



Published in final edited form as:

*Int J STD AIDS*. 2005 November ; 16(11): 739–743.

## Reported condom use and condom use difficulties in street outreach samples of men of four racial and ethnic backgrounds.

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### Abstract

The epidemiology of the HIV/AIDS epidemic in the United States has focused research attention on lesbian, gay, bisexual and transgendered communities as well as on racial and ethnic minorities. Much of that attention has, however, been focused on specific racial and ethnic groups and specific sexual minorities. We report on the results of a study that examined the association between condom use and partnership types among men from four major racial/ethnic groups.

Self-reported data on sexual identity (homosexual, bisexual, and heterosexual) and condom use in the past three months were collected from 806 African American, Hispanic, Asian, and White men intercepted in public places in Houston, Texas. Data indicated that condom use was lowest in African American and Hispanic men, Bisexual men reported the highest levels of use, with heterosexual men reporting the lowest use. African American and Hispanic men reported generally that it was very difficult to use a condom during sexual contact, although the patterns for self-identified homosexual, heterosexual and bisexual men varied across race/ ethnicity. Homosexual African American men reported the least difficulty and White homosexual men the most difficulty compared with heterosexual and bisexual peers. For homosexually-identified men, there were considerable differences across race/ethnicity in the proportion of partners who never or rarely disagreed to use condoms, with Asians disagreeing least and African Americans most. Within racial/ethnic groups, the levels of condom use and difficulty were similar for male and female partners, suggesting that it is sexual identity, rather than partner gender, that has impacted condom use messages. These data suggest that racial/ethnic targeting of condom use is likely to be most efficacious in increasing condom use in men.

### Keywords

HIV; AIDS; Condom use; Race; Ethnicity; Sexual identity

### Introduction

The epidemiology of the HIV/AIDS epidemic in the United States has focused research attention on both lesbian, gay, bisexual and transgendered communities as well as on racial and ethnic minorities. Much of that attention has however been focused on specific racial and ethnic groups, and specific sexual minorities, with samples often deriving from one group of sexual behavior, of sexual identity, or one racial or ethnic group. There are few data that are

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able to compare across sexual behavioral groups and race and ethnicity. There are likely to be differences based on sample recruitment as well.

The association between race/ethnicity and condom use have been examined by several studies. For example, Johnson et al<sup>1</sup> found significant variability between blacks and whites in perceptions about condom use, anger response to request for condom use, and number of sexual partners. Smith<sup>2</sup> also investigated the gender and ethnic differences in condom use due to a partner's influence (unwanted non-condom use). The study revealed that African Americans and Latinos had a higher level of unwanted non-condom use than whites. Taken together, these results suggest that patterns of condom use may vary by ethnicity and partnership types, and also suggest a need for HIV intervention programs that are based on sexual behavior and not reported sexual identity. Although these studies have shown a clear relationship between sexual behavioral groups and condom use, we are aware of no studies that have compared condom use among sexual behavioral groups and race and ethnicity in a street intercept sample. As condom-use messages in the U.S. have varied by content and timing as well as target across racial/ethnic groups, we anticipate that there will be differences in condom use by race/ethnicity, and that these may have some utility in planning future condom-use interventions. We report on a study of condom use patterns among sexual behavioral groups from a street-intercept sample of men in four major racial/ethnic groups.

## Methods

Data for the present analysis came from a larger community-based anonymous survey designed to determine knowledge, misconceptions, and sources of information in minority populations regarding HIV transmission. The study relied on self-administered questionnaires, and respondents were recruited from places of public congregation such as churches, civic clubs and public housing projects in the Southwest and Downtown areas of Houston, Texas, which have substantial minority populations. Data were collected in January 1997 and June 1998. Inclusion criteria were age >18 and ability to fill out a questionnaire in English. All participants were advised that they could refuse to answer any questions and that participation was both voluntary and anonymous. Those who consented were given the questionnaire to complete and deposit in a sealed box: those who declined were counted as non-responders. Lack of time was the excuse given by the great majority of non-responders, followed by lack of facility in English. Return of the questionnaire was taken as evidence of consent. Completion of the questionnaire took approximately five minutes. More details on the study are provided elsewhere (Essien et al<sup>3</sup>; Ross et al<sup>4</sup>, and Essien et al<sup>5</sup>). The study was approved by the appropriate university human subjects review board.

The variables reported here are sexual identity, sexual contact, and condom use, measured by the questions on the last page of the questionnaire. The sexual identity question was "How do you identify yourself?" (circle one: heterosexual, bisexual, homosexual). Gender of sexual contacts was asked as "What was your frequency of sexual intercourse with partners of the opposite sex during the last 3 months?" (circle one: never, less than 3 times a month, 1-6 times a week, once a day), and "What was your frequency of sexual intercourse with partners of the same sex during the last 3 months?" (same response scale as the previous question). Questions on condom use were "What percentage of your partners use condoms during sexual contact?" (none, 25%, 50%, 75%, 100%); "How difficult is it for you to use a condom during sexual contacts?" (very difficult, somewhat difficult, somewhat easy, not at all difficult); and "How do(es) your partner(s) feel about being asked to use condoms during sexual contact?" (never disagrees, rarely disagrees, sometimes disagrees, disagrees most of the time, always disagrees).

Data analysis consisted of cross-tabulating the reported sexual contact, divided into no sex in the past 3 months (“none”), sex only with same sex partners (“homosexual”), sex only with opposite sex partners (heterosexual”), and sex with both same-sex and opposite-sex partners (“bisexual”). Finally, respondents were divided into those who had had a male partner in the past three months, and who had had a female partner in the past three months, and the data cross-tabulated by race/ethnicity and the three condom questions, to examine differences in condom use by partner gender. Data were analyzed using calculation of percentages and by chi-square (with Yates correction for discontinuity where appropriate) and Spearman correlation coefficients comparing the relationships between the three condom questions. Finally, because of the differences in demographic variables across race/ethnicity samples, we conducted logistic regression analyses for each of the three condom use questions, with race/ethnicity, age group, source of income, educational level, and reported sexual identity as factors. SPSS 11.0 was used for all computations, and significance level was  $p < .05$  (two-tailed).

## Results

Demographic data for males ( $n=806$ ) (data for females are not reported here) are presented in Table 1. Major demographic variables (age group, educational level, income source, and reported sexual identity) were all significantly different between racial/ethnic groups. Refusal rates were for African Americans 48%, Hispanics 44%, Whites 42%, and Asians 43%. With the exception of Asian males, between a fifth and a quarter of respondents reported they had not had sex in the past three months. There were considerable differences between racial/ethnic samples in reported sexual identity, with higher proportions of white and Hispanic males describing themselves as homosexual, and high proportions (20-38%) of males describing themselves as bisexual. Concordance between reported sexual contact in the past 3 months and sexual identity was (figures in parentheses are for self-reported “heterosexuals” who reported sexual contact with both males and females in the past 3 months) for Hispanic males 56.2% (18.3%), African American males 43.1% (49%), White non-Hispanic males 34.7% (46.5%), and Asian males 78.4% (17.3%) (see Ross et al<sup>17</sup>), for a full discussion of concordance data in this sample). The rankings of the four racial/ethnic groups for concordance were the same in the rankings of the subsample of the male sample population who indicated that they engaged in sex for money, drugs or gifts (engaging in sex for money, drugs or gifts: White 48.2%, Hispanic 33.2%, African American 23.8%, Asian 9.0%).

Data on condom use by race/ethnicity and sexual contact in the past three months appear in Table 2. Spearman correlations between the three condom questions were, Percentage of partners and condom use (“What percentage of your partners use condoms during sexual contact?”) correlated with Difficulty of using condoms (“How difficult is it for you to use a condom during sexual contacts?”), 0.37, and with How partner feels about being asked to use a condom (“How do(es) your partner(s) feel about being asked to use condoms during sexual contact?”), -0.28; and between this latter variable and Difficulty of using condoms, -0.33 (all  $p < .001$ ). For reported percentage of partners who the respondent “never” uses condoms with, the percentages were significantly different for self-reported heterosexual men, with the highest proportions being for African American men (60.2%) followed by Hispanic men (44.8%). For the reported difficulty of using a condom during sexual contact, the proportion responding “very difficult” was significantly different for heterosexual and bisexual contact, with Hispanic men indicating that it was more difficult than for the rest of the respondents. For the reported response of sexual partners to being asked to use condoms (“never disagree”, rarely disagree”) the difference was only significant for homosexual contact, with fewer African American men (13.3%) followed by White men (25.0%) indicating that their partners were likely to agree to condom use. Data comparing those who had male partners and female partners by race/ethnicity on the three condom questions are presented in Table 3. Here, there were no significant

differences within each race/ethnicity by the gender of the partner in condom use responses, although the rank of each race/ethnicity was, as expected, the same as in Table 2.

To control for demographic differences between samples, logistic regression models were calculated separately for each of the three condom use questions. For the question “What percentage of your partners use condoms during sexual contact?”, only race/ethnicity and reported sexual orientation were significant. For the question “How difficult is it for you to use a condom during sexual contacts?”, only race/ethnicity and source of income were significant, and for the question “How do(es) your partner(s) feel about being asked to use condoms during sexual contact?”, only race/ethnicity and source of income were significant.

## Discussion

These data must be interpreted with the caveats that they are based on a nonrandom convenience sample, an English language questionnaire, and that this is a sample collected from public places with a refusal rate approaching half. Those not fluent in English would be underrepresented, and those who regularly frequent public places would be strongly overrepresented. This latter point would inflate the proportion of unemployed and probably of those seeking sexual contact or dealing drugs. It is possible that potential respondents who were approached and felt that HIV/AIDS issues were not relevant to them may have declined to participate, thus leading to overestimation of risk behaviors in this sample. A further limitation is the relatively low concordance of sexual identity with actual sexual contact in the past three months. Further, the samples are significantly different on the demographic variables of age group, educational level, income source, and reported sexual identity.

These data indicate that understanding condom use by reported sexual identity, in determining racial or ethnic differences in condom usage in such samples, may not be a good reflection of the gender(s) of the partners with whom sexual contact occurred. As Ross et al<sup>6</sup> have already noted, for this sample the distinction between “doing” and “being” is readily apparent in this street sample.

We chose to look at both *reported* condom use and *perceived difficulty* of condom use, since we believe that actual use may be related to difficulty of use and amount of partner disagreement with use of condoms. These variables are moderately intercorrelated. Table 2 indicates racial and ethnic differences in percentages of partners who use condoms during sexual contact, the difficulty of using a condom with partners, and the proportion of partners who never or rarely disagree about using condoms, are not significantly different except in heterosexual and, for difficulty of using a condom, bisexual, contact. For percentage of partners who never use condoms, it is the African American and Hispanic men who reported sex with women in the past three months who have the highest rate of failure to use condoms. For reported difficulty of using a condom during bisexual contacts, it was again Hispanic men who have sex with women who reported the greatest difficulty, and the same pattern was reported for Hispanic respondents reporting homosexual or bisexual contact. This consistency, coupled with recent rises in reports of HIV in Hispanic populations suggests that special attention to HIV prevention in Hispanic populations is important.

There is considerable variation in reported responses of sexual partners on being asked to use condoms during sexual contact, although it is the sample reporting homosexual identity that shows significantly different responses by race and ethnicity. Here, however, it is African American men who had sex with men in the past three months who report the greatest problems with partner disagreement to use condoms, with Asian men who have sex with men reporting the lowest disagreement.

Logistic regression indicated that race/ethnicity was a significant predictor for all three condom use questions. Source of income (legal versus illegal) was, along with race/ethnicity, a significant predictor of response to two of the three condom use questions. These data suggest that condom use will also vary by whether the respondent is likely to trade sex for money, drugs or other needs. This is to be expected as condom use has previously been shown to differ significantly by regular versus casual or commercial partner<sup>6</sup>. However, as we did not ask condom use questions by partner type, we are unable to specifically confirm this in the present sample.

Table 3 indicates that within each race/ethnicity, there were no significant differences in percentage of condom use for male partners and female partners. The same rankings in condom use and difficulty of use were to be expected across race and ethnicity, but it is interesting that condom use percentage with male and female partners is relatively close within race/ethnicity categories. Given the fairly high degree of discordance found between the individual's sexual identity and the gender of their sexual partners, the lack of difference by partner gender is not surprising. What these data suggest is that it is the *sexual identity of the individual*, not the *gender of the partner*, which seems to be a critical variable in condom use and difficulty associated with partner use of condoms. These data also suggest that the condom use message that it does not matter whether the partner is male or female seems to be succeeding, although it seems to be variable by race/ethnicity and sexual identity. It may be that the message and its reception in communities varies not only by race/ethnicity but also by sexual identity and legal versus illegal source of income.

The distinction between “doing” and “being” as measured by concordance between sexual identity and gender of sexual contact is high in this street sample and not limited to any particular racial/ethnic group, although discordance is lowest among the Asian respondents. Condom use differences across race and ethnicity appear, however, to be significant mostly among men who define themselves as heterosexual, suggesting that it is not sexual minorities but the “majority” who remain a reservoir of stubbornness with regard to condom use. African American homosexual men reported low difficulty of getting partners to use condoms. While the variation in condom use across race and ethnicity appears to be most significant for heterosexual men, race/ethnicity also has a major impact on levels of condom use insofar as the levels of use for both male and female partners are relatively consistent within, but not between, races and ethnicities. These data suggest that campaigns targeted specifically by race/ethnicity and with continuing emphasis on self-identified heterosexuals may be among the most productive in increasing condom use.

#### Acknowledgement

This research was funded by a grant from the National Institute of Allergy and Infectious Diseases, National Institutes of Health (Grant number G12RR03045-11). Preparation of this manuscript was facilitated by National Institute of Mental Health grant number RO1-MH62960-01

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**Table 1:**  
Demographic and Sexual Characteristics of the Study Sample

	African Americans (n=206)	Hispanic Americans (n=252)	Whites (n=200)	Asians (n=148)
Age (years)				
18-29	50 (24.4%)	100 (40.0%)	24 (12.0%)	68 (46.9%)
30-39	99 (48.3%)	95 (38.0%)	121 (60.5%)	54 (37.2%)
40-49	52 (25.4%)	49 (19.6%)	53 (26.5%)	15 (10.4%)
50+	4 (5.4%)	6 (2.4%)	2 (1.0%)	8 (5.5%)
	Missing n=1	Missing n=2 ( $\chi^2=80.8$ , df=9, p=.00)		
Education				
High School/GED	122 (59.2%)	176 (71.6%)	63 (32.3%)	60 (41.7%)
Above high school	84 (40.8%)	70 (28.4%)	132 (67.7%)	84 (58.3%)
		Missing n=6 ( $\chi^2=78.1$ , df=3, p=.00)	Missing n=5	Missing n=4
Income				
Legally employed	92 (44.7%)	97 (39.3%)	28 (14.0%)	117 (80.7%)
Welfare	40 (19.4%)	36 (14.6%)	44 (22.1%)	12 (8.2%)
Illegal activities	74 (35.9%)	114 (46.2%)	125 (62.8%)	16 (11.0%)
		Missing n=5 ( $\chi^2=158.5$ , df=6, p=.00)	Missing n=1	Missing n=3
No sexual activity past 3 months	42 (21.8%)	46 (20.5%)	34 (21.9%)	13 (9.4%)
Reported sexual identity				
Homosexual	24 (12.4%)	49 (21.9%)	41 (26.5%)	11 (8.0%)
Bisexual	55 (28.5%)	84 (37.5%)	60 (38.7%)	38 (27.5%)
Heterosexual	114 (59.1%)	91 (40.7%)	54 (34.8%)	89 (64.5%)
		( $\chi^2=45.0$ , df=6, p=.00)		

Note: as a result of missing data, some of the percentages do not sum to 100.

**Table 2:**  
Male condom use in the past 3 months by sexual identity

Race/Ethnicity	No sex <sup>*</sup>	Homosexual	Heterosexual	Bisexual
<u>Reported percentage of partners who respondents never use condoms with</u>				
African American	52.6	40.0	60.2	37.7
Hispanic	37.5	45.9	44.8	33.3
Asian	46.2	20.0	37.5	14.0
White	11.1	25.0	26.6	23.8
(Race/ethnicity difference for heterosexual behavior, p<.001)				
<u>Reported difficulty of using a condom during sexual contact, percentage responding "very difficult"</u>				
African American	52.6	13.3	27.3	21.3
Hispanic	37.5	44.7	38.2	40.0
Asian	38.5	20.0	25.0	9.3
White	33.3	35.7	19.4	22.2
(Race/ethnicity difference for heterosexual and bisexual behavior, p<.001)				
<u>Reported response of sexual partners to being asked to use condoms during sexual contact, percentage who "never, rarely disagree"</u>				
African American	47.4	13.3	31.0	37.5
Hispanic	65.2	39.5	43.0	37.8
Asian	61.5	60.0	43.1	42.2
White	11.1	25.0	35.5	44.4
(Race/ethnicity difference only for homosexual behavior, p<.05)				

\*  
In past 3 months



**Table 3:**  
Male condom use in the past 3 months by gender of sexual partner

Race/Ethnicity	Male sexual partners	Female sexual partners
<u>Reported percentage of partners who respondents never use condoms with</u>		
African American	44.6	49.4
Hispanic	39.3	33.0
Asian	28.1	24.7
White	28.8	23.3
	(ns for each race/ethnicity)	
<u>Reported difficulty of using a condom during sexual contact, percentage responding "very difficult"</u>		
African American	24.6	28.4
Hispanic	40.2	35.7
Asian	16.3	19.7
White	25.0	20.0
	(ns for each race/ethnicity)	
<u>Reported response of sexual partners to being asked to use condoms during sexual contact, percentage who "never, rarely disagree"</u>		
African American	29.3	32.2
Hispanic	35.2	40.0
Asian	56.3	40.9
White	31.3	33.3
	(ns for each race/ethnicity)	