

Final Progress Report for Research Projects Funded by Health Research Grants

Instructions: Please complete all of the items as instructed. Do not delete instructions. Do not leave any items blank; responses must be provided for all items. If your response to an item is “None”, please specify “None” as your response. “Not applicable” is not an acceptable response for any of the items. There is no limit to the length of your response to any question. Responses should be single-spaced, no smaller than 12-point type. The report **must be completed using MS Word**. Submitted reports must be Word documents; they should not be converted to pdf format. Questions? Contact Health Research Program staff at 717-783-2548.

1. **Grantee Institution:** Public Health Management Corporation (formerly known as Philadelphia Health Management Corporation)
2. **Reporting Period (start and end date of grant award period):** 01/01/2009-06/30/2010
3. **Grant Contact Person (First Name, M.I., Last Name, Degrees):** Lisa Bond, PhD
4. **Grant Contact Person’s Telephone Number:** 215-985-2531
5. **Grant SAP Number:** 4100047649
6. **Project Number and Title of Research Project:** 1: The Association of Drug Use and Sexual Risk for HIV Infection Among Black Men Who Have Sex with Men
7. **Start and End Date of Research Project:** 01/01/2009 - 06/30/2010
8. **Name of Principal Investigator for the Research Project:** Lisa Bond, PhD
9. **Research Project Expenses.**

9(A) Please provide the amount of health research grant funds spent on this project for the entire duration of the grant, including any interest earned that was spent:

\$ 20,369

9(B) Provide the last names (include first initial if multiple individuals with the same last name are listed) of **all** persons who worked on this research project and were supported with health research funds. Include position titles (Principal Investigator, Graduate Assistant, Post-doctoral Fellow, etc.), percent of effort on project and total health research funds expended for the position. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name	Position Title	% of Effort on Project	Cost
Bond	Principal Investigator	13%	\$ 16,307

9(C) Provide the names of **all** persons who worked on this research project, but who *were not* supported with health research funds. Include position titles (Research Assistant, Administrative Assistant, etc.) and percent of effort on project. For multiple year projects, if percent of effort varied from year to year, report in the % of Effort column the effort by year 1, 2, 3, etc. of the project (x% Yr 1; z% Yr 2-3).

Last Name	Position Title	% of Effort on Project
None		

9(D) Provide a list of **all** scientific equipment purchased as part of this research grant, a short description of the value (benefit) derived by the institution from this equipment, and the cost of the equipment.

Type of Scientific Equipment	Value Derived	Cost
None		

10. Co-funding of Research Project during Health Research Grant Award Period. Did this research project receive funding from any other source during the project period when it was supported by the health research grant?

Yes _____ No X _____

If yes, please indicate the source and amount of other funds:

11. Leveraging of Additional Funds

11(A) As a result of the health research funds provided for this research project, were you able to apply for and/or obtain funding from other sources to continue or expand the research?

Yes _____ No X _____

If yes, please list the applications submitted (column A), the funding agency (National Institutes of Health—NIH, or other source in column B), the month and year when the application was submitted (column C), and the amount of funds requested (column D). If you have received a notice that the grant will be funded, please indicate the amount of funds to be awarded (column E). If the grant was not funded, insert “not funded” in column E.

Do not include funding from your own institution or from CURE (tobacco settlement funds). Do not include grants submitted prior to the start date of the grant as shown in Question 2. If you list grants submitted within 1-6 months of the start date of this grant, add a statement

below the table indicating how the data/results from this project were used to secure that grant.

A. Title of research project on grant application	B. Funding agency (check those that apply)	C. Month and Year Submitted	D. Amount of funds requested:	E. Amount of funds to be awarded:
None	<input type="checkbox"/> NIH <input type="checkbox"/> Other federal (specify: _____) <input type="checkbox"/> Nonfederal source (specify: _____)		\$	\$

11(B) Are you planning to apply for additional funding in the future to continue or expand the research?

Yes _____ No X _____

If yes, please describe your plans:

12. Future of Research Project. What are the future plans for this research project?

The Principal Investigator is currently completing a draft manuscript for submission to the journal AIDS and Behavior. She is planning to submit this manuscript by November 30, 2010.

13. New Investigator Training and Development. Did students participate in project supported internships or graduate or post-graduate training for at least one semester or one summer?

Yes _____ No X _____

If yes, how many students? Please specify in the tables below:

	Undergraduate	Masters	Pre-doc	Post-doc
Male				
Female				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
Hispanic				
Non-Hispanic				
Unknown				
Total				

	Undergraduate	Masters	Pre-doc	Post-doc
White				
Black				
Asian				
Other				
Unknown				
Total				

14. Recruitment of Out-of-State Researchers. Did you bring researchers into Pennsylvania to carry out this research project?

Yes _____ No X _____

If yes, please list the name and degree of each researcher and his/her previous affiliation:

15. Impact on Research Capacity and Quality. Did the health research project enhance the quality and/or capacity of research at your institution?

Yes X _____ No _____

If yes, describe how improvements in infrastructure, the addition of new investigators, and other resources have led to more and better research.

The receipt of funding from the PA DOH allowed for the Principal Investigator to devote time to the secondary analysis of data, which would have been a formidable challenge without such funding.

16. Collaboration, business and community involvement.

16(A) Did the health research funds lead to collaboration with research partners outside of your institution (e.g., entire university, entire hospital system)?

Yes _____ No X _____

If yes, please describe the collaborations:

16(B) Did the research project result in commercial development of any research products?

Yes _____ No X _____

If yes, please describe commercial development activities that resulted from the research project:

16(C) Did the research lead to new involvement with the community?

Yes _____ No X _____

If yes, please describe involvement with community groups that resulted from the research project:

17. Progress in Achieving Research Goals, Objectives and Aims.

List the project goals, objectives and specific aims (as contained in the grant application's strategic plan). Summarize the progress made in achieving these goals, objectives and aims for the entire grant award period. Indicate whether or not each goal/objective/aim was achieved; if something was not achieved, note the reasons why. Describe the methods used. If changes were made to the research goals/objectives/aims, methods, design or timeline since the original grant application was submitted, please describe the changes. Provide detailed results of the project. Include evidence of the data that was generated and analyzed, and provide tables, graphs, and figures of the data. List published abstracts, poster presentations and scientific meeting presentations at the end of the summary of progress; peer-reviewed publications should be listed under item 20.

This response should be a DETAILED report of the methods and findings. It is not sufficient to state that the work was completed. Insufficient information may result in an unfavorable performance review, which may jeopardize future funding. If research findings are pending publication you must still include enough detail for the expert peer reviewers to evaluate the progress during the course of the project.

Health research grants funded under the Tobacco Settlement Act will be evaluated via a performance review by an expert panel of researchers and clinicians who will assess project work using this Final Progress Report, all project Annual Reports and the project's strategic plan. After the final performance review of each project is complete, approximately 12-16 months after the end of the grant, this Final Progress Report, as well as the Final Performance Review Report containing the comments of the expert review panel, and the grantee's written response to the Final Performance Review Report, will be posted on the CURE Web site.

There is no limit to the length of your response. Responses must be single-spaced below, no smaller than 12-point type. If you cut and paste text from a publication, be sure symbols print properly, e.g., the Greek symbol for alpha (α) and beta (β) should not print as boxes (\square) and include the appropriate citation(s). DO NOT DELETE THESE INSTRUCTIONS.

BACKGROUND

Since the early 1980s, the HIV epidemic in the United States has taken a severe toll on all MSM, but has most disproportionately impacted Black MSM. HIV prevalence rates in Black MSM, estimated between 30%-50%, are significantly higher in this population than other MSM. Urban Black MSM are the single population most heavily impacted by the HIV epidemic in the United States, with HIV infection rates rivaling those found in many sub-Saharan African nations. Although progress is being made to identify the correlates of risk for HIV within this population, many gaps still exist in our understanding of key contributing factors. The overall purpose or goal of this project was to increase the current understanding

of the factors that contribute to the disparate rates of HIV infection among Black men who have sex with men (MSM).

The specific objective of this research project was to further our understanding of the link between the use of illicit drugs such as crack cocaine, and engaging in sexual behaviors known to increase risk for HIV infection among Black MSM. Increasing the public health community's understanding of the link between drug use and HIV risk behavior is vital for developing more effective programs, services, and policies to address the HIV epidemic in this population of men. This objective was to be accomplished through secondary analysis of data gathered from a sample of 540 Black MSM in Philadelphia.

The specific aims of this research project were to:

1. Describe the prevalence and patterns of illicit drug use and sexual risk among Black MSM;
2. Compare drug use and sexual risk behaviors of subgroups of Black MSM, including HIV-positive and HIV-negative MSM and gay-identified and non-gay-identified MSM;
3. Assess the association between drug use and sexual risk behaviors, including the effects of different types of drug use on sexual risk practices, for different subgroups of Black MSM.

SUMMARY OF PROGRESS IN ACHIEVING RESEARCH OBJECTIVES AND AIMS

Significant progress was made toward achieving the aims of the proposed study. An extensive review of the relevant research literature was completed, helping to inform and refine the conceptualization of the analyses completed for this project. All key analyses were completed, and a manuscript is currently being prepared for submission to a peer-reviewed journal. Some adjustments were made to the original aims proposed for this study. These adjustments were made after reviewing the extant literature, as well as conducting some initial exploratory analysis of key variables in the data set. No changes were made to Aim 1. However, after examining the prevalence/pattern of illicit drug use within the sample of 540 Black MSM (Aim 1) and after examining the research literature to identify gaps in knowledge, the focus of aims 2 and 3 shifted slightly to a more narrowed focus on the risks of crack cocaine users and non-users, and the association of crack cocaine use to condom use practices with male sexual partners and with female sexual partners. The focus on crack cocaine use versus other drugs arose primarily from the data themselves; aside from marijuana use, crack cocaine use was the next most prevalent drug used by this sample of Black men. Other than powder cocaine, other types of drug use were fairly uncommon. The focus on crack cocaine also was informed by an extensive review of the research literature, which indicated that crack cocaine is the one substance more commonly used by Black MSM than other MSM, though very few studies have taken a close look at the association of crack cocaine use to risk behaviors with male or female partners.

REVIEW OF RESEARCH LITERATURE

At the start of this project, an exhaustive review of the research literature was conducted by the Principal Investigator. Periodic updated reviews of the research literature were also conducted to stay abreast of new published research. This review was essential for identifying gaps in the knowledge base on HIV risk behavior and substance use by MSM, and for helping to refine planned analyses. In total, 57 relevant research articles were identified through the pubmed or google scholar search engines, and were downloaded,

printed, and reviewed by the Principal Investigator. Importantly, this extensive review of the research literature helped to inform several key decision points in planning for the analyses of data for this study. In particular, the literature review pointed to the importance of focusing on crack cocaine apart from other drugs, because of certain unique properties of, or correlates of crack cocaine use, which differ from other illicit drugs. For instance, though the psychoactive and physiological effects of powder cocaine (typically snorted) and crack cocaine (typically smoked) use are similar, there is evidence of a greater risk of causing harm, propensity for dependence, and development of compulsive cocaine use when smoked. The highly addictive nature of crack cocaine often leads to prostitution or sex work as a means of obtaining the drug. Sex trading is an economic response driven by the need to obtain more crack cocaine. While the link between crack cocaine use and sex trading has been established in high risk heterosexual populations (e.g., low-income, urban Black women who trade sex), little has been written about the role of crack cocaine use and sex trading by Black MSM. Much of the published research on MSM and substance use has focused on the use of “club drugs” like crystal methamphetamine, poppers and ecstasy, while crack cocaine use has received scant attention. In sum, the review of the research literature was critical for informing the analyses completed for this project. The review of the literature highlighted gaps in knowledge about crack cocaine use by Black MSM, the unique properties of crack cocaine use that are likely to differentiate it from other drugs used by MSM, and the importance of assessing the link between crack cocaine use and sex trading on the HIV risk behaviors of Black MSM.

METHODS

The methods for achieving the aims of this study entailed the secondary analysis of existing data collected by Public Health Management Corporation (PHMC) from a sample of 540 Black MSM who participated in the national Brother y Hermanos study of HIV risk in Black and Latino MSM, funded by the Centers for Disease Control and Prevention. In Philadelphia, 540 adult Black MSM were interviewed from May 2005-April 2006. This cross-sectional survey elicited detailed and comprehensive information from Black MSM in a variety of core domains, including socio-demographic characteristics, psychosocial well-being, HIV status, sexual practices and relationships, and recent substance use.

Measures

Key independent and dependent measures were identified through exploration of the data and through reviews of the published research described earlier. These measures include:

- *Demographics*: Self-reported measures included age, gross annual income (measured as an ordinal variable in dollars), sexual identity (homosexual/gay, bisexual, heterosexual/straight, other), history of ever being incarcerated and number of times incarcerated in lifetime, and self-reported HIV status (negative, positive, unknown). Black or African American race was a requirement for entry to the study.
- *Substance Use*: Participants were asked which of a list of illicit drugs they had used in the past 3 months (yes/no) including: marijuana, crystal methamphetamine, powder cocaine, crack cocaine, heroin, amyl nitrate (poppers), and club drugs (ecstasy, GHB, Ketamine). These data were gathered through responses to the question “*Did you use [insert drug name here] in the past 3 months?*” The use of ecstasy, GHB, and ketamine were

assessed with one single question. A composite measure of any drug use other than crack-cocaine (yes/no) was also created for this analysis. The use of crack cocaine in the past 3 months was the key independent variable of interest for this study.

- *Sexual Partners*: Participants were asked about male and female sexual partners in the past 3 months, including main partners and partners other than main partners (referred to hereafter as “non-main partners”).
- *Sex Trade*: Participants were asked about buying and paying for sex with male partners. Question items included “In the past 3 months, did you have anal sex with any male sex partners because they gave you drugs, money, a place to stay, or other things you needed?” and “In the past 3 months, did you give another man drugs, money, a place to stay, or other things so that he would have anal sex with you?” A single item measuring “traded sex past 3 months” was constructed from these items.
- *Unprotected Anal and/or Vaginal Sex*: The dependent variables of interest to this study included unprotected receptive and insertive anal intercourse with any male partner in the past 3 months (yes/no receptive, yes/no insertive), unprotected receptive and insertive anal intercourse with a non-main male partner in the past 3 months (yes/no receptive, yes/no insertive), and unprotected vaginal or anal intercourse with any female partner in the past 3 months (yes/no).

Data Analyses

Descriptive statistics were generated for participant characteristics. Demographics, HIV status, substance use, partner type and risk behaviors were stratified by whether the participant had used crack cocaine in the past 3 months (referred to as recent crack cocaine use). Significant differences were identified between those with and without a recent history of crack cocaine use by using differences in Chi-square tests of independence or Fisher exact test if the expected value of any cells was less than 5.

Multivariate logistic regression analysis was used to assess variables associated with engaging in unprotected sex with male and female partners in the past 3 months. Variables included in multivariate models were those found to be statistically significant in bivariate analyses ($p \leq .10$) or relevant based on *a priori* knowledge. Final multivariate logistic regression models assessed the contribution of crack cocaine use to each of the sexual risk behavior outcomes among MSM reporting sex with male or female partners in the past 3 months, while adjusting for age, sexual identity, HIV status, income, marijuana use, and the use of any other type of illicit drugs. Because of the high prevalence of marijuana use in the study population (43.9% in past 3 months), and the known association of marijuana use and other illicit drugs to sexual risk behaviors, we control for these substances in all multivariate models. A total of 4 regression models were examined for condom use with male partners (insertive unprotected anal sex with any male partner in past 3 months, receptive unprotected anal sex with any male partner in past 3 months, insertive unprotected anal sex with a non-main male partner in past 3 months, receptive unprotected anal sex with a non-main male partner in past 3 months) and 1 regression model examined condom use with female partners (unprotected vaginal or anal sex with any female partner in the past 3 months).

Mediational analysis was conducted to investigate the relationship between the independent predictor variable (recent crack cocaine use) and the dependent variables. Exploratory regression analyses suggested that the relationship between crack cocaine use and the risk behavior outcomes might be mediated by sex trading. According to Baron and Kenny (1986), mediation is possible when a) the predictor and dependent variables are associated with each other (in this case, crack cocaine and condom use with male and female partners); b) both are associated with a third, potentially mediating variable (in this case, sex trading); and c) the strength of association between the predictor and dependent variable is reduced after accounting for the influence of the mediating variable (in this case, the inclusion of sex trading diminishes the strength of association between crack cocaine use and condom use with male and female partners). (R.M. Baron & D.A. Kenny. 1986. *The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology*, 51, 1173-1182).

RESULTS

Prevalence and Types of Drugs Used by Black MSM

Table 1 (see below) provides a snapshot of drugs used by the total sample of 540 Black MSM in the past 3 months. Crack and powder cocaine were used in the past 3 months by significant proportions of men in the study sample (40.6% and 38.7%, respectively). As noted earlier in this report, the use of other drugs was much less common.

Substance	Used in past 3 months		Did not use in past 3 months	
	N	(%)	N	(%)
Cocaine (powder)	209	(38.7%)	331	(61.3%)
Crack Cocaine	219	(40.6%)	321	(59.4%)
Crystal Methamphet.	9	(1.7%)	530	(98.3%)
Ecstasy,GHB, Ketamine	11	(2.0%)	529	(98.0%)
Heroin	13	(2.4%)	527	(97.6%)
Marijuana	237	(43.9%)	303	(56.1%)
Poppers	32	(5.9%)	508	(94.1%)

Correlates of Recent Crack Cocaine Use

Table 2 (see below) highlights some of the key differences observed between Black MSM reporting recent crack cocaine use and Black MSM not reporting recent crack cocaine use. Results indicate that men reporting recent crack cocaine use tended to be older, had lower incomes, were more likely to have been incarcerated (ever and multiple times), and were more likely to report that they had trouble meeting basic living expenses. There were no significant differences in HIV status. In terms of self-reported sexual orientation, crack using men were significantly less likely to identify as “gay or homosexual.” Crack using men were more likely than non-users to report using other drugs, with the exception of club drugs. In terms of sexual partners, crack users and non-users did not differ significantly in reporting engaging in anal sex with a male partner in the past 3 months. However, crack users were significantly more likely to

report that they had vaginal or anal sex with a female partner in the past 3 months. Regarding sexual risk behaviors, crack using men were more likely than non-users to report that they had unprotected insertive anal intercourse with a male partner in the past 3 months, unprotected vaginal/anal intercourse with a female partner in the past 3 months, and to have traded sex with a male partner for drugs or money.

Table 2 -- Demographic, HIV Status and Sexual Risk Behavior Comparison of Black MSM Reporting Recent Crack Cocaine Use and Black MSM Reporting No Recent Crack Cocaine Use, Philadelphia, PA, 2005 – 2006, n=540.			
	Used crack cocaine in past three months	Did not use crack cocaine in past 3 months	P-value
Age			<.001
18-29	8 (3.7%)	58 (18.1%)	
30-39	33 (15.1%)	66 (20.6%)	
40-49	125 (57.1%)	138 (43.0%)	
50 or older	53 (24.2%)	59 (18.4%)	
Gross Annual Income			.004
<\$5,000	101 (47.0%)	99 (31.9%)	
\$5,000 - \$9,999	51 (23.7%)	74 (23.9%)	
\$10,000 - \$19,999	29 (13.5%)	58 (18.7%)	
\$20,000 - \$29,999	20 (9.3%)	46 (14.8%)	
\$30,000+	14 (6.5%)	33 (10.6%)	
Sexual Identity			<.001
Homosexual or gay	60 (27.5%)	145 (45.3%)	
Bisexual	101 (46.3%)	128 (40.0%)	
Heterosexual or straight	49 (22.5%)	38 (11.9%)	
Other	8 (3.7%)	9 (2.8%)	
Ran out of money in past 12 months for food & basic necessities			<.001
Never	36 (16.4%)	91 (28.4%)	
Once	22 (10.0%)	64 (20.0%)	
Twice	40 (18.3%)	52 (16.3%)	
Three times or more	121 (55.3%)	113 (35.3%)	
Ever Incarcerated			<.001
Yes	161 (73.9%)	181 (56.6%)	
No	57 (26.1%)	139 (43.4%)	
Number of times incarcerated in lifetime			<.001
Never	57 (26.1%)	139 (43.4%)	
Once	53 (24.3%)	81 (25.3%)	
Twice	42 (19.3%)	47 (14.7%)	
Three times or more	66 (30.3%)	53 (16.6%)	
HIV status (self-reported)			.248
Negative	133 (60.7%)	173 (53.9%)	
Positive	52 (23.7%)	95 (29.6%)	

Unknown	34 (15.5%)	53 (16.5%)	
Substance use past 3 months			
Crack cocaine use	219 (100.0%)	-----	
Powder cocaine use	180 (82.2%)	29 (9.0%)	<.001
Marijuana	118 (53.9%)	119 (37.1%)	<.001
Poppers (Amyl Nitrite)	21 (9.6%)	11 (3.4%)	.003
Heroin	10 (4.6%)	3 (0.9%)	.009
Crystal methamphetamine	8 (3.7%)	1 (0.3%)	.004
Club Drugs (Ecstasy, Ketamine, GHB)	4 (1.8%)	7 (2.2%)	1.0
Had anal intercourse with any male partner in past 3 months			.412
Yes	154 (70.3%)	215 (67.0%)	
No	65 (29.7%)	106 (33.0%)	
Had unprotected anal intercourse with any male partner in past 3 months (n=369)			.105
Yes	94 (61.0%)	113 (52.6%)	
No	60 (39.0%)	102 (47.4%)	
Had insertive unprotected anal intercourse with a male partner in past 3 months (n=369)			.063
Yes	81 (52.6%)	92 (42.8%)	
No	73 (47.4%)	123 (57.2%)	
Had receptive unprotected anal intercourse with any male partner in past 3 months (n=369)			.202
Yes	51 (33.1%)	58 (27.0%)	
No	103 (66.9%)	157 (73.0%)	
Had vaginal and/or anal intercourse with any female partner in past 3 months			<.001
Yes	120 (54.8%)	97 (30.2%)	
No	99 (45.2%)	224 (69.8%)	
Had unprotected vaginal and/or anal intercourse with any female partner in past 3 months (n=217)			.029
Yes	84 (70.0%)	54 (55.7%)	
No	36 (30.0%)	43 (44.3%)	
Traded sex with any male in past 3 months for sex, drugs or other things of value			<.001
Yes	97 (44.3%)	46 (14.3%)	
No	122 (55.7%)	275 (85.7%)	

Association of Crack Cocaine Use to Condom Use Behaviors with Male and Female Partners

Table 3 below shows that, in unadjusted models, crack cocaine use was highly predictive of unprotected sex with male and female partners. One exception noted is the association of crack cocaine use to receptive UAI with any male partner, which in unadjusted models was marginally significant at $p=.14$. The significant relationship of crack cocaine use to the condom use outcomes is one of the conditions necessary for a mediational relationship to be established. Though not shown below in this table, we conducted another set of regression analyses in which we included the sex trade variable in the adjusted models, along with crack cocaine use. In all models except for the model predicting unprotected sex with female partners, the strength of the association between crack cocaine use and condom use was significantly reduced – another condition necessary for establishing a mediational relationship. Through further exploratory analyses (including correlational analysis), it was found that sex trading mediates the relationship between crack cocaine use and unprotected anal intercourse (UAI) with male partners, though does not appear to mediate the relationship between crack cocaine use and unprotected vaginal/anal sex with female partners. Intuitively this makes sense. Men who use crack cocaine are more likely to engage in UAI with male partners, and this is likely because of the crack-sex trade connection. However, men who use crack cocaine are not more likely to engage in unprotected vaginal/anal intercourse with female partners if they trade sex with men, suggesting that other factors may explain the association between crack cocaine use and unprotected sex with women. One plausible factor could be sex trading with female partners; unfortunately, men in this study were not asked about their trading of sex with female partners.

Table 3 -- Unadjusted and Adjusted Logistic Regression Models Assessing the Association of

Dependent variable	Independent variable	
	Crack use past 3 months	
	Unadjusted	Adjusted [^]
Insertive UAI with any male partner past 3 mos.	OR 4.75****	OR 2.00**
Receptive UAI with any male partner past 3 mos.	OR 1.378	OR 2.92***
Insertive UAI with non-main male partner past 3 mos.	OR 1.833***	OR 1.93**
Receptive UAI with non-main male partner past 3 mos.	OR 1.51*	OR 2.01*
Unprotected vaginal or anal sex with any female partner past 3 mos. ^{^^}	OR 1.86**	OR 1.70

* $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$, **** $p \leq .001$

[^]Adjusted for age, income, sexual orientation, HIV status, marijuana use, and other illicit drug use.

Adjusted models

do not include sex trading variable.

^{^^}Analysis restricted to MSM reporting sex with a female partner in the past 3 months ($n=217$).

UAI=Unprotected Anal Intercourse

SUMMARY/NEXT STEPS

In brief, the results of this analysis indicate that crack cocaine use is prevalent among a largely older, low-income sample of Black MSM in Philadelphia, that crack cocaine use is predictive of unprotected sex with male and female partners, and that the pathway through which crack cocaine use affects condom use may differ with male and female sexual partners. Sex trading

appears to mediate the relationship between crack cocaine use and UAI with male partners, yet not with female partners. These findings appear to be novel and when published, will contribute to the scant research currently available on the association of crack cocaine use to HIV risk behavior among Black MSM. Currently, a manuscript detailing the findings of this project is being prepared. The Principal Investigator is planning to submit the completed manuscript to the journal AIDS and Behavior by November 30, 2010. Simultaneously, the manuscript, tentatively titled “Black MSM and the Association of Crack Cocaine Use and Sex Trading to Condom Use with Male and Female Partners,” will be forwarded to the PA DOH.

18. Extent of Clinical Activities Initiated and Completed. Items 18(A) and 18(B) should be completed for all research projects. If the project was restricted to secondary analysis of clinical data or data analysis of clinical research, then responses to 18(A) and 18(B) should be “No.”

18(A) Did you initiate a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes
 No

18(B) Did you complete a study that involved the testing of treatment, prevention or diagnostic procedures on human subjects?

Yes
 No

If “Yes” to either 18(A) or 18(B), items 18(C) – (F) must also be completed. (Do NOT complete 18(C-F) if 18(A) and 18(B) are both “No.”)

18(C) How many hospital and health care professionals were involved in the research project?

_____ Number of hospital and health care professionals involved in the research project

18(D) How many subjects were included in the study compared to targeted goals?

_____ Number of subjects originally targeted to be included in the study
_____ Number of subjects enrolled in the study

18(E) How many subjects were enrolled in the study by gender, ethnicity and race?

Gender:
 Males
 Females
 Unknown

Ethnicity:

- Latinos or Hispanics
 Not Latinos or Hispanics
 Unknown

Race:

- American Indian or Alaska Native
 Asian
 Blacks or African American
 Native Hawaiian or Other Pacific Islander
 White
 Other, specify: _____
 Unknown

18(F) Where was the research study conducted? (List the county where the research study was conducted. If the treatment, prevention and diagnostic tests were offered in more than one county, list all of the counties where the research study was conducted.)

19. Human Embryonic Stem Cell Research. Item 19(A) should be completed for all research projects. If the research project involved human embryonic stem cells, items 19(B) and 19(C) must also be completed.

19(A) Did this project involve, in any capacity, human embryonic stem cells?

- Yes
 No

19(B) Were these stem cell lines NIH-approved lines that were derived outside of Pennsylvania?

- Yes
 No

19(C) Please describe how this project involved human embryonic stem cells:

20. Articles Submitted to Peer-Reviewed Publications.

20(A) Identify all publications that resulted from the research performed during the funding period and that have been submitted to peer-reviewed publications. Do not list journal abstracts or presentations at professional meetings; abstract and meeting presentations should be listed at the end of item 17. **Include only those publications that acknowledge the Pennsylvania Department of Health as a funding source** (as required in the grant agreement). List the title of the journal article, the authors, the name of the peer-reviewed publication, the month and year when it was submitted, and the status of publication (submitted for publication, accepted for publication or published.). Submit an electronic

copy of each publication, listed in the table, in a PDF version 5.0.5 format, 1,200 dpi. Filenames for each publication should include the number of the research project, the last name of the PI, the number of the publication and an abbreviated research project title. For example, if you submit two publications for PI Smith for the “Cognition and MRI in Older Adults” research project (Project 1), and two publications for PI Zhang for the “Lung Cancer” research project (Project 3), the filenames should be:

- Project 1 – Smith – Publication 1 – Cognition and MRI
- Project 1 – Smith – Publication 2 – Cognition and MRI
- Project 3 – Zhang – Publication 1 – Lung Cancer
- Project 3 – Zhang – Publication 2 – Lung Cancer

If the publication is not available electronically, provide 5 paper copies of the publication.

Note: The grant agreement requires that recipients acknowledge the Pennsylvania Department of Health funding in all publications. Please ensure that all publications listed acknowledge the Department of Health funding. If a publication does not acknowledge the funding from the Commonwealth, do not list the publication.

Title of Journal Article:	Authors:	Name of Peer-reviewed Publication:	Month and Year Submitted:	Publication Status (check appropriate box below):
1. None				<input type="checkbox"/> Submitted <input type="checkbox"/> Accepted <input type="checkbox"/> Published

20(B) Based on this project, are you planning to submit articles to peer-reviewed publications in the future?

Yes X No _____

If yes, please describe your plans:

The Principal Investigator is currently working on a draft manuscript which she intends to submit to the journal AIDS and Behavior before November 30, 2010.

21. Changes in Outcome, Impact and Effectiveness Attributable to the Research Project.

Describe the outcome, impact, and effectiveness of the research project by summarizing its impact on the incidence of disease, death from disease, stage of disease at time of diagnosis, or other relevant measures of outcome, impact or effectiveness of the research project. If there were no changes, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. DO NOT DELETE THESE INSTRUCTIONS. There is no limit to the length of your response.

None

22. Major Discoveries, New Drugs, and New Approaches for Prevention Diagnosis and Treatment. Describe major discoveries, new drugs, and new approaches for prevention, diagnosis and treatment that are attributable to the completed research project. If there were no major discoveries, drugs or approaches, insert “None”; do not use “Not applicable.” Responses must be single-spaced below, and no smaller than 12-point type. **DO NOT DELETE THESE INSTRUCTIONS.** There is no limit to the length of your response.

None

23. Inventions, Patents and Commercial Development Opportunities.

23(A) Were any inventions, which may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of work under this health research grant? Yes _____ No X

If “Yes” to 23(A), complete items a – g below for each invention. (Do NOT complete items a - g if 23(A) is “No.”)

- a. Title of Invention:
- b. Name of Inventor(s):
- c. Technical Description of Invention (describe nature, purpose, operation and physical, chemical, biological or electrical characteristics of the invention):
- d. Was a patent filed for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No _____

If yes, indicate date patent was filed:

- e. Was a patent issued for the invention conceived or first actually reduced to practice in the performance of work under this health research grant?
Yes _____ No _____

If yes, indicate number of patent, title and date issued:

Patent number:

Title of patent:

Date issued:

- f. Were any licenses granted for the patent obtained as a result of work performed under this health research grant? Yes _____ No _____

If yes, how many licenses were granted? _____

- g. Were any commercial development activities taken to develop the invention into a commercial product or service for manufacture or sale? Yes _____ No _____

If yes, describe the commercial development activities:

23(B) Based on the results of this project, are you planning to file for any licenses or patents, or undertake any commercial development opportunities in the future?

Yes _____ No X _____

If yes, please describe your plans:

24. Key Investigator Qualifications. Briefly describe the education, research interests and experience and professional commitments of the Principal Investigator and all other key investigators. In place of narrative you may insert the NIH biosketch form here; however, please limit each biosketch to 1-2 pages.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Lisa Bond	POSITION TITLE Senior Research Associate		
eRA COMMONS USER NAME BLBOND			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Maryland, College Park, MD	B.A.	1984	Sociology
Johns Hopkins University, Baltimore, MD	M.A.	1985	Sociology
Temple University, Philadelphia, PA	Ph.D.	2003	Sociology

A. Positions and Honors

Positions

1985 – 1989 Public Health Advisor, Centers for Disease Control & Prevention

1989 – 1990 HIV Study Coordinator & AIDS Surveillance Officer, Philadelphia Department of Public Health, AIDS Activities Coordinating Office

1990 – 1998

Director, HIV/AIDS Programs

Public Health Management Corporation

- Managed multiple federal, state, city and foundation-funded HIV prevention programs, with responsibility for direct supervision of 10-12 direct services staff.
- Developed and conducted training of all direct services staff in relevant theoretical models and intervention approaches.
- Responsible for building strong ties with community stakeholders to facilitate collaborative development of HIV prevention interventions in prisons, federally-qualified health centers, and community-based organizations.

1998 - Present

Senior Research Associate

Public Health Management Corporation

Co-Principal Investigator

- CDC, Epidemiologic HIV/AIDS Research in African American and Hispanic MSM (Brothers y Hermanos Study) (2001-2007)
- NIMH, Identifying Targeted Strategies to Increase HIV Testing (FACT) (2000-2004)
- NIDA, Addressing Young MSM's Substance Use & HIV Risk (Get REAL Project) (2005-2010)
- CDC, Use of Respondent Driven Sampling to Reach Bisexually-Active MSM (2006-2008)
- CDC, Development and Testing of an HIV Prevention Intervention for Black Bisexual Men (2008-2012)

Principal Investigator/Project Director

- Pennsylvania Department of Public Health, Secondary Analysis of the Sexual Risk Practices of Latino, Black and White MSM (2004-2005)

- SAMHSA/CSAT, Targeted Capacity Expansion HIV/AIDS Outreach Grant (New Pathways Project) (2002-2007)
- Philadelphia Department of Public Health, Strategic Needs Assessment of HIV Prevention Services for MSM in Philadelphia (2008-2009)
- Pennsylvania Department of Health, Secondary Analysis of the Association of Crack Cocaine Use and HIV Risk Behaviors of Black MSM (2009-2010)

Other Experience and Professional Memberships

Member, American Public Health Association

Member, Philadelphia HIV Prevention Community Planning Group, 1999-2003

Volunteer, Behavioral and Social Sciences Volunteer Program, 1999-2009

Member, Board of Directors, Philadelphia FIGHT, 2005-2008

Co-Chair, PHMC Community Advisory Board on LGBT Research, 2006-2009

Member, Univ. of Penn. Center for AIDS Research (CFAR) Community Advisory Board, 2007-Present

B. Selected Peer-Reviewed Publications

Han, C.-S., Lauby, J., Bond, L., LaPollo, A.B., & Rutledge, S.E. (2010) Magic Johnson doesn't worry about how to pay for medicine: experiences of black men who have sex with men living with HIV. Culture, Health & Sexuality. First published on: 15 February 2010 (iFirst)

Bond, L., Wheeler, D.P., Millett, G.A., LaPollo, A.B., Carson, L.F., & Liao, A. (2009). Black men who have sex with men and the association of down-low identity with HIV risk behavior. American Journal of Public Health, 99(S1):92-95.

Lauby, J.L., Millett, G.A., Bodas LaPollo, A., Bond, L., Murrill, C.S., & Marks, G. (2008). A comparison of sexual risk behaviors of HIV-positive, HIV-negative, and serostatus-unknown Black men who have sex with men and women, Philadelphia and New York City. Archives of Sexual Behavior, 37(5):708-19.

Marks, G., Millett, G.A., Bingham, T., Bond, L., Lauby, J., Liao, A., Murrill, C.S., & Stueve, A. (2008). Understanding differences in HIV sexual transmission among Latino and Black Men who have sex with men: the Brothers y Hermanos Study. AIDS and Behavior.

Lauby, J.L., Bond, L., Eroglu D. & Batson, H. (2006). Decisional balance, perceived risk and HIV testing practices. AIDS and Behavior, 10:83-92.

Bond, L., Lauby, J., & Batson H. (2005). Individual-level and systems-level predictors of HIV testing in a community-based sample of 1643 adult men and women. AIDS Care, 17(2):125-140.

Bond, L., Lavelle, K., & Lauby, L. (2002). A comparison of the risk characteristics of ever-pregnant and never-pregnant sexually active adolescents. Journal of HIV/AIDS Prevention & Education for Adolescents and Children, 5(1-2):123-137.

O'Campo, P., Fogarty, L., Gielen, A.C., Armstrong, K., Bond, L., Galavotti, C., & Green, B.M. (1999). Distribution along a stages-of-behavioral-change continuum for condom and contraceptive use among women accessed in different settings. Journal of Community Health, 24(1):61-72.

Terry, M., Liebman, J., Person, B., Bond, L., Dillard-Smith, C., & Tunstall, C. (1999). The

women and infants demonstration project: An integrated approach to AIDS prevention and research. AIDS Education and Prevention, 11(2):107-121.

Walls, C., Lauby, J., Lavelle, K., Derby, T., & Bond, L. (1998). Exposure to a community-level HIV prevention intervention: Who gets the message? Journal of Community Health, 23(4):281-299.

Bond, L., Bowden-Proctor, J., Lauby, J., Walls, C., & Woll, M. (1997). Developing nontraditional print media for HIV prevention: role model stories for young urban women. American Journal of Public Health, 87(2):289-290.

Bond, L., & Semaan, S. (1996). At risk for HIV infection: Incarcerated women in a county jail in Philadelphia. Women and Health, 24(4)27-45.