

HIV prevention services for men who have sex with men (MSM): Strategic planning results

FINAL REPORT

Commissioned by:
Pennsylvania Department of Health



Prepared by:
The Pennsylvania Prevention Project
Graduate School of Public Health
University of Pittsburgh
www.stophiv.org

TABLE OF CONTENTS

	Pages
Chapter 1: Introduction	3-5
Chapter 2: Background	6-7
Chapter 3: Needs Assessment	8-30
Chapter 4: Resource Inventory	31-43
Chapter 5: New Qualitative Research	44-54
Chapter 6: Recommendations	55-60
References	61-67
Appendices	
Appendix A – University of Pittsburgh IRB application	
Appendix B – Qualitative Field Guide Instruments	
Appendix C – Qualitative Consent Form	

CHAPTER 1

INTRODUCTION

The purpose of this strategic plan is to enhance the HIV prevention services for HIV positive and HIV negative men who have sex with men (MSM) within the jurisdiction covered by the Pennsylvania Department of Health, Division of HIV/AIDS. The jurisdiction includes all counties of Pennsylvania except for Philadelphia.

The Pennsylvania Department of Health partnered with the Pennsylvania Prevention Project at the University of Pittsburgh to develop this strategic plan. Faculty and staff from the Pennsylvania Prevention Project worked directly with the Pennsylvania Department of Health's HIV Prevention Section Chief to direct and facilitate the planning process. The Pennsylvania Prevention Project faculty and staff conducted the data collection and analysis and prepared draft reports. Preliminary findings of the analyses conducted to date were shared quarterly with the Department's HIV Community Planning Group for comment and reflection. The final report was developed by the Pennsylvania Prevention Project.

A multipronged approach was used in the strategic planning process to explore and describe the prevention needs of HIV negative and HIV positive MSM and injection drug using MSM (MSM-IDU) and the prevention activities/interventions currently being implemented to address these needs. The assessment activities included 1) a community services assessment (needs assessment and resource inventory), 2) the identification of prioritized target subpopulations among HIV positive and HIV negative MSM and 3) the identification of appropriate evidence-based prevention activities/interventions necessary to reduce HIV and transmission among prioritized HIV positive and HIV negative MSM subpopulations. In addition, the strategic plan identifies best practices for targeting and recruiting MSM for evidence-based HIV prevention interventions and identifies the Pennsylvania Department of Health's HIV prevention contractors' capacity building needs for implementing effective HIV interventions for MSM.

The community services assessment included a needs assessment and resource inventory. The needs assessment activities included obtaining and analyzing available information to determine HIV prevention needs of HIV positive and HIV negative MSM and MSM-IDU. Systematic literature reviews of articles published in the last ten years were conducted to examine the following populations and issues; HIV negative MSM and MSM-IDU, HIV positive MSM and MSM-IDU and translating efficacy to effectiveness (i.e. implementing evidence-based HIV prevention interventions among HIV positive and HIV negative MSM and MSM-IDU). In addition, the results of previously completed Pennsylvania-based studies of HIV negative MSM and MSM-IDU and HIV positive MSM and MSM-IDU were examined and summarized. The resource inventory related activities included obtaining and analyzing available information to determine the HIV preventions activities/interventions available within the jurisdiction to address HIV prevention needs of HIV positive and HIV negative MSM and MSM-IDS. This resource inventory includes a description of all Centers for Disease Control and Prevention (CDC) evidence-based preventions targeted for MSM and MSM-IDU and Pennsylvania Uniform data system data describing the number of MSM and MSM-IDU reached by state supported HIV prevention programs since 2002. Additional resource inventory activities include the conduct of new research to examine the capacity of the Department's HIV prevention contractors and to gather data about 1) the barriers and facilitators experienced by the prevention contractors in recruiting and retaining MSM in prevention interventions; 2) the identification of resources that prevention contractors needs to implement effective HIV prevention interview to local MSM and 3) existing programs successfully reaching this population. In addition, new research was conducted to collect data from leaders in the gay community to examine the current MSM HIV prevention interventions in their areas and their suggestions for establishing an effective intervention targeting MSM in their area. All study protocols and associated documents were developed and Institutional Review Board approval was obtained from both the University of Pittsburgh (PRO09030567) and the PA Department of Health.

Results from this systematic strategic planning effort inform the delivery of targeted, sustained, and evidence-based HIV prevention interventions resources to those subpopulations within the MSM communities in the jurisdiction at highest risk for HIV transmission/acquisition.

Following this introduction, Chapter 2 provides a brief background on the scope of HIV/AIDS among men who have sex with men (MSM). Chapter 3 addresses the community needs assessment findings. Chapter 4 focuses on the results of the resource inventory. Chapter 5 presents the methods and results from the new qualitative research with HIV prevention contractors and community leadership in the jurisdiction covered by the Pennsylvania Department of Health. The report concludes with Chapter 6 and recommended areas of action based on the findings of this strategic planning effort.

CHAPTER 2

BACKGROUND

Men who have sex with men (MSM), regardless of race, continue to be the risk group most severely impacted by HIV. MSM are the only risk group in the United States in which the incidence of new HIV infections is rising (Centers for Disease Control and Prevention, 2010). The Centers for Disease Control and Prevention (CDC) also reports that MSM account for more than half of all new HIV infections in the U.S. each year even though MSM account for only 4% of the U.S. male population and that the rate of new HIV diagnoses among MSM is more than 44 times that of other men.

For the five consecutive years between 2001 and 2006, newly diagnosed HIV cases among MSM have significantly increased, in particular among young men who have sex with men (YMSM) (Center for Disease Control and Prevention, 2008). Surveillance of HIV incidence show that 56,300 new HIV infections occurred in the United States in 2006, compared to the previous annual incidence estimates of 40,000 since the early 1990s; MSM accounted for 53% of all new infections and 74% among infected men. MSM-IDU accounted for 4% of persons diagnosed with HIV/AIDS.

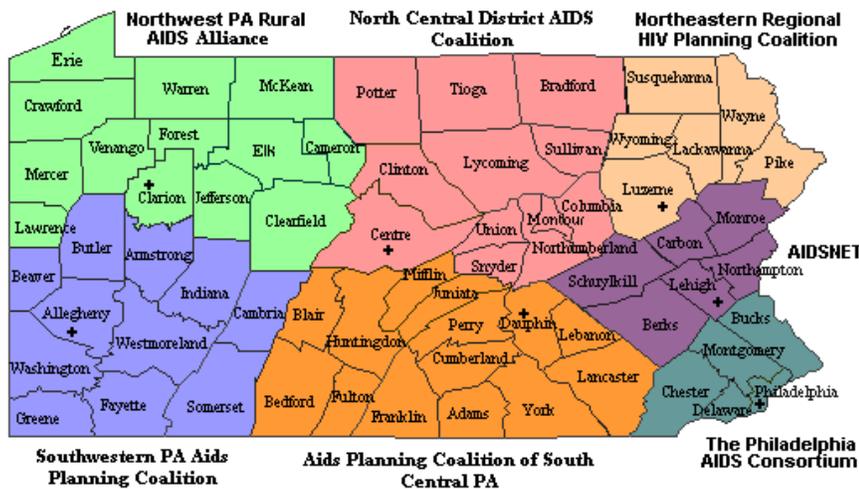
A study conducted in five major US cities between June 2004 and April 2005 found that 25% of MSM were HIV seropositive, and that 48% of those men were unaware of their infection (CDC, 2005). In 2007, 72% of estimated HIV/AIDS cases from 38 U.S. areas were attributed to male-to-male sexual contact, and there was a 26% increase in the estimated HIV/AIDS cases among MSM from 2004 to 2007 (CDC, 2009).

Among young people aged 13-24, 54% of all cases of HIV infection or AIDS during 2003 to 2006 were from male-to-male sexual contact. Of all YMSM, young black MSM are disproportionately at risk for HIV. Compared to their white or Hispanic counterparts, more than twice as many black MSM aged 13–24 were diagnosed with HIV infection or AIDS in 2006 (CDC, 2009). Diagnoses among young black MSM increased 93% between 2001 and 2006.

The year 2009 marked the 28th anniversary of the first reported cases of HIV/AIDS. Initially diagnosed in the United States among MSM, HIV's impact on MSM in the U.S. led to swift grass-roots responses from the gay community. Eventually targeted interventions from the public health sector were developed to address high-risk behaviors such as unprotected anal intercourse (UAI) and substance use. These interventions, implemented in the 1980s and 1990s, resulted in significant reductions in sexual risk and the prevention of new HIV infections in MSM. Over time, these achievements have leveled off, and recent evidence indicates that HIV infection is re-emerging in new cohorts of MSM. This situation calls for an assessment of current trends in HIV infection in MSM and of the status of effective and promising interventions for these populations.

In the jurisdiction covered by the Pennsylvania Department of Health the HIV/AIDS epidemic continues to pose a significant and disproportionate threat to MSM. The state of Pennsylvania has seven regional planning coalition offices (See Figure 1). Each coalition made up of several HIV/AIDS service providers in the region who come together in collaboration to improve the delivery of service to consumers in their designated counties.

Figure 1. Regional Planning Coalition HIV/AIDS Offices



CHAPTER 3

NEEDS ASSESSMENT

The needs assessment activities included obtaining and analyzing available information to determine HIV prevention needs of HIV positive and HIV negative MSM and MSM-IDU. Systematic literature reviews of articles published in the last ten years were conducted to examine the following populations and issues; HIV negative MSM and MSM-IDU, HIV positive MSM and MSM-IDU and translating efficacy to effectiveness (i.e. implementing evidence-based HIV prevention interventions among HIV positive and HIV negative MSM and MSM-IDU). In addition, the results of previously completed Pennsylvania-based studies of HIV negative MSM and MSM-IDU and HIV positive MSM and MSM-IDU were examined and included.

3.a. Literature Review 1:HIV Prevention Needs of HIV-negative and HIV-positive MSM

The purpose of review was to summarize the last 10 years of literature regarding the HIV prevention needs of diverse groups of MSM in order to identify current barriers and facilitators to prevention, barriers and facilitators to implementation of prevention interventions, and suggestions about successful interventions.

Methods

The search included 4 online databases: PubMed, MEDLINE, Ovid and Google Scholar and was restricted to articles published between January 1999 and March 2009 and to studies that were conducted in the United States. Search parameters were limited to studies characterizing MSM experiences with prevention and individual, organization and structural barriers to prevention. Selected articles were then cross-referenced to identify gaps in the search terms. Forty-two articles met the search criteria. The articles were iteratively reviewed and summarized. The findings are presented according to reoccurring theme and relevance.

Results

The literature reviewed tended to focus on individual level factors related to HIV risk among MSM. These factors included interpersonal level factors related to knowledge, attitudes and beliefs and risky behaviors such as delayed testing, substance use and unprotected sex.

HIV/AIDS knowledge and beliefs

Despite aggressive efforts to disseminate knowledge about HIV prevention the severity of infection, UAI has become more prevalent among HIV-negative MSM indicating level of knowledge is not enough to prevent MSM from having engaging in this high risk sexual behavior (Wolitski, Valdiserri, Denning, & Levine, 2001).

A 2006 mixed-methods study of 526 YMSM, explored how and where YMSM receive relevant information on sexual health/behavior. Findings indicated that information related to gay men's sexuality is not readily available from family, friends, or schools. At initiation of anal intercourse, respondents generally had limited information about HIV and sexually transmitted infections (STIs). In some cases, this resulted in the perception that activities such as unprotected sex were "low risk" (Kubicek et al., 2009).

Increases in HIV transmission risks are also associated with beliefs about the transmissibility of HIV. In a meta-analytic review, Crepaz et al. (2004) found that engaging in UAI is reliably predicted by beliefs that HIV treatments reduce risks for transmitting HIV to sex partners. Beliefs that HIV treatments and their suppression of the virus to undetectable concentrations in blood plasma reduce risks for transmission may have dis-inhibiting effects on protective sexual practices (CDC, 2003; Ciesielski, 2003).

Surveys of MSM in Atlanta, GA in 2006 conducted at pride events revealed that increases in high-risk sexual behaviors paralleled changes in prevention-related HIV treatment beliefs. These findings replicate and extend previous research that included 1997 and 2005 data points in the same city (Kalichman et al. 1998). Changes in behavior and prevention-related treatment beliefs were, however, more pronounced for HIV-positive men than for HIV-negative men. HIV prevention interventions have evolved beyond providing didactic risk-related information toward more skills building approaches. However, the importance of accurate information as it is related to beliefs should be periodically reassessed and adjusted (Kalichman et al., 2007).

Kalichman et al. (2007) suggested these patterns of beliefs and behaviors indicate the need for community-wide education to correct misinformation and misperceptions of potential risks related to prevention-related HIV treatment beliefs. Through community forums, peer-based education programs, and media campaigns, communication methods can reinforce the need for maintaining safer sex practices despite treatment advances and undetectable viral load status of HIV-positive partners. It is necessary to

continually educate men about the risks associated with UAI occurring outside of monogamous relationships regardless of assumptions about treatment and viral load status of infected partners. This consideration should remain a public health priority as HIV treatments evolve.

Evolving perceptions of risk

Recent literature has explored the effect of negative coping mechanisms on HIV-negative MSM. Stress associated with being at risk of HIV infection and feeling restricted by regulations to sustain condom use may influence the development of disengagement coping mechanisms as way of managing stress among HIV-negative MSM (Hoyt, Nemeroff, & Huebner, 2006; Williams, Elwood, & Bowen, 2000). In the absence of active coping strategies such as seeking prevention resources or mental health services, HIV-negative men may feel powerless to maintain their negative serostatus (Hoyt et al., 2006; Nemeroff, Hoyt, Huebner, & Proescholdbell, 2008), may adopt optimistic attitudes outcomes of risky sexual practices and diminish the seriousness of infection by relying on anti-retroviral therapies, as noted previously (Huebner, Rebchook, & Kegeles, 2004; Valdiserri, 2004). Additionally, HIV-negative MSM may deny the actual threat of infection (Gold, 2004, 2006).

The terms treatment optimism, and antiretroviral therapy (ART) optimism have been used to describe a social phenomenon that can explain the reason for abandoning safe sex practices. A recent study using telephone surveys in San Francisco sought to determine HIV prevalence among a convenience sample of 1,976 MSM as well as what they called the “novel” cofactors associated with the current increases in HIV rates. The investigators defined treatment optimism as “feeling less concerned about acquiring HIV because of medications that can reduce HIV-related mortality and morbidity” (Schwarcz, 2007). They reported a 25.2% HIV prevalence rate among participants. Risk behaviors of unprotected sex and drug use that facilitated the sex were associated with treatment optimism among both HIV-infected and uninfected men.

An understanding of men's motivations to avoid risk behavior is needed to create efficacious HIV prevention programs for HIV-positive MSM. O'Dell et al., (2008) conducted a study of 637 HIV-positive MSM who attended randomized controlled trials of an HIV prevention weekend seminar-based intervention in Seattle, Washington, Boston, New York, Los Angeles, and Houston. Investigators examined the relationship between HIV prevention altruism, defined as the values, motivations, and practices of caretaking towards one's sexual partners to prevent the transmission of HIV, and sexual risk behavior.

Findings revealed that HIV prevention altruism is shown to have a protective effect on sexual risk behavior among HIV-positive MSM. Men who scored high on altruism were about half as likely as men who scored low to report engaging in anal intercourse. This finding lends strength to the argument that refraining from anal sex is one risk reduction method used by HIV-positive MSM to reduce the risk of HIV transmission. HIV prevention altruism was also found to have a protective effect against UAI with a serodiscordant partner (O'Dell, 2008).

When designing future prevention programs, HIV prevention specialists should consider fostering HIV prevention altruism. Strategies to increase caretaking of sexual partners may reduce sexual risk behavior and reduce the number of new HIV infections. Encouraging prevention altruism, the care for others, in combination with personal responsibility, the care for self (O'Leary et al. 2005; van Kesteren et al. 2005; Wolitski et al. 2003, 2004), may provide a formidable new direction in HIV prevention.

Internalized homophobia

Internalized homophobia has been long explored in its association with various outcomes of mental health (Meyer, 2005), lack of coping resources for sexual health (Huebner, Davis, Nemeroff, & Aiken, 2002) and sexual risk (Preston, D'Augelli, Kassab, & Starks, 2007). Some evidence suggests that internalized homophobia may pose multiple barriers to community based HIV prevention efforts. Greater internalized

homophobia is associated with lower awareness of HIV prevention services and with fewer changes in the perception of one's ability to use condoms (Huebner, 2002).

Stigma toward homosexuality in the United States has pervasive effects on Black MSM. Black MSM have been observed to have higher levels of internalized homophobia and rarer disclosure of homosexual orientation than MSM of other racial groups, (Kenamer, Honnold, Bradford, Hendricks, 2000; Stokes & Peterson, 1998). A 2002 study of 174 Black MSM recruited through advertisements and snowball sampling in Chicago and Richmond found that Black MSM with better integrated gay identities reported higher levels of self-esteem, HIV prevention self-efficacy, stronger social support networks, greater levels of life satisfaction, and lower levels of psychological distress associated with gender nonconformity (Crawford et al., 2002).

Prevention fatigue

The literature has explored two types of HIV prevention fatigue: (1) fatigue with HIV prevention messages, which refers to the experience that “prevention messages, programs, outreach, or counseling have become tiresome” (Stockman et al., 2004, p. 432) and (2) safer sex fatigue—diminished motivation to practice safer sex (Ostrow et al., 2002, 2008; Stolte et al., 2006). In a study of 263 HIV-positive MSM and 238 HIV-negative MSM in multiple cities, prevention fatigue was defined by the statement “I find it difficult to maintain sexual safety” (Ostrow, Silverberg, et al., 2008). Results showed decreased concern about HIV was associated with increased numbers of unprotected anal sexual partners among HIV-infected men.

Efforts to counter prevention fatigue have resulted in fear-inducing prevention messages targeting gay, bisexual and other MSM communities. The effectiveness of these messages may no longer mimic the impact they had in the early years of the epidemic when AIDS was the primary contributor to mortality within the gay community.

Gay men's risk estimation has become more subjective, moving away from public health norms of HIV prevention. According to Kippax and Race (2003) they have found

“new” ways of avoiding HIV risk including negotiated safety, strategic positioning, and serosorting rather than using traditional prevention strategies that emphasize correct and consistent condom use.

Wolitski, Parsons, and Gomez (2004) posited that understanding the sexual behaviors of HIV-positive MSM as well as risk reduction barriers and facilitators is essential for the development of interventions that encourage HIV-positive MSM to protect themselves and their partners from HIV and other sexually transmitted infections. They reported that strategic positioning, serosorting, and withdrawal were methods of safer sex practices employed by the men in their studies.

Although research indicates HIV-positive men utilize serosorting to reduce the risk of infecting HIV negative individuals, some men serosort to avoid rejection upon disclosure of their positive status (Frost, Stirratt, & Ouellette, 2008; Stirratt, 2005). Despite increased reports of serosorting (Golden, Wood, Buskin, Fleming, & Harrington, 2007; Grov et al., 2007; Osmond, Pollack, Paul, & Catania, 2007) and seropositioning (e.g., acting as the receptive partner during unprotected anal intercourse) (Grov et al., 2007) among HIV-positive MSM, prevention programs have typically not incorporated strategies such as these because they are not uniformly viewed as effective.

Delayed HIV testing

Despite the benefits of HIV testing and the availability of MSM-targeted HIV prevention programs and educational campaigns, the CDC (2005) found that 58% of newly diagnosed HIV-seropositive MSM had not been tested within the previous year. In 2005, MacKellar et al. defined “delayed HIV testing” as being diagnosed with HIV 1 year or more after HIV infection. Similar to late-testing MSM, MSM who delay testing are in turn delaying access to care necessary to slow their disease progression and are likely to be spreading the virus unknowingly (MacKellar et al., 2006).

Delayed testing was evaluated among 15-29 year-old participants in the venue-based Young Men’s Survey (YMS) and 55% of the young MSM who were unaware of their HIV

infection were found to be delayed testers (MacKellar, 2005). Those delayed testers tended to perceive themselves as being at high risk of infection, had no regular source of healthcare, and had less than monthly attendance at MSM-identified venues. YMS participants with no previous HIV testing history most often stated their reason for not testing was a fear of learning their results.

According to a 2006 literature review aimed at dispelling myths about why Black MSM are disproportionately impacted by HIV, delayed testing was thought to be a contributing factor to higher HIV prevalence and incidence rates among Black MSM. Delayed testing also partially explained higher rates of AIDS-related mortality despite highly active antiretroviral therapy (HAART) (Millet et al., 2006).

Alcohol and drug use

A convenience sample of 189 MSM recruited via advertisements in clinical and medical areas at Fenway Community Health in Boston, MA found that one in five MSM reported having engaged in specific sexual behaviors in the prior 12 months with intent to reduce their HIV risk (Resiner et al., 2009). Abstaining from drug use during sex was not significantly associated with risk reduction among the current sample. However, MSM were more likely to engage in less risky sexual behaviors when not under the influence of alcohol and not under psychological distress, a finding consistent with prior studies (Koblin et al., 2006; Stall, Paul, Greenwood, 2001; Stall et. al., 2003).

These findings support work with syndemics theory which suggest that HIV prevention interventions with MSM should respond to the contextual and environmental factors that coincide to result in HIV acquisition (Stall & Purcell, 2004). Syndemics theory look in particular at how alcohol use, depression and sexual risk behavior interact to compound negative health outcomes among MSM including HIV infection. MSM might have a better response to behavioral interventions if appropriate screening and/or treatment are provided for alcohol use or depression (Morgenstern et al., 2007).

Injection drug use

In general, there is a serious lack of literature exploring the HIV prevention needs of MSM-IDU. However, focus groups with 105 sex-trading injection drug–using men who have sex with both men and women (IDU-MSM/W) were conducted by Washington and Meyer-Adams in 2007 with the intent to understand the HIV prevention needs of this marginalized population.

The major findings of this study were threefold. First, the data suggest that this population needs an HIV prevention program that provides a safe space (“a place where IDUMSM/W can get information specific to this population”). A universal prevention message for all men is that proper use of a latex condom can reduce HIV risk. However, IDU-MSM/W involved in sex trade need messages that include the importance of properly using condoms with both male and female sex partners including those who are clients. Additionally, educational information regarding HIV risk while using drugs and needle sharing need to be disseminated (Washington, Meyer-Adams, 2009).

The data also suggested a demand for non-HIV related comprehensive services. Similar to a syndemics approach IDU-MSM/W involved in sex trade would benefit from programs that address not only safer sex practices, but also co-occurring issues that compound HIV risk such as job assistance and drug treatment. For example, many of the IDU-MSM/W report having unprotected sex with their primary female partners after exchanging unprotected sex with other men for money or drugs (Washington, Meyer-Adams, 2009).

Lastly, communication skills and prompts for negotiating safer sex practices with clients are important issues for IDU-MSM/W which is similar to other studies of MSM in general. Condom use with clients was considered only if the client requested it. Considering these data, HIV prevention programs for the IDU-MSM/W sex-trade community should incorporate skill-building components.

Sexual risk behaviors

The scientific literature has devoted much attention to the resurgence of intentional condomless anal intercourse in HIV-risk contexts (popularly referred to as “bareback sex”) (Berg, 2008; Carballo-Diéguez, Dowsett, Ventuneac, Remien, Balán, Dolezal et al., 2006; Huebner, Proescholdbell & Nemeroff, 2006; Parsons & Bimbi, 2007).

Specifically, this literature has looked into the underlying factors that may motivate behavior, as they aid to create individual-level behavior change programs.

In a content analysis of messages posted on an Internet’s message board among MSM who actively sought out partners online to engage in intentional condomless sex, Carballo-Diéguez & Bauermeister (2004) found that some MSM reported that bareback sex was more enjoyable and a personal choice, while others appeared to be more influenced by contextual factors that mitigated HIV-prevention concerns such as the perception that HIV infection is an inevitable fate for gay men.

A 4-year study of ethnically diverse MSM in New York recruited via the Internet revealed that even when men were asked to rate barebacking vis-à-vis condom use across multiple statements, the benefits and gains associated with bareback sex were positively associated with number of URAI occasions, number of partners, and risk of having one or more sexual intercourse occasions with a serodiscordant partner, regardless of HIV status (Bauermeister, Carballo-Dieguez, Dolezal, 2009).

Taken together, these findings imply that MSM may benefit from a greater variety of HIV prevention technologies, particularly among men who assign larger costs and losses to condoms as the only effective HIV prevention method. It is vital to provide alternative harm reduction approaches to condom use, including access to pre/post exposure prophylaxis and microbicides (Nodín, Carballo-Diéguez, Ventuneac, Balán, & Remien, 2008) as they may minimize the risk of HIV (re)infection. If found to be successful for HIV prevention, pre/post exposure prophylaxis and rectal microbicides may offer opportunities to decrease HIV infection further, particularly in spur-of-the-moment situations where MSM have unprotected anal intercourse with partners of unknown serostatus (Bauermeister, 2009).

3.b. Literature Review 2: Transitioning from Efficacy to Effectiveness

The purpose of this review was to examine the last 10 years of literature addressing the implementation of evidence-based HIV prevention interventions among HIV negative and positive MSM and MSM-IDU.

Methods

The search included 4 online databases: PubMed, MEDLINE, Ovid and Google Scholar and was restricted to articles published between January 1999 and March 2009 and to studies that were conducted in the United States. Article abstracts were included for review if they examined the effects of behavioral interventions aimed at reducing risk for HIV transmission among MSM. Complete articles were reviewed for criteria of outcome relevance (measurement of at least one of a list of behavioral or biologic outcomes, e.g., unprotected sex or incidence of HIV infections) and methodological rigor (randomized controlled trials or certain strong quasi-experimental designs with comparison groups). In total, 27 articles were eligible for inclusion in the review process. The articles were iteratively reviewed and summarized.

Results

An overview of the 27 articles is provided in Table 1 and described briefly below.

Sample

Most of the intervention studies were conducted among predominantly white MSM. Seven studies focused exclusively on Latino or Black MSM. Sample sizes ranged from 42 to 4296 participants. Six studies included MSM under the age of 18. Nine studies were conducted among HIV-positive MSM. Most of the studies were conducted in major metropolitan areas in California, Washington, and New York with a marked absence of rural MSM.

Intervention Level and Focus

Thirteen interventions occurred at the individual level. Interventions to reduce unprotected sex include individual counseling, social and behavioral support (such as peer education, assertiveness and relationship support, discussing attitudes and beliefs, videos). Ten interventions occurred at the group level and four were conducted at the community level. Small group and community interventions include group counseling or workshops, interventions in community areas, training community leaders, and community-building empowerment activities.

Two studies actively engaged MSM who were drug users; however, drug treatment or abstinence was not part of the intervention outcomes. MSM-IDU were largely neglected.

Table 1. Behavioral interventions aimed at reducing HIV risk among MSM

Study Author, Date	Sample Size	Race	Age	Location	Recruitment	Methods	Intervention Level	Program Details
Bowen, 2008	475	Mixed (predominantly white)	18+	Online (participants resided in rural areas)	Internet banner ads	Random assignment, 6 conditions	Individual	Information-Motivation-Behavioral skills model. The intervention consisted of three modules, each included two 20-min interactive sessions and printable feedback tailored to the participant's responses during the intervention. Content included HIV knowledge, risk reduction, self-efficacy, and willingness to reduce risk.
Carballo-Diequez, 2005	180	Latino	18+	New York	Community social venues	Random assignment	Group	8 sessions on themes of oppression, transgression of rules, excuses (or rationalizations), substance use, goal setting, the role of pleasure, self-efficacy and plans for the future. Exercises included word association, story analysis, problem solving, discussion of participants weekly sexual diaries
CDC ACDP, 1999	536	Mixed (predominantly white)	18+	Seattle, Denver, Southern California	Public sex environments	Cross-sectional surveys in matched communities	Community	Distribution and discussion of flyers containing condoms and role-model stories from men in the community about making progress toward consistent condom use across 3 years
Dilley, 2002	248	Mixed (predominantly white)	18+	San Francisco	Voluntarily attended anonymous HIV-testing clinic	RCT, 4 conditions	Individual	Individual standard counseling (one 1-hr session) plus self-justifications session, where the client reviewed and challenged his own self-justifications for a recent occasion of unsafe sex, and diary of sexual activity for 90 days
Dilley, 2007	336	Mixed (predominantly white)	18+	San Francisco	Publicly funded HIV counseling and testing venues	RCT, 2 conditions	Individual	Single-session personalized cognitive counseling (PCC) intervention delivered by paraprofessionals during HIV voluntary counseling and testing
Kalichman, 2001	164	Mixed (predominantly AA)	18+	Atlanta		Random assignment	Group	5 120-minute sessions. Support group to create sexual health and relationship plans, develop communication and disclosure skills, learn hazards of co-infection with other STIs.
Kegeles, 1999	247	N/A	18+	Eugene, Oregon and Santa Barbara, California	Community social venues	Eugene received intervention, Santa Barbara as control	Community	Mpowerment Project. Peer-led program for young gay men including outreach, small groups and a publicity campaign.

Kegeles, 2002	632	N/A	18+	Albuquerque, Austin, Phoenix	Community social venues	Albuquerque received intervention with Austin and Phoenix as controls	Community	Based on theories of empowerment, diffusion and peer mobilization. Featured a young gay men's community center, a core group of men who ran the project, informal outreach among friends, formal outreach at gay venues and social events, and small groups focused on safer sex and informal outreach.
Koblin, 2004	4296	Mixed (predominantly white)	16+	Boston, Chicago, Denver, New York, San Francisco, Seattle	Community social venues	RCT	Group	The intervention consisted of ten one-on-one counseling sessions followed by maintenance sessions every 3 months. The standard condition was twice-yearly Project RESPECT individual counseling. Twice-yearly follow-up visits included testing for HIV antibody and assessment of behavioral outcomes.
Mausbach, 2007	341	Mixed (predominantly white)	18+	San Diego	Community social venues, referrals from medical providers	Random assignment, 2 conditions	Individual	The intervention consisted of five weekly individual counseling sessions (90-minutes each) followed by three monthly booster sessions (90-minutes each). Specifically, skills-training was used to help participants increase their knowledge, self-efficacy, and positive outcome expectancies in relation to condom use, negotiation of safer sex practices (including sexual assertiveness), and disclosure of HIV serostatus to sex partners.
Miller, 1998	1,741	Mixed (half white; half black or Latino)	18+	New York City	Hustler bars	Cross-sectional surveys across 3 neighborhood bars	Community	POL replication and adaptation
Morin, 2008	616	Mixed (half white; half black)	18+	Los Angeles, Milwaukee, New York and San Francisco	Community social venues, referrals from medical providers	Random assignment	Individual	Fifteen 90-minute individual counseling sessions grouped into 3 modules, each consisting of 5 sessions. Module 1 addressed stress, coping, and adjustment). Module 2 addressed safer sexual and drug-using behaviors and disclosure. Module 3 addressed accessing health services, adherence, and active participation in medical care decision making.
Patterson, 2003	286 MSM	N/A	18+	San Diego	Posters and providers	RCT, 4 conditions	Individual	3 90-minute sessions. Social cognitive intervention in 3 domains (condom use, negotiation of safer sex, disclosure of HIV status)
Picciano, 2001	89	Mixed (predominantly white)	16+	Seattle	Community social venues and print advertisements	Random assignment	Individual	Feedback by telephone regarding a baseline risk assessment (1 hour)

Picciano, 2007	391	Mixed (predominantly white)	16+	Seattle, Washington, Portland	Community social venues and print advertisements	RCT, 2 conditions	Individual	Components include feedback of personal behavior, emphasis on personal responsibility, clear advice to change, a menu of alternative change options, therapist empathy, and facilitation of optimism to change. Counselors listened for and reinforced statements of motivation that were consistent with safer sex practices and, when appropriate, facilitated goal setting and identified possible risk reduction strategies.
Read, 2006	110 MSM	N/A	18+	Hollywood	Referred by social service agency	Random assignment	Individual	Interactive video with peer counseling, designed to simulate the emotional, interpersonal, and contextual narrative of a real sexual encounter while challenging and changing risky responses
Richardson, 2004	402 MSM	N/A	18+	6 HIV treatment clinics in California	Referred by medical providers	2 clinics assigned 3 conditions	Individual	Two clinics assigned to use a gain-framed approach (positive consequences of safer-sex). Prevention counseling from medical providers supplemented with written information. 3-5 min every visit; 4 hrs training for clinicians
Roffman, 1998	129	Mixed (predominantly white)	18+	Seattle	Community social venues	Alternating assignment	Group	17 weekly 2-hour sessions. Relapse prevention included HIV education, motivation, listening, self-talk, assertiveness, avoiding risky situations, debriefing, maintenance strategies, social support, self-esteem.
Rosser, 2002	169	White	18+	Minneapolis	Community social venues and print advertisements	Random assignment	Group	Minnesota Men's Study: comprehensive seminar featuring systematic desensitization, study of homosexual identity formation, sexual health education, research on cofactors of unsafe sex (drugs, alcohol, loneliness, falling in love). 2 full-day sessions
Rotheram-Borus, 2001	88	Mixed (predominantly AA and Latino)	13 to 24	Los Angeles, New York, San Francisco, Miami	Referred by medical providers	Random assignment	Group	23 weekly 2-hour sessions. 2 modules: Staying Healthy and Acting Safe. Content included coping with learning HIV status, disclosure, health care decisions, protecting self and partner, safer sex options, drugs and alcohol, avoiding internal and external triggers, anxiety and anger.

Rotheram-Borus, 2004	121 MSM	Mixed (predominantly AA and Latino)	16-29	Los Angeles, New York, San Francisco	Referred by social service agencies or medical providers	RCT, 3 conditions	Individual	18 weekly 2-hour sessions. Delivered in person. Content included improving physical health, maintaining drug regimens, coping with learning HIV status, health care decisions, reducing unprotected sex and substance use, examining trigger situations, condom use and negotiation skills and self-efficacy, reducing distress, anticipating situations that raise anxiety, depression, fear, or anger, recognizing and controlling negative emotion, and identifying life goals.
Shoptaw, 2005	162	Mixed (predominantly white)	18+	Los Angeles	Referred by medical providers	Random assignment, 4 conditions	Group	Cognitive Behavior Therapy and Contingent Reinforcement (CBT and CR)
Shoptaw, 2005b	162	Mixed (predominantly white)	18+	Los Angeles	Referred by medical providers	Random assignment, 4 conditions	Group	Gay-specific enhancement of CBT. 90 minute session 3 times per week. Difference in sexual behavior on and off drug, indicators of meth use in sexual partners and friends, comparison of revealing one's drug problem to the coming out process.
Sorenson, 2003	42 MSM	Mixed (predominantly white)	18+	San Francisco	Referred by medical providers	Random assignment	Individual	12 months of intensive PCM
Stall, 1999	129	Mixed (predominantly white)	18+	San Francisco	Referred by medical providers	Alternating assignment	Group	16 week program. 2 3-hour sessions per week. Closed group treatment for substance use disorder plus exercises concerning sexual risk-taking.
Williams, 2006	112	Mixed (predominantly AA)	16+	Houston	Targeted sampling	Random assignment, 2 conditions	Individual	The first session of the standard intervention provided general information about HIV and specific information on sexual and needle use transmission. The second session, which was conducted 1 week after the first, provided information on sexual and needle use risk avoidance, and demonstrations of needle cleaning and condom use techniques. The standard-plus intervention consisted of the information and skills in the standard intervention, plus elements designed to increase condom use intentions.

Wolitski, 2005	811	Mixed (predominantly white)	18+	New York City, San Francisco	Referred by medical providers	Random assignment	Group	6 3-hour sessions. Group activities were facilitated by HIV+ peers. Content included building community for PLWHA, personal responsibility, assumptions and disclosure of serostatus, communication skills, effects of substance use and behavior on immune system, coping with HIV, and mental health.
----------------	-----	-----------------------------	-----	------------------------------	-------------------------------	-------------------	-------	---

3.c. Summary of existing Pennsylvania-based HIV & MSM prevention studies

The purpose of this summary is to highlight key findings from previously completed Pennsylvania-based studies of HIV negative MSM and MSM-IDU and HIV positive MSM and MSM-IDU.

Methods

Existing relevant Pennsylvania HIV prevention studies conducted by members of Pennsylvania Prevention Project (PPP) and the HIV Community Planning Group (CPG) were used to augment the findings of the literature reviews. The information below summarizes the result sections of these studies and reports.

Results

HIV prevention among subpopulations of MSM (PPP, Lombardi & Bulova)

Research among subpopulations African-American, Latino, Rural, Young (age 18-25), and White) of MSM found that all subpopulations had very good knowledge about HIV risk behavior, except for rural MSM, who maintained only a general knowledge of risks. Subpopulations had general but not specific understanding of HIV and AIDS (some young people did not even have general understanding), suggesting a need for education to be a part of HIV-prevention interventions. A significant finding was that MSM faced a number of conditions that impeded effective HIV prevention, including poor self-esteem, internalized hate and shame about having sexual desires for men; fear of stigma related to same-sex behaviors and AIDS; and inability to “come out” to families and communities because of fear of banishment and isolation.

Whether socially open or not open about having sex with men, African-American and Latino MSM felt isolated from larger communities, respective minority communities, and a visible gay community. Both rural and young MSM expressed isolation from an identifiable gay community. Because of the above psycho-social issues, African-American, Latino, rural, and young MSM suggested that most of their peers did not identify as being “gay,” and did not attend gay events/institutions. They also described

other peers who were gay-identified, but who did not use these resources. Therefore, the majority of MSM is hard-to-reach and would need to be reached with HIV-prevention services in mainly non-gay identified venues. Though not facing the same degree of social isolation, traditional MSM described “fragmentation” within the gay community that interfered with reaching a full representation of MSM with HIV-prevention or other health- and esteem-promotion programs. They claimed there were a number of “missed opportunities” for including HIV-prevention services with community events sponsored by and attracting MSM.

HIV risk and testing behaviors among young MSM (PPP, Moyer)

Many young MSM reported getting HIV prevention information from their schools, books and the Internet and rarely from funded HIV prevention agencies, family members and health clinics. Results from this study suggested that a significant proportion of MSM youth do engage in behaviors that could result in HIV infection and that the vast majority of them, even those at highest risk are not getting tested and counseled for HIV. The results of this survey also confirmed that most of these respondents feel they are not at risk. Some seemed unaware that oral HIV tests are available. Knowledge is low regarding what a test result means, different types of HIV tests available, where to go to get tested, times available, and cost of the test.

Major points in this study included the concern that a portion the young MSM, are still afraid of testing positive for HIV, however, fear alone does not stop them from participating in risky behaviors. One-third of the “some risk” group did not know anyone living with HIV, and didn’t believe they are at-risk. These young men still participated in risk behaviors, ones that have a high likelihood of resulting in a future STD and possible HIV infection.

HIV risk behaviors among older MSM (PPP, Lim)

This study described rates of depression, drinking, drug use and risky sexual behavior among older (50+) gay men in Southwestern Pennsylvania. Three groups were identified: the largest group of men as “not depressed” who that had very low

depression scores, a group of men who have some depressive symptoms that seemed to decline as they advanced in age, and a smaller group of men (16%) who reported high depressive symptoms for more than ten years. The men in the “chronically depressed” group reported high levels of depression symptoms that remained high throughout their middle age.

In this study, several sociodemographic, behavioral, and psychosocial variables were found to distinguish the three trajectory groups. Higher rates of depression in the “chronically depressed group” may be explained by socio-economic disadvantages such as racial minority status, poverty, or physical disability. The study also found that chronically depressed men were more likely to use recreational drugs, specifically crack, cocaine, and/or ecstasy. It is plausible that these men became dependent on drugs to cope with depression, and in turn, perpetuates drug dependency.

The chronically depressed men also reported poorer scores in many quality of life outcomes. Consistent with the trend of their depressive symptom scores across the middle age range, the chronically depressed men reported the worst scores in many measures of psychosocial variables such as poorer self worth, less favorable view on life as a whole, less social support. In addition, the chronically depressed men reported poorer scores in quality of life outcomes, including general health, energy level and social functioning. In addition, the significantly higher use of mental health services and antidepressant among chronically depressed men compared with the mildly depressed and not depressed men confirmed the membership of the trajectory groups.

It is important to recognize that a segment of older gay and bisexual men in Pennsylvania are living with HIV, which may be associated with higher rates of depression. Nevertheless, HIV status cannot explain the disparity of depression in this study. In fact, close to 60% of men in our chronically depressed group are HIV-negative. Rather these individuals appeared to be depressed, due to the risk factors known in the general population: minority status, poverty, disability, and lack of social support. Given the strong relationship of illicit substance use, binge drinking, and smoking with

depression, targeting this subgroup of men may also help reduce these risk factors, disability and adverse health outcomes of chronic depression. This epidemiologic approach to reduce mental health morbidity in a subpopulation should be a cost-effective way to prevent depression in later life among this sexual minority.

HIV risk behaviors among rural MSM (CPG, Preston)

In a study of rural MSM in Pennsylvania, Preston and colleagues found that high-risk behavior was common. The study found that predictors of sexual risk behavior differed according to the levels of risky sexual behavior. That is, different factors are associated with levels of sexual risk behavior, not necessarily differing amounts of the same factor between categories. Men in the modified high-risk group reported that health care providers in their communities held less tolerant attitudes. These men were younger and less likely to communicate with health care providers. Intolerant attitudes of health care providers was predictive of higher risk behavior.

HIV prevention among HIV positive MSM (PPP, Arrowood)

Prevention with positives means helping people to prevent spreading HIV to their partners and to reduce their own risk for additional HIV or sexually transmitted infections. The needs assessment conducted by Arrowood from the Pennsylvania Prevention Project was the first in Pennsylvania, outside of Philadelphia, to gather data on HIV-positive individual's knowledge, attitudes, beliefs, and behaviors toward prevention and the role of the care provider in supporting prevention.

Three focus groups were conducted with MSM. Participants were HIV-positive adults and involved with either a major HIV care clinic or other HIV service provider. In addition to group discussion, participants completed an anonymous self-administered questionnaire to better understand their knowledge, attitudes, beliefs and behaviors related to their medical care, risks for transmitting HIV to others, and risk for acquiring secondary infections. Information was also collected regarding the needs and barriers related to prevention in the HIV service setting.

Study results suggested that MSM were knowledgeable about HIV transmission and risk-taking behaviors. MSM were forthcoming about detailed HIV transmission behaviors and the associated levels of risk. Significant amount of unsafe behavior exists among long-term survivors. Some participants reported swallowing semen and/or having unprotected anal intercourse since testing positive. Knowledge and cognition does not translate to behavior change. Denial and apathy about the need for prevention were pervasive. Newer treatments may have led to increased risk taking because of improved health. Level of risk is not necessarily related to disclosure and level of disclosure increases with intimate level of relationship. Doctors, in general, do not talk about prevention and prevention usually takes the form of education, brochures, and free condoms.

Treatment optimism (PPP, Ostrow)

Anitretroviral therapy (ART) related attitudes were found to be a significant determinant for high-risk sexual activity (Ostrow et al, 2002). A reduced concern about HIV, the perception that HIV was not as much of a threat as it was before effective treatments, and the belief that ART decreased concern about transmission were all associated with increased incidence of unprotected sex among MSM. The study examined self-reported unprotected anal sex in the previous 6 months. Of those men who reported any anal sex, more than 50% of the sample reported that it was unprotected. This was seen in both uninfected and HIV-infected men and was associated with reduced concern about HIV infection because of the advent of effective ART. The authors of this study believed that treatment optimism was emerging as a widespread phenomenon among MSM in the United States and called for a tailoring of HIV prevention efforts based on this increasing attitude.

CHAPTER 4

RESOURCE INVENTORY

The resource inventory related activities included obtaining and analyzing available information to determine the HIV preventions activities/interventions available within the jurisdiction to address HIV prevention needs of HIV positive and HIV negative MSM and MSM-ISD. This resource inventory includes a description of all Centers for Disease Control and Prevention (CDC) evidence-based preventions targeted for MSM and MSM-IDU and Pennsylvania Uniform data system data describing the number of MSM and MSM-IDU reached by state supported HIV prevention programs since 2002.

4.a. Centers for Disease Control and Prevention MSM focused HIV interventions

The purpose of this inventory was to identify and describe of all Centers for Disease Control and Prevention (CDC) evidence-based preventions targeted for MSM and MSM-IDU. The Diffusion of Effective Behavioral Interventions (DEBI) project was designed to bring science-based, community, group, and individual-level HIV prevention interventions to community-based service providers and state and local health departments. The goal is to enhance the capacity to implement effective interventions at the state and local levels, to reduce the spread of HIV and STDs, and to promote healthy behaviors.

Methods

Information about the CDC's Diffusion of Effective Behavioral Interventions (DEBI) project and best-evidence interventions was accessed via <http://www.effectiveinterventions.org/>. The included interventions were reviewed to identify those that are specifically designed to target MSM. In total, 3 of the 26 DEBIs and 4 best-evidence interventions specifically target MSM. These interventions were reviewed and summarized.

Results

Currently, only 3 of the 26 DEBIs are specifically designed to target MSM. However, other DEBIS such as Popular Opinion Leader, Healthy Relationships and RAPP have been adapted for the MSM population. The first of the 3 MSM specific DEBIS, *d-up!*, finds and enlists opinion leaders whose advice is respected and trusted by their peers. These opinion leaders are trained to change risky sexual norms of their friends and acquaintances in their own social networks. *d-up!* opinion leaders are prepared to deliver messages that counter racial and sexual biases directed toward Black MSM in society and to promote condom use among Black MSM.

Mpowerment is a community-level intervention for YMSM that uses a combination of informal and formal outreach, discussion groups, creation of safe spaces, social

opportunities, and social marketing to reach a broad range of young gay men with HIV prevention, safer sex, and risk reduction messages.

Many Men, Many Voices (3MV) is a 7-session, group-level intervention program to prevent HIV and sexually transmitted diseases among black men who have sex with men (MSM) who may or may not identify themselves as gay. The intervention addresses factors that influence the behavior of black MSM: cultural, social, and religious norms; interactions between HIV and other sexually transmitted diseases; sexual relationship dynamics; and the social influences that racism and homophobia have on HIV risk behaviors.

In addition to the DEBIs, the CDC has 4 best-evidence interventions specifically targeting MSM that have been rigorously evaluated and have shown significant effects in eliminating or reducing sex- or drug-related risk behaviors, reducing the rate of new HIV/STD infections, or increasing HIV-protective behaviors (Table 2). However, many of these interventions stipulate that significance did not translate across racial groups or that the intervention is not recommended for use in its current form.

Table 2. Best Evidence Interventions for MSM

Name	Target	Description	Evaluation Setting	Effects
EXPLORE	HIV-negative MSM	10 core counseling sessions. Topics include sexual communication, knowledge of personal and others' HIV serostatus when making sexual decisions, and the role of alcohol and drug use in risk behavior.	6 cities (Boston, Chicago, Denver, New York, San Francisco, and Seattle) between 1999 and 2003 with 4,295 men.	Decreased unprotected anal sex; decreased serodiscordant unprotected anal sex, decreased serodiscordant unprotected receptive anal sex.
Personalized Cognitive Risk-Reduction Counseling	MSM) who are HIV-negative and have undergone repeat HIV testing	Single counseling session delivered to clients during the 1-to 2-week period between standard "pre-test" (risk-assessment) and "post-test" (results disclosure) HIV counseling.	Conducted in San Francisco, California, between 1997 and 2000 with 248 MSM of negative or unknown HIV serostatus.	Decreased unprotected anal sex.
Seropositive Urban Men's Intervention Trial (SUMIT) Enhanced Peer-Led Intervention	HIV-positive MSM	Group-level intervention led by HIV-seropositive gay or bisexual peer facilitators, structured group activities focus on sexual and romantic relationships, HIV and STD transmission, drug and alcohol use, assumptions about the HIV status of sex partners, and disclosure of HIV status.	Conducted in New York City and San Francisco between 2000 and 2002. with 811 HIV-positive MSM	Reduced unprotected receptive anal sex
Brief Group Counseling	Asian and Pacific Islander (API) (MSM)	One 3-hour culturally tailored session with four key components: (1) development of positive self identity and social support; (2) safer sex education; (3) promoting positive attitudes toward safer sex; and (4) negotiating safer sex.	Conducted in the San Francisco Bay Area between 1992 and 1994 with 329 men.	Reduced number of sex partners; reduced unprotected sex.

Adapting while maintaining integrity

The CDC has narrowed the definition of adaptation to mean the process of modifying key characteristics of an intervention, recommended activities and delivery methods, without competing with or contradicting the core elements, theory, and internal logic of the intervention thought most likely to produce the intervention's main effects. An intervention is modified to fit the cultural context in which the intervention will take place,

individual determinants of risk behaviors of the target population, and the unique circumstances of the agency and other stakeholders, but the core elements and internal logic are not changed.

In 2003, Popular Opinion Leader was adapted for young Latino migrant MSM as the Young Latino Promotores (YLP) project. Although a number of key characteristics were maintained, others had to be modified to make YLP culturally appropriate for Latino migrant young MSM. To begin the project, all materials, survey instruments, trainer and participant manuals, and educational materials, were translated into Spanish. One key characteristic of POL that was modified was the requirement of an explanation of the theory and philosophy of the intervention. Although researchers found it useful for POL, the target population of YLP had a low level of education and no frame of reference to understand the theory behind the intervention.

Nevertheless, the philosophy of the intervention was explained to respondents using simple terms that they would understand. For example, instead of providing statistically significant information, respondents were informed that according to recent findings their community was at risk for HIV infection and that this could be prevented if they helped. Similarly, they were told about the philosophical underpinnings of the promotora approach, using people from the community to provide information in a culturally appropriate manner.

Changes were also needed for the communication module of Kelly's original program. Even though the role plays and core messages from the original POL study were maintained, the delivery and situations used for the YLP project were modified to be more culturally appropriate to accommodate differences in communication in Latino culture. Additionally, YLP had to navigate the issue of sexual orientation. The YLP project illustrates how DEBI interventions can be adapted in terms of delivery without interfering with the integrity of the content.

According to the investigators of the EXPLORE Study conducted between 1999 and 2003 in 6 U.S. cities with 4,295 MSM, a major challenge of the behavioral intervention was maintaining behavior change over time. Investigators acknowledged the influence of widespread HAART use and changing social norms which contributed to non-retention rates (EXPLORE, 2004). Additionally, investigators suggested using a model that combined individual level interventions with community and structural changes to encourage and support behavior modification.

A 2005/2006 study evaluated the efficacy of Many Men, Many Voices (3MV), a group level HIV/STI prevention intervention for Black MSM that had been developed by two CBOs and a university-based HIV/STI prevention and training program with substantial involvement of the Black MSM community. Relative to comparison participants, those in the 3MV intervention reported a 25% greater reduction in number of male sex partners at the 3-month assessment, and a 66% greater reduction in any UAI and a 51% greater reduction in insertive UAI with casual male partners at the 6-month assessment. Over the entire study period, 3MV participants reported a nearly significant trend for greater consistent condom use during receptive anal intercourse with casual partners (Wilton et al., 2009).

The significant findings may be attributed in part to the intervention's unique feature of engaging participants in the development of menus of options for HIV/STI risk reduction. The 3MV menus, based on known determinants of communicable disease transmission include options for reducing risky sexual and increasing protective health behaviors for men and their partners.

Throughout the intervention, participants were encouraged to select and implement at least two strategies that were most relevant for their personal situation and most likely to succeed. This approach differs from other HIV prevention interventions for MSM that primarily emphasize consistent condom use with all sex partners. By encouraging participants to choose an individualized strategy, the group-level 3MV intervention became tailored to each participant's unique circumstances.

Prior to 2006 there was no CDC–recommended process or set of agreed–upon best practices for adapting EBIs to conditions different from those present in the original research. As a result, there is increasing concern that insufficient guidance may limit the effectiveness of EBIs under these new conditions. To help meet this need, the CDC Division of HIV/AIDS Prevention (DHAP) developed draft guidance on adaptation procedures.

Although not recognized by the CDC, other trials are being conducted to evaluate the efficacy of HIV prevention interventions targeting sub-populations of MSM. One such intervention is the Bruthas Project, a community-collaborative intervention to reduce HIV risk behavior among African American men who have sex with men and women (MSMW) but who do not form an identity around their same-sex behavior. The intervention was developed based on formative research with members of the population, involved four individualized risk reduction counseling sessions and was conducted with 36 men (Operario et al., 2009).

Implementation of the Bruthas Project corresponded with findings from formative research. Previous interviews with African American MSMW demonstrated a need for non-explicit and indirect outreach materials, counselors and outreach staff with whom participants can identify, private counseling spaces where confidentiality and comfort are maximized, and a nonjudgmental and gradual approach to HIV risk reduction counseling in order to earn men's trust. These service delivery elements were facilitated through partnering with a respected community based organization (CBO) in the African American community. The CBO was able to adapt standard outreach and counseling practices in order to meet the needs of these men; this included convening an agency-wide training (including CBO staff members not affiliated with the Bruthas Project) on the unique dynamics contributing to HIV risk among non-gay/ bisexual-identified African American MSMW. Investigators noted that within agency dynamics and staff capacities are essential for implementation of HIV prevention services to this hard-to-reach group of men.

4.b. Current MSM HIV Prevention/Intervention Activities as Reported

The purpose of this inventory was to describe the current MSM focused HIV prevention and intervention activities that are used by HIV subcontractors in the state of Pennsylvania (excluding Philadelphia).

Methods

We were provided prevention activity data reported by all state funded contractors (excluding Philadelphia). The data regarding MSM specific activities were extracted and summarized. Then, this summary was compared to data collected by the seven Pennsylvania Regional Ryan White AIDS Planning Coalitions for January 1, 2009 through December 31, 2009 in Pennsylvania. These data were collected using the uniform data collection processes implemented by the Centers of Disease Control and Prevention (CDC), via Pennsylvania Uniform Data System (PaUDS). Included in these data are information from the following coalitions: the North Central District AIDS Coalition, AIDSNET, the Southwestern Pennsylvania AIDS Planning Coalition (SWPAPC), the AIDS Planning Coalition of South Central Pennsylvania, the Northwest Pennsylvania Rural AIDS Coalition, and the Northeast Regional HIV Planning Coalition. Data from The AIDS Activities Office of Philadelphia (AACO), formerly the TPAC region, was excluded because it could not be distinguished from activities conducted in Philadelphia.

Results

Pennsylvania, excluding Philadelphia, has 36 subcontractors that receive state funding to conduct HIV prevention activities. Eighteen of these subcontractors specifically target MSM. The majority of these subcontractors use CDC Recommended Guidelines (CTR, PCRS, CRCS) or other evidence based supporting documentation to conduct health education/risk reduction (HE/RR) or health communication/public information (HCPI) activities. Of the 18 subcontractors targeting MSM, seven report the use of DEBI interventions/adaptations. Five report using Popular Opinion Leader, two report using

RESPECT, one reports using RAPP, and one reports using Mpowerment. Community Municipal Health Departments primarily focus on CTR services to target MSM.

Breakdown of Activities by Region:

Acronyms

HE/RR – Health Education/Risk Reduction

HC/PI – Health Communication/Public Information

CTR – Counseling Testing and Referral

AIDSNET Region:

9 subcontractors/sub grantees: 4 target MSM

Four conduct individual level HE/RR activities. Three conduct group HE/RR.

Three conduct HE/RR outreach. One conducts (HC/PI) activities.

Northeast Region:

3 subcontractors/sub grantees: 1 targets MSM

This subcontractor conducts individual HE/RR.

Northwest Region:

5 subcontractors/sub grantees: 1 targets MSM

This subcontractor conducts HE/RR outreach and CTR services.

North Central Region:

5 subcontractors: 5 target MSM

Four conduct individual HE/RR. Four conduct group HE/RR. Four conduct HE/RR outreach. One conducts community HE/RR. Three conduct HC/PI activities.

Southwest Region:

8 subcontractors/sub grantees: 3 target MSM

Three conduct individual HE/RR. Two conduct group HE/RR. Two conduct HC/PI activities.

South Central Region:

6 subcontractors/sub grantees: 4 target MSM

Two conduct individual HE/RR. Two conduct group HE/RR. Three conduct HE/RR outreach. Two conduct HC/PI activities. One conducts CTR services.

County Municipal Health Departments:

9 CMHD: 8 target MSM

One conducts group HE/RR. One conducts community HE/RR. Eight conduct CTR services.

Table 1. Regional breakdown of subcontractors, subcontractors reporting targeting MSM and the number of intervention contacts with MSM from January 1, 2009 – December 31, 2009 as collected using the uniform data collection processes implemented by the Centers of Disease Control and Prevention (CDC), via extractions from the Pennsylvania Uniform Data System (PaUDS). The total MSM reached is also reported as a percentage of all contacts per risk category.

	Number of subcontractors	Number targeting MSM	Total MSM reached
AIDSNET	9	4	995 (3.7%)
Northeast	3	1	1378 (13.5%)
Northwest	5	1	35 (<1%)
North Central	5	5	2358 (19%)
Southwest	8	3	658 (12%)
South Central	6	4	2735 (8.2%)

****Note:** This report does not include state-funded activities contracted by Philadelphia (AIDS Activities Coordinating Office [AACO]) for the collar counties (Bucks, Montgomery, Chester, Delaware) because it could not be separated from Philadelphia data.

4. c. Current MSM-IDU HIV Prevention/Intervention Activities as Reported

The purpose of this inventory was to describe the current MSM-IDU prevention and intervention activities that are used by HIV subcontractors in the state of Pennsylvania (excluding Philadelphia).

Methods

We were provided prevention activity data reported by all state funded contractors (excluding Philadelphia). The data regarding MSM-IDU specific activities were extracted and summarized. Then, this summary was compared to data collected by the seven Pennsylvania Regional Ryan White AIDS Planning Coalitions for January 1, 2009 through December 31, 2009 in Pennsylvania. These data were collected using the uniform data collection processes implemented by the Centers of Disease Control and Prevention (CDC), via Pennsylvania Uniform Data System (PaUDS). Included in these data are information from the following coalitions: the North Central District AIDS Coalition, AIDSNET, the Southwestern Pennsylvania AIDS Planning Coalition (SWPAPC), the AIDS Planning Coalition of South Central Pennsylvania, the Northwest Pennsylvania Rural AIDS Coalition, and the Northeast Regional HIV Planning Coalition. Data from The AIDS Activities Office of Philadelphia (AACO), formerly the TPAC region, was excluded because it could not be distinguished from activities conducted in Philadelphia.

Results

Pennsylvania, excluding Philadelphia, has 36 subcontractors that receive state funding to conduct HIV prevention activities. Seven of these subcontractors specifically target MSM-IDU. The majority of these subcontractors use CDC Recommended Guidelines (CTR, PCRS, CRCS) or other evidence based supporting documentation to conduct health education/risk reduction (HE/RR) or health communication/public information (HCPI) activities. Of the seven subcontractors targeting MSM-IDU, 4 report the use of DEBI interventions/adaptations. Two report using Street Smart, two report using Safety

Counts and two report using Community Promise. Community Municipal Health Departments primarily focus on CTR services to target MSM-IDU.

Breakdown of Activities by Region:

Acronyms

HE/RR – Health Education/Risk Reduction

HC/PI – Health Communication/Public Information

CTR – Counseling Testing and Referral

AIDSNET Region:

9 subcontractors/sub grantees: 0 target MSM-IDU

Northeast Region:

3 subcontractors/sub grantees: 2 target MSM-IDU

One conducts individual HE/RR. Two conduct group HE/RR and HE/RR outreach.

Northwest Region:

5 subcontractors/sub grantees: 0 target MSM-IDU

North Central Region:

5 subcontractors: 1 targets MSM-IDU

This subcontractor conducts HE/RR outreach.

Southwest Region:

8 subcontractors/sub grantees: 3 target MSM-IDU

Two conduct individual HE/RR. Two conduct group HE/RR. Two conduct HC/PI activities.

South Central Region:

6 subcontractors/sub grantees: 1 targets MSM-IDU

This subcontractor conducts group HE/RR, HE/RR outreach, HC/PI activities, and CTR services.

County Municipal Health Departments:

9 CMHD: 7 target MSM-IDU

One conducts group HE/RR. Seven use CTR services.

Table 3. Regional breakdown of subcontractors, subcontractors reporting targeting MSM/IDU and the number of intervention contacts with MSM/IDU from January 1, 2009 – December 31, 2009 as collected using the uniform data collection processes implemented by the Centers of Disease Control and Prevention (CDC), via extractions from the Pennsylvania Uniform Data System (PaUDS). The total MSM/IDU reached is also reported as a percentage of all contacts per risk category.

	Number of subcontractors	Number targeting MSM/IDU	Total MSM/IDU reached
AIDSNET	9	0	5 (<1%)
Northeast	3	2	37 (<1%)
Northwest	5	0	1 (<1%)
North Central	5	1	77 (<1%)
Southwest	8	3	0
South Central	6	1	0

****Note:** This report does not include state-funded activities contracted by Philadelphia (AIDS Activities Coordinating Office [AACO]) for the collar counties (Bucks, Montgomery, Chester, Delaware) because it could not be separated from Philadelphia data.

CHAPTER 5

NEW RESEARCH

HIV & MSM Intervention Capacity: A Descriptive Analysis

The additional resource inventory activities included the conduct of new research to examine the capacity of the Department's HIV prevention contractors and to gather data about 1) the barriers and facilitators experienced by the prevention contractors in recruiting and retaining MSM in prevention interventions; 2) the identification of resources that prevention contractors needs to implement effective HIV prevention interview to local MSM and 3) existing programs successfully reaching this population. In addition, new research was conducted to collect data from leaders in the gay community to examine the current MSM HIV prevention interventions in their areas and their suggestions for establishing an effective intervention targeting MSM in their area.

The purpose of the qualitative interviews was to explore the capacity of the Pennsylvania Department of Health's prevention contractors to address HIV among MSM and to explore the experience of gay community leaders with the ability to speak to the current state of HIV prevention among MSM specific to their locations. Engaging both populations was necessary to the creation of a comprehensive community services assessment.

Methods

Participant Selection

Key stakeholders needed to successfully craft a strategic plan for enhancing HIV prevention services for MSM were identified through a collaborative process. Prevention contractors at county/municipal health departments and ASOs receiving state funding were identified by the Pennsylvania Department of Health. Letters briefly describing the purpose of the strategic planning process and the need for voluntary interviews were sent to from the Pennsylvania Department of Health's HIV Prevention Section Chief to the identified HIV prevention contractors. Pennsylvania Prevention Project staff then contact the eligible HIV prevention contractors to solicit their voluntary participation in

the study. Due to potential conflicts of interest, prevention contractors were not compensated for their voluntary participation. Recruitment was limited to agencies and organizations receiving state funding to deliver prevention interventions. Information was not collected from HIV prevention contractors not funded by the state.

Community leaders were recruited through loose respondent driven sampling within the seven HIV/AIDS coalitions in the state, excluding Philadelphia. Initial contact was made by Pennsylvania Prevention Project staff through email or telephone call and participants' self-selected into the study. Community leaders were compensated \$30 for their participation in the study.

Measures

A team of Pennsylvania Prevention Project research faculty and staff, working in consultation with the Pennsylvania Department of Health, Division of HIV/AIDS, developed open-ended qualitative interview field guides instrument to be used during semi-structured interviews. Separate field guides were developed for the prevention contractors and community leaders (Appendix B).

The prevention contractors were asked to describe their experiences with barriers and facilitators in recruiting and retaining MSM in prevention interventions, resources needed to implement effective HIV prevention interventions to local MSM, and existing programs successfully reaching this population.

Community leaders were asked to describe the MSM community and its HIV prevention needs, the scope of available health services, current HIV prevention interventions targeting MSM in their areas, barriers to reaching MSM, and their suggestions for establishing effective intervention methods targeting MSM.

Data Collection

The qualitative interviews were conducted by phone and/or face to face based on the participants' preferences. A field guide was used and the interviews took on average 45

minutes to complete. Verbal permission to tape record the telephone interviews was sought from each participant. Taping the interviews helped to ensure that important information shared by the participant was not missed. The interviews were conducted between June 2009 and January 2010.

Informed Consent

All study protocols and associated documents were developed and Institutional Review Board approval was obtained from both the University of Pittsburgh (PRO09030567) and the PA Department of Health (See Appendix A for University of Pittsburgh IRB application). In order to obtain informed consent, the research team developed a consent form (Appendix C). The consent form identified the purpose of the study, the nature of the interview, the application of voluntary consent and the steps taken to ensure confidentiality. The consent form was provided to the participant prior to the research for his/her record and then verbally repeated at the time of the interview. Participants were given identification numbers which remained unassociated with both the survey instrument and the recorded contents of the interviews.

Data Analysis

The audio recordings of the interviews and written notes taken during the interviews were iteratively reviewed and used to identify key emergent topics. Specific attention was paid to identifying intervention barriers and ideas about ideal prevention situations. The interview segments were then indexed and compiled into topic areas. Specific topics related to areas of interest were then selected, reviewed and summarized. Quotations that illustrate key points were then identified by listening to the tape recordings of the interviews. While quotations are used in the report, confidentiality of all respondents has been protected and no respondent is identified by name or other potentially identifiable information. The analysis process was conducted separately for the HIV prevention contractors and for the community leaders.

Results

The results presented below are organized around key topic areas. Because the results from the HIV prevention contractors and the community leader interviews often overlapped, the results from the two groups are presented together.

Respondent Characteristics

HIV prevention contractors were drawn from across the state. Table 4 provides information about which the distribution of respondents by regional planning coalition HIV/AIDS office.

	Northwest	Southeast	Northeastern	AIDSNet	South Central	Southwestern	Total
HIV prevention contractors	4	3	5	4	11	10	37
Community Leaders	3	0	2	0	7	18	30

Individual level barriers to prevention

Misconceptions regarding treatment effectiveness diminish interest in prevention activities. HIV prevention contractors indicated that MSM may not feel compelled to engage in prevention activities, especially testing and outreach, because medical advances make HIV/AIDS seem less threatening. The perception is “all I have to do is pop a couple of pills and I’m fine.” The urgency associated with the early years of the epidemic is less significant. A few community leaders who are connected with young MSM concurred. Additionally, leaders thought some MSM anticipated infection and thereby abstained from risk reduction strategies.

HIV prevention contractors noted that among some young **MSM a lack of direct experience with HIV/AIDS** in their personal lives contributed to their lack of involvement in prevention activities. For example, one provider notes that, “young people didn’t witness their friends dying [from HIV] on a daily basis.” HIV prevention contractors suggested that YMSM might not have the emotional connection to the

epidemic which makes prevention messages seem less relevant. Interviews with young community leaders indicated to the contrary; however, this may be due to increased mobilization opportunities in metropolitan areas. Young people were also thought to “think outside the box when it comes to activities and programs” because they do not have the experience of the 1980s which resulted in HIV stigma.

The issue of **personal relevance** was also identified as a barrier to HIV prevention among both the HIV prevention contractors and community leaders. Specifically, many interviewed felt that HIV prevention messages do not seem to personally impact some MSM. MSM populations at risk, specifically Black MSM and non-gay identified MSM may not be engaged through traditional messages that target on the basis of identity rather than behavior. This understanding seemed to also partially explain the difficulty in reaching “invisible” subpopulations as they may not utilize the same social and/or medical venues. Interviews with community leaders from the Black MSM community revealed that they did not feel engaged by general prevention messages targeting MSM as they more often identify as “same sex attracted” or “same gender loving” rather than “gay.” Language is a significant barrier as it pertains to racial divisions among MSM.

Many of the HIV prevention contractors noted that **personal discomfort** was a significant barrier to engaging MSM in HIV prevention/interventions and testing. Personal discomfort included fear of disclosing sexual orientation to a practitioner, fear of test results and fear of stigma regarding actual/perceived sexual orientation or actual/perceived serostatus associated with involvement with agencies. Community leaders also noted numerous incidents in which their peers did not return for HIV test results because they couldn’t cope with a positive result which indicates these men are engaging in behaviors that put them at risk. Additionally, leaders provided examples of MSM not accessing services in their residential area for fear of being exposed. One community leader noted that, “wearing the scarlet A is a very strong deterrent” from getting tested for HIV and accessing services.

Socioeconomic status was also identified by both HIV prevention contractors and community leaders as a barrier to MSM to engaging in HIV prevention services. According to one community leader, “A lot of people who see HIV see it as an economically challenged group of people.” Both HIV-positive and HIV-negative MSM may not seek services from agencies which they perceive service individuals of a lower socioeconomic status. The image of AIDS is that of a “person wasting away, attached to IV tubes.” This perception dehumanizes MSM living with HIV/AIDS and serves as a class-based barrier to prevention services.

Prevention fatigue was a common barrier to engaging MSM in HIV prevention/interventions. Many HIV prevention contractors indicated their local MSM communities were at least moderately aware of available services and educated when it came to safer sex prevention messages. However, HIV prevention contractors noted a disconnection between information accrual and internalization. Prevention fatigue was also noted among HIV-positive MSM with regards to co-infection with STIs, especially, syphilis, which indicated that although MSM can be aware of HIV risk behaviors that facilitate transmission and their own serostatus, uptake of prevention resources has not been sufficient.

Institutional/Organizational factors impacting HIV prevention efforts with MSM

The dominant institutional barrier identified by HIV prevention contractors was **capacity of the agency**. This finding was especially relevant for smaller agencies and agencies without strong connections to county municipal health departments and established community based organizations. Limited capacity was associated with inability to introduce DEBIs, conduct consistent and effective outreach and retain staff.

Funding was an especially relevant concern for both small and large agencies and was associated with capacity. Funding challenges also contributed to the loss of key staff that had developed relationships with members of the MSM community. Many HIV prevention contractors noted that MSM outreach was relegated to primarily one or two

staff. If funding was insufficient, they risked losing these valuable contacts; “People want to do good work but they also need to get paid. If the income isn’t there, they move on.”

Insufficient staffing was also a barrier in the sense that agencies that lacked staff affiliated with the MSM community felt they were at a disadvantage being unable to utilize social networking strategies. County municipal health departments felt this less than their community-based counterparts because in most cases, they were not directly targeting MSM for prevention/interventions. Additionally, HIV prevention contractors cited a need for technical training in outreach and recruitment methods in order to build better relationships with local MSM.

Many HIV prevention contractors were dissatisfied with DEBI interventions. For some agencies, the **cost of training staff** proved to be a barrier. DEBIs were also perceived to be “cumbersome,” “not easily translated in application with diverse populations” and “reliant on the use of incentives in order to ensure adequate recruitment.” One provider stated, “If you want to do a behavioral intervention and you only pay minimum wage, when they find something better then they are out the door.” Conversely, several HIV prevention contractors had remarkable success with DEBIs; however, MSM were not generally identified as the target population. When community leaders were asked about interventions in their area, most were unable to identify active programs and largely unfamiliar with evidence-based practices.

Recruitment, enrollment and retention challenges to HIV prevention among MSM

Geography is a significant barrier to prevention with MSM particularly those residing in rural areas. Many HIV prevention contractors are servicing members of the MSM community dispersed across multiple municipalities with limited staff. Community leaders reported geography as a barrier to access among rural MSM and YMSM without transportation.

In agreement with perceptions regarding personal discomfort when accessing prevention services, community leaders perceived **fear of exposure** to be a barrier to active and consistent engagement. This finding was reportedly associated with Black and Latino MSM and YMSM. Involvement in interventions requires some level of “outness” with regards to sexual orientation and serostatus.

Community leaders suggested that local agencies were not aware of cultural values and community practices that facilitate transmission among MSM. One leader noted, “I’m not just going to use a condom because I’m told to do so” and argued that HIV prevention messages need to be tailored to be relevant to the intended audience. Many leaders perceived a **lack of context** when receiving prevention resources.

Many HIV prevention contractors said they have **difficulty accessing MSM** who do not utilize traditional “gay” venues. In some areas of the state, gay social venues are limited and may not even account for a majority of the MSM in those areas. Community leaders suggested broadening prevention messages to include men not just MSM. According to one community leader, prevention messages need to be “presented in a way that respects where people are interacting.”

Both prevention HIV prevention contractors and community leaders identified **stigma** as a significant barrier to accessing prevention services. Stigma was identified on the basis of actual/perceived sexual orientation and actual/perceived serostatus and risk that these personal facets would be found out. Stigma was directly associated with individual motivational barriers such as personal discomfort and “guilt by association” for accessing services in areas in which they reside. This was especially true for Black MSM who also noted the combined impact of homophobia and racism. Rural men are also especially vulnerable and the perception is that “urban MSM are more organized and can [organize] more easily than rural men.”

Some community leaders perceived they were “not welcome” by community agencies who had **reputations for serving specific populations**. Several leaders associated

local agencies with serving primarily women and heterosexuals assumed HIV prevention contractors might not be LGBT-friendly. With regards to county municipal health departments, community leaders mostly associated them with STI testing.

Facilitators to HIV prevention among MSM

The most significant facilitator to engaging MSM in HIV prevention was the **building of trust and rapport with members** of the MSM community. Both HIV prevention contractors and community leaders talked about the importance of an agency having reputation for being trustworthy. Without such a reputation, MSM consumers might doubt the level of investment and the quality of care. Factors that contributed to perceptions of trustworthiness were a reputation for maintaining confidentiality, a nonjudgmental and sex-positive environment/prevention framework, and staff presence in the LGBT community.

HIV prevention contractors at both community based organizations and county municipal health departments addressed the importance of building **partnerships and linkages between agencies**. Partnerships were important between prevention agencies and with establishments within the LGBT community. Most of the HIV prevention contractors gave examples of collaborations with substance use programs, mental health referrals, HIV care facilities, bars, churches or food banks. Although HIV prevention contractors gave examples of relationships with county health departments, health departments were more likely to engage MSM with regards to STI detection than HIV prevention. Community leaders were less aware of the linkages between agencies, suggesting such relationships need to be made more visible to the LGBT community.

Most of the HIV prevention contractors were enthusiastic about utilizing **peer outreach methods**. They preferred utilizing peers when recruiting for interventions and for venue-based prevention outreach. They considered peer outreach to be an effective method for recruiting and retaining MSM in prevention/intervention services; however, many HIV prevention contractors suggested they did not have adequate access to the MSM community in order to facilitate relationship conducive to peer outreach.

Community leaders perceived **peers** to be one of the best ways to reach MSM; however, many were largely unaware of proactive peer outreach programs in their area. Some exceptions were noted in geographically condensed areas where the LGBT community had a better semblance of cohesion based merely on proximity. Many community leaders were quick to identify that the community is segregated by age, race and geography.

Both HIV prevention contractors and community leaders considered **social networking strategies** to be a successful method at engaging MSM in general and also hard-to-reach subpopulations of MSM. Some provider had effectively used social networking to build relationships with the house ball community, and undocumented Latino MSM. Social networking was identified as an important tool when conducting outreach, recruiting for interventions and encouraging counseling and testing. Several HIV prevention contractors mentioned upcoming trainings in social networking strategies.

HIV prevention contractors understood the need to implement interventions that were within the **agency capacity** of the agency. In many cases, prevention/interventions required innovative dissemination and adaptation in order to reach the MSM community and still operate within organizational constraints. One example was the development of a gay men's health and wellness group on college campuses in order to deliver prevention messages within a sexual health framework.

HIV prevention contractors implementing successful interventions noted the importance of **formative research** to assess the appropriate setting, target community and cultural components. HIV prevention contractors that reported community feedback and community "buy in" reported higher rates of recruitment and retention.

Community participation and relationship development was felt to be a very important component facilitating HIV prevention activities. Community leaders also reported "having some commitment" to agencies that had provided for their feedback

regarding prevention methods and intervention acceptability. Community leaders appeared to align this approach with “**something more grassroots and loyal to the community.**” Additionally, agencies who kept continued contact with MSM had better means of interacting with the community.

When asked about what would make prevention/interventions attractive, many community leaders reported a **risk reduction approach**. They also suggested that HIV prevention needed to be integrated into general health and wellness campaigns. Leaders were interested in HIV prevention agencies that had visibility in other areas of health. Some HIV prevention contractors were in the process of creating advisory boards to better assess the health needs of local MSM.

HIV prevention contractors perceived interventions to be more effective when they embraced a **skills-based approach**. Information is not enough. HIV prevention contractors felt that many segments of the MSM community had access to knowledge and resources. Without the skill development component, MSM will not know how to appropriately apply the information they receive in their context.

CHAPTER 6

RECOMMENDATIONS

This systematic and multipronged strategic planning effort lead to the development of recommendations regarding the delivery of targeted, sustained, and evidence-based HIV prevention interventions resources to those subpopulations within the MSM communities in the jurisdiction at highest risk for HIV transmission/acquisition.

The needs assessment activities summarized the last 10 years of literature regarding the HIV prevention needs of diverse groups of MSM and identified current barriers and facilitators to prevention, barriers and facilitators to implementation of prevention interventions, suggestions about successful interventions and explored the implementation of evidence-based HIV prevention interventions among HIV negative and positive MSM and MSM-IDU. In addition, key findings from previously completed Pennsylvania-based studies of HIV negative MSM and MSM-IDU and HIV positive MSM and MSM-IDU were highlighted. The resource inventory found that current MSM and MSM-IDU focused HIV prevention and intervention activities that are used by HIV subcontractors in the state of Pennsylvania (excluding Philadelphia) are extremely limited. HIV prevention contractors are not reaching the MSM population in Pennsylvania. The new qualitative research results identified many barriers and facilitators experienced in recruiting and retaining MSM in prevention interventions and the resources needed to implement effective HIV prevention interview to local MSM. In addition, suggestions were identified for establishing an effective HIV prevention and intervention programs tailored to fit the needs of the MSM population in Pennsylvania.

There is a great deal of scientific evidence supporting the effectiveness of HIV prevention interventions for MSM. Despite this body of research, recent increases in HIV diagnoses in MSM indicate that prevention efforts have not been scaled up and intensified sufficiently to curb the spread of HIV infection in this population. Difficulties in collecting accurate data on HIV infection in MSM, confusion about the definition of

MSM, and ongoing stigma and discrimination remain significant barriers to implementing effective interventions.

In order to mitigate the HIV epidemic in MSM, adequate resources must be dedicated to improving accurate data collection, addressing the sociocultural factors that contribute to MSM risk behavior, and implementing evidence-based behavioral, biomedical, and social interventions that address growing rates of HIV infection in multiple settings. Furthermore, the availability of financial and nonfinancial resources also affects intervention implementation.

Multiple levels of influencing factors require that the corresponding prevention and intervention programs be implemented at the appropriate level. In addition to utilizing and adapting currently available intervention programs such as those included in the DEBI project, new and innovative approaches need to be developed, implemented and evaluated. These recommendations are based on the results of our strategic planning effort to explore and describe the needs of HIV positive and negative MSM.

The **EDUCATIONAL** component of HIV prevention efforts among MSM should;

- Focus on addressing misconceptions regarding HIV treatment effectiveness and HIV prevention efforts should be tailored based on the increasing treatment optimism attitudes. Incorporate the message that treatment for HIV-disease is not a cure for AIDS
- Acknowledge and address increasing HIV prevention fatigue related to prevention messages and the practice of safer sex.
- Address the risks associated with UAI occurring outside of monogamous relationships.

- Seek to make HIV an issue of personal relevance to MSM populations. Providing direct exposure to the impact of HIV/AIDS on the community could encourage involvement in prevention programs and behavior change.
- Seek a better understanding of men’s motivations to avoid risky behavior. HIV prevention altruism is an area for increased attention and intervention focus.
- Reduce stigma around serostatus by providing accurate information about the severity of HIV and how it is transmitted.
- Encourage healthy sexual decision-making by utilizing activities that promote self-esteem.
- Be tailored to reflect the experiences of specific of subpopulations of MSM including African American, young and rural communities.
- Provide real life examples depicting the difficulties in maintaining treatment regimens faced by people with HIV
- Incorporate harm reduction techniques to address co-occurring issues such as drug use and mental health.

The **SKILLS BUILDING & BEHAVIOR CHANGE** components of HIV prevention efforts among MSM should;

- Increase early HIV testing among MSM. Specific focus on Black MSM is warranted.
- Include condom negotiation and harm reduction approach for MSM-IDUs.

The **SETTING** of HIV prevention efforts among MSM should;

- Be selected so as to reduce personal discomfort (i.e. fear of disclosing sexual orientation). This could include offering services outside of community in a setting where the participants might not be recognized. It could also include non-traditional settings such as on-line interventions.
- Be a venue that is trusted by MSM. MSM living in rural areas often do not feel safe participating in educational programs, especially programs that might reveal their sexual orientation. Programs targeting rural MSM need to be offered by agencies that are trusted by MSM. The cultural competency of prevention staff in rural areas is exceptionally important. Internet programs will also be useful reaching men in rural areas who use the Internet to find partners.

RECRUITMENT AND IDENTIFICATION OF PARTICIPANTS for HIV prevention efforts among MSM should;

- Utilize social networking strategies to reach and engaged MSM. This may be a particularly useful approach for engaging MSM who delay HIV testing. Peer outreach methods should be used to reach MSM with undiagnosed HIV infection.
- Be present in the MSM community. Presence goes beyond pride events and gay bars. Utilize alternative venues such as bathhouses, ballroom competitions, and private parties to deliver safer sex messages and build relationships with at-risk MSM.
- Require the development of recruitment strategies by establishing rapport with members of the MSM community. Strategies need to be specific to the local culture.

ORGANIZATIONS interested in implementing HIV prevention efforts for MSM should;

- Increase hiring of staff affiliated with the MSM communities.
- Make prevention for positives a priority by partnering with clinics, healthcare providers and support groups.
- Conduct formative research to assess the setting, target community and cultural components. Talk to MSM before trying to implement a DEBI or a homegrown intervention. Interventions have a better chance of succeeding when community feedback is incorporated into the design and MSM will be more likely to get involved with a program to which they made contributions.
- Seek opportunities to partner with non-HIV related medical services in order to incorporate HIV prevention among MSM into existing health and wellness promotions that do not rely on gay identification.
- Address the contextual and environmental factors (e.g. substance use, depression and violence) contributing to sexual risk behaviors and HIV infection. The local context and culture should be addressed and included. This could be achieved by building trust and rapport with member of the local MSM community and by building partnerships across agencies.
- Consider conducting HIV prevention efforts at multiple levels (i.e. individual, group and community)
- Adopt a “zero tolerance” policy for homophobia and ensure that staff is trained in diversity and sensitivity.
- Target and serve only those engaging in or likely to engage in risk behaviors that also demographically reflect the local HIV/AIDS cases.

- Know the local epidemiology and refrain from using funds to primarily deliver interventions to the general public.
- Establish advisory boards of at risk MSM in order to more effectively coordinate outreach and recruitment efforts.

FUNDING agencies interested in supporting HIV prevention efforts for MSM should;

- Increase funding to support small and large agencies implementing HIV prevention programs.
- Address the training costs associated with the DEBIs
- Monitor how ASOs are targeting MSM and censor agencies receiving funding when they prohibit clear conversations about MSM risks.
- Link high capacity agencies with those less developed. Communication between funders and agencies is a critical aspect of social networking.

FUTURE AREAS for HIV prevention among MSM include;

- Developing alternative HIV harm reduction approaches such as access to pre/post exposure prophylaxis and microbicides
- Designing interventions that reduce stigma around sexual orientation and/or serostatus. Statewide initiatives to reduce stigma are critical.
- Prioritizing prevention for positives.

REFERENCES

- Academy for Educational Development (2009). Diffusion of Effective Behavioral Interventions. Retrieved on July 1, 2009 from <http://www.effectiveinterventions.org/>.
- Bauermeister, J., Carballo-Diequez, A., Ventuneac, A., Dolezal, C. (2009). Assessing motivations to engage in intentional condomless anal intercourse in HIV-risk contexts (“bareback sex”) among men who have sex with men. *AIDS Education and Prevention*, 21(2), 156-168.
- Blankenship, K. M., Bray, S.J., Merson, M. H. (2000). Structural interventions in public health. *AIDS*, 14(suppl 1):S11– S21.
- Berg, R. C. (2008). Barebacking among MSM Internet users. *AIDS & Behavior*, 12:822–833.
- Carballo-Diéquez, A., Bauermeister, J. (2004) “Barebacking”:Intentional condomless anal sex in HIV-risk contexts. *Journal of Homosexuality*, 47(1):1–16.
- Carballo-Diéquez, A., Dolezal, C., Leu C. et al (2005). A randomized controlled trial to test an HIV-prevention intervention for Latino gay and bisexual men: Lessons learned. *AIDS Care*, 17:314–328.
- Carballo-Diéquez, A., Dowsett, G., Ventuneac, A., Remien, R., Balan, I. et al. (2006). Cybercartography of popular internet sites used by New York City men who have sex with men interested in bareback sex. *AIDS Education and Prevention*, 18:475–489.
- CDC AIDS Community Demonstration Projects (1999). Community level HIV intervention in 5 cities: final outcome data from the CDC AIDS Community Demonstration Projects. *American Journal of Public Health*, 89:336–345.
- CDC. (2003). Increases in HIV diagnoses – 29 states, 1999–2002. *Morbidity and Mortality Weekly Reports*, 52:1145–1148.
- CDC. (2005). HIV prevalence, unrecognized infection, and HIV testing among men who have sex with men: five U.S. cities, June 2004-April 2005. *Morbidity and Mortality Weekly Report* 2005, 54:597–601.
- CDC. (2008). Cases of HIV infection and AIDS in the United States and dependent areas, 2006. *HIV/AIDS Surveillance Report*, 18.
- CDC. (2009). HIV/AIDS in the United States. *HIV/AIDS Surveillance Report*,19. Retrieved on June 31, 2009 from <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/>.
- CDC. (2009). HIV/AIDS and young men who have sex with men. Retrieved on August 8, 2009 from http://www.cdc.gov/HealthyYouth/sexualbehaviors/pdf/hiv_factsheet_ymsm.pdf.
- Cohen, D. A., Wu, S., Farley, T. A. (2006). Structural interventions to prevent HIV/sexually transmitted disease: Are they cost effective for women in Southern United States? *Sexually Transmitted Diseases*, 33(suppl 7):S46–S49.

- Ciesielski, C. (2003). Sexually transmitted diseases in men who have sex with men: An epidemiologic review. *Current Infectious Disease Reports*, 5, 145–152.
- Crawford, I., Allison, K. W., Zamboni, B. D., et al. (2002). The influence of dual-identity development on the psychosocial functioning of African-American gay and bisexual men. *Journal of Sex Research*, 39:179–189.
- Crepaz, N., Hart, T. A., & Marks, G. (2004). Highly active antiretroviral therapy and sexual risk behavior: A meta-analytic review. *Journal of the American Medical Association*, 292:224–236.
- Des Jarlais, D. C. (2000). Structural interventions to reduce HIV transmission among injecting drug users. *AIDS*, 14:S41–S46.
- Dilley, J., Woods, W., Sabatino J, et al (2002). Changing sexual behavior among gay male repeat testers. *Journal of Acquired Immune Deficiency Syndrome*, 30:177–186.
- Dilley, J., Woods, W., Loeb L., et al (2007). Brief cognitive counseling with HIV testing to reduce sexual risk among men who have sex with men: Results from a randomized controlled trial using paraprofessional counselors. *Journal of Acquired Immune Deficiency Syndrome*, 44(5):569–577.
- EXPLORE Study Team (2004). Effects of a behavioural intervention to reduce acquisition of HIV infection among men who have sex with men: The EXPLORE randomised controlled study. *Lancet*, 364:41–50.
- Frost, D. M., Stirratt, M. J., Ouellette, S. C. (2008) Understanding why gay men seek HIV-seroconcordant partners: Intimacy and risk reduction motivations. *Culture, Health & Sexuality*, 10(5):513–527.
- Glass, T. A., McAtee, M. J. (2006). Behavioral science at the crossroads in public health: extending horizons, envisioning the future. *Social Science and Medicine*, 62:1650–1671.
- Gold, R. S. (2004). Explaining gay men’s unrealistic optimism about becoming infected with HIV. *International Journal of STD and AIDS*, 15:99–102.
- Gold, R. S. (2006). Unrealistic optimism about becoming infected with HIV: Different causes in different populations. *International Journal of STD and AIDS*, 17:196–199.
- Golden, M. R., Wood, R. W., Buskin, S. E., Fleming, M., Harrington, R. D. (2007). Ongoing risk behavior among persons with HIV in medical care. *AIDS and Behavior*, 11(5):726–735.
- Grov, C., DeBusk, J. A., Bimbi, D. S., Golub, S. A., et al. (2007). Bare-backing, the Internet, and harm reduction: An intercept survey with gay and bisexual men in Los Angeles and New York City. *AIDS and Behavior*, 11(4):527–536
- Gupta, A., Ferguson, J. (1992) Beyond “culture”: Space, identity, and the politics of difference. *Cultural Anthropology*, 7(1):6–23.
- Halpern–Felscher, B. L., Kropp, R. Y., Tschann, J. M., Ellen, J. M. (2004). Adolescents’ self–efficacy to communicate about sex: It’s role in condom attitudes, commitment, and use. *Adolescence*, 39(155), 443–456.

Herbst, J. H., Beeker, C., Matthew, A., McNally, T., Passin, W. F., Kay, L. S., et al. (2007). The effectiveness of individual-, group-, and community-level HIV behavioral risk-reduction interventions for adult men who have sex with men: A systematic review. *American Journal of Preventive Medicine*, 32:S38–S67.

Hoyt, M. A., Nemeroff, C. J., & Huebner, D. M. (2006). The effects of HIV-related thought suppression on risk behavior: Cognitive escape in men who have sex with men. *Health Psychology*, 25:455–461.

Huebner, D. M., Davis, M. C., Nemeroff, C. J., & Aiken, L. S. (2002). The impact of internalized homophobia on HIV preventive interventions. *American Journal of Community Psychology*, 30:327–348.

Huebner, D. M., Rebchook, G. M., & Kegeles, S. M. (2004). A longitudinal study of the association between treatment optimism and sexual risk behavior in young adult gay and bisexual men. *Journal of Acquired Immune Deficiency Syndrome*, 37, 1514–1519.

Huebner, D. M., Proescholdbell, R. J., Nemeroff, C. J. (2006) Do gay and bisexual men share researchers' definitions of barebacking? *Journal of Psychology & Human Sexuality*, 18(1):67–77.

Johnson, W. D., Diaz, R. M., Flanders, W. D., Goodman, M., Hill, A. N., Holtgrave, D., et al. (2008). Behavioral interventions to reduce risk for sexual transmission of HIV among men who have sex with men. *Cochrane Database of Systematic Reviews*, 16(3).

Kalichman, S., Rompa, D., Cage, M. (2005). Group intervention to reduce HIV transmission risk behavior among persons living with HIV/AIDS. *Behavior Modification*, 29(2):256–285.

Kalichman, S. C., Eaton, L., Cain, D., et al. (2007). Changes in HIV treatment beliefs and sexual risk behaviors among gay and bisexual men, 1997–2005. *Health Psychology*, 26(5):650-656.

Kalichman, S. C., Eaton, L., White, D., Cherry, C., Pope, H., Cain, D., et al. (2007). Beliefs about treatments for HIV/AIDS and sexual risk behaviors among men who have sex with men, 1997–2006. *Journal of Behavioral Medicine*, 30, 497–503.

Kegeles, S., Rebchook, G., Hays, R. et al (2002). Staving off increases in young gay/bisexual men's risk behavior in the HAART era. XIV International Conference on AIDS. Barcelona. Abstract # MoPeD3549.

Kennamer, J. D., Honnold, J., Bradford, J., Hendricks, M. (2000) Differences in disclosure of sexuality among African American and white gay/bisexual men: implications for HIV/AIDS prevention. *AIDS Education and Prevention*, 12:519–531.

Kidder, D. P., Wolitski, R. J., Royal, S., et al. (2007). Access to housing as a structural intervention for homeless and unstably housed people living with HIV: rationale, methods, and implementation of the housing and health study. *AIDS and Behavior*, 11:S149–S161.

Kippax, S., & Race, K. (2003). Sustaining safe practice: Twenty years on. *Social Science and Medicine*, 57:1–12.

- Koblin, B. A., Husnik, M. J., Colfax, G., et al. (2006). Risk factors for HIV infection among men who have sex with men. *AIDS*, 20:731–739.
- Kubicek, K., Beyer, W., Weiss, G., Iverson, E., Kipke, M. (2009). In the dark: young men's stories of sexual initiation in the absence of relevant sexual health information. *Health Education and Behavior*.
- MacKellar, D., Valleroy, L., Secura, G., et al. (2005). Unrecognized HIV infection, risk behaviors, and perceptions of risk among young men who have sex with men: opportunities for advancing HIV prevention in the third decade of HIV/AIDS. *Journal of Acquired Immune Deficiency Syndrome*, 38(5):603–614.
- MacKellar, D., Valleroy, L., Behel, S., et al. (2006). Unintentional HIV exposures from young men who have sex with men who disclose being HIV-negative. *AIDS*, 20(12): 1637–1644.
- Meyer, I. H. (2005). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129, 674–697.
- Miller, R., Klotz, D., Eckholdt, H. (1998). HIV prevention with male prostitutes and patrons of hustler bars: replication of an HIV preventive intervention. *American Journal of Community Psychology*, 26(1):97–131.
- Millet, G., Peterson, J., Wolitski, R., Stall, R. (2006) Greater risk for HIV infection of black men who have sex with men: A critical literature review. *American Journal of Public Health*, 96(6):1007-1019.
- Morgenstern, J., Irwin, T. W., Wainberg, M.L., et al. (2007). A randomized controlled trial of goal choice interventions for alcohol use disorders among men who have sex with men. *Journal of Consulting and Clinical Psychology*, 75:72–84.
- Nemeroff, C. J., Hoyt, M. A., Huebner, D. M., & Proescholdbell, R. J. (2008). The cognitive escape scale: Measuring HIV-related thought avoidance. *AIDS and Behavior*, 12:305–320.
- Nodín, N., Carballo-Diéguez, A., Ventuneac, A., et al. (2008). Knowledge and acceptability of alternative HIV prevention bio-medical products among MSM who bareback. *AIDS Care*, 20(1):106–115.
- O'Dell, B., Rosser, B. R., Miner, M., Jacoby, S. (2008). HIV prevention altruism and sexual risk behavior in HIV-positive men who have sex with men. *AIDS Behavior*, 12:713-720.
- O'Leary, A., Hoff, C. C., Purcell, D. W., Gomez, C. A., Parsons, J. T., Hardnett, F., & Lyles, C. M. (2005). What happened in the SUMIT trial? Mediation and behavior change. *AIDS*, 19(suppl 1), S111–S121.
- Osmond, D. H., Pollack, L. M., Paul, J. P., Catania, J. A. (2007). Changes in prevalence of HIV infection and sexual risk behavior in men who have sex with men in San Francisco: 1997–2002. *American Journal of Public Health*, 97(9):1677–1683.
- Ostrow, D. E., Fox, K. J., Chmiel, J. S., Silvestre, A., Visscher, B. R., Venable, P. A., et al. (2002). Attitudes towards highly active antiretroviral therapy are associated with sexual risk taking among HIV-infected and uninfected homosexual men. *AIDS*, 16:775–780.

Ostrow, D. G., Silverberg, M. J., Cook, R. L., Chmiel, J. S., Johnson, L., Li, X., et al. (2008). Prospective study of attitudinal and relationship predictors of sexual risk in the multicenter AIDS cohort study. *AIDS and Behavior*, 12:127–138.

Parsons, J.T., Bimbi, D. S. (2007). Intentional unprotected anal intercourse among who have sex with men: barebacking - from behavior to identity. *AIDS and Behavior*, 11:277–287.

Patterson, T., Shaw, W., Semple, S. (2003). Reducing the sexual risk behaviors of HIV+ individuals: outcome of a randomized controlled trial. *Annals of Behavioral Medicine*, 25:137–145.

Picciano, J., Roffman, R., Kalichman, S., et al. (2001). A telephone based brief intervention using motivational enhancement to facilitate HIV risk reduction among MSM: a pilot study. *AIDS and Behavior*, 5(3):251–262.

Preston, D. B., D'Augelli, A. R., Kassab, C. D., & Starks, M. T. (2007). The relationship of stigma to the sexual risk behavior of rural men who have sex with men. *AIDS Education and Prevention*, 19: 218–230.

Read, S., Miller, L., Appleby, P., et al (2006). Socially Optimized Learning in a Virtual Environment: Reducing Risky Sexual Behavior Among Men Who Have Sex with Men. *Human Communication Research*, 32: 1–34.

Reisner, S., Mimiaga, M., Skeer, M., Mayer, K. (2009). Beyond anal sex: Sexual practices associated with HIV risk reduction among men who have sex with men in Boston, Massachusetts. *AIDS Patient Care and STDs*, 23(7).

Richardson, J., Milam, J., McCutchan, A., et al. (2004). Effect of brief safer-sex counseling by medical providers to HIV-1 seropositive patients: a multi-clinic assessment. *AIDS*, 18:1179 - 1186.

Roffman, R., Stephens, R., Curtin, L., et al. (1998). Relapse prevention as an interventive model for HIV risk reduction in gay and bisexual men. *AIDS Education and Prevention*, 10(1):1–18.

Rosser, B., Bockting, W., Rugg, D., et al. (2002). A randomized controlled intervention trial of a sexual health approach to longterm HIV risk reduction in men who have sex with men. Effects of the intervention on unsafe sexual behavior. *AIDS Education and Prevention*, 14(Suppl 3):59–71.

Rotheram-Borus, M., Lee, M., Murphy, D., et al. (2001). The Teens Linked to Care Consortium. Efficacy of a Preventive Intervention for Youths Living With HIV. *American Journal of Public Health*, 91:400–405.

Schwarcz, S., Scheer, S., McFarland, W., Katz, M., Valleroy, L., Chen, S., et al. (2007). Prevalence of HIV infection and predictors of high-transmission sexual risk behaviors among men who have sex with men. *American Journal of Public Health*, 97:1067-1075.

Semaan, S., Kay, L., Strouse, D., Sogolow, E., Mullen, P. D., Neumann, M. S., et al. (2002). A profile of U.S.-based trials of behavioral and social interventions for HIV risk reduction. *Journal of Acquired Immune Deficiency Syndrome*, 30 (Suppl 1):S30–S50.

- Shoptaw, S., Reback, C., Peck, J., et al (2005). Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. *Drug and Alcohol Dependence*, 78(2):125–34.
- Sorensen, J., Dilley, J., London, J., et al (2003). Case management for substance abusers with HIV/AIDS: a randomized clinical trial. *American Journal of Drug and Alcohol Abuse*, 29:133–150.
- Stall, R., Paul, J., Barrett, D., et al (1999). An outcome evaluation to measure changes in sexual risk-taking among gay men undergoing substance use disorder treatment. *Journal of Studies on Alcohol*, 60(6):837–845.
- Stall, R., Paul, J. P., Greenwood, G., et al. (2001). Alcohol use, drug use and alcohol-related problems among men who have sex with men: The Urban Men's Health Study. *Addiction*, 96:1589–1601.
- Stall, R., Mills, T. C., Williamson, J., Hart T., et al. (2003). Association of co-occurring psychosocial health problems and increased vulnerability to HIV/AIDS among urban men who have sex with men. *American Journal of Public Health*, 93:939–942.
- Stall, R., Purcell, D. W. (2000). Intertwining epidemics: a review of research on substance use among men who have sex with men and its connection to the AIDS epidemic. *AIDS and Behavior*, 4:181–192.
- Stanley, J.L. (2003). An applied collaborative training program for graduate students in community psychology: A case study of a community project working with lesbian, gay, bisexual, transgender and questioning youth. *American Journal of Community Psychology*, 31(3/4), 253–65.
- Stirratt, ML. I have something to tell you: HIV serostatus disclosure strategies and sexual practices.. In: Halkitis, P. N., Gomez, C., Wolitski, R., editors. HIV-positive sex: The psychological and interpersonal dynamics of HIV-seropositive gay and bisexual men's relationships. American Psychological Association; Washington, DC: 2005. p. 101-119.
- Stockman, J. K., Schwarcz, S. K., Butler, L. M., de Jong, B., Chen, S. Y., Delgado, V., et al. (2004). HIV prevention fatigue among high-risk populations in San Francisco. *Journal of Acquired Immune Deficiency Syndrome*, 35:432–434.
- Stokes, J. P., Peterson, J. L. (1998). Homophobia, self-esteem, and risk for HIV among African American men who have sex with men. *AIDS Education and Prevention*, 10:278–292.
- Stolte, I. G., de Wit, J. B., Kolader, M., Fennema, H., Coutinho, R. A., & Dukers, N. H. (2006). Association between 'safer sex fatigue' and rectal gonorrhea is mediated by unsafe sex with casual partners among HIV-positive homosexual men. *Sexually Transmitted Diseases*, 33:201–208.
- UyBico, S., Pavel, S., & Gross, C. (2007). Recruiting vulnerable populations into research: A systematic review of recruitment interventions. *Journal of General Internal Medicine*, 22:852–863.

Valdiserri, R. O. (2004). Mapping the roots of HIV/AIDS complacency: Implications for program and policy development. *AIDS Education and Prevention*, 16:426–439.

van Kesteren, N. M. C., Hospers, H. J., & Kok, Gerjo. (2007). Sexual risk behavior among HIV-positive men who have sex with men: A literature review. *Patient Education and Counseling*, 65:5-20.

van Kesteren, N. M. C., Hospers, H. J., Kok, G., & van Empelen, P. (2005). Sexuality and sexual risk behavior in HIV-positive men who have sex with men. *Qualitative Health Research*, 15:145–168.

Washington T., Meyer-Adams, N. (2009). HIV prevention needs of sex-trading injection drug-using black men who have sex with both men and women. *American Journal of Men's Health*,

Williams, M. L., Elwood, W. N., & Bowen, A. M. (2000). Escape from risk: A qualitative exploration of relapse to unprotected anal sex among men who have sex with men. *Journal of Psychology and Human Sexuality*, 11:25–49.

Wolitski, R. J., Bailey, C. J., O'Leary, A., Gomez, C., & Parsons, J. T. for the Seropositive Urban Men's Study (SUMS) (2003). Selfperceived responsibility of HIV-seropositive men who have sex with men for preventing HIV transmission. *AIDS and Behavior*, 7:363–372.

Wolitski, R. J., Parsons, J.T., Gómez, C.,A. (2004). Prevention with HIV-seropositive gay and bisexual men: Lessons learned from the Seropositive Urban Men's Study (SUMS) and the Seropositive Urban Men's Intervention Trial (SUMIT). *Journal of Acquired Immune Deficiency Syndrome*, 37(Suppl 2):S101–S109.

Wolitski, R. J., Rietmeijer, C. A., Goldbaum, G. M., Wilson, R. M. (1998). HIV serostatus disclosure among gay and bisexual men in four American cities: general patterns and relation to sexual practices. *AIDS Care*, 10:599–610.

Wolitski, R. J., Valdiserri, R. O., Denning, P. H., & Levine, W. C. (2001). Are we headed for a resurgence of the HIV epidemic among men who have sex with men? *American Journal of Public Health*, 91, 883–888.

Wolitski, R., Gómez, C., Parsons, J., and the SUMIT Study Group (2005). Effects of a peer-led behavioral intervention to reduce HIV transmission and promote serostatus disclosure among HIVseropositive gay and bisexual men. *AIDS* 2005;19(Suppl 1):S99-S109.

APPENDIX A

**OSIRIS Request for Exempt Determination:
Tests, Surveys, Interviews, or Observations of Public Behavior**

Title of Study: HIV & MSM Intervention Capacity: Development of a Strategic Plan
Principal Investigator: Last name: Burke First name: Jessica
Note: This exemption is limited to individuals 18 years of age or older. Subjects under 18 can be evaluated with educational tests <u>only</u> (no surveys or interviews). They can also be observed in public places, but only so long as researchers do not participate in the activities being observed.
A. Check type(s) of measures to be used: <input type="checkbox"/> Passive Observation of Public Behavior; <input type="checkbox"/> Educational Tests (cognitive, diagnostic, aptitude); <input type="checkbox"/> Survey; <input checked="" type="checkbox"/> Interview; <input type="checkbox"/> Other (Describe) * Have copies of all measures or questions been attached? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> . If no, why not?
B. Is a script attached (or inserted in question 5a) that describes the study to the subject and includes basic elements of consent (e.g., risks and benefits, confidentiality of data, right to withdraw; for model, see http://www.irb.pitt.edu/Exempt/script-1.pdf)? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NA <input type="checkbox"/> . If no, why not?
C. If applicable, have recruitment materials been attached and uploaded (or inserted in question 4b)? No <input type="checkbox"/> Yes <input type="checkbox"/> NA <input checked="" type="checkbox"/> . If no, why not?
D. Will subjects under 18 years of age be studied? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> ; If yes, to what extent will researchers interact with subjects?
E. Will information be recorded anonymously (i.e., no subject identifiers recorded)? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> ; If identifiers are recorded, provide justification:
F. Will “sensitive information” be recorded that could damage subjects’ reputation, employability or financial standing, or place them at risk for criminal or civil liability? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> . If yes, explain:
G. Will any information from this project be submitted to the FDA? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>

IRB Protocol

1. Study Aims

- (a) **What is this research intended to accomplish?** The goal of this research is to develop a Pennsylvania state strategic plan to assist in decreasing HIV and STD transmission among diverse populations of for men who have sex with men (MSM). We will conduct qualitative interviews with department of health (DOH) contractors and with gay identified community leaders. The interivews with 40 DOH contractors will focus on gathering data about barriers and faciliators experienced by prevetion contractors and the resources needed to implement effective HIV prevention programs for MSM. The interviews with 30 community leaders leaders will focus on gathering a description of current MSM HIV prevention interventions in their areas and their suggestions for establishing an effective intervention targeting MSM in their area.

2. Background and Significance

- (a) **What observations or prior scientific findings serve as the basis for this study?** The Centers for Disease Control and Prevention (CDC) recently released 2006 national HIV incidence estimates show that gay and bisexual men of all races remain the group most heavily affected by HIV, accounting for 53% of all new infections. In Pennsylvania, excluding Philadelphia, the epidemic continues to pose a significant and disproportionate threat to MSM and MSM who are also injection drug users (MSM-IDU), almost 33% of new infections in 2004.
- (b) **Why is it important to conduct this research?** Identifying the HIV prevention needs of MSM and the the capacity building needs of county and municipal health departments and the perceptions of community leaders regarding the state of HIV prevention in their communities will build strong linkages with local MSM communities in order to implement effective HIV prevention programs targeting MSM at high risk of acquiring or transmitting HIV.

3. Subjects

- (a) **Who will be studied?** 40 department of Health staff, affiliates and contractors and 30 gay community leaders will be qualitatively interviewed.
- (b) **If children are included...** Not Applicable
 - (i) **Provide a rationale for the specific age ranges of children to be included.**
 - (ii) **Describe the expertise of the investigative team for dealing with children of that age range.**
 - (iii) **Describe the adequacy of the research facilities to accommodate children of that age range.**
 - (iv) **Will sufficient numbers of children be studied to answer the scientific questions? Please elaborate.**
 - (v) **Will the investigators interact directly with the child subject?** No ; Yes
 - (vi) **Is the research limited to educational tests or observations of behavior?** No ; Yes

4. Recruitment

- (a) **How will potential subjects be identified and how and where will they be approached for participation?** The PA Department of Health will help recruit county and municipal health department staff and community leaders through electronic distributions and by word of mouth.

- (b) **Describe recruitment materials** (*ads, letters, recruitment script, etc.*) **to be used and if applicable, upload 1 copy.** Letters will briefly describe the purpose of the strategic planning process, the need for voluntary interviews and how strategic planning activities are a part of the community services assessment process.

5. Methods

- (a) **Attach a script that provides participants with information about this research project as well as about their rights as a research subject.** Reference attached informational script for the qualitative interviews.
- (b) **How will subjects be evaluated?** Qualitative interviews will be used to collect information regarding the scope of existing HIV prevention programs and intervention capacity to recruit and retain MSM.
- (c) **List the measures to be used, and upload 1 copy of each** (unless measure does not require submission – see listing of Standard Instruments in Appendix G of IRB Manual). Reference attached questionnaire.
- (d) **How will information be obtained (e.g., face to face, phone, mail, Internet)?** The qualitative interviews will be conducted by phone and/or face to face. The exact method will be determined based on the participants' preferences. A field guide containing questions that will be used to facilitate the qualitative interviews is attached. The qualitative interviews will take approximately 45 minutes to complete and include open-ended questions. Verbal permission to tape record the telephone interviews will be sought from each participant. Taping the interviews helps to ensure that we do not miss any important information that is shared by the participant. The tape recorded interviews will be transcribed and the original tapes will be destroyed after the transcriptions are complete. During the transcription process, tapes will be stored in a locked study office drawer and only study team personnel will have access to the tapes.
- (e) **Where will study be conducted, and who will collect data?** The qualitative interviews will be conducted by phone at Pitt and on site in secure and private venues as necessitated by the needs of community leaders. The interviews will be conducted by study team members.
- (f) **How often will subjects be contacted, and why?** Subjects will self-select into the qualitative portion of this study and will only be contacted as necessary to secure appropriate time to conduct the interviews.
- (g) **How will confidentiality of data be maintained?** This project poses little risk to participants. We will take several steps to minimize the risk of breach of confidentiality for participants. During telephone and face to face interviews, participants will be asked to only share their first name with the interviewer. There will be no name, address, social security number or other identifiers on the qualitative interviews themselves.

(h) **If subjects will be paid or otherwise compensated or ‘incentivized’, indicate how much they will receive, and how they will be compensated (e.g., check, gift card / voucher, etc.).** The PA department of health constructors will not be compensated due to potential conflict of interest. The gay community leaders will be compensated \$30 using the "we pay" system.

6. **Analysis**

(a) **How will results be analyzed to determine that study aims have been met?** The qualitative interviews will be transcribed. The transcripts will be managed, summarized and analyzed using the NVivo software package. Specific attention will be paid to identifying intervention barriers and ideas about ideal prevention situations. The open-ended questions will be analyzed following Spradley’s (1979) guidelines for qualitative data analysis. First, the text will be read in their entirety to identify thematic codes relevant to the study aims. Next, the segments of text will be coded. The QRS NVivo software will be used to manage, index and explore the data. Specific codes related to areas of interest will then be selected, reviewed and summarized

7. **Summarize the qualifications and experience of the Principal Investigator that are relevant to the conduct this research study:** Dr. Jessica Burke is the principal investigator for this needs assessment study. Dr. Burke is an Assistant Professor in the Department of Behavioral and Community Health Sciences at the University of Pittsburgh Graduate School of Public Health, an Assistant Investigator with the Magee-Women’s Research Institute and is affiliated with the University of Pittsburgh Center for Injury Research and Control. She also holds adjunct faculty appointments in the Department of Population and Family Health Sciences and the Center for Injury Research and Policy at the Johns Hopkins Bloomberg School of Public Health. Dr. Burke is a social scientist whose emerging area of expertise is the utilization of innovative quantitative social epidemiologic and qualitative ethnographic methodologies in the exploration of multiple levels of determinants affecting issues of health and well-being. Much of her work is concentrated on intentional injuries including intimate partner violence. Since 1998, Dr. Burke as been directly involved with eight federally funded research projects. Building upon her first research coordinator position for a National Institute of Mental Health-funded study of HIV and domestic violence, she has gone on to serve as project director, Co-Investigator, and Principal Investigator on research projects funded by agencies such as the Centers for Disease Control and Prevention, the Maternal and Child Health Bureau of HRSA, and the National Institute of Child Health and Human Development.

8. **Additional Information, Clarification, or Comments for the IRB Reviewer:**

CERTIFICATION OF INVESTIGATOR RESPONSIBILITIES

By submitting this form to the IRB via OSIRIS, I agree/certify that:

1. I am cognizant of, and will comply with, current federal regulations and IRB requirements governing human subject research including adverse event reporting requirements.
2. I have reviewed this protocol submission in its entirety and that I am fully aware of, and in agreement with, all submitted statements.
3. I will conduct this research study in strict accordance with all submitted statements except where a change may be necessary to eliminate an apparent immediate hazard to a given research subject. If such a change is made – only to ensure the immediate safety of a research subject – I will subsequently report that protocol deviation to the IRB as soon as possible.
4. I will request and obtain IRB approval of any proposed modification to the research protocol that may affect its exempt status prior to implementing such modification.
5. I will ensure that all co-investigators, and other personnel assisting in the conduct of this research study have been provided a copy of the entire current version of the research protocol.
6. I will ensure that all members of the research team have satisfactorily completed the Research Integrity (module 1) and Human Subjects Research (module 2a or 2b) web-based training programs.
7. I will not enroll any individual into this research study until the exempt status of this application has been determined by the IRB and I have been informed in writing.
8. I will respond promptly to all requests for information or materials solicited by the IRB.
9. I will maintain adequate, current, and accurate records of research data.
10. I will not knowingly include prisoners.

End of Application (Form: EXESUR 041707) Please Save File and Upload Into OSIRIS

APPENDIX B

QUALITATIVE FIELD GUIDE

Health Department Officials

Background information: A letter from the Health Department be sent to potential participants and will share info about the project. .. “We are interested in talking with you because you are an expert in the area of HIV prevention. ... even when you want to provide specific types of programs there are often things beyond your control that stand in the way.... All the information that you share with me today will be kept confidential – no names or identifying information will be linked to any quotes drawn from the interviews...”

Questions:

GENERAL:

- How would characterize the scope of HIV prevention services that your department offers? Please provide specific examples of existing programs.
Probe: Do you use any of the DEBIs?
- Do you have any written documents about these efforts that you could send us?
- Are there any aspects of HIV prevention that are not being addressed?
- Have you identified interventions that are needed but are not currently funded? If yes, please describe them.

FOR EACH SPECIFIC INTERVENTION:

- How would you describe the target community for this particular intervention?
How was the community selected? *Probe: If mentioned MSM probe further about whether reaching specific MSM groups (e.g. minorities, incarcerated, non gay identified)*
- Does your agency reach out to the community? What kinds of communication methods are used to get in touch with the community? *Probe: bar work, internet*

- Were community members/gatekeepers involved in the development or adaptation of the intervention?
- What facilitators have enabled that project to exist?
- What barriers/problems have been encountered during the implementation of the project?
- What is the history of this project? Have the barriers and/or facilitators changed overtime?
- What is the funding source for this program?

MSM HIV PREVENTION

- If existing programs are not addressing MSM – why not?
- What barriers exist? *Probe:* Different levels of influencing factors including geographic barriers, stigma issues, staffing, staff time (e.g. can't work past 5pm, staff capacity, geographic, institutional barriers)
- How these barriers can be addressed/overcome? Welcome innovative ideas
- Is there anything about the history of the organization that contributed to the current HIV prevention efforts among MSM?
- What other services are provided that address MSM? What are the facilitators and barriers related to those services?
- If your agency is not working with MSM, who do you recommend/refer them to for services?
- What HIV and MSM capacity building opportunities have you been able to participate in? Do you feel the training and information about HIV and MSM from the health department is adequate?

- What is the capacity of your agency to work with the MSM population? Are there any MSM on staff? Have staff be trained in sexual minority sensitivity?
- Where would you go if someone gave you money and the necessary staff for HIV prevention with MSM? What would you do? What would be the barriers to that work?

GENERAL

- Is there anything else you would like to share with us about the HIV prevention programs addressing MSM?
- Is there anyone else we should talk to about our interest in this area?

QUALITATIVE FIELD GUIDE

Community Leaders

We are interested in gathering information about perceptions of HIV prevention efforts for MSM

Questions:

GENERAL

- Please describe your community – who do you consider to be your community?

Probe: Location, geography, race, age

- What do people think about the health department? What do people think about major ASOs in the area?

HIV AND IDU SERVICES

- How would you characterize the scope of health services in your community?

Probe: Services related to HIV and services related to IDU

HIV PREVENTION

- What is going on with regard to HIV prevention in your community?
- What would you like to see happen with regard to HIV prevention in your community?
- Who would you trust to provide HIV prevention in your community?
- What is going on with regarding to intravenous drug use prevention in your community?
- What would you like to see happen with regard to intravenous drug use prevention in your community?
- Who would you trust to provide intravenous drug use prevention in your community?

GENERAL

- Who else should we be talking to who would be knowledgeable about these issues?

APPENDIX C

CONSENT FORM
HIV & MSM Intervention Capacity: Development of a Strategic Plan
QUALITATIVE INTERVIEWS

The purpose of this research study is to develop a strategic plan for men who have sex with men (MSM) to assist the jurisdiction in decreasing HIV and STD transmission among diverse populations of MSM. This research project is interested in collecting information related to 1) barriers and facilitators experienced by prevention contractors and community leaders in recruiting and retaining MSM in prevention interventions; 2) resources that prevention contractors need to implement effective HIV prevention intervention to local MSM; and 3) existing programs successfully reaching this population. In-depth qualitative interviews will be conducted over the phone or face to face in private, accommodating venues as appropriate to the individual based on their voluntary participation.

If you are willing to participate in this study, you will be asked to participate in a qualitative interview. An interviewer will ask you to share your thoughts about the scope of existing HIV prevention services, needed interventions, target communities, outreach and communication mechanisms, level of community input, recruitment and retention barriers, and capacity orientation and building. You can skip any questions you do not want to answer. With your permission, the interviewer will digitally record the contents of the interview.

Because there is a potential risk of an accidental breach of confidentiality, we have taken the following steps to maintain your confidentiality. During telephone and face to face interviews, you will be asked to only share your first name with the interviewer. There will be no name, address, social security number or other identifiers on the survey instruments themselves. Additionally, names will not be associated with the actual data entered in any way.

All records related to your involvement will be stored in a double-locked file cabinet and will be accessible only to the principal investigator and study team members. Your identity will not be linked to your responses in any way.

There is no direct benefit to you for participating in this study. Your participation is voluntary. You may withdraw from the study at any time and may decline answering questions per your discretion. You will not be penalized in any way if you choose to not participate or choose to not answer certain questions. You will be given a copy of this form.

This study is being conducted by Jessica Burke, PhD, who can be reached at the University of Pittsburgh, Graduate School of Public Health at (412) 624-3610 if you have any questions.

I verify that I have read the above informed consent statement to subject # _____ (case or ID#) on _____ (date: month, day year) at _____ (time AM or PM) and that the subject has given verbal approval to participate in the study.

(Printed Name and Signature of Interviewer)