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# Stigma, medical mistrust, and perceived racism may affect PrEP awareness and uptake in black compared to white gay and bisexual men in Jackson, Mississippi and Boston, Massachusetts

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## **Abstract**

Gay and bisexual men and other men who have sex with men (MSM) account for more than two thirds of new HIV infections in the U.S., with Black MSM experiencing the greatest burden. Antiretroviral pre-exposure prophylaxis (PrEP) can reduce MSM's vulnerability to HIV infection. Uptake of PrEP has been limited, particularly among racial and ethnic minority MSM. Four semi-structured focus groups with gay and bisexual men and other MSM at risk for HIV infection were convened in Boston and Jackson in late 2013. The analysis plan utilized a within-case, across-case approach to code and analyze emerging themes, and to compare results across the two cities. Participants recruited in Jackson were primarily Black gay men, while Boston participants were mostly non-Hispanic White gay men. Participants in both sites shared concerns about medication side effects and culturally insensitive health care for gay men. Jackson participants described stronger medical mistrust, and more frequently described experiences of anti-gay and HIV related stigma. Multiple addressable barriers to PrEP uptake were described. Information about side effects should be explicitly addressed in PrEP education campaigns. Providers and health

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departments should address medical mistrust, especially among Black gay and bisexual men and other MSM, in part by training providers in how to provide affirming, culturally competent care. Medicaid should be expanded in Mississippi to cover low-income young Black gay and bisexual men and other MSM.

#### Keywords

PrEP; MSM; Black American; access; medical mistrust

# Introduction

In 2014 men who have sex with men (MSM) comprised 70% of new HIV diagnoses in the United States, even though MSM represent only 2% of adults (CDC, 2015a). Young Black MSM have a disproportionate HIV burden (CDC, 2015b). In 2012, the U.S. Food and Drug Administration approved daily prescription tenofovir disoproxil fumarate and emtricitabine for use as pre-exposure prophylaxis (PrEP) (FDA, 2012). The World Health Organization also issued PrEP guidance (WHO, 2012).

PrEP users should receive regular HIV/STI testing and counseling from a medical provider (Underhill, Operario, Skeer, Mimiaga, & Mayer, 2010). Reversible changes in renal function were detected in 5% or fewer participants in a safety trial, so ongoing clinical monitoring is necessary (U.S. PHS, 2014). Clinical settings are the most appropriate PrEP implementation sites (Underhill et al., 2010).

Clinical sites might create barriers to PrEP uptake. *Provider barriers* include lack of knowledge of PrEP by non-HIV specialists who see high-risk HIV-uninfected patients, a belief that there is not sufficient demand for PrEP, and concern about unintended consequences, such as risk compensation (Krakower, Ware, Mitty, Maloney, & Mayer, 2014). Many clinicians lack knowledge of culturally competent care for MSM (Hollenbach, Eckstrand, & Dreger, 2014; Obedin-Maliver et al., 2011). *Patient barriers* include cost, concerns about side effects, and perceived difficulty in accessing PrEP (Brooks et al., 2011). Another barrier may be nondisclosure of sexual orientation or same-sex behavior to providers (Berstein et al., 2008).

Medical mistrust – of the health care system, providers, public health officials, researchers, and/or the pharmaceutical industry – is another potential barrier. Medical mistrust among Black MSM is a barrier to HIV voluntary counseling and testing (St. Lawrence et al., 2015) and to routine health care engagement (Eaton et al., 2015). Race-based medical mistrust is a barrier to willingness to use PrEP among Black MSM (Eaton et al., 2014).

We developed a qualitative study to examine the barriers to PrEP uptake in a racially diverse sample of MSM.

## **Methods**

Researchers at health centers in Boston, MA and in Jackson, MS conducted four focus groups with diverse MSM at risk of HIV acquisition. In late 2013 the study team conducted two (2) focus groups in Boston (N= 15) and two (2) more focus groups (N= 20) with mostly MSM in Jackson, MS.

Potential participants were recruited through advertising in local bars, cruising areas, and at health centers. To qualify for the study, participants self-reported being (1) born male, (2) having sex with men, and (3) had engaged in at least one episode of unprotected anal intercourse in the past three months with a non-monogamous partner. All participants completed a self-report telephone screener to confirm study qualification. The lead agency's Institutional Review Board reviewed and approved all study materials and procedures. Qualified participants completed an informed consent. Ninety-minute focus groups were audio recorded. Each participant received a \$50 gift card.

The study team developed a semi-structured interview guide (See Table 1). Audio files were transcribed verbatim and checked for errors. The study team used a qualitative descriptive design (Sandelowski, 2010; Sullivan-Bolyai, Boya, & Harper, 2005) to code and analyze the data. Three coders independently used a within-case and across-case approach (Ayres, Kavanaugh, & Knafl, 2003) to analyze emerging themes within each focus group and across focus groups at both sites. Codes and potential themes were reviewed, and emerging themes agreed upon.

#### Results

Demographic data indicate the racial/ethnic, gender and age diversity of participants (See Table 2). Boston focus group participants were predominately White non-Hispanic (73%) MSM, with a mean age of 43. The Jackson focus group participants were overwhelmingly Black non-Hispanic (95%), MSM (95%), and younger (mean age of 23). Of 35 total participants, 1 (in Jackson) was transgender female.

Fifty-five percent of Jackson participants were unemployed compared to 13% of Boston participants. Similarly, 65% of Jackson participants reported income below \$6000, compared to 20% in Boston. Most (73%) Boston participants had a college or graduate degree, while 85% of Jackson participants had less than a college education.

Most Boston participants reported having a primary care provider (PCP) (93%) and health insurance (93%), while only one-third of Jackson participants did. At the time of this study, Mississippi had not expanded Medicaid eligibility under the Affordable Care Act, while Massachusetts had. Four percent of Massachusetts' population lacked health insurance in 2015, while 13% of Mississippi's did (Kaiser Family Foundation, 2016).

#### Common emerging themes in the Boston and Jackson focus groups

Four common themes emerged in the 4 focus groups:

1. inadequate knowledge of PrEP;

- 2. concerns about side effects;
- 3. the importance of disclosing sexual orientation to providers; and
- **4.** the need for improved provider care of gay and bisexual men and MSM.

**Inadequate knowledge of PrEP**—Participants in both cities demonstrated some knowledge of oral PrEP and its potential to prevent HIV transmission (Table 3, Quotes 1-4). Boston focus group participants were more likely to have heard about the concept of PrEP or taking a pill to prevent HIV infection (73%) than Jackson participants (29%). No Jackson participant had heard about PrEP from a health care provider. In Boston, one had learned of PrEP from his primary care provider, and one had learned about it at his health center. In Jackson, no participant had heard of the term "PrEP" or "pre-exposure prophylaxis," while several Boston participants had heard about PrEP or the drug approved for use as PrEP.

**Concerns about possible side effects**—Many participants in both locations had concerns about possible side effects and safety of PrEP. Participants questioned the effects of long-term use of PrEP, and its interaction with other medications and recreational drugs. Many said knowing more about side effects would help them decide whether PrEP use was worth it (Quotes 5–11).

Importance of disclosure of sexual orientation to health care provider—Half of the Boston participants were "out" to health care providers as MSM; most reported affirming treatment by their providers. In Jackson, fewer participants were "out," but several who were reported receiving affirming care. More negative comments regarding being "out" to providers were expressed in Jackson (Quote 13 and 14), even though most Jackson participants were not in regular care and did not have a PCP.

**Improved provider care and sensitivity**—Provider sensitivity to homosexuality was important to most participants. Two Boston participants described negative experiences with male providers related to homosexuality and HIV, and how they switched to more accepting female providers (Quote 15). Jackson focus group participants spoke of experiencing incompetent or insensitive care, but did not describe switching providers (Quote 16).

Unique themes emerging in the Jackson focus groups—Three unique themes emerged from the Jackson focus groups:

- 5. medical mistrust and skepticism toward PrEP;
- 6. intense stigma against homosexuality and HIV; and
- 7. the importance of PrEP education inclusive of heterosexuals in order to reach MSM who identify as straight.

**Medical mistrust, including skepticism of PrEP**—Jackson participants described a strong aversion to medical care in Black communities. They expressed skepticism about the effectiveness of PrEP, and strong medical mistrust (Quote 17 and 18). Some expressed concern that PrEP could actually facilitate their becoming HIV-infected (Quote 19).

Although participants in both cities expressed concerns about side effects and drug interactions, the tone in the Jackson focus groups was different; the degree of medical mistrust was more palpable and emphatic. Two Jackson participants said they wanted to see someone on PrEP for a long time (1, 10 years) before they would consider taking it. Jackson participants questioned the purpose of U.S. HIV research and expressed distrust of HIV researchers. Participants felt that Mississippi was often the last place to get new health technologies, and feared this would occur regarding PrEP.

Greater salience of HIV stigma and anti-gay stigma in Jackson—Jackson participants discussed HIV stigma in society and within Black, gay male communities (Quote 20-23). Participants expressed fear that if they test positive for HIV, this information would be disclosed to family and friends (Quote 24). One said that stigma related to gay sex might be a barrier to people seeking PrEP for HIV prevention (Quote 25).

Increased PrEP education and messaging for black men—Many Jackson participants emphasized the importance of educating and reaching Black men overall, regardless of their sexual partners (Quote 26). Participants stated that many Black MSM identify as "straight." Public educational materials could target them or be promoted to all Black men and heterosexual couples to reach straight-identified MSM (Quote 27). Participants agreed PrEP should be discussed during routine care and covered under health insurance (Quote 28).

## **Discussion**

## Implications for clinical practice

A number of findings from the current study of MSM in Boston and Jackson have implications for PrEP uptake in this priority population, and especially for Black MSM. Concerns about side effects and interactions with prescription and recreational drugs and alcohol should be explicitly addressed by providers and by public education efforts led by HIV prevention advocates and local and state health departments. The widespread lack of lesbian, gay, bisexual, and transgender (LGBT)-affirming and competent health care evidenced by both the Boston and Jackson focus groups should also be addressed by cultural competency training of providers and incorporation of LGBT content into health professional education programs. The National LGBT Health Education Center (www.lgbthealtheducation.org) offers extensive online training materials for clinical staff with CME and CEU credit. This organization has partnered with the University of Mississippi Medical Center, the state health department and the Mississippi Primary Health Care Association to launch the Mississippi Collaborative for Inclusive Care to increase LGBT competency among providers there. Other resources exist to improve care for MSM (Hollenbach et al, 2014; Makadon, Mayer, Potter, & Goldhammer, 2015).

Other promising approaches with young Black MSM in the South include an HIV prevention game with avatars designed for Black adolescents in rural Alabama; working with Black churches to reduce HIV stigma and promote HIV screening, prevention and treatment interventions; and "Men's Health Monday" – a clinic open after university sporting events to screen all men for STIs, including HIV. These approaches enable MSM who are

not openly gay or bisexual to be tested and offered risk reduction counseling (Van Wagoner, 2016). These initiatives all hold promise to enhance PrEP uptake among MSM patients. Providers should be trained in how to ask all patients about sexual orientation and behavior, in order to identify those who could most benefit from PrEP (Cahill & Makadon, 2013).

Examining ways to understand, address and reduce medical mistrust is essential to improving health outcomes for Black gay men. The pronounced medical mistrust evident in the Jackson cohort should be understood in a broader context of HIV stigma, anti-gay prejudice, historical abuses like the U.S. Government-led Tuskeegee syphilis experiment with Black men (CDC, 2013), and mistrust related to the disproportionate impact HIV has on Black and gay communities. Medical mistrust could also be related to lower rates of health insurance and access to primary care among Jackson participants. A 2012 survey of 544 Black MSM at a Connecticut Black Gay Pride festival found than half (48%) reported feelings of mistrust toward medical establishments, and 29% reported experiencing racial and/or sexual orientation stigma from providers (Eaton et al., 2015).

The lower rates of knowledge about PrEP evident in Jackson compared with Boston indicate a need for provider education about PrEP, especially in Jackson and among providers serving Black MSM. Increased provider knowledge about PrEP is associated with high rates of current PrEP prescription to patients and higher future intent to prescribe PrEP to patients (Blumenthal et al., 2015). Primary care providers who are not HIV specialists should be trained in how to identify high-risk individuals and how to prescribe PrEP (Krakower et al., 2014; U.S. PHS, 2014).

Few focus group participants said that they were told about PrEP the last time they tested for HIV. The Boston focus groups were convened in fall 2013 at a site of several ongoing PrEP clinical trials. The Jackson focus groups were convened at a site which in December 2013 did not have any PrEP clinical trials underway. This difference was likely a factor in higher knowledge of PrEP among the Boston cohort. Higher education, greater access to routine primary care, and nearly twice the mean age among the Boston participants could have also been factors in the relative greater awareness of PrEP. HIV testing is a critical venue for educating vulnerable MSM about the option of PrEP.

## Implications for public health policy

The significant degree of HIV stigma within both the Black community and Black gay male circles underscores the need for a major public education effort to challenge HIV stigma and encourage young gay men and other MSM to consider PrEP as an HIV prevention option. Mississippi is promoting a PrEP hotline to increase knowledge and answer questions prospective users may have about it. Such efforts should also be targeted toward men in general and heterosexual couples in order to reach high-risk MSM who identify as straight.

The low rates of access to primary care and insurance coverage reported by the Jackson cohort must also be addressed. Mississippi should embrace the Medicaid expansion offered

<sup>1</sup>https://www.facebook.com/HealthyMS/posts/839726896086072. 1-844-YES-PREP.

by the ACA to ensure that low-income residents, including many Black MSM, are able to access basic health care (AIDS.gov, 2015).

It is essential that young Black MSM be involved in the development of public education campaigns about HIV and PrEP, and in the development of curricula for the training of health care providers and HIV testers. The significant anti-gay prejudice described in health care settings, including at the hands of HIV testers, undermines efforts to get high-risk populations tested for HIV and connected to treatment or prevention services. Leadership is needed from elected officials, community leaders, and religious leaders to eliminate anti-gay prejudice. Studies have shown that pro-gay public policies at the state level correlate with positive health outcomes for MSM (Hatzenbuehler et al, 2012) and positive psychiatric indicators for gay, lesbian and bisexual (GLB) people (Hatzenbeuhler, Keyes, & Hasin, 2009). Anti-gay state policies correlate with psychiatric comorbidity for GLB people (Hatzenbeuhler et al, 2009), as well as higher rates of condomless sex among MSM (Olderburg et al, 2015). MSM living in states with progay public policies and higher levels of support for legal equality based on sexual orientation are more likely to have heard of PrEP and PEP (post-exposure prophylaxis), more likely to have used PrEP and PEP, and more likely to discuss homosexual behavior with their provider (Olderburg et al, 2015). Mississippi should adopt laws ensuring nondiscrimination on the basis of sexual orientation and gender identity. It should also repeal anti-gay laws, such as the 2014 "religious freedom" law (Pettus, 2014) and the 2004 law banning "[a]doption by couples of the same gender" (Miss. Code Ann. § 93–17–3(2) (2004), Blanks, Dockwell and Wallance, no date; Cahill & Tobias, 2007).

Successful implementation of PrEP at the population level requires a conceptualization that is broader than simply providing medications (Underhill et al, 2010). Provision of antiretroviral medications for HIV prevention must be accompanied by comprehensive preventive care and sustained behavioral interventions to ensure a high rate of adherence as well as to minimize risk compensation (Underhill et al, 2010).

## Limitations

Important limitations of this study must be noted. First, the number of participants in the four focus groups represents a small sample of MSM in Jackson and Boston. While Black and White men are well represented in the total N of 35, Hispanic men are underrepresented, while Asian Pacific Islander and Native American men are not represented at all. Second, some men came to the groups via recruitment through advertising at local gay bars, cruising areas, and health facilities, while others came through word of mouth. We do not know the extent to which individuals connected to specific social networks might have been over selected for participation in the study. Third, these focus groups explored gay and bisexual men's knowledge of and attitudes toward PrEP, while one participant in a Jackson focus group was a transgender women. Transgender women are 49 times more likely to be HIV-infected than the general population, with 21.6% of transgender women in the United States living with HIV (amfAR, 2014). More research on transgender women and PrEP is needed (Marquez & Cahill, 2015). Furthermore, there is a paucity of research on transgender men and HIV. A small number of convenience sample studies indicate HIV prevalence in a range

from 0% to 3% (Reisner, White Hughto, Pardee, & Sevelius, 2016). More research is needed on this population and HIV risk. Fourth, some themes were repeated across the four focus groups, indicating some evidence of data saturation. However, due to the relatively small sample size, other issues may affect MSM's knowledge of and attitudes toward PrEP which were not raised in our focus groups. Finally, the medical mistrust that was pronounced, especially in Jackson, raises the question whether MSM who are the most mistrustful of health care providers and institutions would participate in the focus groups, held at two community health centers. While this is a potential limitation, robust medical mistrust was expressed by participants, and the recruiters were both community members – one a young gay Black man and the other a young gay White man.

#### Conclusion

PrEP holds great potential to reduce the estimated 30,000 new HIV infections occurring in the U.S. each year among MSM, especially Black MSM (CDC, 2015a). We must address and reduce medical mistrust by ensuring culturally competent, affirming care for LGBT patients, including disclosure of sexual orientation and gender identity in clinical settings. Providers and HIV testers should routinize obtaining a sexual history and be trained to discuss possible PrEP use with high-risk individuals. Initiatives like the Mississippi Collaborative for Inclusion Care and the Open Arms Health Center should be developed in Southern states to reduce anti-gay experiences in health care. HIV stigma and anti-gay prejudice should also be challenged through public education campaigns. Structural changes to ensure legal equality for LGBT people will also improve the public health of LGBT people across the U.S.

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#### References

AIDS.gov. The affordable care act and HIV/AIDS. 2015. Retrieved January 31, 2013, from http://www.aids.gov/federal-resources/policies/health-care-reform

amfAR: The Foundation for AIDS Research. Trans population and HIV: Time to end the neglect. 2014. Retrieved from http://www.amfar.org/issue-brief-trans-populations-and-hiv-time-to-end-the-neglect/

Ayres L, Kavanaugh K, Knafl KA. Within-case and across-case approaches to qualitative data analysis. Qualitative Health Research. 2003; 13(6):871–883. [PubMed: 12891720]

Berstein KT, Liu KL, Begier EM, Koblin B, Karpati A, Murrill C. Same-sex attraction disclosure to health care providers among New York City men who have sex with men. Archives of Internal Medicine. 2008; 168(13):1458–1464. [PubMed: 18625927]

Blanks, V., Dockwell, B., Wallance, GJ. Adoption by gays and lesbians: A survey of the law in the 50 states and the District of Columbia. n.dCenter for Adoption Policy. Retrieved from http://www.adoptionpolicy.org/pdf/gaysandlesbian.pdf

Brooks RA, Kaplan RL, Lieber E, Landovitz RJ, Lee SJ, Leibowitz AA. Motivators, concerns, and barriers to adoption of pre-exposure prophylaxis for HIV prevention among gay and bisexual men in HIV serodiscordant male relationships. AIDS Care. 2011; 23(9):1136–1145. [PubMed: 21476147]

Cahill SR, Makadon H. Sexual orientation and gender identity data collection in clinical settings and in electronic health records: A key to ending LGBT health disparities. LGBT Health. 2013; 1(1):1–8.

Cahill, SR., Tobias, S. Policy issues affecting lesbian, gay, bisexual and transgender families. Ann Arbor: University of Michigan Press; 2007.

- Blumenthal J, Jain S, Krakower D, Sun X, Young J, Mayer K, Haubrich R. CCTG 598 Team. Knowledge is power! Increased provider knowledge scores regarding pre-exposure prophylaxis (PrEP) are associated with higher rates of PrEP prescription and future intent to prescribe PrEP. AIDS and Behavior. 2015; 19(5):802–810. DOI: 10.1007/s10461-015-0996-z [PubMed: 25616837]
- CDC. U.S. Public health service syphillis study at Tuskeegee. 2013. Retrieved from http://www.cdc.gov/tuskegee/timeline.htm
- CDC. HIV among African American gay and bisexual men. Fact sheet. 2015b. Retrieved from http://www.cdc.gov/hiv/risk/racialethnic/bmsm/facts/
- Centers for Disease Control and Prevention (CDC). Interim guidance for clinicians considering the use of preexposure prophylaxis for the prevention of HIV infection in heterosexually active adults. Morbidity and Mortality Weekly Report. 2012; 61(31):586–589. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6131a2.htm. [PubMed: 22874836]
- Centers for Disease Control and Prevention (CDC). HIV Surveillance Report, 2014. 2015a; 26 Retrieved June 17, 2016, from http://www.cdc.gov/hiv/library/reports/surveillance/.
- Eaton LA, Driffin DD, Kegler C, Smith H, Conway-Washington C, White D, Cherry C. The role of stigma and medical mistrust in the routine health care engagement of black men who have sex with men. American Journal of Public Health. 2015; 105(2):e75–e82.
- Eaton LA, Driffin DD, Smith H, Conway-Washington C, White D, Cherry C. Psychosocial factors related to willingness to use pre-exposure prophylaxis for HIV prevention among Black men who have sex with men attending a community event. Sexual Health. 2014; 11(3):244–251. DOI: 10.1071/SH14022 [PubMed: 25001553]
- Food and Drug Administration. Emtricitabine 200mg/Tenofovir Disoproxil Fumarate (marketed as Truvada) Information. 2012. Retrieved from http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm312199.htm
- Hatzenbeuhler ML, Keyes KM, Hasin DS. State-level policies and psychiatric morbidity in lesbian, gay, and bisexual populations. American Journal of Public Health. 2009; 99(12):2275–2281. DOI: 10.2105/AJPH.2008.153510 [PubMed: 19833997]
- Hatzenbuehler ML, O'Cleirigh C, Grasso C, Mayer K, Safren S, Bradford J. Effect of same-sex marriage laws on health care use and expenditures in sexual minority men: a quasi-natural experiment. American Journal of Public Health. 2012; 102(2):285–291. DOI: 10.2105/AJPH. 2011.300382 [PubMed: 22390442]
- Hollenbach, AD.Eckstrand, KL., Dreger, A., editors. Washington, DC: American Association of Medical Colleges; 2014. Implementing curricular and institutional climate changes to improve health care for individuals who are LGBT, gender nonconforming, or born with DSD: A resource for medical educators. Retrieved from http://lgbt.ucsf.edu/sites/lgbt.ucsf.edu/files/wysiwyg/ AAMC\_LGBT-DSD20Report202014.pdf
- Kaiser Family Foundation. Health insurance coverage of the total population. 2016. Retrieved from http://kff.org/other/state-indicator/total-population/?currentTimeframe=0
- Krakower D, Ware N, Mitty J, Maloney K, Mayer KH. HIV providers' perceived barriers and facilitators to implementing pre-exposure prophylaxis in care settings: A qualitative study. AIDS and Behavior. 2014; 18:1712–1721. [PubMed: 24965676]
- Makadon, H.Mayer, K.Potter, J., Goldhammer, H., editors. The Fenway Guide to lesbian, gay, bisexual, and transgender health. 2nd. Philadelphia: American College of Physicians; 2015.
- Marquez, S., Cahill, S. Transgender women and preexposure prophylaxis for HIV prevention: What we know and what we still need to know. Boston: National Center for Innovation in HIV Care, Fenway Institute; 2015.
- Obedin-Maliver J, Goldsmith ES, Stewart L, White W, Tran E, Brenman S, et al. Lunn MR. Lesbian, gay, bisexual and transgender-related content in undergraduate medical education. JAMA. 2011; 306:971–977. [PubMed: 21900137]
- Olderburg CE, Perez-Brumer AG, Hatzenbeuhler ML, Krakower D, Novak DS, Mimiaga MJ, Mayer KH. State-level structural sexual stigma and HIV prevention in a national online sample of HIV-infected MSM in the United States. AIDS. 2015

Pettus, EW. Associated Press; 2014 Apr 3. MississippiGovernor signs anti-gay bill. Retrieved from http://www.huffingtonpost.com/2014/04/03/mississippi-anti-gay-bill\_n\_5087483.html

- Reisner SL, White Hughto JM, Pardee D, Sevelius J. Syndemics and gender affirmation: HIV sexual risk in female-to-male trans masculine adults reporting sexual contact with cisgender males. International Journal of STD & ST
- Sandelowski M. What's in a name? Qualitative description revisited. Research in Nursing and Health. 2010; 33:77–84. [PubMed: 20014004]
- St Lawrence JS, Kelly JA, Dickson-Gomez J, Owczarzak J, Amirkhanian YA, Sitzler C. Attitudes toward HIV voluntary counseling and testing (VCT) among African American men who have sex with men: Concerns underlying reluctance to test. AIDS Education and Prevention. 2015; 27(3): 195–211. [PubMed: 26010312]
- Sullivan-Bolyai S, Boya C, Harper D. Developing and refining interventions in persons with health disparities: The use of qualitative description. Nursing Outlook. 2005; 53(3):127–33. [PubMed: 15988449]
- U.S. Public Health Service. Atlanta: Centers for Disease Control and Prevention; 2014. Preexposure prophylaxis for the prevention of HIV infection in the United States —2014; Clinical providers'supplement. Retrieved from http://www.cdc.gov/hiv/pdf/prepprovidersupplement2014.pdf
- Underhill K, Operario D, Skeer M, Mimiaga M, Mayer K. Packaging PrEP to prevent HIV: An integrated framework to plan for pre-exposure prophylaxis implementation in clinical practice. Journal of Acquired Immune Deficiency Syndrome. 2010; 55:8–13.
- Van Wagoner, N. HIV prevention in the South; Reducing stigma, increasing access. Boston: National LGBT Health Education Center, Fenway Institute; 2016.
- World Health Organization. Media Centre. WHO issues first guidance on use of antiretrovirals by HIV-negative people at high risk to prevent HIV infection. 2012. Retrieved from http://www.who.int/mediacentre/news/notes/2012/hiv\_medication\_prep\_20120720/en/#

Table 1

Focus group interview guide.

Торіс	Question	
1. Introduction	Prior to being asked to join this focus group, what have you heard about new approaches to HIV prevention?	
2. Perceptions of PrEP efficacy	How effective do you think taking a pill is for preventing HIV infection? Have you ever heard of $PrEP-pre-exposure\ prophylaxis$ for HIV prevention?	
3. Communication about PrEP with medical providers	How have your medical providers talked to you about PrEP? If you have a regular medical provider, does that doctor or other health care personnel talk about PrEP and sexual behavior?	
4. Barriers, facilitators to taking PrEP	What are some of the things that (might) get in the way of taking PrEP pills as prescribed?	
5. Cost of PrEP and sexual health counseling	How would you pay for PrEP medication and counseling? How might the cost of PrEP be a barrier to your ability to use PrEP?	
6. PrEP and sexual decision making	How did/would taking PrEP affect the decisions you make regarding sex?	
7. Feasibility and acceptability of PrEP to MSM, transgender women	How willing do you think gay and bisexual men and transgender women at high risk of HIV infection would be to engage in counseling around PrEP adherence and sexual risk?	
8. Frequency of PrEP use	What do you think about the option of taking PrEP either on a daily basis or intermittently (e.g., on selected days of the week)? If you were to take PrEP intermittently (e.g., on selected days of the week or right before/after sex), what would be the easiest way for you to do that?	
9. Feasibility and efficacy of PrEP using rectal microbicides gel or injectable PrEP	How effective do you think about using a rectal gel (a microbicide) in preventing HIV infection – how effective do you think this would be? What about having a PrEP injection (as a shot) to prevent HIV infection – how effective do you think this would be? Would you prefer taking a pill, a topical gel or an injection? Why? How do you think taking a pill to prevent HIV infection would compare to using a rectal gel both in terms of working to prevent you from getting HIV and ease of use?	
10. Other questions	What additional concerns do you have regarding PrEP use? Would you be willing to use PrEP to reduce your risk of HIV infection? Why or why not? Are you out about having sex with other men to your provider?	

Table 2 Descriptive characteristics of PrEP focus group participants (n = 35).

Age in years 42.64 (12.14) 22.74 (5.17.  Number of male sex partners (past 3 months) 6.23 (4.09) 1.79 (2.39.  CAS (past 3 months) 5.92 (5.85) 2.0 (2.47.  CAS with known HIV-infected partner (past 3 months) 1.08 (2.94) 0.3 (0.80   CAS with unknown HIV status partner (past 3 months) 2.77 (3.94) 0.75 (1.71.  Characteristics N (%) N (%) N (%   Gender    Male 15 (100) 19 (95   Transgender (male to female) 0 1 (5   Sexual orientation    Homosexual/Gay 11 (73.3) 16 (80   Bisexual 3 (20) 4 (20   Other 1 (6.7) (		Boston focus group $(N = 15)$	Jackson focus group $(N = 20)$
Number of male sex partners (past 3 months)	Characteristics	Mean (SD)	Mean (SD)
CAS (past 3 months)	Age in years	42.64 (12.14)	22.74 (5.17)
CAS with known HIV-infected partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  CAS with unknown HIV status partner (past 3 months)  I 5 (100)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 3 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)  I 6 (80)  CAS with unknown HIV status partner (past 4 months)	Number of male sex partners (past 3 months)	6.23 (4.09)	1.79 (2.39)
CAS with unknown HIV status partner (past 3 months)  2.77 (3.94)  0.75 (1.71.  Characteristics  N (%)  N (%)  Gender  Male  15 (100)  19 (95  Transgender (male to female)  0 1 (5  Sexual orientation  Homosexual/Gay  11 (73.3)  16 (80  Bisexual  3 (20)  4 (20)  Other  1 (6.7)  Racial group  Black/African American  2 (13.3)  19 (95  White/Caucasian  11 (73.3)  1 (5  Refused to answer  2 (13.3)  (6)  No  13 (86.7)  20 (100  Employment  Full-time  7 (46.7)  3 (15  Part-time  3 (20.0)  4 (20  Unemployed  2 (13.3)  Other  1 (6.7)  2 (10.  Annual income (before taxes)  Less than \$6000  3 (20.0)  13 (65  \$6000 to \$11,999  \$1 (6.7)  \$2 (13.3)  (6)  \$1 (5.7)  \$2 (10.  \$3 (15)  \$12,000 to \$17,999  \$1 (6.7)  \$3 (15)  \$18,000 to \$23,999  1 (6.7)  \$3 (15)  \$3 (20.0)  \$4 (20)  \$4 (20)  \$5 (20.0)	CAS (past 3 months)	5.92 (5.85)	2.0 (2.47)
Characteristics N (%) N (%)  Gender  Male 15 (100) 19 (95) Transgender (male to female) 0 1 (5  Sexual orientation  Homosexual/Gay 11 (73.3) 16 (80  Bisexual 3 (20) 4 (20)  Other 1 (6.7) (  Racial group  Black/African American 2 (13.3) 19 (95)  White/Caucasian 11 (73.3) 1 (5  Refused to answer 2 (13.3) (9)  Hispanic  Yes 2 (13.3) (10)  Employment  Full-time 7 (46.7) 3 (15)  Part-time 3 (20.0) 4 (20)  Unemployed 2 (13.3) (10)  Unemployed 2 (13.3) (10)  Disabled 2 (13.3) (10)  Other 1 (6.7) 2 (10)  Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65)  \$6000 to \$11.999 2 (13.3) (15)  \$12,000 to \$17.999 1 (6.7) (10)  \$24,000 to \$23.999 1 (6.7) (10)  \$524,000 to \$29.999 1 (6.7) (10)  \$60,000 or more 2 (13.3) (10)  Education  High school or GED	CAS with known HIV-infected partner (past 3 months)	1.08 (2.94)	0.3 (0.80)
Male	CAS with unknown HIV status partner (past 3 months)	2.77 (3.94)	0.75 (1.71)
Male       15 (100)       19 (95 (100))         Transgender (male to female)       0       1 (5)         Sexual orientation       Thomosexual/Gay       11 (73.3)       16 (80 (80 (80 (80 (80 (80 (80 (80 (80 (80	Characteristics	N (%)	N (%)
Transgender (male to female)       0       1 (5         Sexual orientation       Homosexual/Gay       11 (73.3)       16 (80         Bisexual       3 (20)       4 (20         Other       1 (6.7)       (6         Racial group       1 (6.7)       (7         Black/African American       2 (13.3)       19 (95         White/Caucasian       11 (73.3)       1 (5         Refused to answer       2 (13.3)       (7         Hispanic       2 (13.3)       (7         Yes       2 (13.3)       (7         Employment       2 (14.3)       (7         Employment       7 (46.7)       3 (15         Part-time       3 (20.0)       4 (20         Unemployed       2 (13.3)       11 (55         Disabled       2 (13.3)       1 (5         Other       1 (6.7)       2 (10         Annual income (before taxes)       2 (13.3)       3 (15         Less than \$6000       3 (20.0)       13 (65         \$6000 to \$11,999       2 (13.3)       1 (5         \$12,000 to \$17,999       2 (13.3)       1 (5         \$18,000 to \$23,999       1 (6.7)       (6         \$24,000 to \$29,999       1 (6.7) <t< td=""><td>Gender</td><td></td><td></td></t<>	Gender		
Sexual orientation       Homosexual/Gay       11 (73.3)       16 (80 mosexual/Gay)       4 (20 mosexual/Gay)       19 (95 mosexual/Gay)       1 (5 mosexual/Gay)       1 (6 mosexual/Gay)	Male	15 (100)	19 (95)
Homosexual/Gay       11 (73.3)       16 (80)         Bisexual       3 (20)       4 (20)         Other       1 (6.7)       (6.7)         Racial group       (7.13.3)       19 (95)         Black/African American       2 (13.3)       1 (5         Refused to answer       2 (13.3)       (6.7)         Hispanic       (7.2)       (1.3.3)       (7.2)         Yes       2 (13.3)       (7.2)       (1.00)         Employment       (7.46.7)       3 (15.7)       (1.00)       (1.00)         Employment       (7.46.7)       3 (15.7)       (1.00)       <	Transgender (male to female)	0	1 (5)
Bisexual       3 (20)       4 (20)         Other       1 (6.7)       6         Racial group       1 (6.7)       6         Black/African American       2 (13.3)       19 (95)         White/Caucasian       11 (73.3)       1 (5)         Refused to answer       2 (13.3)       6         Hispanic       2 (13.3)       6         Yes       2 (13.3)       6         No       13 (86.7)       20 (100)         Employment       7 (46.7)       3 (15)         Part-time       3 (20.0)       4 (20)         Unemployed       2 (13.3)       10         Disabled       2 (13.3)       6         Other       1 (6.7)       2 (10         Annual income (before taxes)       2 (13.3)       3 (15)         Less than \$6000       3 (20.0)       13 (65)         \$6000 to \$11,999       2 (13.3)       1 (5)         \$12,000 to \$17,999       2 (13.3)       1 (5)         \$18,000 to \$23,999       1 (6.7)       (6         \$24,000 to \$29,999       1 (6.7)       (7         \$30,000 to \$59,999       4 (26.7)       2 (10         \$60,000 or more       2 (13.3)       (7         Educa	Sexual orientation		
Other       1 (6.7)       (6.7)         Racial group         Black/African American       2 (13.3)       19 (95)         White/Caucasian       11 (73.3)       1 (5)         Refused to answer       2 (13.3)       0         Hispanic       2 (13.3)       0         Yes       2 (13.3)       0         No       13 (86.7)       20 (100)         Employment       7 (46.7)       3 (15)         Full-time       7 (46.7)       3 (15)         Part-time       3 (20.0)       4 (20)         Unemployed       2 (13.3)       1 (55)         Disabled       2 (13.3)       0         Other       1 (6.7)       2 (10)         Annual income (before taxes)       2 (13.3)       3 (15)         Less than \$6000       3 (20.0)       13 (65)         \$6000 to \$11,999       2 (13.3)       1 (5)         \$12,000 to \$17,999       2 (13.3)       1 (5)         \$18,000 to \$23,999       1 (6.7)       (6         \$24,000 to \$29,999       1 (6.7)       (7         \$30,000 to \$59,999       4 (26.7)       2 (10         \$60,000 or more       2 (13.3)       (7         Education <td>Homosexual/Gay</td> <td>11 (73.3)</td> <td>16 (80)</td>	Homosexual/Gay	11 (73.3)	16 (80)
Racial group  Black/African American  2 (13.3) 19 (95) White/Caucasian 11 (73.3) 1 (5) Refused to answer 2 (13.3) (15) Refused to answer  Yes 2 (13.3) (No 13 (86.7) 20 (100) Employment  Full-time 7 (46.7) 3 (15) Part-time 3 (20.0) 4 (20) Unemployed 2 (13.3) 11 (55) Disabled 2 (13.3) (Other 1 (6.7) 2 (10) Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65) \$6000 to \$11,999 2 (13.3) 3 (15) \$12,000 to \$17,999 1 (6.7) \$24,000 to \$23,999 1 (6.7) \$24,000 to \$29,999 1 (6.7) \$30,000 to \$29,999 4 (26.7) \$30,000 to \$59,999 4 (26.7) \$60,000 or more 2 (13.3) (Education High school or GED	Bisexual	3 (20)	4 (20)
Black/African American         2 (13.3)         19 (95)           White/Caucasian         11 (73.3)         1 (5)           Refused to answer         2 (13.3)         0           Hispanic         2 (13.3)         0           Yes         2 (13.3)         0           No         13 (86.7)         20 (100)           Employment         7 (46.7)         3 (15)           Part-time         3 (20.0)         4 (20)           Unemployed         2 (13.3)         11 (55)           Disabled         2 (13.3)         0           Other         1 (6.7)         2 (10)           Annual income (before taxes)         2 (13.3)         3 (15)           Less than \$6000         3 (20.0)         13 (65)           \$6000 to \$11,999         2 (13.3)         3 (15)           \$12,000 to \$17,999         2 (13.3)         1 (5)           \$24,000 to \$23,999         1 (6.7)         0           \$24,000 to \$29,999         4 (26.7)         2 (10)           \$30,000 to \$59,999         4 (26.7)         2 (10)           \$60,000 or more         2 (13.3)         0           Education         1 (6.7)         8 (40)	Other	1 (6.7)	0
White/Caucasian       11 (73.3)       1 (5)         Refused to answer       2 (13.3)       0         Hispanic       2 (13.3)       0         Yes       2 (13.3)       0         No       13 (86.7)       20 (100)         Employment       2 (13.3)       3 (15)         Full-time       7 (46.7)       3 (15)         Part-time       3 (20.0)       4 (20)         Unemployed       2 (13.3)       11 (55)         Disabled       2 (13.3)       0         Other       1 (6.7)       2 (10)         Annual income (before taxes)       2       1 (6.7)       3 (55)         \$6000 to \$11,999       2 (13.3)       3 (15)       1 (57)         \$18,000 to \$23,999       1 (6.7)       0       3 (20.0)       1 (6.7)       0         \$24,000 to \$29,999       1 (6.7)       0       0       3 (20.0)       2 (10.0)       3 (20.0)       1 (2.0)       1 (2.0)         \$30,000 to \$59,999       4 (26.7)       2 (10.0)       3 (20.0)       2 (10.0)       3 (20.0)       1 (2.0)       3 (20.0)       1 (2.0)       3 (20.0)       1 (2.0)       3 (20.0)       1 (2.0)       3 (2.0)       1 (2.0)       3 (2.0)       1 (2.0)       3 (2.0	Racial group		
Refused to answer       2 (13.3)       0         Hispanic       2 (13.3)       0         Yes       2 (13.3)       0         No       13 (86.7)       20 (100)         Employment       2       0         Full-time       7 (46.7)       3 (15)         Part-time       3 (20.0)       4 (20)         Unemployed       2 (13.3)       11 (55)         Disabled       2 (13.3)       0         Other       1 (6.7)       2 (10)         Annual income (before taxes)       2 (13.3)       3 (55)         Less than \$6000       3 (20.0)       13 (65)         \$6000 to \$11,999       2 (13.3)       3 (15)         \$12,000 to \$17,999       2 (13.3)       1 (5)         \$18,000 to \$23,999       1 (6.7)       0         \$24,000 to \$29,999       1 (6.7)       0         \$30,000 to \$59,999       4 (26.7)       2 (10)         \$60,000 or more       2 (13.3)       0         Education         High school or GED       1 (6.7)       8 (40)	Black/African American	2 (13.3)	19 (95)
Hispanic Yes 2 (13.3) (20.00) Employment  Full-time 7 (46.7) 3 (15.00) Part-time 3 (20.0) 4 (20.00) Unemployed 2 (13.3) 11 (55.00) Disabled 2 (13.3) (20.00) 2 (10.00) Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65.00) \$6000 to \$11,999 2 (13.3) 3 (15.00) \$12,000 to \$17,999 2 (13.3) 1 (5.00) \$12,000 to \$17,999 1 (6.7) (6.7) \$24,000 to \$29,999 1 (6.7) (6.7) \$24,000 to \$29,999 1 (6.7) (6.7) \$30,000 to \$59,999 4 (26.7) 2 (10.00) \$60,000 or more 2 (13.3) (6.7) Education  High school or GED	White/Caucasian	11 (73.3)	1 (5)
Yes       2 (13.3)       C         No       13 (86.7)       20 (100)         Employment       Full-time       7 (46.7)       3 (15)         Part-time       3 (20.0)       4 (20)         Unemployed       2 (13.3)       11 (55)         Disabled       2 (13.3)       0         Other       1 (6.7)       2 (10)         Annual income (before taxes)       Less than \$6000       3 (20.0)       13 (65)         \$6000 to \$11,999       2 (13.3)       3 (15)         \$12,000 to \$17,999       2 (13.3)       1 (5)         \$18,000 to \$23,999       1 (6.7)       0         \$24,000 to \$29,999       1 (6.7)       0         \$30,000 to \$59,999       4 (26.7)       2 (10)         \$60,000 or more       2 (13.3)       0         Education         High school or GED       1 (6.7)       8 (40)	Refused to answer	2 (13.3)	0
No 13 (86.7) 20 (100)  Employment  Full-time 7 (46.7) 3 (15)  Part-time 3 (20.0) 4 (20)  Unemployed 2 (13.3) 11 (55)  Disabled 2 (13.3) (30.0)  Other 1 (6.7) 2 (10)  Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65) \$6000 to \$11,999 2 (13.3) 3 (15) \$12,000 to \$17,999 2 (13.3) 1 (5) \$18,000 to \$23,999 1 (6.7) (30) \$24,000 to \$29,999 1 (6.7) (30) \$24,000 to \$59,999 4 (26.7) 2 (10) \$60,000 or more 2 (13.3) (30)  Education  High school or GED	Hispanic		
Employment  Full-time 7 (46.7) 3 (15)  Part-time 3 (20.0) 4 (20)  Unemployed 2 (13.3) 11 (55)  Disabled 2 (13.3) (0)  Other 1 (6.7) 2 (10)  Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65) \$6000 to \$11,999 2 (13.3) 3 (15) \$12,000 to \$17,999 2 (13.3) 1 (5) \$18,000 to \$23,999 1 (6.7) (0) \$24,000 to \$29,999 1 (6.7) (0) \$24,000 to \$59,999 4 (26.7) 2 (10) \$60,000 or more 2 (13.3) (0)  Education  High school or GED 1 (6.7) 8 (40)	Yes	2 (13.3)	0
Full-time 7 (46.7) 3 (15) Part-time 3 (20.0) 4 (20) Unemployed 2 (13.3) 11 (55) Disabled 2 (13.3) (20.0) Other 1 (6.7) 2 (10) Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65) \$6000 to \$11,999 2 (13.3) 3 (15) \$12,000 to \$17,999 2 (13.3) 1 (5) \$18,000 to \$23,999 1 (6.7) (9) \$24,000 to \$29,999 1 (6.7) (9) \$30,000 to \$59,999 4 (26.7) 2 (10) \$60,000 or more 2 (213.3) (9) Education High school or GED 1 (6.7) 8 (40)	No	13 (86.7)	20 (100)
Part-time 3 (20.0) 4 (20) Unemployed 2 (13.3) 11 (55) Disabled 2 (13.3) (20.0) Other 1 (6.7) 2 (10) Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65) \$6000 to \$11,999 2 (13.3) 3 (15) \$12,000 to \$17,999 2 (13.3) 1 (5) \$18,000 to \$23,999 1 (6.7) (9) \$24,000 to \$29,999 1 (6.7) (9) \$30,000 to \$59,999 4 (26.7) 2 (10) \$60,000 or more 2 (13.3) (6) Education  High school or GED 1 (6.7) 8 (40)	Employment		
Unemployed 2 (13.3) 11 (55) Disabled 2 (13.3) ( Other 1 (6.7) 2 (10) Annual income (before taxes)  Less than \$6000 3 (20.0) 13 (65) \$6000 to \$11,999 2 (13.3) 3 (15) \$12,000 to \$17,999 2 (13.3) 1 (5) \$18,000 to \$23,999 1 (6.7) ( \$24,000 to \$29,999 1 (6.7) ( \$30,000 to \$59,999 4 (26.7) 2 (10) \$60,000 or more 2 (13.3) (C)  Education  High school or GED 1 (6.7) 8 (40)	Full-time	7 (46.7)	3 (15)
Disabled       2 (13.3)       0         Other       1 (6.7)       2 (10.4)         Annual income (before taxes)       3 (20.0)       13 (65.5)         \$6000 to \$11,999       2 (13.3)       3 (15.5)         \$12,000 to \$17,999       2 (13.3)       1 (5.7)         \$18,000 to \$23,999       1 (6.7)       0         \$24,000 to \$29,999       1 (6.7)       0         \$30,000 to \$59,999       4 (26.7)       2 (10.5)         \$60,000 or more       2 (13.3)       0         Education         High school or GED       1 (6.7)       8 (40.6)	Part-time	3 (20.0)	4 (20)
Other       1 (6.7)       2 (10)         Annual income (before taxes)         Less than \$6000       3 (20.0)       13 (65)         \$6000 to \$11,999       2 (13.3)       3 (15)         \$12,000 to \$17,999       2 (13.3)       1 (5)         \$18,000 to \$23,999       1 (6.7)       0         \$24,000 to \$29,999       1 (6.7)       0         \$30,000 to \$59,999       4 (26.7)       2 (10)         \$60,000 or more       2 (13.3)       0         Education         High school or GED       1 (6.7)       8 (40)	Unemployed	2 (13.3)	11 (55)
Annual income (before taxes)  Less than \$6000	Disabled	2 (13.3)	0
Less than \$6000       3 (20.0)       13 (65)         \$6000 to \$11,999       2 (13.3)       3 (15)         \$12,000 to \$17,999       2 (13.3)       1 (5)         \$18,000 to \$23,999       1 (6.7)       0         \$24,000 to \$29,999       1 (6.7)       0         \$30,000 to \$59,999       4 (26.7)       2 (10)         \$60,000 or more       2 (13.3)       0         Education         High school or GED       1 (6.7)       8 (40)	Other	1 (6.7)	2 (10)
\$6000 to \$11,999 2 (13.3) 3 (15) \$12,000 to \$17,999 2 (13.3) 1 (5) \$18,000 to \$23,999 1 (6.7) ( \$24,000 to \$29,999 1 (6.7) ( \$30,000 to \$59,999 4 (26.7) 2 (10) \$60,000 or more 2 (13.3) ( Education High school or GED 1 (6.7) 8 (40)	Annual income (before taxes)		
\$12,000 to \$17,999	Less than \$6000	3 (20.0)	13 (65)
\$18,000 to \$23,999	\$6000 to \$11,999	2 (13.3)	3 (15)
\$24,000 to \$29,999	\$12,000 to \$17,999	2 (13.3)	1 (5)
\$30,000 to \$59,999 4 (26.7) 2 (10) \$60,000 or more 2 (13.3) C Education High school or GED 1 (6.7) 8 (40)	\$18,000 to \$23,999	1 (6.7)	0
\$60,000 or more 2 (13.3) Contaction  High school or GED 1 (6.7) 8 (40)	\$24,000 to \$29,999	1 (6.7)	0
Education High school or GED 1 (6.7) 8 (40)	\$30,000 to \$59,999	4 (26.7)	2 (10)
High school or GED 1 (6.7) 8 (40)	\$60,000 or more	2 (13.3)	0
	Education		
Some college 3 (20.0) 9 (45)	High school or GED	1 (6.7)	8 (40)
	Some college	3 (20.0)	9 (45)

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	Boston focus group $(N = 15)$	Jackson focus group $(N = 20)$
College degree	4 (26.7)	1 (5)
Graduate/professional	7 (46.7)	2 (10)
Health insurance		
Yes	14 (93.3)	7 (35)
No	1 (6.7)	12 (60)
Primary care provider		
Yes	14 (93.3)	7 (35)
No	1 (6.7)	12 (60)
Substance use during or up to 2 h before sex		
Alcohol (5+ drinks on any one occasion, past 3 months)		
Didn't use	3 (20)	8 (40)
Once a month or less	3 (20)	5 (25)
About once a week	3 (20)	4 (20)
About once a day	3 (20)	3 (15)
Several times a day	1(6.7)	0
Any frequency	10	12 (60)
Refused to answer	2 (13.3)	0
Amphetamine use (past 3 months)		
Didn't use	9 (60)	20 (100)
Once a month or less	0	0
About once a week	1 (6.7)	0
About once a day	1 (6.7)	0
Several times a day	1 (6.7)	0
Any frequency	3 (20)	0
Refused to answer	3 (20)	0
Cocaine (snorted, smoked, or injected)		
Didn't use	8 (53.3)	20 (100)
Once a month or less	1 (6.7)	0
About once a week	1 (6.7)	0
About once a day	2 (13.3)	0
Several times a day	0	0
Any frequency	4	0
Refused to answer	3 (20)	0
Amyl nitrite (poppers)		
Didn't use	8 (53.3)	19 (95)
Once a month or less	0	1 (5)
About once a week	1 (6.7)	0
About once a day	1 (6.7)	0
Several times a day	2 (13.3)	0
Any frequency	4 (26.7)	1 (5)
Refused to answer	3 (20)	0

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Table 3

Major themes from Boston focus groups.

Emerging theme	Significant statements	Focus group <sup>a</sup> /II
Inconsistent knowledge of PrEP	1. "Is PrEP like the morning after pill? I think I might have heard about it in that regard."	B/5
	2. "I heard from the streets that you take a pill a day, you can't get HIV."	B/14
	3. "I heard about a pill you take before having sex with someone who might have HIV, and it protects you from catching it."	J/3
	4. "They now have a prevention pill. I want to say it's called Travada. If your sex partner has HIV and you don't Travada helps the other partner not get HIV."	J/18
Concerns about side effects	5. "They don't know all the side effects $\dots$ the long time side effects. I'd be concerned about safety."	B/1
	6. "I heard PrEP could cause liver failure."	B/5
	7. "[What are the] drug interactions with substances and/or alcohol?"	B/2
	8. "What are the risks? What are the side effects? And how will it interact with meds you are taking for other health problems? Or just your body chemistry, body composition?"	J/6
	9. "Are you going to get nausea from taking PrEP?"	J/18
	10. "PrEP hasn't been cleared by FDA regulations; what does it do to your body?"	J/6
	11. "I'd like to know the negative side effects to determine if it's worth it."	J/16
Importance of disclosure of sexual orientation to providers	12. "I felt more comfortable with a woman [provider]. My previous doctor, who was a man, just told me to have sex with women."	B/9
	13. "If doctors make me uncomfortable for being gay, then the last thing I want to do is tell you about my sex life There are a lot of doctors who throw their own personal opinion into their perspective. One asked me if I'm homosexual. That made me uncomfortable."	J/16
	14. "I've never been to a doctor where they asked about my sexual orientation."	J/12
Improved provider care and sensitivity	15. When he told his provider that his partner was HIV-positive, the provider "said I needed to stop that relationship and that I'm putting myself at risk. The way he told me was, I think, offensive. So I switched to another doctor. She's very open to our conversations about HIV or condoms."	B/13
	16. "I feel like they should be more accepting. I went and got tested for HIV and the doctor said to me, 'Are you a homosexual?' This made me really uncomfortable because I'm not even comfortable identifying myself as this. But, if you are participating or thinking about any anal sex with men or women you should be able to talk to your provider about it."	J/16
Unique emerging themes from Jackson focus groups Medical mistrust including skepticism of PrEP	17. "[H]istorically, African Americans have an aversion to any kind of healthcare, or any kind of medicine. So we, as African Americans, historically prefer natural healing or prayer. And we kind of, we avoid doctors."	J/6
	18. "I don't believe that PrEP works, because if it did, then they'd be handing out the pill like they do condoms. I'm gonna need some facts before I try it. I need to see someone do it and get their results."	J/13
	19. "Who's to say that the pill won't give you HIV without even having sex?"	J/13
Greater salience of HIV stigma and anti-gay stigma in Jackson	20. "African Americans are scared of HIV and AIDS as a whole," there is much more discussion of "diabetes, or a heart attack, or high blood pressure" than HIV in Black families. "You don't hear about it at all actually anywhere You don't actually hear about HIV or AIDS in Black African American families that much."	J/5
	21. "There's still a lot of HIV stigma in the South. A lot of people are afraid to come out as positive."	J/10
	22. "If someone were to come and say they have HIV, then you are going to say that they are going to spend the rest of their lives alone because no one is going to want you."	J/8
	23. "They're still calling it [HIV] 'that shit,' and they'll call it like 'the package' and shit like that."	J/9

Significant statements **Emerging theme** Focus group<sup>a</sup>/ID 24. "Clinical staff, they will tell your friends. In a small city this is a problem." J/23 25. "If you're taking the PrEP to prevent HIV infection, the stigma could be you're J/6 associated, because you ... and that could discourage some individuals from taking the drug, because it's being attached to it [gay sex]." Increased PrEP education and 26. "I think I would start with men on a whole ... [promote PrEP as] just a pill for J/8 messaging for Black men men, period." 27. "If you want to approach heterosexuals as well [with PrEP public education], then you'll need to take all the things associated with homosexuals out." 28. "PrEP should be a part of health insurance and of the routine physical and be J/6 promoted to heterosexual couples so both parties are getting informed, while the man can still have his straight façade."

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<sup>&</sup>lt;sup>a</sup>B = Boston, MA; J = Jackson, MS