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Inconsistent Condom Use with Steady and Casual Partners and Associated Factors among Sexually-Active Men who Have Sex with Men in Bangkok, Thailand

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HIV/STD risk behavior has not been examined in community samples of men who have sex with men (MSM) in Thailand. The sexually-active sample ($n = 927$) was recruited from bars, saunas, and parks; 20% identified as bisexual and 17% tested HIV-positive. Inconsistent (<100%) condom use was reported by 45% of those with steady partners and 21% of those with casual partners in the prior three months. 21% had heard of effective HIV treatments ($n = 194$), among whom 44% believed HIV was less serious and 36% said their risk behavior had increased after hearing about the treatments. In multivariate analysis, HIV-positive status, gay-identification, getting most HIV information from the radio, believing HIV can be transmitted by mosquito bite, and concern about acquiring an STD were associated with inconsistent condom use during anal sex; slightly older age (25–29 vs. 18–24 years) was associated with more consistent condom use. HIV/STD risk-reduction strategies for MSM in Bangkok should clearly state sexual risk to individuals in this population.

Keywords Men who have sex with men (MSM) · Sexual risk · Sex partners · Bangkok · Thailand.

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Introduction

Thailand is an example of how awareness campaigns and a mix of behavioral, structural, and biomedical interventions relatively early in an AIDS epidemic can successfully reduce the incidence of HIV infection. In the early-1990s, the Thai government implemented the 100% condom program targeting commercial sex workers and their clients (Hanenberg, Rojanapithayakorn, Kunasol, & Sokal, 1994; Rojanapithayakorn & Hanenberg, 1996). Programs also were implemented to reduce mother to child HIV transmission (Amornwichet et al., 2002), and limited efforts were made to improve treatment for injection drug users beyond methadone maintenance (Vanichseni, Wongsuwan, Choopanya, & Wongpanich, 1991). Surveillance and epidemiological assessment of broad samples of men who have sex with men (MSM) have not been undertaken, despite the fact that the first reported AIDS cases in Thailand were among MSM 20 years ago (Thongcharoen, 1989; Traisupa, Wongba, & Taylor, 1987). Stigma and/or denial of homosexuality in Thai culture (Jackson, 1995; Lyttleton, 1995), and concern for hurting tourism (Sivaraman, 1995), reportedly contributed

to a lack of HIV research and programs for MSM, even though scientists warned that the Thai epidemic was becoming centered on marginalized groups such as MSM (Beyrer, 1998).

However, a few studies in the 1990s examined MSM behavior among samples of young men. Research on young (age 18–21) male military conscripts suggested that a history of MSM behavior was associated with recent sexually-transmitted disease (STD) infections or lifetime injection drug use (London, VanLandingham, & Grandjean, 1997). Another study (Beyrer et al., 1995) found that MSM history among conscripts was associated with more lifetime sex partners (regardless of gender) and ever having an STD; men with more than one male partner (vs. men with only one) in their lifetime were more likely to be HIV-infected. More recently, a 1999 study (van Griensven et al., 2004) of adolescents in northern Thailand found that the 9% of males age 15–21 who identified as homosexual or bisexual reported earlier initiation of sex and more partners in their lifetime than same-aged heterosexual men. These studies suggest that a sizable population of MSM exists in Thailand and that these men may be at higher risk for HIV-infection compared to other men.

In summary, the literature on Thai MSM sexual risk behavior—particularly for large community samples of sexually-active males—is lacking in terms of prevalence and correlates of sexual risk behavior and beliefs. This paper presents results from the first assessment of a broad population of MSM in Bangkok, one of the largest urban centers in Southeast Asia and the political, economic and tourism center of Thailand. Herein we describe recent inconsistent condom use with steady and casual partners for local residents, and associated demographic, behavioral and belief characteristics, two decades into the Thai HIV/AIDS epidemic.

Method

Participants

We adapted Venue-Day-Time (VDT) sampling methods (MacKellar, Valloroy, Karon, Lemp, & Janssen, 1996; Stueve, O'Donnell, Duran, San Doval, & Blome, 2001) to systematically identify and select venues where MSM congregate in order to recruit, screen and assess eligible men. Briefly, our VDT sampling included four consecutive phases: a) venue identification and mapping, b) enumeration of foot traffic in and around venues, c) determination of venue-specific eligibility and willingness to participate in the full assessment, and d) enrollment of MSM for an assessment of HIV prevalence and risk behavior. Sampling procedures were conducted by peer staff from a local gay advocacy and HIV outreach community-based organization

(Rainbow Sky) who were thoroughly trained in study recruitment and data collection procedures; a complete description of the adapted methodology is provided elsewhere (Mansergh, Naorat, et al., 2006).

Four bars, four parks and six saunas were used for enrollment during the full assessment based on the multi-phase, systematic assessments of VDT sampling (see Mansergh, Naorat, et al., 2006, for a detailed delineation of venues and procedures). In brief, venue recruitment took place largely during the evening in bars for local MSM clientele, parks with MSM cruising areas, and MSM saunas/bathhouses that required an entry fee. Peer staff approached and screened potential participants. Eligibility criteria included: male gender, being age 18 or older, Thai citizenship, and oral or anal sex with a male during the prior six months. Eligible participants gave verbal informed consent and completed a 20-minute interviewer-administered survey, which was recorded on a handheld Personal Digital Assistant (PDA). Following the survey, an oral fluid specimen (Orasure Salivary Collection Device [Epitope Inc, Beaverton, OR]) was collected for HIV antibody testing. Participants were given a voucher with a bar code identification number they could use to receive their HIV test results seven days later at an anonymous HIV testing clinic operated by the Thai Red Cross Society. They were reimbursed 350 Baht (approximately U.S.$8) for their time and travel cost to visit the anonymous clinic for their results.

Measures

The questionnaire included demographic and behavioral (e.g., sexual behavior, drug use) items, and questions regarding HIV-related beliefs and concerns.

Demographic variables

Demographic variables included: age in years (grouped for analysis as 18–24, 25–29, and 30 +), education (grouped for analysis as secondary school or less, technical school, and university or higher) and self-reported sexual orientation identification (grouped for analysis as homosexual/gay and bisexual/heterosexual/straight).

Behavioral variables

We assessed recent unprotected anal sex separately for steady and casual male partners (e.g., "When you had anal sex with your steady male partner in the past 3 months, how often did you use condoms?", with response choices of: *Always*, *More than half the time*, *About half the time*, *Less than half the time*, *Never*, which was dichotomized to always vs. less than always). Substance use at any time during those three months was measured as a *Yes/No* question separately by substance (i.e., alcohol, methamphetamine, marijuana,

ketamine, ecstasy, sedatives, poppers, inhalants that are not poppers, other substance) and combined for an overall dichotomized (*Yes* or *No*) drug use score (excluding alcohol) and an alcohol use score. Dichotomous sexual risk behavior for the two partner types was combined into one global risk variable for unprotected anal sex with a steady or casual male partner in the prior three months.

Other items measured previous HIV testing behavior ("Have you ever been tested for HIV and received the results?", *Yes*, or *No*) and results from their most recent HIV test; locations where the respondent met sex partners during the previous six months (e.g., saunas, bars, parks, street, internet, other); and the categorical types of HIV information sources (i.e., TV, radio, newspaper, internet, friend, family, health professional, school, other sources). For the latter item, a combined score was dichotomized at the midpoint for a low (1–4) and high (5–8) number of all reported types of HIV information sources.

Beliefs about modes of HIV transmission

Beliefs about HIV transmission were assessed by asking about level of agreement with statements about six potential modes of HIV transmission, including three accurate (sex without a condom, sharing a needle or syringe, from mother to child) and three inaccurate (touching someone HIV-positive, mosquito bite, toilet seat) modes of transmission. Men responded on a scale from 1 *strongly agree* to 5 *strongly disagree*, with 3 *neither agree nor disagree* as the midpoint. Responses were dichotomized, with 1–2 categorized as "agreement" and 3–5 categorized as "non-agreement." Cumulative scores for the set of items were coded as "all six items accurate" regarding belief in HIV transmission mode and "not all six items accurate."

Concerns about future sexually transmitted infection

Two items measured concerns about acquiring HIV and concerns about acquiring other STDs in the future (e.g., "How much are you concerned about getting HIV/AIDS in the future?") using scales from 1 *not at all* to 5 *a great deal*. Responses were dichotomized to "not at all concerned" (1) versus "at least a minimal level of concern" (2–5). Lastly, respondents were asked if they had heard of effective treatments for HIV and, if so, whether they thought a) HIV was less serious ("How much do you think hearing about effective treatments for HIV/AIDS has reduced your view of how serious HIV/AIDS is?"), and b) their risk behavior was higher, after hearing about the treatments ("How much do you think hearing about effective treatments for HIV/AIDS has increased sexual risk behavior for you?"). Response options for these items ranged from 1 *not at all* to 5 *a great deal*, recoded as "not at all" (1) versus "others" (2–5).

Data analyses

The analytic sample of 927 men (out of 1121 MSM who completed the assessment) reported having a steady or casual male partner (measured separately) during the previous three months (e.g., "During the past 3 months, did you have a steady partner?" *Yes, I had a steady male partner*). The analytic sample represents a more sexually-active group for whom we had data within the 3-month behavioral assessment window.

Descriptive demographic variables and prevalence of HIV-related behavior and beliefs are presented as frequencies. Multivariate logistic regression analyzed the degree to which variables were associated with unprotected anal sex with steady or casual partners in the previous three months. Regression Model 1 included demographic characteristics (defined earlier) of age, education, HIV status, sexual orientation identification, and study recruitment venue (saunas, parks, bars). Subsequent regression models were run for individual variables or conceptually connected items (controlling for all demographic variables), including a previous HIV-negative test result (Model 2), alcohol use (Model 3), and binge drinking (i.e., five or more drinks at one time or in one evening [Model 4]), HIV information sources (Models 5 and 6), beliefs about HIV transmission (Models 7 and 8), concern about HIV and STD infection (Model 9), and perceptions of HIV severity and their behavior if they had heard about effective HIV treatments (Model 10). Variables that were at least marginally significant ($p < .10$) in these models were then tested in full multivariate regression models (including all demographic factors) to determine independent associations of the variables with sexual risk behavior for a) steady partners alone, b) casual partners alone, and c) either steady or casual partners combined. Results for the full models are presented as adjusted odds ratios with 95% confidence intervals (i.e., $p < .05$).

Results

Demographic characteristics and prevalence of HIV-related behavior

The 927 men were recruited in relatively even proportions from the three venues types (33% saunas, 35% parks, 32% bars). The men were generally young (43% age 18–24, 28% age 25–29, 29% age 30 or older) and relatively well educated (37% secondary school or less, 18% technical training, 45% university training or higher). One in five men self-identified as bisexual, 1% as heterosexual, and 79% as gay or homosexual. Similarly, one in five of the men reported having sex with a female in the prior year. Few had paid for sex (4%) or received pay for sex (2%) during the prior three months.

HIV prevalence was 17% in the analytic sample, similar to the full sample (van Griensven et al., 2005). Only 5% of the men who tested HIV-positive (8/163) indicated that they had previously been tested for HIV, however all of them had declined to reveal their test result to our staff in the assessment. None of the men previously tested said that they had ever tested seropositive.

Most of the men (54%) had not been tested previously for HIV infection; 43% said they were tested before and had had a seronegative result at their most recent test (mean 13.5 months since last test; median 6 months), and 3% (*n* = 26) had been tested but declined to reveal their results. Of the 26 who had been tested but declined disclosing their result, 31% (8/26) tested HIV positive in our assessment (the remainder were seronegative).

During the prior three months, alcohol use was reported by 76% of the sample, and 63% binge drank (i.e., had five or more drinks at one time or in one sitting). Reported drug use during the previous three months was low (2% of the sample); it was not examined further because all of the drug using men also reported alcohol use and all but one reported binge drinking during the same period. Saunas (51%) were the setting most often reported for meeting male sex partners during the prior six months, followed by bars (38%), parks (28%), private parties (13%), and the internet (12%). Due to co-linearity with recruitment venue (i.e., saunas, parks, bars), location of meeting sex partners in the past six months was not included in further analyses.

Prevalence of recent steady and casual partners, and unprotected sex

In the sexually-active analytic subsample, 55% reported having a steady partner and 79% reported having a casual partner in the prior three months; 33% reported having both types of sex partners. Thus, three out of five of the men who had steady partners also had casual partners in the preceding three months.

More than a third (37%) of the respondents, overall, reported having unprotected sex with a male partner in the three-month period. Forty-five percent (45%) of those with steady partners said they had unprotected sex with them, and 21% did so with casual partners; 14% of men who reported having the two types of partners said they had unprotected sex with both types.

Prevalence of HIV-related information sources, beliefs and concerns

The most common types of HIV information sources were mass media oriented—TV (90%), newspaper (83%), and radio (81%)—followed by friends (57%) and the internet (51%). Less than half of the sample received HIV information from health professional (47%), school (43%), family

(36%), and other (1%) sources. Overall, 54% of the sample received HIV information from five or more of the eight source types presented.

Nearly all of the men accurately believed that HIV could be transmitted by sexual intercourse without a condom (99%), sharing a needle or syringe (98%), and from mother to child (97%). A notable number of men inaccurately believed that touching someone who is HIV-positive (17%), mosquito bites (10%) or toilet seats (9%) could transmit HIV. A third (33%) of the sample endorsed at least one inaccurate belief about mode of HIV transmission or failed to report a belief in one accurate transmission mode.

One out of three men (34%) were *not at all concerned* about becoming infected with HIV, and 57% felt that way about acquiring an STD. Further, only 21% of the men reported having heard about effective treatments for HIV infection. Among those who had heard of effective HIV treatments (*n* = 194), 44% believed that HIV was less serious and 36% thought their own risk behavior had increased after hearing about the treatments.

Multivariate results for factors associated with unprotected anal sex with steady and casual partners

Initial regression models for unprotected anal sex with steady or casual partners (combined)

In multivariate analyses (Table 1), men who tested HIV positive and were gay/homosexual-identified men were more likely to report unprotected sex with steady or casual partners during the previous three months. Men recruited through bars and parks (compared to saunas) were more likely—and men age 25–29 (compared to age 18–24) were less likely—to report unprotected anal sex.

Unprotected anal sex with recent steady or casual partners was associated with a high total number (5–8) of HIV information source types (Table I). Among those who had heard about effective treatments for HIV infection, believing that HIV is less serious after hearing about HIV treatment was associated with less unprotected sex. Unprotected sex with steady or casual partners was not associated with three-month alcohol use or binge drinking, or with prior HIV testing.

Full regression models for unprotected anal sex by partner type

The full multivariate models (Table 2) also consisted of separate analyses by partner type. For unprotected anal sex with steady or casual partners combined, men age 25–29 were less likely (compared to 18–24), and HIV-positive and gay/homosexual-identified men were more likely to report unprotected anal sex during the past three months, as were men recruited in bars and parks

Table 1 Results of initial multivariate logistic regression analyses of demographic characteristics, HIV-related behavior, and beliefs and concerns associated with unprotected anal sex in the prior three months with a steady or casual partner, among sexually-active MSM in Bangkok, 2003 ($n = 927$)

Model and variables	AOR	95% CI
Model 1 - Demographic characteristics only		
Age (18–24 years, referent)		
25–29	0.68	0.47–0.97*
30 or older	ns	
Education (Secondary school or less, referent)		
Technical training	ns	
University or more	ns	
HIV test result at assessment (Negative, referent)		
Positive	1.46	1.02–2.09*
Sexual orientation identification (Bisexual/heterosexual, referent)		
Gay/homosexual	1.54	1.08–2.20*
Recruitment venue type (Saunas, referent)		
Parks	1.61	1.14–2.27*
Bars	2.04	1.43–2.90*
HIV-related Behavior		
Model 2 - Last test was HIV-negative	ns	
Model 3 - Used alcohol (past 3 months)	ns	
Model 4 - Binge drinking (past 3 months)	ns	
Model 5 - Sources providing most of their HIV information (all that apply)[a]		
TV	ns	
Radio	ns	
Newspaper	ns	
Internet	ns	
Friend	ns	
Family	ns	
Health professional	ns	
School	ns	
Other	ns	
Model 6 - High number (5–8) of HIV information source types	1.49	1.12–1.96*
Beliefs about HIV		
Model 7 - Believe HIV can be transmitted by...		
Sexual intercourse without a condom	ns	
Using a shared needle or syringe	ns	
Mother to child	ns	
Touching someone who is HIV-positive[b]	ns	
A mosquito bite[b]	ns	
A toilet seat[b]	ns	
Model 8 - Accurate for all 6 modes of HIV transmission	ns	
Model 9 - Concern about HIV or STDs, and heard about HIV treatment		
Concerned about getting HIV/AIDS	ns	
Concerned about getting other STDs	ns	
Heard about effective HIV treatments	ns	
Model 10 - Among men who heard of effective HIV treatments ($n = 194$)...		
Believe HIV is less serious after hearing	0.86	0.76–0.97*
Have higher risk behavior after hearing	ns	

Multivariate logistic regression models control for age, education, HIV status, sexual orientation identification, and recruitment venue type. Model 10 was restricted to those men who had heard of effective HIV treatments. AOR, adjusted odds ratio; 95% CI, 95% confidence interval ($p < .05$)

[a] Model included all information source types simultaneously due to intended multiple responses by participants

[b] Belief in an inaccurate mode of HIV transmission

*$p < .05$; ns, not significant ($p > .05$)

(compared to saunas) and men who reported getting HIV information from the radio. Among men who had heard of effective treatments for HIV, those who said they believed HIV was less serious after hearing of effective HIV treatments were less likely to report recent sexual risk behavior.

The full multivariate model for unprotected anal sex with steady partners alone was largely similar to that obtained for unprotected anal sex with steady or casual partners combined, except that age, gay/homosexual identification and receiving most HIV information from health professionals and school were not associated. The full multivariate model for unprotected anal sex with casual partners alone yielded three significant correlates: recruitment from parks (compared to saunas), receiving most HIV information from health professionals, and concern about acquiring an STD.

Discussion

We found high rates of recent sexual risk behavior in a large sample of sexually active MSM in Bangkok. Although most men had not previously tested for HIV infection, more than a third reported unprotected sex with steady or casual male partners, overall, during the prior three months. Nearly half of the men who had steady partners reported having had unprotected sex. This was particularly concerning given the high rate of HIV prevalence (17%) found in this sexually-active sample, and the high likelihood that at least some of the men who tested positive could have known they were infected prior to this assessment. Studies in other countries have found that once people learn that they are HIV-positive, their sexual risk behavior decreases which reduces opportunity for further transmission (Crepaz, Hart, & Marks, 2004). The 17% prevalence rate found in this assessment—according to Thailand national sentinel surveillance estimates of median provincial HIV seroprevalence for 2003 (Thailand Ministry of Public Health, 2003)—was second only to that found for injection drug users (47%) and greater than that found for direct exposure in female sex workers (11%), for male STD cases (4%), for pregnant women (1%), and for military recruits and blood donors (<1% each). Further, only 5% of the men tested for HIV actually received their results, which is not uncommon with testing in Thailand (van Griensven et al., 2005).

Promotion of accessible and culturally-sensitive HIV testing and counseling is needed for MSM in Bangkok, and the public health community must build awareness that affordable effective treatments are available to HIV infected people (Thailand Ministry of Public Health, 2004). Only one in five of the men had heard of effective HIV treatments, and yet a third of the sample was not concerned at all about becoming HIV infected. Further, among those who had heard of effective therapy, more than a third believed their risk behavior was higher after hearing about the treatments. Therefore, information about HIV therapy needs to indicate the continuing need for sexual risk reduction, as well as the clinical limitations of treatment, potential side effects, and the possibility that HIV resistance to treatments may develop. Believing that HIV was less serious after hearing about effective treatments was, interestingly, associated with less risk behavior with steady partners but not with casual partners. Perhaps the association for steady partners could be accounted for by a common third variable not included in the regression model, such as future orientation (Appleby et al., 2005); future research should explore this and other possible explanations.

A third of the men in this study held false beliefs about basic modes of HIV transmission two decades into the epidemic. This subgroup may benefit from correcting their misbeliefs, however focusing on sexual transmission and risk reduction is clearly the priority for this group. While receiving HIV information from a number of different sources was not tied to lower levels of risk behavior, and in fact was associated with more risk behavior, factors such as the quality and accuracy of information and the circumstances where information was obtained may be important. MSM at higher risk for HIV transmission may have received HIV-related information from health professionals because they sought health care for consequences of their risk behavior (e.g., STD infection). Specifically, unprotected sex with casual partners was most strongly associated with health professionals as a major source of HIV information and concern about acquiring an STD. The circumstances of casual partnering and the likelihood of partner turnover with casual partners would make this scenario especially likely for those with casual partners. Because of the way we asked assessment questions, it is unclear whether factors like STD infection actually led to getting this kind of information, but this would seem plausible given the pattern of results.

Although the men in this study were aware of scientifically-proven modes of HIV transmission, it may be the case that many men either had not personalized that information or that other factors outweighed the fear of becoming HIV infected (e.g., physical or emotional intimacy; Mansergh et al., 2002). The lack of concern about acquiring HIV or an STD among some men in this population is striking, particularly in contrast to the higher levels of perceived risk seen in investigations of predominantly heterosexual samples of Thai adolescents and young adults (Jenkins et al., 1999; van Griensven et al., 2001). HIV prevention materials in Thailand generally emphasize exposure to risk groups, particularly female sex workers and injection drug users. MSM have not been mentioned as a risk group in the materials typically distributed by the government or non-government organizations. Only recently have MSM-specific community organizations begun to develop

Table 2 Results of the full multivariate logistic regression models of demographic characteristics, HIV-related behavior, and beliefs and concerns associated with unprotected anal sex in the prior three months with a steady or casual partner, among sexually-active MSM in Bangkok, 2003

| Variable | Multivariate associations with unprotected anal sex by type of male sex partner (past 3 months) | | | | | |
| | Steady or Casual (n = 927) | | Steady (n = 514) | | Casual (n = 732) | |
	AOR	95%CI	AOR	95%CI	AOR	95%CI
Age (18–24 years, referent)						
25–29	0.69	0.48–0.99*	ns		ns	
30 or older	ns		ns		ns	
Education (Secondary school or less, referent)						
Technical training	ns		ns		ns	
University or more	ns		ns		ns	
Assessment HIV test result (Negative, referent)						
Positive	1.52	1.05–2.20*	1.86	1.13–3.04*	ns	
Sexual orientation identification (Bisexual/heterosexual, referent)						
Gay/homosexual	1.54	1.07–2.21*	ns		ns	
Recruitment venue (Saunas, referent)						
Parks	1.55	1.10–2.20*	ns		1.70	1.08–2.66*
Bars	2.09	1.46–3.00*	2.43	1.50–3.92*	ns	
Sources providing most of their HIV information						
Radio	1.59	1.05–2.41*	1.87	1.05–3.33*	ns	
Health professional	ns		ns		1.64	1.08–2.50*
School	ns		ns		ns	
High number (5–8) of HIV information source types	ns		ns		ns	
Believe HIV can be transmitted by mosquito bite[a]	1.62	1.04–2.53*	2.22	1.21–4.08*	ns	
Concerned about getting other STDs	1.08	1.03–1.13*	1.10	1.03–1.17*	1.08	1.01–1.15*
Among men who heard of effective HIV treatments (n = 194), believe HIV less serious after hearing	0.86	0.77–0.96*	0.80	0.68–0.94*	ns	

Logistic regression models included all of the variables except the last variable listed in the table. The regression model for the last variable included all of the listed variables and was limited to participants who reported having heard of effective HIV treatments (n = 194). AOR, adjusted odds ratio; 95%CI, 95% confidence interval ($p < .05$)

[a] Belief in an inaccurate mode of HIV transmission

*$p < .05$; ns, not significant ($p > .05$)

materials for and give attention to MSM. Indeed, a lack of membership in a clearly defined risk group or exposure to a risk group is often taken as a cue that one is not at risk (Lyttleton, 2000). This may partially explain why concern about contracting HIV and STDs was relatively low among MSM in our sample. Less attention to MSM may reflect a lack of evidence of elevated risk that has been observed in this population until recently (see Nelson et al., 2002 and London et al., 1997 for reviews of literature from the 1990s).

HIV information campaigns for MSM should be comprehensive and accurate. Beyond increasing frequency and quality of information about HIV transmission, testing and treatments, these results have implications for targeting risk-reduction messages to subgroups of MSM. Like other parts of the world, we found that some MSM who were younger (Mansergh & Marks, 1998), gay-identified (Mansergh, 1997) and HIV-positive (Kelly et al., 1997) present higher rates of unprotected anal sex and could benefit greatly from prevention outreach. Although all Thai MSM should be exposed

to risk reduction initiatives, these groups could particularly benefit from targeted risk reduction efforts. The lack of experience with HIV testing and the lack of disclosure to the project about past results, particularly among seropositives, suggest concern about the potential for stigma and discrimination in this population. While progress has occurred, particularly in hard hit areas of the country like the Upper North (Beyrer, 1998), instances of stigma and discrimination continue to be well documented in Thailand (Lyttleton, 2000). The lack of a previous "epidemic" among MSM probably create conditions where MSM in Thailand are uneasy about the way they may be treated by friends, family, and health care providers, on top of the discrimination that may be attributable to their sexual behavior (Jackson, 1995; Lyttleton, 1995).

Also similar to other parts of the world, bars where MSM congregate (Kelly et al., 1997) and clinics with STD clientele (Richardson et al., 2004) may be venues in which to implement HIV prevention activities. We found that men recruited at park and bar venues and men concerned about

getting an STD had higher rates of unprotected sex than did other men. Because many Thais self treat STDs with drugs sold by pharmacists, not requiring a physician's prescription (Entz, Prachuabmoh, van Griensven, & Soskolne, 2001; Khamboonruang et al., 1996), more attention should be given to pharmacies as places to promote HIV prevention, with materials that at least mention MSM.

Unprotected sex was more common with steady partners, however, these relationships often did not appear to be monogamous. Because nearly all of the men who tested HIV positive in our study did not know of their serostatus before the assessment, sexual risk behavior with a steady partner without knowing each other's HIV status did not appear to be occurring in a way that would be consistent with "negotiated safety" (Guzman et al., 2005; Kippax, Crawford, Davis, Rodden, & Dowsett, 1993; Kippax et al., 1997), a somewhat controversial (Ridge, Plummer, & Minichiello, 1994) risk reduction strategy requiring repeated mutual HIV testing (among other requirements) that has been observed in Western countries. An implication for risk reduction with Bangkok MSM is to emphasize that unprotected sex with steady partners, as well as casual partners, may put one at risk for HIV infection, especially where MSM have partners outside their steady relationship or previously have had casual partners. Further, it should be emphasized that a person need not put himself at risk to prove his intimate feelings toward another person.

Substance use was not associated with sexual risk behavior in this sample as it has been with MSM in the U.S. (Colfax et al., 2001; Mansergh, Shouse, et al., 2006 in press; Paul, Stall, Crosby, Barrett, & Midanik, 1994) and in predominantly heterosexual Thai samples (Jenkins et al., 2002; Kuntolbutra et al., 1996). The high prevalence of alcohol use and binge drinking in this sample may have caused alcohol use to be a less distinguishing factor, statistically. Drug use may have been under-reported as a result of the Thai government's intensive "war on drugs" at the time, including punishment of drug users (van Griensven et al., 2005). Studies should further explore the issue of substance use and sexual risk in this population.

This assessment has limitations. The sampling method was highly systematic and successful in accessing large numbers of Thai MSM in community locations, but represents a relatively small number of venues and times of the week where MSM congregate and we may have missed important subgroups (e.g., those who meet primarily through the internet). It may be best seen as a "purposive" convenience sample of eligible men reached at selected times and venues. Another limitation was the use of an interviewer-administered survey which may have resulted in under-reporting of risk behavior; alternatively, this approach may have helped ensure complete data. Future assessments should explore the feasibility of using venue-based, self-administered surveys

on handheld PDAs as an alternative approach. Nevertheless, this is the first community-based assessment of MSM in urban Thailand and it suggests important areas of emphasis in preventing HIV infection among Thai MSM, including programs that effectively engage this community, clarify sexual risk for MSM as individuals, and promote HIV testing and treatment for those who test seropositive.

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