

**"Promoting HIV testing among low income heterosexual young adult
Black men"
0920-XXXX**

**Supporting Statement
Part B**

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B. Statistical Methods

This information collection request does not employ statistical methods. The following is a description of data collection procedures.

1. Respondent Universe and Sampling Methods

The respondents for this study are non-Hispanic Black, heterosexual, young adult men (18-25 years) who were recently arrested or who were recently released from jail/prison. Data collection for this project will take place in Queens (St. John's location) and Brooklyn (Fortune Society location), New York. Participants will be recruited from the Fortune Society. The Fortune Society is a community based agency that provides social and health services to New York City men and women with a history of jail/incarceration (probation or parole) or at risk for incarceration (recently arrested).

Participants who meet the following inclusion criteria will be eligible to participate in the study.

- Male
- English speaking
- 18-25 years
- Non-Hispanic Black
- Self-identify as heterosexual
- Self-identify as HIV-negative or HIV status unknown
- Currently Living in New York City
- Arrested and/or released from jail/prison within past year
- Sexually active (vaginal, oral, or anal sex) within the past six months (before or after release from jail/prison, whichever is most recent)

Participants who meet the following exclusion criteria will not be eligible to participate in the study.

- Hispanic
- Self-identify as homosexual or bisexual
- Arrest/incarceration based on sexual offense (e.g. rape or molestation)

Sex offenders are excluded from the study because they must register in their county as a sex offender and such information is made available to the public (see <http://www.state.nys.us/gbi/disclaim.html>). With the above in mind, our ability to keep the offenders reported behaviors confidential may be compromised, thus they will be excluded from the study.

This study will occur in 3 phases, and all participants will be recruited from a convenience sample of young men at the Fortune Society program site. When individuals approach study staff at the Fortune Society program site or contact the study office by phone, a 10-minute screening will be conducted to ensure eligibility before enrollment in any phase of the study.

2. Procedures for the Collection of Information

Phase 1

In Phase 1, local investigators will conduct qualitative interviews with 20 non-Hispanic black, heterosexual men, ages 18-25, who were recently arrested and/or released from jail/prison and meet screening criteria. Interviews will take place in a private room at the Fortune Society program or research study site at St. John's University by preference of study participant. A trained interviewer from the study staff will conduct the qualitative interviews. The interviews will identify their attitudes towards HIV testing, socio-cultural norms, and perceived behavioral control factors that influence HIV testing. The interviews will also elicit their opinions of how to promote HIV testing among their peers. Each interview will last approximately 1.5 hours. Each session will be transcribed.

The Phase 1 qualitative study is designed to answer the following research questions:

1. What are the HIV risk behaviors of heterosexual young adult Black men who were recently arrested and/or released from jail/prison?
2. What are the socio-cultural experiences and norms of Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested and/or released from jail/prison?
3. What are the perceptions of HIV testing among Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested and/or released from jail/prison?
4. What are the HIV testing behaviors of Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested and/or released from jail/prison?
5. What strategies do Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested and/or released from jail/prison suggest to promote HIV testing among their peers?
6. What are the ways in which respondents use language to describe their HIV risk behaviors, their perceptions of the behavioral norms regarding sexual behavior, and their perceptions of the risks and benefits of HIV testing?

All transcripts will be analyzed using strategies adapted from Grounded Theory. Transcripts will be read and emergent

themes/topics will be flagged. These central themes will form the core for subsequent document coding. A codebook will then be developed as a hierarchical list of themes to guide coding for conceptual categories and then subjected to focused coding to determine the sub- themes and develop analytic categories. Therefore, the codebook will be organized by themes based on the major content areas outlined prior to the study and themes that emerge from the individual interviews. A qualitative software package (e.g., AnSWR) will be used to code the data. All transcripts and notes will be introduced in the software and coded based. After independent coding has been completed, inter-coder reliability will be evaluated by 1) differences and similarities of the division of text into meaningful units for coding; and 2) the degree to which the same code is applied to a particular text. Kappa statistics will be generated to ascertain the level of coder agreement (Kappa $\geq .80$).

Phase 2

During Phase 2, the results from Phase 1 will be used to identify variables for a survey that will examine attitudes towards HIV testing, socio-cultural norms, and perceived behavioral control factors to HIV testing intentions and behaviors. The survey will include 250 non-Hispanic black heterosexual men, ages 18-25, who meet screening criteria. Each survey will last approximately 30 minutes. Computer-assisted survey data will be collected using laptops and/or hand-held devices. Surveys will be administered on individual laptops/hand-held devices in a private room at the site or research office. The survey will examine the relationship between attitudes toward HIV testing, socio-cultural norms, behavioral control factors to HIV testing intentions and behaviors.

The following are sample hypotheses that may be tested:

- 1) Men who report more positive attitudes towards HIV testing and who perceive themselves to be at higher risk will be more likely to have been tested for HIV and intend to get HIV tested in the next 6 months.
- 2) Men with lower levels of general health care utilization will be less likely to have been tested for HIV and to intend to get HIV tested in the next 6 months.
- 3) Men who report more sexual risk behaviors will be more likely to have been tested for HIV and to intend to get HIV tested in the next 6 months.
- 4) Men with a history of unemployment will be less likely to have been tested for HIV and to intend to get HIV tested in the next 6 months.

5) Men with more traditional male gender norms and greater experiences with racial discrimination will be less likely to have been tested for HIV and to intend to get HIV tested in the next 6 months.

6) Men who have higher levels of racial identity will be more likely to have been tested for HIV and to intend to get HIV tested in the next 6 months.

Additional hypotheses will be identified based on the final list of variables determined from the qualitative results (Phase 1) and community consultation.

Univariate and Bivariate Descriptive Analyses. We will first obtain descriptive statistics (one-way frequency tables, means, medians, ranges, and standard deviations) for all scales in the survey determine their degree of occurrence (Aim 1). We will then evaluate bivariate relationships among variables. In general, bivariate associations among continuous variables will be associated using Pearson correlation coefficients. For ordered categorical variables, bivariate associations will be assessed with Spearman rank order correlation coefficients, and unordered categorical variables bivariate associations will be assessed using Pearson chi-square tests.

Primary Inferential Analyses. Logistic regression analyses will be performed to assess contributions of 1) demographic, 2) attitudes towards HIV testing, 3) socio-cultural norms, and 4) behavioral control factors to intentions to get HIV tested and previous HIV testing behaviors. For example, we will test the hypothesis that men who report more positive attitudes towards HIV testing will be more likely to have been tested for HIV.

Power Analysis. An initial power analyses was conducted using data from Lauby et al. (2006) which reported Odd ratios (ORs) for attitudes towards HIV testing to be 3.85 for the Pro subscale and 0.48 for the Con subscale, with 78% prevalence of HIV testing. Based on this effect size and prevalence estimates, and assuming 80% power with 2-tailed significance level of 0.05, our proposed study size of N=250 is sufficient. A final power analysis will be conducted once we have developed the survey based on Phase 1 findings to ensure we are well powered for these analyses.

Phase 3

During Phase 3, using Phase 1 and 2 results, educational materials promoting HIV testing among 24 non-Hispanic black heterosexual men will be developed and pilot tested in focus groups of young black men who meet screening criteria to evaluate

the acceptability of the materials. A total of three focus groups will be conducted with 8 study participants in each focus group. Each of the focus groups will be conducted using a focus group script. The focus group script has 13 open ended questions and optional probes, and is expected to take approximately two hours to complete based on previous qualitative interview guides developed and utilized by the PI. All focus group discussions will be digitally recorded by a trained focus group leader. A trained note taker will also be present during the focus group session to take written notes during the discussion. The note taker will write down any observations about general topic areas brought up by participants, group dynamics, and issues that occurred during the focus group which would not be observed from the audio.

The proposed study is designed to answer the following research questions:

1. What exposure have Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested or who were recently released from jail/prison had to HIV testing prevention messages?
2. What are the opinions of Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested or who were recently released from jail/prison about the age, gender, and race/cultural appropriateness of the tailored educational materials developed by the study?
3. What are the opinions of Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested or who were recently released from jail/prison about the message, source, channel, visual layout, and language of the tailored educational materials developed by the study?
4. What do Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested or who were recently released from jail/prison think is the feasibility of the tailored educational materials developed by the study to increase awareness of HIV testing and increase HIV testing behaviors.
5. What suggestions do Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested or who were recently released from jail/prison have for improving the tailored educational materials developed by the study?

Focus group transcripts will be read and emergent themes/topics will be flagged. These central themes will form the core for subsequent document coding. A codebook will then be developed as a hierarchical list of themes to guide coding for conceptual categories and then subjected to focused coding to determine the sub- themes and develop analytic categories. Therefore, the

codebook will be organized by themes based on the major content areas outlined prior to the study and themes that emerge from the focus group discussion. Sections of the transcripts related to each theme will be categorized and analyzed.

A qualitative software package (e.g., AnSWR) will be used to code the data. All transcripts and notes will be introduced in the software and coded. There will be two levels of coding: structural codes and primary codes. Structural codes are codes assigned to each question in the focus group guide. Structural codes are used to retrieve a question and its respective answer to particular questions. Primary codes are the concepts or themes that arise in the data itself after reading text culled from structural codes. Once study staff agrees on a set of primary codes and each code's definitions, the codes will be assembled into a codebook and programmed into AnSWR. Two members of the study staff will be trained by the PI to code the data. Each coder will independently code a selected subset of three documents. After independent coding has been completed, inter-coder reliability will be evaluated by 1) differences and similarities of the division of text into meaningful units for coding; and 2) the degree to which the same code is applied to a particular text. Kappa statistics will be generated to ascertain the level of coder agreement (Kappa $\geq .80$). Training and supervisory steps will be taken to ensure that inter-rater reliability is maintained at the highest level. Any coding disagreements will be resolved and where necessary the codebook revised. Once all transcripts have been coded, the final document coding will be used to show the analytic categories and themes that emerged across all documents.

All interview/focus group audio and notes will be labeled with a unique code number that is pre-assigned by the PI and no identifiers will be used. This unique code will be used throughout the study to identify the data. The labeled notes and audio will be stored in a locked file cabinet. To allow time for transcription and quality assurance, audio tapes will be destroyed six months after the interview/focus group is complete, except for those used for presentation purposes. Audio tapes used for presentation purposes will be destroyed after five years following an interview/focus group. No information linking the respondent to the data (e.g., consents) will be housed together. Computer data will be stored in a password-protected file and accessible only to key project staff.

3. Methods to Maximize Response Rates and Deal with Nonresponse

If the target number of participants are not available for recruitment at the Fortune Society, we will consult with our experts and community advisory board to employ snowball sampling methods as an additional recruitment strategy. Through snowball sampling, study participants will be encouraged to tell their young adult Black male friends who were recently arrested or who were recently released from jail/prison about the study. Postcards for the study will be given to participants who have completed the survey to pass on to friends. An interested potential participant will contact the project staff via phone or email and eligibility criteria will be reviewed over the phone. If the potential participant meets eligibility requirements, a date, time, and location for the survey will be scheduled. Contact information of potential participants will be kept in a locked file cabinet in the research study's office at St. John's University and will be stored separately from any data.

Study participants will receive information about HIV risk factors, information about HIV testing sites, and be encouraged to seek out HIV testing, counseling and other wrap around social services. This may benefit those who were unaware about HIV risk factors and not knowledgeable of resources related to HIV testing and prevention. To maximize retention, study participants will also be compensated for their time (\$40 for interviews, \$25 for surveys, and \$50 for focus groups).

4. Test of Procedures or Methods to be Undertaken

The proposed study uses the Theory of Planned Behavior (Ajzen, 1985, 1991) and Ecological Systems Theory (Bronfenbrenner, 1977) to assist the development of culturally tailored and gender specific educational materials that promote HIV testing among young adult heterosexual Black men who were recently arrested or who were recently released from jail/prison. Prior to this proposed study, scant attention has been directed to develop new and innovative ways to promote HIV prevention among Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested or who were recently released from jail/prison that are both gender specific and culturally relevant for this population. Therefore, the proposed project will develop tailored educational materials that promote HIV testing, and which are packaged to appeal specifically to Black (non-Hispanic), heterosexual men ages 18-25 who were recently arrested or who were recently released from jail/prison.

5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

Individuals consulted on statistical aspects are the lead scientists (Drs. Wallace and Fullilove) on this project from St. John's University and Columbia University. Dr. Williams was also consulted on the statistical aspects and is the project mentor from Centers for Disease Control and Prevention, 1600 Clifton Rd., MS E-45, Atlanta, GA 30333

Name	Degree(s)	Role	Institution
Scyatta Wallace	Ph.D.	Principal Investigator	St. John's University
Robert Fullilove	Ed.D.	Co-Principal Investigator/Local Mentor	Columbia University
Samantha Williams	Ph.D.	Investigator/CDC Mentor	Division of STD Prevention, Centers for Disease Control and Prevention

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