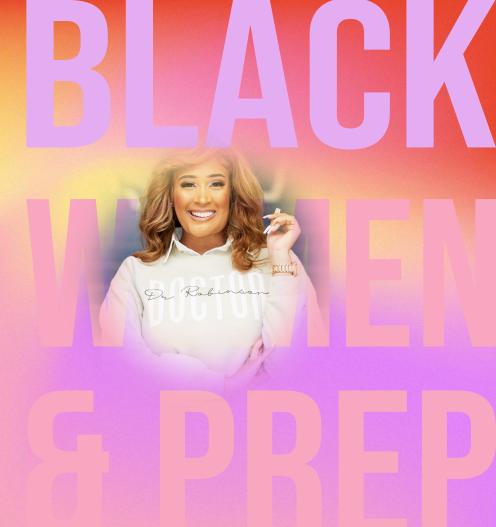
An Exploration of PrEP among Black Women Attending an HBCU in the Northeastern United States

Dr. Marissa Robinson, DrPH, MPH, RPCV



Dissertation Committee

Dr. Lorece Edwards

Dissertation Chair



Dr. Randolf Rowel

Dissertation Committee Member





Dr. Rasheeta Chandler
Dissertation Committee Member

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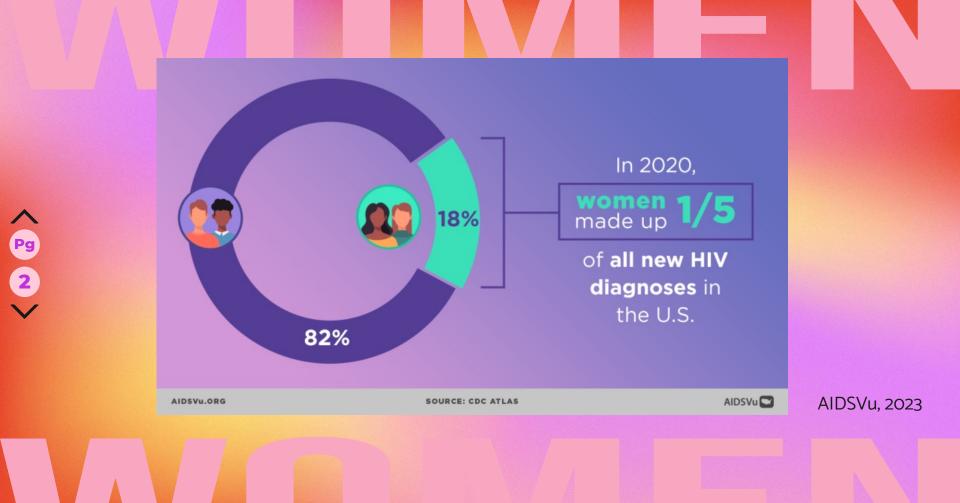




Black people 40% of new HIV diagnoses but only

14% of Prep users

CDC, 2021



54% of new HIV diagnoses among females were among Black Women

CDC, 2021





Not all women are equally impacted by HIV. 54% **Black women** accounted for 54% <1% (3,539) of all new diagnoses among 23% 18% women in 2021, despite 3% comprising just 14% of women in the U.S. *Due to rounding, percentages American Indian/Alaska Native Asian Black (**Due to the COVID-19 pandemic, data Multiracial Native Hawaiian/ Other Pacific Islander interpreted with caution. Number of New HIV Diagnoses Among Females, by Race, 2021 AIDSVu, 2023 AIDSVu 💟 AIDSVu.ORG | W @AIDSVU SOURCE: CDC AtlasPlus, U.S. Census Bureau

Black Americans have an



unmet need

for PrEP

CDC, 2021

- HIV continues to be a stigmatizing and taboo to members of the Black community
- Black Women have
 - Lower PrEP awareness
 - Lower PrEP coverage
 - Don't know where or how to get PrEP
- Historical barriers including medical mistrust, internalized racism, and conservative religious sexual values and attitudes) lead to the significant absence of conversations surrounding HIV and sex education within HBCUs
- HBCUs can be essential access points for targeted HIV prevention such as PrEP uptake







ASS WUNEN

- Qualitative study that examined why some of the barriers and facilitators of PrEP uptake impact college-age Black women (access the full-text article here)
- 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

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



Rasheeta Chandler^{1*} (a), Shawnika Hull², Henry Ross³, Dominique Guillaume¹, Sudeshna Paul¹, Nikita Dera⁴ and Natalie Hernandez⁴

Abstract

Background: Consistent use of Pre-Exposure Prophylasis (PEP), 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 PiEP 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 sophormore and Juniors of whom identified as heterosexual (83%) and ingle (67%). Over 55% of young women had never been HIV tested and only 29% 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 Back college women indicated that our educational intervention was apprehensive (70%) to initiate PFE? The Black college women indicated that our educational intervention was extremely helpful (67%) for understanding and learning about PFEP. Post participating in our PFEP education module, repartiess of delivery modality, participants resorted being likely (625-57%) to initiate PFEP 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 qualify for learning about PrEP; comprehension or preceived 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

*Correspondence: r.d.chandlerglemory.edu *Nell Hodgson Woodruff School of Nursing (NHWSON), Emory University, 1520 Cliffon Rd, NE, Atlanta, GA 30322-4027, USA Full list of author information is available at the end of the article



Of the America 200 Open Access this and is its remed under a Coulter Common Ambridon of Dimensional Literature which permiss and principle application (and principle and applications) are principle under the Office, as they are principle and charged when made. The images or other med party, mountain in this action are scholated the article Common Common Common and Common Com

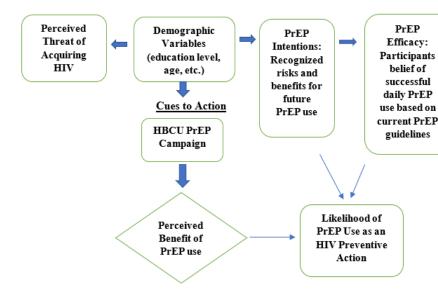




- Socio-cognitive theoretical framework used to describe and predict people's behaviors
- Addresses why people fail to engage in preventative measures despite the availability of screening, contraceptives, and health risks
- The HBM adaptability can be applied in numerous ways
- Five constructs:
 - 1.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

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).





- Qualitative Phenomenological Study design
- Recruitment-respondent driven sampling

Inclusion criteria:

- Current MSU student
- Black/African American
- Assigned female at birth
- Semi-structured Focus Group Guide
- Sponsored by Morgan State University's Center for Urban Health Equity



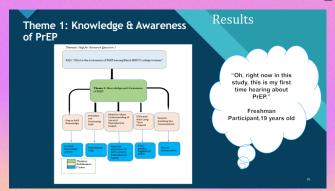


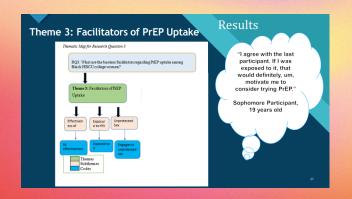
For more information contact

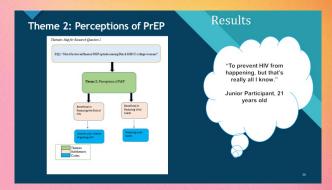
Marissa Robinson: 202-795-7618 marob37@morgan.edu Rasheeta Chandler: 404-727-8164 r.d.chandler@emory.edu

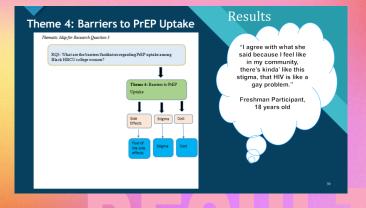


Results









Future Direction

- 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 contraception's 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



Recommendations

- Success requires engagement of nonfederal partners across the nation including academia & community
- •We need our HBCU PrEP Ambassadors, youth & older women engaged in Prevention efforts
- •Normalizing sexual health, pleasure, whole person health & increased provider training especially for Black Women
- •HIV Prevention is essential for Ending the HIV Epidemic in the Black Community

Let's Connect!

drmarissarob@gmail.com
drmarissarob.com
@drmarissarob
https://www.linkedin.com/in/drmarissarob/



















PrEP Equity for Black Women!: The Queen Savvy Lab Says...



"Of all the forms of inequality, injustice in <u>health</u> care is the most shocking and inhumane."

Presented by:

Rasheeta Chandler PhD, RN, FNP-BC, FAANP, FAAN
Associate Professor(t)

Nell Hodgson Woodruff School of Nursing Emory University

Outline

- A LITTLE ABOUT ME...
 MY POSITIONALITY
- WHY WE STRIVE FOR
 HEALTH EQUITY
- WE ALREADY KNOW
 BECAUSE...THE MODELS
 DON'T LIE





5 Q&A/Contact
Me



Positionality: Rasheeta Chandler, PhD, RN, FNP-BC, FAANP, FAAN

Pronouns: She/Her/Hers

- I am a Southern born and raised Black woman from rural Florida
 - I am a lifelong learner.
 - I identify as a proud Sexual and Reproductive Health Avenger, Community-based Family Nurse Practitioner, Public Health Scholar, Innovator for the Culture/Community, and Academician
- My main purpose is to ensure cultural accountability & equity relative to sexual & reproductive health geared toward communities of colorparticularly in the realm of digital tools and resources.
 - I am a mother of two/daughter/sister & friend •

Still Striving: Healthy People 2030

Healthy People 2020/30 defines **health equity** as the attainment of the highest level of health for all people.

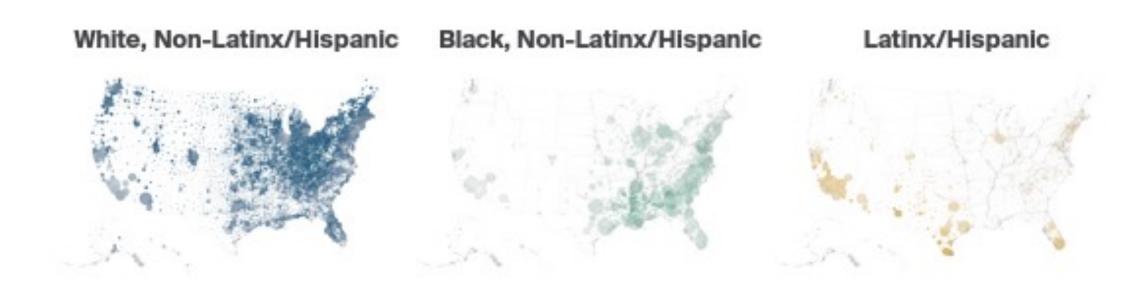
According to Healthy People 2020/30, "Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities". Healthy People 2020/30 defines health disparities as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage".

ELIMINATION OF HEALTH DISPARITIES IS ESSENTIAL TO ADVANCING HEALTH EQUITY

Socioeconomic Inequalities

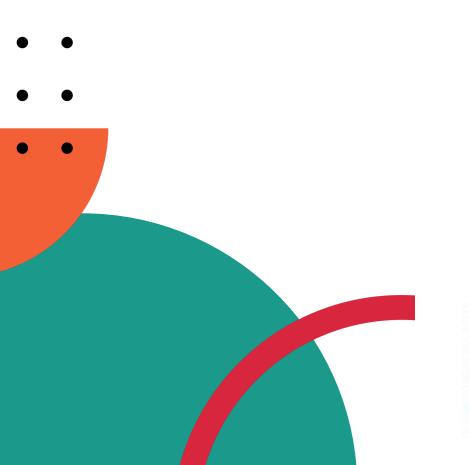
Where communities are located can have large health implications

U.S. racial and ethnic demographics map

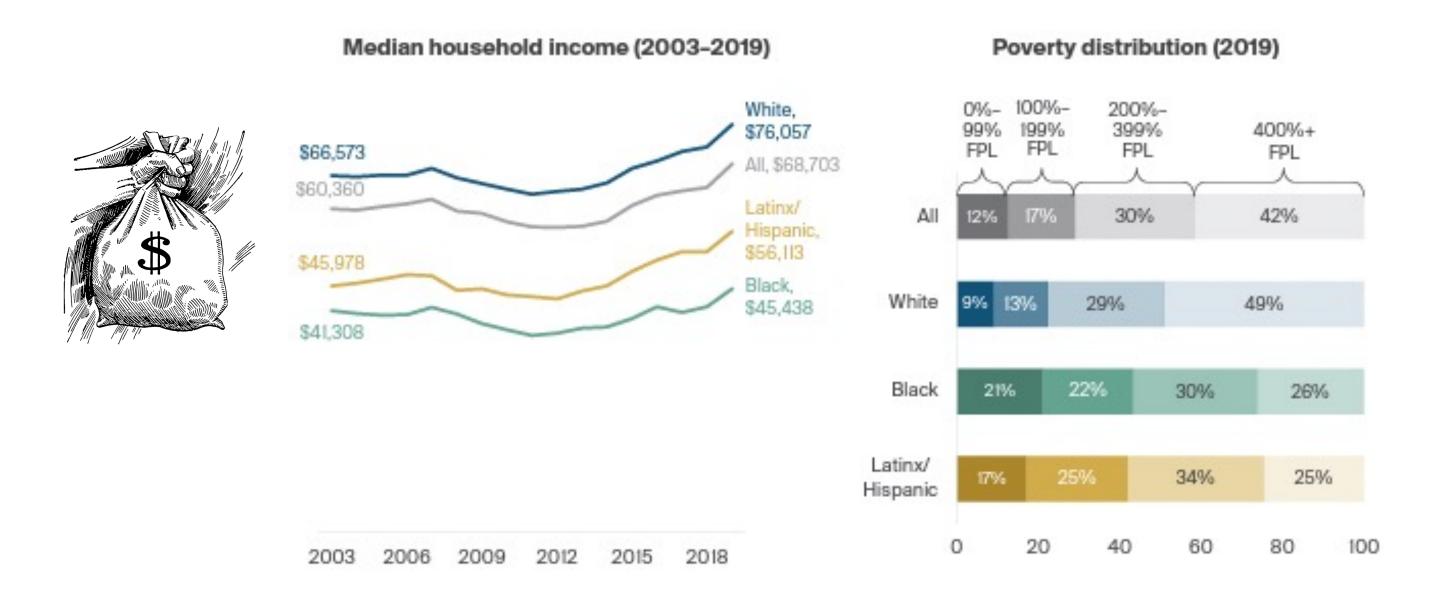


Note: Bubbles are sized relative to the county population count for each race/ethnicity group; color density is based on the share of the county population in each race/ethnicity group.

Data: National Center for Health Statistics. Vintage 2019 postcensal estimates of the resident population of the United States (April 1, 2010, July 1, 2010–July 1, 2019), by year, county, single-year of age (0, 1, 2, ... 85 years and older), bridged race, Latinx/Hispanic origin, and sex. Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: https://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm as of July 9, 2020, following release by the U.S. Census Bureau of the unbridged Vintage 2019 postcensal estimates by five-year age group on June 25, 2020.



Income inequalities, which impact health and access to care, persisted over the past 15 years. Black and Latinx/Hispanic households live below the poverty level at around twice the rate of white households.





Note: 100% of the federal poverty level (FPL) in 2019 was \$12,490 for an Individual and \$25,750 for a family of four.

Data: Median household income — Current Population Survey, 2003–2019 Annual Social and Economic Supplements (2019 dollars); Poverty distribution — American Community Survey, Public Use Microdata Sample (ACS PUMS), 2019.

THE MODELS DON'T LIE

Health Equity and Health Disparities Environmental Scan

March, 2022; Office of Disease Prevention and Health Promotion



Exhibit 27. Graphic Depicting Social and Structural Determinants of Health (Washington, DC SHIP)

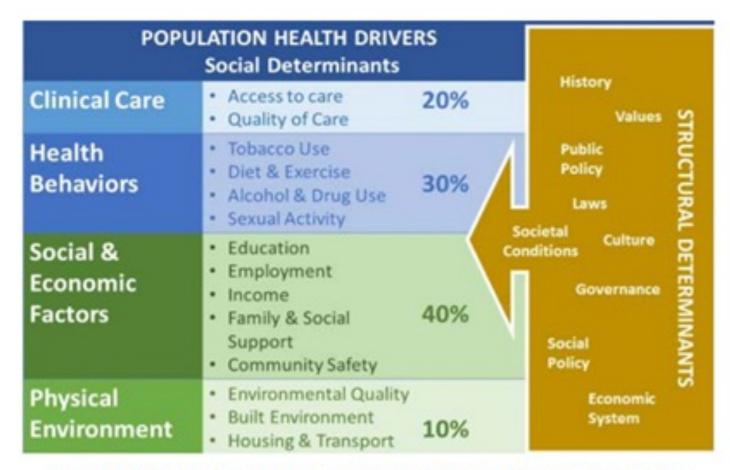


Figure 2.2: The Social and Structural Determinants of Population Health

District of Columbia Department of Health. (2018). Health equity report: District of Columbia 2018. https://app.box.com/s/vspij8v81cxqvebl7qj3uifjumb7ufsw

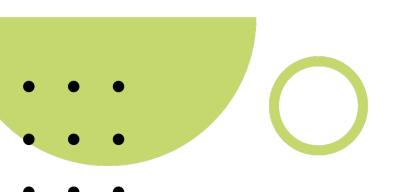
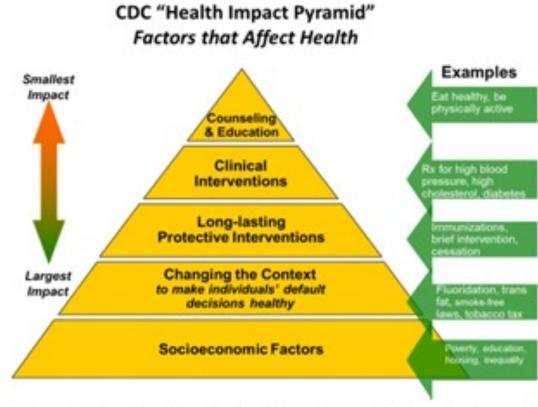


Exhibit 30. Health Impact Pyramid Depicting Factors that Affect Health (Massachusetts SHIP)



Frieden, T. R. (2010). A framework for public health action: the health impact pyramid. American journal of public health, 100(4), 590-595.

Exhibit 15. Colorado Health Equity Model

An Explanatory Model for Conceptualizing the Social Determinants of Health

NATIONAL INFLUENCES **GOVERNMENT POLICIES U.S. CULTURE & CULTURAL NORMS**

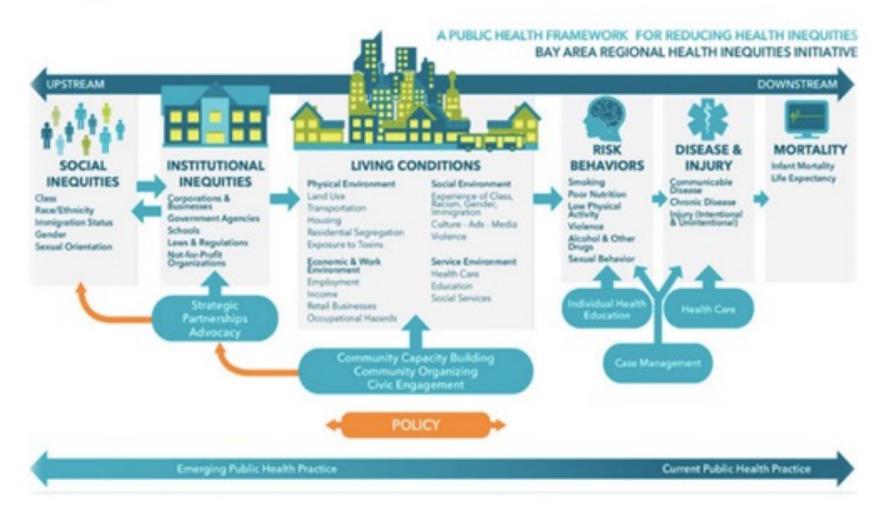
PREGNANCY	SOCIAL DETERMINANTS OF HEALTH			HEALTH FACTORS			POPULATION OUTCOMES
	ECONOMIC OPPORTUNITY	PHYSICAL BWRONWENT	SOCIAL FACTORS	HEALTH BEHAVIORS & CONDITIONS	MENTAL HEALTH	ACCESS, UTILIZATION & QUALITY CARE	QUALITY OF LIFE
EARLY CHILDHOOD	Employment Education Housing	Built Environment • Recreation • Food • Transportation Environmental Quality • Housing • Water • Air Safety	Participation Social Support Leadership Political Influence Organizational Networks Violence Racism	Nutrition Physical Activity	Mental Health Status Stress Substance Abuse Functional Status		MORBIDITY MORTALITY LIFE EXPECTANCY
CHILDHOOD				Tobacco Use Skin Cancer			
ADOLESCENCE				Injury Oral Health Sexual Health Obesity			
ADULTHOOD							
OLDER ADULTS				Cholesterol High Blood Pressure			

Public Health's Role in Addressing the Social Determinants of Health

- . Advocating for and defining public policy to achieve health equity
- · Coordinated interagency efforts
- . Creating organizational environments that enable change
- . Data collection, monitoring and surveillance
- · Population-based interventions to address health factors
- . Community engagement and capacity building

Colorado Department of Public Health and Environment. (2015). Healthy Colorado: Shaping a state of health—Colorado's plan for improving public health and the environment. https://www.colorado.gov/pacific/sites/default/files/OPP 2015-CO-State-Plan.pdf

Exhibit 14. Bay Area Regional Health Inequities Initiative (BARHII) Framework for Reducing Health Inequities



Bay Area Regional Health Inequities Initiative (BARHII). Framework for Reducing Health Inequities. https://www.barhii.org/barhii-framework

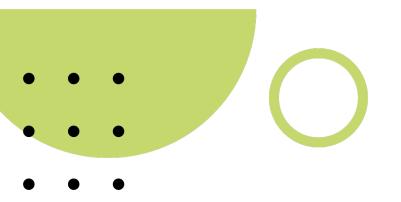
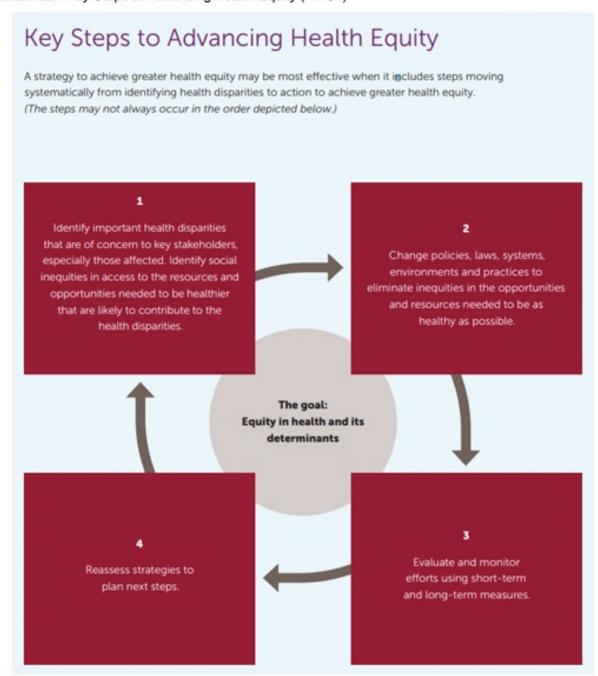


Exhibit 20. Key Steps to Advancing Health Equity (RWJF)



Braveman, P., Arkin, E., Orleans, T., Proctor, D., & Plough, A. (2017). What is health equity? And what difference does a definition make? Retrieved from Robert Wood Johnson Foundation website: https://www.rwjf.org/content/dam/farm/reports/issue_briefs/

PAVING THE ROAD TO HEALTH EQUITY



Centers for Disease Control and Prevention



My Necessary Trouble



Program of Research

Queen Savy Lab

Quality
Equitable &
Electronic
iNterventions for
Savvy Women

Research Vision (Objective)

Develop, implement & test intervention studies that will employ innovative modalities intended to promote behavioral change & facilitate optimal sexual, reproductive & maternal health outcomes



Improve Health Equity among Racially Minoritized Communities by co-creating, with community, HIV Prevention & Sexual/Reproductive Health Interventions

CURRENT PROJECTS:

App specific



funded **Purpose**

To cultivate an effective, sustainable, and culturally relevant HIV prevention app for Black women (Savvy HER) to educate women about prevention, testing, and treatment for other STIs -in addition to HIV



Sponsors: J&J; Google/Fitbit **Purpose**

To engage new Black mothers in rural counties in Georgia, and provide them with the culturally relevant postpartum resources and information to eliminate barriers to equitable postpartum healthcare

For Black Women, By Black Women

Principal/Co-Investigators: SavvyHER



Rasheeta Chandler
PhD, RN, FNP-BC, FAANP, FAAN
Principal Investigator: Associate
Professor(t) in the Nell Hodgson
School of Nursing at Emory
University



Andrea Parker, PhD

Co-Investigator: Associate

Professor in the School of
Interactive Computing at
Georgia Tech; Founder &
Director of the Wellness
Technology Lab at Georgia Tech



Sudeshna Paul, PhD, MS

Co-Investigator: Statistician &

Assistant Professor in the

Office of Nursing Research,

Nell Hodgson School of

Nursing at Emory

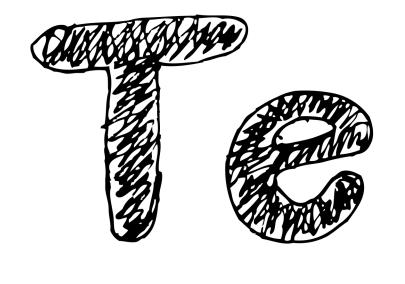


Natalie Hernandez, PhD, MPH

Co-Investogator: Associate
Professor at the Morehouse
School of Medicine & Executive
Director of the Center for
Maternal Health Equity at
Morehouse School of Medicine

Doctoral Research Associate Dominque Guillaume

Project Coordinator MILLICIENT SMALL





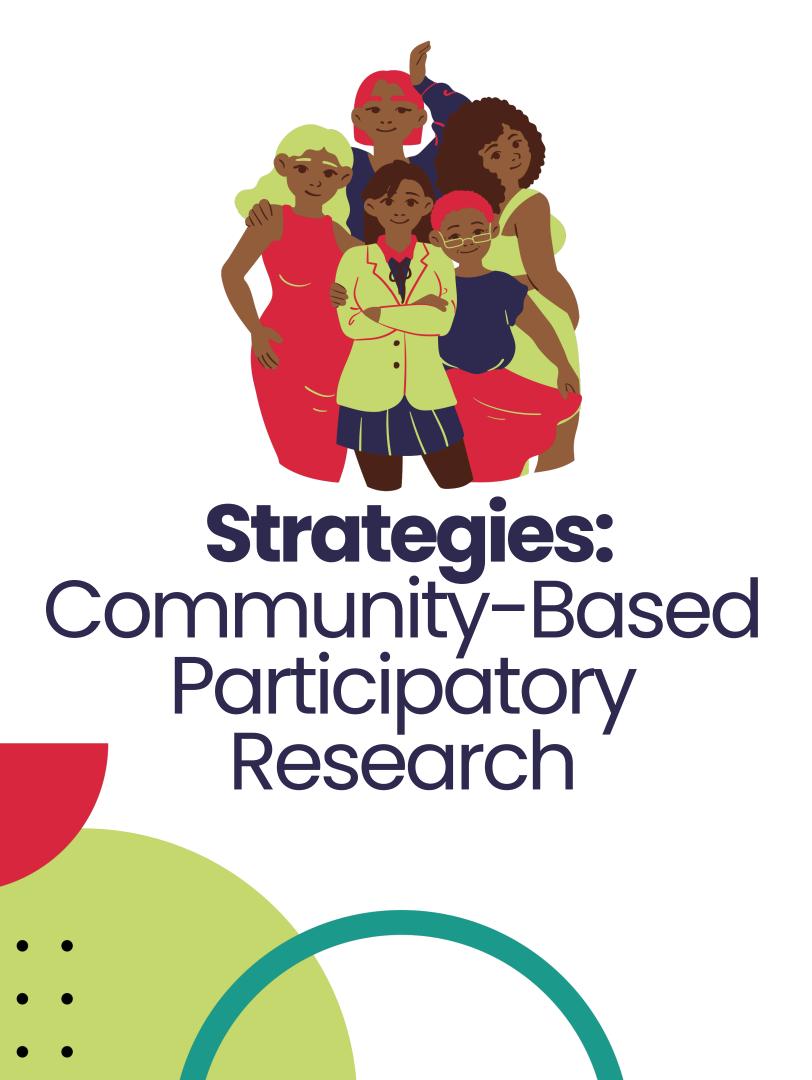
Tech Team
Sherilyn Francis
Nemath Shaik

Project Director RASHIDAT AYANTUNJI

Data Manager ERIC XUE

How are we able to address HIV/STIs & adverse maternal health outcomes from disproportionately affecting

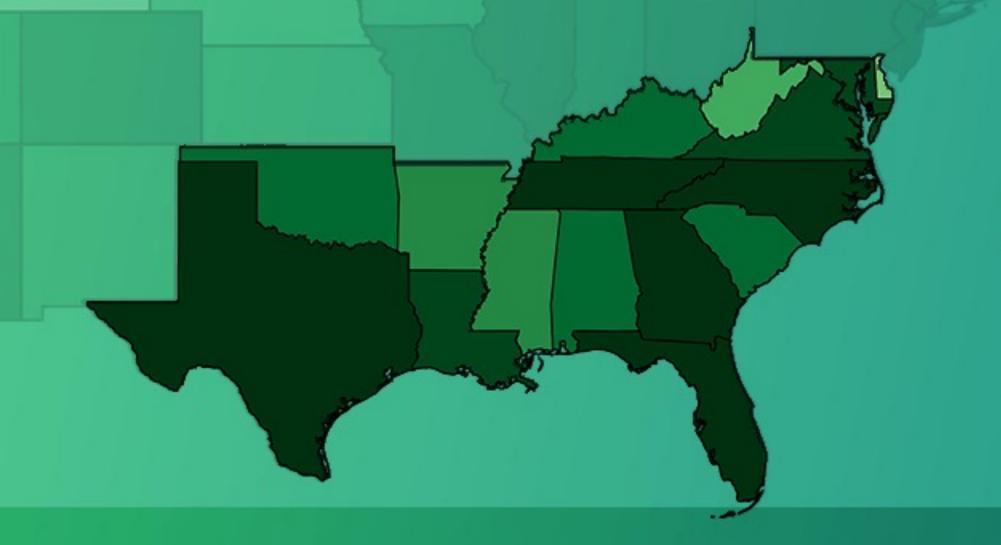
Black Women?



Principles of CBPR

- Community Initiation
- Capacity Building
- Varied Methods
- Joint Data Ownership
- Social Action Outcomes
- Community Relevance
- Process Oriented
- Ethical Review

Utilizing approaches that center aspects of community and Black culture!



The **South** accounts for more than half (52%) of all new HIV diagnoses (2020), yet only represented **39% of PrEP users** in 2021.

There were only **7 PrEP users** for every new HIV diagnosis in the South, the lowest of any region and an indication of unmet need for PrEP.



Number of Persons Using PrEP, 2021

3 - 44

45 - 113

114 - 210

211 - 375

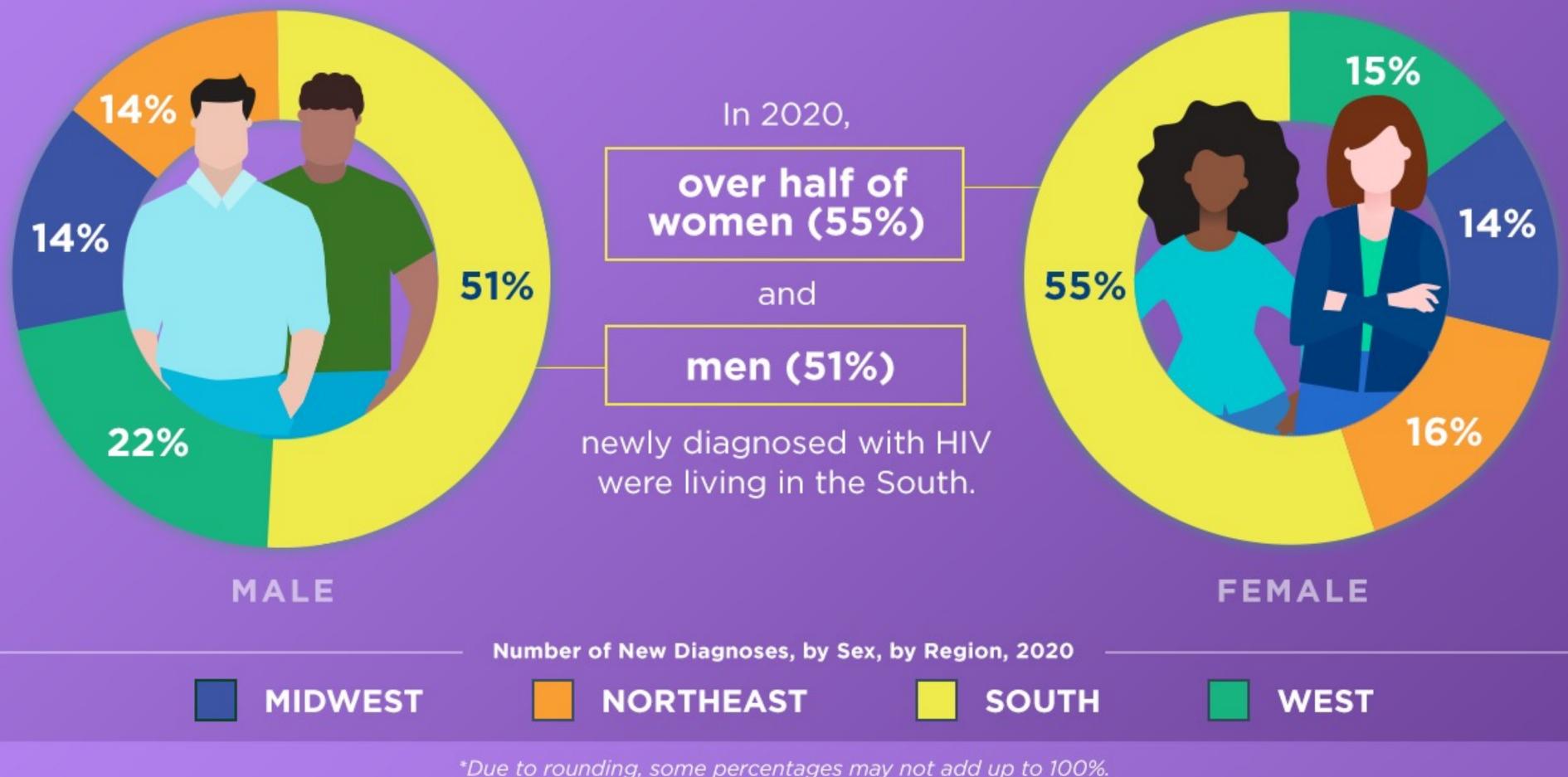
376 - 645

646 - 1,059

1,060 - 1,941 1,942 - 3,616 3,617 - 6,627

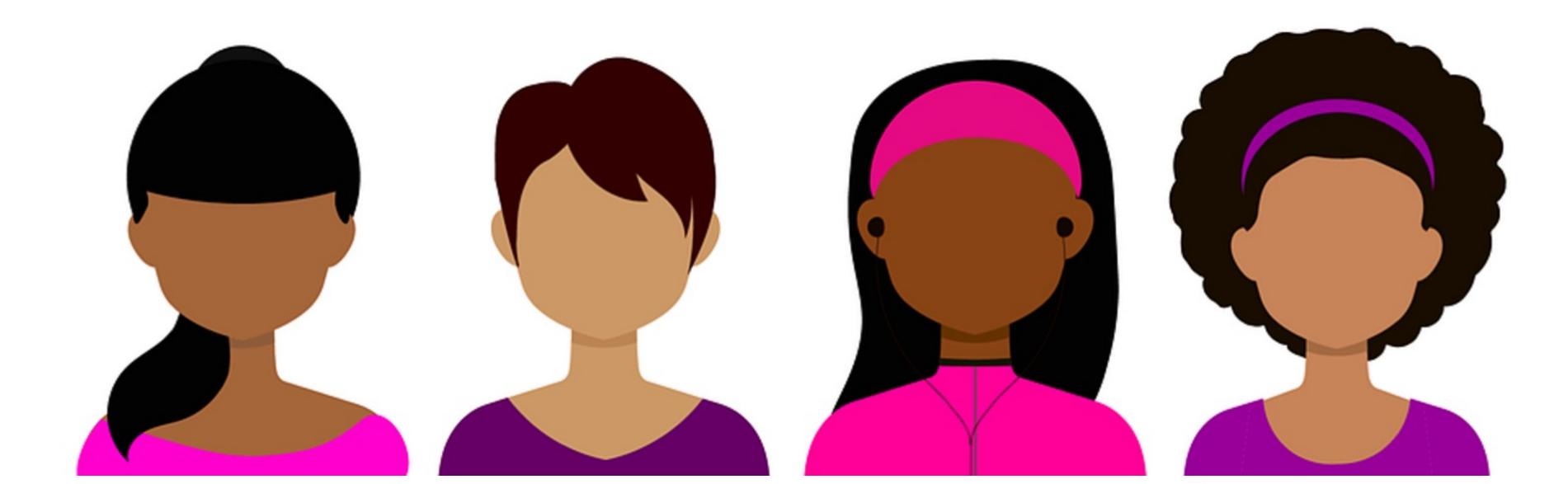
6,628+

*PrEP-to-Need Ratio (PnR) is the ratio of the number of PrEP users in 2021 to the number of people newly diagnosed with HIV in 2019. It is a measurement for whether PrEP use appropriately reflects the need for HIV prevention. A lower PnR indicates more unmet need.

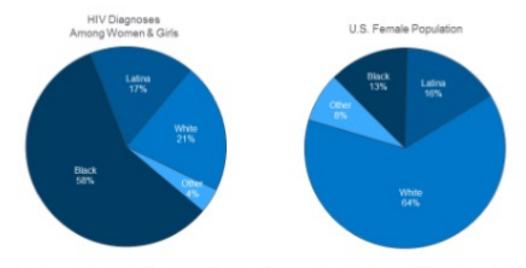


*Due to rounding, some percentages may not add up to 100%.

BLACK WOMEN ARE DISPROPORTIONATELY AFFETED BY HIV



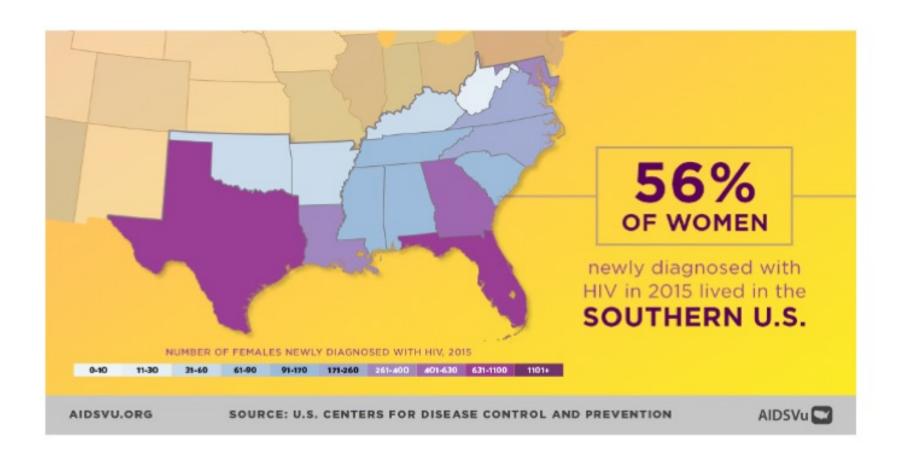
HIV Diagnoses Among Women & Girls and U.S. Female Population, by Race/Ethnicity, 2018

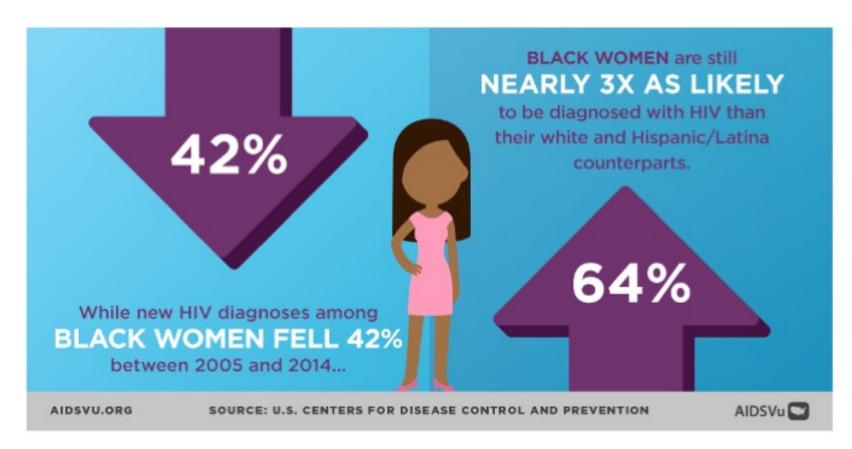


NOTES: Data are estimates among those ages 13 and older and includes U.S. dependent areas. Percentages may not sum to 100 due to rounding. U.S. female population data is from the U.S. Census Bureau 2010 population estimates, the most recent year available.

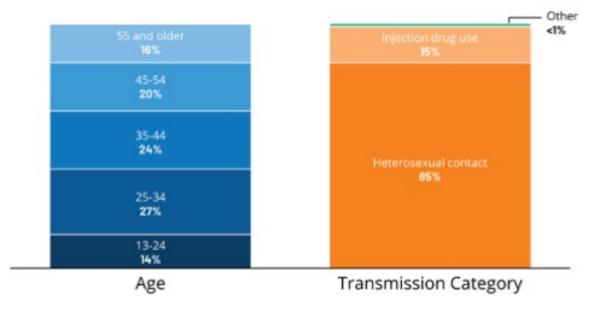
SOURCES: CDC. NCHHSTP Atlas Plus. Accessed March 2020. U.S. Census Bureau, 2010 Population Estimates.

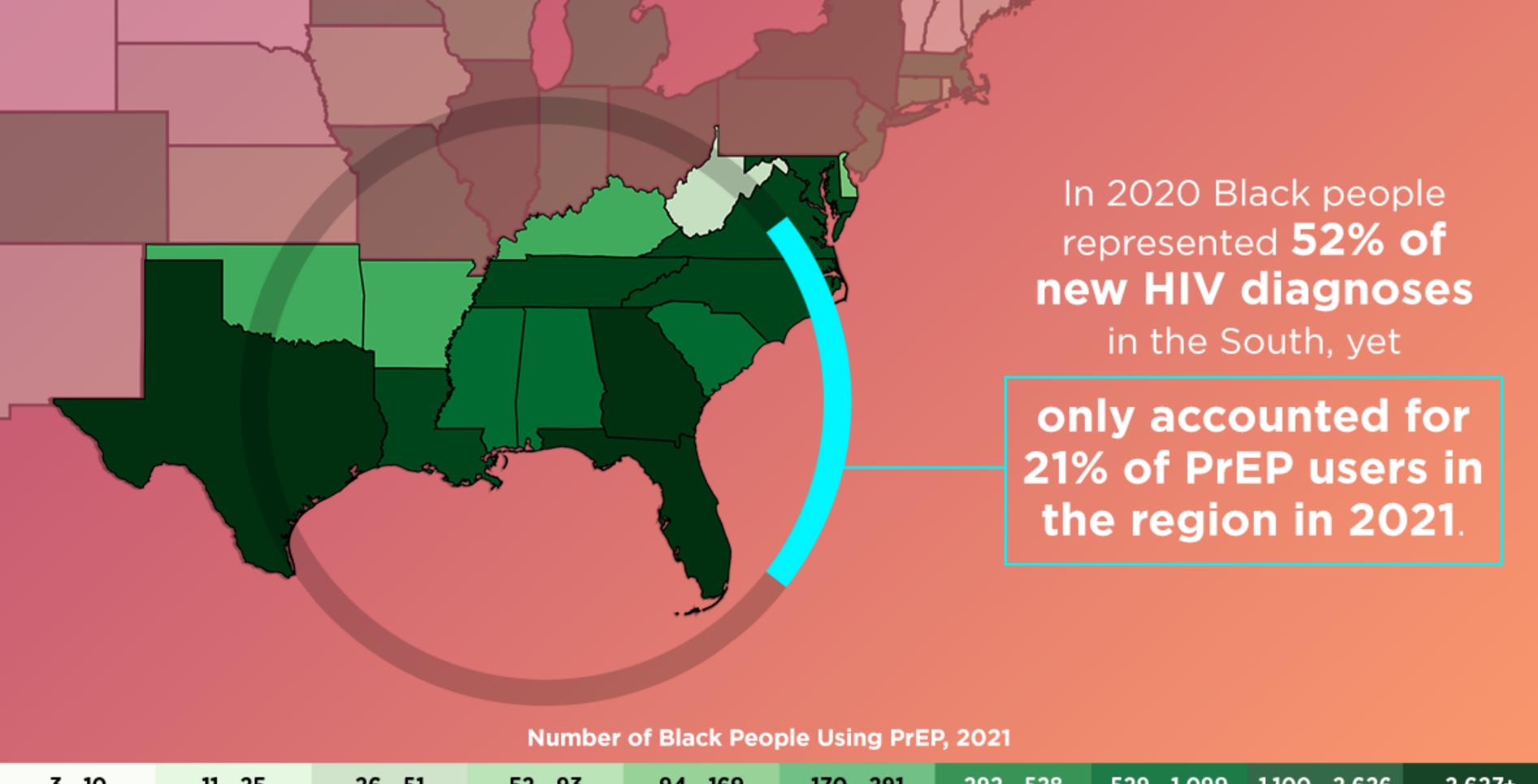






HIV Diagnoses Among Women & Girls, by Age and Transmission Category, 2018





3 - 10 11 - 25 26 - 51 52 - 93 94 - 169 170 - 291 292 - 528 529 - 1,099 1,100 - 2,626 2,627+



PrEP Barriers for Black Women

- Concerns associated with PrEP adoption among Black women
 - Structural barriers: Direct costs associated with sustaining PrEP adherence, limited availability of PrEP in communities with greatest need (PrEP-to-need ratio; PnR), Residential segregation
 - Contextual barriers: Disparities in PrEP prescribing and marketing
 - Personal barriers: Low knowledge and awareness about PrEP, misinformation regarding PrEP
- Increasing PrEP uptake will require careful attention to personal, structural, contextual barriers to PrEP awareness, access, and utilization



Increasing PrEP Uptake for Black Women

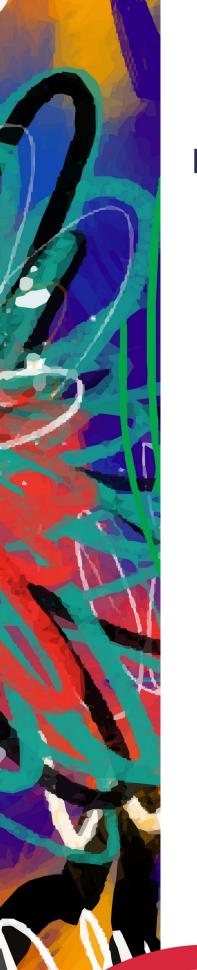
- Developing and disseminating gender and culturally appropriate materials for women to
- Increase women's knowledge/awareness of PrEP and HIV risk.
- Creating/revising PrEP materials to be overtly inclusive of women (e.g., language, images).
- Conducting or supporting health services research to address barriers.
- Developing or strengthening existing partnerships to promote PrEP implementation for women.
- Develop and disseminate gender and culturally appropriate materials for women.

How can digital health strategies fill these gaps?



Mobile Phone Use Among Black Women

- Among Black youth, smartphone ownership exceeds 80% and plays a critical role in providing internet access, compared to laptops or desktop computers.
- The increasing popularity of smartphones along with smartphone apps have made the possibility of employing mobile phones and apps as a platform to provide HIV prevention information for Black women highly feasible
- HIV prevention interventions delivered through mobile apps have been largely aimed at MSM; yet, they have failed to attract the attention of other audiences, particularly Black women.



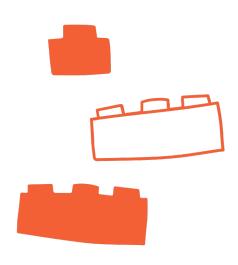
Human Centered Design

Principles of HCD & Mobile App Developmment









The process is iterative



The design addresses the whole user experience



The design team includes multidisciplinary skills and perspectives.

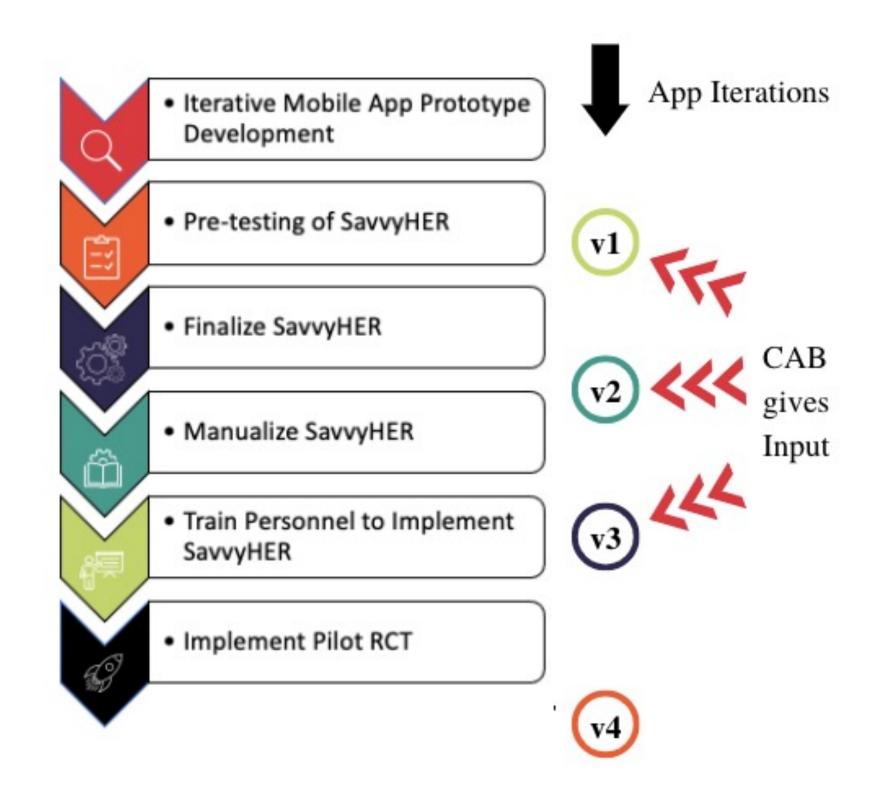
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Human Centered Design

HCD & Mobile App Developmment







Savvy Her: Study Purpose

- There is a need for the development of mHealth interventions that target Black women.
- The purpose of Savvy Her is to develop and test the feasibility, acceptability, and usability of a mobile HIV Prevention and Reproductive Health app for Black women in metro-Atlanta.
- **Aim 1:** Refine the *Savvy Her* mobile app for PrEP-eligible Black women.
- Aim 2a. Evaluate the feasibility, acceptability, and usability of the refined mobile app.
 Aim 2b. Determine feasibility of collecting secondary outcome measures (e.g. PrEP Stigma)
- We have conducted single-arm technology usability pretest to optimize usability, technical functionality, and performance of the app.

[Chandler, R., Farinu, O., Guillaume, D., Francis, S., Parker, A., Shah, K., & Hernandez, N. (in press). A digital health application to address disparate HIV outcomes among Black women living in metro-Atlanta: A protocol for a multi-methods pilot feasibility study. JMIR Research Protocols; Chandler, R., Guillaume, D., Francis, S., Xue, E., Shah, K., Parker, A., Hernandez, N. (in press). "I care about sex; I care about my health": A mixed-methods pre-test of a HIV prevention mobile health app for Black women in the Southern United States. PLOS ONE].

We are currently in the pilot RCT phase.



Savvy Her: Methods

Intervention: Each participant will have 4 months to engage with the app, with e-reminders in time intervals preferred by the participants (a minimum of 3 times per week) via push notifications.

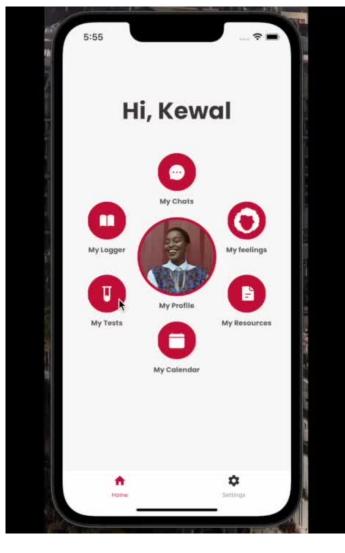
During the 4-month study period, participants will receive push notifications to encourage the use of all app domains: Logger, Mental Health, Test (HIV.gov), Groups (synchronous/asynchronous) & Stories, Resources, and Commodity ordering (@ home STI/HIV testing).

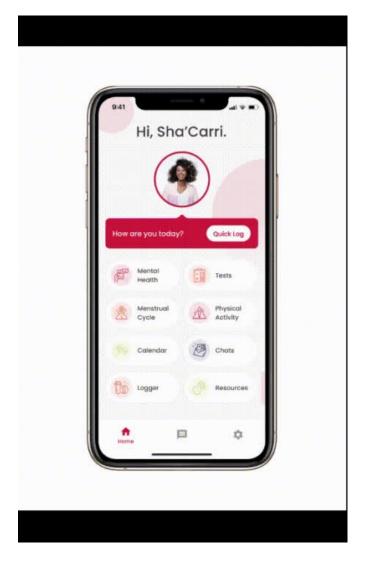
Control: The control condition will be a one-time virtual women's health counseling session with a healthcare provider. Content was finalized with input from the CAB.

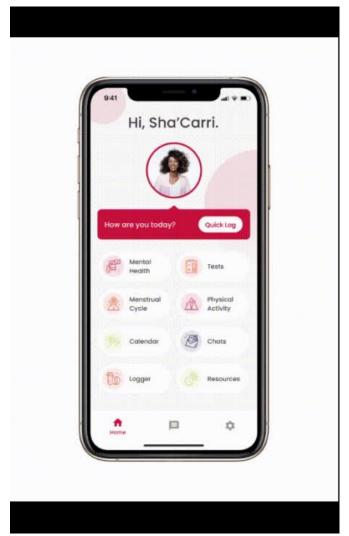
Participants will be given information on: 1)STI/HIV prevention 2)Family planning 3) General health promotion (e.g., exercise and diet).

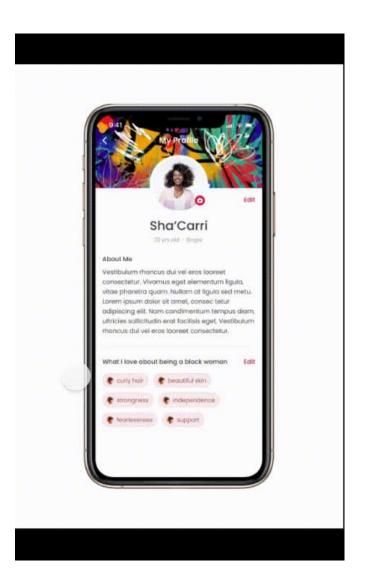
A Look Inside the App











SIGN UP

PROFILE

RESOURCES

WELLNESS

CELEBRATIONS

THANK YOU!



To Learn More about SavvyHER

Email: savvy_her@emory.edu

Website: SavvyHER.me



To Learn More about the PM3

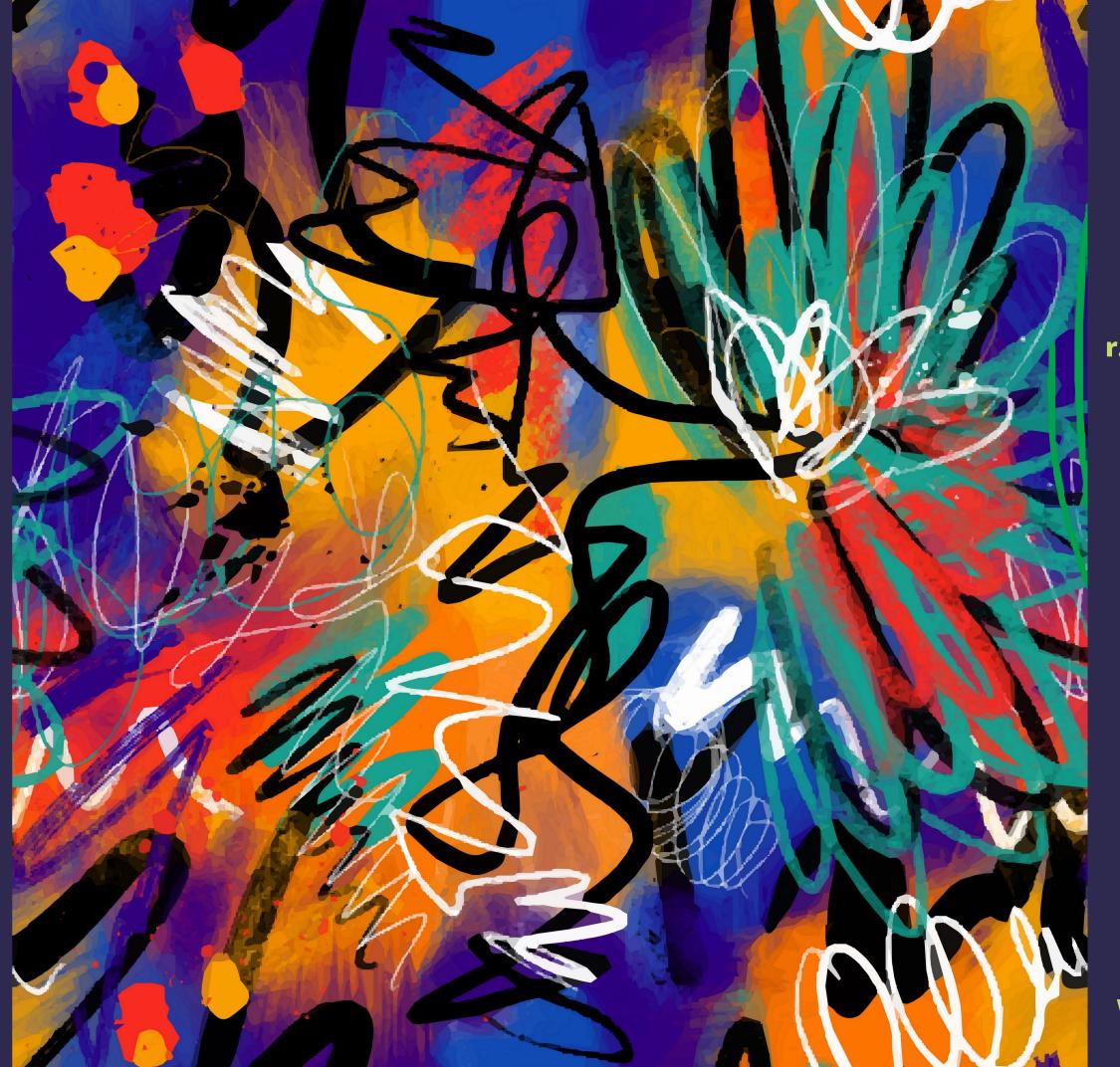
Email: pm3.cmhe@msm.com

Website: pm3forme.com





References upon request



contact me



r.d.chandler@emory.edu



404-727-

8164



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