



A Qualitative Exploration of Preexposure Prophylaxis among Black Women Attending a Historically Black College and University in the Northeastern United States

A Dissertation Submitted in Fulfillment of the Requirements for the Degree
Doctor of Public Health

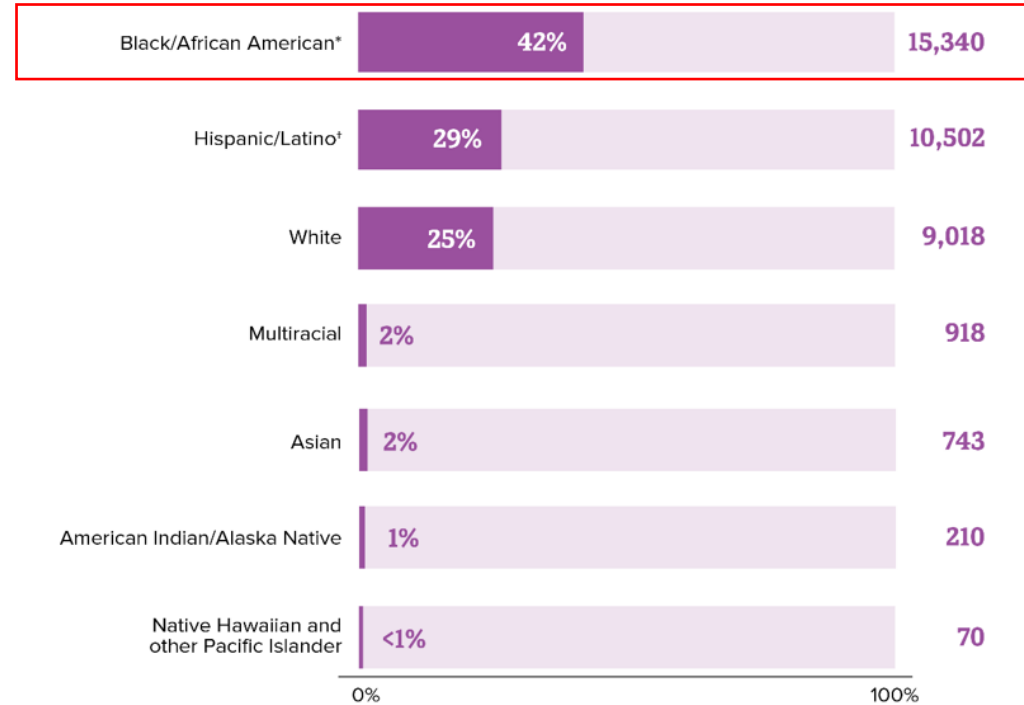
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Morgan State University- School of Community Health and Policy

HIV in the Black Community

- HIV deaths impacts **4 out of 10** African Americans
- African Americans are diagnosed **8 times** more than their non-minority counterparts
- In 2019, of the 34,500 individuals newly diagnosed, **15,340 were Black**

New HIV Diagnoses in the United States by Race/Ethnicity. Source: CDC (2019).



Problem Statement

- HIV *stigmatizing* and *taboo* to members of the Black community
- **Historical barriers:**
 - medical mistrust
 - distrust of the US government
 - internalized racism
 - conservative religious sexual values and attitudes
 - HIV conspiracy theories
- Significant **absence** of conversations surrounding HIV and sex education within HBCUs
- HBCUs can be **essential access points** for targeted HIV prevention such as preexposure prophylaxis (PrEP) uptake



Preexposure prophylaxis (PrEP): a daily oral medication that can prevent HIV transmission and benefit numerous sexually active individuals.



Study Aims

1. To characterize the awareness of PrEP among Black HBCU women
2. To identify factors that may facilitate or cause barriers to Black HBCU women's knowledge and uptake of PrEP
3. To identify best practices for successful marketing strategies for PrEP campaigns targeting uptake among HBCU women

HIV Risk: Black Women

- Black women acquire HIV at disproportionate rates *regardless* of education level or socioeconomic status
- Black Women are 15 times more likely to develop HIV
- Preexposure prophylaxis (PrEP) daily oral medication that can prevent HIV transmission **by 99%**
- 7% of heterosexual women on PrEP less than 1% identify as *Black*
- Black Women have
 - Lower PrEP awareness
 - Lower PrEP coverage
 - Don't know where or how to get it

Research Questions

1. What is the awareness of PrEP among Black HBCU college women?
2. What factors influence PrEP uptake among Black HBCU college women?
3. What are the barriers/facilitators regarding PrEP uptake among Black HBCU college women?



Background of Parent Study

- Qualitative study that examined why some of the barriers and facilitators of PrEP uptake impact college-age Black women
- Utilized a mixed-method approach at an HBCU in Florida
- PrEP education intervention to determine
 - Perceptions of and receptivity to PrEP use
 - Preferences for PrEP information delivery
- Black college women **had not heard about PrEP** and after health education module would *strongly consider* PrEP initiation in the future
- Understanding of contextual factors beyond the individual

Methods

Chandler et al. BMC Public Health (2020) 20:1172
https://doi.org/10.1186/s12889-020-09248-6

BMC Public Health

RESEARCH ARTICLE

Open Access



The pre-exposure prophylaxis (PrEP) consciousness of black college women and the perceived hesitancy of public health institutions to curtail HIV in black women

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Abstract

Background: Consistent use of Pre-Exposure Prophylaxis (PrEP), a biomedical intervention for HIV seronegative persons, has been shown to significantly decrease HIV acquisition. Black women are a viable population segment to consider for PrEP use as their HIV incidence is overwhelmingly higher than all other women groups.

Methods: We developed and piloted a cultural- and age- appropriate PrEP education intervention to determine Black college women's: 1) perceptions of and receptivity to PrEP use; and 2) preferences for PrEP information delivery.

Results: We recruited N = 43 Black college women. Most of our sample were sophomore and Juniors of whom identified as heterosexual (83%) and single (67%). Over 50% of young women had never been HIV tested and only 28% had been tested in the last 6 months; however, 100% of the women believed their HIV status was negative. Prior to participating in the study, most Black college women (67%) had not heard about PrEP and were unsure or apprehensive (72%) to initiate PrEP. The Black college women indicated that our educational intervention was extremely helpful (67%) for understanding and learning about PrEP. Post participating in our PrEP education module, regardless of delivery modality, participants reported being likely (62.55–70%) to initiate PrEP in the future.

Conclusions: Results indicate that Black college women would strongly consider PrEP when provided with basic knowledge, regardless of delivery modality. Participants also showed greater appreciation for in-person delivery and found it to be significantly more helpful and of greater quality for learning about PrEP; comprehension or perceived usefulness of PrEP-related content was relatively the same between groups. PrEP content delivery – via in-person or online methods – is contingent on learning style and presentation.

Trial registration: This study has been registered under the ISRCTN Registry as of July 6, 2020. The trial registration number is ISRCTN14792715. This study was retrospectively registered.

Keywords: PrEP (pre-exposure prophylaxis), Black women; online education, HIV, College students, Prevention

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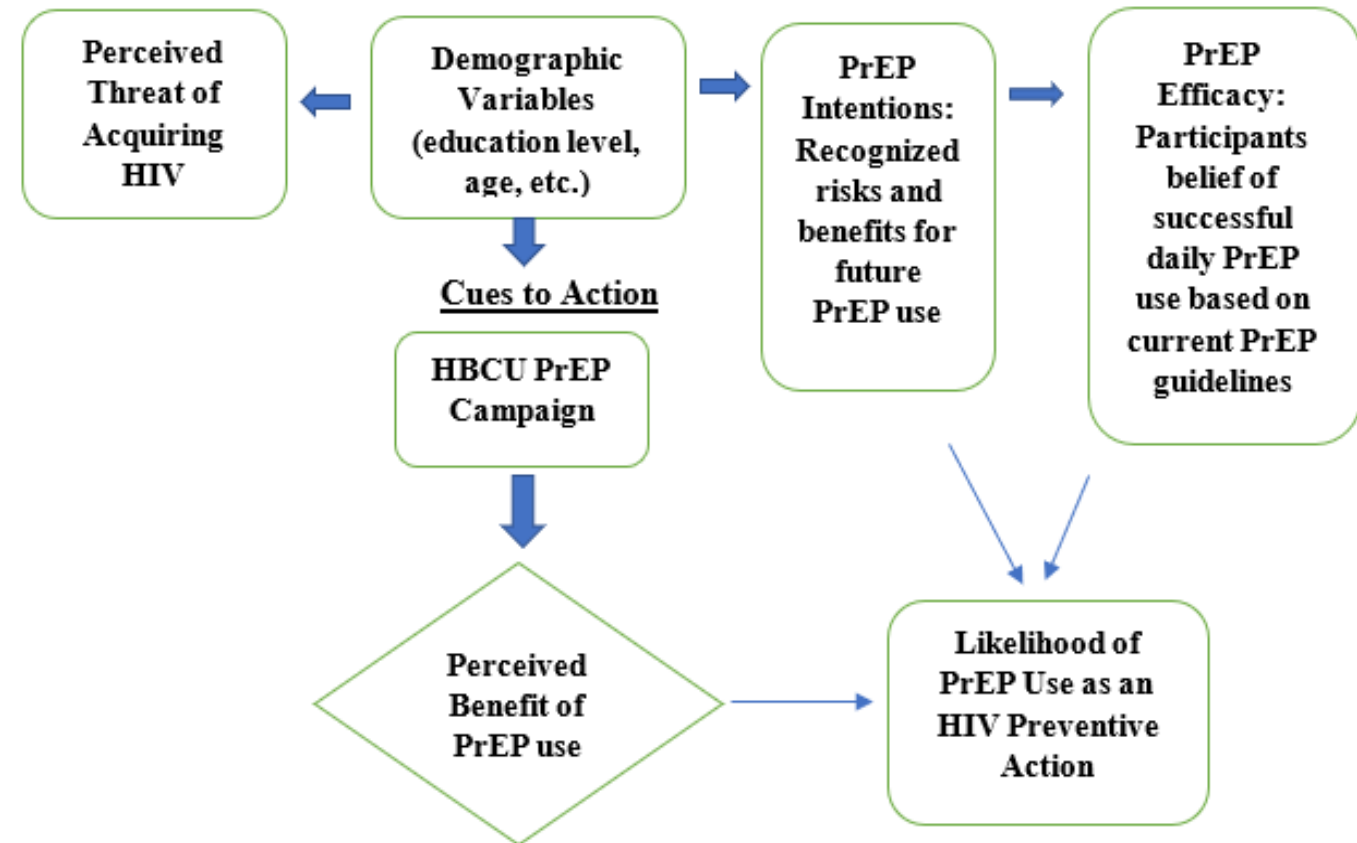
Health Belief Model

- Socio-cognitive theoretical framework used to **describe and predict** people's behaviors
- Addresses why people fail to engage in preventative measures **despite** the availability of screening, contraceptives, and health risks
- The HBM adaptability can be applied in numerous ways
- **Five constructs:**
 1. Individual Perception of Threat
 2. Modifying Factors
 3. Likelihood of Action
 4. Self-efficacy
 5. Cues to Action

Methods

Health Belief Model Framework

Individual Perception of Threat Modifying Factors Likelihood of Action Self-Efficacy

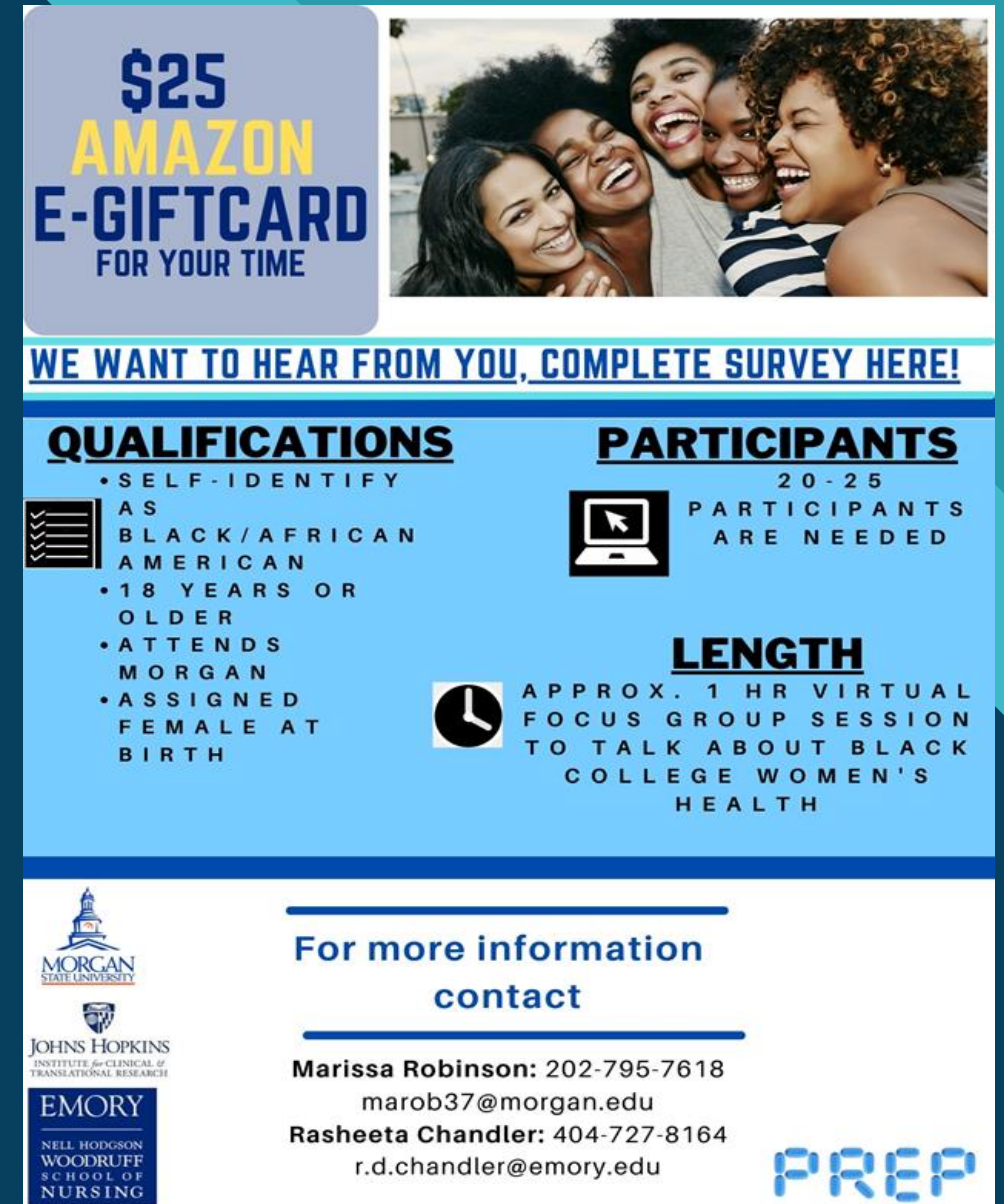


Note. Adapted from “The Pre-Exposure Prophylaxis (PrEP) Consciousness of Black College Women and the Perceived Hesitancy of Public Health Institutions to curtail HIV in Black Women,” by R. Chandler, S. Hull, H. Ross, D. Guillaume, S. Paul, N. Dera, and N. Hernandez, 2020, *BMC Public Health*, 20, Article 1172, p. 3. (<https://doi.org/10.1186/s12889-020-09248-6>).


Study Design/Data Collection

- Qualitative Phenomenological Study design
- Recruitment-respondent driven sampling
- Inclusion criteria:
 - Current MSU students
 - Black/African American
 - Assigned female at birth
 - 18 years or older
 - Sexually active
 - HIV negative
- Semi-structured Focus Group Guide
- Sponsored by Morgan State University's Center for Urban Health Equity

Methods



\$25
AMAZON
E-GIFTCARD
FOR YOUR TIME



WE WANT TO HEAR FROM YOU, COMPLETE SURVEY HERE!

QUALIFICATIONS

- SELF-IDENTIFY AS BLACK/AFRICAN AMERICAN
- 18 YEARS OR OLDER
- ATTENDS MORGAN
- ASSIGNED FEMALE AT BIRTH

PARTICIPANTS
20-25 PARTICIPANTS ARE NEEDED



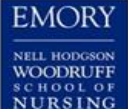
LENGTH
APPROX. 1 HR VIRTUAL FOCUS GROUP SESSION TO TALK ABOUT BLACK COLLEGE WOMEN'S HEALTH

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PREP



Data Analysis

- **22 participants successfully enrolled and completed the study**
- **5 virtual 60-minute audio-recorded focus groups conducted at which data saturation was achieved**
- **Thematic Analysis- Braun & Clarke (2006) framework MAXQDA data analysis software**
- **4 Major themes identified**
 - Knowledge & Awareness of PrEP
 - Perceptions of PrEP
 - Facilitators of PrEP Uptake
 - Barriers to PrEP Uptake
- **Overall gap in knowledge of PrEP, sexual and reproductive health among Black women attending HBCUs**

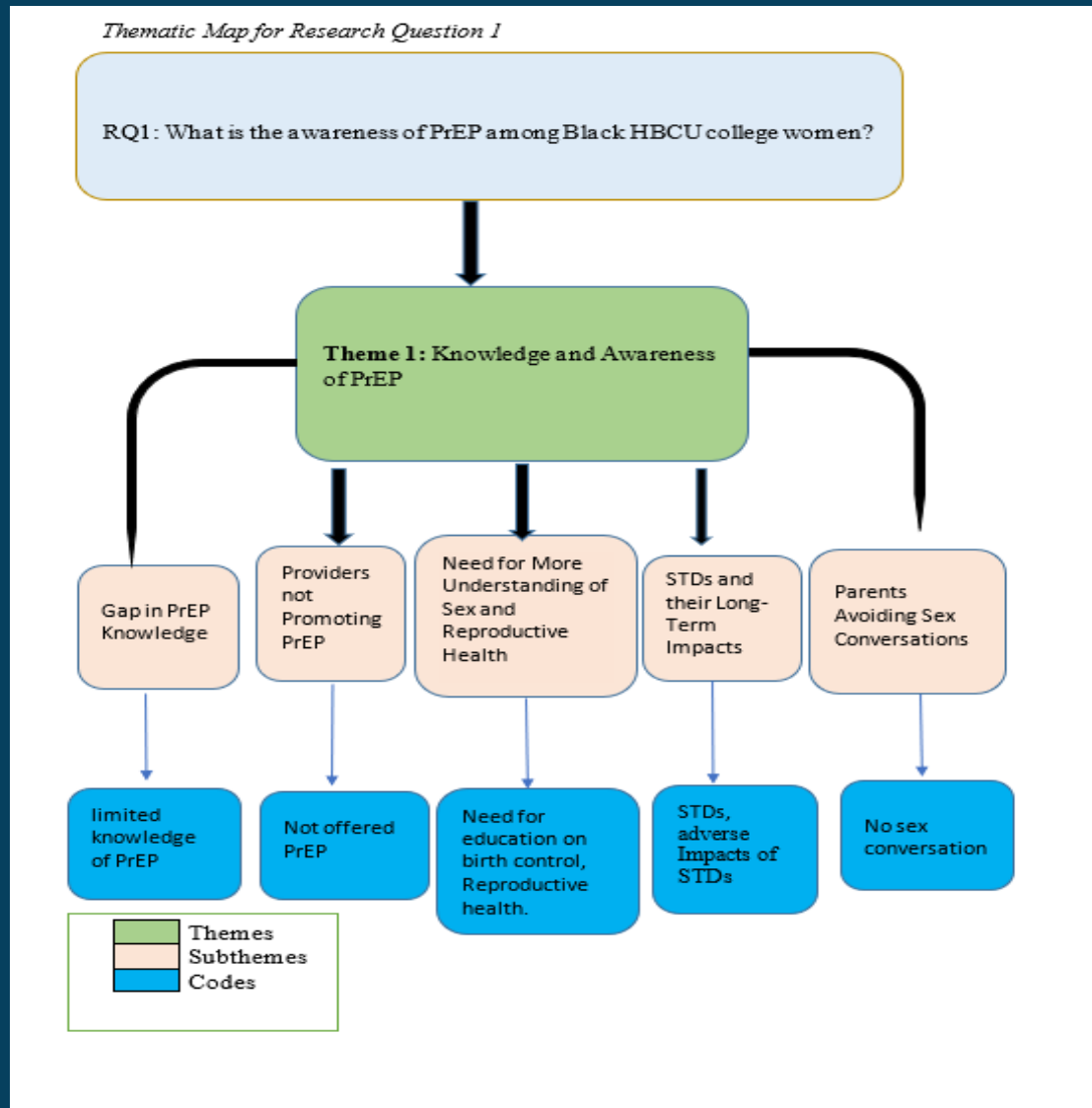
Participant Demographics

- N= 22 Total participants
- 100% participants assigned female at birth, current Morgan students & HIV negative
- 86.3% of participants aged 18-25
 - N=10 Freshman participants
 - N=6 Junior participants
 - N=3 Doctoral participants
 - N=2 Sophomore participants
 - N=1 Senior participant
- N=14 were single
- N=7 in a relationship
- 86.4% did **not have** multiple sexual partners
- 50% **had inconsistent** condom usage

Age	Year	Sexual activity	HIV Status	Current relationship status	Multiple sexual partners	Condom usage?
18	Freshman	Yes	Yes	Single	No	Maybe
18	Freshman	Yes	Yes	Relationship	No	Maybe
19	Sophomore	Yes	Yes	Single	No	No
19	Freshman	Yes	Yes	Single	No	No
19	Freshman	No	Yes	Single	No	Yes
19	Freshman	Yes	Yes	Relationship	No	Yes
19	Freshman	Yes	Yes	Relationship	No	Yes
19	Freshman	Yes	Yes	Single	Yes	Yes
19	Freshman	Yes	Yes	Single	Yes	Maybe
19	Freshman	Yes	Unsure	Single	No	Yes
19	Freshman	Yes	Yes	Single	Yes	Yes
19	Sophomore	Yes	Yes	Relationship	No	Yes
20	Junior	Yes	Yes	Single	No	Yes
20	Junior	Yes	Yes	Relationship	No	Yes
20	Junior	Yes	Yes	Single	No	No
21	Junior	Yes	Yes	Single	No	Yes
21	Junior	Yes	Yes	Single	No	No
21	Senior	No	Yes	Single	No	No
21	Junior	Yes	Yes	Single	No	No
30	Doctoral	Yes	Yes	Relationship	No	No
33	Doctoral	Yes	Yes	Relationship	No	Yes
49	Doctoral	Yes	Yes	Married	No	No

Theme 1: Knowledge & Awareness of PrEP

Results

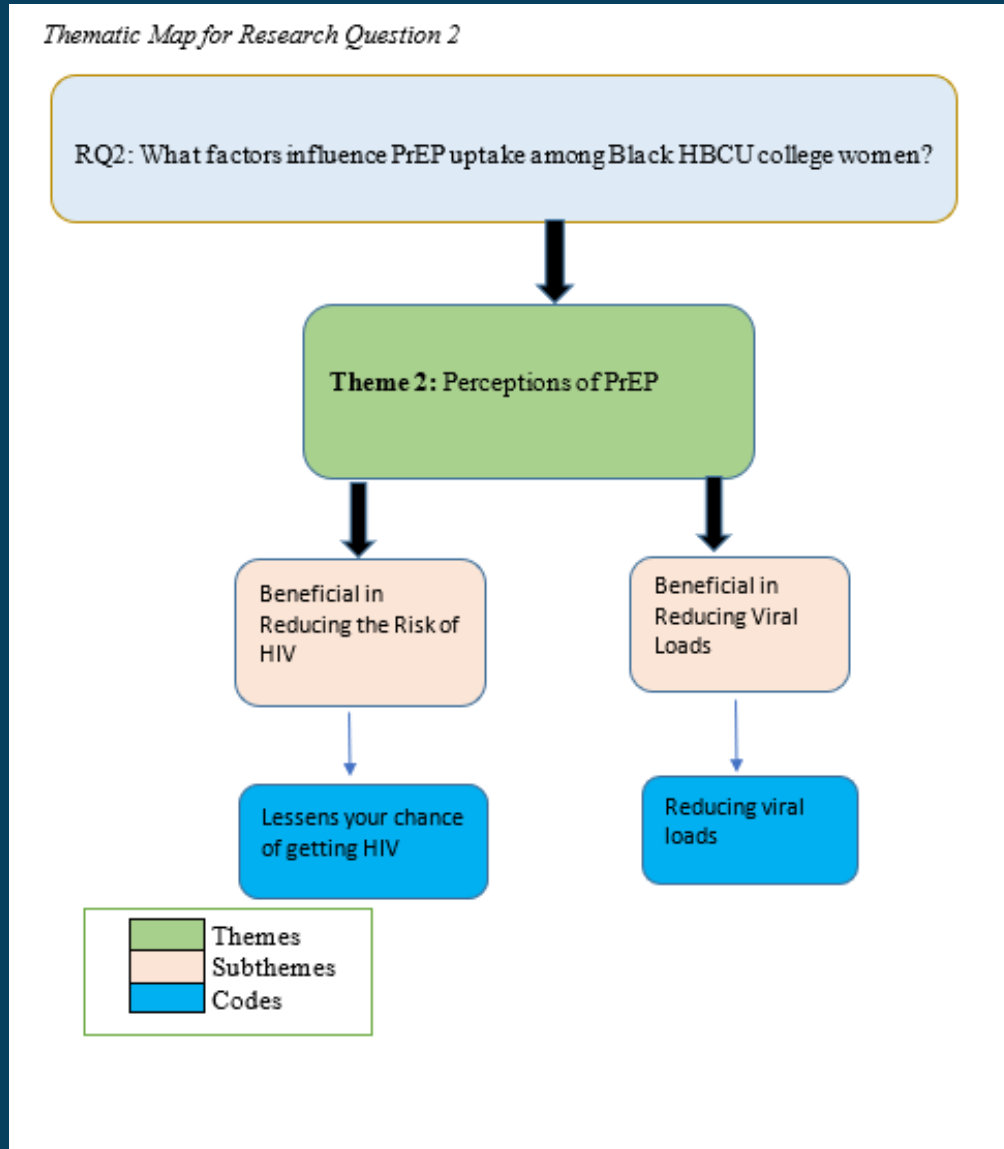


“Oh, right now in this study, this is my first time hearing about PrEP.”

Freshman Participant, 19 years old

Theme 2: Perceptions of PrEP

Results



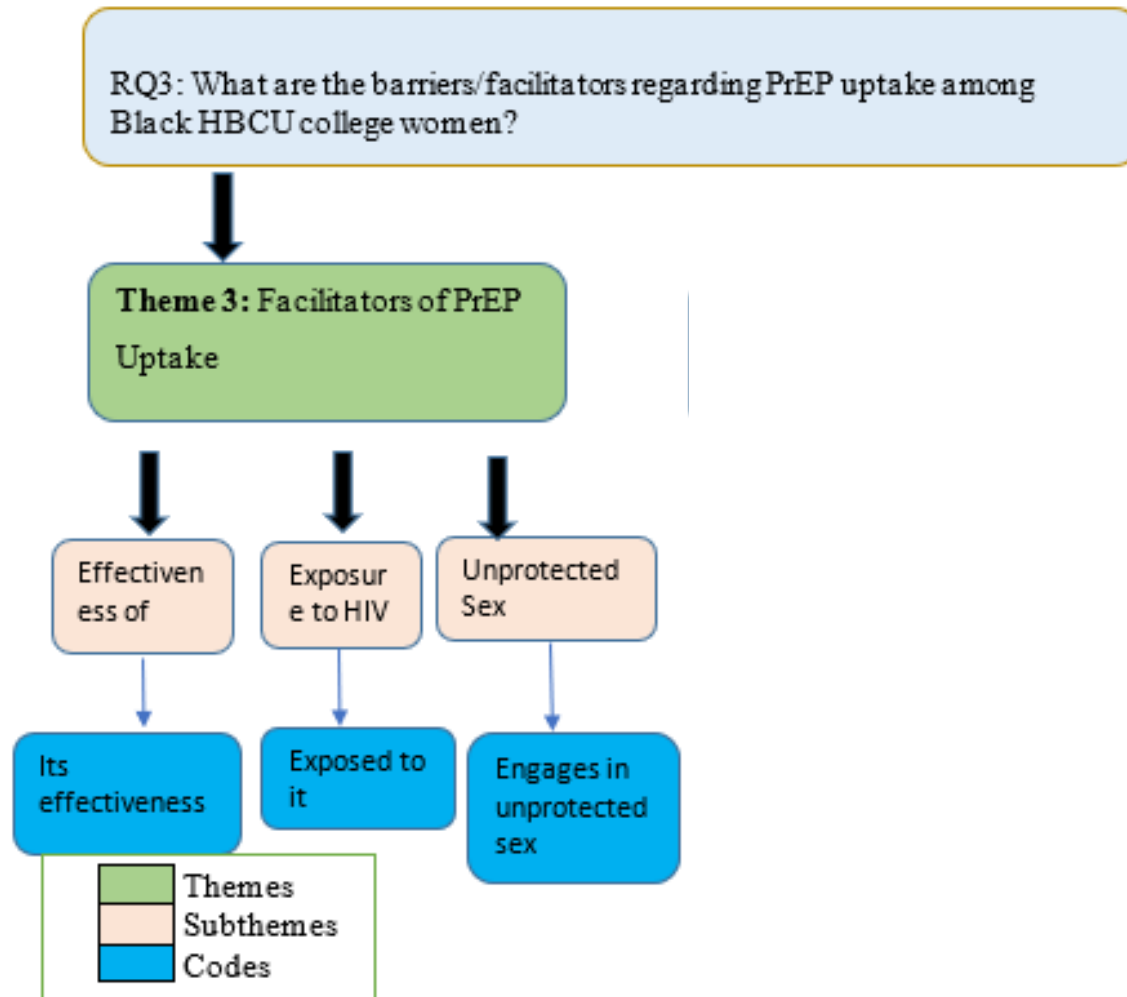
“To prevent HIV from happening, but that’s really all I know.”

Junior Participant, 21 years old

Theme 3: Facilitators of PrEP Uptake

Results

Thematic Map for Research Question 3



“I agree with the last participant. If I was exposed to it, that would definitely, um, motivate me to consider trying PrEP.”

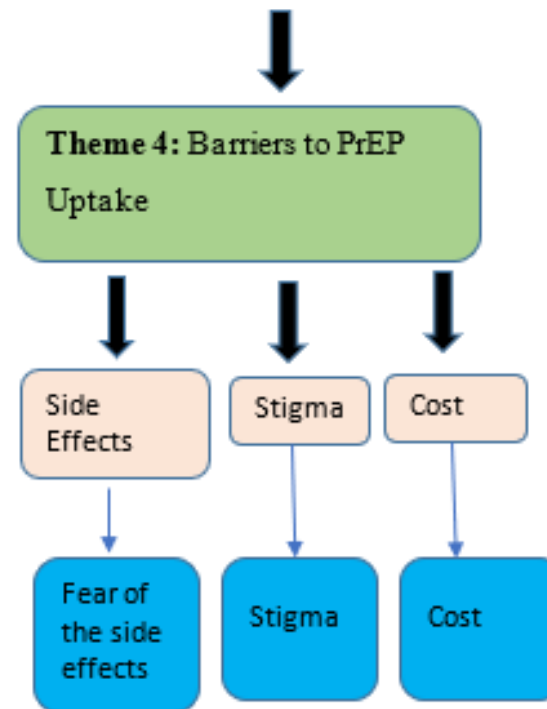
Sophomore Participant,
19 years old

Theme 4: Barriers to PrEP Uptake

Results

Thematic Map for Research Question 3

RQ3: What are the barriers/facilitators regarding PrEP uptake among Black HBCU college women?



“I agree with what she said because I feel like in my community, there’s kinda’ like this stigma, that HIV is like a gay problem.”

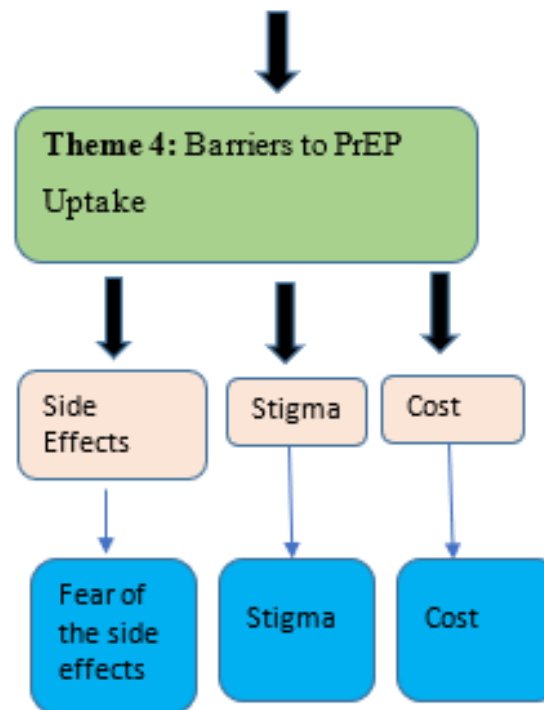
Freshman Participant,
18 years old

Theme 4: Barriers to PrEP Uptake

Results

Thematic Map for Research Question 3

RQ3: What are the barriers/facilitators regarding PrEP uptake among Black HBCU college women?



“I agree with what she said because I feel like in my community, there’s kinda’ like this stigma, that HIV is like a gay problem.”

Freshman Participant,
18 years old

Study Significance

- PrEP uptake is a topic of concern
- Provide information that can *encourage* policy makers and stakeholders in HBCUs to improve uptake of PrEP among Black women
- Gap in knowledge and awareness of PrEP among Black women attending HBCUs
- Findings can be applied in developing programs and policies to increase PrEP uptake among Black women in colleges



Limitations



Generalizability of findings



Covid-19 pandemic restrictions



Bias

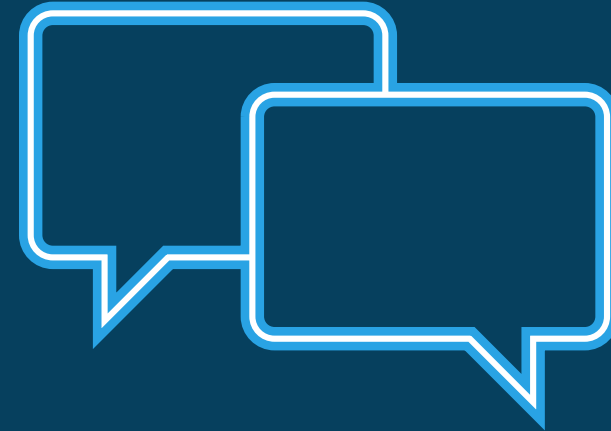
Policy Implications

- **PrEP campaigns and tailored medical guidance for Black women at HBCUs should be created to address the disparity surrounding Black women and HIV**
- **Policymakers can also apply the findings to develop policies to increase PrEP uptake and awareness in HBCUs**
- **Policymakers can begin identifying ways to develop effective legislation to increase access to PrEP by African American women**
- **Student health program leaders and health educators can apply findings from this study to expand existing PrEP and educational programs to increase Black women's access to PrEP medications, routine testing, and other related diseases**



Future Directions

- Increased National PrEP training & awareness among health care providers
- Individualized culturally appropriate framework for PrEP delivery and uptake for Black women
- Although guidance has been updated tailored medical guidance for Black women at HBCU's should be created
- Using community curated guidance such as *ViiV Healthcare Risk to Reason* reframes HIV prevention and better common practices
- Reshaping begins with honest conversations



Recommendations

- Additional HBCU's need to further explore PrEP uptake and the unique perspectives, attitudes, and knowledge of Black women
- Pairing students' perspectives with increased on-campus PrEP information & PrEP provider and **normalizing sexual health conversations**
- Need to include conversations around reproductive health and contraceptions as this may be an additional concern for women interested in PrEP
- Black Women are an **integral** part of society
- Important for HIV prevention and ending the HIV epidemic



“

“I am rooting for
everybody Black!”
- Issa Rae



Questions?

References

- Adimora, A. A., & Schoenbach, V. J. (2013). Social determinants of sexual networks, partnership formation, and sexually transmitted infections. In S. O. Aral, K. A. Fenton, & J. A. Lipshutz (Eds.), *The new public health and STD/HIV prevention* (pp. 13–31). Springer.
- Adimora, A. A., Schoenbach, V. J., & Floris-Moore, M. A. (2009). Ending the epidemic of heterosexual HIV transmission among African Americans. *American Journal of Preventive Medicine*, 37(5), 468–471. <https://dx.doi.org/10.1016%2Fj.amepre.2009.06.020>
- Adimora, A. A., Schoenbach, V. J., Martinson, F. E., Coyne-Beasley, T., Doherty, I., Stancil, T. R., & Fullilove, R. E. (2006). Heterosexually transmitted HIV infection among African Americans in North Carolina. *Journal of Acquired Immune Deficiency Syndromes*, 41(5), 616–623. <https://doi.org/10.1097/01.qai.0000191382.62070.a5>
- Amaro, H. (1995). Love, sex, and power: Considering women's realities in HIV prevention. *American Psychologist*, 50(6), 437–447. <https://doi.org/10.1037//0003-066x.50.6.437>
- America's HIV Epidemic Analysis Dashboard. (n.d.). The six EHE indicators. Retrieved August 19, 2021, from <https://ahead.hiv.gov/data>.
- Anderson, M. (2017). A look at historically black colleges and universities as Howard turns 150. *Pew Research Center*, 28.
- Auerbach, J. D., Kinsky, S., Brown, G., & Charles, V. (2015). Knowledge, attitudes, and likelihood of pre-exposure prophylaxis (PrEP) use among US women at risk of acquiring HIV. *AIDS Patient Care and STDs*, 29(2), 102–110. <https://dx.doi.org/10.1089%2Fapc.2014.0142>
- Centers for Disease Control and Prevention (2014a). *Diagnosis of HIV Infection in the United States and Dependent Areas, 2014. HIV Surveillance Report (vol 26)*. <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2014-vol-26.pdf>
- Centers for Disease Control and Prevention (2014b). *Pre-exposure Prophylaxis (PrEP) for HIV Prevention, May 2014*. <https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/prep-factsheet-508.pdf>

References

- Centers for Disease Control and Prevention. (2016). Lifetime risk of HIV diagnosis [Press release]. <https://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html>
- Centers for Disease Control and Prevention. (2018a). Diagnoses of HIV Infection in the United States and Dependent Areas, 2017 (HIV Surveillance Report Vol. 29). <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2017-vol-29.pdf>
- Centers for Disease Control and Prevention. (2018b). U.S. Public Health Service: Preexposure prophylaxis for prevention of HIV infection in the United States – 2017 Update: A clinical practice guideline. <https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2017.pdf>
- Centers for Disease Control and Prevention. (2019). HIV Surveillance Report, Diagnoses of HIV Infection in the United States and Dependent Areas, 2019; vol. 32. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. July 2021.).
- Centers for Disease Control and Prevention. (2020). Diagnoses of HIV infection in the United States and dependent areas, 2018 (HIV Surveillance Report Vol. 31). <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2018-updated-vol-31.pdf>
- Centers for Disease Control and Prevention. (2021a). Core indicators for monitoring the Ending the HIV Epidemic initiative (early release): National HIV Surveillance System data reported through December 2020; and pre-exposure prophylaxis (PrEP) data reported through September 2020 (HIV Surveillance Data Tables Vol. 2, No. 2.). <https://www.cdc.gov/hiv/pdf/library/reports/surveillance-data-tables/vol-2-no-2/cdc-hiv-surveillance-tables-vol-2-no-2.pdf>
- Centers for Disease Control and Prevention. (2021b). Diagnoses of HIV infection in the United States and dependent areas, 2019 (HIV Surveillance Report Vol. 32). <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2018-updated-vol-32.pdf>

References

- Centers for Disease Control and Prevention. (n.d.). HIV among women. Retrieved August 15, 2021, from <https://www.cdc.gov/hiv/group/gender/women/#refb>
- Cernasev, A., Walker, C., Armstrong, D., & Golden, J. (2021). Changing the PrEP narrative: A call to action to increase PrEP uptake among women. *Women*, 1(2), 120–127. <https://doi.org/10.3390/women1020011>
- Chandler, R., Guillaume, D., Tesema, N., Paul, S., Ross, H., & Hernandez, N. D. (2020). Social and environmental influences on sexual behaviors of college Black women: Within group diversity between HBCU vs. PWI experiences. *Journal of Racial and Ethnic Health Disparities*, 8, 852–862. <https://doi.org/10.1007/s40615-020-00843-2>
- Chandler, R., Hull, S., Ross, H., Guillaume, D., Paul, S., Dera, N., & Hernandez, N. (2020). The pre-exposure prophylaxis (PrEP) consciousness of Black college women and the perceived hesitancy of public health institutions to curtail HIV in Black women. *BMC Public Health*, 20, Article 1172. <https://doi.org/10.1186/s12889-020-09248-6>
- Kwakwa, H. A., Bessias, S., Sturgis, D., Walton, G., Wahome, R., Gaye, O., & Jackson, M. (2018). Engaging United States Black communities in HIV pre-exposure prophylaxis: Analysis of a PrEP engagement cascade. *Journal of the National Medical Association*, 110(5), 480–485. <https://doi.org/10.1016/j.jnma.2017.12.006>
- Laurencin, C. T., Christensen, D. M., & Taylor, E. D. (2008). HIV/AIDS and the African-American community: A state of emergency. *Journal of the National Medical Association*, 100(1), 35–43. [https://doi.org/10.1016/s0027-9684\(15\)31172-x](https://doi.org/10.1016/s0027-9684(15)31172-x)
- Lekas, H. M., Siegel, K., & Schrimshaw, E. W. (2006). Continuities and discontinuities in the experiences of felt and enacted stigma among women with HIV/AIDS. *Qualitative Health Research*, 16(9), 1165–1190. <https://doi.org/10.1177/1049732306292284>
- Liljeros, F., Edling, C. R., & Amaral, L. A. N. (2003). Sexual networks: implications for the transmission of sexually transmitted infections. *Microbes and Infection*, 5(2), 189–196. [https://doi.org/10.1016/s1286-4579\(02\)00058-8](https://doi.org/10.1016/s1286-4579(02)00058-8)