Addressing Disparities in Adolescent STI Rates: A Research Review for Southern States

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Introduction

Sexually transmitted infections (STIs) pose a significant public health challenge among adolescents in the United States, with notable disparities observed among Black and Brown populations, including African American, Hispanic, and Latino youth. These disparities are particularly pronounced in the Southern United States, where rates of STIs remain disproportionately high compared to other regions of the country. According to data from the Centers for Disease Control and Prevention (CDC) and state health departments, Georgia, Florida, Texas, and North Carolina consistently report some of the highest rates of chlamydia, gonorrhea, and syphilis infections among adolescents nationwide. In 2020, Black and Brown adolescents in these states experienced significantly higher rates of chlamydia and gonorrhea compared to their White counterparts (Fact Forward, 2020; Sexually Transmitted Infections Surveillance, 2022).

These disparities are deeply rooted in a complex interplay of social determinants of health, including socioeconomic status, access to healthcare services, education, and systemic racism. Structural barriers, such as poverty, lack of comprehensive sexual health education, stigma, and discrimination, further exacerbate the vulnerability of Black and Brown adolescents to STIs. The intersectionality of race, ethnicity, gender, and sexual orientation underscores the need for targeted interventions that address the unique needs and experiences of diverse adolescent populations (Harling et al., 2013; Boutrin & Williams, 2021).

Despite ongoing efforts to address STI disparities, significant gaps remain in sexual health education and preventive services for adolescents in the Southern United States. Historically, sex education curricula in the region have been characterized by inconsistencies, limited access to comprehensive information, and insufficient emphasis on evidence-based

practices (Goldfarb & Lieberman, 2021). State policies surrounding sex education vary widely, with some states mandating comprehensive, medically accurate, and culturally appropriate curricula, while others prioritize abstinence-only approaches and fail to provide essential information on STI prevention and sexual health (Hall et al., 2016).

The purpose of this research review is to examine and analyze the disparities in sexually transmitted infections (STIs) rates among adolescents, particularly focusing on Black and Brown populations, in Southern states such as Georgia, Florida, Texas, and North Carolina. Additionally, the review aims to explore the social determinants, policy implications, and interventions related to STI prevention and sexual health education programs targeting adolescents in these states. Ultimately, the goal is to inform evidence-based recommendations for future program development and resource allocation to address the persistent STI disparities faced by Black and Brown adolescents in the region.

Background

Sex education in the United States has long been a subject of debate and scrutiny. Despite the recognized importance of comprehensive sexual health education, there remains considerable variability in the content and delivery of sex education programs across states (Hall et al., 2016). Many states have opted for abstinence-only or abstinence-focused curricula, which often lack essential information about contraceptive methods, STI prevention, and consent (Goldfarb & Lieberman, 2021).

The implications of inadequate sex education extend beyond individual health outcomes to broader public health concerns. Adolescents who receive incomplete or inaccurate information about sexual health may engage in risky sexual behaviors, increasing their vulnerability to STIs

and unintended pregnancies. Moreover, disparities in access to comprehensive sex education disproportionately affect marginalized communities, exacerbating existing health inequities.

In the Southern United States, where STI rates among adolescents are alarmingly high, the need for evidence-based and culturally sensitive sex education programs is particularly acute. Yet, state policies regarding sex education vary widely, with many states lacking mandates for medically accurate and culturally appropriate curricula (Hall et al., 2016). In states like Florida and Georgia, sex education programs may include religious or ideological content that prioritizes abstinence and marriage, sidelining critical discussions about consent and contraceptive use (Guttmacher Institute, 2016).

Understanding the landscape of sex education in the United States is imperative for addressing the root causes of STI disparities among adolescents. By advocating for comprehensive and inclusive sex education policies, policymakers and public health officials can empower adolescents with the knowledge and skills needed to make healthy choices and protect their sexual health.

Sex Education Curriculum and Background

Sex education in the United States, particularly in the Southern states of Georgia, Florida, Texas, and North Carolina, has been shaped by a mix of mandates, ideological influences, and varying degrees of requirements regarding content and approach (Guttmacher Institute, 2016). Despite recognizing the importance of comprehensive sexual health education, there remains considerable variability in the content and delivery of sex education programs across states (Hall et al., 2016).

In Florida and Georgia, for instance, sex education is mandated, along with HIV education; however, crucial nuances exist. Florida's policy does not necessitate that HIV

education be medically accurate or culturally appropriate and unbiased, and it allows for the promotion of religion in HIV education, though it must be age appropriate (Guttmacher Institute, 2016). Similarly, Georgia follows suit with no age-appropriate requirement for sex education and emphasizes abstinence, advocating for the importance of sex only within marriage. In Texas, an exploration into sex education controversies has revealed a complex landscape, with discussions centering on the content and approach to sexuality education (Wiley et al., 2020). North Carolina, too, grapples with the challenges of sex education, particularly in rural areas where access to comprehensive sexual health information may be limited (Dierolf, 2015).

Despite these disparities, all four states prioritize abstinence-based education, often neglecting crucial topics such as consent and the diverse identities and experiences of adolescents (Guttmacher Institute, 2016I). This lack of comprehensive, inclusive sexual health education underscores the need for evidence-based interventions and policy reforms to ensure the holistic well-being of adolescents across these states.

Sex education policies and practices have profound implications for public health outcomes, particularly in the context of STI prevention among adolescents. Inadequate sex education leaves adolescents ill-equipped to navigate the complexities of sexual relationships and make informed decisions about their sexual health (Goldfarb & Lieberman, 2021). Adolescents who receive incomplete or inaccurate information about sexual health may engage in risky sexual behaviors, increasing their vulnerability to STIs and unintended pregnancies.

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Prevalence of STIs among Adolescents in Georgia, Florida, Texas, and North Carolina

According to the CDC's Sexually Transmitted Infections Surveillance report for 2022, the Southern United States consistently reports some of the highest rates of STIs in the country, with chlamydia, gonorrhea, and syphilis being the most commonly reported infections. Adolescents in Georgia, Florida, Texas, and North Carolina, particularly those from Black and Brown communities, are disproportionately affected by these infections.

Georgia:

In Georgia, STI rates among adolescents remain alarmingly high, with Black and Brown adolescents disproportionately affected. According to the Georgia Department of Public Health's STI Prevention Program, there has been a steady increase in reported cases of chlamydia, gonorrhea, and syphilis among adolescents aged 15-19 in recent years. For instance, in 2022, Black, non-Hispanic teenagers aged 15-17 had a chlamydia rate of 3,012 per 100,000 compared to White, non-Hispanic youth who had a rate of 551.1 per 100,000. Hispanic or Latino youth of the same age group reported a chlamydia rate of 675.6 per 100,000 in the same year. All of these numbers increased from the previous year, with rates respectively rising from 517.1 (White)

2,554.0 (Black), and 564.8 (Hispanic), (Georgia Department of Public Health, Office of Health Indicators for Planning OASIS, n.d.).

Florida:

Data from various sources, including the Florida Public Health Review, underscore the challenges posed by STIs among adolescents in Florida. Ertel and Zeglin (2019) explore the social determinants of health and HIV/AIDS in Florida, revealing disparities in STI rates among different racial and ethnic groups. Black and Brown adolescents in Florida experience higher rates of STIs compared to their White counterparts. For example, in 2022, Black, non-Hispanic teenagers aged 14-18 had a chlamydia rate of 2259.1 per 100,000 compared to White, non-Hispanic youth who had a rate of 462.3 per 100,000. Hispanic or Latino youth of the same age group reported a chlamydia rate of 571.4 per 100,000 in the same year (*Chlamydia*, n.d.).

Texas:

In Texas, the prevalence of sexually transmitted diseases (STIs) among adolescents, particularly Black and Brown youth, remains a significant concern (Texas STI Surveillance Report, 2020). The 2020 data revealed striking disparities in chlamydia rates among different racial and ethnic groups. For instance, among adolescents aged 15-24, who exhibited the highest chlamydia case rates compared to other age groups, the reported rates per 100,000 were 147.8 for Whites, 764.3 for Blacks, and 288.8 for Hispanics (Texas STI Surveillance Report, 2020). Similarly, gonorrhea rates among adolescents, stratified by race and ethnicity, indicated disparities, with rates per 100,000 at 508.7 for Blacks, 75.7 for Whites, and 102.8 for Hispanics (Texas STI Surveillance Report, 2020). The data is stratified by race and age separately, but it does not offer insight into the race breakdown of the 15-24-year-old population, limiting the ability to fully understand the impact of STIs within this demographic. Nonetheless, these

findings underscore the disproportionate burden of STIs among Black and Brown adolescents, highlighting the urgent need for targeted interventions and comprehensive sexual health education programs.

North Carolina:

North Carolina reports similarly troubling trends in STI rates among adolescents, with significant disparities observed among Black and Brown youth. Fact Forward's 2020 report on teen STI/STI rates in North Carolina reveals striking differences in chlamydia and gonorrhea rates between racial and ethnic groups. Structural barriers, including poverty, unemployment, and limited access to healthcare, contribute to these disparities. For instance, Black, non-Hispanic teenagers aged 15-19 had a chlamydia rate of 2,504 per 100,000 compared to 627 per 100,000 for White, non-Hispanic youth (Fact Forward, 2020). Cases of gonorrhea among Black, Non-Hispanic youth aged 15-19 stood at 953 cases per 100,000, whereas White, Non-Hispanic youth in the same age group had a rate of 155 cases per 100,000 (Fact Forward, 2020).

Comparative Analysis:

A comparative analysis of STI prevalence rates among Black and Brown adolescents across Georgia, Florida, Texas, and North Carolina reveals consistent patterns of disparities. Black and Brown adolescents consistently experience higher rates of STIs compared to their White counterparts, reflecting systemic inequalities in healthcare access, socioeconomic status, and sexual health education.

Disparities in STI Rates

The prevalence of sexually transmitted diseases (STIs) among adolescents in the United States reveals stark disparities, particularly among Black and Brown populations. A multitude of

factors, including social determinants and intersectionality, contribute to these disparities, shaping health outcomes and access to healthcare services.

Research by Harling et al. (2013) underscores the complex interplay between socioeconomic status and race/ethnicity in influencing STI rates among young adults in the United States. Their study elucidates how socioeconomic disparities, such as income inequality and limited access to healthcare resources, intersect with racial and ethnic identities, exacerbating health inequities among marginalized communities. Moreover, the study highlights the disproportionate burden of STIs borne by Black and Brown adolescents, underscoring the urgent need for targeted interventions and policy reforms to address these disparities.

Building on this framework, Cuffe et al. (2016) conducted a comprehensive analysis of STI testing rates among adolescents and young adults, shedding light on the role of race and ethnicity in healthcare utilization patterns. Their findings reveal significant disparities in testing rates, with Black and Hispanic individuals facing barriers to accessing testing services compared to their white counterparts. Structural barriers, including limited access to healthcare facilities, cultural stigma, and systemic inequalities, contribute to disparities in STI testing, perpetuating health disparities among minority populations.

Moreover, the intersectionality of race/ethnicity with other social determinants, such as gender identity, sexual orientation, and geographic location, further compounds disparities in STI rates among adolescents. Intersectional analyses elucidate the multifaceted nature of health disparities, highlighting the unique challenges faced by individuals at the intersections of multiple marginalized identities. For instance, LGBTQ+ adolescents of color may experience compounded stigma and discrimination, leading to heightened barriers to accessing sexual health services and resources (Hatzenbuehler et al., 2012).

Understanding the intersectionality of race and social determinants provides valuable insight into the disparities in sexually transmitted disease (STI) rates among adolescents. Access to healthcare services plays a crucial role, with limited access hindering adolescents' ability to seek timely STI testing, treatment, and preventive services (Khoong et al., 2020). Socioeconomic status further exacerbates these disparities, as individuals from low-income households may face financial barriers to accessing preventive services and may delay seeking care due to concerns about out-of-pocket costs (Lau et al., 2012). Education level also influences STI rates, with lower levels of education associated with limited knowledge about sexual health and preventive measures (Cavazos-Rehg et al., 2011).

Additionally, the community environment plays a significant role, with factors such as neighborhood safety and access to transportation impacting adolescents' ability to access healthcare services (Kerrigan et al., 2007). Adolescents living in disadvantaged communities may face additional barriers, including lack of transportation options and fear of stigma or discrimination (Jemmott et al., 2016). Cultural factors also shape STI disparities, as cultural beliefs and norms surrounding sexual health influence adolescents' healthcare-seeking behaviors (DiClemente et al., 2004). Culturally competent healthcare services that respect and address the unique needs of diverse populations are essential in addressing these disparities (Adimora et al., 2011).

The language used regarding sexually transmitted diseases (STIs) is deeply intertwined with cultural norms and environmental factors, influencing how STIs are perceived and addressed within communities. In many cultures, discussions about sexual health are considered taboo or stigmatized, leading to linguistic barriers that hinder open dialogue and education about STI prevention and treatment. Moreover, cultural beliefs and attitudes surrounding sexuality can

shape the language used to discuss STIs, with some communities employing euphemisms or avoidance strategies to avoid discomfort or shame associated with the topic.

Incorporating an intersectional lens into research and policy frameworks is essential for developing holistic interventions that address the complex interplay of social determinants and structural inequalities underlying STI disparities among adolescents. By centering the experiences and needs of marginalized communities, policymakers and public health advocates can advance equity-driven approaches to STI prevention and healthcare delivery, ensuring that all adolescents have equitable access to comprehensive sexual health services and resources.

Policy Implications

Efforts to address STI disparities among Black and Brown adolescents in Georgia, Florida, Texas, and North Carolina require a multifaceted approach that addresses social determinants of health, promotes culturally competent healthcare services, and implements evidence-based interventions. The Biden-Harris Administration's commitment to investing $7 billion from the American Rescue Plan to hire and train public health workers in response to COVID-19 demonstrates a step in the right direction (White House, 2021). The funding allocated by the Biden-Harris Administration as part of the American Rescue Plan is not directly earmarked specifically for STI prevention. However, it is relevant to STI prevention efforts because it supports broader public health infrastructure and workforce development initiatives. These newly trained workers can contribute to STI prevention efforts by supporting community outreach, education programs, testing initiatives, contact tracing, and other public health interventions aimed at reducing STI transmission rates among adolescents and other vulnerable populations. Building upon this momentum, policymakers can draw inspiration from successful

policies implemented in states like California and Oregon, where proactive measures have yielded tangible improvements in sexual health outcomes among adolescents.

Successful Policies in Other States:

Several states have implemented successful policies aimed at reducing STI disparities and improving sexual health outcomes among adolescents. One notable example is California, where the California Healthy Youth Act stands out as a pioneering legislation in comprehensive sexual health education (Gabriel, 2020). Enacted in 2016, this act mandates that all public schools provide comprehensive sexual health education that is inclusive, medically accurate, and age-appropriate (Gabriel, 2020). California's approach ensures that students receive essential information on topics such as STI prevention, contraception, consent, and healthy relationships (Gabriel, 2020). By prioritizing evidence-based content and emphasizing the importance of promoting sexual health and well-being, California has set a precedent for comprehensive sex education policies nationwide.

In addition to California's progressive stance, Oregon's comprehensive sex education policies offer valuable insights and successful models for addressing STI disparities among adolescents. Oregon's approach, exemplified by the Healthy Teen Relationship Act (HTRA), mandates comprehensive sex education that goes beyond traditional abstinence-focused programs to include topics such as healthy relationships, consent, and communication skills (Wicks, 2014). This policy emphasizes the importance of promoting not only physical health but also emotional well-being and healthy interpersonal relationships among adolescents. The success of Oregon's comprehensive sex education initiatives is evident in the state's declining teen pregnancy and STI rates, underscoring the effectiveness of evidence-based approaches in promoting sexual health (Wicks, 2014).

Introducing similar policies into Southern states like Georgia, Florida, North Carolina, and Texas could be achieved through targeted advocacy efforts and strategic partnerships. Policymakers and public health advocates can draw on the experiences of states like California and Oregon to develop legislation that mandates comprehensive sex education in schools, prioritizing medically accurate information and inclusive curriculum content. Collaboration with local stakeholders, including educators, parents, healthcare providers, and community organizations, is essential to ensure the cultural relevance and acceptance of sex education programs in Southern states.

Furthermore, investing in teacher training and professional development programs is crucial to equip educators with the skills and resources needed to deliver comprehensive sexual health education effectively. By providing educators with evidence-based curriculum materials, ongoing support, and opportunities for skill-building, Southern states can ensure the successful implementation of comprehensive sex education policies. Additionally, leveraging resources from national organizations such as the Sexuality Information and Education Council of the United States (SIECUS) and the Guttmacher Institute can provide Southern states with guidance, technical assistance, and best practices in developing and implementing sex education programs that address the unique needs of adolescents in the region (Gabriel, 2020; Wicks, 2014).

By adopting a comprehensive and evidence-based approach to sex education, Southern states can mitigate STI disparities, promote healthy relationships, and empower adolescents to make informed decisions about their sexual health. Building on the successes of states like California and Oregon, policymakers and public health advocates have the opportunity to improve sexual health outcomes and advance health equity for all adolescents in the region.

Return on Investments and Cost-Benefit:

Investing in quality education, particularly comprehensive sex education, yields significant returns on investment in terms of improved sexual health outcomes and reduced healthcare costs. Research has shown that comprehensive sex education programs can lead to delayed sexual initiation, increased condom use, and lower rates of STIs among adolescents (Santelli et al., 2017). For example, a study by Kirby et al. (2007) found that every dollar invested in comprehensive sex education programs resulted in an estimated savings of $2.65 in healthcare costs associated with unintended pregnancies and STIs. By prioritizing comprehensive sex education in schools and communities, policymakers can not only improve sexual health outcomes but also save healthcare dollars in the long run.

Recommendations

To effectively address STI disparities among Black and Brown adolescents, national public health membership organizations should adopt a multifaceted approach that integrates evidence-based interventions and leverages accountability strategies. Drawing from the insights of Schaaf et al. (2020), organizations can utilize frameworks such as the Humanitarian Accountability Partnership to ensure the implementation of sexual and reproductive health programs in a rights-based and culturally competent manner. Additionally, organizations should prioritize technical assistance tools that facilitate capacity-building among local and state agencies. For instance, the development of online training modules tailored to the needs of frontline healthcare providers can enhance their capacity to deliver comprehensive sexual health services to diverse adolescent populations.

Moreover, national public health membership organizations must advocate for policy reforms that prioritize comprehensive sex education in schools, as highlighted by Gabriel (2020). By partnering with policymakers and education stakeholders, organizations can advocate for the

adoption and implementation of mandates similar to the California Healthy Youth Act, which ensures the provision of inclusive and evidence-based sexual health education. Furthermore, organizations should collaborate with community-based organizations to develop culturally relevant educational materials and outreach campaigns that address the unique needs and experiences of Black and Brown adolescents.

Barriers to Implementation:

Despite the importance of addressing STI disparities among Black and Brown adolescents, several barriers hinder the effective implementation of interventions. One key challenge is the limited availability of funding, as highlighted by Khoong et al. (2020). National public health membership organizations must explore alternative financing mechanisms, such as public-private partnerships and grant funding, to sustainably support STI prevention programs in underserved communities. Additionally, resistance to comprehensive sex education remains a barrier, as evidenced by DiClemente et al. (2004). Organizations must invest in public education campaigns to dispel myths and misconceptions surrounding comprehensive sex education and garner support from stakeholders.

Furthermore, disparities in access to healthcare services pose significant challenges, particularly in rural and low-income areas. National public health membership organizations should advocate for the expansion of telehealth services and mobile clinics to improve access to sexual health resources for marginalized adolescents. Addressing cultural and linguistic barriers is also crucial, requiring organizations to invest in training programs for healthcare providers and develop culturally competent outreach strategies. By proactively addressing these barriers, organizations can create an enabling environment for the implementation of effective interventions to reduce STI disparities among Black and Brown adolescents.

Conclusion

Studies and reports have documented the disparities in STI rates among different racial and ethnic groups, highlighting the disproportionate burden faced by Black and Brown adolescents. For example, data from the Centers for Disease Control and Prevention (2019) and other public health agencies consistently show higher rates of STIs among Black and Hispanic adolescents compared to their white counterparts.

Despite these disparities, funding for STI prevention and intervention programs may not always be allocated proportionately to communities most affected by STIs. Limited resources, competing priorities, and systemic barriers can hinder the development and implementation of targeted interventions for Black and Brown adolescents.

Moreover, structural factors such as poverty, lack of access to healthcare services, stigma, discrimination, and cultural barriers contribute to disparities in STI prevention and care. These factors intersect and compound to create complex challenges that require comprehensive and tailored approaches to address effectively.

While efforts to address health disparities and promote health equity have gained momentum in recent years, there is still much work to be done to ensure that interventions are accessible, culturally relevant, and responsive to the needs of Black and Brown adolescents. Advocacy efforts, policy changes, increased funding, and community-driven initiatives are essential components of a comprehensive strategy to reduce STI disparities and improve health outcomes for marginalized populations.

This outline provides a detailed framework for further research and funding allocation aimed at addressing STI disparities among Black and Brown adolescents in the Southern United

States. By prioritizing equity, inclusivity, and evidence-based interventions, stakeholders can work collaboratively to build healthier and more resilient communities for all adolescents.

Limitations:

While this review provides valuable insights into the disparities in STI rates among Black and Brown adolescents in the Southern United States, it is essential to acknowledge several limitations.

Firstly, the review primarily relies on existing data and reports, which may not capture the full extent of STI disparities or the nuances of local contexts. This limitation could potentially lead to an incomplete understanding of the complex factors contributing to STI disparities among Black and Brown adolescents.

Secondly, the review predominantly focuses on quantitative data, overlooking qualitative insights that could provide a deeper understanding of the underlying social determinants and structural inequalities influencing STI rates in these communities. Incorporating qualitative research methods could enrich the analysis and offer more nuanced perspectives on the lived experiences of affected individuals.

Thirdly, the review may be subject to publication bias, as it predominantly draws upon peer-reviewed literature and official reports, potentially excluding unpublished studies or community-driven research initiatives that could provide alternative viewpoints or insights.

Additionally, the review does not extensively explore the perspectives and experiences of key stakeholders, such as adolescents, parents, educators, and healthcare providers, whose insights could inform a more comprehensive understanding of STI disparities and potential interventions.

Despite these limitations, this review serves as a foundational framework for understanding the scope of STI disparities and informing future research, policy, and intervention efforts aimed at promoting health equity and improving outcomes for marginalized populations.

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