A Community-based Intervention to Increase PrEP Initiation Among Black Sexual Minority Men in Prince George's County, Maryland: Reducing Internalized Stigma and Increasing Social Support

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Aim: To develop and test an intervention to promote PrEP initiation and adherence among BSMM.

Participant Recruitment: The investigators will recruit participants for the intervention using respondent-driven sampling, starting with 12 initial HIV negative BSMM participants at our first wave of recruitment. will attempt to recruit participants from our previous sample of 32 participants in aim 2; if investigators are unable to do so investigators will recruit additional participants using the same social media sampling approaches as described in aim 2. All potential participants will be screened for eligibility during the initial social media contact. These 12 participants will function as the "seeds" for subsequent respondent-driven recruitment. Each seed will be compensated for their participation with a “primary incentive” ($20) and then asked to recruit 4 peers. The seed is rewarded with a secondary incentive ($10) for each eligible participant they recruit into the study. Each subsequent enrolled participant will complete the survey and be asked to recruit additional participants. They will be offered the same primary and secondary incentives. Each subsequent enrolled participant will identify the email address of the person who referred them. They will also be asked to recruit additional participants and are offered the same incentives. Chain referrals will continue until investigators reach the intended sample size of 130. RDS is an effective way to reach MSM populations and allows for the generation of weights which improve generalizability of results.

Pre-Intervention Procedures: Investigators will test all participants for HIV at baseline using a rapid oral test (all potential intervention sites have available HIV testing capacity). Those who test positive will receive counseling and be referred for initiation of treatment. They will also be compensated $20. Of the 130 participants who test negative for HIV, these will be randomized into two groups (65 each) using simple randomization at baseline. Participants in the control group will complete the quantitative survey and receive general information on PrEP and be offered referral for PrEP initiation. These participants will be compensated $20.

Intervention Procedures: The 65 participants in the intervention group will participate in the intervention over the following year. Based on the MPowerment model, 3 discussions will be led by 3 trained BSMM community members. These leaders will be recruited from BSMM community serving organizations, as members of these organizations have expertise in leading community-based events (letters of support attached). Each of these leaders will hold events as part of the proposed intervention, with each leader holding events for 15 to 17 participants. Location will be determined based on feedback from qualitative interviews in Aim 2; this may include a research space on campus at the University of Maryland, College Park, the Gay Men’s Health Collaborative, or Us Helping Us (see letters of support). In-person events will focus on five specific goals: Fostering a sense of community acceptance and social connection among BSMM, promoting self-acceptance of sexual identity, teaching skills for coping with experiences of racism, reducing PrEP stigma, and providing education on HIV risk. In accordance with the MPowerment model, In collaboration with the PI, the BSMM core group and volunteers would lead the development, implementation, and evaluation of all intervention events. Both peer leaders and the primary investigator (all BSMM) will collaborate to develop specific events (“MGroups”), guided by the findings in both the quantitative and qualitative studies. M-Groups will be held once every month. Events will be 2 hour in-person activities focused on the aforementioned goals. Participants will be compensated $10 for completing evaluations of events at every M-Group event they attend. In addition to attending events, participants will be referred to online BSMM social media groups focused on community connectedness and support among BSMM, and be invited to attend events held by BSMM-serving communitybased

organizations (CBOs). Note that these activities are still in development, and may change substantially prior to the intervention initiation.

Post-Intervention Procedures: After 12 months the intervention will conclude, though participants can maintain contact with their peer group leaders through social media and maintain membership in BSMM social media groups. Participants will be provided the quantitative survey online to complete and be compensated $20 for completing the survey. Investigators will also solicit our final open-ended feedback regarding the intervention from participants at this time. 6 months after baseline, participants will also be provided the quantitative survey online, and compensated $20. If at any point participants express interest in initiation of PrEP, they will be referred to BSMM CBOs for PrEP initiation.

Data Collection: All participants (both groups) will complete an approximately 25-minute online survey at baseline and at 3, 6, 9, and 12 months. Questions will include sociodemographics (age, education level, income level, employment status, region of the United States), sexual identity, sexual behaviors (condom use, number of sexual partners, substance use during sex, transactional sex, partner concurrency) healthcare access (insurance status, multiple barriers to healthcare), and previously validated multi-item scales to measure each primary construct. Internalized homophobia will be measured using the Measure of Internalized Sexual Stigma for Lesbians and Gay Men (MISS-LG) 17-item scale. Internalized racial stigma will be measured using the Appropriated Racial Oppression Scale. This scale covers many dimensions of racial/ethnic stigma; only the 9 items related to internalized racism will be utilized for our research. Experienced homophobia and racism will be measured using the HIV Prevention Trials Network 061 (a multicenter study of BSMM in the United States) 25-item experienced homophobia scale, and 28-item experienced racism scale. HIV stigma will be measured using the 12-item personalized stigma subscale of the Rutgers-Modified Stigma Scale; this subscale is especially applicable to HIV negative individuals. Social support will be measured using the HIV Prevention Trials Network 061 6-item social support scale. These measures have been reviewed by both our research team and our BSMM community collaborators to ensure that items have appropriate face and content validity. As additional covariates, investigators will measure key psychosocial and behavioral factors. Depression will be measured using the Center for Epidemiologic Studies Depression (CES-D) 10-item scale. Anxiety will be measured using the Generalized Anxiety Disorder 7-item (GAD-7) scale. Alcohol use will be measured in frequency of alcohol use in the past 3 months and number of drinks at each use. Substance use will be measured in frequency of use of the following 9 substances: marijuana, inhaled nitrates (i.e. “poppers”), crack, cocaine, methamphetamine, heroin, MDMA (i.e. “ecstasy”), synthetic marijuana, and non-prescribed Vicodin/Oxycontin/Xanax in the past 3 months. Perceived HIV risk will be measured using the 8-item Perceived Risk of HIV Scale. Resilience will be measured using the 10-item Connor-Davidson Resilience Scale. For our outcomes, PrEP stigma will be measured using the 10-item Pre-Exposure Prophylaxis Stigma Scale. PrEP acceptability will be measured using the 7-item PrEP Acceptability scale. PrEP use will be measured with the question “Do you currently use PrEP?” (Yes/No). Finally, social desirability bias will be measured using the Socially Desirable Response Set Five-Item Survey.

Data Analysis: First, weights will be generated based on RDS. Investigators will use these weights in all subsequent analyses. Investigators will test for associations between the intervention and two outcomes: PrEP initiation and PrEP adherence (both binary). In addition to descriptive analyses, investigators will generate modified Poisson regression (binary outcome) models. Fisher exact tests may be used as an alternative to Chi-square tests where expected cells are less than 10. While investigators do not expect confounding given the randomization,

investigators will test and adjust for covariates with significant differences between control and intervention groups. All analyses will utilize the intention-to-treat approach.