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## Levels and Predictors of HIV Risk Behavior Among Black Men Who Have Sex with Men

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### Abstract

Black men who have sex with men (MSM) contract HIV at disproportionately high rates, and National HIV/AIDS Strategy goals to reduce HIV incidence cannot be successful without improved HIV prevention among racial minority MSM. 210 Black MSM from three cities (Cleveland, Miami, and Milwaukee) completed measures assessing their sexual behavior and demographic characteristics, as well as AIDS-specific psychosocial scales, broader contextual domains, and substance use. Nearly 50% of men reported recent unprotected anal intercourse (UAI), often with non-main partners, with partners not known to be HIV seroconcordant, or with multiple partners. 37% of men reported being HIV-positive. In multiple regression analyses, higher levels of unprotected behavior were predicted by weaker perceived peer norms for condom use, weaker risk reduction behavioral intentions, being HIV-negative, and recent use of marijuana, cocaine/crack, and poppers. Greater number of UAI partners was associated with weaker perceived peer condom use norms, lower risk reduction intentions, illicit use of prescribed opiates, and fewer AIDS conspiracy beliefs. These findings suggest important factors that should be targeted in HIV prevention programs for Black MSM.

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Nearly 50,000 Americans contract HIV infection each year (Prejean, et al., 2011). Throughout its entire 30-year history, HIV/AIDS in the United States has most harshly affected men who have sex with men (MSM), who continue to represent the majority of HIV infections (Prejean, 2011). In 2010, an estimated 77% of HIV infections diagnosed among males were attributed to male-to-male sexual contact (CDC, 2012). Among gay or bisexual men, there are also stark racial and ethnic disparities in HIV incidence, with Black MSM carrying a disproportionate burden. Although they constitute only a very small fraction of a percent of the total American population, HIV incidence has increased more rapidly among Black MSM than any other segment of the American population (CDC, 2008; Prejean et al., 2011). Numerous surveillance studies have shown that HIV prevalence

is much higher among Black MSM than white gay or bisexual men (Blair et al., 2002; Catania et al., 2001; CDC, 2006; Harawa et al., 2004; Torian et al., 2002). Efforts to reduce HIV incidence and lessen AIDS-related health disparities in the United States—key objectives of the National HIV/AIDS Strategy (Office of National AIDS Policy, 2010)—require improved HIV prevention approaches directed toward Black MSM. The development of better prevention intervention approaches, in turn, requires a fuller understanding of sexual risk among Black MSM and of factors that influence men's sexual risk or safety.

A number of studies have sought to identify risk-related characteristics that might differentiate African American and white MSM, and that could account for the disparate HIV rates among minority men. Many of these studies have approached the question by directly comparing the behavior of Black MSM relative to nonminority men or by meta-analyses comparing the findings of research undertaken with each group (see, for example, reviews by Millett, Flores, Peterson & Bakeman, 2007; Millett, Peterson, Wolitski, & Stall, 2006). For the most part, these studies have not found strong evidence that Black MSM have a greater number of sexual partners nor more often engage in high-risk sexual practices than nonminority men (Millett et al., 2006; 2007), although they are less likely to regularly test, more likely to have undiagnosed HIV infection and other sexually transmitted diseases (STDs), and less often receive highly-active antiretroviral therapy (HAART) which may result in higher viral load and transmission infectivity (Bingham et al., 2003; Halkitis et al., 2003; MacKellar et al., 2005; Stall et al., 2001).

Apart from individual behavior and personal risk-related characteristics such as HIV knowledge and condom attitudes, increased attention is being directed to how social and contextual factors may contribute to the elevated HIV vulnerability of Black MSM. Recent conceptualizations have emphasized the potential role of sexual networks and the possibility that African American MSM are more likely to meet their sexual partners within networks where STDs and either diagnosed or undiagnosed and untreated HIV infections are prevalent, thereby increasing their likelihood of contracting infection (Bingham et al., 2003; Murrill et al., 2008; Peterson et al., 2005; Raymond & McFarland, 2009). Some research suggests that men in networks at high risk for contracting HIV infection do not perceive strong peer norms favoring condom use (Bakeman, Peterson, & the CITY Project Team; 2007, Hart, Peterson, & the CITY Project Team, 2004; Peterson et al., 2009). Other studies suggest that risk is influenced by cultural perceptions of masculinity (Fields et al., 2011), the presence or absence of socially-supportive relationships (Lauby et al., 2011; Mashburn et al., 2004), and role stressors related to being a member of both a sexual orientation and also a racial minority group (Mays, Cochran, & Zamudio, 2004). Oppression, socioeconomic disadvantage, racism that excludes participation by Black MSM in predominantly white gay communities, and homophobia experienced by Black MSM in the African American community are other broad issues that may form a context surrounding risk behavior (Brooks et al., 2005; Kraft et al., 2000; Mays et al., 2004; Teunis, 2007), although Black MSM are not a monolithic community and varied factors undoubtedly contribute to individual men's sexual risk or safety (Hampton et al, 2012).

The present study, undertaken in 2011 in preparation for a later planned multisite intervention trial, recruited a diverse community sample of Black MSM in three cities. The research had two main purposes. One purpose was to characterize levels and types of sexual HIV risk behavior among men in the sample including how sexual risk behavior varied depending upon participants' relationships with their sexual partners. The second purpose was to identify factors that influenced the risk or safety of men's recent sexual behavior. We specifically sought to determine the potential impact of four types of factors: (1) men's demographic and health history characteristics; (2) AIDS-specific psychosocial variables including HIV risk knowledge and safer sex attitudes, behavioral intentions, perceived peer norms, and self-efficacy beliefs; (3) broader psychosocial and contextual factors including self-ascribed masculinity, gay acculturation, internalized homonegativity, resilience, AIDS conspiracy beliefs, and religious/church involvement; and (4) levels of substance use. We anticipated that all four domains would be associated with men's levels of risk or safety, although the research explored but did not hypothesize a priori relationships between risk and specific variables within a domain.

## Methods

Men in this study were participants in a phase of preparatory research preceding the conduct of "Connections Creating Change" (C3), a trial currently underway of a social network-level HIV prevention intervention designed for Black MSM.

### Recruitment

Participants were recruited in Cleveland, Miami, and Milwaukee by project staff employed in local community organizations that provide HIV prevention, social, and testing services to Black MSM. To recruit a sample that drew from multiple and diverse community segments, project staff at all sites systematically identified venues that were frequented by Black MSM and locations where men congregated and socialized. Venues included bars, clubs, pageant events, house parties, parks, and "strolls" (cruising areas). Participants were also recruited at university campuses, churches, and community organizations that provided services to Black MSM. In addition to directly approaching potential participants, brochures and recruitment cards were left in venues, and participants recruited their friends and acquaintances. Men interested in participating called the study office where they were screened using inclusion criteria of being a self-identified Black man age 18 or over and reporting sex with another man in the past year. 210 participants were recruited study-wide, 70 per city, one of whom was later found to be ineligible and whose data were not included in the analyses.

### Assessment

The study protocol was approved by the institutional review boards of the Medical College of Wisconsin, the AIDS Task Force of Greater Cleveland, and the South Beach AIDS Project in Miami. Following provision of written informed consent, each participant individually completed a self-administered, paper-and-pencil assessment in a private room at the site office. After completing the measures, participants received an honorarium for their time and travel.

**Demographic, background, and health characteristics**—The assessment inquired about age, education level, income, employment status, and whether or not the participant was presently in school. Participants indicated their gender (male, female, or transgender); used a 5-point scale to describe their sexual orientation (from 1=exclusively gay to 5=exclusively straight); reported whether they currently had a main, committed male and/or female partner; and indicated whether or not they presently had stable housing. Men were asked whether they ever had an HIV test, how long ago was their most recent test, and the test's result (HIV-positive, HIV-negative, or did not learn of the result).

**Scales measuring AIDS-specific psychosocial characteristics**—The scales used to measure AIDS-specific psychosocial characteristic assessed constructs derived from social-cognitive (Bandura, 1986) and reasoned action (Fishbein & Ajzen, 1975) theories, and were adapted from scales used in prior research (Amirkhanian et al., 2006; Kelly et al., 2010). Some items on all scales were reverse-scored to minimize response bias. All Cronbach's alpha values were sufficiently high to establish scale internal consistency in the current sample.

**HIV risk knowledge:** This scale contained 9 items assessing understanding of transmission risk behavior and protective strategies (sample item: “Oral sex is less likely to transmit the HIV/AIDS virus than anal sex”). Each question was answered “true,” “don't know,” or “false.” Correct responses were summed to yield a total score that could range from 0–9.

**Perceived peer norms for condom use:** 8 items using 3-point response scales measured the extent to which the participant perceived that condom use was an expected norm among his friends (sample item: “My friends always use condoms during anal sex with anyone who is not their exclusive partner,” total score range 8–24, Cronbach's alpha=.79).

**Risk reduction behavioral intentions:** 8 items using 3-point response scales assessed behavioral intentions to use condoms (sample item: “I will use a condom even if I drink or use drugs,” total score range 8–24, Cronbach's alpha, current sample=.75).

**Condom use attitudes:** 8 items also using 3-point response scales measured the participant's attitudes toward safer sex and condoms (sample item: “Condoms destroy the pleasure of sex” (reverse scored), total score range 8–24, Cronbach's alpha=.75).

**Condom use self-efficacy beliefs:** 6 items assessed participants' self-efficacy (confidence) for using condoms in a variety of situations. Items were scored using a 3-point response format and total scores could range from 6–18 (Cronbach's alpha=.70, sample item: “I can get any partner to use condoms”).

**Scales measuring social and contextual domains**—Social and contextual constructs were chosen based on prior research or theory proposing that the domain may influence risk or protective actions by Black MSM. The social and contextual domain scales were either previously used in other studies or were developed specifically for this research:

**Self-ascribed masculinity:** This scale was adapted from Garcia, Lechuga, & Zea (in press) and consisted of 4 items that used 5-point Likert-type response formats to indicate level of agreement with each statement (sample item: “I see myself as a masculine man,” total score range 4–20, Cronbach's alpha=.84).

**Gay community acculturation:** A scale was constructed for this research to assess men's identification with and participation in gay community activities. The scale contained 7 items answered using 5-point response formats that ranged from “not at all” to “all the time.” Total score range 8–34, Cronbach's alpha=.83, sample items: “How often do you socialize with people who are gay?,” and “How often do you go to gay bars or clubs?”).

**Internalized homonegativity (homophobia):** 9 items using 5-point Likert-type response formats were adapted from measures of internalized homonegativity developed by Herek et al., (1997), Myers (1989), and Wagner (1998). Sample items are: “I have tried to stop being attracted to men” and “I value my sexuality as it is,” total score range 9–45, Cronbach's alpha=.90).

**Resilience:** 10 items selected from a longer 25-item scale originally developed by Wagnild and Young (1993) were used to measure respondents' ability to withstand life stressors, thrive, and derive meaning from challenges. Items were answered using 5-point response formats (sample items: “I have the energy to do what I have to do” and “My belief in myself gets me through hard times,” total score range 10–50, Cronbach's alpha=.91).

**AIDS conspiracy beliefs:** (Bogart & Thorburn, 2005). Conspiracy beliefs were assessed with 9 items using 5-point response formats (sample items: “AIDS is a form of genocide against Blacks” and “HIV was created and spread by the CIA,” total score range 9–45, Cronbach's alpha=.83).

**Religious and church involvement:** 6 items using 5-point response formats were adapted from Forehand and Brody (2000) to measure the importance of religious beliefs and frequency of church participation (sample items: “How often do you attend religious services?” and “How religious would you say you are?,” total score range 6–30, Cronbach's alpha=.79).

**Substance use assessment—**Participants indicated whether they used in the last month any of a series of listed substances (alcohol, marijuana, cocaine, crack, prescription opiates, inhaled nitrites (“poppers”), ketamine, methamphetamine, illicit use of nonopiate prescription drugs, ecstasy, erectile dysfunction medications, heroin, and injections that were not medically prescribed). Street names accompanied the formal name of each drug. For each substance used, participants indicated on how many days in the past month the substance was used. For alcohol, participants were also asked the number of drinks on a typical drinking day and the greatest number of drinks in a single drinking day.

**Sexual behavior assessment—**Participants reported their number of male and female sex partners in the past year and also in the past 3 months. We then obtained more detailed information concerning up to the last five male and last five female sex partners in the past

three months. For each male partner, the assessment asked about the respondent's relationship with the partner (main and committed, regular but not main, casual, or commercial), number of anal intercourse acts with the partner in the past 3 months (insertive or receptive, without and with condoms), and knowledge about partner serostatus in advance of sex. For each female partner, number of unprotected vaginal intercourse (UVI) acts in the past 3 months were measured. Participants who reported more than five male or five female sex partners in the past three months aggregated their behavior for the additional partners.

## Statistical Methods

Exploratory multiple regression analysis was conducted to predict two measures of high-risk sexual behavior in the past 3 months: total number of UAI occasions and total number of partners with whom UAI took place. Demographic and health background factors, AIDS-related psychosocial scales, scales relating to social and contextual domains, and substance use measures were tested in a series of univariate regression models. Only individual predictor variables that achieved a  $p$ -value  $<.10$  in any of these preliminary tests were then entered into the final regression models for both outcomes. Preliminary testing showed that virtually all participants who used crack/cocaine or poppers also smoked marijuana in the past 30 days. This led to confounding effects when each drug use variable was separately entered in the multiple regression models. We therefore combined the three drugs into a single indicator prior to performing the predictive analyses. Poisson regression analyses were used to fit the data for counts—number of UAI occasions and number of UAI partners—to the multiple predictor models. Partial regression coefficients and  $p$ -values were computed for each predictor variable. The statistical significance of independent predictors in the multiple regression models was tested with an alpha level of .05.

## Results

### Participants

As shown on Table 1, participants were an average of 31.8 years old and had completed, on average, less than high school. 40% ( $n=85$ ) of men had annual incomes under \$10,000, two-thirds were not employed full-time, and 23% ( $n=49$ ) were in school. 4% ( $n=9$ ) of the Black men were of Hispanic/Latino ethnicity. Comparisons of participants' demographic characteristics across cities indicated that participants from Miami tended to be older, less likely to report incomes under \$10,000, more likely to be employed fulltime, and more often Black men of Latino ethnicity. Men in Cleveland were more likely to be in school. 11% of men ( $n=23$ ) said their housing was unstable, and this did not differ significantly across sites. The majority of men (78%,  $n=163$ ) described their sexual orientation as exclusively or mostly gay. Over 90% of men ( $n=189$ ) reported having sex with men in the past 3 months. Nearly half of men (47%,  $n=99$ ) said they had sex with a committed main male partner, 44.7% ( $n=92$ ) had sex with a partner described as regular but not committed, 49.3% ( $n=103$ ) reported casual male partners, and 8.1% ( $n=17$ ) reported male commercial partners. These percentages reflect that many men had sex with multiple types of male partners during the time period. Approximately 10% ( $n=20$ ) of men reported a female sexual partner in the past 3 months, but only 2.9% ( $n=2$ ) of men said they had a main, committed female partner. Nearly all participants (95.2%) reported having an HIV test at some point in the past, 66.5%



(n=139) were tested in the past year, and 36.8% (n=77) reported that they were HIV-positive. There were no significant differences across sites in HIV testing history or seropositivity rates.

### **Substance Use During the Past Month**

The substance most commonly used by men in the sample was alcohol. Nearly 82% of men (n=171) drank in the past month, and nearly half of men (n=80) who used alcohol said that they had drinking binges reflected by consuming 5 or more drinks on one or more drinking days. Other substances commonly used during the past month by men in the sample were marijuana (55.5%, n=116), cocaine or crack (18.7%, n=39), ecstasy (16.3%, n=34), prescription opiates (15.3%, n=32), illicit use of a prescription nonopiate drug (9.0%, n=16), and poppers (7.7%, n=16). Two-thirds of men (n=138) had used at least one illicit substance, although no men in the sample reported drug injection in the past month.

### **Scores on AIDS-specific Scales and Scale Measuring Social and Contextual Domains**

Participants generally had high knowledge concerning HIV risk behavior, correctly answering a mean of 7.4 of the scale's 9 items. On most of the other AIDS-specific scales, the means for men in the sample were above scale midpoints (perceived peer norms for condom use, sample mean=18.8, scale midpoint=16); risk reduction behavioral intentions, sample mean=19.6, scale midpoint=16); and condom use attitudes, sample mean=21.2, scale midpoint=16). Men scored near the scale ceiling on the scale measuring condom use self-efficacy beliefs (mean=16.7 of a possible 18). With respect to social and contextual domain scales, the sample mean was near the scale midpoint for scales assessing self-ascribed masculinity (mean=13.7, scale midpoint=12); gay community acculturation (sample mean=20.8, scale midpoint=21); and religious and church involvement (sample mean=18.0, scale midpoint=18). Scores exceeded the scale midpoints for the resilience scale (sample mean=43.5, scale midpoint=30), and were well below the scale midpoints for the measures of internalized homonegativity (sample mean=20.2, scale midpoint=27) and AIDS conspiracy beliefs (sample mean=17.6, scale midpoint=27).

### **HIV Risk Behavior and Relationship Contexts Surrounding Risk**

As shown in Table 1, nearly half of men, 45.9% (n=95) reported having UAI with a man during the past 3 months. Unlike patterns often reported in community samples of MSM where unprotected behavior is more likely to take place in a primary relationship, a greater proportion of men in this study said that they had UAI at some time in the past 3 months with men who were not main partners (28.2%, n=59) than with main male partners (22.5%, n=47). Approximately 16% of men (n=33) reported that they engaged in UAI with multiple men in the past 3 months. As Table 1 shows, very similar proportions of men said that they were the insertive and receptive partners during UAI during this time period. Approximately 18% (n=38) of men in the sample reported having UAI in the past 3 months with a male partner whose HIV serostatus was either unknown or was known to be discordant before the time of sex. There were no significant differences across sites in any of these characteristics.

Within the sample as a whole, men reported a mean of 4.8 UAI acts (median=0) with male partners in the past 3 months. Among men who had any unprotected anal intercourse during

the past 3 months, the mean number of UAI acts was 10.5 (median=8). Men engaged in a greater total number of UAI acts, both insertive and receptive, with their main than with non-main male partners. As might be expected given the high proportion of men in the sample who reported an exclusively or mostly gay sexual orientation, the number of men who reported unprotected vaginal intercourse and the frequencies of UVI acts were much lower than the number of UAI acts with men. Sites did not differ significantly in any of these behaviors except that men in Miami were more likely to report unprotected vaginal intercourse than men from the other cities.

### **Predictors of Unprotected Anal Intercourse in the Past 3 Months**

Table 2 presents the results of the multiple regression analyses predicting number of UAI acts in the past 3 months and also the number of male partners with whom UAI took place in that time period. Each variable listed in Table 2 had achieved a p-value of <.10 in univariate regression analyses, and the table shows the significance of each variable in the multivariate models. Greater number of UAI acts was significantly predicted by being HIV-negative at the time of one's most recent test, perceiving weaker norms for condom use among one's peers, holding weaker intentions to practice safer sex, and using marijuana, cocaine, or poppers during the past month. Higher number of UAI acts was associated at a statistical trend level with lower psychosocial resilience and fewer AIDS conspiracy beliefs. Greater number of UAI partners during the past 3 months was significantly associated with weaker perceived peer norms regarding condom use, weaker risk reduction behavioral intentions, fewer AIDS conspiracy beliefs, and the using prescription opiates in the past month. There was a nonsignificant trend for greater resilience to be associated with having more UAI partners.

### **Discussion**

High-risk sexual behavior practices were very common in this sample of Black MSM, with almost half of men reporting recent unprotected anal intercourse with male partners. Although participants reported a greater total number of UAI acts in the past 3 months with men described as their main partners, the proportion of men who reported some UAI with a man other than their main partner was greater than the proportion who reported UAI acts only with main partners. In addition, a considerable number of men said they engaged in unprotected anal intercourse with multiple men in the past 3 months or reported unprotected sex with partners of unknown or discordant serostatus. Although no recent injection drug use was reported, other types of substance use—especially alcohol, marijuana, crack or cocaine, ecstasy, poppers, and prescription opiate use—were common, and most men reported use of illicit drugs in the past month. Nearly 40% of men in the sample indicated that they were HIV-infected. Although there were some differences in several demographic characteristics across the cities from which the sample was drawn, men's risk behavior patterns were very similar.

Weaker perceived peer norms for condom use, lower intentions to use condoms, and greater use of illicit drugs were significantly and consistently associated with both number of unprotected anal intercourse acts and also number of male partners with whom unprotected



acts took place. Recent use of marijuana, cocaine/crack, or poppers was associated with more frequent UAI acts, while use of prescription opiates predicted having UAI with a greater number of men. Being HIV-positive was associated with fewer unprotected anal intercourse acts but not with number of partners with whom UAI took place.

The present study's multiple regression findings did not reveal significant associations between number of unprotected acts or partners and contextual factors such as masculinity, gay community acculturation, internalized homonegativity, and religiosity, nor was risk behavior related to the assessed demographic characteristics. Resilience was marginally associated both with reporting fewer unprotected sex acts but also greater number of UAI partners. Stronger AIDS conspiratorial beliefs were associated with having fewer UAI partners. However, participants in the sample scored much higher than the midpoint on the resilience measure and much lower than the midpoint of the AIDS conspiracy beliefs measure. This suggests the need for caution when interpreting marginal relationships of these contextual factors as risk predictors. Overall, the study's findings most strongly support the role of perceived peer norms concerning the acceptability of condom use, intentions to use condoms, and substance use as factors associated with men's risk behavior or safety. All of these are factors predicted by behavioral science theory and all can potentially be changed through HIV prevention and health interventions directed toward Black MSM. This study's findings indicate that interventions which strengthen peer norms concerning safer sex and increase intentions to use condoms remain needed in the field, and that interventions should additionally address substance use as it relates to risk behavior.

The present study has a number of limitations. The sample size was modest and may not have been sufficient to detect small effects. In addition, the modest size of the sample and its convenience composition do not allow one to conclude that the sample is representative of all Black MSM even in the cities where the study sample was drawn. Although participants were recruited in a diverse variety of ways, most recruitment was venue-based and may have overly represented gay-identified Black MSM. To the extent that some segments of the Black community were not sampled, relationships between contextual factors and risk behaviors may not have emerged. The self-administered questionnaire was designed at a level for persons with limited reading skills. While risk behavior and illicit substance use were frequently reported, it is possible that participants underreported stigmatized behavior to a greater extent than if a self-administered computer assessment was used. Finally, and with respect to the regression analysis, it is important to recognize that significant correlations found in a cross-sectional study do not establish causality.

Even with these limitations, the field has still seen too few studies that shed empirical light on levels and contexts of risk behavior among Black MSM, on factors that influence high-risk or safer behavior, and ultimately on factors related to the disproportionate HIV incidence among racial minority MSM. The present study's findings identify factors that continue to require attention in community HIV prevention interventions for Black MSM.

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**Table 1****Demographic and HIV Risk Characteristics of 209 Black Men Who Have Sex with Men**

<b>Demographic and Background Characteristics</b>	
Age – Mean (SD), in years	31.8 (10.5)
Years of education – Mean (SD), in years	10.6 (4.5)
Income < \$10,000/year – 0% (n)	40.1% (85)
Reported unstable housing	11.0% (23)
Employed fulltime – % (n)	32.5% (68)
Currently in school – % (n)	23.4% (49)
Ever had an HIV test – % (n)	95.2% (199)
Reported having an HIV test in the past year – % (n)	66.5% (139)
Reported being HIV-positive – % (n)	36.8% (77)
Self-identified as exclusively or mostly gay – % (n)	78.0% (163)
Reported having a main, committed male partner	47.4% (99)
Reported having a main, committed female partner	2.9% (2)
<b>Sexual Risk Behavior in the Past 3 Months</b>	
Reported having unprotected anal intercourse (UAI) – % (n):	
With any male partner	45.9% (95)
With main male partner	22.5% (47)
With non-main male partner(s)	28.2% (59)
Reported having insertive UAI – % (n):	
With any male partner	32.5% (68)
With main male partner	13.9% (29)
With non-main male partner(s)	20.6% (43)
Reported having receptive UAI – % (n):	
With any male partner	33.0% (69)
With main male partner	16.3% (34)
With non-main partner(s)	19.1% (40)
Reported having UAI with multiple male partners	15.8% (33)
Frequency of UAI acts—mean (median), full sample:	
With any male partner	4.8 (0)
With main male partner	2.8 (0.8)
With non-main male partner(s)	1.9 (0)
Frequency of UAI acts—mean (median), among men who reported any UAI:	
With any male partner	10.5 (8)
With main male partner	12.3 (6)
With non-main male partner(s)	6.6 (3)
Reported having UAI with a male partner of unknown or discordant HIV serostatus – % (n)	18.2% (38)
Reported having a female partner – % (n)	9.6% (20)
Reported unprotected vaginal intercourse (UVI) with a female partner – % (n)	3.8% (8)
Frequency of UVI acts—mean (median), full sample	0.3% (0)

**Table 2**

Results of Multiple Regression Analyses Predicting Measures of Unprotected Anal Intercourse in the Past 3 Months.

Covariate <sup>a</sup>	Outcome Variable:			
	Number of UAI Occasions		Number of UAI Partners	
	B	p-value	B	p-value
Tested for HIV in the past 12 months	0.637	.129	0.416	.124
HIV-seropositive at most recent test	-0.989	.014	-0.093	.724
Perceived peer norms for condom use	-0.108	.025	-0.064	.044
Risk reduction behavioral intentions	-0.145	.004	-0.104	.002
Gay acculturation/activities	-0.035	.232	0.001	.971
Internalized homonegativity (homophobia)	-0.027	.115	0.006	.610
Resilience	-0.026	.084	0.031	.083
AIDS conspiracy beliefs	-0.042	.066	-0.039	.014
Days drank alcohol in past month	0.011	.527	0.007	.606
Used pot, cocaine, or poppers in past month	0.629	.049	0.223	.284
Used prescription opiate in past month	0.507	.155	0.502	.040

<sup>a</sup>Predictor variable that achieved a p-value <.10 in univariate regression analysis on either of the dependent variables was included in the multiple regression models for both outcomes.