females (47 percent) believed that 70 percent or more had binge drank.

### **Freshmen Living On Campus**

Less than twenty percent of freshmen living on campus believed less than half of students in general had engaged in binge drinking. Most on campus freshmen (80.1 percent) thought that 50 percent or more of students binge drank in the prior two weeks. Roughly half of on campus freshmen estimated 70 percent or more of University of Montana students had engaged in binge drinking.

### **Freshmen Living Off Campus**

Thirty percent of freshmen living off campus estimated that less than half of students had engaged in binge drinking. Seventy percent of this group thought that at least half of students engaged in binge drinking. Forty percent estimated that at least 70 percent participated in binge drinking behavior.

**Table 4: Perceived Proportion of Students Who Binge Drink**

Response Categories	All N = 315		Males N = 140		Females N = 174		On-campus N = 231		Off-campus N = 84	
	%	n	%	n	%	n	%	n	%	n
0-19%	3.2	10	2.9	4	3.4	6	2.6	6	4.8	4
20-29%	4.1	13	2.8	4	5.2	9	4.3	10	3.5	3
30-39%	7.0	22	9.3	13	5.2	9	6.1	14	9.6	8
40-49%	8.2	11	7.9	11	8.6	15	6.9	16	11.9	10
50-59%	15.3	48	15.0	21	15.5	27	14.3	33	17.8	15
60-69%	16.5	52	17.8	25	15.0	26	17.7	40	13.1	11
70-79%	18.7	59	17.9	25	19.5	33	18.7	43	19.1	16
80-89%	15.6	49	12.8	18	17.8	31	16.8	39	11.9	10
90-100%	11.4	36	13.6	19	9.8	16	12.6	29	8.3	7

### Alcohol-Related Attitudes

Participants were asked to choose one of five attitude statements which best represents their own attitude regarding alcohol use. The statements were as follows: drinking is never a good thing to do, drinking is all right but a person should not get drunk, occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities, occasionally getting drunk is okay even if it does interfere with academics or responsibilities, and frequently getting drunk is okay if that is what the person wants to do. Table 5 illustrates the percentage of students who reported each statement as the best representation of their attitude regarding alcohol use.

**Table 5: Alcohol-Related Attitudes**

Attitude Statements	All N = 312		Males N = 137		Females N = 175		On-campus N = 229		Off-campus N = 84	
	%	n	%	n	%	n	%	n	%	n
Drinking is never a good thing to do.	8.0	25	10.9	15	5.7	10	7.0	16	10.7	9
Drinking is all right but a person should not get drunk.	18.9	59	16.8	23	20.6	36	17.9	41	22.6	19
Occasionally getting drunk is OK if it doesn't interfere with responsibilities.	62.5	195	52.6	77	67.4	118	66.4	152	51.2	43
Occasionally getting drunk is OK even if it does interfere with responsibilities.	3.2	10	5.1	7	1.7	3	3.9	9	1.2	1
Frequently getting drunk is OK if that is what the individual wants to do.	7.4	23	10.9	15	4.6	8	4.8	11	14.3	12

### Perceived Alcohol-Related Attitudes

From the same five attitude statements, participants were asked to choose the statement that they believe best represents the most common attitude among students in general. Table 6 illustrates the percentage of students who chose a particular statement as the most common attitude of University of Montana students.



**Table 6: Perceptions Regarding Most Commonly Held Alcohol-Related Attitudes**

Attitude Statements	All N = 313		Males N = 137		Females N = 176		On-campus N = 230		Off-campus N = 84	
	%	n	%	n	%	n	%	n	%	n
Drinking is never a good thing to do.	1.2	4	1.5	2	1.1	2	1.3	3	1.2	1
Drinking is all right but a person should not get drunk.	2.0	7	1.5	2	2.8	5	1.7	4	3.6	3
Occasionally getting drunk is OK if it doesn't interfere with responsibilities.	57.5	180	62.8	86	53.4	94	57.8	133	56.0	47
Occasionally getting drunk is OK even if it does interfere with responsibilities.	17.9	56	16.8	23	18.8	33	18.3	42	17.9	15
Frequently getting drunk is OK if that is what the individual wants to do.	21.0	66	17.5	24	23.9	42	20.9	48	21.4	18

### **Differences in Perceived and Actual Frequency of Alcohol Use**

Students were asked to report their own typical alcohol use and to estimate how often they think students in general typically consume alcohol. They were asked to choose a response which best represented their own alcohol use as well as the alcohol use of students in general. The response categories were listed as follows: never, 1-2 times per year, 6 times per year, once per month, twice per month, once per week, 3 times per week, 5 times per week, and everyday.

A paired comparison *t* test was run to discover if a statistically significant difference exists between actual and perceived alcohol use frequencies of University of Montana freshmen . Because of unequal sample sizes, a five planned comparison of all freshmen, freshmen males and females, and freshmen living on and off campus was decided upon a priori. To control for Type I error a P value of .01 was set.

A statistically significant difference between perceived and actual drinking frequency exists for all groups. Table 7 summarizes the results of paired comparison *t* tests for each freshman group.

**Table 7: Difference in Perceived and Actual Drinking Frequency**

Frequency of Alcohol Use	All N = 320		Males N = 140		Females N = 179		On-campus N = 234		Off-campus N = 86	
	M*	SD	M	SD	M	SD	M	SD	M	SD
Actual	4.97	2.15	5.40	2.12	4.63	2.12	5.06	2.06	4.71	2.36
Perceived	6.38	0.89	6.35	0.86	6.39	0.91	6.36	0.87	6.41	0.95
<i>t</i>	11.43		4.99		11.16		9.48		6.43	
<i>p</i>	<.001		<.001		<.001		<.001		<.001	

\* Each response category was assigned a number. The categories were numbered as follows: 1 = never, 2 = 1 to 2 times per year, 3 = 6 times per year, 4 = once per month, 5 = twice per month, 6 = once per week, 7 = 3 times per week, 8 = 5 times per week, 9 = everyday.

### **Differences Between Perceived and Actual Binge Drinking**

Students reported how many drinks they typically consume at social drinking occasions. Two categories were established: binge drinker and non-binge drinker. Students who reported typically consuming five or more drinks during a social drinking occasion were categorized as a binge drinker and those who reported consuming four or less were labeled as a non-binge drinker.

In addition to reporting their own consumption amount, students were asked to estimate how many drinks students in general typically consume during a social drinking occasion. The same two categories were established. A perception of four or less drinks was given the label of non-binge drinker and a perception five or more drinks was categorized as binge drinker.

A single sample chi-square test was run to determine if a significant difference exists between actual and perceived binge drinking. Table 8 illustrates the proportion of students who report typically engaging in binge drinking and the proportion of University of Montana students they perceive are binge drinking while demonstrating the difference between the two.

**Table 8: Perceived and Actual Binge Drinking Behavior**

Binge Drinking Behavior	All N = 312		Males N = 138		Females N = 173		On-campus N = 230		Off-campus N = 82	
	%	n	%	n	%	n	%	n	%	n
Actual	49.0	153	61.6	85	39.3	68	52.2	120	40.2	49
Perceived	75.6	236	78.3	108	73.4	127	77.8	179	69.5	57
$\chi^2$	34.5		28.0		10.2		16.1		19.6	
p	<.001		<.001		.001		<.001		<.001	

### Internal Reliability

Two questions were added to the end of the survey in order to check for reliability. The questions were worded differently from those on the survey form to check for alternate form reliability. The new items were different versions of questions that addressed reported consumption frequency and binge drinking behavior. See appendix F for a list of additional survey questions.

Cronbach's (1951) alpha coefficient was computed to evaluate the reliability of survey items. Using a criteria of .70 (Nunnally, 1978), each item demonstrated acceptable reliability at values of .93 and .96.

### **Additional Findings**

To supplement findings of the initial research questions, three additional areas were explored. First, the relationship between perceived and actual alcohol use by University of Montana freshmen was investigated. Second, the difference between how freshmen perceive freshmen and how freshmen perceive students in general was examined. Third, the difference between perceived and actual alcohol-related attitudes was examined.

Pearson Product-Moment Correlations were run to explore the strengths of three relationships: reported and perceived amount of alcohol consumption, reported and perceived frequency of alcohol consumption, and reported and perceived binge drinking behavior. The results of the Pearson correlations are summarized below.

#### **Reported and Perceived Amount of Alcohol Consumption**

Students were asked to report how many drinks they typically consume during social drinking occasions and to estimate how many drinks they perceive students in general typically consume in the same situation. While freshmen reported typically consuming 4.6 drinks during social drinking occasions they estimated that other students drank 6.1 drinks in the same situation. The result of the Pearson correlation revealed a moderate positive relationship between the responses ( $r = .524$ ). As the amount a student reports drinking during a social drinking occasion increases so too does the amount they think other students consume.

When students were asked to report how many drinks they consumed on their *last* drinking occasion and to estimate how many drinks were consumed by other students, the relationship became even more substantial. Freshmen reported consuming about 5.5

drinks but estimated that other students consumed 6.8 drinks in the same situation. The correlation coefficient of .737 reveals a strong relationship between perceived and actual amount of alcohol consumption during the last social drinking occasion.

#### **Reported and Perceived Frequency of Alcohol Consumption**

Students were asked to report how often they typically consume alcohol and to estimate how often students in general typically consume alcohol. The correlation coefficient of .149 indicates a low positive correlation between how often a student consumes alcohol and how often they perceive other students consume.

#### **Reported and Perceived Binge Drinking Behavior**

Students were asked to report the number of times they had consumed five or more drinks in the previous two weeks and to estimate what proportion of students in general reported the same behavior. The result of the Pearson correlation revealed a low positive relationship between perceived and actual binge drinking behavior ( $r = .345$ ).

#### **Difference Between Freshman Perceptions of Themselves and Others**

The difference between how freshmen perceive freshmen and how freshmen perceive students in general was explored. Students were asked to estimate how often freshmen typically consume alcohol and how often students in general typically consume alcohol. A *t*-test was run to determine the difference between freshmen's perceptions of themselves and students in general. The results revealed no difference between how freshmen perceive freshmen and how freshmen perceive students in general ( $t < .001$ ,  $p = 1.0$ ).

### **Differences in Perceived and Actual Alcohol-Related Attitudes**

Students were asked to choose one of five attitudes statements which best represents their own alcohol-related attitude and to choose the statement that they believe best represents the most common attitude among students in general. The statements were as follows: drinking is never a good thing to do, drinking is all right but a person should not get drunk, occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities, occasionally getting drunk is okay even if it does interfere with academics or responsibilities, and frequently getting drunk is okay if that is what the person wants to do.

A paired comparison *t* test was run to discover if a statistically significant difference exists between perceived and actual alcohol-related attitudes of University of Montana freshmen. Because of unequal sample sizes, a five planned comparison of all freshmen, freshmen males and females, and freshmen living on and off campus was decided upon a priori. To control for Type I error a P value of .01 was set.

A statistically significant difference between perceived and actual alcohol-related attitudes exists for all groups. Table 9 summarizes the results of paired comparison *t* test for each freshmen group.

**Table 9: Difference in Perceived and Actual Alcohol-Related Attitudes**

Alcohol-Related Attitudes	All N = 313		Males N = 137		Females N = 175		On-campus N = 229		Off-campus N = 84	
	M*	SD	M	SD	M	SD	M	SD	M	SD
Actual	2.83	0.90	2.88	1.04	2.79	0.77	2.82	0.81	2.86	1.11
Perceived	3.55	0.89	3.47	0.85	3.61	0.92	3.55	0.88	3.55	0.91
<i>t</i>	10.99		5.58		9.93		9.97		4.91	
<i>p</i>	<.001		<.001		<.001		<.001		<.001	

\*Each response category was assigned a number. The categories were numbered as follows: 1 = Drinking is never a good thing to do, 2 = Drinking is all right but a person should not get drunk, 3 = Occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities, 4 = Occasionally getting drunk is okay even if it does interfere with academics or responsibilities, 5 = Frequently getting drunk is okay if that's what the individual wants to do.



## **CHAPTER V**

### **Summary of Findings**

The purpose of this study was to explore alcohol-related behaviors, attitudes, and perceptions of freshmen attending The University of Montana and to identify differences between perceived and actual alcohol use. This study also examined alcohol-related behaviors and differences among four sub-groups: males, females, on-campus and off-campus students.

The findings of this study illustrated that alcohol is large part of campus life for University of Montana freshmen. About 90 percent of the participants were under the age of 21 yet, almost all reported using alcohol with some frequency and believed that “getting drunk” is acceptable behavior. Over half the students reported engaging in binge drinking behavior and more than 30 percent reported binge drinking frequently.

Because binge drinking increases the likelihood of suffering from alcohol-related problems affecting academic, personal and social success, it is important to understand what type of student has the highest risk of engaging in problem drinking behaviors (Meilman, 1993; Presley, Meilman & Cashin, 1996). What can be drawn from the results of this study is a basic profile of a University of Montana freshman problem drinker.

In agreement with current research, gender and place of residence seemed to influence dangerous drinking behaviors (Baer et al., 1995; Weschler et al., 1995; Larimer et al., 1997). The results of this study revealed that male students living on campus are more likely to report engaging in problem drinking behaviors than females and students living off campus. Male students reported using alcohol more frequently, binge drinking

more and with a higher frequency, and holding more permissive attitudes about alcohol than females. In addition, freshmen living on campus reported a higher drinking frequency, and engaged in binge drinking more often than students who lived off campus.

While this study revealed that some students drink more than others, it also established that most students have misperceptions regarding the alcohol use by their peers. Freshmen perceived that University of Montana students in general consume more frequently, binge drink more, and hold more permissive attitudes about alcohol than they do personally.

On average, freshman participants reported drinking about twice per month but perceived that students in general used alcohol about two times per week. Interestingly, reported drinking frequency was not highly correlated with perceived drinking frequency. Freshmen, regardless of reported drinking frequency, perceived that other students typically drank about twice per week.

Unlike drinking frequency, actual amount of alcohol consumption was moderately correlated with perceived amount of consumption. In other words, perceived amount of alcohol consumption increased as actual amount of alcohol consumption increased. Students who consume a large amount of alcohol tend to think that, in the same situation, other students drank even more. The inflated perception may help students rationalize and feel more at ease with their own heavy consumption.

Interestingly, the relationship between perceived and actual amount of alcohol consumption falters when exploring reported binge drinking behavior. The number of times a student reported binge drinking during the previous two weeks did not necessarily

correlate with an increased perception of campus-wide binge drinking behavior.

Along with alcohol consumption, alcohol-related attitudes held by students in general were exaggerated. Freshmen believed that more students hold permissive attitudes toward alcohol than was actually reported. There was a statistically significant difference between actual and perceived alcohol-related attitudes. The distribution of actual alcohol-related attitudes of freshmen fell on a fairly normal curve. Most freshmen reported a moderate, middle range attitude with fewer students reporting extremes on either side. However, the distribution of perceived attitudes was skewed toward the permissive extreme.

### **Discussion**

Reducing the prevalence of alcohol abuse has been a goal of The University of Montana's administration for a number of years. However, alcohol continues to be a large part of campus life for University of Montana freshmen. Primary prevention efforts focused on reducing dangerous alcohol consumption by college students include strategies such as education, scare tactics, and campus alcohol policies. However, after years of application, these efforts have proven to be largely ineffective at reducing dangerous alcohol consumption (Perkins & Berkowitz, 1986; Moskowitz, 1989; Haines, 1996).

The failure of primary prevention may, in part, be the result of ignoring the peer contexts and the social norms of drinking behavior (Perkins & Berkowitz, 1986). The college years are a period when students have little contact with parents or other reference groups which leaves peers paramount in determining a student's attitudes and behaviors.

However, what students believe are the attitudes and behaviors of their peers is just as crucial in determining student actions as actual peer behavior. The problem that arises is that students typically overestimate the alcohol use and permissiveness of their peers (Perkins & Berkowitz, 1986). The belief that heavy, irresponsible drinking is normal student behavior can fuel excessive alcohol consumption.

In order to effect change in dangerous alcohol consumption, the power of peer influence must be used to curb rather than encourage excessive drinking. Social norming theory appears to be an effective means of using peer influence to encourage students to drink responsibly. Social norming operates on the assumption that students overestimate the alcohol use and permissiveness of their peers while themselves holding moderate attitudes and drinking responsibly (Perkins & Berkowitz, 1986). The theory attempts to correct inflated norms by promoting the actual, safer norms of the population.

The theory uses mass media to “market” responsible behaviors of the majority while correcting and preventing norm misperceptions. As a result of saturating the campus environment with messages revealing the actual, safer drinking norms, students who drink responsibly are no longer pressured to conform to a perceived permissive norm and students who drink irresponsibly are encouraged to drink less.

A campus is primed for a social norming campaign when certain requirements are met. Students must hold exaggerated views of the campus drinking norms and be susceptible to the influence of campus norms. Research suggests that students who hold restrictive views toward alcohol are not likely to be influenced by campus norms. However, students who hold moderate or permissive alcohol-related attitudes can be

pressured to conform to perceived campus drinking norms (Perkins & Weschler, 1996).

The University of Montana campus environment meets the requirements for social norming readiness. Freshmen students have exaggerated views of alcohol use by their peers and report holding moderate alcohol-related attitudes. Freshmen believe they are in a campus environment where heavy alcohol use is normative and are susceptible to the influence of the inflated campus drinking norms. Social norming strategies can be employed to remove the exaggerated norms and reinforce safer, more accurate norms.

### **Limitations of the Study**

The sampling methodology for this study offered some distinct advantages. Administering the surveys in 100 level, general education courses in a variety of departments allowed for a high return rate, targeted mostly freshmen, addressed students in a variety of disciplines, and captured many students who would not have otherwise participated. However, there were limitations to this method.

1. **Generalizing the results of this study is limited due to non-randomness.**  
Although surveys were administered in variety of departments, the sample is not random and the study represents only the views of the participants.
2. **The survey used only one definition of binge drinking for both genders.**  
Females who report consuming four or more drinks in a row describe roughly the same number of alcohol-related problems as males who report drinking five or more drinks in a row (Weschler, Austin, & Dejong, 1996).  
Therefore, an instrument which uses one definition of binge drinking for both genders may result in an under-reporting of female problem drinking.

3. **Absenteeism may have introduced bias into the sample. Although class administration may capture students who would not normally volunteer, students who do not attend class are not represented. Students who do not attend classes may have alcohol-related behaviors which differ from those in attendance and may lead to under-reporting of problem drinking. Absenteeism for this study was higher than expected. Roughly half of students did not attend class.**
4. **Social desirability can compromise studies relying on self-reported behaviors, especially when the behavior is sensitive in nature (Carfio, 1994). Furthermore, a class setting can increase socially desirable responding by students (Wessinger & Wodarski, 1994). Because students were reporting behaviors that are influenced by campus norms, the classroom setting could have altered responses to better fit campus norms.**
5. **Class demographics may have compromised the results of this study. Of those students who did attend classes, only half were freshmen. This forced a change in methodology. In order to achieve a large sample size, surveys were distributed to some classes containing only freshmen. The classes provided a captive audience, but may have compromised the quality of the study. Since the classes are “interest groups” and are not required for all freshmen, the students attending these classes may not be representative of the greater freshman population.**

### **Recommendations**

**The results of this study suggest that a social norming campaign focusing on University of Montana freshmen may be beneficial in reducing their dangerous drinking behaviors. The research was conducted in conjunction with the Student Health Services and the recommendations made are directed toward the application of this study to health promotion programming by the Health Education Office.**

**University of Montana freshmen have exaggerated views of alcohol use by their peers and hold alcohol-related attitudes which leave them susceptible to the influence of campus drinking norms. Therefore, a social norming campaign which promotes the responsible behaviors of the majority may prove to be an effective measure for reducing the discrepancy between perceived and actual alcohol use and thus, problem drinking.**

**In order for a social norming campaign to be successful, it must be based on population-specific information regarding the problem to be addressed (Haines, 1996; Zimmerman, 1997). This study has provided information about alcohol use specific to four groups of freshmen and has served as an essential first step to a social norming campaign.**

**The results of this study revealed that freshmen students, regardless of gender and place of residence, believe that their peers drink more often, consume higher amounts of alcohol, and hold more permissive attitudes than they do personally. Thus, each group of freshmen studied could benefit from a social norming campaign. However, because freshmen males living on campus have shown to engage in more problem drinking, the recommendations of the study will focus on this population.**

After thorough investigation of the problem and attainment of population-specific information, the next step in a social norming campaign is to develop positive messages promoting the responsible behaviors of the majority. For example, in the case of freshman males living on campus, a social norming message could read “Most U of M freshman males drink once per week or less often.”

The key to a successful social norming campaign is to tailor the message to a specific group of students, make the message believable and relevant, and then to disseminate the material using the most effective channels (Haines, 1996; Zimmerman, 1997). The development and dissemination of the message must be accompanied by extensive test marketing and refinement.

For example, the message “Most U of M freshmen males drink once per week or less often.” would be the pilot message. Focus groups containing freshman males could be conducted to obtain feedback regarding how to make the message relevant, believable, and attractive to that specific population.

To make the message believable and attractive to freshman males living on campus, it may be supported with images of dorm life or feature activities common to this group. The process of developing materials is conducted in conjunction with, not separate from, the target population. Images that evoke responsible behavior for health educators may not be well received by freshman males.

How, where, and when to disseminate materials is also decided by the target population. It is important to research where freshman males get their information, what types of media channels are most credible to them, and when they are most exposed to



those channels. Because dissemination of materials is costly and funding is limited, knowing how, where, and when to distribute the information is critical to the process.

Evaluation of a social norming campaign's effectiveness is an essential component of a complete program, but collecting sensitive data accurately can be difficult. Therefore, evaluation techniques should include a combination of indirect measures and self-reported behaviors. For example, investigation of alcohol-related crashes would provide a marker of alcohol use without influence of social desirability.

It is also important to recognize that students are not the only carriers of norm misperception. Faculty, parents, and community members may also believe that "all college students drink" and serve to reinforce the inflated drinking norms. In order to affect the whole environment, community education would be a valuable component to a social norming campaign.

Without the knowledge that students overestimate the amount of drinking by their peers, it would be easy to view a poster that glorifies drinking once per week as promotion of drinking. It is important to remember, however, that all social norming messages must be filtered through the eyes of the population for which it is intended. When college freshmen view the message, they are most likely thinking that their peers drink a lot less than they had previously assumed and are encouraged to drink less rather than encouraged to drink more.

### **Future Research**

Because the effectiveness of a social norming campaign relies on the target population identifying with and buying into the messages, it is important that the messages are specific to a certain population (Haines, 1996; Zimmerman, 1997). Therefore, it may be helpful to segment the population further than merely by gender and place of residence. For example, information regarding the drinking behaviors of freshman male athletes or freshman female sorority members could be investigated and used to bolster the effectiveness of a social norming campaign.

Where most prevention programming attempt to change a student's motivation toward drinking, social norming techniques appeal to student motives. It effectively appeals to the students motivation to "fit in" by using messages that are closely aligned with their lifestyles and values. Thus, it would be beneficial to further investigate the lifestyles, values and motivations of the target population. Qualitative methodologies such as focus groups could be conducted to obtain more thorough knowledge of a University of Montana freshman perspective.

Because students are not the only carriers of drinking norm misperceptions, it may be beneficial to further explore other aspects of the campus environment. Research targeting the perceptions and attitudes of faculty, staff and administration may give insight into where campus drinking norms may be reinforced. Students can receive information regarding the overall campus attitude toward alcohol use during interaction with faculty and administration. For example, faculty members may make a remark during class that portrays heavy alcohol use as normal to their students. These remarks reinforce the idea

**that all college students drink irresponsibly and serves to weaken the effectiveness of social norming techniques. Investigation and education of other campus groups would affect the campus environment as a whole and create a cohesive front against excessive drinking behaviors of college students.**

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**APPENDIX A**  
**SURVEY ADMINISTRATION TALLIES**



## Survey Administration Tallies

Class	Date of Administration	Total Number of Surveys Given	Number of Freshmen	Total Enrolled	Percent no-shows and non-response*	When the surveys were given
ANTH 101	Nov. 5, 1998	95	53	447	46.9	Beginning
HHP 184	Nov. 10, 1998	9	9	62	37.0	Beginning
ECON 111	Nov. 9, 1998	37	12	161	49.6	End
MUS 134	Nov. 13, 1998	17	6	270	77.4**	Beginning
BADM 100	Nov. 24, 1998	94	52	270	65.1**	Beginning /End
HHP 101	Nov. 19, 1998	13	13	60	48.3	Beginning
ENEX 100	Dec. 10, 1998	9	7	20	45.0	End
PSYCH 100	Nov. 17 - 18, 1998	68	67	NA	NA	NA
FIG Groups	Nov. 13 - 18, 1998	92	84	NA	NA	Beginning
PSC 100	Nov. 5, 1998	47	20	116	58.0	Beginning
Totals		485	323			

\* This percent illustrates the number of students who did not take the survey. It reflects students who did not show up to class, students who chose not to, or had taken the survey in another class.

\*\* These classes were an anomaly as far as protocol. The Music class had a study session that day - most students left when they found out there was a survey. The business course was having a guest speaker. We had the last ten minutes of one and the first ten minutes of the next class. When we administered it during the last ten minutes of class, most students left.

**APPENDIX B**  
**IRB APPROVAL LETTER**

The University of Montana  
**INSTITUTIONAL REVIEW BOARD (IRB)**  
**CHECKLIST**

Submit one completed copy of this Checklist, including any required attachments, for each course involving human subjects. The IRB meets monthly to evaluate proposals, and approval is granted for one academic year. See *IRB Guidelines and Procedures* for details.

Project Director: Linda Green Dept.: Student Wellness Center Phone: 2801

Signature Linda Green Date: 9/17/98

Co-Director(s): Julee Stearns Dept.: Student Wellness Center Phone: 16958

Project Title: CORE ALCOHOL AND DRUG SURVEY

Project Description: The core survey reveals alcohol and drug use of students as well as their perceptions on these issues.  
(in nontechnical language)

Please provide the dates requested below:

Date Submitted to IRB	Project Start Date	Ending Date
Sept. 17, 1998	November 2-5, 1998	November 9-13, 1998

Students Only:

Faculty Supervisor: \_\_\_\_\_ Dept.: \_\_\_\_\_ Phone: \_\_\_\_\_

Signature: \_\_\_\_\_

(My signature confirms that I have read the IRB Checklist and attachments and agree that it accurately represents the planned research and that I will supervise this research project.)

For IRB Use Only

**IRB Determination:**

Exempt from Review

Approved by Administrative Review

Full IRB Determination:

- Approved
- Conditional Approval (see attached memo)
- Resubmit Proposal (see attached memo)
- Disapproved (see attached memo)

Signature/IRB Chair: Carole Lydick Date: 9/21/98

(over)

**IRB REVIEW AND DETERMINATIONS  
REQUEST FOR CHANGES IN METHODOLOGY**

**PROJECT DIRECTORS:** Linda Green and Julee Stearns ✓

**PROJECT TITLE:** CORE Alcohol and Drug Study

**From:** Carrie Gajdosik, Chairperson of the IRB, Physical Therapy Department, 243-5189

**DATE:** November 4, 1998

The following changes in your methods has been approved:

1. Addition of the "Campus Survey of Alcohol and Other Drug Norms" survey.

Signature/IRB Chair

  
Carrie Gajdosik

Carrie Gajdosik

**APPENDIX C**  
**PROFESSOR REQUEST LETTER**



The University of  
**Montana**

Student Health Services  
634 Eddy Avenue  
The University of Montana  
Missoula, Montana 59812  
Phone: (406) 243-2122  
FAX: (406) 243-2254

Dear Faculty Member,

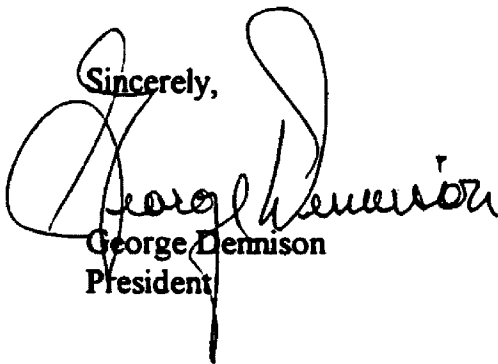
Your assistance is requested in the administration of the Core Alcohol and Drug Survey. The survey has been approved by the IRB for administration on this campus. The University of Montana will be joining other universities and colleges from around the state in a two-year follow-up evaluation of the original Core survey. The Core survey reveals use of alcohol and drugs as well as student perceptions on these issues. Resulting information will allow us to identify specific needs of students at The University of Montana, direct preventive programming, and evaluate changes in behavior. Our aim is to help students have safe, healthy and successful college careers.


**THE GOAL IS TO SURVEY A MINIMUM OF 10% OF THE STUDENT BODY. TO ACHIEVE THIS, WE NEED YOUR HELP. ONE OF YOUR CLASSES WAS SELECTED AS A REPRESENTATIVE SAMPLE OF STUDENTS ATTENDING THE U OF M.**

Our intent is to administer the survey during the first or second week of November. The process requires approximately 20 minutes and is best conducted at the beginning of class session. We appreciate that this may seem intrusive and hope you can fit this into your busy class schedule. The knowledge we receive from this process is paramount to enhancing student success.

Thank you in advance for your help in our endeavor. The Health Education office is responsible for the administration of the survey and will be getting in touch with you in the next two weeks. They can address any questions or concerns you have at that time. You may also contact Julee Stearns, the graduate assistant for the Health Education office, at 243-6958.

Sincerely,

  
George Demmison  
President



Linda Green  
Health Education Coordinator  
Student Health Services



*Student Health Services*  
Medical • Dental • Counseling • Wellness

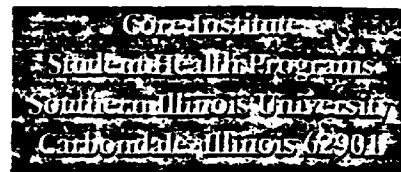
**APPENDIX D**  
**CAMPUS SURVEY OF ALCOHOL AND OTHER DRUG NORMS**

# Survey of Alcohol and Other Drug Norms

Marking Instructions

- Incorrect Marks
- Correct Marks
- Use a No. 2 pencil only.
  - Make solid marks that fill the oval completely.

This is a survey of students' alcohol and other drug attitudes and usage. We want you to tell us about yourself and your perceptions of other students. Do not put your name on this form—this is an anonymous survey. Questions that ask about other students are referring to students at this institution.



The first set of questions asks about how frequently alcohol and other drugs are used by students at this school.

1. How often do you think students in each of the following categories typically consume alcohol (including beer, wine, wine coolers, liquor, and mixed drinks)? Just give your best estimate for each category. (Fill in the oval corresponding to the best answer for each category of students.)

- a. Yourself
- b. Your friends
- c. Students in general
- d. Males
- e. Females
- f. On campus students
- g. Off campus students
- h. Fraternity members
- i. Sorority members
- j. Intercollegiate athletes

	Never	1-2 times/year	6 times/year	Once/month	Twice/month	Once/week	3 times/week	5 times/week	Every day
a. Yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Your friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Students in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Males	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Females	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. On campus students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Off campus students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Fraternity members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Sorority members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Intercollegiate athletes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How often do you think students in each of the following categories typically use marijuana? Again, just give your best estimate for each category. (Fill in the oval corresponding to the best answer for each category of students.)

- a. Yourself
- b. Your friends
- c. Students in general
- d. Males
- e. Females
- f. On campus students
- g. Off campus students
- h. Fraternity members
- i. Sorority members
- j. Intercollegiate athletes

a. Yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Your friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Students in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Males	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Females	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. On campus students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Off campus students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Fraternity members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Sorority members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Intercollegiate athletes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. How often do you think students in each of the following categories typically use any illicit drug other than marijuana? Again, just give your best estimate for each category. (Fill in the oval corresponding to the best answer for each category of students.)

- a. Yourself
- b. Your friends
- c. Students in general
- d. Males
- e. Females
- f. On campus students
- g. Off campus students
- h. Fraternity members
- i. Sorority members
- j. Intercollegiate athletes

a. Yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Your friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Students in general	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Males	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Females	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. On campus students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Off campus students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Fraternity members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Sorority members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Intercollegiate athletes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The next set of questions asks about the quantity of alcohol consumed.

4. Overall, what percentage of students here do you think consume no alcoholic beverages at all? Just give your best estimate. (Fill in the boxes and mark the corresponding ovals.)

			%
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Overall, what percentage of students here do you think consumed five or more drinks in a row on at least one occasion in the last two weeks? Again, just give your best estimate. (Fill in the boxes and mark the corresponding ovals.)

			%
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

PLEASE DO NOT WRITE IN THIS AREA



49596





6. Think back over the last two weeks. How many times have you had 5 or more drinks in a row?

(Fill in the oval corresponding to the best answer.)  0  1  2  3  4  5  6  7  8  9  10  11  12  13  14+

7. How many alcoholic drinks, on average, do you think each of the following students typically consumes at parties and bars? (A drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.)  
(Fill in the oval corresponding to your best estimate of the average number of drinks consumed by each category of students on one of these occasions.)

- |                             |  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-----------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                             |  | 0                     | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     | 9                     | 10                    | 11                    | 12                    | 13                    | 14                    | 15+                   |
|                             |  | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     | ▼                     |
| a. Yourself                 |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Your friends             |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Students in general      |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Males                    |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. Females                  |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. On campus students       |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. Off campus students      |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. Fraternity members       |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. Sorority members         |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| j. Intercollegiate athletes |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

8. If you never drink, fill in this oval  and skip the rest of this item. Otherwise, please answer the following questions.

Think about your last social drinking occasion with other students.

- |  |  |
|--|--|
| a. How many drinks did you consume on that occasion?<br><input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10 <input type="radio"/> 11 <input type="radio"/> 12 <input type="radio"/> 13 <input type="radio"/> 14 <input type="radio"/> 15+           | c. Looking back, how many drinks would you have preferred to drink?<br><input type="checkbox"/> More <input type="checkbox"/> The same <input type="checkbox"/> Less   |
| b. How many drinks did the other students consume, on average?<br><input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9 <input type="radio"/> 10 <input type="radio"/> 11 <input type="radio"/> 12 <input type="radio"/> 13 <input type="radio"/> 14 <input type="radio"/> 15+ | d. Again looking back, how many drinks do you think the other students would have preferred to drink, on average?<br><input type="checkbox"/> More <input type="checkbox"/> The same <input type="checkbox"/> Less |

9. On any given occasion, how many alcoholic drinks are most typically consumed by you and by others in each of the following places? Just give your best estimate.  
(If you never attend the activity or it is not available, mark that response and leave both estimates blank.)

	Not Available ▼	Never Attend ▼	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+
a. Bar	<input type="checkbox"/>	<input type="checkbox"/>	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Yourself			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Athletic events	<input type="checkbox"/>	<input type="checkbox"/>	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Yourself			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Fraternity social functions	<input type="checkbox"/>	<input type="checkbox"/>	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Yourself			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Sorority social functions	<input type="checkbox"/>	<input type="checkbox"/>	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Yourself			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Residence hall informal get-togethers	<input type="checkbox"/>	<input type="checkbox"/>	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Yourself			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. School dances (or "mixers")	<input type="checkbox"/>	<input type="checkbox"/>	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Yourself			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Off-campus parties	<input type="checkbox"/>	<input type="checkbox"/>	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Yourself			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Which statement below about drinking alcoholic beverages do you feel best represents your own attitude?

(Fill in the oval corresponding to the best answer for you.)

- a. Drinking is never a good thing to do.
- b. Drinking is all right but a person should not get drunk.
- c. Occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities.
- d. Occasionally getting drunk is okay even if it does interfere with academics or responsibilities.
- e. Frequently getting drunk is okay if that's what the individual wants to do.

11. Which statement below about drinking alcoholic beverages do you feel best represents the most common attitude among students in general here? (Fill in the oval corresponding to the best answer.)

- a. Drinking is never a good thing to do.
- b. Drinking is all right but a person should not get drunk.
- c. Occasionally getting drunk is okay as long as it doesn't interfere with academics or other responsibilities.
- d. Occasionally getting drunk is okay even if it does interfere with academics or responsibilities.
- e. Frequently getting drunk is okay if that's what the individual wants to do.

12. Which statement below about using marijuana do you feel best represents your own attitude?

(Fill in the oval corresponding to the best answer for you.)

- a. It is never a good thing to use.
- b. Trying it out one or two times is okay as long as it doesn't interfere with academics or other responsibilities.
- c. Occasional use is okay as long as it doesn't interfere with academics or other responsibilities.
- d. Occasional use is okay even if it does interfere with academics or responsibilities.
- e. Frequent use is okay if that's what the individual wants to do.

13. Which statement below about using marijuana do you feel best represents the most common attitude among students in general here? (Fill in the oval corresponding to the best answer.)

- a. It is never a good thing to use.
- b. Trying it out one or two times is okay as long as it doesn't interfere with academics or other responsibilities.
- c. Occasional use is okay as long as it doesn't interfere with academics or other responsibilities.
- d. Occasional use is okay even if it does interfere with academics or responsibilities.
- e. Frequent use is okay if that's what the individual wants to do.

14. Which statement below about using any illicit drug other than marijuana do you feel best represents your own attitude? (Fill in the oval corresponding to the best answer for you.)

- a. Use is never okay.
- b. Trying out a drug once or twice is okay as long as it doesn't interfere with academics or other responsibilities.
- c. Occasional use is okay as long as it doesn't interfere with academics or other responsibilities.
- d. Occasional use is okay even if it does interfere with academics or responsibilities.
- e. Frequent use is okay if that's what the individual wants to do.

15. Which statement below about using any illicit drug other than marijuana do you feel best represents the most common attitude among students in general here? (Fill in the oval corresponding to the best answer.)

- a. Use is never okay.
- b. Trying out a drug once or twice is okay as long as it doesn't interfere with academics or other responsibilities.
- c. Occasional use is okay as long as it doesn't interfere with academics or other responsibilities.
- d. Occasional use is okay even if it does interfere with academics or responsibilities.
- e. Frequent use is okay if that's what the individual wants to do.

16. Consider these campus rules and regulations regarding alcohol and other drug use that you are aware of on campus. Mark the response that comes the closest to or best represents your position. Mark only one response for each rule. Do not mark more than one response for each rule.

I generally know of these rules but have no opinion.

I am not really aware of these rules.

17. Again, considering campus rules and regulations regarding alcohol and other drug use, what percent of the student body do you believe:

(Just give your best estimate for each question even if you are unsure. Your estimates or best guesses on A through D should total to 100%. Fill in all boxes and mark the corresponding ovals, even if they are zeroes.)

a. ... generally knows of and supports these rules and regulations?

b. ... generally knows of and opposes these rules and regulations?

c. ... generally knows of these rules but has no opinion?

d. ... are not aware of these rules?

% +    % +    % +    % = 100%

0 0  
1 1 1  
2 2  
3 3  
4 4  
5 5  
6 6  
7 7  
8 8  
9 9

18. Classification:

Freshman

Sophomore

Junior

Senior

Grad/professional

Not seeking a degree

Other

19. Age:

(Fill in the boxes and mark the corresponding ovals.)

0  
1 1  
2 2  
3 3  
4 4  
5 5  
6 6  
7 7  
8 8  
9 9

20. Ethnic Origin:

American Indian/Alaskan Native

Hispanic

Asian/Pacific Islander

White (non-Hispanic)

Black (non-Hispanic)

Other

21. Living Arrangements: (Mark best answer.)

House/apartment/etc.

Residence Hall

Approved housing

Fraternity or sorority housing

Other

22. Gender:

Male

Female

23. Is your current status as a student:

On-campus

Off-campus

24. Extracurricular activities: (Mark all that apply.)

Fraternity/Sorority member

Fraternity/Sorority pledge

Intercollegiate athlete

25. Approximate cumulative grade point average: (Choose one.)

A+ A A- B+ B B-

C+ C C- D+ D D-

26. Student status:

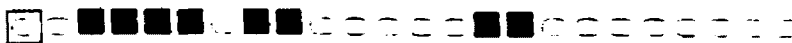
Full-time (12+ credits)

Part-time (1-11 credits)

For Additional Use:

27. A B C D E 28. A B C D E 29. A B C D E 30. A B C D E 31. A B C D E

PLEASE DO NOT WRITE IN THIS AREA



49596

**APPENDIX E**  
**SURVEY ADMINISTRATION SCRIPT**

# Survey Administration Script

## Speak Slowly, Loudly, & Clearly

- This class was selected to participate in a survey conducted by U of M Health Education Office, which is part of the Student Health Services.
- This is a national survey, given across the country, to look at drug and alcohol use, as well as perceptions and attitudes.
- Participation is voluntary - you do not have to complete a questionnaire, however we hope you will so we can obtain as representative a sample of the student population as possible.
- If you completed this questionnaire in another class, you should not complete another one.
- The questionnaire will take about 20 minutes. It is a long survey so you will have to work quickly. If you are not comfortable answering a question or if you don't understand something, just skip that item and continue on.
- You will need a #2 pencil. If you do not have one, we will supply you with one. Please raise your hand if you need a pencil.
- Responses are anonymous - no one's answers will be identified, only aggregated data will be used to create a profile of the campus. Do not put your name on the survey.
- It is very important that you answer honestly, please do not look at anyone's questionnaire and please do not talk during the survey.
- At the end of the 20 minutes, we will ask you to put the questionnaire and any pencils we have given out in the envelopes provided and pass them down your row.
- Thank you very much for participating. Interested students will have access to the results of the survey. These can be obtained next semester at the Health Education Office in the Student Health Services building.

**APPENDIX F**  
**ADDITIONAL SURVEY QUESTIONS**

These questions are to be answered in the pink box  
on the bottom of the last page.

27. How often do you think University of Montana freshmen typically consume alcohol (including beer, wine, wine coolers, liquor, and mixed drinks)? Give your best estimate.
- a) 6 times a year or less
  - b) 1-2 times a month
  - c) Once a week
  - d) 3-5 times a week
  - e) Everyday
28. How often do you consume alcohol (including beer, wine, wine coolers, liquor, and mixed drinks)? Give your best estimate.
- a) 6 times a year or less
  - b) 1-2 times a month
  - c) Once a week
  - d) 3-5 times a week
  - e) Everyday
29. In the past two weeks, how many times have you consumed five or more drinks in one sitting?
- a) None
  - b) 1-2 times
  - c) 3-4 times
  - d) 5-6 times
  - e) 7 or more times

**THANK YOU VERY MUCH FOR YOUR PARTICIPATION AND HONESTY!**