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COMMUNITY-LEVEL HIV PREVENTION  
INTERVENTION:  
THE EFFECTS OF GAY MEN'S HEALTH RETREATS

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presented in partial fulfillment of the requirements for the degree of  
Masters of Science  
The University of Montana  
May 2003

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**Community-level HIV Prevention Intervention: The Effects of Gay Men's Health Retreats**

Thesis Chair: K. Ann Sondag <sup>KAS</sup>

**OBJECTIVE:** To determine whether Gay Men's Health Retreats are effective in promoting safer sexual practices among rural MSM. **DESIGN:** We used a pretest, posttest quasi-experimental design. Information was collected from three retreats organized by the Montana Gay Men's Task Force. **METHODS:** The researchers developed a survey instrument which included five sections: Social support and social network; self-acceptance; attitude toward condoms; sexual behavior and relationships; HIV transmission knowledge. **INTERVENTION:** The experimental intervention consisted of a weekend retreat led by experienced retreat organizers and included several guest speakers. The retreats incorporated HIV prevention information, social networking, self-acceptance building, and assertion training aimed at improving safer sex practices intended to reduce the risk for HIV infection. **PARTICIPANTS:** Data was collected from an experimental group (retreat participants) prior to and two months after participation in the retreat, and from a control group (non-retreat participants) at baseline level and at a two month follow up. We also formed one focus group of men who participated in the retreat. **RESULTS:** The findings suggest the retreat had a positive impact on attitude towards condoms. Specifically, the intervention was successful in eroticizing the use of condom. Several variables, although not statistically significant, indicated practical significance in terms of effects of the retreat. The data revealed that men in the experimental group modified their sexual behavior, primarily in the form of reducing the number of times they engaged in unprotected anal intercourse. The experimental group also showed a marked decrease in use of substances during or in anticipation of sex. **CONCLUSIONS:** Outcome results suggest that the intervention affected participants' self-acceptance, attitudes, and sexual behavior only to a limited degree. However, this may be explained, in part, by the selection bias of participants. Results showed that at baseline experimental participants spent most of their social time with other MSM and MSM related activities, had high self-acceptance and accurate HIV transmission knowledge. Thus, is it possible that the prevention program attracted MSM whom already profited from high self-acceptance and from a well developed gay support network.

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# **CHAPTER 1: INTRODUCTION TO THE STUDY**

## **STATEMENT OF THE PROBLEM**

Acquired Immune Deficiency Syndrome (AIDS) is the most serious infectious disease pandemic our society has faced. Two decades after the identification of AIDS there is still no effective vaccine, or treatment available. Today about 800,000 to 900,000 people live with HIV in the United States. Additionally, 40,000 new HIV infections occur every year (Center for Disease Control, 2001a). The primary route of transmission is unprotected sexual intercourse. Therefore, the principal strategy for controlling the spread of HIV is to avoid sexual risk behavior implicated in the transmission of HIV. In fact, behavioral change will be important for primary prevention of HIV infection even after a possible treatment and vaccine for AIDS have been developed.

While the profile of the pandemic has changed significantly since the early 1980s, Men Who Have Sex With Men (MSM) are still heavily affected by HIV infections. In fact, MSM suffer disproportionately from this pandemic. MSM constitute the largest percentage of persons with AIDS in the U.S. (53%) (Center for AIDS prevention studies, 2000), and an even larger percentage of persons with HIV in Montana (72%) (Montana HIV/AIDS cases, 2003).

AIDS was first identified among gay men, and subsequent research on HIV transmission in the U.S. was conducted on this population, particularly gay men living in large urban centers, such as New York and San Francisco. Prevention research targeted at gay men in small or moderate sized communities is scarce. Efforts to develop preventive interventions to reduce infections among MSM began in the early 1980s and are

continuing. While a wide variety of prevention strategies have been implemented, limited information exists as to their effectiveness. However, in order to fully understand how we can best assist MSM to maintain safer sexual practices we must evaluate such intervention programs to see if they meet their objectives.

## **PURPOSE OF THE STUDY**

The purpose of this study was to determine whether Gay Men's Health Retreats are effective in promoting safer sexual practices among rural MSM. The retreats focus on risk behavior reduction, which incorporates: (1) strengthening feelings of social support and social network, (2) enhancing self-acceptance, and (3) increasing attitudes, beliefs, and self-efficacy expectations regarding safer sex. Past studies support the notion that the development of a more supportive social network, enhanced self-acceptance, and increased HIV transmission knowledge influence the frequency of unprotected and protected sexual behavior (Strathdee et al., 1998; Kelly, St Lawrence, Brasfield, Lemke et al. 1990; Kelly, St Lawrence, Brasfield, Stevensen et al., 1990).

## **HYPOTHESES**

We had two hypotheses:

1. There will be a significant gains difference in the posttest vs. the pretest for the retreat participants in the following areas:
  - a) social support and social network
  - b) sense of self-acceptance
  - c) attitude toward condoms

- d) unsafe sexual behavior (they will engage less in unprotected anal intercourse, they will have fewer number of sexual partners)
  - e) HIV transmission knowledge
2. There will be no significant gains in the posttest vs. the pretest for the control group in the following areas:
- a) sense of social support and social network
  - b) sense of self-acceptance
  - c) attitude toward condoms
  - d) unsafe sexual behavior (they will engage less in unprotected anal intercourse, they will have fewer number of sexual partners)
  - e) HIV transmission knowledge

## **DELIMITATIONS**

- This study was delimited to MSM over 18 years of age, attending retreats in Montana.
- Participants in the study were volunteers.
- Data was collected through surveys and one focus groups, and was restricted to participants' self report on surveys and in focus group meetings.

## **DEFINITIONS OF TERMS**

Bisexual – a person sexually responsive to both sexes (Flexner, 1987).

Heterosexual/straight – a person whose sexual feelings or behaviors are directed toward a person or persons of the opposite sex (Flexner, 1987).

Homosexual/gay – a person whose sexual desire or behaviors are directed toward a person or persons of one's own sex (Flexner, 1987).

MSM – men who report sexual contact with other men (homosexual contact) and men who report sexual contact with both men and women (bisexual contact) (CDC, 2001a).

Homophobia – unreasonable fear of homosexuals (Smith, Landau, Bahr, 1990).

Retreat – a three-day social and educational gathering.

High-risk sexual practices – unprotected anal or oral intercourse to orgasm and oral/anal contact (Kelly, St Lawrence, Hood, Brasfield, 1989).

## **IMPORTANCE OF THE STUDY**

The Montana Department of Public Health and Human Services (DPHHS) will use the information from this study to plan future HIV intervention programs for MSM in Montana. This study will provide the DPHHS and the Gay Men's Task Force (GMTF) in Montana, as well as other health organizations nationwide, with valuable insight concerning retreat as an HIV prevention tool. Retreats as intervention to prevent HIV infection at a community level have the potential to reach large numbers of people in a cost-effective way and to lower rates of future HIV infections.

## **CHAPTER 2: REVIEW OF RELATED LITERATURE**

### **HIV/AIDS IN THE UNITED STATES**

There has not been a more serious infectious disease pandemic in modern times than AIDS. Two decades after the identification of AIDS there is still no effective vaccine, or treatment available. Today about 800,000 to 900,000 people live with HIV in the United States. Additionally, 40,000 new HIV infections occur every year (CDC, 2001a). The four possible transmission routes for the virus are first, sexual contact with an infected person; second, sharing needles and/or syringes (primarily for drug injections) with someone who is infected; third, transmission of infected blood; and fourth, babies born to HIV infected women may become infected (CDC, 2001b). In the Western world the first two are the main transmission routes. The primary route of transmission is unprotected sexual intercourse. Therefore, the principal strategy for controlling the spread of HIV is to avoid sexual risk behavior implicated in the transmission of HIV. In fact, behavioral change will be important for primary prevention of HIV infection even after a possible treatment and vaccine for AIDS have been developed. Thomas J. Coates, at the Division of General Medicine and Center for AIDS Prevention Studies, University of California, San Francisco, explains that infected individuals will benefit from behavioral change to prolong their life, both in terms in quality and quantity (Coates, 1990).

While the profile of the pandemic has changed significantly since the early 1980s, MSM are still heavily affected by HIV infections. In fact, MSM remain disproportionately affected by HIV/AIDS. This population constitutes the largest percentage of persons with AIDS in the U.S. (53%) (Center for AIDS prevention studies,

2000), and an even larger percentage of persons with HIV in Montana (72%) (Montana HIV/AIDS cases, 2003).

Among MSM the principal risk practice for HIV infection is unprotected anal intercourse. The risk for HIV infection is consequently greatly lessened by avoiding unprotected anal intercourse, having few sexual partners, and otherwise performing only 'safer sex' with no efficient HIV transmission. In practice this means consistently using condoms during intercourse, and participating in non-penetrative sexual activities, such as mutual masturbation and body rubbing (Kelly et al., 1989).

To slow the spread of HIV it is crucial that persons who engage in sexual risk behavior alter their behavior. Studies have confirmed that MSM are aware of the behaviors most likely to spread the HIV virus. Yet, about 25-50% of the gay community still engages in sexual behavior they know might expose them to the virus (Strathdee et al., 1998). Continued behavior change assistance therefore is needed.

AIDS was first identified among gay men, and subsequent research on HIV transmission in the U.S. was conducted on this population, particularly gay men living in large urban centers, such as New York and San Francisco. Prevention research targeted at gay men in small or moderate sized communities is scarce. While many prevention strategies have been tried in the past 20 years, very few strategies have been evaluated in terms of effectiveness.

## **HIV/AIDS AMONG RURAL MSM**

In general, studies focusing on sexual behavior among rural MSM are limited. Kelly et al. (1992) investigated HIV risk taking among gay men in small and moderate-size U.S.

cities. Their findings indicate that peer education interventions consistently reduce high-risk behaviors. Kelly et al. (1995) assessed the sexual behavior of nearly 6,000 men in 16 small American cities. This study identified a number of factors strongly predictive of risk behavior, such as having a large number of different male partners, believing that safer sex was not an expected peer norm, and having weak intentions to use condoms at the next intercourse. The limited information on the sexual behavior of MSM residing in smaller cities is discouraging considering that there has been an increase in AIDS diagnosis incidence among homosexually active men in moderate and small sized cities in the U.S. In addition, high rates of HIV sexual risk behavior have been observed among rural gay men (Kelly et al., 1995).

Possible reasons for rural gay/bisexual men's continued sexual risk behavior have been suggested. Most sexually active rural MSM have few friends diagnosed with AIDS, consequently, AIDS is seen as a distant threat. In general, there have been few large-scale HIV prevention programs in rural areas. It also appears that sexual behavior norms still don't fully support risk avoidance, observes Kelly et al. (1995). A recent national study of rural gay and bisexual men found evidence that a large proportion of rural MSM perceived HIV as an urban problem, they had less personal experience with HIV, they lacked basic HIV knowledge, and finally, rural communities generally had a shortage of gay sensitive health professionals to provide competent service (Rosser, 2002). Heckman, Somlai, Kelly, Stevenson, Galdabini (1996), found that barriers to rural gay health care included the following: stigma, lack of trained providers, social and geographic isolation, lack of supports, financial barriers, and homophobia. The fact that a large portion of MSM still doesn't practice safer sex is a concern. The Center for Disease



Control and Prevention consequently encourages sustained HIV prevention efforts for this population (CDC, 2000). In light of the above, it may be important to ask whether HIV prevention efforts targeted at rural MSM have been effective.

## **HIV IN MONTANA**

As of March 31, 2003, a total of 556 persons were living with HIV/AIDS in Montana. Seventy percent of the state's 56 counties have reported at least one AIDS case since 1985 (Montana HIV/AIDS cases, 2003), hence most areas of the state have been affected. Montana's AIDS case rate is comparable to neighboring states.

In the nation as a whole, the number of AIDS cases has been declining as a result of new and more effective HIV-therapies. Montana experienced a 30% decline in reported AIDS cases in 1999. However, there is not a similar decline in HIV-transmission rates (Montana Department of Public Health and Human Services, 2000). The demographic profile of Montana's HIV/AIDS cases has remained relatively stable over time. Individuals aged 30-39 continue to be associated with almost half of all reported AIDS cases and males are ten times more frequently infected with HIV compared to females. MSM and injecting drug use (IDU) continue to account for the majority of reported AIDS cases, combined they account for 85% of all AIDS cases occurring in Montana (Montana HIV/AIDS cases, 2003).

## **GAY COMMUNITY INFRASTRUCTURE IN MONTANA**

Montana is the fourth largest state in the U.S. (94 million acres). It is a rural state, with more than half its area being utilized for agricultural purposes (Montana Department of Commerce, 2000). Estimated by the 2000 Census, the state's population is 902,195 (U.S.

Bureau of Census, 2000). The largest city, Billings, has a population of 89,847. Most cities and towns are considerably smaller in size (Montana Department of Commerce, 2000). The U.S. Bureau of Census (2000) also estimates that 90.6 % of Montana's population is Caucasian, 6.2 % Native American, and another 3.2 % are categorized as Other (including Black, Asian, Hawaiian, and Biracial). Consequently, Montana is generally homogenous and there are a limited number of public services and facilities for gay and bisexual men. Nevertheless, compared to other rural states, such as Iowa, Idaho, Wyoming, and North Dakota, Montana has a fairly well-developed gay community infrastructure (Rosser, 2002), with several gay friendly cafés, various gay organizations, a number of Montana gay chat rooms, 10 adult bookstores, and an annual gay pride event. However, there are only one gay community center and three gay bars.

## **HIV PREVENTION NEEDS OF MSM IN MONTANA**

A recent HIV prevention needs assessment in the state of Montana revealed a number of themes, including: isolation, homophobia, stereotypes, drugs and alcohol, HIV testing issues, and safe sex issues (Sondag, Dybdal, Campbell, Mulla, 2002).

The 196 MSM participants characterized isolation as a general perception of a missing support system, and sub-themes included social isolation, spiritual isolation, and geographic isolation. Most of the participants expressed concern about homophobia in Montana, and that trying to break out of the stereotype of a gay man was a major challenge. They explained that drugs and alcohol were used as a means to accept themselves, escape low self-esteem issues, and forget the lack of acceptance from the community. Alcohol and drugs made it easier to meet other men and engage in sexual activities, they reported. A vast majority of the participants said they lacked confidence in

the professionalism of HIV testing sites. Furthermore, they identified a lack of condom availability and usage. Many participants noted that during sexual encounters, HIV status communication usually happened during foreplay (if at all), and that communication was limited. In terms of beliefs about safer sex, participants reported that a lot of men in the MSM community did not perform protected oral sex and that oral sex was used a way of reducing the risk of HIV because it replaced anal sex. In addition, they felt there was a lack of correct information about HIV-transmission and that some men believed in false “cure” information. Lastly, due to the rural nature of the state of Montana and the low incidence of HIV/AIDS persons found in the state, several men made statements based on the belief that Montana is a safe haven from the HIV virus, and that consequently, it is a safe place to practice unprotected MSM sex (Sondag et al., 2002).

Thus, it is evident that HIV prevention efforts in Montana need to be multifaceted. They must enhancing a feeling of caring networks, provide awareness, information, and communication skills regarding safe sex, and perhaps most importantly reduce MSM sense of isolation, particularly social isolation.

## **HIV/AIDS PREVENTION PROGRAMS**

Traditionally, most publicly funded HIV/AIDS prevention efforts have either focused on providing basic information about AIDS, information about practices that present a risk, or encouraged HIV testing as a behavior change strategy. This has typically come in the form of mass media information campaigns and HIV testing/contact notification, in which fear tactics and moral arguments have been heavily relied upon. In effect, their value is uncertain. In fact, Rosser, Coleman, and Ohmans (1993) state that mass media

campaigns in all probability are neither economically nor behaviorally effective.

Additionally, HIV testing/contact notification programs suffer from serious limitations such as extended waiting period between taking the HIV test and getting the result back. The most serious limitation of most public health intervention programs is their failure to help men maintain safe sex behavior, states Coates (1990). However, there are some recent and innovative HIV prevention models which appear promising.

Interventions with key opinion leaders have successfully been implemented in several cities in the U.S. as well as in Europe. The researchers trained popular opinion leaders to serve as behavior change endorsers to their peers. In three independent studies the researchers found that the peer education intervention reduced sexual risk behaviors within the targeted peer group (Kelly et al., 1991; Williamson, Hart, Flowers, Frankis, Der, 2001; Kelly et al., 1997). Kelly et al., (1989) conducted an experimental intervention providing AIDS risk education, cognitive-behavioral self-management training, sexual assertion training, and development of steady and self-affirming social supports which led to a desired behavior change. The experimental group participants improved their AIDS risk knowledge and behavioral skills for refusing sexual coercions, as well as adopted safer sex practices resulting in a reduced frequency of high-risk sexual practices.

Other techniques that have proven effective include getting men to evaluate the self-justifications they used when breaking their safe sex rules by keeping diaries of their sexual behavior. In contrast to the comparison group who received standard AIDS education, the self-justifications group believed the exercise would help them avoid relapse, and in follow-up they did report fewer incidents of unsafe sexual practices (Gold & Rosenthal, 1995). The MPowerment Project promoted a norm of safer sex among

young gay men through several different social outreach and small group activities designed and run by young men themselves. After the intervention rates of unprotected anal intercourse fell from 41% to 30% (Kegeles, Hays, Coates, 1996).

The Minnesota Man-to-Man Sexual Health Seminars used comprehensive sexuality education, cultural specificity, and empirical research to help MSM reduce HIV risk behavior on a long-term basis. The health seminars were effective in increasing consistent condom use (Rosser et al., in press). According to Miller (1995) most programs in the U.S. about safer sex have been community-based interventions, in which effectiveness has not been evaluated. In Montana, no research has been done on the effectiveness of HIV intervention programs for MSM, which in addition to retreats have included Motion Design Movies (Dybdal, 2002), peer individual outreach, and MSM Internet Outreach (Herrera, 2002).

## **CHARACTERISTICS OF MEN ENGAGING IN UNSAFE SEXUAL BEHAVIOR**

Previous studies have identified certain characteristics common for men engaging in sexual risk behavior. Siegel, Mesagno, Chen, and Christ (1989) conducted one of the first studies attempting to distinguish gay males practicing risky sex from those who don't. Their findings revealed that drug use within sexual contexts, perceived difficulty in modifying sexual behavior, number of years engaged in regular sexual intercourse with other males, and perceived adequacy of emotional support were the noteworthy predictors of engaging in high-risk sexual behaviors. Other predictors of unprotected anal intercourse among gay men identified by McKusick, Coates, Morin, Pollack, and Hoff

(1990) were low efficacy to change sexual behavior, believing that safer sex was not an expected peer norm, and being of younger age. Similar characteristics were reported by Kelly et al. (1992), who found that high-risk behavior was most strongly associated with weak intentions to use condoms, belief that they were not at risk for HIV, being of younger age, having frequent intercourse, and believing that safer sex was not an expected peer norm. In 1995, Kelly et al. identified more factors predictive of HIV risk behavior. They included having a large number of different male partners, being of younger age and having less education, viewing oneself at greater risk for HIV infection, weak intentions to use condoms, and believing that safer sex would not be well accepted by peers. Similarly, Remafedi (1994) discovered predictors of unprotected intercourse among gay and bisexual youth included perceived likelihood of HIV infection, substance abuse, higher levels of sexual activity, and difficulty communicating with partners about risk reduction. Hayes, Kegels, Coates (1990) as well as Molitor, Facer, and Ruiz (1999) concluded that those MSM with poor communication skills with their partners were more likely to have unprotected anal intercourse. Lastly, Strathdee et al. (1998) found that sexual risk takers typically had less education, and were more likely to report recreational drug use and nonconsensual sex in comparison to non-risk-takers. They also had a higher depression score and less social support. Social isolation is a major concern of the gay population. Bowen and Barnett's (1997) ethnographic interviews (as cited in Montagne, 2000) with members of the Wyoming gay community identified social isolation and fear of being exposed as gay as major concerns. Social isolation has also been identified within the MSM community in Montana (Sondag et al., 2002). According to researchers, social isolation could lead to lower social support, which, in turn, could enhance

loneliness and depression (Martin & Knox, 1997). Therefore, Martin and Knox suggested that HIV prevention strategies with gay men should target the quality of their interpersonal relationships and community supports (Martin & Knox, 1997).

Thus, it is evident that there are certain factors that predict levels of risk taking behavior among MSM. In all likelihood, frequent HIV sexual risk behavior is the result of a combination of multiple situational, cognitive, self-control, social skill, and relationship factors present in gay and bisexual men's life (Coates et al., 1987; Kelly & St Lawrence, 1987). However, it is particularly striking that self-efficacy, perceived peer reference group norms, and low social support were factors repeatedly associated with high-risk sexual behavior in the above mentioned studies. It appears that peer support for reduced-risk conduct, social support development, as well as feelings of self pride/self acceptance are factors that can assist in promoting safe sex behavior. These factors must be emphasized in prevention programs.

## **RETREAT AS HIV PREVENTION INTERVENTION**

Traditionally, retreats have been used in contexts such as weight management, spiritual and religious studies, IT/ computer programming, and personal health. Currently, there are no published studies on the efficacy of retreats in helping MSM reduce their sexual risk behavior. The Minnesota Man-to-Man Sexual Health Seminars used comprehensive sexuality education, cultural specificity, and empirical research to help MSM reduce HIV risk behavior on a long-term basis. The health seminars were effective in increasing consistent condom use. However, there was no long term change in unsafe sexual behavior (Rosser et al., in press).

Research shows that homosexually active men who reduce sexual risk taking typically report greater peer support for behavior change compared to MSM who don't (Kelly, St Lawrence, Brasfield, Lempke et al., 1990; Kelly, St Lawrence, Brasfield, Stevenson et al., 1990). Through enhancing a feeling of caring networks, and influencing peer group support regarding the practice of safe sex, the incidence of unsafe sex can be decreased (Kelly, St Lawrence, Brasfield, Stevenson et al., 1990; Kegels et al., 1996; Strathdee et al., 1998). Furthermore, these are nonspecific effects associated with participation in a retreat. Additionally, feelings of social and personal responsibility can be used to make it morally unacceptable to engage in behavior that would put others at risk for HIV (Godin, Savard, Kok, Fortin, Boyer, 1996). Rosser et al. (in press) suggest that a sexual health approach that encourages accurate knowledge, self-awareness, and personal self-acceptance making people more sexually literate, competent and comfortable, supports the development of long-term risk-reduction strategies. This is an approach that is suitable for retreats. In fact, the Mims-Swenson Sexual Health Model states that basic awareness, information, and communication skills regarding sex and sexuality are necessary in order to be confident regarding sexual concerns (Mims & Swenson, 1980).

Multifaceted prevention programs are necessary to assist gay and bisexual men engage in safer sexual behavior. Health retreats have the potential to meet such multifaceted prevention needs. In this study, our aim was to evaluate the specific effects of retreat as an intervention instrument to promote safer sexual behavior among rural MSM.



## **CHAPTER 3: METHODOLOGY**

### **DESCRIPTION OF TARGET POPULATION**

The population assessed in this study were MSM over the age of 18 who lived in Montana and who had not attended a retreat in the past year. For the purpose of this study, MSM included homosexual men, bisexual men, and men who participate in sexual relations with other men, but who do not identify as homosexual.

### **STUDY DESIGN**

In this study we used a pretest, posttest quasi-experimental design. This design provided within subject control, i.e. each subject served as his own control based on the pretest score, and between subject control, i.e. the retreat participants were compared to the control participants. The research was undertaken summer and fall 2002 in Montana. We collected data from three retreats organized by the Montana Gay Men's Task Force (GMTF). Information was collected from an experimental group (retreat participants) prior to and two months after participation in the retreat, and from a control group (non-retreat participants) at baseline level and at a two month follow up. We also formed one focus group of men who participated in the retreat in order to elucidate on their thoughts about the retreat. The human subject application material and consent forms were completed in accordance with The University of Montana Institutional Review Board (IRB) (Appendix A).

## **SAMPLING**

In an attempt to obtain a sample that provided a wide representation from varied segments of the MSM community, MSM for both the experimental group and the control group were recruited through a variety of sources: newsletters of gay organizations, paper fliers, internet fliers, announcements at gay functions, and through referrals and word of mouth. Study entry criteria included being a male over 18 years of age, self-identifying as a man who has sex with other men, or is attracted to other men, and not having attended a retreat in the past year.

### **SAMPLING OF RETREAT PARTICIPANTS (EXPERIMENTAL GROUP)**

The Montana Gay Men's Task Force (GMTF) conducted three retreats in 2002; one in August, one in October, and one in November. The organization solicited participation in the retreats through several sources (described above). Men who were interested in participating contacted GMTF. At the retreat, the retreat facilitator provided a thorough description of the risks and benefits of participation in the study and asked for study volunteers.

### **SAMPLING OF NON-RETREAT PARTICIPANTS (CONTROL GROUP)**

Among those who sign up to participate in the retreats a substantial number of men do not show up, and subsequently do not participate. GMTF contacted those absentees by mail and asked them to volunteer for the study. GMTF also posted an internet flyer asking for participants, in addition to solicitation through referrals and word of mouth. Those who voluntarily contacted the GMTF were sent a written description of the study

and a list of potential risks and benefits were provided (Appendix E). A small monetary incentive was offered for participation.

## **SAMPLING OF FOCUS GROUP PARTICIPANTS**

At the retreats, the facilitator asked for volunteers to sign up for focus group participation. The focus group met after the data from the retreats had been collected (December 2002).

# **INSTRUMENTATION**

## **SURVEY INSTRUMENT**

The researchers developed a survey instrument (Appendix B). It is in part an adaptation of a survey used by Rosser et al. (in press) for their Man-To-Man Sexual Health Seminar study. Our survey included five sections:

- Social support and social network
- Self-acceptance
- Attitude toward condoms
- Sexual behavior and relationships
- HIV transmission knowledge

The final section asked about general demographics information including sexual orientation. In all there were 72 questions. It took about 15 minutes to complete the survey.

## **INSTRUMENT RELIABILITY AND VALIDITY**

Instrument face and content validity were established through the following procedures. First, the instrument was reviewed by a panel of experts, including two professors with expertise in survey research and HIV prevention, the Executive Director of the Missoula AIDS Council, and the Director of the Gay Men's Task Force. Following suggested revisions, the survey was pilot tested with two segments of the target population—participants at a Gay Men's Retreat and the members of Lambda, the University Gay & Lesbian Student Organization. Following the pilot test further revisions were made and again the instrument was reviewed by the expert panel, and a final draft was completed.

Efforts at establishing instrument reliability were inconclusive due to low number of participants who returned both the pretest and the posttest.

## **SURVEY PROCEDURE**

### **EXPERIMENTAL GROUP**

Individuals from the MSM population were invited to participate in a weekend retreat organized by GMTF and led by experienced retreat organizers. The retreat included activities such as sexual health education, communication-skills building, and group discussions. Men who volunteered to be in the study were asked to complete a self-administered survey to determine baseline frequency of high-risk sexual behavior and factors influencing risk taking. Informed consent was obtained from all subjects prior to participation (Appendix C). The experimental group was re-tested two months later. This time frame was selected to provide adequate time to incorporate behavioral changes and to ensure that maintenance of desirable behaviors could be detected. The retreat

participants were sent a posttest questionnaire by mail that they were asked to complete and return in a stamped, self-addressed envelope. A monetary incentive was included in the mailing to ensure an adequate return rate.

## **CONTROL GROUP**

Individuals who voluntarily contacted GMTF, but chose not to participate in the retreat, were asked, in a letter from the GMTF, to participate in the study. Included with the letter were an explanation of the study, the informed consent form, and the survey. Those who wanted to participate were asked to read and sign the informed consent form and to complete the survey. To protect confidentiality participants were provided with two self-addressed stamped envelopes and asked to return the informed consent form and the survey in separate envelopes. Two months later GMTF mailed each volunteer and asked the volunteer to complete a follow-up survey. A small monetary incentive was included in both survey mailings. These volunteers did not receive any intervention between the pretest and the posttest. However, they were invited to participate in future retreats.

## **FOCUS GROUP**

Retreat participants were asked to volunteer for a focus group. Individuals who volunteered to be in a focus group attended one meeting. The focus group met at a private place convenient for the participants. At the beginning of the meeting, the participants were asked to read and sign an informed consent form and confidentiality statement (Appendix C and D). The facilitator asked them to freely express and expand on their retreat experience (Focus Group Questions Appendix F).

## **SURVEY FOLLOW-UP**

In an attempt to ensure as many completed surveys as possible a second survey was mailed to men whose posttest had not been received within two weeks of the original posttest mailing. Three weeks after the original mailing, all men from whom a posttest still had not been received were mailed and asked if they had received the survey and were reminded to complete and return it.

## **THE INTERVENTION**

The experimental intervention consisted of a weekend retreat led by experienced retreat organizers and included several guest speakers. The retreats incorporated HIV prevention information, social networking, self-acceptance building, and assertion training aimed at improving safer sex practices intended to reduce the risk for HIV infection. Variables the intervention sought to influence directly were participants' (1) sense of social support, (2) self-acceptance, (3) (a) attitudes, (b) beliefs, and (c) self-efficacy concerning safe sex. Indirectly the intervention sought to promote safer sexual behavior (anal and oral sex risk behavior, anal and oral condom use--measured by the sexual behavior questionnaire). The intervention's overall objective was to promote factors that support safer sexual behaviors among MSM.

## **STATISTICAL PROCEDURES USED**

For non-parametric variables Wilcoxon Signed Ranks tests were used to look for differences within the experimental and the control group from the pretest to the posttest. Mann-Whitney U-tests were used to examine differences for unpaired variables between

the experimental and the control group. A priori we set our alpha level at 0.05. For parametric variables paired t-tests were used to measure differences within the experimental and control groups from the pretest to the posttest. The dependent t-test was used to specifically compare (1) experimental group's pre and post score, (2) control group's pre and post score. Unpaired t-test was used to look for differences between the experimental and the control group at baseline level. A more stringent criterion for significance ( $\alpha = 0.01$ ) was used to control for the increased likelihood of spurious findings with multiple t-tests. Frequency and mode were established for every variable. Descriptive statistics and chi-square tests were used to check the equivalence of the experimental and control groups on demographic variables.

## CHAPTER 4: RESULTS

This chapter begins with a description of the sample at baseline and an explanation of the differences between the experimental group and the control group at baseline. Six results sections follow. The first five sections describe the statistical differences within the two groups from the pretest to the posttest regarding (1) social support and social network, (2) self-acceptance, (3) attitude towards condoms, (4) sexual behavior, and (5) HIV-transmission knowledge. The last section explains the main themes identified in the focus group.

### SAMPLE DESCRIPTION

The cohort consisted of 59 participants; 34 experimental subjects and 25 control subjects.

#### DEMOGRAPHICS

The mean age of the men in the cohort was 37.22 years ( $SD = 10.77$ ). The youngest participant was 19 years old, while the oldest was 63 years old. Most of the participants lived in a town with 50,000 – 100,000 people or a town with 20,000 – 50,000 people.

**Table 1: Size of town**

	Percent	Number
I don't live within a town	3.4%	2
Less than 2,500	13.6%	8
2,500 – 4,999	3.4%	2
5,000 – 9,999	3.4%	2
10,000 – 19,999	0%	0
20,000 – 49,999	27.1%	16
50,000 – 100,000	42.4%	25
More than 100,000	6.7%	4



The median educational level was “some college.” However, subjects who attended some college or were college graduates represented close to 83% of the sample. Participants with limited education were underrepresented.

**Table 2: Highest level of education completed**

	Percent	Number
Less than high-school	0%	0
High School Graduate	15.3%	9
Trade Vocational School	1.7%	1
Some college	33.9%	20
College Graduate	37.3%	22
Graduate/Professional School	11.8%	7

The median yearly income was \$20,001 – 35,000. Few of the participants had a yearly income above \$50,000.

**Table 3: Yearly income**

	Percent	Number
100,000+	0%	0
75,000 – 100,000	5.2%	3
50,001 – 75,000	6.9%	4
35,001 – 50,000	17.2%	10
20,001 – 35,000	31.0%	18
10,001 – 20,000	17.2%	10
6,001 – 10,000	10.4%	6
< 6,000	12.1%	7

Most of the men reported that their primary religious affiliation was Christian, Roman Catholic, Agnostic, or Other. Those who said “Other” specified this as “spirituality” or “spiritual within myself,” while one man wrote “higher sources, our creator.” One man was Unitarian, one was Pagan, one was Mormon, and one man wrote “MCC,” and lastly, three of the men said they had no primary affiliation.

**Table 4: Primary religious affiliation**

	Percent	Number
Roman Catholic	23.7%	14
Lutheran	3.4%	2
Other Protestant	1.7%	1
Jewish	0.0%	0
“Christian,” not attending any particular church	23.7%	14
Atheist	1.7%	1
Agnostic	18.6%	11
Other	27.2%	16

The ethnic and racial profile of participants was fairly representative of the state profile.

Native Americans were slightly overrepresented, as they constitute 6.2% of the state population, yet comprised 10% of the study participants.

**Table 5: Race / ethnicity**

	Percent	Number
White (non-Hispanic)	87.9%	51
American Indian / Alaska Native	10.3%	6
Biracial or multiracial/ethnic	1.8%	1

Most of the participants described themselves as gay/homosexual, but the sample also included participants who were bisexual, and one man who was unsure of his sexual orientation.

**Table 6: Sexual orientation**

	Percent	Number
Gay/homosexual	91.5%	54
Bisexual	6.7%	4
Unsure	1.8%	1

## RELATIONSHIPS

About 40% (n = 22) of the participants considered themselves in a primary sexual relationship, and this relationship was with a male partner. None of the men in the cohort had a primary sexual relationship with a woman. Half (n = 32) of the respondents did not consider themselves in a primary sexual relationship, while 8.5% (n = 5) of the respondents were either not sure or they were dating.

**Table 7: Sexual relationships**

	Experimental	Control
No primary sexual relationship	50% (n = 17)	60% (n = 15)
Primary sexual relationship	41% (n = 14)	32% (n = 8)
Unsure/dating	9% (n = 3)	8% (n = 2)

Of the respondents who considered themselves in a primary relationship, the mean length of the relationships was 4.7 years (range 14.9 years) and the median was 2.8 years. About half of the participants considered their relationship closed, i.e. only having sex with each other, and a third of the men described their relationship as open. The remaining subjects described their relationship as “Other.” They specified this as “have no idea, up & down,” “don’t ask, don’t tell,” “together, sometimes with 3<sup>rd</sup>,” “we sometimes have sex with other couples,” “committed but have played together, and lastly “nonsexual – unemotional.”

**Table 8: Description of relationship**

	Experimental	Control
Closed (We only have sex with each other)	53.3% (n = 8)	44.4% (n = 4)
Open (We can both see other partners for sex)	13.3% (n = 2)	44.4% (n = 4)
Other	33.4% (n = 5)	11.2% (n = 1)

The vast majority (76%) of the participants reported sexual activity with at least one man in the preceding two months. Approximately one quarter of the men (22%) reported no sex in the past two months. Seventy two percent of the sexually active men in the cohort reported one sexual partner, and the rest reported multiple sexual partners. The mean number of male sexual partners was 2.48 (SD = 2.1). The mean number of times these men had had sex in the preceding two months was 12.09 (SD = 15.39).

**Table 9: Sexual activity**

	Experimental	Control
No sexual activity	26.4% (n = 9)	24% (n = 6)
Sex with one partner	35.3% (n = 12)	40% (n = 10)
Sex with multiple partners	38.3% (n = 13)	36% (n = 9)

Only one man reported sex with women. He had engaged in sex with three different women in the past two months. In our study sample, three men described their relationship as closed, i.e. they only have sex with their primary partner, yet they reported sex with multiple partners in the preceding two months. This contradiction indicates that their relationship was not completely monogamous.

One survey question asked where the men usually meet other men to date and/or have sex. The most common places the men in the cohort met men to date and/or have sex were bars, traveling away from home, and internet. Those men who reported "Other" specified this as "wherever there are men," "monthly potlucks," chatrooms," parking garage," and three men said "through friends." Four men marked the box "Other," and wrote that they don't date and/or meet men for sex.

**Table 10: Locations for meeting men to date and/or have sex**

	Experimental	Control
Bars	50% (n = 17)	44% (n = 11)
Gyms, coffeehouses, other businesses	32% (n = 11)	20% (n = 5)
Organizations / social clubs	32% (n = 11)	16% (n = 4)
Adult bookstores	32% (n = 11)	16% (n = 4)
Traveling away from home	29% (n = 10)	44% (n = 11)
Internet	26% (n = 9)	40% (n = 10)
Other	23% (n = 8)	12% (n = 3)
Parks, other outside locations	15% (n = 5)	16% (n = 4)
Work	9% (n = 3)	4% (n = 1)
Restrooms, highway rest stops	9% (n = 3)	8% (n = 2)
Newspaper advertisements	6% (n = 2)	4% (n = 1)

We also asked the subjects about their condom use when they traveled away from home to have sex with other men. A third of the cohort respondents did not travel away from home to have sex with other men, and another third said that traveling did not change their condom use behavior. The last third of the men in the cohort were more likely to use a condom, while three men said they were less likely to use a condom when they traveled away from home to have sex with other men.

**Table 11: Condom use when traveling**

	Experimental	Control
More likely to use a condom	30% (n = 10)	28% (n = 7)
Less likely to use a condom	3.5% (n = 1)	8% (n = 2)
Traveling does not change my behavior	36.5% (n = 12)	32% (n = 8)
I don't travel away from home to have sex with other men	30% (n = 10)	32% (n = 8)

## EXPERIMENTAL GROUP VS CONTROL GROUP BASELINE

Baseline Chi-square tests revealed no statistically significant differences between subjects in the experimental group (n = 34) and subjects in the control group (n = 25) with respect to demographics. Age, sexual orientation, relationships, size of town in

which they lived, level of education, yearly income, religious affiliation, and race / ethnicity were similar in both groups. There were no statistically significant differences between the experimental and control groups at baseline on any of the attitudes toward condoms variables (Mann Whitney U-test), or sexual relationship variables (Unpaired t-test). However, there were significant differences among several variables in the social support and social network section, self-acceptance section, and sexual behavior section. These differences are described below.

### **Statistical Differences at Baseline**

#### **1. Social support and social network variables**

At baseline the two groups were significantly different on four of the social support and social network variables. The Mann Whitney U-test ( $\alpha < .05$ ) was used for all questions, with the exception of question thirteen. The Chi-square test ( $\alpha < .05$ ) was used for this variable.

- Question 2: In the last two months, how frequently have you read gay/lesbian publications? ( $p = .023$ )
- Question 3: In the last two months, how often did you visit predominantly gay & bisexual bars, coffeehouses, or bookstores? ( $p = .032$ )
- Question 9: How often do you meet gay or bisexual men you do not already know? ( $p = .017$ )
- Question 13: other than where you live now, have you lived in a community that you felt was supportive of gay and bisexual men? ( $p = .005$ )

In the last two months, men in the experimental group read gay/lesbian publications more frequently than men in the control group, and visited predominantly gay & bisexual bars, coffeehouses, or bookstores more frequently. Compared to men in the control group, the

men in the experimental group reported more frequently meeting men they did not already know.

Additionally, Chi-square test showed there was a statistical significance between the two groups in whether they had lived in a supportive community. More experimental subjects (80%) relative to control participants (44%) reported they had lived in a community, other than where they lived now, that they felt was supportive of gay and bisexual men. The most frequently mentioned supportive communities the participants had lived in were: Seattle WA, Portland OR, Denver CO, California (San Diego, Virginia Beach, Los Angeles, Sacramento), New Mexico, and Missoula MT. Other mentioned communities were: Reno NE, Las Vegas NE, Twin Cities MN, Atlanta GA, Spokane WA, Eugene OR, Dallas TX, Huston TX, Ann Arbor MI, Capitol Hill, D.C., Lawrence KS, North East Kansas, Boston, Billings MT, Honolulu HA, Provincetown MA, New York City NY, Rochester NY, Florida, Bay Area, Colorado.

## 2. Self-acceptance variables

The control group was significantly different from the experimental group on three variables in the self-acceptance section (Mann Whitney U-test,  $\alpha < .05$ ):

- Question 17: Most of my friends are gay/bisexual men ( $p = .037$ ).
- Question 30: I worry about becoming an old gay man ( $p = .009$ ).
- Question 37: Discrimination against gay people is still common ( $p = .014$ ).

Fewer men in the control group agreed with the statement “most of my friends are gay/bisexual men,” more of them agreed that they worried about becoming an old gay

man, and more men in this group strongly agreed or agreed that discrimination against gay people was still common.

### 3. Sexual behavior

Unpaired t-test ( $\alpha < .01$ ) showed that the control participants engaged in more unprotected anal intercourse with a casual partner as compared to the experimental subjects ( $p = .004$ ).

#### **Return Rate**

Of the men who completed the baseline assessment, 87% ( $n = 59$ ) completed the posttest. The men in the experimental group who were lost to follow-up ( $n = 6$ ) were not different at the baseline assessment from those who remained in the study on any variables. At baseline the men in the control group who were lost to follow-up ( $n = 3$ ) did not differ from the men who remained in the study on any variables.



# RESULTS

## SECTION I: SENSE OF SOCIAL SUPPORT AND SOCIAL NETWORK

The social support and social network section included 13 variables designed to reveal the participants' sense of social integration in the MSM community.

### EXPERIMENTAL GROUP

The experimental group showed no statistically significant changes from the pretest to the posttest on any of the social support and social network variables.

**Table 12: Experimental group – social support and social network**

	Z	P
Question 1: What proportion of your social time is spent with men who have sex with men?	.000	1.00
Question 2: In the last two months, how frequently have you read gay/lesbian publications?	-1.225	.221
Question 3: In the last two months, how often did you visit predominantly gay / bisexual bars, coffeehouses or bookstores?	-.587	.557
Question 5: In the last two months, how often have you used internet bulletin boards to meet other men?	-.714	.475
Question 6: In the last two months, how often have you used chat rooms to meet other men?	-1.465	.143
Question 8: How often do you feel like you are the only gay or bisexual man in your community or neighborhood?	-1.262	.207
Question 9: How often do you meet gay or bisexual men you do not already know?	-.440	.660
Question 10: How easy do you find meeting gay and bisexual men where you live and whose company you enjoy?	-.421	.674
Question 11: How supportive do you feel your family is regarding your attractions to men?	-.333	.739
Question 12: How supportive are your neighbors and community's acceptance of gay and bisexual men?	-1.604	.109

## CONTROL GROUP

The control group was significantly different on one variable concerning social support and social network. At the two-month follow-up, more men in the control group reported that they sometimes or often felt like the only gay or bisexual man in their community ( $p = .022$ ).

**Table 13: Control group – social support and social network**

	Z	P
Question 1: What proportion of your social time is spent with men who have sex with men?	-.905	.366
Question 2: In the last two months, how frequently have you read gay/lesbian publications?	.000	1.00
Question 3: In the last two months, how often did you visit predominantly gay & bisexual bars, coffeehouses or bookstores?	-1.941	.052
Question 5: In the last two months, how often have you used Internet bulletin boards to meet other men?	-.988	.323
Question 6: In the last two months, how often have you used chat rooms to meet other men?	-.568	.570
Question 8: How often do you feel like you are the only gay or bisexual man in your community or neighborhood?	-2.299	.022*
Question 9: How often do you meet gay or bisexual men you do not already know?	.000	1.00
Question 10: How easy do you find meeting gay and bisexual men where you live and whose company you enjoy?	.000	1.00
Question 11: How supportive do you feel your family is regarding your attractions to men?	-.187	.852
Question 12: How supportive are your neighbors and community's acceptance of gay and bisexual men?	.000	1.00

\* Significant at .05 alpha level

## SECTION II: REACTIONS TO HOMOSEXUALITY

The self-acceptance section had 26 items, which indicated the men's sense of self-acceptance as a homosexual or bisexual man.

### EXPERIMENTAL GROUP

There were no statistically significant differences from the pretest to the posttest for the experimental group. The below table illustrates this.

**Table 14: Experimental group – self-acceptance**

Questions 14 - 39	Z	P
14. Obviously effeminate homosexuals make me feel uncomfortable	-.535	.593
15. I prefer to have anonymous sexual partners	-.500	.617
16. It would be/is harder in life to be a homosexual man	-.500	.617
17. Most of my friends are gay/bisexual men	-.535	.593
18. Making an advance to another man is difficult for me	-.943	.346
19. I am or would feel comfortable in gay bars	-.775	.439
20. Social situations with gay men make me feel uncomfortable	-1.265	.206
21. I avoid thinking about my homosexuality/bisexuality	-.243	.808
22. When I think about homosexual men, I think of negative situations	-1.069	.285
23. I feel comfortable being seen in public with an obviously gay person	-.538	.591
24. I feel comfortable discussing homosexuality in a public situation	-.535	.593
25. It is important to me to control who knows about my sexuality	.000	1.00
26. Most people have negative reactions to homosexuality	-.355	.723
27. Homosexuality is not against the will of God	-1.515	.130
28. Society still punishes people for being gay	-.922	.357
29. I object if an anti-gay joke is made in my presence	-1.291	.197
30. I worry about becoming an old gay man	-.876	.381
31. I worry about becoming unattractive	-.471	.637
32. I would prefer to be heterosexual	-1.00	.317
33. Only a few people discriminate against homosexual men	-1.767	.077
34. I feel comfortable being a homosexual/bisexual man	-.924	.356
35. Homosexuality is morally acceptable	-.243	.808
36. I am comfortable about people finding out I am gay/bisexual	-1.500	.134
37. Discrimination against gay people is still common	-1.069	.285
38. Even if I could change my sexual orientation, I wouldn't	-.759	.448
39. Homosexuality is as natural as heterosexuality	-1.500	.134

## CONTROL GROUP

There was one statistically significant difference for the control group (Mann Whitney U-test,  $\alpha < .05$ ) on the self-acceptance variables. More men in the control sample agreed or strongly agreed with statement 17: “Most of my friends are gay/bisexual men,” in the posttest relative to the pretest ( $p = .034$ ).

**Table 15: Control group – self-acceptance**

Questions 14 - 39	Z	P
14. Obviously effeminate homosexuals make me feel uncomfortable	-.632	.527
15. I prefer to have anonymous sexual partners	-.535	.593
16. It would be/is harder in life to be a homosexual man	.000	1.00
17. Most of my friends are gay/bisexual men	-2.121	.034*
18. Making an advance to another man is difficult for me	-1.069	.285
19. I am or would feel comfortable in gay bars	-.275	.783
20. Social situations with gay men make me feel uncomfortable	-.302	.763
21. I avoid thinking about my homosexuality/bisexuality	-.647	.518
22. When I think about homosexual men, I think of negative situations	.378	.705
23. I feel comfortable being seen in public with an obviously gay person	-.977	.329
24. I feel comfortable discussing homosexuality in a public situation	-1.604	.109
25. It is important to me to control who knows about my sexuality	-1.00	.317
26. Most people have negative reactions to homosexuality	-.775	.439
27. Homosexuality is not against the will of God	-1.208	.227
28. Society still punishes people for being gay	-.406	.684
29. I object if an anti-gay joke is made in my presence	.000	1.00
30. I worry about becoming an old gay man	-1.072	.284
31. I worry about becoming unattractive	-1.043	.297
32. I would prefer to be heterosexual	-.172	.863
33. Only a few people discriminate against homosexual men	-.707	.480
34. I feel comfortable being a homosexual/bisexual man	-1.027	.305
35. Homosexuality is morally acceptable	-.367	.714
36. I am comfortable about people finding out I am gay/bisexual	-1.342	.180
37. Discrimination against gay people is still common	-1.414	.157
38. Even if I could change my sexual orientation, I wouldn't	-.447	.655
39. Homosexuality is as natural as heterosexuality	-.378	.705

\* Significant at .05 alpha level

### SECTION III: ATTITUDES TOWARDS CONDOMS

The attitudes towards condoms section had five items, which asked about the men's perceptions of condoms.

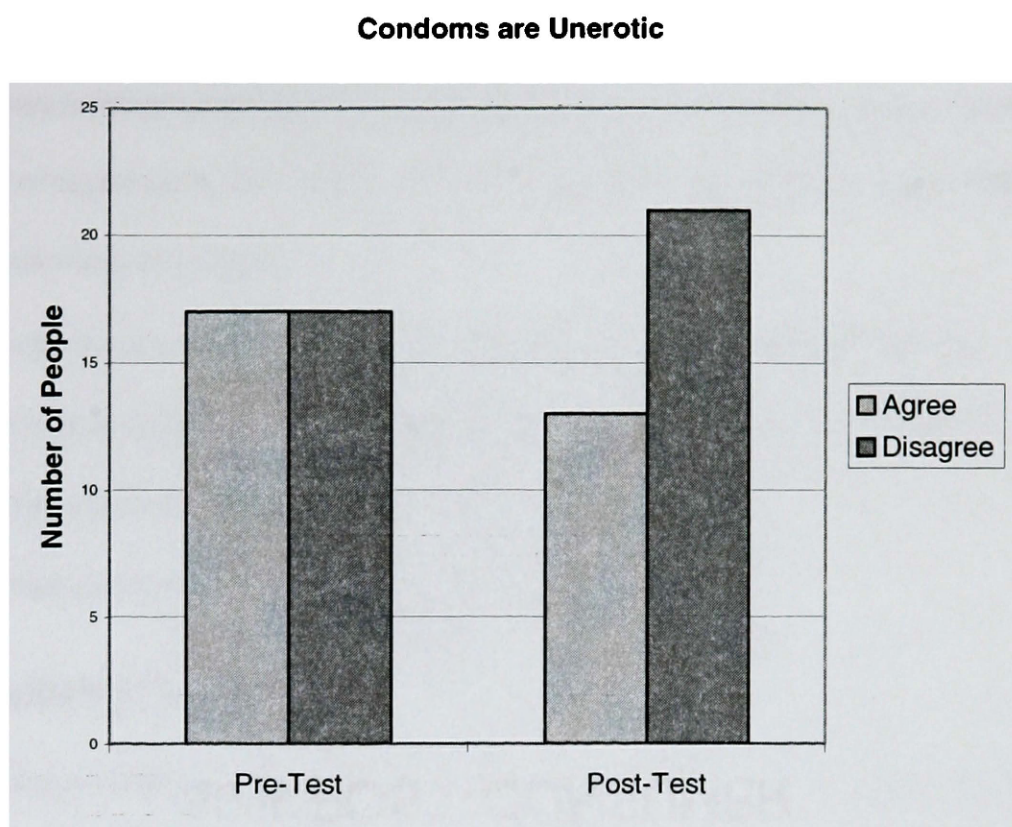
#### EXPERIMENTAL GROUP

One of the items was statistically significant within the experimental group from the pretest to the posttest regarding attitude towards condoms (Wilcoxon Signed Ranks test,  $\alpha < .05$ ). After having attended the retreat, significantly more experimental subjects disagreed with the statement that condoms are unerotic ( $p = .021$ ) (Figure 1).

**Table 16: Experimental group – attitude towards condoms**

Questions 40 - 44	Z	P
40. Condoms are unreliable	-.159	.874
41. Condoms are good protection against STIs	-1.604	.109
42. Condoms are unerotic	-2.309	.021*
43. Condoms can be fun	-.258	.796
44. I have a responsibility to use condoms during intercourse	-1.069	.285

\* Significant at .05 alpha level



**Figure 1**

## CONTROL GROUP

None of the condom attitude variables was statistically significant within the control group from the pretest to the posttest (Wilcoxon Signed Ranks test,  $\alpha < .05$ ).

**Table 17: Control group – attitude towards condoms**

Questions 40 - 44	Z	P
40. Condoms are unreliable	-.333	.739
41. Condoms are good protection against STIs	-1.127	.260
42. Condoms are unerotic	-1.613	.107
43. Condoms can be fun	-1.732	.083
44. I have a responsibility to use condoms during intercourse	-1.890	.059

## **SECTION IV: SEXUAL BEHAVIOR**

The survey instrument included ten questions about sexual behavior. Due to the low number of responses in this section, the researchers added a composite score of these sexual behaviors to include:

- unprotected sex (unprotected anal intercourse *and* unprotected oral sex)
- unprotected anal intercourse (with primary partner and/or casual partner)
- unprotected anal intercourse with primary partner
- unprotected anal intercourse with casual partner

### **EXPERIMENTAL GROUP**

There were no statistically significant differences within the experimental group from the pretest to the posttest regarding any of the variables about sexual behavior. The values for these variables are listed in the tables below.

**Table 18: Experimental group – sexual behavior**

Questions 49 – 56. In the last two months, how many times have you had...		Mean	SD	T	P
49a. insertive anal intercourse w/o a condom with your primary partner?	Pre	10.33	9.79	2.025	.113
	Post	4.71	2.75		
49b. receptive anal intercourse w/o a condom with your primary partner?	Pre	13.14	14.32	1.871	.135
	Post	6.75	9.72		
50a. insertive anal intercourse with a condom with your primary partner?	Pre	5.25	4.03	.164	.885
	Post	4.25	5.85		
50b. receptive anal intercourse with a condom with your primary partner?	Pre	8.00	2.83	+	+
	Post	13.00	0.00		
51a. insertive anal intercourse w/o a condom with someone other than your primary partner?	Pre	2.33	1.86	.378	.742
	Post	2.00	1.22		
51b. receptive anal intercourse w/o a condom with someone other than your primary partner?	Pre	1.00	0.00	+	+
	Post	1.00	0.00		
52a. insertive anal intercourse with a condom with someone other than your primary partner?	Pre	3.56	4.85	-.307	.771
	Post	1.82	1.54		
52b. receptive anal intercourse with a condom with someone other than your primary partner?	Pre	2.00	1.20	.550	.620
	Post	1.88	1.73		
53. How many times have you had oral sex when you got cum in your mouth?	Pre	3.38	2.93	-1.271	.228
	Post	5.31	5.20		
54. How many different male sexual partners have you had?	Pre	2.16	1.46	-1.632	.116
	Post	3.00	2.89		
55. How many times have you had sex (including with your primary partner and other partners; male or female)?	Pre	13.59	18.62	.502	.620
	Post	12.63	11.97		
56. How many times have you used substances during or in anticipation of sexual activity?	Pre	20.0	23.66	1.986	.087**
	Post	10.5	15.30		

Significant at .01 alpha level

\*\* Approaching significance

+ t cannot be computed because the sum of caseweights is less than or equal to 1

**Table 19: Experimental group – composite score of sexual behavior**

		Mean	SD	T	P
Unprotected sex (unprotected anal intercourse and unprotected oral sex)	Pre	12.44	17.67	1.403	.178
	Post	9.5	10.69		
Unprotected anal intercourse (with primary partner and/or casual partner)	Pre	17.56	18.06	1.954	.086**
	Post	9.11	9.48		
Unprotected anal intercourse with primary partner	Pre	24.33	18.83	2.031	.098**
	Post	12.17	10.48		
Unprotected anal intercourse with casual partner	Pre	4.00	2.00	.577	.622
	Post	3.00	1.00		

\* Significant at .01 alpha level

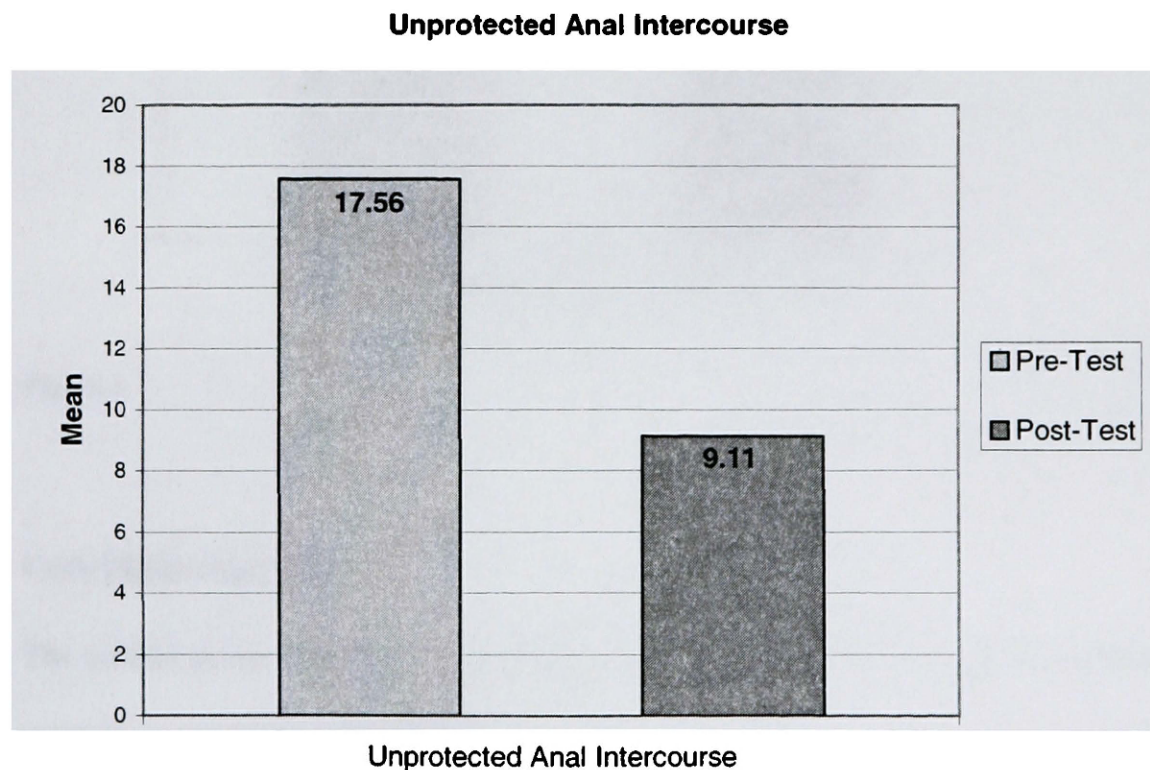
\*\* Approaching significance



## Trends Preintervention to Postintervention

### 1. Unprotected anal intercourse decreased

From preintervention to postintervention the mean frequencies for the experimental participants decreased on several variables regarding unprotected sex. No such changes were found in the control group. Although the decreases in number of times they had engaged in unprotected sex were not statistically significant (Paired t-test,  $\alpha < .01$ ), they may be meaningful. Most evident was the decrease in unprotected anal intercourse (UAI) with primary partner from a paired mean frequency of 24.33 pretest to 12.17 posttest. A similarly substantial decrease occurred on the variable combining unprotected anal intercourse with a primary partner and casual partner. The paired mean dropped from 17.56 pretest to 9.11 posttest (Figure 2).



**Figure 2**

**Table 20: Control group – sexual behavior**

Questions 49 – 56. In the last two months, how many times have you had...		Mean	SD	T	P
49a. insertive anal intercourse w/o a condom with your primary partner?	Pre	2.75	0.96	.000	1.00
	Post	3.00	2.83		
49b. receptive anal intercourse w/o a condom with your primary partner?	Pre	5.83	6.46	.962	.407
	Post	4.60	4.16		
50a. insertive anal intercourse with a condom with your primary partner?	Pre	3.33	1.53	-2.500	.242
	Post	6.25	3.86		
50b. receptive anal intercourse with a condom with your primary partner?	Pre	4.75	3.77	.087	.936
	Post	3.50	3.15		
51a. insertive anal intercourse w/o a condom with someone other than your primary partner?	Pre	2.67	1.21	-.400	.728
	Post	5.00	6.73		
51b. receptive anal intercourse w/o a condom with someone other than your primary partner?	Pre	3.83	2.14	2.33	.258
	Post	1.00	.00		
52a. insertive anal intercourse with a condom with someone other than your primary partner?	Pre	2.13	0.99	1.00	.423
	Post	2.75	2.22		
52b. receptive anal intercourse with a condom with someone other than your primary partner?	Pre	2.56	1.81	.302	.778
	Post	1.85	1.21		
53. How many times have you had oral sex when you got cum in your mouth?	Pre	7.44	6.71	.000	1.00
	Post	7.44	6.21		
54. How many different male sexual partners have you had?	Pre	2.89	2.71	-.449	.660
	Post	3.47	5.65		
55. How many times have you had sex (including with your primary partner and other partners; male or female)?	Pre	9.95	9.13	-1.180	.859
	Post	10.50	8.73		
56. How many times have you used substances during or in anticipation of sexual activity?	Pre	6.17	5.31	1.815	.129
	Post	3.17	3.06		

**Table 21: Control group – composite scores of sexual behavior**

		Mean	SD	T	P
Unprotected sex (unprotected anal intercourse and unprotected oral sex)	Pre	11.31	9.55	.813	.432
	Post	9.23	10.27		
Unprotected anal intercourse (with primary partner and/or casual partner)	Pre	7.50	5.54	1.150	.280
	Post	5.30	5.50		
Unprotected anal intercourse with primary partner	Pre	5.00	4.24	-.178	.889
	Post	6.00	7.78		
Unprotected anal intercourse with casual partner	Pre	4.83	3.06	.342	.746
	Post	3.83	5.53		

## SECTION V: HIV TRANSMISSION KNOWLEDGE

### EXPERIMENTAL GROUP

On the six HIV transmission knowledge questions, there were no statistically significant differences within the experimental group from the pretest to the posttest. A majority (84.7%) of the subjects correctly answered all six questions.

**Table 22: Experimental group – HIV transmission knowledge**

Questions 59-64	Z	P
59. HIV-positive people who take drug cocktails are less likely to infect sex partners during unsafe sex	-.649	.516
60. It is safe to have sex without a condom if the HIV+ person has an undetectable viral load	-1.633	.102
61. Anal, vaginal, and oral sex are all sexual practices that can transmit HIV	-.087	.931
62. Sharing needles can transmit HIV	.000	1.00
63. Latex condoms prevent transmission of HIV	-.333	.739
64. It is safe to kiss an HIV+ person	-.577	.564

### CONTROL GROUP

There were no statistically significant differences within the control group from the pretest to the posttest regarding HIV transmission knowledge. A majority (89.3 %) of the control group participants correctly answered all the HIV transmission questions.

**Table 23: Control group – HIV transmission knowledge**

Questions 59-64	Z	P
59. HIV-positive people who take drug cocktails are less likely to infect sex partners during unsafe sex	.000	1.00
60. It is safe to have sex without a condom if the HIV+ person has an undetectable viral load	-1.00	.317
61. Anal, vaginal, and oral sex are all sexual practices that can transmit HIV	-1.00	.317
62. Sharing needles can transmit HIV	.000	1.00
63. Latex condoms prevent transmission of HIV	-.690	.490
64. It is safe to kiss an HIV+ person	-.447	.655

## **SECTION VI: FOCUS GROUP**

We conducted one focus group to gain a more complete understanding of the men's retreat experience. Four major themes emerged: (1) personal and social growth, (2) safe sex, (3) difficulties with being gay in Montana, and (4) positives and negatives regarding the retreats. These themes are presented below.

### **THEME 1: PERSONAL AND SOCIAL GROWTH**

The focus group participants stressed personal and social development as positive outcomes of the retreats. Although these two issues overlap to some extent, we will talk about them separately and introduce personal development first. By personal growth the participants expressed a feeling of being more contented after the retreat. The following quotes represent this view:

- It was some kind of gayish, like reassurance . . . I learned that there are other men in Montana working with the same issues and the same struggles.
- To go to a place where you are not a minority, but you are a part of a group . . . that is very helpful, just knowing that it is there, is profoundly . . . profoundly effects, you know, your entire experience after leaving it.

- It is very comforting.
- I think they can be healing as well, and speaking most specifically from the viewpoint of the HIV-positive retreat. It does do a lot emotionally and physically to be able to spend a couple of days with people who are not uncomfortable with the fact that you are positive.

In terms of social growth, the participants felt that the retreat helped generate gay social support and broke down some of the 'clique structure' that isolated gay men socially.

When asked what their overall impression of the retreat was, the first response was "community building." Several responses illustrate this idea:

- It gives you a better understanding and appreciation, kind of accepting each other. Because I think a lot of times was like a lot of just homophobia that's instilled in us that you don't really understand and so, when you get to those groups it just kind of gives you a greater appreciation for one another.
- I think it is really good to be around more gay people. Personally I feel like I have met so many people from around the state that I really feel that it really helps improve community, you can go and develop meaningful relationship with people.
- It gives you a sense of connection and community statewide.
- Breaks down that sense of isolation, you are part of a larger whole.
- I finally feel like I have a connection in the state. It's like you build up community and now it is the whole state and it's like why would you go to a different place. I feel like it's, instead of alone in Montana, you know, it's out in Montana.

## **THEME 2: SAFE SEX**

Throughout the focus group conversation, the participants mentioned topics and activities related to safe sex that had worked particularly well, or that had been instructive and stimulating. It became evident that through the retreats the men expanded their

knowledge base regarding safer sex and developed a more positive attitude towards condoms:

- We also talked about the influence of alcohol, that you are less likely to care, so be aware that when you are looking for sex, maybe you shouldn't mix it with alcohol.
- With the Condom Olympics where we actually learned how to properly use a condom.
- They gave out condoms and they also like said how do you put it on, you know, and this is going to weaken the condom and this is going to help the prevention and this is a female condom.
- The reality condom, giving you information about not just using one particular kind of condom, there is different things out there that you can try.
- The facilitators really did a good job by the games that we did, making you realize that using condoms doesn't necessarily have to be a pain, they can be fun. If you make fun doing it then you, then they can be not so bad, especially if you learn how to put a condom on your partner using your mouth, that is kind of cool.

### **THEME 3: DIFFICULTIES WITH BEING GAY IN MONTANA**

The focus group respondents mentioned several difficulties they experienced as a result of being gay in Montana. Most of these concerns had been addressed at the retreats; the retreats provided a safe environment for discussing common concerns. These difficulties included: isolation, religion, stereotypes, and fear of discrimination. Statements that illustrate these concerns are presented below.

#### **Isolation**

- I think for me isolation is definitely the most difficult thing about being gay.
- I always think that if I lived in Portland then there would be more men like me.
- I find it is very hard to find other healthy gay men.

- To be dealing with being gay and having all the issues surrounding that. Not to share that with people or keep that to yourself . . .
- I feel in Montana there is not a lot to do and I feel like the majority of the men that I meet they either have a problem with alcohol and drugs or . . .

## **Religion**

- I just wish someone could find out if and where there are gay friendly churches for us to go to, because I am sure more of us would be and are willing to practice our faith in God, yet we have a problem of being accepted.
- I think it is difficult as a gay person, because even if you grew up in a religious household versus a non-religious often times you have to redefine what spirituality is to you, because a lot of religions, although they are becoming more gay friendly, they still have hang-ups that are very anti-gay often times.
- When your religion or your spirituality is supposed to give you comfort and instead of giving you comfort it causes you pain. That is a problem.

## **Stereotypes**

- We have such strong stigmas, and gender boxes on how men have to act.
- I feel like it is very prescribed about how it is you are to act if you are gay.
- I get more stereotypes from other gay people than from straight people. Gay people are telling me all the time about how I should dress, what my house should look like . . .
- The first thing gay people see is the body, they are looking at the flesh.
- Men are becoming much more, there is a standard, about...they have to be, you know, beautiful, muscles, butch, the whole.

## **Fear of discrimination**

- You can be fired for being gay in Montana.
- Fear of prosecution from your own church, fear of never having your own family, being legally married, having any of the same rights as straight people have.

- They [the men I meet] are afraid of social situations like they are not going to become a teacher because they don't know how to deal with that in their lives, you know, I feel like that there are a lot of limitations that we deal with.

#### **THEME 4: POSITIVES AND NEGATIVES**

The focus group conversation revealed that there were clear strengths as well as some weaknesses of the retreats. These strengths and weaknesses were often interchanged; the men would like to see more of the activities and topics that were successful. They particularly highlighted knowledge games, small-group structure, and certain topics as definite strengths. The men's ideas for improvement regarding the retreats centered around missing topics, structure, and effect.

##### **Strengths**

- The games that we played . . . they were really well learning tools, even though they were just games.
- And the races, that was pretty fun. I liked it. I had a great time with it.
- What was most helpful about the coming out circle was that it was a smaller group, that we'd broken off into little groups, because we had the opportunity to really become, you know, intimate on topics with each other.
- We talked about self-esteem and alcohol and I thought that project was on interesting issues. I got a lot of new ideas from the self-esteem and also from the internet, those were two workshops that brought on a lot of new ideas.
- I really liked the STD slide show that I saw at one of the retreats, because it makes me feel like I am becoming more of an expert on the area.

##### **Areas for improvement**

- There should be more discussion about monogamy, the definitions of monogamy, and the importance of monogamy.



- And the importance of living single, or polyamory, like having more than one significant partner.
- I would really have discussed more about the diseases specially Hepatitis A and B, that the shots are available . . . That is information that should have been distributed somehow.
- Change the games, there should be more games, and done in groups.
- I think we should also think about time, because sometimes I feel like, I don't know if we could handle the retreats being any longer but, sometimes I wish they were. Or more frequent.
- Having a small group . . . is empowering and is a safe space and it also gives you time to process the large group discussion, and I think that this is lacking at these retreats.
- If there were small groups and there was maybe more down-time. And maybe some other activities too, like a meditation workshop...or maybe there could be a game that was really aggressive and cardiovascular.
- I feel in some ways the retreats are kind of conforming in some ways, like everyone, like sometimes topics aren't brought up...
- A lot of things were too comfortable, it would be nice if there were a little bit more...maybe a facilitator who knew how to shake people up, make them talk.
- A complaint that I have heard . . . in the past have been they [retreats] are not advertised as well, we have hundreds and hundreds of gay people throughout the state of Montana, and how many show up to the retreats?

It becomes clear that the retreats affected the men in important ways. The retreats helped enhance a feeling of gay reassurance, establish a sense of gay community and social network throughout the state, as well as stimulate factors that support safer sexual behavior. The retreats provided an outlet for discussing difficulties connected with being gay in Montana, such as isolation and gay stereotypes. Although the focus group participants expressed an overwhelmingly positive impression of the retreats, they voiced a few suggestions for future improvement.

## CHAPTER 5: DISCUSSION

This study represents an important step in the documentation of community-based efforts to prevent HIV-infection among rural MSM. The study evaluated the efficacy of health retreats for rural MSM. For our study we had two hypotheses: We hypothesized that in a comparison of the posttest vs. the pretest the retreat participants would show significant gains in the following areas:

- a) social support and social network
- b) sense of self-acceptance
- c) attitude toward condoms
- d) unsafe sexual behavior (they will engage less in unprotected anal intercourse, they will have fewer number of sexual partners)
- e) HIV transmission knowledge

We also hypothesized that these gains would not be observed in the control group.

Our results show that the experimental group evidenced statistically significant gains in only one area. The control participants showed two significant changes. In all, there were three statistically significant changes from the pretest to the posttest:

- The retreat participants found condoms more erotic postintervention.
- The control group subjects reported an increase in their sense of feeling like the only gay or bisexual man in their community at the two-month follow up.
- More men in the control sample reported that most of their friends were gay or bisexual men at the posttest.

Since outcomes suggest evidence of little change among the intervention participants, and the control participants showed changes in two areas, the results only partially support our hypotheses.

Nevertheless, despite the fact that only one variable was statistically significant, pre post differences on several other variables indicated strong trends in the desired direction for the experimental group. In addition to a positive gain in attitude towards condoms, the experimental group demonstrated some desired changes in reactions to homosexuality and sexual behavior following the intervention. These same changes were not observed in the control group. Therefore, despite the lack of statistically significant findings, several strong trends which can be considered “practically significant” are worthy of discussion. For clarity, the findings have been divided into four sections: (1) significant effects of the intervention, (2) significant changes in the control group, (3) trends suggesting effects of the intervention, and (4) similarities and differences at baseline.

## **1. SIGNIFICANT EFFECTS OF THE INTERVENTION**

The findings suggest the retreat successfully manipulated one important variable for influencing behavior change. The intervention had a positive impact on attitude towards condoms.



### **More positive attitude towards condoms**

There was a statistically significant change from the pretest to the posttest in the intervention participants' attitude towards condoms. Specifically, they found condoms more erotic postintervention. Hence, the intervention was successful in eroticizing the use

of condoms. Statements made by the focus group participants support this finding. A positive change such as this is important since positive attitudes about condoms can be a central factor in the decision of whether or not to practice safer sex.

## **2. SIGNIFICANT CHANGES IN THE CONTROL GROUP**

Two analyses were statistically significant from the pretest to the posttest in the control group. These changes were puzzling and raised questions not easily answered.



### **Increased perception of being the only gay man in their community**

From the pretest to the posttest the control subjects' perception of being the only gay man in their community increased.



### **Increase of gay/bisexual friends**

A second, somewhat contradictory finding was that at the posttest more men from this sample reported that most of their friends were gay/bisexual. There are several plausible explanations for these findings. The difference may be due to measurement error. It might be a spurious finding. Perhaps the multiple follow-up contacts by members of the Gay Men's Task Force led control subjects to feel they had more contacts outside of their community. Lastly, their perceptions may have been mediated through some unknown variable beyond the researchers' control.

### 3. TRENDS SUGGESTING EFFECTS OF THE INTERVENTION

Several variables, although not statistically significant, indicated practical significance in terms of effects of the retreat. These effects are described below.



#### **Decrease in unprotected anal intercourse**

Participants were assessed at two time points, two months apart the data reveal that many men had modified their sexual behavior, primarily in the form of reducing the number of times they engaged in unprotected anal intercourse. Mean frequencies of UAI declined to 50% of their baseline values (from a mean of 17.56 pretest to 9.11 posttest). There was also a clear decline in overall unprotected sex and UAI with primary partner. Thus, these study participants demonstrated detectable improvements in sexual behavior, which is consistent with findings from other HIV-risk reduction interventions (Kelly et al., 1989, 1991, 1997).

Although the mean frequency of unprotected anal intercourse declined, men in this sample reported they did not use condoms consistently even after retreat participation. Consistent with previous reports (Kelly, St Lawrence, Brasfield, Stevenson et al., 1990; Kelly et al., 1992, Ekstrand, Stall, Paul, Osmond, Coates, 1999; Sondag et al., 2002), a large number of MSM still engaged in unprotected anal intercourse, the homosexual practice most likely to transmit HIV. For MSM sex to be safe, condom use must be consistent. When virus prevalence is high, participation in risky sexual acts with even a few partners presents a high probability of HIV exposure. The practice of unsafe sex among MSM in Montana could be linked to two beliefs about safer sex held by the

target population. First, MSM gatekeepers in Montana recently reported that a lot of men in the MSM community did not perform protected oral sex and that oral sex was used as a way of reducing the risk of HIV because it replaced anal sex. Secondly, a lot of men also believed Montana was a safe haven from the HIV virus (Sondag et al., 2002). As a consequence, they consider it a safe place to practice unprotected MSM sex. However, although rare, the HIV virus can be transmitted through oral sex, and MSM account for the majority of reported HIV cases in Montana.

HIV prevention programs for this population, therefore, need to continue highlighting the high risk of HIV seroconversion among men who engage in unprotected sex even at very low rates and even with MSM from Montana. Perhaps future interventions should emphasize the importance of consistency in condom use, as well as reinforce the possibility of sexual activity with several partners without sacrificing one's health. Improvement might also be found with specializing the intervention—the retreat—to each sub-population among MSM appropriate to each group. For example, the retreat organizers could specialize one retreat for MSM in monogamous relationships. The focus group participants expressed an interest in discussing monogamy. Lastly, we need to learn how to develop social networks so that there is more peer support and behavioral modeling through which supportive sexual behavior change can occur.



#### **Decrease in use of substances in anticipation of/during sex**

As with unprotected sex, the experimental group showed a marked decrease in use of substances during or in anticipation of sex (from a mean of 20.0 pretest to 10.5 posttest). This is a positive change that can have important implications for sexual risk taking. In

the context of sexual activity a reduction in the use of substances may assist MSM in making safer sex choices.

However, despite a clear decline, also after retreat participation the experimental sample reported some use of substances in sexual contexts. Several other studies have documented the strong relationship between substance use and unsafe MSM sex (Siegel et al., 1989; Strathdee et al., 1998; Kalichman, Kelly, Rompa, 1997). In all likelihood, substances help lower inhibitions so that it facilitates sexual risk-taking behavior. In fact, results from Sondag et al.'s study (2002) explain that MSM used drugs and alcohol as a means to accept themselves, escape low self-esteem issues, and forget the lack of acceptance from the community. Alcohol and drugs made it easier to meet other men and engage in sexual activities, key informants reported. This topic was also discussed in our focus group. It appears that substances lower inhibitions and increase self-esteem so that it facilitates sexual risk-taking behavior. This suggests that HIV prevention interventions must focus on enhancing self-acceptance and self-esteem, as well as discouraging recreational drug use and alcohol use, particularly in the context of sexual activity.



#### **Increase in social support and social network**

The focus group participants reported an increased feeling of social support and social network after having attended the retreat. This is a positive development, considering that social isolation has been identified as a major concern of the gay population (Bowen and Barnett (1997) as cited in Montagne, 2000; Sondag et al., 2002) and identified as a predictor for sexual risk-taking (Strathdee et al., 1998). The fact that retreats seem to lower feelings of social isolation and enhance social networks is crucial because it can assist in promoting safer sexual behavior. It seems important that HIV prevention

programs for MSM target the quality of their interpersonal relationships and community supports.

## **4. SIMILARITIES AND DIFFERENCES AT BASELINE**

Key similarities and differences between the experimental and control groups provide insight into the lack of significant findings in this study.

### **SIMILARITIES**

Although the two groups were similar in most areas at baseline, two similarities deserve particular attention.



#### **All participants have accurate HIV-transmission knowledge**

As noted above, there were no changes in the experimental subjects' HIV-transmission knowledge from the pretest to the posttest. This could be related to the fact that an overwhelming majority of men (in both samples) demonstrated accurate knowledge of the most efficient HIV-transmission routes at baseline, suggesting that factual information about HIV-transmission risk has been well disseminated among MSM in Montana. It also indicates that intervention programs that include factual HIV education should include strategies for enhancing the mechanisms through which behavior changes occur.

Interestingly, this finding stands in stark contrast to results from a previous study of MSM in Montana, which revealed that MSM gatekeepers felt there was a lack of correct information about HIV-transmission and that some men believed in false “cure” information (Sondag, et al., 2002). A second caveat involves the apparent gap between



having accurate knowledge and initiating sexual behavior change. Despite their accurate HIV-transmission knowledge, MSM still engage in unsafe sex. This finding was addressed above, and indicates that technical information appears not to be sufficient and that conditions which enhance motivation and enable adoption of behavioral change are also needed.



### **Bars are the most popular place for meeting men**

The most popular place where MSM in Montana meet men to date and/or have sex is bars. Since about half of the participants reported that they used bars as a place to meet other men, this indicates that bars could present a key opportunity for HIV intervention and outreach efforts.

## **DIFFERENCES**

The experimental participants relative to the control subjects were markedly different in several areas at baseline. A total of eight statistically significant differences existed regarding social situations, self-acceptance, and sexual behavior. These differences are described below.



### **Experimental subjects spend more time with MSM related activities**

Four variables in the social support and social network section, and three variables in the self-acceptance section were statistically different at baseline. Relative to the control subjects, more experimental subjects said they had lived in a supportive community. The experimental participants stated more often meeting gay or bisexual men they did not already know, and also more often reading gay publications. Lastly, this group more often visited predominantly gay & bisexual bars, coffeehouses, or bookstores, suggesting

that the experimental participants spend more of their social time with other MSM and MSM related activities. Additionally, the experimental subjects, more so than the control subjects, said that most of their friends were gay/bisexual men, they worried less about becoming an old gay man, and did not think that discrimination against gay people was very common. These findings could indicate that the experimental subjects were more comfortable with their homosexuality/bisexuality. Hence, it is possible that the prevention program attracted MSM whom already profited from high self-acceptance and from a well developed gay support network.



### **Control subjects engage more frequently in unprotected sex**

Relative to the experimental subjects, the control participants reported more frequent unprotected anal intercourse with a casual partner. This finding was statistically significant, and raises the possibility that MSM who engage in UAI may be part of a social network in which safer sex is yet not an accepted norm and is not behavior modeled or supported by peers. Perhaps MSM who partake in unprotected anal intercourse are less likely to attend retreats. A related study, the Mpowerment Project, found that high-risk taking men were less likely to attend small groups for HIV prevention purposes (Kegels et al, 1996). As mentioned above, it is possible that the intervention attracted a certain type of MSM. Because the control sample is less accepting of self and feels more discriminated against, they may not be comfortable attending a public Gay/Bisexual Health Retreat. It is possible, therefore, that the very men who might benefit the most from the retreats are not attending them. For future retreats, it would seem paramount to widen the avenues of recruitment such that all MSM, not simply those who already are health conscious and self-accepting, feel inclined

to participate. Limitations regarding recruitment were also voiced by the focus group participants. It is clear that we need to learn how to increase program participation by high-risk men.

## **LIMITATIONS**

It is not possible to draw a random probability sample of the MSM population. Therefore sampling bias may have occurred. Another limitation of the present study is its relatively small sample size, particularly in analyses of men who reported engaging in anal intercourse. This difficulty was encountered because of the low attendance at the three retreats evaluated and the difficulty of recruiting a large control sample of MSM from a rural area such as Montana. As a result, this study had low statistical power, which interfered with our ability to conduct sophisticated analyses, and meant that some statistical analyses showed trends or practical significance rather than statistical significance. Generalizability may also be limited to predominantly well-educated MSM who live in mid-sized towns. In addition, as in most HIV-behavior change research, this study relied on self-reported behavior. Reports of privately occurring activities may be susceptible to recall inaccuracy and depends on the honesty and willingness of the participants to share private information in an anonymous survey. The reliability and validity of such self-report answers are therefore uncertain.

Another limitation may be the internal validity of the instrument. Unfortunately, we were only able to test the instrument for face and content validity. Therefore, whether the instrument accurately measured what it was intended to measure cannot be established with certainty. The men were only assessed at two points in time, therefore it

was difficult to draw conclusions regarding possible long-term adaptations of safer sexual practices. The intervention might also not have been strong enough to motivate behavior change. Interventions that have demonstrated detectable improvements in sexual behavior have typically been multi-session interventions in which factors that promote safer sex and actual sexual behavior changes were developed over time. Most existing theories of behavior change say very little about how long it takes for behavior change to occur, offering researchers little guide to the timing of appropriate measurement intervals (Miller, 1995).

## **CONCLUSION**

Findings from this study suggest that a community-based intervention of retreats does not significantly enhance factors that theoretically support maintenance of safer sexual behaviors.

In this study, intervention participants attended a weekend retreat and control subjects received no intervention. All participants completed a pretest and a posttest, which provided detailed information on their sexual behavior practices over the preceding two months and assessed their social networks, condom attitude, self-acceptance, and HIV transmission knowledge. Outcome results suggest that the intervention affected participants' self-acceptance, attitudes, and sexual behavior only to a limited degree. However, while not statistically significant, strong trends indicate that the intervention participants showed a reduction in activities associated with HIV transmission, including lower rates of UAI and use of substances during or in anticipation of sex. It is important to consider the mechanisms through which this intervention

attempted behavior changes. In order to change sexual behavior to favor increased safer sexual behavior, the retreats attempted to strengthen participants' 1) sense of social support, 2) self-acceptance, 3) attitudes, beliefs, and self-efficacy concerning safe sex. The intervention's overall objective was to promote factors that support safer sexual behaviors among MSM.

Results of the current outcome evaluation underscore the importance of evaluating HIV prevention programs for rural MSM. Programs developed by community-based groups deserve close scrutiny; such interventions are often able to reach their target populations in a positive way. They are often creative reflections of the specific culture and perceptions of the target populations. A clearer understanding of community-based HIV-prevention programs has the potential to greatly enhance our ability to respond effectively to the threat of HIV. To reduce HIV transmission, it is necessary to go beyond traditional health education. Retreats suggest a community-level approach to behavior change that presents a positive approach to HIV prevention, however, their effectiveness is uncertain.

Although Gay Men's Health Retreats appear to be a promising HIV prevention strategy for MSM, many MSM displayed few short-term changes in factors which influence sexual behavior. This may be due, in part, to the selection bias of participants. In this study, men were assessed only at two points in time. The planned one-year follow-up will allow an investigation of whether the observed changes were maintained and whether long-term changes surfaced. Additional research is needed to determine how to promote behavior change through psychosocial support factors.

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## **APPENDIX A**

University of Montana Institutional Review Board Application and Approval

## **1. PURPOSE OF THE RESEARCH PROJECT**

### **Introduction**

AIDS is the most serious infectious disease epidemic our society has been faced with, and while infections occur among people of all sexual orientations, Men Who Have Sex With Men (MSM) constitute a large percentage of North Americans who become infected with HIV. In Montana, 73% of HIV infections occur among MSM. Efforts to develop effective preventive interventions to assist MSM adopt risk-reduction behaviors are therefore needed. Retreats have been used as HIV prevention strategies for several years in Montana, yet have never been evaluated. In order to fully understand how we can best assist MSM to maintain safer sexual practices we must evaluate such intervention programs to see if they meet their objectives.

### **Purpose**

The purpose of this study is to determine whether retreats are an effective intervention to successfully enhance factors that support safer sexual behaviors among MSM in Montana. The effectiveness of retreats for MSM will be assessed through pre- and post surveys completed by retreat participants and a control group. In addition, a focus group meeting of participants will be conducted to gather qualitative data on their retreat experience. We believe MSM who participate in retreats may have an increase in feelings of social support and become more comfortable with their sexual orientation, thereby feeling more secure in negotiating safer sex practices, in turn ultimately reducing their vulnerability to HIV, as well as other sexually transmitted diseases (STDs).

## **2. THE SUBJECTS**

The human subjects are Men Who Have Sex With Men (MSM), over the age of 18, who participate in retreats in Montana. The members of this population are not considered physically vulnerable, but there is some concern over their psychological and social vulnerability due to the stigma attached to their sexual orientation.

## **3. RECRUITING SUBJECTS**

### **Sampling of retreat participants (experimental group)**

The retreats are organized by the Montana Gay Men's Task Force (GMTF). GMTF will conduct three retreats in 2002; one in August, one in October, and one in November. The organization will announce the retreats through several sources: newsletters of gay organizations, paper fliers, internet fliers, announcements at gay functions, and through referrals and word of mouth. Men who are interested in participating will contact GMTF. At the retreat, the retreat facilitator will provide a thorough description of the risks and benefits of participation in the study and ask for study volunteers.

### **Sampling of non-retreat participants (control group)**

Usually, among those who sign up to participate in the retreats there is a significant number of men who do not show up, and subsequently do not participate. GMTF will contact those absentees by mail and ask them to volunteer for the study. A written

description of the study and a list of potential risks and benefits will be provided. A small monetary incentive will be offered for participation. In the unlikely event that we are unable to get enough volunteers through this approach, we will attempt to get volunteers from a different source. The co-chair of the Gay and Lesbian Community Center in Missoula has agreed to ask for volunteers from gay and bisexual men who are members of the Western Montana Gay and Lesbian Community Center (WMGLCC). Individuals who volunteer at this location will be given a verbal description of the study and a list of potential risks and benefits. A small monetary incentive will be offered for participation.

### **Sampling of focus group participants**

At the retreats, the facilitator will ask for volunteers to sign up for focus group participation. This focus group will meet after the data from the retreats has been collected (December 2002). Once a specific date and private location have been set for the meeting, GMTF will contact the volunteers.

## **4. WHERE THE STUDY WILL TAKE PLACE**

The research will be undertaken summer and fall 2002 in Montana. We will collect data from three retreats offered at different locations throughout Montana. Location will be decided by GMTF. The focus group will meet at a private place convenient for the participants.

## **5. ACTIVITIES THE SUBJECTS WILL PERFORM**

We will collect information from the experimental group (retreat participants) prior to and two months after participation in the retreat, and from the control group (non-retreat participants) at baseline level and at a two month follow up. We will also conduct a focus group of men who participated in the retreat in order to gather qualitative information regarding the effectiveness of the retreats.

### **Experimental group**

Individuals from the MSM population will be invited to participate in a weekend retreat organized by GMTF and led by experienced retreat organizers. This retreat will include activities such as sexual health education, behavioral modeling, and group discussions. Men who participate in the retreat will be asked to participate in the study. Study volunteers will be asked to read and sign an informed consent form (please see attached form). Individuals who volunteer to be in the study will fill out a survey before the retreat starts, and complete a follow up survey, which GMTF will mail to each volunteer two months later. A small monetary incentive will be included in the follow up. The survey measures social support, self-acceptance, attitude towards condoms, sexual behavior and relationships, and HIV transmission knowledge (please see the attached survey questions).

### **Control group**

Individuals who voluntarily contact GMTF, but choose not to participate in the retreat, will be asked, in a letter from the GMTF, to participate in the study. Included with the letter will be an explanation of the study, the informed consent form, and the survey. Those who wish to participate will be asked to read and sign the informed consent form

and to complete the survey. To protect confidentiality participants will be provided with two self-addressed stamped envelopes and asked to return the informed consent form and the survey in separate envelopes. Two months later GMTF will mail each volunteer and ask the volunteer to complete a follow up survey. A small monetary incentive will be included in both survey mailings. These volunteers will not receive any activities between the pre-test and the post-test. However, these volunteers will be, again, invited to participate in future retreats.

### **Focus group**

Retreat participants will be asked to volunteer as focus group participants. Individuals who volunteer to be in a focus group will attend one meeting. At the beginning of the meeting, the participants will be asked to read and sign a confidentiality statement and informed consent form (please see attached forms). The facilitator will ask them to freely express and expand on their retreat experience (please see attached focus group questions). The focus group meeting will be audio taped and then transcribed. After transcribing, the tapes will be erased to protect the anonymity of the volunteers.

## **6. BENEFITS OF THE RESEARCH**

The Montana Department of Public Health and Human Services (DPHHS) will use the information from this study to plan future HIV intervention programs for MSM in Montana. This study will provide the DPHHS and GMTF, as well as other health organizations with valuable insight concerning retreat as an HIV prevention tool. Retreats as interventions to prevent HIV infection at a community level have the potential to reach large numbers of people in a cost-effective way and to lower rates of future HIV infections. If retreats prove to help individuals change their sexual behavior and help them maintain changes, this intervention can easily be replicated in other states and implemented as a useful tool to reduce the spread of HIV infection among MSM.

## **7. RISKS AND DISCOMFORTS**

- The participants will be asked to disclose information about their sexual orientation and behaviors. Disclosing this information may be uncomfortable for the participants.
- Participation may raise concerns or questions regarding sexual orientation and related issues.
- The volunteers will be asked to place unique identifiers on each survey for purposes of matching pre- and post-surveys and follow up.

## **8. MEANS TO MINIMIZE EACH SUCH DELETERIOUS EFFECT**

- Participants will receive an oral and/or written explanation of the content of the survey before they are asked to volunteer for the study. It will be explained that participation is voluntary. If the content makes any participant uncomfortable, he may choose to withdraw from the study or leave questions unanswered. Participants will be informed of this before answering the survey questions, both by the retreat facilitator and the survey's written instructions.
- Volunteers will be explained that participation in the retreat does not require them to participate in the study.



- Volunteers will be asked not to discuss any questions with the other participants in order to protect their confidentiality.
- Volunteers will be asked not to put their name anywhere on the form.
- Participants' names will not be linked to the data or results of this study. All data gathered will be looked at as collective data, not individual.
- A list of state Gay/Bisexual organizations and HIV prevention organizations are compiled for participants to use as a resource if they have any questions concerning sexual orientation and behavior. The list will be attached to the consent form given to the each participant (please see attached list).

## **9. PROTECTION OF THE SUBJECT'S PERSONAL PRIVACY**

Keeping all information confidential protects participants' privacy. Individuals who participate in the survey and the focus group will be asked to read and sign a consent form. No names will appear on the surveys. The volunteers will be asked to place a unique identifier on the pre- and post-test so that subjects' responses can be matched and compared pre and post. Volunteers who mail the survey and consent form back to us will be asked to use two separate self-addressed stamped envelopes that will be provided. Consent forms will be stored in a separate location from the data, and will be kept in a locked filing cabinet in the Thesis Chair's office, while data will be kept in the graduate research assistant's office, in a locked filing cabinet. Focus group participants will in addition be asked to sign a confidentiality form stating that they will not disclose the names or any other identifying information about focus group members outside of the group. After transcribing, the audiotapes from the focus group meeting will be erased to protect the anonymity of the volunteers. Names of participants and identifying information will not be associated with the data or with any of the project reports. Maintaining confidentiality reduces the greatest risk to the individual, which is the association of their name with a sexual orientation.

## **10. WRITTEN CONSENT FORM AND PARTICIPANT INFORMATION SHEETS**

See attached subject information and informed consent form.

## **11. WAIVER OF WRITTEN INFORMED CONSENT**

Not applicable.

- Volunteers will be asked not to discuss any questions with the other participants in order to protect their confidentiality.
- Volunteers will be asked not to put their name anywhere on the form.
- Participants' names will not be linked to the data or results of this study. All data gathered will be looked at as collective data, not individual.
- A list of state Gay/Bisexual organizations and HIV prevention organizations are compiled for participants to use as a resource if they have any questions concerning sexual orientation and behavior. The list will be attached to the consent form given to the each participant (please see attached list).

## **9. PROTECTION OF THE SUBJECT'S PERSONAL PRIVACY**

Keeping all information confidential protects participants' privacy. Individuals who participate in the survey and the focus group will be asked to read and sign a consent form. No names will appear on the surveys. The volunteers will be asked to place a unique identifier on the pre- and post-test so that subjects' responses can be matched and compared pre and post. Volunteers who mail the survey and consent form back to us will be asked to use two separate self-addressed stamped envelopes that will be provided. Consent forms will be stored in a separate location from the data, and will be kept in a locked filing cabinet in the Thesis Chair's office, while data will be kept in the graduate research assistant's office, in a locked filing cabinet. Focus group participants will in addition be asked to sign a confidentiality form stating that they will not disclose the names or any other identifying information about focus group members outside of the group. After transcribing, the audiotapes from the focus group meeting will be erased to protect the anonymity of the volunteers. Names of participants and identifying information will not be associated with the data or with any of the project reports. Maintaining confidentiality reduces the greatest risk to the individual, which is the association of their name with a sexual orientation.

## **10. WRITTEN CONSENT FORM AND PARTICIPANT INFORMATION SHEETS**

See attached subject information and informed consent form.

## **11. WAIVER OF WRITTEN INFORMED CONSENT**

Not applicable.

#69-02



The University of  
**Montana**

Office of the Vice President  
Research and Development  
University Hall 116  
(406) 243-6670  
(406) 243-6330 Fax

**Date: May 17, 2002**

**To: Dr. K. Ann Sondag, HHP**

**From: J. A. Rudbach, IRB Chair**

**RE: UM IRB approval of your proposal titled "An Outcome Evaluation of Gay Men's Health Retreats."**

---

The modified checklist and Procedures, along with the enclosed modified Informed Consent Forms (ICFs), address the conditions that the IRB placed on approval of the proposal cited above. Please use the "signed and dated" ICFs as "masters" for preparing copies for your study. Approval for this study is granted as of the date of this memo and continues for one year after the date of the Conditional Approval; if the study runs more than one year a continuation must be requested. Also, you are required to notify the IRB if there are any significant changes in the study or if unanticipated or adverse events occur during the study. Finally, when you terminate the study, please notify our office in writing so that we can close the file.

Jon A. Rudbach

attachments

For Internal  
Use Only

The University of Montana #69-02  
**INSTITUTIONAL REVIEW BOARD (IRB)**  
**CHECKLIST**

**RECEIVED**  
(10/1/00)

MAY 14 2002

UNIVERSITY OF MONTANA  
VICE PRESIDENT FOR RESEARCH

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: K. Ann Sanders Dept.: HHP Phone: 5215

Signature: [Signature] Date: 05-13-02

Co-Director(s): RINO B. CARNEIRO Dept.: HHP Phone: 4291  
David Herrera Director Flaviana Gay Man's Task Force: 829

Project Title: An Outcome Evaluation of Gay Men's Health Retreats

Project Description: The purpose of this project is to determine whether Gay Men's Health (in nontechnical language) Retreats are effective in reducing behaviors that put HIV at risk for contracting HIV

All investigators on this project must complete the NIH self-study course on protection of human research subjects. Certification:  
 I/We have completed the course - (Use additional page if necessary)

Signature	Date	Signature	Date
<u>[Signature]</u>	<u>05-13-02</u>	_____	_____
<u>David Herrera</u>	<u>05-13-02</u>	_____	_____
_____	<u>05-14-02</u>	_____	_____

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:**

\_\_\_\_ Approved Exemption 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: [Signature] Date: May 9, 2002  
 (over)

## **APPENDIX B**

Gay Men's Health Retreat Survey 2002

# GAY/BISexual MEN'S HEALTH RETREAT SURVEY

Code No.2002-\_\_\_\_-\_\_\_\_\_

Dear participant,

Thank you for taking the time to participate in this survey. This survey asks about attitudes, behaviors, and beliefs relevant to men who have sex with men, or are attracted to other men. The results will be used to help us refine future health retreats for gay/bisexual men and assess the outcome of retreat participation. The Montana Department of Public Health and Human Services (DPHHS) is also interested in using the results in their HIV prevention work. Most importantly, by participating in the study you can assist other gay/bisexual men have a positive experience at retreats.

**Instructions:**

Please answer the questions in the order in which they appear on the survey. Please give your first response and don't spend too much time on any question. Your participation is entirely voluntary. If you feel uncomfortable answering a question, just leave it blank. However, the more fully and honestly you do answer, the more help your survey is to us. This is a completely confidential and anonymous survey: Do not put your name anywhere on these forms. However, please place the three last letters of your mother's maiden name and the four last digits of your social security number on the survey (top right corner). We ask that you do not discuss any questions with the other participants. If you have any questions, please ask one of the facilitators, they will be happy to help you.

Only the researchers from the Health and Human Performance Department at the University of Montana conducting this study will have access to this data. No personal information will be disclosed or appear in any report. For the purpose of mailing follow-up surveys, your answer will be tracked by code number. When the data have been fully analyzed, a summary of the results will be available for you to read through the HHP department at the University of Montana. Should you have any questions or concerns, please ask the person handing out the survey or contact one of the researchers.

We want to thank you again for taking the time to participate in this study, which is funded by a grant from Montana DPHHS. Your participation is greatly appreciated and valued.

Sincerely,

David Herrera, Director  
Montana Gay Men's Task Force

Rimo Berg Carneiro, Researcher  
University of Montana

<b>EXPLANATION OF TERMS</b>
-----------------------------

Heterosexual/straight:	sexual attraction to the opposite sex
Homosexual/gay:	sexual attraction to the same sex
Bisexual:	sexual attraction to both sexes
Sex:	any sexual contact including mutual masturbation, vaginal intercourse, anal intercourse, or oral sex
Primary partner:	a person with whom you are in a significant long-term relationship, such as husband, wife, significant other

<b>SOCIAL SITUATIONS</b>
--------------------------

Please indicate your response to each question by circling a number on the scale.

1. What proportion of your *social* time is spent with men who have sex with men?

1	2	3	4
None	Some	Most	All the time

2. In the last two months, how frequently have you read gay/lesbian publications (such as Out, Gay Times, Hero, the Advocate, Gay Novels, etc.)?

1	2	3	4	5
Never	Once a month or less	2–3 times a month	Once a week	More than once a week

3. In the last two months, how often did you visit predominantly gay & bisexual bars, coffeehouses, or bookstores?

1	2	3	4	5
Never	Once a month or less	2 – 3 times a month	Once a week	More than once a week

4. Have you ever attended a pride festival (festival celebrating gay and lesbian community)?

☐ Yes      ☐ No

5. In the last two months, how often have you used internet bulletin boards to meet other men?

1	2	3	4	5
Never	Once a month or less	2 – 3 times a month	Once a week	More than once a week

6. In the last two months, how often have you used chat rooms to meet other men?

1	2	3	4	5
Never	Once a month or less	2 – 3 times a month	Once a week	More than once a week

7. Why do you think other men use chat rooms? (Please check all that apply)

- ☐ To get information
- ☐ To chat with other men
- ☐ To make friends
- ☐ To meet men for sex
- ☐ To find a long term partner

8. How often do you feel like you are the only gay or bisexual man in your community or neighborhood?

1	2	3	4
Never	Rarely	Sometimes	Often

9. How often do you meet gay or bisexual men you do not already know?

1	2	3	4
Never	Rarely	Sometimes	Often

10. How easy do you find meeting gay and bisexual men where you live and whose company you enjoy?

1	2	3	4
Very difficult	Somewhat difficult	Somewhat easy	Very easy

11. How supportive do you feel your family (parents and/or siblings) is regarding your attractions to men?

1	2	3	4
Not at all supportive	Not very supportive	Somewhat supportive	Very much supportive

☐ Not applicable, no family living

12. How supportive are your neighbors and community's acceptance of gay or bisexual men?

1	2	3	4
Not at all supportive	Not very supportive	Somewhat supportive	Very much supportive

13. Other than where you live now, have you lived in a community that you felt was supportive of gay and bisexual men?

☐ No      ☐ Yes      If yes, where? \_\_\_\_\_



### REACTIONS TO HOMOSEXUALITY

Please fill out this scale by circling the number which best describes your response to the statement below. Please give your first response and don't spend too much time on any one item.

	Strongly disagree	Disagree	Agree	Strongly agree
14. Obviously effeminate homosexuals make me feel uncomfortable	1	2	3	4
15. I prefer to have anonymous sexual partners	1	2	3	4
16. It would be/is harder in life to be a homosexual man	1	2	3	4
17. Most of my friends are gay/bisexual men	1	2	3	4
18. Making an advance to another man is difficult for me	1	2	3	4
19. I am or would feel comfortable in gay bar	1	2	3	4
20. Social situations with gay men make me feel uncomfortable	1	2	3	4
21. I avoid thinking about my homosexuality	1	2	3	4
22. When I think about homosexual men, I think of negative situations	1	2	3	4
23. I feel comfortable being seen in public with an obviously gay person	1	2	3	4
24. I feel comfortable discussing homosexuality in a public situation	1	2	3	4
25. It is important to me to control who knows about my sexuality	1	2	3	4
26. Most people have negative reactions to homosexuality	1	2	3	4
27. Homosexuality is not against the will of God	1	2	3	4
28. Society still punishes people for being gay	1	2	3	4
29. I object if an anti-gay joke is made in my presence	1	2	3	4
30. I worry about becoming an old gay man	1	2	3	4
31. I worry about becoming unattractive	1	2	3	4
32. I would prefer to be heterosexual	1	2	3	4
33. Only a few people discriminate against homosexual men	1	2	3	4
34. I feel comfortable being a homosexual/bisexual man	1	2	3	4
35. Homosexuality is morally acceptable	1	2	3	4
36. I am comfortable about people finding out I am gay	1	2	3	4
37. Discrimination against gay people is still common	1	2	3	4
38. Even if I could change my sexual orientation, I wouldn't	1	2	3	4
39. Homosexuality is as natural as heterosexuality	1	2	3	4

### ATTITUDES TOWARD CONDOMS

	Strongly disagree	Disagree	Agree	Strongly agree
40. Condoms are unreliable	1	2	3	4
41. Condoms are good protection against STDs	1	2	3	4
42. Condoms are unerotic (not sexy)	1	2	3	4
43. Condoms can be fun	1	2	3	4
44. I have a responsibility to use condoms during intercourse	1	2	3	4

### SEXUAL BEHAVIOR & RELATIONSHIPS

Please check the box corresponding to your response

45. Do you consider yourself in a primary sexual relationship?

☐ Yes    ☐ Unsure/dating (Please skip to question 51)    ☐ No (Please skip to question 51)

46. If yes, is your partner:

☐ Male    ☐ Female    ☐ Other (Please specify) \_\_\_\_\_

47. How long have you been in this relationship?  
 \_\_\_ Years     \_\_\_ Months (Please write in number of months or years)
48. Which of the following best describes your relationship?  
☐ Open (we can both see other partners for sex)  
☐ Closed (we only have sex with each other)  
☐ Other (please specify)\_\_\_\_\_
49. In the last two months, how many times have you had anal intercourse **without a condom** *with your primary partner* where you were  
A. on top?     \_\_\_ (Please write in number of times)  
B. on bottom?     \_\_\_ (Please write in number of times)
50. In the last two months, how many times have you had anal intercourse **with a condom** *with your primary partner* where you were  
A. on top ?     \_\_\_ (Please write in number of times)  
B. on bottom?     \_\_\_ (Please write in number of times)
51. In the last two months, how many times have you had anal intercourse **without a condom** *with someone other than your primary partner* where you were  
A. on top?     \_\_\_ (Please write in number of times)  
B. on bottom?     \_\_\_ (Please write in number of times)
52. In the last two months, how many times have you had anal intercourse **with a condom** *with someone other than your primary partner* where you were  
A. on bottom?     \_\_\_ (Please write in number of times)  
B. on top?     \_\_\_ (Please write in number of times)
53. In the last two months, how many times have you had oral sex when you got cum in your mouth?  
 \_\_\_ (Please write in number of times)
54. In the last two months, how many different sexual partners have you had? (Including your primary partner) Please write in number (If 0, mark 0).  
 \_\_\_ Female sexual partners  
 \_\_\_ Male sexual partners
55. Think back over the last two months, how many times have you had sex (including with your primary partner *and* other partners; male *or* female)?  
 \_\_\_ (Please write in number of times)
56. In the last two months, how many times have you used substances (including alcohol, marijuana, cocaine, inhalants, stimulants, hallucinogens, tranquilizers, and opiates) during sex or in anticipation of sexual activity?  
 \_\_\_ (Please write in number of times)

57. Where do you usually meet men to date and/or have sex? (Please check all that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> Bars                                 | <input type="checkbox"/> Adult bookstores                      |
| <input type="checkbox"/> Work                                 | <input type="checkbox"/> Restrooms, highway rest stops         |
| <input type="checkbox"/> Internet                             | <input type="checkbox"/> Parks, other outside public locations |
| <input type="checkbox"/> Newspaper advertisements             | <input type="checkbox"/> When traveling away from home         |
| <input type="checkbox"/> Organizations/social clubs           | <input type="checkbox"/> Other (please specify)_____           |
| <input type="checkbox"/> Gyms, coffeehouses, other businesses |  |

58. When you travel away from home to have sex with other men, are you

- ☐ more likely to use a condom?  
☐ less likely to use a condom?  
☐ traveling does not change my behavior  
☐ I don't travel away from home to have sex with other men

### OPINIONS ABOUT HIV TRANSMISSION

The next set of statements asks you about your opinions about HIV transmission. Please indicate how much you agree or disagree with each of them by circling your answer.

	Disagree	Agree	Unsure
59. HIV-positive people who take drug cocktails are less likely to infect sex partners during unsafe sex	1	2	3
60. It is safe to have sex without a condom if the HIV+ person has an undetectable viral load	1	2	3
61. Anal, vaginal, and oral sex are all sexual practices that can transmit HIV	1	2	3
62. Sharing needles can transmit HIV	1	2	3
63. Latex condoms prevent transmission of HIV	1	2	3
64. It is safe to kiss an HIV+ person	1	2	3

### DEMOGRAPHICS

65. Age: \_\_\_\_ years

66. Biological sex (sex at birth):

- ☐ Male      ☐ Female      ☐ Other (please specify)\_\_\_\_\_

67. What is your sexual orientation?

- ☐ Homosexual/gay      ☐ Heterosexual/Straight  
☐ Bisexual      ☐ Unsure

68. How many people live in the town you live in?

- |   |  |
|---|--|
| <input type="checkbox"/> I don't live within a town | <input type="checkbox"/> 10,000 – 19,999   |
| <input type="checkbox"/> Less than 2,500            | <input type="checkbox"/> 20,000 – 49,999   |
| <input type="checkbox"/> 2,500 – 4,999              | <input type="checkbox"/> 50,000 – 100,000  |
| <input type="checkbox"/> 5,000 – 9,999              | <input type="checkbox"/> More than 100,000 |

69. What is the highest level of education you have completed?

- |   |   |
|---|---|
| <input type="checkbox"/> Less than high-school    | <input type="checkbox"/> Some college                 |
| <input type="checkbox"/> High School Graduate/GED | <input type="checkbox"/> College Graduate             |
| <input type="checkbox"/> Trade Vocational School  | <input type="checkbox"/> Graduate/Professional School |

70. Which of the following categories contains your individual yearly income (the amount you would claim on your income tax forms)?

- |   |  |
|---|--|
| <input type="checkbox"/> 100,000+         | <input type="checkbox"/> 20,001 – 35,000 |
| <input type="checkbox"/> 75,000 – 100,000 | <input type="checkbox"/> 10,001 – 20,000 |
| <input type="checkbox"/> 50,001 – 75,000  | <input type="checkbox"/> 6,000 – 10,000  |
| <input type="checkbox"/> 35,000 – 50,000  | <input type="checkbox"/> <6,000          |

71. Current primary religious affiliation:

- |   |   |
|---|---|
| <input type="checkbox"/> Roman Catholic   | <input type="checkbox"/> "Christian," not attending any particular church |
| <input type="checkbox"/> Lutheran         | <input type="checkbox"/> Atheist (there is no God)                        |
| <input type="checkbox"/> Other Protestant | <input type="checkbox"/> Agnostic (not sure if there is a God)            |
| <input type="checkbox"/> Jewish           | <input type="checkbox"/> Other (please specify) _____                     |

72. Which of the following do you identify yourself?

- ☐ White (non-Hispanic)
- ☐ American Indian/Alaska Native
- ☐ Black/African American (non-Hispanic)
- ☐ Hispanic/Latino/Chicano
- ☐ Asian/Pacific American
- ☐ Bi-racial or multi-racial/ethnic (please specify) \_\_\_\_\_
- ☐ Other (please specify) \_\_\_\_\_

*Thank you very much for taking the time to complete this survey!*

## **APPENDIX C**

### **Informed Consent Forms**

## **SUBJECT INFORMATION AND INFORMED CONSENT FORM**

### **For survey participants**

**Title:** Gay/Bisexual Men's Health Retreat

**Survey Protocol no.:** M27362. Funding for this project has been provided by the Montana Department of Public Health and Human Services.

**Contact Persons:** Annie Sondag, 406-243-5215, Health and Human Performance, University of Montana, McGill Hall, Missoula, MT 59812; Rimo Carneiro, 406-243-4291, Health and Human Performance, University of Montana, McGill Hall, Missoula, MT 59812; David Herrera, FDH & Associates, 406-829-8075, 127 North Higgins, Ste. 205, Missoula, MT 59802.

#### **Purpose**

The purpose of this study is to determine whether retreats are effective in successfully enhancing factors that support safer sexual behaviors among Men Who Have Sex With Men (MSM) in Montana. The results will be used to help us refine future health retreats for gay/bisexual men and assess the outcome of retreat participation. The Montana Public Health and Human Services (DPHHS) is also interested in using the results from this study in their HIV intervention work. Most importantly, by participating in the study you will help provide valuable information, which can be used to plan programs and retreats designed to prevent the spread of HIV/AIDS throughout Montana.

#### **Procedure**

Participation in this study is voluntary. If you agree to take part in this research study you will be asked to fill out two surveys, two months apart. We ask that you do not put your name on the survey. However, please place the three last letters of your mother's maiden name and the four last digits of your social security number on the survey in order for us to match and compare survey responses pre and post. This survey asks about attitudes, behaviors, and beliefs relevant to men who have sex with men, or are attracted to other men. The survey will take about 10 minutes to complete. All consent forms will be stored in a separate location from the data, and will be kept in a locked filing cabinet in the project director's office, while data will be kept in the project assistant's office, in a locked filing cabinet. In no way will the researchers link your identity with the survey.

#### **Risks/discomforts**

- You may find some of the questions very personal and they may make you uncomfortable.
- You may be concerned about your privacy and confidentiality. Although your names will not be associated with the information collected for this project or with any reports, you may have concerns that your identity as a participant in this study will become known.

#### **Methods for reducing risk**

- You can withdraw from the project at any time if you feel personal discomfort. If you feel uncomfortable answering a question, you can leave it blank.
- You will receive a list of available resources if you would like more information or someone to talk to following participation in this study.

- Your name and identity will not be associated with the data or with any of the project reports.

### **Benefits**

Your help with this project will provide valuable information to DPHHS. By participating in this project, your answers will help staff offer services and develop programs to meet the needs of MSM living in Montana.

### **Confidentiality**

All of the information we collect here today is completely confidential. We will not identify any of the participants. For example, we will not use your name, or any other identifying information in reports or other materials related to this study.

1. Participants' identities will remain confidential and will not be associated with information in any way.
2. At the conclusion of the study, any information pertaining to participants' identities will be destroyed.
3. Data will be stored in a locked filing cabinet in the researcher's locked office at the University of Montana.
4. All data will be reported as group data: no individual data will be reported.

### **Compensation for injury**

Although we do not foresee any risk in taking part in this study, the following liability statement is required in all University of Montana consent forms:

"In the event that you are injured as a result of this research you should individually seek appropriate medical treatment. If the injury is caused by the negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant the Comprehensive State Insurance Plan established by the department of Administration under the authority of MCA, Title 2, Chapter 9. In the event of a claim of such injury, further information may be obtained from the University's claims Representative or University Legal Counsel."

### **Voluntary participation/withdrawal**

Your decision to take part in this project is entirely voluntary. You may withdraw from this project for any reasons and at any time.

### **Questions**

If you have any questions about this project now or later, you may contact Annie Sondag: 406-243-5215, Rimo Carneiro: 406-243-4291, David Herrera: 406-829-8075.

I have read the above description of this project. I have been informed of the risks and benefits involved, and all of my questions have been answered to my satisfaction. Furthermore, I have been assured that any future questions I may have will be answered by a member of the project team. I voluntarily agree to take part in this project. I am at least 18 years of age. I understand that I will receive a copy of this consent form.

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

*Thank you very much for your participation!*

## **SUBJECT INFORMATION AND INFORMED CONSENT FORM**

### **For focus group participants**

**Title:** Gay/Bisexual Men's Health Retreat Survey

**Protocol no.:** M27362 Funding for this project has been provided by the Montana Department of Public Health and Human Services.

**Contact Persons:** Annie Sondag, 406-243-5215, Health and Human Performance, University of Montana, McGill Hall, Missoula, MT 59812; Rimo Carneiro, 406-243-4291, Health and Human Performance, University of Montana, McGill Hall, Missoula, MT 59812; David Herrera, FDH & Associates, 406-829-8075, 127 North Higgins, Ste. 205, Missoula, MT 59802.

#### **Purpose**

The purpose of this study is to determine whether retreats are effective in successfully enhancing factors that support safer sexual behaviors among Men Who Have Sex With Men (MSM) in Montana. The results will be used to help us refine future health retreats for gay/bisexual men and assess the outcome of retreat participation. The Montana Public Health and Human Services (DPHHS) is also interested in using the results from this study in their HIV intervention work. Most importantly, by participating in the study you will help provide valuable information, which can be used to plan programs and retreats designed to prevent the spread of HIV/AIDS throughout Montana.

#### **Procedures**

Participation in this study is voluntary. If you agree to participate you will be asked to meet once with the other members of the focus group. You will be asked to freely express and expand on your retreat experience. In no way will the researchers link your identity with what is said at the meeting. The focus group meeting will be audio taped and then transcribed. After transcribing, the audio tapes will be erased.

#### **Risks/discomforts**

- You may find some of the topics very personal and they may make you uncomfortable.
- You may be concerned about your privacy and confidentiality. Although your names will not be associated with the information collected for this project or with any reports, you may have concerns that your identity as a participant in this study will become known.

#### **Methods for reducing risk**

- You can withdraw from the project at any time if you feel personal discomfort. If you feel uncomfortable answering a question, you do not have to answer it.
- You will receive a list of available resources if you would like more information or someone to talk to following participation in this focus group.
- Your name and identity will not be associated with the data or with any of the project reports.



### **Benefits**

Your help with this project will provide valuable information to DPHHS. By participating in this project, your answers will help staff offer services and develop programs to meet the needs of MSM living in Montana.

### **Confidentiality**

All of the information we collect here today is completely confidential. We will not identify any of the participants. For example, we will not use your name, or any other identifying information in reports or other materials related to this study.

- Participants' identities will remain confidential and will not be associated with information in any way.
- At the conclusion of the study, any information pertaining to participants' identities will be destroyed.
- All data will be reported as group data: no individual data will be reported.
- Participants are required to sign a separate Confidentiality Agreement.

### **Compensation for injury**

Although we do not foresee any risk in taking part in this study, the following liability statement is required in all University of Montana consent forms:

"In the event that you are injured as a result of this research you should individually seek appropriate medical treatment. If the injury is caused by the negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant the Comprehensive State Insurance Plan established by the department of Administration under the authority of MCA, Title 2, Chapter 9. In the event of a claim of such injury, further information may be obtained from the University's claims Representative or University Legal Counsel."

### **Voluntary participation/withdrawal**

Your decision to take part in this project is entirely voluntary. You may withdraw from this project for any reasons and at any time.

### **Questions**

If you have any questions about this project now or later, you may contact Annie Sondag: 406-243-5215, Rimo Carneiro: 406-243-4291, David Herrera: 406-829-8075.

I have read the above description of this project. I have been informed of the risks and benefits involved, and all of my questions have been answered to my satisfaction. Furthermore, I have been assured that any future questions I may have will be answered by a member of the project team. I voluntarily agree to take part in this project. I am at least 18 years of age. I understand that I will receive a copy of this consent form.

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

*Thank you very much for your participation!*

## **APPENDIX D**

### **Confidentiality Agreement**

**CONFIDENTIALITY AGREEMENT****For focus group participants**

I have agreed to participate in a focus group. I understand and agree that all information disclosed during the focus group will remain confidential. I agree to not disclose any information about who attended the session and what was said during the session. All of my questions concerning this matter have been answered. I have been assured that any future questions I may have will be answered by a member of the project team. I voluntarily take part in this project. I am at least 18 years of age. I understand that I will receive a copy of this consent form.

*Thank you for your confidentiality!*

**Signature**\_\_\_\_\_ **Date**\_\_\_\_\_

## **APPENDIX E**

### **Explanation of the Study**

## **EXPLANATION OF THE STUDY**

This study is an outcome evaluation of retreats for gay and bisexual men in Montana. We have developed a survey, which asks about attitudes, behaviors, and beliefs relevant to men who have sex with men, or are attracted to other men. This is a completely confidential and anonymous survey. The following are possible risks and discomforts associated with participation in this study:

- You will be asked to disclose information about your sexual orientation and behavior. Disclosing this information may be uncomfortable for you.
- Participation may raise concerns or questions regarding sexual orientation and related issues.
- Volunteers will be given a unique identifier on each survey for purposes of matching pre- and post-surveys and follow up.

The results will be used to help us refine future health retreats for gay/bisexual men and assess the outcome of retreat participation. The Center for Disease Control and Planning is also interested in using the results in their HIV prevention work. Most importantly, if you volunteer to participate in the study you can assist other gay/bisexual men have a positive experience at retreats.

Only the researchers from the Health and Human Performance Department at the University of Montana conducting this study will have access to this data. No personal information will be disclosed or appear in any report. For the purpose of mailing follow-up questionnaires, the surveys will be tracked by a unique identifier. At the conclusion of the study, all collected data will be destroyed. When the data have been fully analyzed, a summary of the results will be available for the volunteers to read through the HHP department at the University of Montana.

**STATE GAY/BISEXUAL ORGANIZATIONS**

FDH & Associates  
 127 North Higgins, Ste. 205  
 Missoula, MT 59802  
 406-829-8075

PRIDE!  
 P.O. Box 775  
 Helena, MT 59601  
 1-800-610-9322

Montana Gay Men's Task Force  
 P.O. Box 7984  
 Missoula, MT 59807  
 1-888-713-4683

**HIV/AIDS SENSITIVE SERVICES**

CDC National AIDS Hotline: 1-800-342-2437  
 Gay Men's Health Crisis, Inc.: 1-800-243-7692  
 Montana STD/HIV Information Line: 1-800-233-6668

**For HIV/AIDS Information and Prevention Services in Your Area, Contact:**

Yellowstone City-County Health Department  
 123 S. 27th St.  
 Billings, MT 59101  
 406-247-3350

Missoula AIDS Council  
 127 N. Higgins Ste. 207  
 Missoula, Mt 59802  
 406-543-4770

Butte-Silverbow Health Department  
 25 West Front St.  
 Butte, MT 59701  
 406-723-3274

Missoula City-County Health  
 Department  
 Partnership Clinic  
 323 West Alder  
 Missoula, MT 59802  
 406-829-4163

Cascade City-County Health Department  
 115 4th St. South  
 Great Falls, MT 59401  
 406-454-6950

Yellowstone AIDS Project  
 P.O. Box 1748  
 Billings, MT 59103  
 406-243-2029

Lewis & Clark City-County Health Department  
 1930 9th Ave.  
 Helena, MT 59601  
 406-433-2584

Butte AIDS Support Service  
 25 W. Front St.  
 Butte, MT 59701  
 406-497-5021

Flathead City-County Health Department  
 723 5th Ave. East  
 Kalispell, MT 59901  
 406-758-5750

AIDS Resources of Southern  
 Montana  
 321 E. Main St. #409  
 Bozeman, MT 59715  
 406-582-1110

## **APPENDIX F**

### **Focus Group Questions**

## FOCUS GROUP QUESTIONS

1. Overall, what were your impressions of the retreat?
2. What were the topics you found to be most interesting and helpful?
3. What are some of the topics that were covered during the retreat that were new to you?
4. How was the retreat helpful in establishing new social connections?  
- Do you still keep contact with some of the people you met at the retreat?
5. In what ways do you think the retreat will be helpful in your personal/social life?
6. How did the retreat strengthen or weaken your views about practicing safer sex, i.e. using condoms?  
- In what ways do you believe the retreat will help you in practicing safer sex?
7. What was the most helpful aspect(s) for you about the retreat?
8. What was the least helpful aspect(s) for you about the retreat?
9. What suggestions for improvement do you have for future retreats on Gay/Bisexual men's health?
10. Looking at the retreat survey, a number of men indicated that 'spirituality' was their religion. How would you define 'spirituality'?
11. According to the retreat survey most men thought that it was harder to be a gay than straight man. What do you find most difficult about being gay?  
  
- A number of men at the retreats indicated in the survey that they found it difficult to make advances to another man. Why do you think it is difficult for many men in Montana to make advances to other men?  
  
-The results from the retreats indicated that a great number of men believed that society still punishes people for being gay. What kind of 'punishment' do you think they meant?
12. Do you have any additional or final comments you would like to add about the retreat or anything else we've discussed today?