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Racial Disparities in Cancer Care | Access to Care for Transgender Veterans | Hepatitis C Among US Veterans | Battling Tobacco Use at Home | [illegible] | How Might the Provision of Culturally Competent Services Be Enhanced for American Indian and Alaska Native Veterans? | Improving Trends in Gender Disparities | Suicidality Among Hispanic and African American Veterans Following Surgery

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COVER: Intersectional stigma continues to cast a shadow over national goals to End the US HIV Epidemic for all in the United States.
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BACKMATTER

Change Is Incremental but Worth Fighting for: Breaking the Silence About HIV Intersectional Stigma

In 1996, Rafael Diaz, PhD, received his first research project grant from the National Institutes of Health (NIH) to study the social and cultural predictors of HIV risk among Latino gay men living in New York, New York; Los Angeles, California; and Miami, Florida. It took Rafael two years to convince NIH reviewers that studying homophobia, racism, and financial hardship was an important endeavor to pursue. I was working in New York when he called to invite me to direct the study.

In the early and mid-1990s, a vibrant national network of Black, Latinx, Asian, Pacific Islander, and Native American gay and bisexual men formed to address HIV. Some of us were community organizers and advocates, others were artists and researchers. We came together across race/ethnicity, sexual orientation, and class lines to exchange information and engage in comradery.

Together we were building community while quilting beautifully complicated and sometimes messy coalitions. This was because as queer men of color we needed each other for support, belongingness, and healing. When in community, we could free up mind space and physical energy that we otherwise would have used in the constant grind of having to battle institutional oppression and justify or disentangle our layered and integrated selves. We did not call it intersectionality in the early 1990s, even though many of us were publicly out as feminists, having been students of intersectionality's foremothers such as Gloria Anzaldua, Cherrie Moraga, Pat Parker, Audre Lorde, Toni Cade Bambara, Chrystos, Mitsuye Yamada, Cheryl Clark, Merle Woo, Barbara Smith, and Naomi Littlebear Morena. From their teachings, we understood that economic disenfranchisement, racism, heterosexism, and, for some of us, gender discrimination and ableism were interlocked and always at play whenever we entered a room.

Rafael and I often crossed paths in professional spaces. I admiringly witnessed him lift the importance of community as the tsunami of HIV (and ignorance) swept over us. I respected him for his courage and tenacity. Getting proposals through NIH review processes has typically been difficult to say the least, and this is particularly the case for out and proud gay men of color. The challenge was especially painful in the mid-1990s. HIV had and continues to have a predictable social shape. It concentrates in populations bearing the brunt of multiple, mixed forms of oppression. Rafael and other trailblazing HIV social scientists such as the late John Peterson understood this. But Rafael soldiered on in the polite but inhospitable world of NIH funding. He felt he had to, given the deafening silence in academic spaces about the devastation HIV wreaked on sexual minority men of color.

More than 20 years after Rafael's first published article in *AJPH* reporting findings from his seminal study, I find myself in yet another privileged position: as a guest editor of this special issue on HIV intersectional stigma sponsored by NIH and the National Institute of Mental Health. As I reviewed the articles, I was both let down and excited, the former because intersectionality remains an enigma for many researchers working in the HIV space. Many contributors to the issue followed the mainstream propensity to situate intersectional stigma at the individual level (i.e., identity) or to propose measures of intersectional discrimination that attempt to distill its individual components. A few authors had to be directed back to the seminal works of Michele Tracy Berger and Kimberlé Crenshaw to be reminded about the core tenets of intersectionality.

Conversely, I was excited because I knew that for as difficult as it was 21 years ago to break the silence, it led to this place where there is now a growing body of critical work flourishing around and grappling with HIV intersectional social oppression, finally signifying its legitimacy and importance. Change is indeed incremental but worth fighting for.

[For further reading, please see the Appendix, available as a supplement to the online version of this article at https://www.ajph.org.] AJPH

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4 Years Ago

HIV Stigma Among Black Women in the United States

Individuals with multiple co-occurring devalued social identities often experience stigma, including acts of discrimination such as profiling, bias in hiring, and microaggressions. These experiences may be more frequent and severe when a Black woman has additional devalued identities, such as a history of incarceration, immigration, sexual minority orientation, transgender identity, or substance use. Causing further detriment, perceived and experienced stigma resulting from multiple co-occurring devalued social identities pushes many to keep their statuses hidden, places Black women at increased risk of HIV infection, and forces them to stay at home rather than engage in services along the HIV care continuum.

From AJPH, *April 2018, p. 447*

18 Years Ago

Latinas and HIV/AIDS Risk Factors

Latinas now represent 20% of women ever diagnosed with AIDS and have an AIDS case rate that is strikingly higher . . . than that of non-Hispanic White women. . . . More than half of all cases are reported to be caused by heterosexual intercourse (64%), whereas 34% are caused by injection drug use. Latino men . . . have case rates that are 3 times higher than those of non-Hispanic White men, and the HIV/AIDS status of these men is important. . . . Latinos are the potential partners of Latinas, and attitudes regarding safe sex practices are particularly important for prevention of the transmission of HIV/AIDS. . . . Latinos are less likely to feel comfortable in negotiating the use of condoms and in using condoms than African Americans and non-Hispanic Whites.

From AJPH, *July 2004, p. 1152*

Addressing HIV-Related Intersectional Stigma and Discrimination to Improve Public Health Outcomes: An *AJPH* Supplement

Sannisha K. Dale, PhD, George Ayala, PsyD, Carmen H. Logie, PhD, and Lisa Bowleg, PhD

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Intersectional stigma and discrimination (ISD) pose critical barriers to HIV services and drive HIV inequities. This *AJPH* supplement represents a combination of research, theoretical articles, and community insights to move the field toward actions to reduce ISD. This focus builds on scholarship on stigma and HIV published in *AJPH*. In 1987, six years after the start of the US HIV epidemic, Kelly et al.[1] used case vignettes in which patients were described as having either AIDS or leukemia and being either heterosexual or gay to measure physicians' stigma. They concluded, "While some attitude negativity was anticipated, the strength and consistency of the stigmatization was disquieting."[1(p790)] Also, before intersectionality was explicitly discussed in the HIV field, researchers were documenting the impact of multiple forms of stigma among sexual minority men.[2,3] *AJPH* has since published more than 800 articles addressing HIV and stigma,[4] illustrating that HIV-related stigma remains a persistent challenge to ending the HIV epidemic.

RECONCILIE, CITE, AND CHALLENGE

Berger,[5] who first coined the term "intersectional stigma," reminds us here in her editorial (p. S218), that citing foundational scholars[6–9] such as herself is a necessary acknowledgment of Black women's academic achievements and that not doing so renders them and their contributions invisible. Aligned with this, Smith et al. (p. S220) provide a conceptual review and integration of intersectionality and syndemics theory and argue that ISD fuels domestic HIV-related syndemics. An editorial by Bowleg (p. S224) challenges the HIV field even further by questioning the term "intersectional stigma and discrimination" itself because of how it can obscure intersectional social-structural processes.

RESISTANCE, STRENGTHS, AND RESILIENCE

Ancestors and elders such as those who formed the Combahee River Collective, a Black feminist lesbian organization active from 1974 to 1980, viewed resistance as essential when they joined to challenge oppression such as racism, heterosexism, and sexism.[7] Several publications in this supplement echo the importance of resistance and resilience to addressing ISD. For instance, Poteat and Logie (p. S227) urge the need for HIV research to use a strengths-based lens that recognizes the value of community resources, multilevel resilience processes, and existing community assets to enhance the sustainability and contextual relevance of responses to HIV. Echoing Poteat and Logie, as well as findings from a 2018 *AJPH* editorial on intersectionality, resilience, and HIV stigma among Black women,[10] Quinn et al.'s (p. S285) qualitative research with Black sexual minority men found that taking pride in intersectional identities, perseverance, community advocacy, and social support facilitated thriving and action against racism and heterosexism.

METHODS, MEASUREMENT, MONITORING, AND INTERVENTIONS

Authors delineate opportunities to improve methods and monitoring of ISD in HIV research. For instance, Earnshaw et al. (p. S293) propose core

elements for future HIV ISD research (i.e., multidimensional, multilevel, multidirectional, action-oriented) and opportunities (e.g., reduce barriers, strengthen investment, build capacity, create pathways to structural change). A systematic review by Sanchez Karver et al. (p. S300) found measurement of HIV-related ISD to be concentrated in high-income countries and focused on the intersection of two identities (e.g., race and gender). Rodriguez-Hart et al. (p. S230) propose priorities for the intersectional implementation of Ending the HIV Epidemic monitoring activities such as ensuring access to ISD measures and support for their use, motivating use of such measures via policy and data feedback loops, and establishing equitable community partnerships. Sievwright et al. (p. S236) recommends principles for ISD interventions, including recognizing and naming how systems of power, privilege, and oppression intersect to fuel stigma; dismantling systems of power, privilege, and oppression and mitigating harms caused by those systems; ensuring community leadership and meaningful engagement; and supporting collective action, cohesion, and resistance. In implementation settings, Kerr et al. (p. S242) provided recommendations to enhance the impact of ISD interventions, including prioritizing community ownership, engagement, and connectedness; incorporating the experiences of frontline service providers; and creating an accessible, living, and open database of research and community efforts. Similarly, Nnaji and Ojikutu (p. S247) call for interventions that are culturally and linguistically tailored, multilevel, and conducted in partnership with community to address ISD for Black African immigrants living with HIV in the United States.

SPACE AND PLACE AS STRUCTURAL OPPRESSION

Two articles in the special issue focus on space and place as both reflections of historical oppression and reinforcers of ISD, which in turn negatively impact mental health and HIV outcomes. For instance, Wright et al. (p. S313) found that within-neighborhood and surrounding neighborhood characteristics (negative and positive) were associated with experiences of ISD, mental health, viral load, and medication adherence among Black women living with HIV. Consistent with these findings, Taggart et al. (p. S251) suggest conceptualizing space as a modifiable driver of ISD; using place-based methodological approaches; and investing in community-led, place-based, and systems-focused approaches to address HIV inequities.

SEXUAL MINORITY MEN OF COLOR

Sexual minority men of color are disproportionately affected by HIV worldwide, and several articles focus on ISD's impact on this group. Ogunbajo et al. (p. S254) propose a socioecological conceptual framework through which to understand ISD's impact on HIV services among sexual minority men in sub-Saharan Africa. Among Black sexually diverse men in the United States, Lutete et al. (p. S324) used a qualitative system dynamics approach[11] to characterize ISD experiences and identified three feedback loops: medical mistrust and HIV transmission, marginalization of Black and gay individuals and serosorting, and family support and internalized homophobia. Friedman et al. (p. S332) found that sexual minority men experiencing ISD had higher odds of hypertension, dyslipidemia, diabetes, depression symptoms, healthcare underuse, and suboptimal treatment adherence. Among young sexual minority men, Talan et al. (p. S278) discuss manifestations of ISD and encourage the use of event-level measures that indirectly capture experiences of ISD by documenting emotions felt across space and place. Driffin et al. (p. S257), in reflecting on the aforementioned publications and what is needed, noted that "the answer must be rooted in Blackness and queerness" and called for investments to support Black queer people living with HIV to become principal investigators.

COLLECTIVE ACTION AND COMMUNITY VOICES

Several notes from the field centered community voices and described current collective action in the face of ISD. A note by Nnaji et al. (p. S260) provides a glimpse into work being done by United We Rise, a collective of Black people living with HIV, activists, researchers, and health providers. The collective aims to answer the question, "What would the response to HIV look like if it were led by Black people?" It has five focus areas: intersectionality, Black community engagement, Black leadership and organizations, policy, and sexual and gender identity. Spieldenner et al. (p. S264) provide an overview of how an international coalition of sexual minority men, people who use drugs, sex workers, and transgender and gender-diverse people organized the HIV2020 Conference and leveraged this solidarity to call out ISD in a challenge to the International AIDS Society.[12] Recognizing the dearth of studies exploring Latina/x/o health in the context of multiple systems of oppression, including racist xenophobia, heterosexism, ageism, and transprejudice,

Arreola et al. (p. S267) call for community-based participatory research approaches, support for grassroots and community-led movements, and advocacy aimed at the decriminalization of undocumented immigrants. Arnetta Phillips (p. S270), in an inspirational first-person narrative piece, reminds us that work to address ISD ought to make tangible improvements in the day-to-day lives of people living with HIV through necessary structural changes (e.g., housing and employment).

THE WAY FORWARD

To end the HIV epidemic, the field must be unwavering in its focus on the interplay between systems of oppression, power dynamics, community-led collective agency, and action—core tenets of intersectionality and Black feminist traditions. Collectively, the articles in this special issue of *AJPH* direct the field to interrogate what ISD research aims to accomplish and how research is imagined and implemented. In addition, they highlight space and place as important loci for researching and addressing ISD and the urgent need for improved methodological approaches for studying ISD. However, no analytic tool or research project will get us closer to reducing ISD without simultaneously engaging in explicit anti-ISD interventions. Ultimately, to reduce ISD and end the HIV epidemic, research and resources are needed to support programs in real-world settings that are led by people living with and disproportionately affected by HIV, not just researchers committed to ISD work. AJPH

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Coining Intersectional Stigma: Historical Erasures and The Future

Michele Tracy Berger, PhD

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There is a T-shirt hanging in my closet that simply states, "Cite Black Women." I bought this T-shirt in solidarity to support Christen Smith, a guest speaker on my campus in 2019, who delivered a presentation on why and how she created Cite Black Women, a multipronged campaign to engage in a "radical praxis of citation that acknowledges and honors Black women's transnational intellectual production."[1] It reminds me and others that citation practices matter, that Black women's academic achievements are often "overlooked, sidelined and undervalued"[1] and erased from the canon.

This T-shirt has taken on new meaning as I have discovered that my concept of "intersectional stigma," a central idea from my first book, *Workable Sisterhood: The Political Journey of Women with HIV/AIDS*,[2] has animated questions in the field of public health and continues to stimulate substantial interest by government agencies that include the National Institutes of Health and the National Institute of Mental Health without any attribution to my work or scholars whose work I build on. I would not have been aware of how far intersectional stigma has traveled (without my name), were it not for the committed efforts of Lisa Bowleg, guest editor of this issue of *AJPH* and scholar of intersectional research. As the creator of the term "intersectional stigma" and a leading scholar on intersectionality, this news was equal parts surprising, disappointing, and infuriating to me. Thus, I am grateful for Lisa Bowleg's invitation for me to respond here.

Intersectional stigma arises from the concept of intersectionality. Intersectionality has a long intellectual history with roots in the early 19th century writings of theorist and activist Anna Julia Cooper and others who argued that Black women's realities were intertwined with sexism and racism.[3,4] Multiracial feminist activism and theorizing over the past 40 years brought this body of knowledge into academic communities.[5] Intersectional theorizing is dynamic with a recurring set of six core ideas—social inequality, relationality, power, social context, complexity, and social justice—that offer approaches to critical inquiry, the production of knowledge, and analytical and methodological approaches to research.[6]

Workable Sisterhood was based on my doctoral research with stigmatized HIV-positive women activists living in Michigan who were former sex workers and substance users. I conducted lengthy ethnographic fieldwork and life history research in the late 1990s, which was unusual for a budding political scientist. I was the first political scientist to apply the concept of intersectionality as an analytical tool for understanding marginalized HIV-positive women's political mobilization. I used intersectional stigma to explain specific, qualitative differences that existed within the already marginalized HIV/AIDS community. Intersectional stigma as analytical rubric enabled me to understand "the various ways [that these] women are specifically disadvantaged in relation to all phases of the HIV/AIDS virus" and helped to explain their path to political consciousness.[2(p24)] This rubric also highlighted the interpersonal dimensions of stigma, ones that were difficult to capture with a quantitative lens.

The rubric that I developed was not one that I thought would or could be applied anywhere and to all instances of stigma and HIV/AIDS. The nature and meaning of HIV stigma has dramatically changed since my book was published. Researchers now have an opportunity to create measures that identify interlocking forms of structural oppression as opposed to using my term solely to explore marginalized identities. Furthermore, to prevent future erasure of the rich intellectual genealogy of intersectional thought, developed primarily by scholars (and activists) from underrepresented groups, I encourage researchers to question the disciplinary boundaries and institutional patterns that underpin and reward epistemic invisibility. AJPH

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Integrating Intersectional and Syndemic Frameworks for Ending the US HIV Epidemic

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In the US HIV epidemic, intersectional stigma research illustrates how multiple interlocking systems of oppression (e.g., classism, racism, misogyny, drug use stigma) amplify HIV vulnerability and related health inequities.[1] Michele Tracey Berger[1] first coined the term intersectional HIV stigma, grounding the core of this intersectional approach in Black feminist theory to articulate individual and collective experiences of status-based oppression and to advance liberation.[2,3] To date, intersectional HIV-related stigma research has focused largely on understanding how stigma is experienced among populations with multiple interlocking stigmatized statuses in relation to a single health condition, HIV.[4] In contrast, the past decade of HIV research has leveraged the theory of syndemics to understand how the co-occurrence of multiple health conditions (and their interactions) amplifies HIV vulnerability and related health inequities.[5]

Integrating the foci of these frameworks can better target efforts to end the HIV epidemic (EHE) in the United States. Recently, HIV scholars have explored the usefulness of coapplying intersectionality and syndemic analytic frameworks.[6–8] We briefly review each framework's theoretical foundations to provide an integrated understanding of the sociostructural processes through which US HIV disparities are amplified. Finally, we explore community-led efforts to disrupt the paths through which intersectional stigma cultivates domestic HIV-related syndemics.

INTERSECTIONALITY

Through its formal articulation in legal and sociological studies by Crenshaw and Collins, respectively,[2,3] the concept of intersectionality was developed to specify how systems of power and privilege are experienced through multiple interlocking social statuses in ways that reinforce inequalities.[9] Intersectionality is articulated as an analytical lens and as a praxis of social justice that calls for the redistribution of power and liberation to be rooted in marginalized communities.[10]

Intersectional researchers have encouraged scholars to consider how health disparities, including HIV vulnerability, are shaped by systems of power (e.g., racial segregation, carceral systems, poverty, criminalization of drug use and sex work) that are grounded in anti-Blackness, racism, classism, and various manifestations of misogyny (e.g., sexism, transphobia, homonegativity).[4,9] An intersectional lens can further challenge the dominant stigma paradigm, which siloes experiences of stigma within distinct social positions, to address the interconnected nature of stigmas and elevate the agency of groups of people who experience intersectional stigmas (i.e., resilience and resistance).[10]

SYNDEMICS

The theory of syndemics reflects on larger sociostructural environmental contexts (e.g., poverty, urbanicity) in which multiple health and social conditions (e.g., sexual violence, drug use, HIV) interact synergistically to amplify disease burden in a population. Singer emphasized that this interrelationship of "complex health and social crises"[5(p99)] emerges among high-risk groups "because they are subject to social discrimination, stigmatization, and subordination."[11(p39)]

The empirical foundations of syndemic theory rest largely on associations between cumulative exposure to individual psychosocial (e.g., depression, violence) and behavioral health conditions (e.g., substance use, sexual

compulsivity) and poor individual health outcomes.[12] Stigma, when accounted for, is articulated as an additional syndemic exposure.[12] Such analyses pushed HIV intervention science to acknowledge and address co-occurring conditions that affect vulnerability to HIV acquisition and poorer health outcomes among people living with HIV. Still, future work must address the core theoretical tenet of syndemics (i.e., the synergistic interactions between epidemics driven by sociostructural contexts).[12]

INTEGRATING SOCIOSTRUCTURAL PROCESSES

In brief, intersectionality specifies how interlocking systems of power and privilege produce the sociostructural environmental contexts that promote syndemic conditions. These processes not only amplify disease burden but also restrict access to effective interventions and attenuate treatment efficacy when care is accessed. Box 1 outlines examples of how these sociostructural processes synergistically interact to amplify HIV inequities in the United States and can inform intersectional HIV-related stigma research. Applying

BOX 1— Integrating Intersectional and Syndemic Sociostructural Processes Applied to Populations Inequitably Served by the US HIV Response

Sociostructural Processes Exacerbating the US HIV Epidemic	Applications of Intersectional HIV Stigma Research
1. Production of disproportionate disease burden: Interlocking systems of oppression cultivate and concentrate environmental stressors (e.g., political, economic, physical, psychological) that directly increase vulnerability to syndemic conditions and amplify HIV transmission and poorer HIV and overall health outcomes.	
Applied example: Among Black and Latina/x transgender women, systemic racism and anti-trans legislation legitimize discrimination in gender-affirming care and employment, stripping access to care to meet basic needs. This can increase reliance on informal economies such as sex work, where criminalization (rooted in anti-Blackness and misogyny) increases exposure to interpersonal and structural violence. The absence of legislation protecting the rights of transgender people permits and amplifies exposure to violence and its sequelae across the life course (poorer mental health, increased substance use).	*Research application:* Identify mechanisms to increase agency and reduce synergies between syndemic conditions. • Study the effects of upstream intervention efforts that protect against violence and facilitate access to safe and stable housing and employment for transgender women. • Examine the role of social networks within the transgender community on mitigating the synergies between mental health, substance use, and vulnerability to HIV.
2. Restricted access to effective interventions: The same interlocking systems of oppression limit access to interventions for HIV (and related syndemic conditions) by producing environments with fewer (and less equipped) geographic, economic, and interpersonal health care resources.	
Applied example: Among persons who inject drugs, classism and racism fundamentally limit proximity and access to evidence-based substance use and HIV interventions (e.g., syringe service programs, medications for opioid use disorder, ART, PrEP) among the rural and urban poor. Drug use stigma further limits access via restrictive policies misaligned with the chronic nature of substance use care (e.g., restrictions on syringe distribution locations/volume, lifetime or annual caps on drug treatment coverage). Race- and gender-based discrimination can further amplify the punitive consequences of interactions with health care providers (and law enforcement), deterring service access.	*Research application*: Develop strategies to increase equity in service access and mitigate punitive norms and interactions. • Investigate how technology can bridge geographic and economic barriers to accessing quality services, integrating evidence-based HIV and substance use services. • Assess the impact of programs that aim to decriminalize substance use or restore or sustain access to services across periods of active use and abstinence.
3. Attenuation of available evidence-based treatments: Intervention and treatment efficacy is impacted by co-occurring syndemic conditions (and their interactions) initially cultivated by the same interlocking systems of oppression.	
Applied example: Among Black women accessing evidence-based interventions, disparities in HIV outcomes persist (e.g., proportion of new HIV diagnoses, linkage to care, viral suppression when receiving ART, PrEP persistence). The social and health care needs of Black women are also more likely to go undiagnosed and undertreated due to ways racism, misogyny, and classism affect providers' dismissal of their symptom severity and/or expectations of treatment noncompliance. Both undertreatment and mistreatment of co-occurring conditions likely attenuate HIV outcomes in critical ways (e.g., competing family planning priorities or caregiver responsibilities; resource insecurity; neglected and/or siloed treatment plans for trauma, substance use, poor mental health).	*Research application:* Assess treatment models targeting the collective impact of and interactions between co-occurring conditions. • Develop methods to monitor and correct for inequity in provider adherence to treatment guidelines in the United States. • Assess the impact of syndemic-responsive treatment guidelines that integrate care for co-occurring conditions on ART and PrEP persistence and viral load. • Evaluate strategies that promote the agency of Black women and other patients to make treatment decisions and address unmet needs across co-occurring conditions.

Note. ART = antiretroviral therapy; PrEP = preexposure prophylaxis.

an intersectional lens to syndemics draws attention to these systems to illustrate how the "same syndemic exposures" (e.g., drug use stigma, misogyny, police violence) reflect heterogeneity in interconnected health inequities across interlocking social positions (e.g., age, race, gender).[7] When an individual-level focus is applied, syndemic research reflects the by-product of this sociostructural process (i.e., exposure to social and health conditions), and applications of intersectionality risk simply enumerating "multiple" identities (versus specifying socially structured positions of power or disadvantage) of populations most impacted by this process.[10,12] Such siloed applications ignore the underlying power dynamics that produce intersectional HIV-related stigma and discrimination and codify health inequities.[1] It is a fallacy to believe that research grounded in either theory can produce a meaningful end to the HIV epidemic by ignoring the sociostructural systems upholding US HIV disparities in exchange for an easier operationalization of complex phenomena (e.g., cumulative conditions or identities that explain enough variance in HIV outcomes). Rather, we echo previous calls for research to inform how to change these sociostructural processes when applying either framework or both of them.[9,12]

AMPLIFYING SOCIOSTRUCTURAL RESPONSES

Attaining EHE endpoints will require sociostructural change within existing health care, carceral, and community environments, among others.[10] Increasing the availability of condoms and biomedical interventions will fail to achieve the desired public health impact if interlocking systemic oppression and syndemic health inequities remain unaddressed. This final section illustrates how EHE efforts dovetail with ongoing social justice movements led by and for affected communities.[1,10] Although not an exhaustive list, we highlight organizations working to disrupt the paths through which intersectional stigma cultivates domestic HIV-related syndemics among communities inequitably served 40 years into the US epidemic.

Accounting for Medical Injustice

Past (and ongoing) medical injustices sought to control and exploit the sexual and reproductive lives of Black women in the United States. Groups such as SisterLove Inc. and the Black Women's Health Imperative are forging paths to destigmatize and empower Black women's sexual and reproductive health. They have developed multidimensional strategies via health policy, research, health education, and leadership development initiatives that integrate HIV prevention and treatment into the broader context of sexual and reproductive autonomy and liberation. Bringing these strategies to scale via implementation science could advance the dissemination and impact of effective biomedical interventions among Black women within EHE jurisdictions.

Decriminalization and Deservingness

Policing and immigration systems reinforce interlocking inequities by chronically destabilizing family, social, economic, and housing environments along axes of race, class, and gender. Access to lifesaving treatment and life-stabilizing services largely requires passing measures of "deservingness" (e.g., drug screening, background checks). Criminalization of drug use, sex work, and gender-affirming care further concentrates these harms within specific subpopulations. Efforts led by the Black Harm Reduction Network and Sex Workers Outreach Project USA to legalize or decriminalize drug use and sex work can help to mitigate the direct harms of these power structures, affording members of these affected populations greater stability to engage in evidence-based HIV interventions and treatment.

Overcoming Misogyny and its Sequelae

Many social syndemic exposures (e.g., trauma, violence, mental illness, substance use) are rooted in racialized manifestations of misogyny, reinforcing social norms that promote or permit physical and sexual violence toward LGBTQAI+ communities of color. Black- and Latinx-led groups such as the Counter Narrative Project and the TransLatin@ Coalition are working to dismantle these norms and shift power structures toward liberation by making visible authentic Black and Brown expressions of love, self-care, sexuality, and gender expression. Empowerment and other resilience-based intervention strategies might build on this work to promote and sustain preexposure prophylaxis and antiretroviral therapy adherence within LGBTQAI+ communities of color (see related readings in Appendix A, available as a supplement to the online version of this article at http://www.ajph.org).

CONCLUSION

To better inform sociostructural change and paths toward liberation, HIV

researchers—and health disparity scholars and interventionists more broadly—must account for how mutually reinforcing systems of oppression interact to produce and reinforce overlapping HIV-related syndemic health crises. AJPH

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The Problem With Intersectional Stigma and HIV Equity Research

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I commence with a confession. As compelling as I find the argument that stigma is a fundamental cause of health inequities,[1] and as much as I believe (obviously) that intersectionality is an indispensable critical lens for health equity research,[2] I am not convinced that intersectional stigma is the right concept to advance more equitable HIV treatment and prevention outcomes. The incongruity of this confession is not lost on me. In addition to my role as a guest editor of this special supplement of *AJPH*, I am also a principal investigator of an intersectional stigma project funded by the same National Institute of Mental Health (NIMH)[3] initiative that sourced this supplement. My primary opposition is that intersectional stigma, at least as currently conceptualized, obscures interlocking oppressive social-structural systems such as structural racism, sexism, and heterosexism (to name some) that more accurately explain why, four decades into the HIV/AIDS epidemic in the United States, we can foresee the end of the epidemic for relatively more privileged groups such as White sexual minority men but not Black and Latino sexual minority men or cisgender and transgender women.

PROBLEM 1: STIGMA OR DISCRIMINATION?

In 2018, the NIMH's Division of AIDS Research parenthetically defined intersectional stigma as "multiple stigmatized identities" when it "cleared" the concept,[3] paving the way for funding for many of the projects in this supplement. Alas, there are at least three problems with this individualistically focused definition. Problem 1 concerns the use of the term "stigma" rather than discrimination. In an insightful 1998 article, British disability activist Liz Sayce deftly articulated the problem:

> Different conceptual models point to different understandings of where responsibility lies for the "problem" and different prescriptions for action. For instance, by using the term "racism" we focus our attention on collective and individual perpetrators of discrimination. If instead, we construe the problem in terms of the stigma of being black, our attention shifts to the self-image and perceptions of the black individual.[4(p332)]

To its credit, NIMH's Division of AIDS Research now uses intersectional discrimination as well as stigma (see Goodenow and Rausch, p. S273). Nonetheless, intersectional stigma still implicitly directs attention to "multiple stigmatized individuals"—those marginalized at multiple intersections of racial/ethnic and sexual and gender minority status—as if the intersections themselves, not the historical legacy of interlocking structural oppression based on those intersections, were the fundamental cause of HIV inequities.

PROBLEM 2: STIGMA WITHOUT STIGMATIZERS

A second problem is that fixating on "multiple stigmatized identities" reifies and privileges the passive vantage point of stigmatizers, a hallmark of White supremacy. Thus, there are stigmatized people, but alas no people, systems, or structures, enacting the stigma or being held accountable for doing so. Reminiscent of the book *Racism Without Racists*,[5] this nonagentic worldview has implications for HIV research and intervention. People with the power to stigmatize, such as health care providers who fail to prescribe preexposure prophylaxis (PrEP) to people of color, are rarely a focus of HIV intersectional stigma research, nor are the effects of stigmatizing structures such as criminal HIV exposure laws that disproportionately affect Black sexual minority men, for example. As a case in point, most of the articles in this supplement focus almost exclusively on intersectional stigma from the target's perspective, not the enactor's. Consequently, there is a sizable knowledge gap about structural and interpersonal intersectional stigma to inform interventions to stop intersectional stigma and discrimination at the source.

PROBLEM 3: OBSCURING SOCIAL-STRUCTURAL SYSTEMS

Third, although centering the experiences of people marginalized by intersectional discrimination is foundational to critical frameworks such as intersectionality and critical race theory, focusing squarely on "multiple stigmatized identities" absent the structures that perpetuate the stigmatization reifies Erving Goffman's notion of stigma as "an attribute that is deeply discrediting."[6(p3)] In this formulation, stigma is a birthright, an immutable stain that defies time, geography, and social and political intervention. There is nothing intrinsically wrong with being a Black or Latino cisgender woman and/or a sexual or gender minority person. People historically marginalized at specific minoritized intersections are not a problem in need of intervention; the policies, laws, and interpersonal practices that discriminate against them, however, are. Emphasizing "multiple stigmatized identities" over the structures that stigmatize functions to "reinforce the intractability of inequity, albeit in a more detailed or nuanced way."[7(p12)]

Consider the problem documented in recent national surveillance data that HIV has decreased for White sexual minority men but not for their Black and Latino counterparts,[8] or consider empirical evidence that, despite health insurance, Black and Latino sexual minority men were significantly less likely than their White counterparts to be aware of, have access to, or use PrEP.[9] These problems are not solely rooted in Black and Latino sexual minority men's internalized stigma, the precursor of which is still structurally racist, heterosexist, and classist policies, laws, and practices. In the context of HIV prevention, more pragmatic concerns supersede. Take again the example of PrEP. You don't buy PrEP over the counter like aspirin; PrEP must be prescribed. Neither the source of nor the solution to the problem of PrEP access resides primarily in the individual's internalized intersectional racism and heterosexism. Multilevel solutions, such as training and enforcement of policies that require health care providers to provide the same level and quality of HIV prevention care provided to White patients to all patients, and structural interventions, such as Medicaid expansion to cover PrEP, provide a more promising and equitable route to ending the HIV epidemic than conventional individualistic approaches, no matter how nuanced.

Exclusively individualistic conceptualizations of intersectional stigma miss a vital opportunity to leverage intersectionality for what it is, a social justice project,[10] not simply a tool for innovative research and scholarship. Like studying how fire burns rather than extinguishing it when it does burn, implicitly rooting intersectional stigma within individuals, rather than in oppressive social structures and processes that seed the stigma in the first place, will not advance the knowledge most needed to inform interventions for problems that are foundationally social-structural. Seismic gaps in knowledge exist about structural stigma,[1,11] particularly intersectional structural stigma—knowledge that is desperately needed to inform effective multilevel (e.g., interpersonal, community, structural) interventions to eliminate inequitable HIV outcomes.

BERGER'S COINAGE AND CITING BLACK WOMEN

Michele Tracey Berger, the Black feminist scholar who coined the term "intersectional stigma" based on her research with women of color living with HIV, conceptualized intersectional stigma to describe how HIV stigma aligned with the "structural realities of race, class, and gender."[12(p24)] Notably, identity was not a focus of Berger's definition. It is telling that until this special supplement, Berger's groundbreaking work was absent from most of the discourse and research on the topic. This invisibility is part and parcel of the history of Black women's intellectual contributions, one that has birthed campaigns such as CiteBlackWomen (https://www.citeblackwomencollective.org). Had the HIV field initially listened to (and cited) Berger's work with its attention to structural intersectionality and commitment to intersectionality as critical praxis, we might be closer to achieving HIV equity than we now find ourselves. Albeit more nuanced, intersectional stigma work that implicitly locates the problem within "multiply stigmatized individuals," not the oppressive social structures that create and maintain intersectional stigma and discrimination in the first place, will help end the US HIV epidemic for White people, such as those with class privilege or those who do not inject drugs, but not racialized people at diverse intersections, those for whom, 40 years into the HIV/AIDS epidemic, equitable HIV prevention and treatment outcomes remain elusive. AJPH

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A Case for Strengths-Based Approaches to Addressing Intersectional Stigma in HIV Research

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Stigma reduction is essential for reaching global goals for ending the HIV epidemic, and HIV researchers have paid increasing attention to the intersectional nature of stigma. In *Workable Sisterhood*, Berger first defined intersectional stigma as the relationship between interlocking forms of oppression (i.e., intersectionality) and the ways in which people become socially defined as "other" (i.e., stigma).[1] She illustrates how HIV stigma compounds structural inequities along axes of race, class, and gender for marginalized women living with HIV. She also demonstrates how experiences of intersectional stigma can expose the structural roots of oppression and inspire mobilization of internal (e.g., faith) and external (e.g., peer support) resources to challenge oppressive structures. This conceptualization of intersectional stigma is grounded in empowerment to transform inequitable power systems. Yet, subsequent HIV-related intersectional stigma research has largely focused on deficit-based outcomes. A scoping review of quantitative intersectional stigma research revealed that a minority of studies (13 of 32) explored empowerment-based factors in conjunction with intersecting stigma.[2] Although intersectional stigma research often focuses on the harms of stigma to argue for social and structural change, this approach has limitations.

LIMITATIONS OF DEFICIT-BASED HIV RESEARCH

A deficits perspective in HIV-related intersectional stigma research can overlook the skills, knowledge, and collective resources within marginalized communities. For example, HIV prevention efforts may be more effective if they incorporate existing resiliencies rather than primarily intervening to address vulnerabilities. Consistent with this assertion, a study of sexual practices among a sample of multiracial, multiethnic gay and bisexual men found that adding psychosocial strengths (e.g., social support) to a multivariable model of risk rendered the relationship between psychosocial problems (e.g., substance use) and condomless sex no longer significant.[3] This suggests that a sole focus on challenges may miss existing health-promoting community resources. Deficit-based research may also inadvertently pathologize communities as being inherently damaged or in need of external intervention. This, in turn, can exacerbate stigma and contribute to hopelessness. For example, Tuck has described the ways that "damage-centered research" with Indigenous communities can lead to lasting consequences in which communities come to see themselves as broken.[4]

BENEFITS OF STRENGTHS-BASED HIV RESEARCH

Strengths-based research can identify and build on existing health-promoting resources that mitigate the impact of intersectional stigma. For example, a study with African American gay and bisexual men in House and Ball communities found that participation in these communities was associated with resiliency factors such as social support and volunteerism.[5] Strengths-based research may also identify the mechanisms of action underlying protective factors. For instance, types of social relationships may be more important for health than general concepts of social support. One study found that who young people choose as support persons when deciding to get an HIV test may vary based on relationship dynamics with families and intimate partners.[6] Thus, studies focused on uncovering how strengths can mitigate intersectional stigma may reveal unexamined assumptions and generate novel approaches. Some disciplines within mental and behavioral health have long used an asset-based lens for intervention development. Intervention research focused on strengths may be more appealing to participants than risk-focused studies, thereby

increasing engagement. By leveraging existing community resources, strengths-based interventions are inherently more sustainable than time-limited, externally driven, individual-focused behavior change interventions. This sustainability addresses concerns about leaving participants with nothing when an external intervention ends.

CONCEPTUALIZING STRENGTHS-BASED RESEARCH

Strengths-based approaches have been conceptualized in a variety of ways. Dulin et al. identified social-ecological levels to resilience in HIV research, including individual (e.g., coping), interpersonal (e.g., social support), community (e.g., collective efficacy), and structural (e.g., activism).[7] Their review found that resilience resources were largely associated with antiretroviral adherence but noted that most studies focused on individual and interpersonal resilience rather than the community or structural levels. Resilience-based interventions require a collectivist understanding of agency to affect interlocking structural systems that may undermine that agency. For instance, work with displaced women in Haiti drew attention to multilevel, incremental, and nonlinear dimensions of agency—intrapersonal, interpersonal, relational, and collective—that were enacted even in contexts of structural constraints.[8]

In another example, Walton and Oyewuwo-Gassikia developed the #BlackGirlMagic framework that

> (1) gives Black women the space and authority to assert their greatness; (2) allows Black women to move beyond the limitations imposed on them by systems of oppression, namely, racism, sexism, and misogyny; (3) acknowledges a more just understanding about the lived reality of Black women from a strengths-based perspective; and (4) recognizes the aspects of Black women's social identities as inextricable from one another.[9(p466)]

This framework simultaneously considers community strengths alongside the realities of intersecting inequities.

However, when applied at the individual rather than structural level, concepts like resilience and #BlackGirlMagic can inadvertently deflect responsibility for inequities away from systems of power and unintentionally blame groups who experience intersectional stigma for not having enough resilience, agency, or magic.[10] A scoping review found that most strengths-based quantitative intersectional stigma research focused on individual and interpersonal factors, signaling a need for greater research attention to community- and structural-level resources available to resist intersectional stigma.[2]

Njeze et al. offer one example of this approach. They developed an "intersectionality of resilience" framework that conceptualizes Indigenous youth resilience as strengthening cultural identity—including engaging in cultural activities, pride in Indigenous heritage, connecting with social groups that serve the community, and arts-based practices and positive decision-making to produce desired changes.[11] As they describe it,

> This strengths-based reframing of intersectionality, then, also connects with aspects of a "political intersectionality" insofar as it explores and uncovers the systemic forces that shape subjects as well as the multiaxes modes of resistance for contesting and reclaiming power that informs and underlies many political struggles.[11(p2015)]

APPROACHES TO STRENGTHS-BASED RESEARCH

When implementing strengths-based approaches to intersectional stigma research in HIV, it is important to employ methods that are aligned with this framing. Rather than simply reverse-coding deficit-based variables to produce strength-based variables, researchers must employ constructs consistent with frameworks like the intersectionality of resistance. For example, Shaw et al. recommend viewing resilience as a multifaceted, multilevel construct and using analytic approaches that can support examination of such a construct, including community-based participatory research, social network analysis, and multilevel modeling.[10]

Practical steps for researchers include integrating strengths-focused factors in study design, including the research foci, data collection tools and methods, and analytic frameworks. Although examination of resilience and social support is important, stigma researchers should also examine structural and community-level strengths such as collective efficacy, agency, and empowerment; resistance and advocacy; solidarity; and community mobilization and transformation. Intersectional stigma intervention research can also elicit critical hope and solidarity in shared struggles of oppression, including through providing spaces for building connection and solidarity.[12]

CONCLUSION

Addressing intersectional stigma is essential to efforts to end the HIV epidemic. HIV research that uses a strengths-based intersectional lens at social and structural levels provides opportunities to highlight community resources, identify mechanisms that support community resilience and resistance, and leverage existing, sustainable assets. Doing so can generate strategies to challenge intersectional stigma and effect positive change. These strength-based approaches must be led by or, at a minimum, meaningfully engage community members to create solutions that can transform the social and structural environments that drive HIV inequities. AJPH

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Monitoring Intersectional Stigma: A Key Strategy to Ending the HIV Epidemic in the United States

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Barriers to HIV prevention and treatment in the United States persist. Although the Ending the HIV Epidemic (EHE) initiative holds promise, the success of the program may be stymied by inadequate frameworks and tools for monitoring intersectional stigma. Originating from a Black feminist critique of the consequences of treating race and gender as mutually exclusive categories,[1] intersectionality is a theoretical framework that examines how intersecting and mutually interdependent forms of power and oppression (e.g., racism, classism, cisgenderism, ableism) drive health inequities.[2]

Given that populations most affected by HIV are often impacted by stigma related to multiple axes of marginalization (e.g., race, socioeconomic position, sexual orientation), intersectionality is a valuable framework to understanding HIV inequities in the United States, and monitoring for intersectional stigma should be a key component of EHE activities because it allows for assessing health status and relevant behaviors over time to better determine intervention needs. We view monitoring expansively as ongoing, systematic processes to collect, analyze, disseminate, and utilize information regarding precursors, mechanisms, and outcomes of intersectional stigma within multilevel spheres of influence (e.g., within both academic research and public health practice). In this article, we discuss (1) current data sources and opportunities for monitoring intersectional stigma in public health practice, (2) key gaps within intersectional stigma research, and (3) implementation strategies for successful monitoring, which we believe will lead to more comprehensive, equitable, and ethical EHE interventions in the United States.

INTERSECTIONAL STIGMA IN PUBLIC HEALTH PRACTICE

This section describes how select data sources can better address intersectional stigma at multiple levels of public health practice (federal, state, local, and community levels), pointing to actionable steps that can be taken now. More detailed information is provided in Appendix A (available as a supplement to the online version of this article at http://www.ajph.org).

At the federal level, EHE aims (pillars) are biomedical, and funding opportunities lack intersectional stigma–related monitoring and regulatory frameworks.[3] As one example, the EHE data visualization Web site, AHEAD,[4] excludes structural determinants of health such as intersectional stigma, filters combining multiple demographics for national-level data, and any stratifications for data on local jurisdictions, despite demographics being present in the source data. AHEAD and other data visualization Web sites such as AIDSVu[5] would be improved by including a broader diversity of data sources that reflect intersectional stigma (e.g., surveys, laws, geographical indicators, court and prison records). By contrast to EHE, the 2022–2025 National HIV/AIDS Strategy for the US[6] addresses intersectional stigma through its focus on racism as a public health threat, quality of life, integrated responses to intersecting health conditions, leadership for people living with HIV, structural determinants of health, reforming HIV criminalization laws, and intersectional priority populations (e.g., Black women).

At the state and local levels, health departments serve important monitoring and technical assistance functions. Jurisdictional EHE plans[7] could add intersectional stigma pillars related to implementing programs for priority populations and utilizing an expansive array of data sources for metrics beyond HIV surveillance data. For example, administrative databases like Medicaid are prime opportunities for collection of intersectional stigma–related data and reporting EHE metrics. Similarly, health department funding contracts could stipulate collection of intersectional stigma–relevant data, including service utilization, client demographics, and organizational characteristics. Population-specific surveys that already include validated HIV stigma measures (e.g., Medical Monitoring Project) could be expanded to assess other types of stigma.

At the community level, embedding intersectional stigma measurement within routine engagement in HIV services could improve service quality and determine whether interventions reduce intersectional stigma. Examples of collectable data include assessment of trauma and resilience, stigmatization by providers, or whether policies and physical spaces are welcoming. Funders' focus on biomedical person-level or program-level outcomes (e.g., HIV care continuum),[8] can preclude dedication of resources or personnel to stigma-mitigation activities. Therefore, framing intersectional stigma as a quality-of-care issue and establishing clear plans and agreements for how these data will be used are strategies that may accelerate provider buy-in.[9] Providers may need valid measures and training on collecting intersectional stigma–related data, such as how to report on communities that are smaller in number and thus potentially more easily identifiable from reported data (e.g., Black transgender women and Latino gay men).

By virtue of lived experience, marginalized communities are quite familiar with the harmful consequences of intersecting systems of oppression, and, yet, they are often ostracized from decision-making roles. People who have personal experience with the stigma-related constructs in question should have positions of leadership in research activities, public health practice, and organizational development.[10–13] It behooves us to adopt language used by communities (e.g., "whole-person approach") to demystify the concept of "monitoring" into concrete steps, measures, and best practices and to tailor intersectionality research for community partners. Partnerships must be equitable and characterized by shared leadership[14] where all partners have the power to address their priorities and grievances and receive technical support and funding to participate in monitoring.

THEORETICAL AND MEASUREMENT CHALLENGES

Monitoring must be intersectional from conceptualization, design, analysis, and through to data interpretation and dissemination to prevent from rendering invisible the experiences of oppressed groups.[15] Nonholistic approaches include relying upon additive notions of identity and experience, focusing on demographic variables devoid of their socio-historical contexts rather than more conceptually meaningful measures of inequity, and allowing intersectional stigma to remain implicit when opportunities arise to make it explicit.[16] In this section, we discuss some conceptual, methodological, policy-related, and procedural gaps challenging integration of intersectional stigma within monitoring efforts.

Conceptual Gaps

Focusing solely on demographic characteristics and presenting data stripped of their structural, social, cultural, and historical origins poses problems for monitoring health inequities. These include (1) reductive attribution of outcomes to individual behavior or deficits within communities rather than systems and structures that ignore or exacerbate intersectional stigma, (2) reliance by decision-makers (e.g., policymakers, organizational leadership) on their own insufficient theoretical understandings or limited direct experiences with intersectional stigma processes when interpreting the significance of disparities, and (3) hyperfocus on the multiple intersecting social categories that comprise people's identities (i.e., "flattening" of intersectionality).[17] The latter may perpetuate a false belief that disparities are somehow intrinsic to communities and intractable, rather than emphasizing actionable solutions and resiliencies within these populations. A myopic view of inequities that focuses exclusively on identity-related demographic differences is unjustifiable when more conceptually meaningful variables exist (e.g., socioeconomic status, food insecurity, trauma).

The 2022–2025 National HIV/AIDS Strategy's[6] goal of achieving a 50% reduction in HIV stigma among people living with HIV ignores other forms of stigma (e.g., racism, sexism) that are based upon systems of inequality and power, consequently rendering them less visible in funding, monitoring, and programming. Because stigmas are

interdependent and mutually constitutive, EHE must incorporate a more holistic view regarding reduction of intersectional stigma.

Methodological Gaps

Appropriate measurement. There are several existing approaches to examining stigma intersectionally.[18,19] One approach is to independently assess different types of stigma by using either parallel questions (i.e., adapting the same stigma measure) or condition-specific measures (e.g., experiences of racism and HIV stigma). Two important limitations of this approach are that a priori defined categories may not always be relevant or comprehensive and that asking questions about separate types of stigma requires participants to think independently about their identities, which goes against one of intersectionality's core tenets that social identities are multiple and intersecting, rather than unidimensional and independent.[2,18]

A second approach is to compare HIV stigma across groups at different intersections (e.g., Black heterosexual women vs White bisexual men). Solely focusing on HIV stigma limits our ability to capture other types of discrimination, hampers understanding of which interventions to test first with certain populations or communities versus others, overly relies on demographic characteristics rather than larger structural factors, and may prevent examination of interaction effects in data analyses, which often requires large samples. This approach also requires a priori decisions regarding how many and which social categories to include, and proper categorization to identify intersectional groups.[18]

A third approach is to use attribution-free measures, such as the Intersectional Discrimination Index.[18] This index is composed of three subscales that assess anticipated, day-to-day, and major discrimination. Participants are prompted to think about experiences they have had "because of who you are," thus, not priming specific attributional bases. This approach may overcome many of the challenges of the former, although more research and investment are needed to explore its utility within practice settings.

Qualitative and mixed-method research approaches can provide contextualized insight into the unique manifestations of intersectional stigma within certain populations and yield greater clarity regarding how intersectional stigma influences service utilization. Accordingly, such approaches may elucidate challenges to achieving EHE outcomes. However, even mixed-method assessments of intersectional stigma require vigilance about integrating an intersectional approach, such as eschewing additive questions (e.g., How would you describe your experience as a Black person? Woman? Lesbian?) and avoiding asking respondents to rank their identities or discrimination experiences.[16] Ultimately, effective development and use of intersectional stigma measures requires a primary focus on interlocking systems of oppression (not on identities) and meaningful engagement and empowerment of communities disproportionately affected by HIV.

Focus on individual-level factors. Efforts to study and monitor stigma generally focus on experiences of stigmatized individuals, often excluding interpersonal and structural processes in clinical settings and communities. EHE monitoring efforts must identify social and structural determinants that fuel intersectional stigma in these domains. If, for instance, we neglect how laws that criminalize HIV exposure, drug use, or sex work drive people to avoid services, then a focus solely on individual-level factors will lead to selection bias when we are evaluating progress toward EHE benchmarks. EHE monitoring needs to connect culture, policies, and laws to individual outcomes to elucidate change targets situated farther upstream from individual behavior.

Lack of inclusion of strength-based approaches. Assessment tends to focus on negative experiences and overlooks opportunities for assessing strengths and multilevel resilience, such as social support, coping, and collective action and advocacy.[20] It remains unclear which measures are most appropriate for monitoring strengths, but this approach can provide new avenues for intervention that resonate with affected populations and individuals and more closely align with how they view themselves.

Policy and Procedural Gaps

There are currently no widely accepted policies or procedures, nor a national strategy, to identify individual-, community-, or population-level impacts of intersectional stigma or to track intersectional stigma trends to ensure federal and state resources are quickly directed to meet the needs of affected populations. Public health information systems lack regulatory frameworks and scientific guidelines necessary to integrate intersectional stigma into monitoring. Limitations of existing data systems include a lack of validated measures, chronic underfunding for robust stigma data collection, limited reporting of who is receiving services and

their health outcomes, siloed and duplicative data systems, and data monitoring requirements that are burdensome or may be too strenuous for smaller organizations. Institutions may lack capacity or procedures to effectively address unique needs of marginalized populations—such as ethics protocols to implement when stigma is reported by recipients of services—or may utilize systems that inadequately capture critical information necessary to do so, such as those that conflate gender identity and sexual orientation. For example, monitoring systems that only assess people's sex assigned at birth or that inadequately assess present gender identity[21] may result in gender-diverse populations being either misclassified in analyses or misgendered, risking failure to monitor and address their unique health needs.

INTERSECTIONALITY PRACTICES FOR HIV PUBLIC HEALTH GOALS

To advance the public health goals of EHE, we propose three priorities for intersectional implementation of EHE monitoring activities: (1) ensuring access to validated stigma measures and supporting their use aligned with the core tenants of intersectionality, (2) motivating use of such measures via policy and data feedback loops, and (3) establishing equitable community partnerships.

Access

A measurement toolkit is needed to streamline access and dissemination by cataloguing current and future psychometrically validated measures and qualitative instruments and by providing written guidance on their adaptation to meet diverse needs. The National Institutes of Health–funded PhenX Toolkit[22] is an aspirational format for an intersectional stigma toolkit because its protocols detail how to integrate a catalog of measures across studies, thereby increasing continuity and statistical power. Stakeholders need capacity building to monitor intersectional stigma in ways that do not perpetuate stigma. Capacity-building agencies that are adept at providing linkages between community, health care, academics, and health departments, such as AIDS Education and Training Centers, could provide training on monitoring that is aligned with principles of intersectionality.

Motivation

Reaching policy goals requires interagency coordination and regulatory frameworks for screening, identifying, and addressing intersectional stigma, whereby data are quickly returned to public health stakeholders who have opportunities to address stigma. In addition to explicitly adding intersectional stigma metrics to jurisdictional EHE plans and data dashboards, federal agencies should convene a national HIV-related intersectional stigma strategy working group to establish new policies, guidelines, and funding mechanisms for monitoring intersectional stigma, building upon the 2020 HIV-Related Intersectional Stigma Research Advances and Opportunities Workshop.[23] Tracking intersectional stigma trends can help ensure expedient distribution of resources to interventions that meet the needs of communities. One priority implementation strategy is development of national and local surveillance to monitor stigma indicators and outcomes. Current data-to-care programs signal health departments to re-engage clients lost to care, and data on intersectional stigma could likewise function as a sentinel event to prioritize the deployment of intervention specialists to mitigate stigma when it deters service engagement and, through a feedback loop, to quickly relay information to entities engaged in monitoring intersectional stigma. These data could be integrated into existing surveillance activities and dashboards and used to optimize processes for quality improvement within organizations.

Partnerships

Achieving EHE goals while attending to intersectional stigma requires participatory praxis that disrupts current inequitable power dynamics and improves opportunities for leadership and professional development among individuals from stigmatized communities.[14] By its nature, intersectional stigma engenders feelings of mistrust, fosters disengagement, and makes people hesitant to disclose sensitive information.[24] Equitable approaches to ending the HIV epidemic necessitate rebuilding trust that has been historically broken by ensuring unencumbered access to expertise that exists across all partners. Ongoing engagement of community leaders, people living with HIV, and marginalized and historically underrepresented communities through entities such as the Centers for AIDS Research and the Federal AIDS Policy Partnership is critical to EHE implementation and comprehensive assessment of intersectional stigma.[11,13,25] Partnerships must be mutually beneficial to all parties, interdisciplinary, and aligned with the core tenets of intersectionality, and must utilize ethical and empowering methods such as community-based participatory research.

CONCLUSIONS

Intersectional stigma provides a lens to examine how social and structural processes produce or exacerbate HIV-related health inequities. Although conceptual, methodological, and procedural gaps remain, the various data sources currently available in the United States are promising for monitoring intersectional stigma, and there are ample opportunities to improve monitoring as we work toward ending the HIV epidemic. The COVID-19 pandemic has further reinforced how crucial an intersectional approach is to monitoring effects of interlocking systems of oppression, not only toward ending the HIV epidemic but also ultimately toward dismantling the very systems that perpetuate health inequities. We propose that achieving these goals hinges upon increased access to and support for measurement of intersectional stigma and requires policies that motivate the use of intersectional measures with proper feedback loops, as well as equitable community partnerships. AJPH

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CONFLICTS OF INTEREST

The authors have no conflicts to declare.

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An Expanded Definition of Intersectional Stigma for Public Health Research and Praxis

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Intersectionality—an analytic tool that enables researchers and historically marginalized communities to investigate how "intersecting power relations influence social relations across diverse societies as well as individual experiences in everyday life"[1(p2)]—is becoming a prominent lens through which to conduct social and behavioral science research, particularly within the field of public health.[1–3] Intersectionality is now recognized as critical to ending the HIV epidemic, as well as addressing other public health priorities.[2,4] Stigma researchers are applying an intersectional lens to understand and address health inequities among groups at the most marginalized intersectional positions, as stigma reduction cannot be fully achieved without centering the structures and systems that drive stigma and discrimination.[2,5,6] For example, without understanding how racism and homophobia mutually shape the experiences and opportunities of sexual minority people of color, we cannot fully understand or address the stigma and discrimination they experience.

To realize its full potential for improving health equity, a closer look at the concept of intersectional stigma and how it is operationalized in research and practice is warranted. Berger defined intersectional stigma as the "total synchronistic influence of various forms of oppression which combine and overlap to form a distinct positionality."[7(p24)] Logie et al. defined intersectional stigma as the "interdependent and mutually constitutive relationship between social identities and structural inequities."[5(p9)] Considering these definitions, the next logical step in understanding and addressing public health inequities is to deliberately integrate intersectional stigma frameworks into interventions to improve health outcomes.

To address intersectional stigma and its sequalae, it is important to consider what it means for a stigma reduction intervention to be "intersectional." We recommend that an intersectional stigma reduction intervention should hold the following principles: (1) recognize and name how systems of power, privilege, and oppression intersect to affect individual experiences and fuel stigma; (2) aim to dismantle systems of power, privilege, and oppression, and mitigate the harms caused by those systems; (3) ensure community leadership and meaningful engagement; and (4) support collective action, cohesion, and resistance to address the intersecting axes of inequities. We explore these principles to guide progress toward achieving health equity.

(1) *Recognize and name how systems of power, privilege, and oppression intersect to impact individual experiences and fuel stigma*

Within this burgeoning area of public health praxis, it is important for researchers and community practitioners to be explicit about how an intervention is informed by the concept of intersectionality and how it will address intersectional stigma. Systems

of power perpetuate intersectional stigma[5,7]; therefore, the conceptual underpinnings of intersectional stigma interventions and subsequent phases of development, implementation, and dissemination should clearly name systems of power and oppression and clarify their role in perpetuating oppression.[8] For example, this can be accomplished through statements of purpose and conceptual models that explicitly note which systems of oppression are being addressed and how.

Stigma reduction interventions that simply consider co-occurring stigmas are not truly intersectional without recognizing the contexts that drive and mutually shape these stigmas. This is upheld by Rao et al., who note in their editorial on HIV stigma among Black women in the United States, "[o]ur understanding of the factors that have an impact on the health of Black women is limited when we regard these categories as distinct or static identities and add or subtract them from concepts of interest."[9(pp446–447)] The authors go on to convey how understanding the experiences of Black women as "mutually constructed and fluid, continually shaping and shaped by dynamics of power"[9(p447)] offered insights to inform impactful intervention—in this case, to explore resilience strategies as an intervention to reduce internalized stigma.[9]

(2) *Aim to dismantle systems of power, privilege, and oppression, and mitigate the harms caused by those systems*

Intersectional stigma interventions must expand beyond an emphasis on individual attributes (i.e., stigmatized identities or health conditions) by including components that both (a) seek to dismantle the systems of privilege and power that drive intersectional stigma and (b) mitigate the harms caused by those systems. For example, the Manas por Manas intervention in Brazil is designed to mitigate the harms of intersectional stigma experienced by transgender women while navigating stigmatizing health care and other social service environments. Working with peer navigators, transgender women acquire critical skills and tools to manage and address anticipated and enacted stigma experienced when seeking services (e.g., using role play to navigate situations where their correct pronouns or chosen name are not used).[10]

Additionally, structural solutions that address the factors underpinning interlocking systems of oppression are needed to affect long-term, systemic change and prevent intersectional stigma from moving forward. For example, the aforementioned Manas por Manas study also advocates for and supports transgender women to step into positions of power, visibility, and influence within universities, clinics, and communities.[10] Ensuring that transgender women are visible in staff positions and leadership roles within the organizations that serve these communities—and have a voice in shaping the policies and practices of these organizations—is an initial step toward dismantling some of the structural barriers and stigma that perpetuate health inequities.

(3) *Ensure community leadership and meaningful engagement*

Communities experiencing intersectional stigma are uniquely positioned to identify and facilitate effective interventions to address intersectional stigma. As such, the development and implementation of interventions to address intersectional stigma should include leadership and engagement of communities experiencing the type of intersectional stigma addressed by the intervention. Community leadership and engagement should go beyond community members simply serving on a community advisory board or serving as "gatekeepers." Community members must be recognized and engaged as codevelopers, coimplementers, and coevaluators wherever possible.

Depending on the community and context, the form of community leadership and engagement may vary, ranging from community organizations leading efforts, to community organizations and public health researchers and practitioners connecting and forming mutual partnerships, to public health researchers and practitioners leveraging their resources and skills to bolster the infrastructure and capacity of a community organization if needed. Furthermore, an often overlooked but critical factor for ensuring community leadership is the availability of core funding to support the infrastructure of community organizations, not just funding for activities or services they provide as part of a research study. For example, in the Encontros intervention, local sex workers worked to establish their own organization to support local HIV prevention efforts through community building, integration, and social cohesion. The research team and national network of sex workers partnered to secure a training for the nascent sex worker advocacy group that addressed how to establish an association, write an organizational charter, and manage grants and finances.[11–13] Organizational support is a means to ensure that community organizations can engage as equal or lead partners without relying on university structures to receive donor funds,

which inherently contributes to a power imbalance.

(4) *Support collective action, cohesion, and resistance to address the intersecting axes of inequities*

Public health researchers and practitioners who focus on stigma must move away from emphasizing deficits in communities, as has been the tendency. Crenshaw, who first coined the term "intersectionality" in 1989, maintains that intersectionality does not problematize social identities; rather, it recognizes the power of collective action, cohesion, and resistance that exists in the face of oppression: "The social power in delineating difference need not be the power of domination; it can instead be the source of social empowerment and reconstruction."[14(p1242)] Furthermore, Logie et al. assert that intersectional stigma research and praxis would benefit from greater focus on the radical potential of intersectionality to leverage collective efficacy, solidarity, and liberation in efforts to dismantle systems of oppression.[3]

There has long been debate about intersectionality's focus on inequity and empowerment; as Davis inquired more than a decade ago, "Should it be deployed primarily for uncovering vulnerabilities or exclusions or should we be examining it as a resource, a source of empowerment?"[15(p75)] Empowerment, in this context, should not be interpreted as the paternalistic conferral of power, but rather the inherent resilience of communities facing intersectional stigma that leads to action, such as coalition building, community mobilization, and political activism.[16] As such, public health researchers and practitioners should not simply document these strengths and assets, but become part of the solution by working alongside and joining the ongoing, collective action of communities experiencing intersectional stigma to advance social and health equity.

INTERSECTIONAL STIGMA REDUCTION INTERVENTIONS

We offer four additional examples of intersectional stigma reduction interventions that reflect the principles outlined in this editorial.

- The Karnataka Health Promotion Trust developed a series of integrated structural interventions in collaboration with female sex workers, policymakers, and other stakeholders "to address context-specific factors (social inequity, violence and harassment, and stigma and discrimination) contributing to HIV vulnerability"[17] in South India. This program simultaneously worked to mitigate harms and risk for female sex workers, as well as the structural drivers of stigma. The community-level activities were observed to increase female sex worker's membership in community-based organizations and support referrals to social benefits and redressal of violence and harassment.[17]
- Project Advocacy and Other Community Tactics (ACT) was designed to "eliminate barriers to HIV care for gay and bisexual men and transgender women in five African and two Caribbean countries."[18(p2251)] This project entailed a "coordinated set of community-led advocacy initiatives targeting structural changes,"[18(p2251)] including community mobilization and sensitization workshops.[18] Project ACT was observed to improve access and availability of affirming care and resources, and highlighted "the vital role community-led advocacy plays in addressing stigma and discrimination as structural barriers to HIV care."[18(p2251)]
- Sheroes was a community-driven, group-level HIV intervention for transgender women in the United States; it entailed five weekly, peer-led group sessions and sought to decrease risk for HIV acquisition and transmission as well as increase access to gender affirmation.[19] Sheroes centered the voices of transgender women, through collaboration and engagement with transgender community members and stakeholders. Sheroes also fostered "alliances between transgender women through community building and empowering relationships via creation of a 'sisterhood' of transgender women who had completed the intervention."[19] The pilot indicated an increase in such social support and a reduction in sexual risk behavior, as compared with the control group.[19]
- Positively Trans is a Transgender Law Center program led by trans women of color living with HIV in the United States. Through "community-driven research, leadership development, and storytelling,"[20] Positively Trans makes the case that "trans voices, needs, and leadership must be centered in [the HIV] response, and that the HIV response is a key strategy for trans health and liberation."[20] This program serves as an important reminder that within community settings there are existing, effective community-led efforts to reduce and mitigate the harms of intersectional stigma.

IMPLICATIONS FOR IMPLEMENTATION AND EVALUATION

To inform the development of interventions in line with the principles that we have outlined, and to assess the impact of these interventions on health outcomes relevant to populations affected by intersectional stigma, the concept of "evidence" needs to be broadened. At present, funders and peer-reviewed journals tend to have a narrow conceptualization of evidence. Randomized controlled trials (RCTs) are considered the gold standard of evaluation, and biomedical outcomes are often prioritized over socio-structural and community-level outcomes valued by communities. In addition, intervention implementation typically must accommodate three- to five-year funding cycles, thereby constraining the outcomes an intervention can reasonably affect in such a short time. Current standards constrain our ability to maximize impacts that reflect community priorities, evaluate the success of interventions, and study the reduction of intersectional stigma over time. In addition, narrow conceptualizations of evidence limit the potential for community-derived solutions to be optimally evaluated and scaled.

Study Design

When evaluating intersectional stigma reduction interventions, evidence from programmatic efforts using real-world implementation strategies and designs should be valued alongside RCTs. RCTs are limited in their ability to assess social and structural change. For example, employing an RCT design to evaluate an intersectional stigma intervention is often impractical, as it would likely require randomizing communities to social or community change interventions, which would be expensive and could take much longer to evaluate than the typical five-year funding cycle allows. We must support study designs without experimental assignments, such as rigorous observational research and implementation science methods. Furthermore, we need to acknowledge the value of qualitative and mixed methods for evaluation research.

Outcomes

To effectively evaluate intersectional stigma reduction interventions, it is necessary to employ a wider range of proximal markers (e.g., mobilization and solidarity), implementation outcome measures (e.g., acceptability, feasibility), and structural outcome measures (e.g., changes in laws and policies, community representation) alongside clinical outcomes. Existing measures have been validated for this purpose (e.g., cohesion,[21,22] community mobilization[23]). Where needed, measures may be adapted or additional measures developed and validated to capture other latent constructs to support the generalizability of findings.[24]

Timelines

Extended evaluation timelines can allow more meaningful observation and assessment of the impact of intersectional stigma interventions that seek to effect systemic change. For example, traditional National Institutes of Health R01 grants could be extended from five to seven years for interventions that address structural drivers of stigma. Similarly, funders could release calls for supplemental grants to allow for additional data collection two years after the intervention ends to assess longer-term changes and policy-level effects. Such extended timelines are necessary, as policy and institutional-level changes often do not manifest within traditional study timelines.

Structural Interventions

Beyond study design, outcomes, and timelines, there is a need for greater development, implementation, and evaluation of structural interventions, which work by altering the societal, legal, and economic contexts that influence individual, community, and societal health outcomes. For example, legalizing and making widely available needle exchange programs at a state or country level is an example of a structural intervention to minimize harms, such as HIV and hepatitis C exposure, for people who inject drugs. At present, few intersectional stigma interventions have included structural components to dismantle systems of power, privilege, and oppression.

Research Coordination

Recognizing that multiple interventions across levels are necessary to dismantle systems of power, coordinated approaches that create opportunities to build on prior and ongoing research and praxis are needed. For example, alongside the provision of harm reduction services for people who use drugs, legal changes, such as decriminalizing possession of multiple syringes, are required so programs can operate safely and legally.[25] Such coordination may occur among public health researchers and practitioners, community organizations and members, or local officials. This may also be accomplished through the creation of dedicated research consortiums. Supporting the

dissemination of intersectional stigma reduction efforts also supports opportunities for continued or complementary interventions by other study teams.

This editorial offers a close look at the implications of intersectional stigma from an intervention standpoint as well as more broadly within public health. Employing an intersectional lens and approach to stigma reduction is critical to advancing public health and achieving health equity. To fully realize this goal, public health communities must support and facilitate action to dismantle and mitigate the interlocking power dynamics that drive health inequities. To meaningfully do so, we must expand our approaches and reassess values placed on various modalities of intersectional research and praxis. AJPH

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Addressing Intersectional Stigma in Programs Focused on Ending the HIV Epidemic

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Stigma is defined as a process by which individuals or groups are devalued because of attributes or behaviors deemed "deeply discrediting."[1] HIV stigma, the social discrediting of people living with HIV, often intersects with other forms of social marginalization. Intersectionality is a framework that considers how interlocking social systems of privilege and oppression (racism, sexism, transphobia, heterosexism, classism, xenophobia) condition (at a microlevel) the experiences of people with intersecting, often marginalized social identities (e.g., race, gender identity, sexual orientation, socioeconomic status, country of origin, health status).[2,3] In the HIV context, an intersectional stigma lens recognizes that multiple marginalized social positions, processes, and identities are "mutually constituted" and that disparities cannot be effectively addressed if racial, gender, and sexual minority status among people living with HIV are treated separately.[4]

An intersectional approach becomes particularly relevant given the social groups most affected by HIV in the United States. In 2019, HIV incidence was higher among Black (45.0 per 100 000), Latinx (21.5 per 100 000), and multiracial (18.8 per 100 000) individuals than among White individuals (5.3 per 100 000).[5] In addition, 70% of transmissions were attributed to male-to-male sexual contact, as compared with 23% by sexual contact between cisgender men and cisgender women.[5] Black women account for more than half of new HIV cases among women overall,[5] and rates of heterosexual HIV transmission among Black women are considerably higher than rates among Black men.[5] From 2015 to 2019, the only gender categories for which HIV incidence increased were transgender women and transgender men. Black gay and bisexual men and transgender women demonstrate the lowest preexposure prophylaxis use, HIV diagnosis rates, linkage to and retention in care, and viral suppression rates of all racial and gender groups.[6]

People living with HIV and other individuals affected by HIV stigma contend with the negative synergistic impact of intersectional stigma[2–4,7,8] on health, manifested at institutional (health care access and competence), interpersonal (rejection and victimization), and individual (internalized stigma and associated poor mental health) levels. Varying stigmas often act in concert[4,7,8] to increase stress among people with HIV, reduce their likelihood of engaging in health-promoting behavior (e.g., seeking HIV testing or care), and undermine their resilience (e.g., well-being, optimism, medication adherence). Although these represent major challenges, the agency, efficacy, resilience, and resistance of individuals who experience intersectional stigma are strengths that can be harnessed to improve health and well-being. Along with this, individuals who are most marginalized experience a disproportionate share of stigma related to HIV.[9]

Intersectional stigma, a primary driving factor of health inequities and a barrier to health care in the United States, has been undertargeted in interventions despite the fact that its effects might be modifiable at several socioecological levels. Existing interventions have been limited in scope and have yet to be tested with respect to their large-scale efficacy. The scope and nature of programmatic work to reduce intersectional stigma and improve HIV-related outcomes, as

well as the effects of multilevel interventions, remain unknown. Here we draw upon the expertise and experience of staff at the National Institutes of Health (NIH), scientific investigators conducting intersectional stigma research, and community service providers who implement programs to improve HIV outcomes in the context of intersectional stigma to inform recommendations to address HIV.

INCREASING AND ENHANCING THE IMPACT OF INTERVENTIONS

There are few interventions explicitly designed to address intersectional stigma. Thus, there is a paucity of research demonstrating the efficacy of intersectional stigma interventions incorporating traditional scientific designs and standards. Other efficacious interventions adopting anti–intersectional stigma approaches may exist, but they may not be labeled and disseminated as such. Nevertheless, work conducted to date offers instructive innovative approaches to optimize HIV-related interventions in the context of intersectional stigma (e.g., comprehensive sex education, programs to optimize coping among clients). As the impact of intersectional stigma on HIV prevention and treatment is increasingly acknowledged in HIV research and the need for more interventions to address this challenge is recognized, more guidance will be needed to ensure optimal effectiveness of anti-stigma efforts. Thus, we developed recommendations to enhance the impact of interventions designed to reduce HIV-related stigma and other intersecting stigmas in implementation settings (Table 1).

Recommendation 1

Our first recommendation is to prioritize community ownership, engagement, and connectedness, which are critical for successful stigma reduction intervention implementation. Researchers should incorporate context- and community-driven approaches to understand types of intersectional stigmas, how they operate, and how to address them. Communities need to be recognized as equal partners given

TABLE 1— Increasing and Enhancing the Effects of Interventions Aiming to Reduce HIV Stigma and Intersecting Stigmas in Implementation Settings

Recommendation	Principle(s)	Example(s)
Prioritize community ownership, engagement, and connectedness, which are critical for successful stigma reduction intervention implementation.	Communities need to be equal partners. Researchers must recognize and value the unique and complementary skill sets and expertise that partnerships promote.	Develop memorandums of agreement emphasizing equitable sharing of budget resources, decision-making authority, and capacity building. Employ nontraditional, community-driven, participatory methodologies (e.g., human-centered design, digital storytelling). Collaborate with researchers in the mental health field to develop anti-stigma approaches.
Incorporate the perceptions and experiences of front-line service providers to improve intervention approaches within communities.	Ensure equal participation from communities and health care entities, providers, and staff.	Community partners (providers, community-based organizations, peers) tasked with implementing an intervention are included in design discussions to ensure that the intervention accommodates their practice constraints or beliefs around what should be done and how.
Conduct more expansive intersectional stigma interventions and evaluations.	Consider implementation science study designs to evaluate existing community-based interventions or services instead of prioritizing efficacy. The lack of validated measures to assess impact may partially explain why there is limited evidence for efficacious interventions.	Evaluate interventions emphasizing academic–community partnerships to reduce intersectional stigma. Develop assessments that measure the comprehensive effects of interventions.
Create an accessible, living, and open compendium or database of research and community efforts to address intersectional stigma.	Create an evidence-based intervention compendium but employ a more flexible, dynamic approach. Select and combine core elements from different interventions that are relevant to the context.	The Stigma and Resilience Coalition is cataloguing community organization–based and research-based intersectional stigma efforts in New York City. Within the compendium, emphasize common elements of different interventions effective in terms of stigma reduction.
Address the role funding priorities play in our ability to address intersectional stigma.	Broaden the funding scope beyond behavioral and biomedical HIV outcomes to include stigma reduction and community empowerment.	Fund multilevel interventions with intersectional stigma reduction as the primary outcome of interest.

their important and complementary strengths.[10] Researchers must recognize and value the unique skills and expertise that partnerships promote. This can mean ensuring that community members have leadership and decision-making roles in research teams, developing memorandums of agreement emphasizing equitable sharing of budget resources, sharing decision-making authority, and including capacity-building activities in research projects. Communities are often relegated to limited roles, included only for their ability to recruit participants into studies (e.g., via focus groups or in-depth interviews) or to provide feedback on intervention content once developed (e.g., through time-limited advisory boards).

Novel approaches amplifying community voices and involvement are needed so that interventions are dynamic and responsive to emerging challenges and stigmas. Researchers should consider nontraditional, community-driven, participatory methodologies (e.g., human-centered design,[11] digital storytelling,[12] a modified Delphi process,[13] photovoice[14]) and support organizations in such work even without research funding.

It is time to move away from reliance on tokenistic community advisory boards with minimal input and move toward engaging community members in conceptualizing and carrying out interventions and research studies, starting with writing funding proposals. Partnered research should include equitable arrangements in terms of finances, decision making, and capacity building. Communities must be centered in such work, as this vantage point allows true intervention tailoring to community and stakeholder priorities. Finally, the field needs more research led by scientists whose identities and lived experiences mirror the communities under study.

Recommendation 2

Our second recommendation is to incorporate the perceptions and experiences of front-line service providers as a means of improving intervention approaches within communities. Service providers are typically underrecognized and undersupported in efforts addressing intersectional stigma. Thus, although many service providers work to address intersectional stigma (even if they do not label it as such) as part of their day-to-day work, we know little about the content and impact of those efforts. Even if researchers develop the most rigorous and multilayered content-based intervention, it will fail if the experiences and perspectives of service providers on the ground are not incorporated. Their input, beginning with the development stage, is critical. It should be noted that service providers, at times, have been identified as a source of stigma among clients.[15–17] Thus, although service provider perspectives may be valuable for informing interventions, this does not negate the need for the implementation of strategies to address stigma within this population.

Recommendation 3

The third recommendation is to conduct more expansive intersectional stigma interventions and evaluations. Intersectional stigma interventions require attention to multiple levels (e.g., individual, interpersonal, community, structural), types of stigma (e.g., internalized, anticipated, enacted), and stigmatizing and discriminating forces (e.g., racism, sexism, sexual minority status). They also should address systems of privilege and oppression and intervene on these systems or their manifestations.[18] Finally, intersectional interventions should acknowledge the complexity of intersecting identities and systems, give attention to the contexts in which HIV and other stigmas occur, and incorporate the strength and solidarity that can emerge when people with shared identities convene.

Given these considerations, we need novel, wide-ranging ways of evaluating intersectional stigma interventions beyond efficacy and effectiveness in terms of HIV-related behaviors and health outcomes. Researchers and funders should consider more use of implementation science study designs (including hybrid implementation and efficacy trial designs)[19,20] to evaluate community-based interventions and services. Implementation science research can include evaluation of community-based interventions, use of mechanisms such as academic–community partnerships, and local health department–community–federal partnerships. This is critical as approaches to intersectional stigma have effects at both the individual level (by building strengths and resilience to resist stigma) and the structural level (by working with leadership at all levels on sustainable policy change).

These types of studies should be conducted in equal collaboration with community partners, and attention should be directed to inner organizational (e.g., organizational culture, structure, and leadership) and outer system (e.g., legislation) contexts.[21] Researchers and funders should consider how to balance innovation with proven-effective strategies to bring programmatic public health impact to scale. The lack of validated measures assessing the effects of interventions on outcomes beyond

HIV indicators (e.g., resilience, empowerment, stigma reduction) may partially explain the limited evidence for intersectional stigma interventions.

Recommendation 4

Our fourth recommendation is to create an accessible, living, and open compendium or database of research and community efforts to address intersectional stigma. Community efforts addressing intersectional stigma cataloged within local health department strategies and end the HIV epidemic plans could be collated with peer-reviewed academic research. The compendium could be modeled after the Centers for Disease Control and Prevention (CDC) compendium of evidence-based interventions with a more flexible approach. According to the CDC, if adapted interventions do not have all of the core components of the original evidence-based interventions, they are not "evidence based."

However, rigid evidence-based intervention guidelines can result in an inability to grow and expand core intervention components in different settings and in alignment with community priorities. Rather than beginning with interventions showing efficacy or effectiveness, we suggest prioritizing core intervention characteristics (e.g., the aspects of an intervention that are most applicable to a given setting) for adaptation, implementation, and testing. In addition, we must develop other open and accessible forums for sharing and disseminating promising programs, best practices, or evidence-informed programming.

Recommendation 5

The final recommendation is to address the role funding priorities play in our ability to address intersectional stigma. We need to broaden the scope of priority HIV research and programmatic outcomes to include stigma reduction and community empowerment. Funders' prioritization of biomedical outcomes over stigma reduction can be detrimental to program implementation and harmful to participants. This "misalignment" of success metrics—what the funders value versus what communities need—poses a barrier to testing and adoption of effective intersectional stigma-related interventions. Also, the biomedical endpoints demanded by funders often hamper holistic responses to clients' needs. Lastly, the siloed nature of funding prevents the formation of meaningful collaborations among researchers, providers, and communities.

CONCLUSIONS

In this editorial, we have addressed the emergence, potential, key challenges, and future directions of implementation research and practice targeting intersectional stigma within the field of HIV. NIH staff, investigators conducting intersectional stigma research, and community service providers who implement programs to improve HIV outcomes identified critical gaps in funded research, intervention approaches, and teams. These gaps result from suboptimal participation on the part of communities affected by intersectional stigma and those who support them (e.g., health care and social service providers). A common thread that runs across our recommendations is the need to intentionally elevate the focus on intersectional stigma in HIV-related implementation science. Namely, there is a need to reconfigure the unilateral investigator-driven research model by incorporating an equivalent presence of community partners from conceptualization to funding and implementation.

There are benefits in this paradigm shift. First, it may help researchers understand operating mechanisms of intersectional stigmas and assist in developing commensurate interventions and policy-level strategies that combat stigmas and their effects. Second, multilevel, multicomponent hybrid interventions may have more powerful and long-lasting effects than single-focus, single-level approaches.[18,22] Integration of individual and structural stigma reduction interventions is yet to be optimized and tested in study designs. Findings from emerging interventions conducted by research–community collaborations will be informative with respect to the feasibility and efficacy of interventions targeting both stigma and support among affected individuals. In addition, implementation research related to intersectional stigma around HIV continuums of prevention and care that is conducted in equal collaboration with community partners is more likely to increase validity, buy-in, and sustainability.

Critical steps must be taken to develop true research–community partnerships addressing intersectional stigma. This requires modifying research funding approaches, including creating funding mechanisms prioritizing stigma measurement and eradication as primary outcomes. In addition, grant review models that include community members may help ensure that community values and interests are represented in decisions regarding funding. Moreover, funders can facilitate more authentic research–community partnerships by mandating scientific and community co-leadership on grants and requiring budgets that ensure significant resource

disbursement within community-based organizations.

Lastly, governmental–academic–community partnerships can establish an infrastructure for grassroots reporting and cataloguing of ongoing substantial community and service provider efforts addressing intersectional stigma. Creating a "living," centralized platform with project or study descriptions of existing funded and unfunded local and national projects would be beneficial for potential cross collaborations and accelerated timelines to achieve sustained effects on intersectional stigma.

Addressing intersectional stigma can have significant returns with respect to ending the HIV epidemic. However, to obtain these benefits, researchers, funders, and service providers must reconceptualize how efforts to combat intersectional stigma are understood, evaluated, and delivered. Approaches that emphasize authentic community partnerships, build on individual and community strengths, increase the knowledge base regarding intersectional stigma measurement and interventions, and reconfigure funding models are critical in this process. AJPH

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Intersecting Stigmas: Being Black African, Immigrant, and Living With HIV in the United States

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Nationally, HIV incidence among African immigrants is six times higher than in the general population and nearly twice that of US-born Black individuals.[1,2] The precise number of African immigrants living with HIV (ALWH) in the United States is unknown, because of the lack of disaggregated HIV surveillance data on Blacks or African Americans by country of birth. Compared with the HIV epidemiological profile for US-born Black people, among ALWH there are higher rates of heterosexual transmission and higher rates among women. Although some ALWH may have acquired HIV prior to migration, a significant proportion acquire HIV after migration.[2] HIV risk after migration is due to complex sociocultural, psychosocial, and structural conditions, such as xenophobia and racism. African immigrants are less likely to test for HIV and often present late to care.[3,4] HIV-related stigma is higher among African immigrants than among other groups, further exacerbating risk factors and systemic barriers.[3] As this population grows, it is critical to understand their unique experiences with HIV-related stigma and address intersecting stigmas associated with race, nativity, immigration status, ethnicity, language, and HIV status.

SOCIOCULTURAL CONTEXT OF HIV-RELATED STIGMA

Cultural values and norms determine perceptions about the causes of diseases, influence behaviors, and shape prevention and care decisions. Stigmatizing attitudes about HIV need to be understood within the context of African cultural values and norms that migrated with African immigrants from their home countries to the United States.[4] HIV continues to be seen as a "death sentence" and aligned with behaviors that are considered deviant and immoral, such as having multiple partners, homosexuality, and premarital or extramarital sex.[5] Hence, merely going to get tested is sufficient to elicit stigma. In some African societies, HIV is understood as a divine punishment for a sin or a spiritual curse.[5] African immigrants living with HIV often experience distancing, gossiping, and shunning from family, friends, and the community. This leads to denial, social isolation, nondisclosure, and fear of integration into the larger US community. Given the collectivist culture of African communities, the impact of HIV stigma extends to the whole family, bringing dishonor and harming the family's reputation.[4] Consequently, ALWH would rather hide their diagnosis from family and community members in the United States, as well as in Africa, and not seek care than face censure and shame.[5] Gender biases within some African cultures limit women's sexual and reproductive autonomy, prevent communication about sexual health with partner(s), and fuel intimate partner violence.[6] Concurrently, African masculinity stigmatizes men's willingness to engage with HIV testing and care. Across the continent of Africa, anti-homosexuality bills are criminalizing lesbian, gay, bisexual, transgender, queer/questioning, intersex, and asexual (LGBTQIA+) individuals, which multiplies the stigma and shame experienced by these communities.

INTERSECTIONAL STIGMA AMONG AFRICAN IMMIGRANTS

While navigating the challenges of HIV-related stigma, African immigrants in the United States are also socially marginalized because of multiple identities based on race, nativity, immigration status, ethnicity, and language (Table 1). Stigmas associated with African immigrants' intersecting identities (e.g., being Black, foreign-born, and a non-English speaker) compound their vulnerability to HIV and discrimination based on their HIV status.

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TABLE 1— Intersectional Impact of Stigmatized Identities on HIV Engagement

Social Identity Categories	Societal Oppressions	Marginalized Identity	Intersectional Impact	
Race	Anti-Black racism	Black	HIV stigma State-sanctioned violence Targeted racialized criminalization Economic instability Linguistic discordance Denied or limited health coverage Lack of access to health resources	Poor communication between sexual partners Gender inequity Intimate partner violence Nondisclosure Isolation Low condom use Late HIV testing Delayed engagement in HIV care Lack of culturally and linguistically appropriate services
Nativity	Nativism, xenophobia	Foreign-born		
Immigration status	Nativism, xenophobia	Undocumented, Deferred Action for Childhood Arrivals (DACA), Temporary Protected Status (TPS), asylee, nonimmigrant visa or refugee		
Ethnicity	Ethnocentrism	African country of origin		
Language	Language oppression	African languages, dialects, and accents		

Although there are similarities in terms of anti-Black interactions with US systems, the experiences of African immigrants in the United States differ from those of US-born Black people because of converging socially oppressed identities related to being an immigrant. As noted by Castañeda et al.,

> being an immigrant limits behavioral choices and, indeed, often directly impacts and significantly alters the effects of other social positioning, such as race/ethnicity, gender, or socioeconomic status, because it places individuals in ambiguous and often hostile relationships to the state and its institutions, including health services.[7(p378)]

Being Black

African immigrants are subjected to anti-Black racism and related injustices and health disparities experienced by US-born Black people. State-sanctioned violence, for example, is a reality underscored by the murders of Amadou Diallo, Alfred Olango, Ousmane Zongo, and other African immigrants unjustly killed by the police. Health disparities among African immigrants are a consequence of living longer in the United States, adopting local behaviors, and having racialized experiences that affect health outcomes, similar to their US-born counterparts.

Being Black and an African Immigrant

Despite the growing efforts of national movements, such as #ImmigrationIsABlackIssue (a social media mantra coined by UndocuBlack Network), Africans are often excluded from the US immigration narrative. Stigmatizing beliefs and stereotypes toward racialized immigrants, including African immigrants, are reflected in anti-immigrant rhetoric and policies,[8] making African immigrants more vulnerable because of their Blackness as well as their status as foreigners. Racist rhetoric, such as a US president referring to African nations as "shithole" countries, fuels existing stereotypes about Africans being lazy, poor, dirty, and constantly seeking aid. Examples of harmful policies that specifically stigmatized African immigrants include the 2017 travel bans preventing nationals of selected African countries from entering the United States, and the fluctuating authorization of Deferred Enforced Departure and Temporary Protected Status for individuals from Liberia, Sierra Leone, Somalia, Sudan, and Guinea. African immigrants are targeted and criminalized by both local law enforcement and immigration enforcement, thus facing arrest, detention, and deportation at disproportionate rates.[9] Anti-immigrant stigma leads to worse health outcomes by targeting distinct racial/ethnic populations and limiting health resources, including HIV services, to immigrants with specific statuses.[7] Overall, restricted access to health insurance, uncertainty regarding eligibility for health services based on immigration status, and fears of rejection of one's citizenship request or deportation if one tests HIV positive impede engagement in HIV testing, treatment, and prevention efforts.[10] Often, immigrants living with HIV who are detained or in deportation proceedings live in unhygienic conditions, are denied interpreters and access to their medical records, and receive subpar treatment, with no access to HIV specialists.[11]

Being Black, an African Immigrant, and Multilingual

Language is used to reinforce existing oppressions and reiterate the

differential status of immigrants in the United States. Being able to speak American English like a native speaker and not having a foreign accent is tied to career mobility, higher income, and ease of navigating US institutions, including the health care system. African immigrants tend to be multilingual—including colonial and native languages—and prefer to speak dialects that are not considered mainstream in the United States. Linguistic discordance with health care providers, inadequate interpreter and translation services, and lack of linguistically appropriate health materials contribute to delays in engagement in care, late initiation of antiretroviral therapy, and increased risk of onward HIV transmission for African immigrants.

CONCLUSION

Explicit efforts to illuminate and address the nuances of HIV-related stigma and interlocking systems affecting the lives of African immigrants are needed. Specifically centering African immigrants requires examining intersecting stigmas based on race, nationality, ethnicity, immigration status, and language that influence their uptake of HIV services and overall well-being. This has implications for HIV surveillance, research, and practice. It is critically important for national and local HIV data sets to disaggregate race and ethnicity data by "country of birth." This will provide a more accurate account of the national epidemic in the United States, and document the HIV epidemiological profile of African immigrants to support targeted interventions. More research is needed to understand immigration as a social determinant of health, which influences access and utilization of HIV services. Various immigration-related factors are relevant for HIV research, such as immigration status, length of time in the country, age at time of migration, preferred language, and English-language proficiency. Moreover, interventions addressing HIV stigma among African immigrants are limited. Much of the effort to address HIV stigma among African immigrants has been developed locally, led by or in partnership with communities. Strategies incorporate cultural activities, storytelling and media, and bundling HIV testing with other health screenings to maximize prevention while destigmatizing HIV services.[12] HIV stigma-reducing interventions need to be culturally and linguistically tailored, multilevel, and conducted in partnership with the community. More specifically, direct funding to community-based organizations is needed to evaluate and scale up community-defined HIV interventions to reduce HIV stigma.

Failure to recognize the widespread issue of HIV among African immigrants has resulted in a lack of HIV prevention and care initiatives for this growing US population. An intersectionality framework can serve as a useful tool to improve documentation and understanding of the HIV epidemic among African immigrants, implement targeted solutions, and create policies that directly address their unique positioning in the United States. AJPH

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Stigmatizing Spaces and Places as Axes of Intersectional Stigma Among Sexual Minority Men in HIV Prevention Research

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Conceptualizations of intersectional stigma in HIV prevention research are limited and almost exclusively individualistic.[1,2] Even when stigma is conceptualized as a social process, individuals are typically the focus, as is the case with internalized, anticipated, and enacted stigma. Because constructs are often inseparably tied to their level of measurement, studies of stigma as both individual and social phenomena reify stigma as a behavioral phenomenon and obfuscate the origin of stigma in oppressive systems and structures.

We advocate an expansion of intersectional stigma to include place as a level of measurement in HIV prevention research for sexual minority men (SMM) at marginalized intersectional positions, such as racial or ethnic minority status, socioeconomic position, and gender expression. Understanding the spatial manifestations of intersectional stigma in social–structural contexts has the potential to expand behavioral understandings of stigma and highlight new avenues for intervention to mitigate the perpetuation of stigma in and through social structures, systems, and institutions.[3,4] We posit that place is important and understudied as an analytical unit in HIV prevention research on intersectional stigma. Our stance is informed by burgeoning public health literature on spatial stigma and place as a social determinant of health and our research on intersectional stigma and HIV prevention among SMM.[3,5,6]

Place is often conceptualized as a geographic area (e.g., neighborhoods) that both shapes and is constructed by the lived experiences, interactions, practices, and identities of those who inhabit and navigate in a space.[7] Social–structural factors in health-restrictive environments (places) heighten the risk associated with HIV-related behaviors and obstruct engagement in HIV prevention and care. Places characterized by violence, poverty, unemployment, social disorder, and lower social capital and social cohesion are associated with heightened HIV vulnerability among SMM at marginalized intersectional positions.[8] Although the study of place has had a resurgence in public health (e.g., place-based interventions to create health-promoting environments), its inclusion in the axes of intersectional stigma remains limited.

Spatial stigma posits that negative representations of marginalized communities can be deleterious to the health of their residents and widen health inequities. Spatial stigma may affect health by limiting access to employment and educational opportunities, restricting available coping resources, limiting access to and engagement with health care, and constricting identity formation and management.[4] Multidisciplinary research has used the concept of spatial stigma to examine links between geographic boundaries, social institutions and practices, and policy and legal aspects of place and health inequities. Through this lens, intersectional stigma connects to and is reproduced by characteristics of a place—both as an internal process by which social–structural factors perpetuate stigma and from a top-down or external process involving laws,

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policies, and practices that reinforce oppressive systems.

Structural racism is one of the mechanisms that produces health-restrictive environments and links place to health inequities.[8] Structural racism is often expressed in the form of stigmatizing laws and criminal justice–related factors and is compounded by unequal enforcement of laws, which has implications for intersectional stigma and HIV prevention among SMM.[5] Laws that criminalize HIV exposure are also structurally racist insofar as they are more likely to be enforced against Black SMM than SMM of other races, do not reflect advances in HIV prevention and treatment, and stigmatize people with HIV. Structural racism is also linked to practices that promote the overpolicing of places frequented by Black and Latino SMM as well as the increased surveillance of individuals and institutions (e.g., medical and educational systems), which further restricts social and structural resources from these groups.[9]

Overpolicing operates in tandem with gentrification to displace individuals and disrupt community support systems that protect against acquiring HIV.[9,10] Gentrification-related displacement and replacement also affects access to HIV prevention and care through NIMBY (not in my back yard)–based opposition to establishing and expanding place-based services for marginalized populations.[10] The availability of affordable and safe housing is yet another example of intersectional stigma operating through place. Although the Fair Housing Act (1968; Pub L No. 90-284) protects against discrimination based on single axes of identity (e.g., race/ethnicity, disability), it has limited impacts on transforming institutional practices that reduce access to affordable and safe housing for SMM.

The level of inclusivity and safety of a place further limits the ability of SMM at marginalized intersectional positions to navigate or travel in a place without experiencing stigma.[11] Moreover, not having to self-monitor to avoid stigma or consider whether one belongs or is safe in a place is a form of social privilege that becomes increasingly less common among SMM. Place-based stigma may also cause SMM to internalize negative stereotypes about a place. For example, from our work with Black and Latino SMM living in low-income urban neighborhoods, we observed that SMM internalized spatial stigma, which further constrained access to HIV prevention services in other settings.

Understanding manifestations of intersectional stigma in place has the potential to contextualize behavioral understandings of stigma and shift focus to the structures and systems of its origin; redirect intervention efforts from individuals to modifiable social–structural factors that systematically reinforce power imbalances and constrain opportunities; illuminate critical information on how spatial, institutional practices, and policies disproportionately heighten vulnerability to acquiring HIV; and provide guidance on the embodiment of spatial stigma to affect health even when an individual is removed from the devalued environment.[6,12] We caution that the omission of place from intersectional stigma and HIV prevention research will hinder efforts to abolish spaces that systematically oppress and contribute to persistent HIV inequities. Omission of spaces and places as axes of intersectional stigma also perpetuates a hyperfocus on individual behaviors and prevention techniques, with insufficient attention to the social–structural forces that constrain the availability and effectiveness of HIV prevention.

To fully assess the role of intersectional stigma as a driver of health inequities among SMM, future research and interventions must attend to the social–structural processes in, and external to, places that drive these inequities. Inherent to intersectionality is the goal of deconstructing and uprooting systems of power and privilege.[12] We believe the following objectives must be actualized to achieve this goal:

1. Conceptualize space as a modifiable driver of intersectional stigma and partner with communities to develop multilevel solutions to increase access to and engagement with HIV prevention, including maintaining existing safe and trusted places for HIV prevention that use identity-affirming practices and prioritize holistic wellness, investigating the social and health-related impacts of affirming places in communities, and prioritizing community resilience and community-driven development as key programmatic elements in HIV prevention.
2. Use place-based methodological approaches that provide information on the interlocking systems and structures that require intervention. Integrating qualitative methods with spatial analyses to capture how SMM define place and broader social–structural boundaries (e.g., community-led approaches like participatory photomapping) may better inform the use of administratively defined (e.g., census tracts and zip codes) place-based data in future intersectional stigma research.
3. Invest in collaborative, place-based and systems-focused approaches to address HIV inequities.

Interdisciplinary approaches are needed to conceptualize and intervene in the social–structural factors, policies, and institutions that drive place and spatial stigma, including geographers, transportation experts, policymakers, and public health practitioners to abolish stigmatizing spatial structures.

Attending to place and space as axes of intersectional stigma in HIV prevention research is critical to addressing the social–structural factors that drive HIV inequities and achieving the goals of Ending the HIV Epidemic. AJPH

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Intersectional Stigma and HIV Continuum Outcomes Among Sexual Minority Men in Sub-Saharan Africa: A Conceptual Framework

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Sexual minority men (SMM)—which we define as cisgender and transgender men who are romantically attracted, sexually attracted, or both to other cisgender and transgender individuals—in sub-Saharan Africa are at heightened risk for HIV infection and have a higher HIV prevalence and incidence compared with the general population. This disparity has been largely attributed to the stigma and discrimination—on the basis of sexual orientation or gender identity—to which SMM in sub-Saharan Africa are subjected. Recently, there has been a stronger emphasis on investigating how different patterns of intersectional stigma contribute to health inequities among marginalized communities. Intersectional stigma, a term coined by Michele Tracy Berger in her book *Workable Sisterhood*,[1] refers to the confluence of multiple stigmatized identities and how they interact with structural context and factors (e.g., cultural norms and practices, social policy) to have an impact on health outcomes. Sexual orientation, HIV status, and socioeconomic status may each affect the health of SMM in sub-Saharan Africa.

A systematic review published in *The Lancet* in 2019 found that while 67% of SMM in sub-Saharan Africa had ever tested for HIV, among SMM living with HIV, only 24% were currently on antiretroviral therapy, and 25% of them had achieved viral load suppression.[2] While it is increasingly recognized that intersectional stigma—related to HIV status and sexual minority identity—affects HIV prevention and care outcomes, there are notable gaps in the literature, with no existing model to frame the mechanisms through which experiences of intersectional stigma affect HIV prevention and care outcomes among SMM in sub-Saharan Africa. Understanding these mechanisms has important implications for future HIV intervention development and policymaking.

CONCEPTUAL FRAMEWORK

Drawing from the socioecological model, our conceptual framework (Figure 1) proposes that SMM in sub-Saharan Africa experience interconnected systems of stigma (structural, community, interpersonal, and individual) that collectively and uniquely undermine their ability to gain access to and engage with HIV prevention and health care services.

STRUCTURAL STIGMA

Structural stigma refers to the "societal-level conditions, cultural norms, and institutional practices that constrain the opportunities, resources, and wellbeing of the stigmatized."[3(p743)] We propose that the most salient sources of structural stigma to which SMM in sub-Saharan Africa are subjected are anti–lesbian, gay, bisexual, transgender, and queer (LGBTQ)-oriented legislation, police brutality; arrests; extortion; economic disenfranchisement; and discrimination in health care settings. Sub-Saharan Africa accounts for nearly half of the countries worldwide where homosexuality is outlawed, which has implications for access to HIV-related health services.

A study of 28 African countries found that SMM living in countries with the most severe anti-LGBTQ legislation were less likely to be tested for HIV and to be aware of their serostatus compared with those in countries with the least severe legislation.[2] Anti-LGBTQ laws both discriminate against sexual minority communities and embolden state actors (e.g., police and law enforcement) to

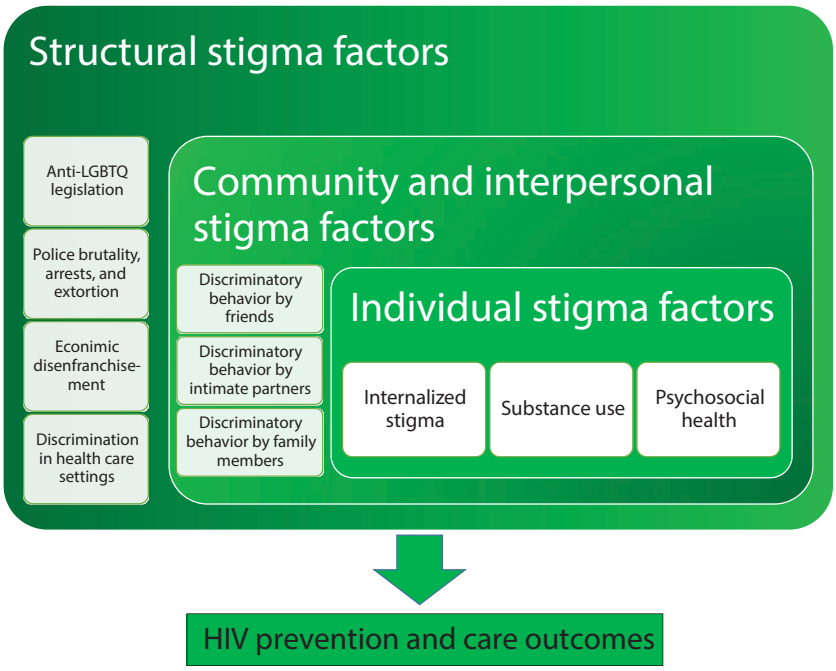

FIGURE 1— Conceptual Framework for Intersectional Stigma Factors That Predict HIV Prevention and Care Outcomes Among Sexual Minority Men in Sub-Saharan Africa

Note. LGBTQ = lesbian, gay, bisexual, transgender, and queer.

"enforce" these laws and ordinances—all to the detriment of already marginalized groups. In a study of SMM living with HIV in Eswatini, participants described experiences of violence from police officers and lack of protection because of their sexuality.[4]

Another study of SMM in Jamaica found that SMM living with HIV were more likely to report experiencing police harassment,[5] which has implications for their engagement in HIV care services. While no known studies have specifically examined anti-LGBTQ police harassment and violence and its effects on HIV care engagement among SMM in sub-Saharan Africa, related literature has linked, for example, US immigration enforcement activity and health care–seeking behavior among Latinx immigrants.[6] Similarly, stigma because of sexual orientation and HIV status as grounds for denial or termination of employment might result in economic disenfranchisement, which may limit access to HIV prevention and care services. In South Africa, SMM living with HIV have reported experiences of discrimination and isolation, including loss of employment and housing, because of their HIV serostatus.[7] Lack of adequate employment is also associated with sexual practices that might elevate exposure to HIV such as transactional sex and condomless anal sex.[8] Another source of structural stigma is discrimination and prejudice in health care settings. Denial of health care services, lack of confidentiality, and negative health care worker attitudes because of sexual orientation or HIV status may lead African SMM to avoid engaging in health care. Interventions designed to address health care provider stigma toward SMM in sub-Saharan Africa have shown promising results, but more work in this area is needed.

COMMUNITY AND INTERPERSONAL STIGMA

We define community and interpersonal (enacted) stigma as discriminatory attitudes and behaviors perpetuated by friends, intimate partners, family, health care providers, and other community members. Even where this stigma is not directly experienced by stigmatized individuals, it may affect their behavior given the expected negative sequelae should their stigmatized identities become known (anticipated stigma).[9] A study of SMM in seven western and southern African countries found a high prevalence (7%–40%) of enacted stigma because of perceived sexual orientation, ranging in severity from family exclusion and gossip to blackmail, physical violence, and rape.[10] It is plausible that SMM who experience stigma from family and friends may be at heightened risk for HIV infection and more hesitant to seek HIV-related health care services. A study of SMM across eight African countries found that experiences of interpersonal stigma, specifically exclusion from family events and rejection by friends,[11] was associated with HIV seropositivity, providing further evidence of how further marginalization of SMM living with HIV by individuals that would ideally be a source of social support had dire implications for health and well-being.

INDIVIDUAL STIGMA

Perceptions, experiences, or anticipation of stigma can lead to internalized stigma, whereby the stigmatized individuals absorb and believe the stigmatizing messages embedded in the

nonaffirming culture.[9] We conceptualize individual stigma factors as the attitudes, beliefs, and trauma that are derived and informed by stigma and the impact of experiences of stigma on the health and well-being of the stigmatized individual, including internalized stigma (absorption of negative messages or stereotypes about stigmatized identity), substance use, and psychosocial health. Studies have documented high levels of internalized HIV stigma among SMM in sub-Saharan Africa, and constant experiences of stigma may lead SMM to engage in substance use as a coping mechanism. Lastly, the negative psychosocial effects of stigma cannot be underemphasized among SMM in sub-Saharan Africa. Various studies have documented a strong association between experiences of stigma and reports of depressive symptoms, anxiety, loneliness, and suicidality in this population.[12]

INTERVENTION AND POLICY IMPLICATIONS

In spite of discrimination and violence, SMM in sub-Saharan Africa remain resilient and continue to build a collective agency. Consistent with this proposed framework, interventions and policies should be developed to address the intersectional nature of the stigma experienced by SMM in sub-Saharan Africa and to block the mechanisms through this which this stigma exacerbates HIV disparities. Most existing HIV prevention and care interventions focus solely on changing individual-level behavior, ignoring the larger nonaffirming contexts in which SMM are forced to exist and thrive. Future interventions should address the multilevel systems that propagate stigma and inhibit SMM from easily accessing quality and affirming HIV health services. Possible interventions include sensitization trainings for community members, religious leaders, and health care providers; leveraging mobile technology to connect marginalized communities directly to affirming health care services; repealing of anti-LGBTQ laws; and economic strengthening programs. AJPH

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Black Sexual Minority Male HIV Researchers, Clinic Administrators, and Activists Call for the Advancement of an Intersectionality Approach to Address HIV Stigma

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HIV-related research that focuses on Black sexual minority men (SMM) often treats that particular community as monolithic. The research often focuses on the disparate rates of HIV infection while offering little insight into the social, cultural, political, and economic dynamics shaping the lives of Black SMM that impact decision-making and behavior or access to health care or public health systems. We postulate that these insufficient and often uninformed hypotheses are due to the lack of queer Black people living with HIV in HIV-related public health leadership, clinical research, health care delivery, and academia. This dynamic expressly exacerbates instead of reduces the experienced external and internal stigmas. We are happy to see articles in this special supplement of *AJPH* addressing the Black diaspora of SMM and raising the need for more investment in understanding intersectionality and an intersectional lens to build future research.

Recent research uses an intersectional framework to explain HIV prevention and treatment inequities. For Black SMM, links are found between lived experiences of racism and queerphobia[1] and reduced HIV-related health-seeking behaviors (e.g., poorer medication adherence, less frequent HIV screening).[2] These articles in this special supplement highlight the systemic racism within academia while also showcasing that these "isms" are only a small portion of the many enacted stigmas that impact Black SMM.

DIVING DEEPER INTO DRIVERS OF INTERSECTIONAL STIGMA

While reviewing the special supplement, the lack of Black SMM as first authors on each journal article except for one ("Intersectional Stigma and HIV Continuum Outcomes Among Sexual Minority Men in Sub-Saharan Africa: A Conceptual Framework") was duly noted. Meaningful engagement of Black SMM must occur at all levels of academia, research, and health care delivery if we expect to see an improved and more community-responsive approach. Black SMM leadership is vital to success.

It has also been shown that other enacted stigmas may directly affect Black SMM (e.g., sizeism, colorism, racial fetishization, and ageism). Quinn et al. (p. S285) discuss how these enacted stigmas deserve special attention and investigation, examining their relationship with HIV-related outcomes among Black SMM. Indeed, this argument is strengthened by the fact that prior research examining HIV-related outcomes among Black SMM has found evidence that the elevated rate of HIV prevalence among Black SMM compared with SMM of other races is due in part to Black SMM participating in smaller, more racially homophilous sexual networks than their White and Latino counterparts.[3] Although many Black SMM likely consciously choose Black sexual partners because of an affinity for cultural familiarity and love of Blackness, other Black SMM may desire to participate in a less racially homophilous sexual network but find their ability to do so is restricted by anti-Black structural racism. These pathways to health-seeking behavior, partner selection, and safer sex

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practices were rightly reinforced by Friedman et al. (p. S332).

In addition, research has primarily and problematically conflated race with ethnicity and country of origin, so much so that the extant literature addressing Black race-related HIV outcomes among SMM often uses the terms "Black" and "African American" interchangeably or even groups together Black people of varying Black diasporic backgrounds (e.g., Africans, Caribbean people, and African Americans) in analyses without regard for their cultural differences. Black people are not monolithic. Ogunbajo et al. (p. S254) reinforced the challenges researchers have in segmenting vastly different cultures by inferring that in-country African SMM's experiences may be similar even across varied geopolitical environments, sociopolitical legacies from colonization, and current alignment with pervading religiosity and evangelical influences. Grouping Black people solely by racial group, without attention to ethnic differences, could produce less meaningful or less generalizable results and could have limited utility for intervention. It would be wise for future intersectional stigma research in the field to consider ethnicity and culture and to assess how inter- and intracultural dynamics could influence HIV-related health outcomes among Black SMM.

We concur that the field must still examine its cisnormative approach to examining HIV-related outcomes among Black SMM. Much of the reviewed literature has focused on the health behaviors of cisgender Black SMM, although Black SMM include transgender and nonbinary persons. Their experiences deserve to be accurately accounted for in the research literature. As Black cisgender queer men, our HIV health-seeking behaviors and HIV serostatuses reflect much of our lived experiences and responses to stigma and discrimination faced and at times internalized. We are a small subset of Black SMM still yearning to slow down HIV incidence in our community.

ADDRESSING SYSTEMIC RACISM AND HETEROSEXISM

We eagerly anticipate improved HIV-related health outcomes for Black SMM delivered by public health institutions. Historically, HIV public health solutions have not aligned with HIV biomedical advancements. This is clear with the disparate awareness and uptake of oral preexposure prophylaxis for Black SMM compared with White SMM.[4] Moreover, this disparate uptake is already expected for injectable options for both preexposure prophylaxis and HIV treatment without minimal proactive interventions to improve health equity. Therefore, we do not have to wait for modelers to tell us that slower uptake will exacerbate the disparity in health outcomes for Black SMM compared with those for White peers.

The answer to these and other challenges in the inequitable HIV response must be rooted in Blackness and queerness. Black SMM community investment requires a better normative standard of the meaningful involvement of affected persons and the community. It is the only answer to move forward. There is an implicit ambiguity around the phrase "nothing about us without us." That ambiguity must be removed. Health justice for Black SMM requires intentional segmentation to avoid characterization of the expression "all lives matter" when what is needed is a sustained public health response highlighting that Black Lives Matter.

Collectively, the articles that we reviewed for this supplement have the potential to help develop and further long-term sustainable investments to build pipelines to support Black queer people living with and impacted by HIV to become funded principal investigators. Intentional diversification of research teams should be modeled from successful Black-led and Black-centered organizations such as The Bros in Convo (Orlando, FL),[5] THRIVE Support Services (Atlanta, GA),[6] and The Normal Anomaly (Houston, TX).[7]

Investment in systemic approaches, not only to dismantle intersectional stigmas that Black SMM experience, will not accomplish our collective goals. Wright et al. (p. S313) and Taggart et al. (p. S251) explicitly focused on the spatial impact that the physical built environment has on its inhabitants, especially marginalized populations such as Black SMM. The metrics are now being developed to evaluate how intersectional stigma impacts particular subpopulations at individual, community, and systemic levels.

The White-dominated HIV public health and academic sectors are finally, and thankfully, taking note that review of these structures has also been inherently racist as interventions and subsequent responses are rooted in comparison of Black SMM with White peers. Addressing the dynamics among Black SMM and HIV public health leaders must be laid bare if collective action is expected to lead to better prohealth-seeking behaviors and ultimately improved HIV-related health outcomes. AJPH

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Engaging in Intersectional Liberation for Every(Black)Body Impacted by Anti-Blackness and HIV-Related Stigma

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BLACK COMMUNITIES AND HIV

Despite the availability of effective medications for HIV treatment and prevention, Black people continue to experience a disproportionate burden of the disease. In 2019, more than 40% of people living with HIV in the United States were Black, and they had lower rates of viral suppression than members of other racial and ethnic communities.[1] This epidemiological pattern has persisted since the beginning of the HIV epidemic.[2] Recent literature indicates that the same underlying socioeconomic structural issues that give rise to negative health outcomes among Black people also impact how HIV is both experienced and addressed within Black communities.[3,4]

Underlying these health outcomes is the pervasive impact of anti-Black racism, which is prejudice, attitudes, beliefs, stereotyping, or discrimination that explicitly or implicitly reflects the view that people of African descent are inferior to those in other racial groups. Anti-Black racism prohibits Blackness from being valued and systematically marginalizes people perceived to be of African descent. Simultaneously, Black people hold intersectional, socially stratified identities based on ethnicity, nationality, sexuality, gender, and other characteristics. Interlocking systems of oppression which target overlapping identities (e.g., Black, gay, immigrant) compound the experience of oppression, amplifying vulnerability to HIV for specific Black communities.

Intersectional HIV sigma is the manifestation of oppressive policies and practices within systems that result in prejudice and discrimination directed at people living with HIV or people perceived to be at greater risk of HIV acquisition. Stigma enacts a psychological toll and directly impacts health-seeking behaviors of people living with HIV and others from marginalized populations, such as lesbian, gay, bisexual, transgender, queer or questioning, intersex, and asexual (LGBTQIA+) communities; people who use drugs; sex workers; and immigrants. HIV-related stigma can be interpersonal, institutional, or internalized and occurs in personal, work, and health care settings. Addressing intersectional HIV stigma and its impact on Black communities is complex, given the paramount challenges posed by anti-Black racism, nativism, heterosexism, and other systems of oppression. It requires an intentional approach that centers the voices and leadership of Black people.

BLACK LEADERSHIP AND HIV

Black HIV activism has been a pillar of the HIV response from the beginning of the epidemic.[5,6] Although this rich history has often gone unrecognized, it has contributed to important gains in HIV policy, resource allocation, and community mobilization for Black people overall, as well as other impacted communities. However, Black communities have not mounted a fully successful response to HIV. This is due in part to the perception of HIV as a "cross-cutting issue." As described by Cohen, "cross-cutting" issues are those that primarily impact the most marginal groups within an already marginalized group.[6] This "secondary marginalization" occurs when a majority within a stigmatized group does

not view some of its members as worthy of the collective's resources.

People most impacted by HIV in Black communities experience marginalization at the intersection of multiple social categories. These include sexual orientation (e.g., gay and bisexual men), gender identity (e.g., transgender people), substance use (e.g., people who inject drugs), occupation (e.g., sex workers), or immigration status (e.g., undocumented people). Black people who hold these identities are devalued not only by others in the Black community but also in society at large on the basis of their identities being seen as immoral or their societal roles viewed as inferior.[5,7] This sentiment showed up in various ways earlier in the epidemic, including mainstream Black institutions' unwillingness to acknowledge HIV as a problem that needed to be addressed nationally. Consequently, the Black community's response to HIV has often been less robust than would be expected if HIV severely affected Black community members who are held in higher social regard based on class, sexuality, citizenship, or gender. In addition to internal dynamics, external factors fueled by anti-Black racism block Black people from gaining the position, power, and resources needed to lead response efforts. This includes insufficient funding to Black-led HIV organizations, limited social capital wielded by Black leaders, and inadequate as well as often stigmatizing media focused on the HIV epidemic in Black communities.

THE BEGINNING OF UNITED WE RISE

In the summer of 2019, three Black-led HIV organizations envisioned a national convening to address the inadequate response to the HIV crisis in Black communities. They assembled a 35-member planning committee. Members were intentionally selected, representing community and academic stakeholders, geographic and demographic diversity, and a range of knowledge and skills.

Three in-person planning meetings were organized to cultivate space for critical thinking about internal and external barriers and reflecting on individual and collective experiences. During these meetings, participatory exercises resulted in significant changes to the direction of the work. As originally envisioned, 300 Black individuals from diverse disciplines would attend a three-day conference with traditional plenaries and breakout sessions. The goal was to develop policy recommendations that could be shared with decision-makers at various levels of government and public health organizations. This original concept evolved into the creation of a collective of Black people living with HIV, activists, researchers, and health providers, all of whom focused on the question, "What would the response to HIV look like if it were led by Black people?" Work groups were established to implement key operations and planning activities, such as a communications strategy and ongoing community engagement. The committee named the initiative United We Rise (UWR), aiming to break oppressive cycles and develop strategies that attend to the structural conditions underlying inequities in HIV and other health conditions in US Black communities. The participatory exercises were the genesis of a commitment to centering Blackness, liberation, and intersectionality—ultimately generating our mantra: Every(Black)Body.

Every(Black)Body embodies collective liberation from systems that do not value Black people and the internal struggles that result from this devaluation. Addressing HIV within Black communities is seen as both an internal and an external process requiring Every(Black)Body to be heard and engaged. It demands that we honor the history and diversity of the Black diaspora and value the range of unique, intersectional lived experiences of Black people. Blackness is defined as honoring our beginning as people of African descent, understanding our shared history with oppressive colonial systems and their generational impact, uplifting commonalities and practices across Black cultures, and thriving in one's Black skin. Across the diaspora, Blackness is both a communal and an individual experience. The concept of intersectionality recognizes the dynamic interplay between multiple social identities that Black people hold, their positionality within social hierarchies, and the myriad social issues that are linked to HIV. UWR's approach to applying intersectionality to the HIV response is closer to its Black feminist roots than what is often found in public health research.[8]

In "Theory as Liberatory Practice," bell hooks acknowledged,

> When our lived experience of theorizing is fundamentally linked to processes of self-recovery, of collective liberation, no gap exists between theory and practice. Indeed, what such experience makes more evident is the bond between the two—that ultimately reciprocal process wherein one enables the other.[9]

Planning committee members engaged in more relational, reflective exercises during planning meetings, allowing for a departure from traditional processes and accepted narratives about ending the HIV epidemic.

This created space for elevating liberation as a core concept and practice. Both the arc of the planning process and the intended outcomes for the initiative were redirected from their original intent. Emphasis was placed on promoting dialogue within the Black community to name and address the sometimes-harmful realities of our relationships with each other and the necessity of using an intersectional lens to define needed action.

After establishing the principles that shape our collective vision, the planning committee was deliberate in seeking direction from a broad cross-section of Black community members in the United States. UWR developed a Web-based survey using an adapted Delphi process and disseminated it nationally.[10] This led to the development of five focus areas deemed fundamental to advancing Black liberation in the context of forging an effective response to HIV in the US Black diaspora (Table 1).

In December 2020, UWR held a 3-day virtual convening to build internal solidarity across identities and energize HIV community mobilization in a manner that intersects with broader justice efforts. The five focus areas guided the content for the convening. Two hundred twenty-five individuals participated in "couch conversations" (informal discussions with researchers, health providers, activists, and policymakers) and "kitchen conversations" (intimate dialogues about who we are, our values, and ways our communities have intentionally or unintentionally harmed each other). Each day included small-group working sessions engaging participants to identify values essential to intersectional solidarity, values needed for Black-principled leadership, and action areas to ensure that the Black response to HIV is intersectional. Outcomes provided structure to UWR's ongoing mobilization efforts and work within the five focus areas.[11]

LESSONS LEARNED

Willingness to "do something different" brought inherent challenges for UWR leadership and overall planning and implementation. Selecting a diverse planning committee required conveners to bridge disagreements on inclusion criteria and expand the pool of potential attendees beyond conveners' social and professional networks. Leadership struggled with the tension between having an innovative process and defaulting to traditional planning and community engagement practices. Generally, committing to a participatory

TABLE 1— United We Rise's (UWR's) Five Focus Areas

Focus Area	Description	Guiding Question
Black community engagement	UWR values Black spaces for gathering and strategizing. The freedom to choose is central to inclusive practices for engagement. Our work mobilizes diverse Black communities to engage meaningfully in HIV and broader justice work related to alleviating the harm HIV does to Black communities.	What strategies are needed to better organize and engage Black communities in transformational change?
Intersectionality	UWR values our interconnectedness and honors our differences, including the unique ways HIV impacts specific populations within Black communities. Voicing the harms we can cause one another moves us to empathy, healing, and collective liberation. Our work deepens intersectional solidarity across Black subcommunities and across justice movements.	How can we build internal solidarity across identities and priorities to advance HIV work within Black communities?
Black leadership and organizations	UWR works to uphold Black principled leadership within our organizations and communities that embodies and affirms liberatory values and practices. This demands transparency and holding Black organizations and leadership accountable.	What are the values and principles that should underlie the practice of leadership in the HIV movement and in our community organizations, including organizations indigenous to Black communities?
Policy	UWR works to democratize power and amplify policy approaches that destigmatize and decriminalize Black bodies. Centering the knowledge, experiences, and voices of the people closest to the problems will lead to flexible and expansive policymaking that produces intersectional solutions.	What are the federal, state, and local policy changes that, if enacted, would have a transformative impact on Black health and liberation?
Sexuality and gender identity	UWR values sex positivity and sexual expression as forms of liberation. To love our bodies and affirm our freedom from sexism, misogynoir, and male-centeredness is central to liberation from traditional expectations of gender, relationship structures, sexuality, and sexual roles.	How can Black communities move toward embracing diverse expressions of gender and sexuality as a part of ending the HIV epidemic?

planning process requires time and resources. Because of the COVID-19 pandemic, the planning phase became longer, which led to some participation fatigue and frustration. Staff time, capacity for effective facilitation, and funding were needed to support ongoing engagement. Some challenges were overcome by shifting the responsibility for the direction of the project to the planning committee and creating space for an organic process dependent on what developed over time. Committee members co-led work groups, cofacilitated full planning meetings, served as influencers, and coproduced social media live shows.[12] An unmet goal was adequately building connections to other social movements, such as criminal justice, immigrant rights, reproductive justice, and drug decriminalization, and engaging them with UWR. However, this is a priority for UWR's future growth to ensure that the HIV response is intersectional and improves the overall wellness of Black communities.

CONCLUSION

Ending the HIV epidemic in the United States requires identifying and dismantling anti-Black racism and the ways Black people are marginalized by intersecting systems of oppression. The work of UWR builds on a tradition in the Black community of intersectional organizing, including HIV efforts in the 1990s. The HIV response during this era was mostly grassroots-led. As the HIV response has become more professionalized and biomedically focused, resource allocation to community-led HIV strategies has declined. A substantial shift in the direction of the HIV response in the United States is needed, requiring bold new leadership and innovative, nonhierarchical strategies that reimagine collaboration, decision-making, and resource allocation. As a Black-led, intersectional approach rooted in a liberatory praxis, UWR offers a vision for firmly centering the needs of Black communities most impacted by HIV. With sustained energy from Black communities, investment in Black visions to end HIV and other health inequities, longer-term resourcing of Black-led agencies, and strong collaboration between Black and allied organizations, there can be transformative progress in the fight to end HIV for Every(Black)Body and other impacted communities. AJPH

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Stronger Together: Coalitions as Interventions Against Intersectional Stigma

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HIV continues to disproportionately impact key populations—gay and bisexual men, transgender people, people who use drugs, and sex workers—worldwide, especially those who are financially poor and those who are Black and Brown. In 2020, according to UNAIDS, key populations represented 65% of new HIV infections globally—far beyond the proportion of the general population.[1] Governments legislate against key populations: 70 countries outlaw gay sex, most countries criminalize drug use, and nearly all countries have laws against sex work.[2] Forty years after the first cases of AIDS were published, intersectional stigma continues to push key populations to the margins of society. The problems of stigma, discrimination, violence, and criminalization cannot be treated away with antiretroviral medications; yet, because the mainstream HIV response has become ever more reliant on biomedical solutions, it struggles with addressing these systemic and endemic problems. Service organizations, advocacy groups, and governments do not often use intersectional stigma as a lens through which to be developing health care policies and practices, addressing laws and policies, and even in organizing convenings. Indeed, the level of attention and resources devoted to redressing intersectional stigma, discrimination, violence, and criminalization remain incommensurately small in comparison with the scale of the problem and its impacts.

Intersectional stigma describes how interlocking forms of social oppression impact people with multiple stigmatized identities (e.g., the effects of racism, transphobia, criminalization of sex work, and HIV-related stigma on a Black transgender sex worker living with HIV).[3] Key populations are overlapping communities that share common experiences of exclusion, pathologization, discrimination, and dismissal. Stigma marks gay and bisexual men, people who use drugs, sex workers, and transgender people as sick, immoral, deviant, and, in many contexts, criminal. Key populations are often scapegoated for social and political ills and are often delegated to the role of helpless, passive recipients of services or objects of research.[4,5] The global HIV response has not been able to provide clear enough pathways toward solutions and instead has at times contributed to the problem.

HIV2020: COMMUNITY RECLAIMING THE GLOBAL RESPONSE

After the International AIDS Society's (IAS's) decision in 2018 to hold the AIDS2020 conference in the United States, global key population–led networks came together in protest, given the discriminatory travel restrictions against sex workers and people who use drugs, as well as people from 11 Muslim countries. In addition, the Trump administration was overtly hostile toward refugees; migrants; Black, Brown, and Indigenous people; cisgender women; trans and gender-diverse people; and financially poor people.[6] Because of these issues, key population–led networks argued the United States was an inappropriate place to hold the conference. Plans to hold AIDS2020 in the United States nevertheless proceeded. The organizers only had one requirement: that there be no travel bans against people living with HIV. Other kinds of stigma associated with identity were not considered.

In response and in a show of solidarity, global community-led networks—MPact Global Action for Gay Men's Health, the Global Network of People Living with HIV, the International Network of People Who Use Drugs, Global Action for Trans Equality, and the

Global Network of Sex Work Projects—joined forces to cocreate HIV2020, the first alternative, community-led global HIV conference.[7] Although most HIV conferences have narrowed their focus to treatment, clinical care, and other biomedical solutions, HIV2020 articulated a vision for and by key population communities. The global networks envisioned a conference that welcomed both empirical science and the beautifully complicated and sometimes messy work of coalition building. HIV2020 elevated necessary blunt discussions about sex and drug use from the points of view of communities engaged in these practices rather than encasing them in public health discourse, which can often be focused on disease and risk rather than identities and pleasure.[8] The community-led conference endeavored to create a radically different global gathering in which intersectional coalitions and solidarity movements could be envisioned and formed to counter divisive agendas.

The HIV2020 conference committee was composed of global, regional, and national advocates from key population groups, which, over many months, designed a program that embodied community voices, agendas, and priorities. This was a rare occasion during which radical envisioning was the norm, intersectional stigma was explicitly articulated, and solutions were given shape and meaning by people living with and disproportionately affected by HIV. Organizing committee meetings were spaces where partners discussed how to be in coalition and put those politics into practice. In negotiating with Mexico City government officials as the prospective host, HIV2020 organizers asked for several conditions: that city police not arrest sex workers for the duration of the conference, that drug replacement regimens be provided, and that a local sex worker rights activist cases be reviewed. The conference organizers insisted on centering diverse voices who could speak about shared issues faced by key populations. All sessions were designed to be delivered in person via a variety of formats and methodologies. Then the COVID-19 pandemic hit. Despite the disruption caused by COVID-19, the conference organizers reimagined and flexibly adapted to the times, moving HIV2020 online. In fact, this was the first major conference to have done so, demonstrating yet again ingenuity and flexibility. Key populations are and have always been on the front lines and at the forefront of innovation. The IAS followed two weeks later with an announcement that they would hold AIDS2020 virtually.

Between July 2020 and October 2020, a total of 7397 participants from 131 countries joined HIV2020 to listen, watch, and interact across 33 sessions. HIV2020 sessions unapologetically addressed community agendas on research, community mobilization, advocacy, programs, and funding. HIV2020 sessions spoke directly to the issues of greatest concern among key population communities. Sessions focused on bodily autonomy, grassroots organizing, movement building, harm reduction, sex, and pleasure. The conference held fast to shared principles about staying strength based and sex positive. All sessions were offered in five languages to maximize accessibility and participation. Sessions were spread over four months, making it easier for community members to schedule their participation. HIV2020 concluded with a plenary celebration on December 1, 2020, World AIDS Day 2020, during which a set of strategic demands were made to the IAS challenging the community relevance of large, multimillion-dollar conferences in the face of shrinking global investments and persistent barriers to HIV services.

HIV2020 was a demonstration of unity as diverse communities across gender, sexual orientations, race and ethnicity, age, and geography banded together to create a common platform. People living with HIV, gay and bisexual men, people who use drugs, sex workers, and transgender people united in open recognition of the overlap between their communities and a common understanding about the synergistic and compounding effects of stigma faced by individuals with multiple community memberships and identities. Convenings that are free from industry trappings can lead to creative and common solutions to challenges facing key populations. Such gatherings are also important because they allow mutual support, affirmation, and a sense of belonging, each of which is critical to the work of resisting and recovering from intersectional stigma.

As the conference went on, it was difficult not to draw parallels between the HIV and COVID-19 pandemics. COVID-19, like HIV, highlights the synergistic and compounding effects of intersectional stigma impacting key populations. How people congregate, the work they do, where they live, and how they move around in the world all came under heavy scrutiny during the COVID-19 public health mitigation efforts.[9] Although the lockdowns affected everyone, the COVID-19 pandemic was especially hard on key populations.[10] Access to health care and HIV services became more complicated and challenging, and the ability to work and to socialize was diminished

as venues were shut down. Key population–led organizations and networks remained left out of most conversations about prevention, testing, vaccinations, and other lifesaving tools.[11]

LESSONS LEARNED

The primary themes and lessons learned from HIV2020 led organizers to develop a set of strategic recommendations for strengthening and expanding the meaningful engagement of key populations. They include increased investments in key population–led programs and organizations; stronger and more targeted efforts to decriminalize HIV, gender identity, same-sex sexuality, sex work, and drug use; strengthening sustained support for advocacy through funding; supporting flexible and unconventional approaches led by key populations to reach, inform, gather, and support their peers; and equal partnership in all planning and funding spaces.[12] Although not new, these recommendations are more urgent now than ever because intersectional stigma continues to marginalize key populations in public health responses, whether to HIV or to COVID-19.

To address HIV intersectional stigma, community-led responses from those most impacted must be supported and institutionalized. The organizers of AIDS2020 dismissed the needs and concerns of networks of key population groups and went forward with their US-based event. Their narrow view of stigma prevented them from acknowledging how key populations would be challenged, face problems, and be made vulnerable at AIDS2020—from visa applications, to experiences in travel, to facing discriminatory laws, attitudes, and media. Rather than compromising and putting their constituents in potential harm, the key population networks organized an alternative convening where a larger range of conversations and interventions could occur.

Ultimately, HIV2020 proved to be a transformational moment in which communities of gay and bisexual men, people who use drugs, sex workers, and trans and gender-diverse people demonstrated what intersectional, coalition-building work looks like in practice as it was made real and undeniably visible. Globally, HIV2020 affirmed that we, as criminalized and stigmatized communities, are very much stronger together when it comes to challenging intersectional stigma. The global showcase of solidarity that was HIV2020 holds important lessons and implications for future critical, intersectional praxis. AJPH

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Structural HIV Stigmatization and Discrimination Among Latina/x/o Immigrants: Intersections With Heterosexism, Ageism, and Transprejudice

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HIV stigmatization and discrimination (S&D) remain global health concerns for people at risk for or living with HIV. However, few studies have examined Latina/x/os' health in the context of multiple systems of oppression targeting their identities, including anti-immigrant prejudice.

Despite evidence that Latina/x/o immigrants in the United States have better health outcomes than non-Latina/x/o Whites, advantages are lost over time. HIV S&D generate barriers to accessing services along the HIV care continuum for Latina/x/os.[1] Undocumented Latina/x/o immigrants experience unique factors that shape their health before, during, and after migration,[2] including S&D and sociopolitical marginalization (e.g., state-sanctioned discrimination, condemnation as criminals, underpayment for work) as well as structural barriers to accessing HIV services (e.g., denial of care, cultural/language incompetency). Unsurprisingly, undocumented Latina/x/o people living with HIV enter care with more advanced disease than documented individuals.[3]

Intersectional frameworks are needed to illuminate and alter or eliminate interlocking systems of oppression. These systems include sexism (assumption that men are superior to women), classism (belief that social or economic status determines a person's value), ableism (belief that able-bodied individuals are superior to individuals with disabilities), racism (belief that Whites are superior to those of other races/ethnicities), colorism (belief that a lighter skin tone is superior to a darker skin tone), heterosexism (assumption that heterosexuality is the only normal and natural expression of sexuality), ageism (belief that younger people are superior to older people), and transprejudice (negative valuing and stereotyping of individuals whose appearance or identity does not conform to social expectations or conventional conceptions of gender). Here we focus on heterosexism, ageism, and transprejudice to exemplify ways in which intersectional S&D affect Latina/x/o immigrants.

HETEROSEXISM

Gay, bisexual, and other men who have sex with men (GBMSM) carry a disproportionately high HIV burden; in 2018, their risk of HIV acquisition was 22 times higher than among all adult men, and they accounted for 17% of new HIV infections globally, including 40% in Latin America. HIV prevalence and incidence are higher among younger cohorts.[4] New HIV diagnoses increased 6% between 2009 and 2018 among Latino GBMSM. Differences among Latinos by race and geography require further investigation. HIV and other health concerns (e.g., social isolation, psychological distress, suicidality) are associated with interlocking S&D, including racism and heterosexism toward Latino GBMSM.[5]

Despite advancements in HIV prevention and treatment, Latino GBMSM have limited access to HIV services. Barriers to HIV service access and use include heterosexist S&D and discrimination on the part of health providers,[6] both of which are distinctively associated with HIV acquisition among Latino GBMSM after they have immigrated to the United States.[1] For example, criminalization of undocumented Latino immigrants contributes to their delayed diagnosis and presentation to care as well as to shorter HIV to AIDS intervals.[3]

Intersectionality invites more nuanced understandings of S&D. Intersectional racist–heterosexist microaggressions (e.g., "Latino gay men are hot in bed") are associated with anxiety and social isolation.[7] Importantly, colorism, a bias

toward lighter skin rooted in White supremacy, increases the complexity of intersectional S&D in that Black and darker-skinned Latino GBMSM contend with unique forms of S&D such as racial slurs, microaggressions (e.g., skin tone–based nicknames), and rejection, including by Latina/x/os.

Nonetheless, community engagement (e.g., volunteering and activism) and peer-led programs mitigate the negative effects of interlocking S&D. Intersectionality frameworks call for innovative approaches (e.g., community-based participatory research, community systems strengthening) that uncover how systems of oppression interact to produce conditions that block or advance the well-being of Latino immigrant GBMSM.

AGEISM

More than half of people with HIV are older than 50 years, with higher proportions among GBMSM. They face not only HIV and heterosexist S&D but ageism, racism, and colorism. Observed racial/ethnic inequities in younger cohorts are exacerbated in older age[8] as a result of increased poverty, social isolation, and S&D. This is amplified by the intersection of racism, colorism, and sexism in the case of Latino GBMSM. Yet, older Latino GBMSM remain invisible in the literature,[8] suggesting that the inequities described here are intensified in this group, especially among those with HIV. Research is urgently needed to answer basic epidemiological questions that can inform programs and interventions among the growing, diverse group of aging Latino GBMSM.

TRANSPREJUDICE

Thirty-five percent of immigrant Latina transgender women (ILTW) are living with HIV.[9] ILTW are often targeted by S&D stemming from transprejudice, sexism, racism, ethnocentrism, classism, and anti-immigrant policies. Two large surveys conducted by community-based transgender organizations indicate that about half live in extreme poverty, and the majority suffer physical violence and threats.[2,3] Most transgender individuals murdered in the United States are Black and Latina transgender women, reflecting the lethal intersection of transprejudice and racism. Deterrents to health care access among ILTW include inaccessible health insurance, lack of transgender health knowledge on the part of providers, microaggressions on the part of clinic staff, and fears of deportation among those who are undocumented. These factors interact to severely limit HIV care access among ILTW and contribute to poor physical and mental health outcomes.[10]

Sources of ILTW resilience that mitigate the effects of S&D and discriminatory behaviors include social support from transgender peers and involvement in community organizations advocating for transgender rights. Qualitative studies and community-based participatory research suggest that community health clinics with opportunities for social support from other ILTW and community involvement to advocate for transgender rights result in increased health care use and improved health outcomes.[11] Increasing transgender knowledge and cultural competence among providers and clinic staff also improves care access and health outcomes.

PUBLIC HEALTH IMPLICATIONS

Innovative, multimethod, and community-based participatory research approaches are necessary to capture the unique vulnerabilities and resiliencies of the interlocking identities associated with sustained social networks, cultural practices, and Latina/x/os' countries of origin (e.g., Cuban Americans benefit from policies that other Latina/x/os do not benefit from). Epidemiological data are needed to disentangle effects related to place, social class, race/ethnicity, and economic status.

Research on Latina/x/o immigrants should be community engaged and participatory and should incorporate interdisciplinary approaches and intersectional frameworks. An intersectional praxis requires approaches that support local, grassroots, community-led movements that confront the ways in which trauma, immigration enforcement, disruptions of social networks, and anti-immigrant discrimination affect the mental and physical health of Latina/x/o immigrants.

Beyond research, advocacy aimed at decriminalization of undocumented immigrants could diminish S&D and improve health care access among Latina/x/os. Institutionally, hospital policies explicitly prohibiting S&D and promoting training of health providers to reduce discriminatory practices would improve access to, use of, and retention in services along the HIV care continuum. At the community level, fostering avenues for engagement would ameliorate the social isolation and psychological distress associated with rejection while mobilizing resistance to systems of oppression. In addition, much can be gleaned from examining the health implications of living in sanctuary regions for immigrant Latina/x/os with different intersectionalities.[12]

The US border with Latin America is a geographical boundary Latina/x/os

cross pursuing safety and economic opportunity. Many Latino GBMSM and transgender women cross the border fleeing violence and other forms of persecution related to sexuality and gender only to encounter metaphorical walls plastered with exclusion messages. In addition to myriad insults, slights, and stares exhorting Latina/x/os, whether immigrant or US born, to go home, othering messages are most profoundly (and almost invisibly) delivered through interlocking structural forms of S&D.

As Bowleg affirms, "intersectionality is fundamentally a resistance project."[13(p89)] Addressing the intersectional vulnerabilities facing Latina/x/os requires a radical, multidisciplinary, inclusive praxis that challenges conventional approaches to health care and tackles interlocking structural obstacles while strengthening sources of resilience. Hermanos de Luna y Sol in San Francisco, CA, born of community-based participatory research, offers an example of an intersectional praxis.

Hermanos de Luna y Sol addresses the sexual health concerns of Latino GBMSM and transgender women. It is a theoretically derived, community-based, peer-led program providing experiences of social support and social belonging, promoting critical awareness of the social and cultural forces shaping participants' social and sexual lives, and facilitating community building and activism against oppressive social forces. Using the space made available for them to gather and learn from each other, participants navigate obstacles, produce knowledge, change systems of oppression, and, in the process, teach us that it is only to the extent that Latina/x/os belong that we all belong. AJPH

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Becoming in the Face of Intersectional Stigma—Black, Gay, Woman, and Living With HIV

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My name is Ms. Arnetta Phillips. When I was young, the schools were segregated. White students went to White schools, and Black students went to Black schools. We had different drinking fountains, and buses had yellow lines going through the middle—separating us by race. These memories I have as a little Black girl still linger to this day. Growing up, Sunday school at church helped to uplift me. I loved Sunday school because we talked about "loving thy neighbor" and learned that it did not matter where you came from or the color of your skin. However, during regular service, the pastor berated the LGBTQ+ (lesbian, gay, bisexual, transgender, queer) community, which frightened me because I knew at an early age that I liked girls.

For many years I prayed to God to "take the gay away," forced myself to have relationships with men, and tried to be someone I was not. When I was diagnosed with HIV, I then prayed for God to take the HIV away. Many days, I cried and crawled on the floor praying for my diagnosis to change. The stigma I faced and the sadness that came from not accepting my sexuality and my HIV status took me down the path of addiction. With drugs, I did not have to think, feel, or deal, and it was a way to escape the realities of my life. However, when my father died in my arms from a massive heart attack, I was determined to fulfill his wishes for my sobriety. Once I accepted my drug problem and that I was living with HIV, my life began to change. Twenty years after my initial diagnosis, I visited the pharmacy to get my HIV medication for the first time, and then I sat in the car and cried. I cried because I was finally ready to take charge of my health but also because every day these pills would serve as a reminder that HIV is alive within me. What I did not know that day is that my lived experiences would become a source of empowerment for others.

MAKING AN IMPACT WITH LIVED EXPERIENCES

I have been living with HIV for 28 years, I have been sober for 27 years, and for the past 26 years I have been working at the University of Miami. Through my work with more than 20 research studies as a research coordinator and certified addiction counselor, I have positively affected diverse individuals living with HIV or placed at risk for HIV. My life experiences as a Black woman living with HIV and in recovery from substance use have been fundamental in connecting with my research participants. We often share a deeper connection because of our similar experiences with stigma, discrimination, and shame. As people living with HIV (PLWH), we sometimes find that other people may look, speak, and act differently around us, as well as make assumptions about our lives. Careers, relationships, and typically normal interactions become anxiety inducing because of the judgment. Even now, living with HIV for more than 28 years, facing stigma is still difficult.

In addition, the struggle we face as PLWH is only one of the battles we fight each day. Many Black participants have shared stories of the racial prejudice and bigotry we witness every day. Personally and professionally, I have also witnessed the stigma of being gay, and especially of being Black and gay. Participants have come to me with scars and marks all over their bodies, beaten and raped because of their sexuality. There are still places today where I am not comfortable walking openly as a lesbian because people may stare, frown, and say, "You're going to hell; it's an abomination." To deal with the pain that comes with facing these realities, many participants (like me) turn to drugs as a way to cope. Individuals then make additional inaccurate and hurtful generalizations ("We are weak minded") about us as people who use substances.

LESSONS LEARNED

HIV stigma, like racism and homophobia, unfortunately, is going to be here for a long time to come. Because of

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this, I have done the work within myself as an individual facing these intersecting stigmas, and I encourage my participants to do the same. You need to be in complete acceptance of yourself. You need to be able to think, "I'm Black, I'm gay, I'm HIV positive—and I'm good." A strong network of support can help during this process. It is so easy to slip back into feeling bad about who you are, feeling like you're worthless, feeling like there is no future for you. If you can connect to a support group or a mental health therapist, or if you have family or close friends who you can talk to, these individuals can help you rise out of that darkness.

I believe it is my life's purpose to give back, encourage others, and bring hope by sharing my story with other PLWH and those struggling with substance use. I am fortunate to have had the support of my family and friends. The loving, open arms of these individuals have been the greatest gifts I could have gotten during this journey. They have learned alongside me and have helped me to accept every part of myself. I hope to do the same for others living with HIV. By disclosing my status to others and being open about the struggles I have faced, I have been able to touch them, pray with them, provide information, counsel them, and give them hope for the future. This has been a blessing and I am grateful to have this opportunity.

RECOMMENDATIONS

From my experience, I have come to believe that there is much that can be done to make the world more just for individuals facing intersectional stigma and discrimination. Better laws, policies, and practices are needed to protect the full humanity and rights of Black individuals, LGBTQ+ persons, women, and PLWH. First, we need to create and enforce laws that protect us from the horrible violence and discrimination resulting from oppression and isms (e.g., racism and homophobia). We also need to remove stigmatizing and outdated laws that criminalize HIV and disproportionately target Black people.

Second, PLWH should have access to essential resources, such as housing, food, mental and physical care, and employment. In any given week in my role as a research coordinator, I have encountered PLWH who lack these resources; not having these resources often leads to unhealthy behaviors (e.g., substance use) to escape. We need housing, food, and health programs to meet PLWH in the community (without discrimination and judgment) and provide easy access without the barriers created by excessive paperwork and steps. Furthermore, programs are needed to provide PLWH with job training and skills to secure employment. There also needs to be a change in employment policies that exclude PLWH based on histories of sex work, substance use, or incarceration; and there needs to be reentry programs for PLWH with incarceration histories. I have known many people who wanted to work, but employers would refuse to hire them because of their criminal records. As a result, they ended up living on the streets (in a tent, under a bridge) and engaging in sex work or selling drugs to survive.

Third, it is essential that health care workers are competent, compassionate, and adequately trained to engage with clients about HIV, sexuality, substance use, racism, and other aspects of people's lives. I can usually tell by a provider's body language if they are uncomfortable with these aspects, and nobody wants to continue receiving care from a provider who is unwelcoming or judgmental. Aspiring health care workers must decide for themselves if this field suits them and if they are willing to treat all patients with dignity, because biases and stigma have no place in delivering good care. Education and continued training on these topics must then be implemented and prioritized for health care workers so that patients can receive quality, affirming care. PLWH who have experienced intersectional stigma are experts on this subject and are well equipped to provide such training. I, for example, have been a guest speaker in courses and trainings for college students, medical students, and various health care providers.

Fourth, a key strategy to combat discrimination and stigma is hiring staff who are PLWH, have shared lived experiences with PLWH, and have a strong commitment to serving PLWH. Individuals like me, a Black lesbian woman living with HIV, should be meaningfully involved in HIV efforts whenever possible, be it research, practice, or policy, to ensure that our voices and lived experiences inform change.

Lastly, researchers should center the needs of PLWH in all research practices, including training, hiring, and implementation. Many personal questions are asked during research studies, and participants often share deep and difficult experiences. Researchers, therefore, need to be cognizant of participants' emotions and be trained and qualified to address situations that arise and provide resources or referrals to participants as needed. We need to be treated as human beings, not as a subject or as a number.

With these suggested changes, I hope we can work toward a society that

is far more accepting and supportive, so that PLWH face less stigma and discrimination and are empowered to get the care they deserve. The dream I've always had is to be able to walk freely and openly, without fear, rejection, or shame, in a world where people do not discriminate because of what you look like, who you love, who you are, and the health condition you have. AJPH

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Recent Key Efforts to Improve HIV-Related Intersectional Stigma and Discrimination Research

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HIV-related intersectional stigma and discrimination persist as significant barriers to effective HIV prevention and management. People with or affected by HIV continue to face multiple stigmas at the individual, interpersonal, community, and societal levels. There is an urgent need for HIV-related intersectional stigma and discrimination research to significantly advance the science and provide the opportunity to successfully translate and implement efficacious strategies into practice, programs, and policies. Addressing these issues is a high priority for the National Institutes of Health (NIH) HIV research agenda and is essential if implementation is to be transformative and emancipatory.

To that end, in 2020 the NIH Office of AIDS Research and the National Institute of Mental Health, Division of AIDS Research developed and implemented a deliberative process to actively engage researchers, community members, and government officials in a rigorous review of the concepts, theories, measurements, and interventions that address HIV-related intersectional stigma and discrimination. The hub of this process was a workshop that convened multifaceted workgroups composed of more than 100 scientists, health providers, ethicists, and community representatives. Meeting virtually over a three-month period, they assessed the science and formulated next best steps needed to understand and address the multiple structural and social factors of HIV-related intersectional stigma and discrimination.

The workshop, titled HIV-Related Intersectional Stigma Research Advances and Opportunities (HIVIS; https://bit.ly/3upDk1S), was designed specifically to apply intersectionality, a concept emerging from Black feminist theory and activism,[1] to HIV-related stigma scientific discovery. The workshop goal was to narrow the gap between theory, research methods, practice, and implementation. The resulting assessments and insights are informing how intersectional stigma and discrimination can be better understood, addressed, and measured to improve HIV prevention and treatment outcomes, particularly for high-incidence HIV populations (e.g., US Black sexual minority men, transgender women of color, and people who inject drugs). It is through collaboration with community and other implementing partners that these insights and conclusions are further examined, refined, and practiced.

The co-occurring amplification of the COVID-19 pandemic and persistent racial injustices further exposed the intersecting effects that racism, economic disenfranchisement, gender inequity, heterosexism, and other forms of systemic discrimination have on people belonging to multiple socially oppressed groups and the reality that people experiencing multiple forms of oppression suffer the greatest harms to their health. Addressing the complex interlocking systems of disadvantage and oppression in HIV-related intersectional stigma and discrimination requires rectifying the traditional hierarchical relationships in societies. Genuine community-based participatory approaches respect the innate knowledge of the community with its inherent strengths and assets while engaging community members as partners to inform the entire research process—from framing the research questions to designing, conducting, analyzing, and interpreting findings—which benefits from research and community perspectives. This is needed to effectively promote social justice and health equity while reducing HIV-related disparities.[2]

Addressing HIV-related intersectional stigma and discrimination in their most salient forms is critical to ending the HIV pandemic domestically and globally. The NIH is broadening HIV stigma

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research to include the study of HIV-related intersectional stigma[3] to further develop, test, and implement interventions that improve HIV outcomes. Based on data and studies presented during the NIH workshop and described in its summary report as well as using insights and discussions contained in this HIV special issue of *AJPH*, the NIH will continue the development of next-generation initiatives and cross-sector partnerships to better address HIVIS. As a global health research agency, the NIH is leading the way to improve understanding of HIV-related intersectional stigma and to apply intersectionality frameworks to health research broadly for the enhancement of the public's health.[4]

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Punishing Vulnerability Through HIV Criminalization

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"HIV criminalization" refers to the unjust application of criminal law to people living with HIV for nonmalicious HIV transmission, perceived or potential HIV exposure, or nondisclosure of known HIV-positive status. Although many HIV-specific criminal statutes were misguidedly enacted with the primary purpose of protecting public health, it has been extensively documented that HIV criminalization in fact poses a barrier to HIV prevention, care, and treatment and negatively affects the quality of life of those affected by HIV.[1–4] As a result, HIV criminalization is an important issue for policymakers, public health practitioners, and health care providers, in addition to people living with HIV and justice advocates.

Obtaining accurate information on how HIV criminalization laws are applied is challenging, given the lack, or inadequacy, of systems to track them in most jurisdictions. At the HIV Justice Network, we monitor HIV-related criminal laws and cases in real time, based primarily on media reports. These are collated and classified according to alleged crime, known demographics, and disposition in our searchable Global HIV Criminalisation Database.[5] Our analysis based on these reports strongly suggests that people living with HIV often receive unjust treatment in the legal system. Moreover, we observe that HIV criminalization serves as a proxy for discrimination based on class, ethnicity, gender identity, migrant status, race, sex, sexual orientation, and other markers of social vulnerability. The most aggressive push to criminalize people living with HIV tends to occur at the intersection of several stigmatized identities.

Our most recent analysis indicates that 130 countries have unjustly criminalized people living with HIV over the course of the epidemic—either under HIV-specific statutes or through the application of a wide range of general criminal laws (e.g., sexual assault, bodily harm, attempted murder). We are aware of 50 countries that are actively prosecuting individuals under these laws for sexual acts that may or may not risk transmission, as well as for spitting, biting, and even breastfeeding. Another 60 countries have HIV-specific criminal laws without active enforcement but hanging like the Sword of Damocles over people living with HIV.

From the early days of the AIDS epidemic, HIV has been especially associated with negative attitudes toward gay men. That legacy continues even today, with multiple intersections between homophobia, transphobia, and HIV criminalization. For example, mass arrests of gay men in Egypt, Uganda, and Senegal have been linked to fear of HIV, and the religious right has posited that HIV is a punishment for the same-sex sexual activities or alternative gender expression that they deem immoral.

The facts that HIV is primarily transmitted and acquired through sex and drugs and that the virus tracks poverty and marginalization make HIV criminalization laws prime candidates for discriminatory application. When the stigmatized status of being HIV positive intersects with other stigmatized statuses (e.g., gay man, transgender person, sex worker, immigrant), a distinct and amplified risk of being criminalized arises. However, selectively and arbitrarily targeting behaviors relating to taboo (to the dominant culture) forms of work, intimacy, or pleasure can obscure the discrimination driving prosecutions, making it seem like the charges are based solely on an individual's wrongdoing and deserve punishment.

HIV criminalization makes it appear as if the state is solving the problem of new HIV transmissions and acquisitions by punishing the "bad actors" who are supposedly responsible for spreading the virus. However, because HIV exposure or transmission is seldom the result of malicious intent, criminalization not only provides a false sense of security but also scapegoats individuals for systemic failures of society and government.

We see a trend of criminal charges being disproportionately brought against people who are not of the dominant ethnic/racial group in many countries rather than the charges being evenly distributed across the population of people living with HIV. As has been documented previously in Australia,

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New Zealand, Canada, and Europe, those charged are primarily migrant heterosexual men from countries where HIV is endemic. In the United States and Canada, we see men of color—including gay men of color—being disproportionately prosecuted.[6,7] Discriminatory attitudes toward, and assumptions about, the sexual behavior of different groups has clearly played into such cases, including erroneous ideas that people from high-prevalence countries bring HIV into high-income countries; that Black men have insatiable sexual appetites; and that Indigenous women—another marginalized group disproportionally criminalized in Canada—are sexually available and irresponsible.[8–10] Racial minorities are also less likely to go to the police for protection or to have access to legal information and advice. Newcomers and racial minorities often reside in poor neighborhoods and have more interactions with police, less access to health care and social services, and higher rates of HIV. All of these factors intersect, increasing the likelihood of racism manifesting in HIV criminalization.

In tracking the cases, we also notice that the majority of those facing prosecution are in positions of less power than their accusers, often because of intersecting stigmatized identities, behaviors, and practices. This is not surprising, as HIV is a disease of poverty and stigma, and those with more power are better able to access services and lawyers and more readily turn to the police for protection. Women, notably in sub-Saharan Africa, Eastern Europe, and Central Asia, are particularly vulnerable to prosecution because they are often the first in a relationship to know their status, because of routine antenatal HIV testing, and less likely to be able to safely disclose their HIV-positive status to sexual partners or negotiate condom use, because of inequality in power relations, economic dependence, and high levels of gender-based violence. Many women living with HIV also face coercion and control over reproductive health and pregnancy.

We believe, therefore, that HIV criminalization is not only a manifestation of state-sponsored HIV stigma but also a proxy for other forms of stigma and discrimination. Exacerbated by heavy-handed policing and vitriolic media coverage enabled by unjust laws that fly in the face of science and human rights, HIV criminalization thrives at the intersection of social vulnerabilities. It further exacerbates stigma, impeding service accessibility and reducing the effectiveness of HIV-related funding and programs. Indeed, the Joint United Nations Programme on HIV and AIDS Global AIDS strategy explicitly recognizes inequality and HIV criminalization as barriers to ending HIV as a public health threat by 2030.[11]

There is no one-size-fits-all approach to challenging HIV criminalization. HIV-specific criminal laws have been "modernized" in several US states based on arguments that they were not based on up-to-date science on HIV-related risk or harm. In other countries, human rights–based arguments have led to HIV-specific criminal laws being suspended or repealed: Colombia's law was found to be unconstitutional in 2019 because it violated the right to equality, and one of two Kenyan laws used for HIV criminalization was found to be unconstitutional in 2015 because it did not meet the standards for a justifiable limitation of the constitutional right to privacy.[12]

However, modernizing or repealing HIV-specific laws alone will be insufficient to address the full complexity of the intersecting stigmas behind both misguided attempts to protect people from HIV infection and intentional criminalization of groups of people (e.g., based on sexual or gender identity, sex work, or drug use). As with other manifestations of discrimination, the ultimate solution lies in equality and empowerment. AJPH

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Capturing Daily Experiences of Intersectional Stigma Among Young Sexual Minority Men in HIV Prevention Research

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Sexual minority men (SMM) of color experience pervasive structural forms of oppression (e.g., homophobia, heterosexism, systemic racism)[1] and interpersonal forms of stigma (i.e., "everyday" or episodic interactions).[2] Rooted in social inequality, power asymmetry, and systemic hierarchy, these experiences act as significant contributors to health inequities.[3] While extant literature draws attention to the burden of stigma and the resulting impact on health, it often conflates or ignores the complexity of intersecting, marginalized social positions.[4] We advocate research that acknowledges the subtleties, contextual nature, and distinctions between and within marginalized intersecting social positions.

EXPERIENCES OF INTERSECTIONAL STIGMA

The historical injustices endured within and across generations of young SMM of color warrants particular attention from researchers conducting intersectionality-informed quantitative research, ensuring the use of methodological techniques that appropriately capture rich and multifaceted lived experiences and realities.[5,6] Furthermore, recent research examining the impact of multiple forms of oppression presented contrary findings: those who embodied multiple marginalized social positions reported discrimination at lower rates than those with a single marginalized social position.[7] The authors posit that "ceiling effects" and expectations of discrimination can influence the subjective reporting of discrimination among communities with multiple marginalized social positions. In our qualitative work, we were interested in uncovering additional approaches to indirectly capture experiences of intersectional stigma.

INTERSECTIONAL STIGMA AND PERSONAL NARRATIVE

In 2019, our research team examined the complexities of conceptualizing and implementing research among communities experiencing intersecting forms of oppression, specifically among Black and Latino/e/x SMM aged 16 to 29 years. We conducted 19 semistructured, individual interviews (in person, by video, and over the phone) to examine themes of daily experiences of intersectional stigma from both a practical and conceptual perspective. We used purposive sampling to recruit participants from across the United States who either (1) engage with Black and Latino/e/x young SMM in their academic, clinical, or health services work or (2) embody marginalized social positions experienced by Black and Latino/e/x young SMM.

Our findings suggest that intersectional measurement should consider not only how stigma manifests or the frequency in which it occurs but also how it integrates into a person's narrative. When asked how intersectional stigma manifests, participants described it as considerably more insidious than forms of unidimensional stigma and yet presenting differently across time, place, and space. Intersectional stigma was described by participants as ubiquitous, leading to changes in behavior such as code switching, changing one's presentation both visually and in mannerism, and

having an impact on the kinds of spaces one seeks out or avoids.

Our interviews suggested that while some stigma experiences can be attributable to a specific social position (e.g., a homophobic slur), marginalized intersecting social positions can also feel inextricable, and the salience of one's identity is often context dependent (certain situations can elicit aspects of one's identities while concealing others). Most commonly, participants described inequitable experiences of comfort and safety in public space resulting from intersectional stigma. Participants explained how those holding marginalized intersecting social positions are more likely to conceal or adjust themselves in an effort to minimize enacted stigma. Relatedly, participants expressed that embodying privileged social positions can have a "buffering" effect (e.g., the impact of Whiteness on sexual minority status) and how privilege manifests in the ability to navigate places and social interactions without having to adjust or conceal aspects of their identity.

THE ROLE OF INTERSECTIONAL QUANTITATIVE RESEARCH

We maintain that intersectional quantitative research has the potential to generate innovative exploration of health inequities across a range of marginalized intersecting social positions, help identify interacting causal processes, and create solutions for health inequities through a social justice lens. To avoid relying on attribution, we advocate the inclusion of event-level measures of intersectional stigma that indirectly capture experiences of intersectional stigma by capturing emotions felt (e.g., isolated, confident, invisible, safe, uncomfortable) across space and place and while socializing with others. Furthermore, participants emphasized the very powerful forms of resilience, comradery, friendship, and solidarity born out of shared experiences of stigma. It is still possible to lose sight of community strengths, resistance, and empowerment in stigma research, and we advocate the inclusion of positive emotions and experiences in event-level measures of intersectional stigma.

Finally, when considering event-level methodologies (e.g., daily diaries, ecological momentary assessments) to assess and examine experiences of stigma, researchers must consider how the methodology contributes to participant burden. Before capturing participant experiences, researchers should identify the ways in which participants are vulnerable to emotional, mental, and spiritual harm. Researchers can consider the length and frequency of surveys, privacy and confidentiality concerns, and age-appropriate and inclusive survey language, as well as available resources and support services to offer participants. We recommend community-informed and resilience models for conducting stigma research not only to reduce power imbalances in the research process but also to bolster solidarity and resilience across community members. AJPH

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The institutional review board at CUNY's Hunter College approved all study procedures.

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US Government Health Agencies' Efforts to Address HIV-Related Intersectional Stigma

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The US Department of Health and Human Services (HHS) and its agencies are committed to identifying and addressing the challenges that impede people from utilizing available HIV prevention and treatment options. Among these challenges are intersectional stigma and discrimination, which HHS is working to address through its programs and initiatives, including within the Ending the HIV Epidemic in the US (EHE) initiative, which aims to reduce new HIV infections in the United States by at least 90% by 2030.[1] Through EHE and other concerted programs and efforts, the goal of HHS is to develop and equitably deliver effective health-related support services to people who need them. Despite the availability of critical evidence-based options (e.g., advances in antiretroviral therapy, models of effective HIV care and prevention, pre-exposure prophylaxis, and syringe services programs), access to, uptake of, and persistent use of these options remain uneven within and across communities, regions, and demographic groups.

Interlocking systems of oppression (e.g., racism, classism, sexism, homophobia, and transphobia) are drivers of HIV-related intersectional stigma (HIVIS). Acknowledging this, HHS embraces an HIVIS perspective to address the full, inclusive spectrum of health and life experiences among people affected by HIV. This perspective acknowledges that systems of power have an adverse impact on the health of people experiencing multiple forms of oppression.

Federal efforts to address HIVIS, in partnership with communities, are contributing to achieving EHE milestones. These efforts are also important to the National HIV/AIDS Strategy for the United States 2022–2025, which states,

> The United States will be a place where new HIV infections are prevented, every person knows their status, and every person with HIV has high-quality care and treatment, lives free from stigma and discrimination, and can achieve their full potential for health and well-being across the lifespan. This vision includes all people, regardless of age, sex, gender identity, sexual orientation, race, ethnicity, religion, disability, geographic location, or socioeconomic circumstance.[2(p1)]

Lessons learned about HIVIS can add strategies, tools, and insights to the fight against HIV in the United States and globally.

EFFORTS AND APPROACHES

HHS addresses HIVIS through an interrelated set of approaches, exercised and shared through agency missions, which include research, surveillance, research and community input synthesis, program and communication campaign development, service delivery, and capacity building. HHS accomplishes this through partnering with communities, government agencies, academia, health and public health services, and other program entities at the local, state, tribal, national, and international levels.

A selection of key examples of HIVIS-related efforts from several HHS agencies are provided here:

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Office of the Assistant Secretary for Health

Through the Minority HIV/AIDS Fund, the HHS Office of the Assistant Secretary for Health has supported demonstration and pilot projects that stress holistic and syndemic strategies to address HIV among racial and ethnic minorities.[3] Minority HIV/AIDS Fund–supported activities are designed to address racial inequities by focusing on system changes and strategic partnerships that aim to integrate biomedical, behavioral, and structural approaches for HIV, viral hepatitis, and sexually transmitted infections.[4]

Centers for Disease Control and Prevention

In addition to its public health research, research synthesis, and programmatic HIVIS-related activities through funded health departments and community-based organizations, the Centers for Disease Control and Prevention monitors stigma nationally through surveillance and develops and disseminates HIV-related health communication materials under its Let's Stop HIV Together campaign.[5] These materials include messaging to prevent HIV-related stigma, such as the benefits of viral suppression for prevention, supported through public-facing resources on transmission risk estimates and an interactive risk-reduction tool.[6,7]

Health Resources and Services Administration

Since the inception of the Ryan White HIV/AIDS Program (RWHAP), administered through the Health Resources and Services Administration (HRSA), mitigating stigma-related barriers to accessing HIV care, treatment, and support have been addressed by organizations providing those services across the United States. With funding from HHS's Minority HIV/AIDS Fund and input from the National Institutes of Health (NIH), HRSA recently developed a proposal to address stigma titled Reducing Stigma at Systems, Organizational, and Individual Client Levels in the RWHAP (HRSA-20-112), referred to as ESCALATE.[8] This project aims to reduce stigma for people with HIV on multiple levels throughout the health care delivery system, including on the individual client, organization, and system levels. The program addresses a multidimensional model of privilege and intersectionality as well as focuses on implementing various stigma-reducing approaches to increase cultural humility (e.g., self-reflection and self-critique of biases) in care and treatment settings for people with HIV within the RWHAP.

Indian Health Service

The Indian Health Service, with its tribal and urban Indian health partners, through their Native Advocacy Workgroup for Trans Health, developed and released the Trans & Gender-Affirming Care in I/T/U Facilities Strategic Vision and Action Plan.[9] The plan highlights case examples of how each agency could promote an intersectional approach (including approaches that address racism toward Indigenous peoples) in research, services, and implementation to improve health for transgender communities.

National Institutes of Health

Addressing HIV-related stigma, including HIVIS, is a high research priority at NIH as stated in its FY 2021–2025 NIH Strategic Plan for HIV and HIV-Related Research.[10] Working with partners, NIH is advancing HIVIS science through research programs, initiatives, and other dedicated activities. NIH organized the 2020 virtual HIVIS Research Advances & Opportunities Workshop and this special issue as part of its evolving emphasis on HIVIS. These efforts and others are catalyzing NIH-supported HIVIS science, including a keystone 2019 funding opportunity announcement, Promoting Reductions in Intersectional StigMa (PRISM) to Improve the HIV Prevention Continuum.[11]

Substance Abuse and Mental Health Services Administration

The Substance Abuse and Mental Health Services Administration's flagship HIV grant programs use an evidence-based, multilevel approach that considers the burden of stigma, social marginalization, and discrimination on prevention and treatment adherence for key populations. This approach encourages multisectoral partnerships (e.g., health care, schools, justice systems, social services, faith, and other relevant community sectors) and addresses policies and programs to meet the needs of institutions, providers, communities, and individuals simultaneously. The Prevention and Treatment of HIV Among People Living With Substance Use and/or Mental Disorders guidelines highlight effective practices utilizing this framework.[12]

THE WAY FORWARD

Through EHE and other strategic collaborations, federal agencies within and outside of HHS are taking actions to

address HIVIS. The way forward requires federal agencies to better address the challenges of intersectionality, including how power dynamics are perpetuating inequities. This requires federal agencies to do the following:

Utilize Collective Understanding

- Increase understanding of HIVIS within the context of HIV prevention, treatment, and care as well as within a broad structural context.
- Engage collaborators in solving HIVIS challenges, including policies and programs not reaching people in need.
- Work with partners to utilize the understanding of and implement solutions to address the complex systems, roles, and behaviors that enact and perpetuate intersectional stigma and discrimination.

Measure and Monitor Stigma

- Identify commonalities and differences in intersectional stigma across health conditions.
- Harmonize intersectional stigma and discrimination methods and measurements.
- Ensure measurement and monitoring are ongoing and iterative.
- Identify opportunities within, across, and beyond HHS agencies, especially within EHE geographic areas, to monitor intersectional stigma and discrimination.

Develop and Apply Interventions

- Highlight the evidence base of current interventions designed to reduce intersectional stigma and discrimination.
- Examine and address laws, policies, and practices that reinforce intersectional stigma and discrimination, including HIV criminalization laws.
- Develop or adapt interventions that address HIVIS at multiple socioecological levels.
- Address drivers of adverse health and social outcomes.
- Support integrated and braided holistic interventional approaches.
- Integrate and tailor intersectional interventions to advance EHE goals and improve HIV prevention and treatment outcomes.

Scale Up Implementation

- Build collaborative, equitable partnerships between researchers and communities to improve health outcomes.
- Ensure community perspectives and experiences inform all steps of the research and intervention development process.
- Determine effective combinations of interventions and strategies for addressing HIVIS to reduce HIV transmission and disparities in HIV rates, including for gay and bisexual men, transgender persons, racial and ethnic minorities, and persons residing in domestic and global areas with the highest HIV rates.
- Incorporate progress and lessons learned to address HIVIS within and outside the United States.

To effectively address the characteristics and complexities of HIVIS, the way forward requires expanded thinking and dynamic initiatives, including and beyond what has been presented in this article. Intersectional stigma, including HIVIS, is fueled by deeply embedded structural and systemic challenges that need to be identified and addressed. This approach, with focused and coordinated efforts, is key to addressing HIVIS. HHS's role in this is an integral aspect of an all of government and all of society strategy to end HIV in the United States and globally. AJPH

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Intersectional Resilience Among Black Gay, Bisexual, and Other Men Who Have Sex With Men, Wisconsin and Ohio, 2019

Katherine G. Quinn, PhD, Julia Dickson-Gomez, PhD, Broderick Pearson, Erica Marion, Yuri Amikrhanian, PhD, and Jeffrey A. Kelly, PhD

Objectives. To investigate resilience strategies used by Black gay, bisexual, and other men who have sex with men (MSM) to navigate racism and heterosexism.

Methods. In 2019, we conducted in-depth interviews with 46 Black MSM in Milwaukee, Wisconsin, and Cleveland, Ohio. Thematic analysis, informed by intersectionality, was used to identify intersectional resilience within the context of participants' lives.

Results. Our analyses revealed ways in which Black MSM respond to stigma and oppression. We identified the following themes that capture these experiences: pride in intersectional identities, perseverance, community advocacy, and social support. Our analyses reveal how men draw on these assets and resources to positively adapt despite experiences of racism and heterosexism.

Conclusions. Intersectional resilience can support Black MSM in navigating racism and heterosexism. However, public health interventions at the institutional and system levels are needed to directly target the root causes of oppression and support resources that facilitate intersectional resilience. (*Am J Public Health*. 2022;112(S4):S405–S412. https://doi.org/10.2105/AJPH.2021.306677)

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An increasing body of literature has demonstrated that Black gay, bisexual, and other men who have sex with men (MSM) contend with intersectional stigma and discrimination.[1,2] Intersectionality is a framework rooted in Black feminist scholarship and activism that highlights how social conceptualizations of race, class, sexuality, gender, and other social categories are interconnected and shape access to power, resources, and opportunity.[3,4] With social justice roots,[3] intersectionality has shed light on the intersecting structural dimensions of oppression and privilege.

Intersectional stigma[5] refers to the process by which some individuals are exposed to multiple forms of oppression, prejudice, and discrimination. Social processes, structures, and power dynamics privilege and marginalize historically disadvantaged people,[6] contributing to disparate health outcomes.[7] The intersection of race- and sexuality-based discrimination is linked to myriad negative health outcomes for Black MSM, including negative psychological and substance use outcomes[8] and limited access to HIV prevention services.[2]

However, research on intersectional stigma is often deficit focused, losing sight of empowerment, resistance, and resilience within marginalized communities, a concept foundational to intersectionality.[9] Resilience is most frequently defined through a White, Western lens that focuses on the process by which individuals positively adapt, recover, or cope within the context of adversity.[10] More recently, researchers have expanded the framework to examine the systems and structures that support or threaten resilience and the positive adaptations individuals make despite oppression.[11]

In this study, we examined intersectional resilience. Intersectional resilience recognizes that individuals with multiple marginalized statuses possess unique strengths that may confer a protective effect and focuses on how individuals

navigate systems that engender adversity or promote wellness. The same factors that make people targets of intersectional stigma and discrimination can also act as resources and strengths. Furthermore, intersectional resilience considers the structural, cultural, and political contexts that shape adversity and resilience to understand how some individuals thrive in oppressive environments.

Research has started to examine the relationship between intersectional stigma and resilience. For example, race- and sexuality-related stigma have been identified as sources of resilience and psychological growth. Research has shown that racial pride helped Black men cope with discrimination and negative stereotypes.[12,13] Similarly, LGBTQ (lesbian, gay, bisexual, transgender, queer or questioning) people of color have described how adversity and hardship validated their experiences and promoted a sense of collective identity and belonging.[14]

We examined intersectional resilience among Black MSM, including the strategies men use to navigate racism and heterosexism. Although individuals may be exposed to other types of stigma (e.g., stigma related to HIV status), we focused on racism and heterosexism given their prominence among Black MSM.[8,15] It is important to note that intersectional resilience is not a binary construct. That is, we did not categorize men as being or not being resilient. Rather, our aim was to examine various aspects of intersectional resilience in the lives of study participants.

METHODS

In 2019, we interviewed Black or African American cisgender men who were 18 years or older; identified as gay, bisexual, or otherwise having sex with men; reported negative or unknown HIV status; and resided in Cleveland, Ohio, or Milwaukee, Wisconsin. Interviews were conducted by a Black gay man in Milwaukee and by a Black gay man and Black trans woman in Cleveland. Interviews were done as part of a larger study examining the influence of social networks on uptake of preexposure prophylaxis.

We recruited a purposive sample through partnerships with LGBTQ service organizations and health care providers. Community recruitment strategies (e.g., recruiting participants at barber shops) and paid social media advertising were used to recruit individuals not affiliated with LGBTQ groups. Interviews lasted 30 to 90 minutes, and participants were compensated $50.

A semistructured guide covered topics including health care, HIV prevention, and family and social life. The flexibility of the interview guide allowed the research team to probe for additional information about participants' experiences and follow their lead in discussions. This approach was useful in examining unanticipated or underexplored conceptualizations of intersectional stigma and resilience.

Interviews were audio-recorded and transcribed verbatim. To code data, we used MAXQDA qualitative data analysis software and a team-based analytic coding strategy. Initially, transcripts were coded with participants' characteristics (e.g., age, study city). We then used inductive coding to generate a codebook. Three coders independently read 3 transcripts and generated lists of potential codes. These lists were refined and combined to create a single codebook that was applied to additional transcripts for further refinement and assessment of fit. Finally, axial coding was used to identify dominant concepts, group related codes, and draw connections among codes.[16]

We coded all interviews twice to ensure adequate application of the codebook. Coded transcripts were then analyzed via thematic analysis,[17] focusing on oppression, resilience, and responses to stigma and marginalization. An intersectional lens was used throughout the analysis, with participants' experiences being examined in the context of their social positions as Black MSM. The following research question guided our analysis: How is intersectional resilience present in the lives of Black MSM?

RESULTS

The sample consisted of 46 Black MSM. The characteristics of the sample are presented in Table 1. Our results are organized around 4 themes: (1) pride in intersectional identities, (2) perseverance and navigation of masculinity expectations, (3) advocacy and leadership, and (4) social relationships. Excerpts from interviews are used to illustrate these themes. Pseudonyms are used throughout. Additional illustrative quotes are provided in Box 1.

Pride in Intersectional Identities

Throughout the interviews, men discussed experiencing racism and heterosexism throughout their lives. In reflecting on their experiences, several participants expressed pride in their identities and described overcoming stigma and oppression to get to a place of self-acceptance. As one participant noted, "I was trying to hide it. And being in the closet, I was not happy. And now that I am being myself, being a Black,

TABLE 1— Sample Characteristics: Cleveland, OH, and Milwaukee, WI, 2019

	Milwaukee (n = 25), Mean ±SD or No. (%)	Cleveland (n = 21), Mean ±SD or No. (%)	Total (n = 46), Mean ±SD or No. (%)
Age, y	24.7 ±3.2	26.2 ±4.6	25.2 ±3.8
Sexual identity			
Gay	18 (72)	18 (86)	36 (78)
Bisexual	4 (16)	2 (10)	6 (13)
Another identity	3 (12)	1 (5)	4 (9)
Preexposure prophylaxis use			
Current user	5 (20)	4 (19)	9 (20)
Former user	2 (8)	0	2 (4)
Full- or part-time employment	20 (80)	15 (71)	35 (76)
Current student	3 (12)	2 (10)	5 (11)
Highest level of education			
Some high school	0	2 (10)	2 (4)
High school	10 (40)	7 (33)	17 (37)
Some college	13 (52)	12 (57)	25 (54)
College	2 (8)	0	2 (4)
Annual income, $			
< 10 000	7 (28)	10 (48)	17 (37)
10 000–20 000	7 (28)	6 (29)	13 (28)
20 000–30 000	5 (20)	1 (5)	6 (13)
30 000–40 000	6 (24)	3 (14)	9 (20)
> 40 000	0	1 (5)	1 (2)

gay, African American male, I am completely happy."

Similarly, another participant stated:

> I take pride in being a Black gay man, 'cause being Black in society, you are already supposed to be bottom of the totem pole. Being gay on top of that, you really struck down. But I use my smarts, my education, my wits, my everything that I learned and achieved over the years to define me, not my race, not my sexuality, 'cause that has nothing to do with me . . . being a gay Black man, you should be proud of it. —Mark (22-year-old gay man, Cleveland)

This participant's reflection highlights the complexity of intersectionality and the difficulty of centering pride in the context of oppression. Mark expressed pride in being a Black gay man yet also noted that his race and sexuality had "nothing to do with me." These seemingly contradictory statements may reflect how he viewed himself as more than a Black gay man, despite society using those characteristics to determine his worth. Living in a racist and heterosexist environment has dictated his social position at the "bottom of the totem pole," and as a result he may see his education and accomplishments as important in defining himself in an environment that devalues other aspects of his identity.

Participants' affirmation and celebration of their marginalized identities as Black gay men reflect 1 aspect of intersectional resilience. Several individuals attributed some of their best personality traits to their gay identities:

> Being gay is what makes me. I wonder if I would be as clever, as witty, as intelligent you know, if I wasn't gay. It makes me think on my feet. It's made me had to be street smart. . . . I've never looked at it as a negative thing. The only negative thing is the way society views it. —Daniel (37-year-old gay man, Cleveland)

Similarly, another participant described how he coped with discrimination:

> You just kind of cope with [racism and heterosexism] by knowing that you are the perfect version of yourself. You are a masterpiece in whatever, like, version of it is. . . . You are perfect, and you just can't let how other people perceive you affect that. —Johnny (20-year-old queer man, Milwaukee)

In this excerpt, Johnny is referencing "Masterpiece" by Jazmine Sullivan, a "self-love" song about being able to accept and love all things about oneself. He went on to describe the importance of self-love for himself and other Black gay men in coping with challenges associated with stigma: "No matter the adversity I go through, I keep moving forward. I refuse to be held down . . . what's attractive is going through true adversity, making it out on the other end with a smile on your face."

Perseverance and Navigation of Masculinity Expectations

Throughout their narratives, participants described perseverance in response to adversity and an internal

BOX 1— Themes and Illustrative Quotes: Black Men Who Have Sex With Men, Cleveland, OH, and Milwaukee, WI, 2019

Theme	Illustrative Quote
Pride in intersectional identities	I love just being able to be myself, be gay. I love breaking stereotypes. —Marcus (20-year-old queer man, Milwaukee)
	I try to look nice, to represent the Black community, and more than just, you know, baggy pants or jeans or someone who don't, you know, take care of theyself or someone who's always wearing like joggers and a T-shirt live in the 'hood, you know. Like, I try to go out with beauty, with other things, to strive for my community and tell people that, you know, our stigma is just what you think. I have a lot of friends I have met who are other cultures who live on the outskirts of Milwaukee, and I may be like one of the only Black friends they have, and I'm representing my entire city with that group of people. —TJ (29-year-old gay man, Milwaukee)
Perseverance and navigation of masculinity expectations	Well, I think stigma is a little harder in the Black community. Because, you know, patriarchy is just so demanding in this world. We are expected to be a lot of different things as men. We are expected to be strong, not show emotion, fearless, not be gay, and everything. So, you know, [being gay] doesn't coincide with that ideal image of masculinity in this world, it's gonna be stigmatized and looked at in a negative way. —Eric (24-year-old gay man, Milwaukee)
	Because no matter the adversity I go through, I keep moving forward. I refuse to be held down, and even when I take those times, where I take those hard hits, I don't get knocked down to where I can't get back up. —Johnny (20-year-old queer man, Milwaukee)
Advocacy and leadership	I think I inspire people naturally. I don't try too hard and people still come up to me, you know. Like, for instance, when some of the girls, you know, be having trouble, and they just come up to me and tell me like, "you inspire me on a daily basis, like you're one of the reasons why I come to school every day." I'm pretty inspiring. . . . I really want to give back and do a lot for the, you know, not just the community but the world itself. —Ricky (23-year-old gay man, Cleveland)
Social relationships	I think that it's difficult because when you come out as gay you get, it's almost like your life gets thrown into this hole and you have to dig yourself out of it or else you will eventually die there. And a lot of us don't dig our way out of there. You know, it's like you get so many setbacks, so many fucking setbacks. . . . We [gay Black men] think we can survive without each other, but then we end up lonely and sad and then we get into either risky behavior or we become embittered to the world around us, and I don't want to be that. —Marcus (28-year-old gay man, Cleveland)
	I would describe the community that I've experienced in Milwaukee—I'm gonna start with the positive note first—as family. Definitely confidants for those I've built relationships with. I think that the gay community is definitely a tight knit community. It's like a family-oriented thing, and you know how in families you get head butts and stuff of that nature there, but also like overall the majority are there for each other. —TJ (29-year-old gay man, Milwaukee)

motivation to "keep going" and not give up despite the challenges they faced. Several participants attributed these characteristics to their identities as Black men. For example, according to one participant:

> I'm proud to be a Black man. Being a Black man is overcoming odds, to me, because people think that you can't do certain stuff or that you won't be successful because of the stigma. If you overcome it as a Black man, then that's good to me. That's what I want to do: overcome the stigma, be something. —Shawn (19-year-old gay man, Cleveland)

In articulating their experiences with intersectional stigma, nearly all of the participants expressed a desire to persevere and "overcome the stigma" and negative stereotypes they faced. Yet, there was a shared understanding that they were individually responsible for coping with and overcoming oppression.

> You already coming with the Black strike against you. Now you have the gay strike against you. It's incredibly tough and you have to have a thick skin. And going back to the whole masculinity thing, that's where the whole confidence or belief in yourself has to come into play . . . to be resilient, it means to be strong, that you're a fighter. —Daniel (37-year-old gay man, Cleveland)

In this excerpt, Daniel defines resilience as being "strong" and "a fighter," a perception that was common among men in this study. When considering the intersection of racism and heterosexism, more than half of the study participants described masculinity norms and expectations. There was a shared sense that, as Black men, they were expected to be strong, hide their emotions, "be dominant," and "carry yourself like a straight man would." Conforming to masculinity norms was perceived as essential to navigating and surviving daily life and avoiding intersectional stigma. For example, one participant described how his masculinity helped him "to blend in" to avoid heterosexism. Individuals also noted that these expectations reflected an image of masculinity that was often at odds with how they were perceived as gay and bisexual men. As one participant stated, "[Being gay] doesn't coincide with that ideal image of masculinity in this world."

Advocacy and Leadership

Engaging in advocacy and challenging societal norms and stigma were important components of intersectional

resilience for study participants. Men described their exclusion and lack of representation in predominantly White or heteronormative spaces. For example, participants in both Cleveland and Milwaukee noted a lack of predominantly Black bars and clubs for gay and bisexual men and described systematic ways in which they were excluded from White gay bars, with one participant noting that "they did they best to keep Black people from coming." Participants described bars that "don't wanna play any type of Black music" and clubs that began to "up the price of drinks" in an attempt to exclude Black men. In response, some participants found meaning in becoming advocates and leaders in their communities, creating their own spaces and relationships that celebrated Black gay men. For example, one participant described how he sought to combat stigma facing the Black gay community:

> I think a lot of the stigma that they had about the gay lifestyle I broke. I get tested regularly, I advocate for my community when I can and whatever I can help out I volunteer. I've done work with the [sexually transmitted infection] clinic and did testing with them. I've shown them a positive part of the gay lifestyle. —TJ (29-year-old gay man, Milwaukee)

Advocacy and volunteer work provided opportunities for participants to support their communities and cope with or resist oppression. This was particularly evident when individuals described their informal work in HIV prevention advocacy and sexual education within the community. One participant noted that "I try to make sure I'm servicing my community. … I try my best to just be an advocate and lower the stigma whenever I can." Another individual described his HIV prevention advocacy and education work with Black gay men, noting that "I continue to fight the good fight."

In addition, several participants talked about their role in advocacy and social change. Some described themselves as community leaders and influencers who were well respected in their communities. One participant noted that his friends lovingly referred to him as "the preacher" because of his regular informal advocacy around HIV prevention. Others noted that they were a source of inspiration for other Black gay and bisexual men. For example:

> I'm so amazed when people tell me that I have such a big influence, and people listen to me and you know, they look up to you, and I'm like "Holy shit! I am a big piece of work." —James (25-year-old bisexual man, Milwaukee)

Men who described themselves as leaders talked about the positive feelings they experienced with respect to being "inspiring" or having a big influence, as well as their desire to use that influence to better their community. One participant in Cleveland described heterosexism in Black communities, noting that "I think progress is happening, and that's why I say we're pioneers. Because that was a really tough wall to break down in our own communities, in our own acceptance of one another."

Social Relationships

Data from this study reveal the complexity of social support as a component of intersectional resilience. Although some individuals described rejection, heterosexism, and anxiety around coming out to their families, others noted the importance of their families in helping them cope with oppression, particularly racism. One individual described his experiences with racism in school:

> I had a good balance of family and I always realized that not everybody had that. So, when the community and the world said what they wanted to say, I came back to my family and I got to heal, and talk about that, and feel that out so I didn't carry that with me or believe the things that people said. —Randall (35-year-old gay man, Cleveland)

Even when individuals' experiences with intersectional stigma threatened their sense of self, many drew on social relationships that supported their identities. Families were often described as important sources of support and resilience in combating racism and developing resilience.

Approximately half of the study participants described the importance of the support they received from other Black MSM. These relationships were particularly important in helping individuals cope with discrimination and stigma.

> I am surrounded with people. I still have cousins and my mother and my grandfather and my father and people around me that just love me genuinely. But if it's a gay issue and I want somebody that can relate, then I've got 3 gay Black men in my life that can usually relate to what I'm going through, so I got really good guides. And that's kind of how I cope with it. —Ned (30-year-old bisexual man, Milwaukee)

Even for individuals who had strong relationships with their families of origin, there was a need for support from other Black MSM who could relate to their experiences and help them cope with intersectional stigma. Creating

relationships and community with people of the same intersecting identities was an important way men developed pride in their identities.

DISCUSSION

Our examination of intersectional resilience among Black MSM highlights how these individuals thrive not despite their oppression and marginalized identities but because of them. Applying an intersectional lens to resilience brings awareness of the power and agency of intersectionally marginalized communities and turns attention toward systems and structures that contribute to marginalization or promote resilience.[11] Although men in this study often conceptualized resilience as an individual attribute, their experiences also reflect how systems and environments shape oppression and resilience.

Typically, intersectional stigma research with Black MSM focuses on the negative forces that increase risks for HIV or contribute to disparate health outcomes.[8,18] However, men in this study described their marginalized identities as a source of pride and used their social positions to support other Black MSM. For example, young Black MSM may harness intersectional resilience through community leadership and having a visible, positive impact in their communities to help them combat the social degradation caused by oppression and marginalization. This aligns with previous research in which LGBTQ people of color have articulated narratives of "positive intersectionality" wherein they create a culture of acceptance and empowerment around their identities, increasing resilience and well-being.[19]

In addition, researchers have found that members of Black sexual minority groups report experiencing positive intersectional events (those associated with being both Black and LGBTQ) at a rate nearly 3 times that of negative events. These positive, identity-supportive experiences are associated with positive affect.[20]

Men's descriptions of resilience, namely as being "strong" or "a fighter," may reflect masculinity norms placed on Black men. Such norms are rooted in historical racialized contexts[21] and often conflate masculinity and heterosexuality, making it difficult for Black MSM to achieve societally prescribed masculine expectations.[15,22] Furthermore, participants' experiences of masculinity reflect the simultaneous racism and heterosexism they experience, creating pressures around masculinity in ways that are especially acute. Our findings align with those of prior research in highlighting the challenges Black MSM face in navigating masculine expectations and the consequences of those expectations for self-perception and health behaviors.[23]

Relatedly, men often located the responsibility of overcoming adversity within themselves, which may reflect social narratives around resilience such as pulling oneself up by the bootstraps and bouncing back from challenges. Black MSM may internalize or draw on these expectations to navigate and survive the systemic racism and heterosexism they encounter.[24] However, the weight of these expectations and efforts to overcome unrelenting oppression may have negative long-term consequences. For example, John Henryism[25] is a phenomenon among African Americans in which active coping against persistent social oppression can result in negative health outcomes. That is, Black MSM may be surviving the intersectional stigma they encounter but not without a physical or psychological toll.

Men in this study described how they mobilized to become community advocates and leaders and expressed a desire to improve their communities and the experiences of Black MSM. In doing so, they were able to exert agency and make efforts to intentionally resist oppression. As advocates, men recognized that they were not powerless in their lives or communities. This mirrors research with Black MSM demonstrating their desire to engage in social action and act as community leaders.[26,27] The cultivation of Black MSM as community leaders and role models may be an essential aspect of intersectional resilience, as it can help change societal norms and create more inclusive and resilient spaces and communities.

The intersecting stigmas facing Black MSM often meant that they had to navigate multiple spaces and group memberships, requiring skilled navigation. Several men struggled to find sources of support and belonging in their communities and described challenges in navigating their families of origin or their involvement in largely White LGBTQ spaces. In line with previous research,[28–30] participants described the importance of support from other Black gay men in facilitating belongingness and coping with intersectional stigma. Belongingness and community can serve to validate individuals' experiences of oppression and facilitate opportunities for marginalized individuals to create their own spaces to interrogate and resist oppression.[14]

Limitations

The interview guide for this study did not promote conversations on the social and political environments in which resilience occurs. Thus, our data provide little context on participants'

social environments and how these environments may have supported or constrained resilience. In addition, outcomes research is needed to understand how intersectional resilience influences HIV risk, mental health, and other health outcomes, including the potential psychological toll of resilience.

Conclusions

Intersectional resilience makes way for interventions that create safe and affirming environments for Black MSM harmed by intersectional stigma, advocacy and social change efforts led by and targeting Black MSM, and structural change to address racism and heteronormativity. Collective action is an active form of community participation wherein individuals work to resist oppression and improve the political and social conditions of their comunities.[31] Collective action is associated with increases in empowerment and well-being[32] and with lower levels of internalized stigma[31] and minority stress.[33] For example, engagement in the Black Lives Matter movement can instill an individual sense of racial pride while simultaneously combating societal racism and contributing to community change.[34] Such interventions can work to dismantle intersectional oppression and celebrate Black MSM.

Intersectional resilience may protect Black MSM from negative health consequences, including those associated with experiencing racism and heterosexism. As is evident from our results, pride in intersectional identities, perseverance, activism, and social support networks may be key to supporting power, agency, and intersectional resilience among Black MSM. However, regardless of one's individual-level resilience resources, societal oppression shapes access to resources and power and engenders adversity. Public health interventions should aim to dismantle oppressive institutions and systems rather than calling on marginalized communities to be resilient to systemic oppression. AJPH

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CONTRIBUTORS

K. G. Quinn oversaw qualitative data collection, led the data analysis, and drafted the article. J. Dickson-Gomez assisted in the qualitative data analysis and the writing of the article. B. Pearson conducted the interviews and assisted with interpretation of results. E. Marion assisted in writing and analysis. Y. Amikrhanian provided feedback on the article. J. A. Kelly provided extensive feedback on the article and the analysis.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

HUMAN PARTICIPANT PROTECTION

All procedures were reviewed and approved by the institutional review board at the Medical College of Wisconsin. Participants provided informed consent.

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Methods in HIV-Related Intersectional Stigma Research: Core Elements and Opportunities

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Researchers are increasingly recognizing the importance of studying and addressing intersectional stigma within the field of HIV. Yet, researchers have, arguably, struggled to operationalize intersectional stigma.

To ensure that future research and methodological innovation is guided by frameworks from which this area of inquiry has arisen, we propose a series of core elements for future HIV-related intersectional stigma research. These core elements include multidimensional, multilevel, multidirectional, and action-oriented methods that sharpen focus on, and aim to transform, interlocking and reinforcing systems of oppression. We further identify opportunities for advancing HIV-related intersectional stigma research, including reducing barriers to and strengthening investments in resources, building capacity to engage in research and implementation of interventions, and creating meaningful pathways for HIV-related intersectional stigma research to produce structural change.

Ultimately, the expected payoff for incorporating these core elements is a body of HIV-related intersectional stigma research that is both better aligned with the transformative potential of intersectionality and better positioned to achieve the goals of Ending the HIV Epidemic in the United States and globally. (*Am J Public Health*. 2022;112(S4):S413–S419. https://doi.org/10.2105/AJPH.2021.306710)

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Researchers have recognized, studied, and addressed the role of stigma in HIV prevention and treatment since the early years of the epidemic. Stigma is a social process supported by social power that distinguishes people based on social statuses and results in devaluation.[1] As the HIV epidemic has become concentrated in populations at the nexus of multiple forms of oppression, such as Black sexual minority men in the United States, researchers have increasingly sought to adopt an intersectional lens when studying stigma. Yet, researchers have, arguably, struggled to operationalize intersectional stigma.

Intersectional stigma recognizes that HIV stigma intersects with other stigmas, such as stigma associated with race and sexuality, to create unique and sometimes new oppressive conditions and experiences.[2] (For more on the definition and framework of intersectional stigma, see Bowleg's introductory editorial in this supplement, p. S224.) Operationalizing intersectional stigma presents challenges because theoretical frameworks do not prescribe to researchers a predetermined set of variables to be measured or associations to be tested.[3] They instead offer researchers essential tenets to guide their choices of research questions, study designs, measures, and analyses. To guide future innovation in HIV-related intersectional stigma research, we propose a series of theory-based core elements of, and identify several opportunities for, advancing HIV-related intersectional stigma research.

CORE RESEARCH ELEMENTS

Core elements of HIV-related intersectional stigma research include multidimensional, multilevel, multidirectional, and action-oriented methods that sharpen focus on, and aim to transform, interlocking and reinforcing systems of oppression. As described here and in Box 1, these methods can be integrated into research in many ways. We describe examples of studies that have applied these core elements to HIV-related stigma research, including research on stigma experienced by key populations and people living with HIV, in the sections that follow. Many of these examples incorporate only 1 or 2 core elements (e.g., multidimensional or multilevel elements); consequently, incorporating multiple core elements (e.g., multidimensional and multilevel elements) is a key next step for HIV-related intersectional stigma research.

Multidimensional

Much of the recent methodological innovation related to intersectional stigma research has focused on the multidimensional aspect of intersectionality or the ways in which multiple, interlocking dimensions of stigma (e.g., racism, heterosexism, transphobia, HIV stigma) shape HIV and other health outcomes.[4,5] Although work on multidimensional methods is certainly not complete, it has perhaps been the first frontier of HIV-related intersectional stigma research. Qualitative methods were the cornerstones of early work.[3] For example, qualitative findings suggest that Black gay and bisexual men generally experience their social identities as interlocking and mutually constitutive rather than independent and additive (although underscoring the complexity of intersectionality, some Black gay and bisexual men view themselves as Black first).[6] Qualitative methods continue to play key roles in intersectional stigma research given their capacity to yield insights into complex social phenomena that play roles in HIV prevention and treatment.[3,5]

Researchers have recently made innovations in quantitative approaches to capturing the multidimensional nature of intersectional stigma, many of which have been summarized in recent reviews.[4,5,7] Multidimensional measurement approaches include intercategorical measures that capture stigma across a range of intersections of social identities and positions: the Intersectional Discrimination Index does not include attributions for discrimination, instead asking participants to reflect on experiences they have had or expect to have because of "who they are."[8] Measures additionally seek to capture unique experiences of stigma within specific groups: the Black Men's Experiences Scale measures experiences at the intersection of race and gender among Black men in the United States.[9] Other approaches incorporate parallel

BOX 1— Concepts, Recommendations, and Examples of Methods for Core Elements of HIV-Related Intersectional Stigma Research

Concept	Recommendation	Examples of Methods
Multidimensional: HIV inequities are shaped by multiple forms of stigma (e.g., racism, sexism, heterosexism, HIV stigma).	Interrogate interlocking stigma processes that give rise to HIV inequities.	• *Qualitative methods*: in-depth interviews, focus groups, ethnography, photovoice, and observational studies • *Individual- and interpersonal-level measures*: intercategorical, group-specific, parallel • *Analyses*: moderation (i.e., regression with interaction terms), hierarchical regressions, latent variable approaches, and structural equation modeling
Multilevel: HIV-related intersectional stigma exists at multiple social–ecological levels, including the structural, interpersonal, and individual levels.	Center considerations of social–structural contexts of stigma.	• *Multilevel models*: span multiple social–ecological levels • *Policy and legal analysis*: national, organizational, and institutional policy indices • *Spatial methods*: photovoice, ecological momentary assessment, experimental field studies and randomized audit studies, in-depth interviews, participant observation, spatial meta-analyses • *Network methods*: social network methods (egocentric and sociometric), dyadic methods
Multidirectional: HIV-related intersectional stigma at one level shapes stigma at other levels.	Explore the social construction and deconstruction of stigma.	• *Multilevel models*: tests of cross-level effect modification, direct cross-level effects, and indirect cross-level effects • *Longitudinal designs and analyses*: span policy (de)implementation
Action-oriented: The transformation of power structures that give rise to HIV inequities is the end goal of HIV-related intersectionality research.	Promote social change.	• *Community leadership and engagement*: community-based participatory research, participatory action research • *Structural intervention*: rights-based policy change

measures of multiple dimensions of stigma: the Multiple Discrimination Scale measures stigma associated with sexual orientation, race/ethnicity, and HIV status with parallel items.[10] Multidimensional analytic approaches identified by Turan et al.[5] and Bauer[4] include moderation (e.g., regression models with product terms to assess for potential interaction), hierarchical regression, latent variable approaches, and structural equation modeling. For example, latent class and profile methods have been used to identify patterns of interpersonal stigma experiences within samples and to explore associations between these patterns and health outcomes.[5]

Multilevel

Intersectionality calls for the consideration of how systems of oppression operating at multiple social–ecological levels create inequities within society and ultimately affect HIV prevention and treatment outcomes. Stigma exists at multiple levels, including individual (e.g., internalized stigma), interpersonal (e.g., discrimination), and structural (e.g., laws).[1,11] Although HIV-related intersectional stigma research to date has primarily focused on capturing the multidimensional nature of stigma at the individual or interpersonal levels (as described in the previous section and in other reviews[5]), there have been notable recent advancements in measuring stigma at the structural level.[11] This work has provided new evidence that policy and legal structures create and reinforce intersectional stigma via sociopolitical systems that systematically reproduce oppression and ultimately generate inequities in health. For example, Black sexual minority men living in US states with high levels of both structural racism and anti–lesbian, gay, bisexual, transgender, and queer policies are at heightened risk of precursors to suicidality and HIV risk, and those living in US states with high levels of anti–lesbian, gay, bisexual, transgender, and queer policies report less frequent HIV testing.[12] Focusing on the structural level yields insight into how intersectional stigma is manifested within and between organizations and institutions of power and privilege. For example, HIV disclosure policies within employment settings prevent the hiring and promote the firing of people living with HIV.[13]

Attending to cultural contexts can inform understanding of how intersectional stigma is locally manifested by preventing stigmatized individuals from fully participating in local, culturally valued activities.[14] Culturally salient measures can be used to better attend to cultural contexts. The WMM (What Matters Most) Cultural Stigma Scale for Women Living With HIV in Botswana captures culturally relevant aspects of stigma at the intersection of gender and HIV (e.g., achieving capabilities core to "womanhood" or taking care of home and children).[14] Methods that attend to spatial contexts can help researchers explore how intersectional stigma is attached to various spaces, places, and locations. Photovoice, a participatory research method involving photographs and storytelling, has been used to explore how contextual factors within clinical settings shape stigma experienced by people who use drugs.[15] Network methods offer powerful tools to understand how intersectional stigma is shaped by social relationships and experienced from unique sources. A sociocentric network study of a rural region of Uganda found that individuals endorse greater HIV stigma if their peers also endorse greater HIV stigma.[16]

These studies have mostly focused on stigma processes that occur above the individual and interpersonal levels. Innovation in multilevel methods, or those that can be used to integrate multiple social–ecological levels of stigma simultaneously, is a key next direction for research. Emerging research provides some promising examples of the kind of multilevel work that is needed. As examples, researchers have begun to explore associations between stigma at the structural (e.g., same-sex marriage and civil union laws) and interpersonal (e.g., discrimination) levels.[17,18]

Multidirectional

Intersectional stigma is a dynamic, reciprocal, and reinforcing social phenomenon. Once researchers have established a foundation of multidimensional and multilevel methods, they may expand their focus to multidirectional methods that enable researchers to study how changes in HIV-related intersectional stigma at one level produce changes in HIV-related intersectional stigma at other levels, which may in turn produce reciprocal changes at the original level. Researchers may study the construction of HIV-related intersectional stigma by investigating how stigma at one level reinforces and strengthens stigma at other levels. Stigma can be constructed from the top down: the introduction of a same-sex marriage ban was associated with increasing rates of homophobic bullying among youths in California between 2008 and 2009.[17] Stigma can also be constructed from the bottom up: individuals with high levels of stigma toward people with opioid use disorders are more supportive of punitive

versus public health–oriented policies to address the opioid crisis.[19]

Researchers may study the deconstruction of HIV-related intersectional stigma by investigating how empowerment at one level destabilizes and weakens stigma at other levels. Stigma can be deconstructed from the top down: longitudinal research suggests the passing of civil union legislation was associated with decreased experiences of stigma and better mental and behavioral health outcomes among sexual minority women, with greater benefits for racial/ethnic minority women and those with less formal eduation.[18] Stigma can also be deconstructed from the bottom up: activism led by people living with HIV has contributed to the repeal of HIV criminalization policies worldwide.[20] Intersectionality recognizes that systems of oppression are interlocking[21]; thus, as stigma associated with one social status is deconstructed, stigma associated with other social statuses may also weaken.

Action-Oriented

As a critical social theory, intersectionality is a tool for social change that calls for action.[21] We echo and amplify other theorists[22] by proposing that action-oriented methods that promote social change in partnership with communities of people living with and affected by HIV are a core element of HIV-related intersectional stigma research. Such action-oriented methods are made more effective through the integration of multidimensional, multilevel, and multidirectional methods. Community-based participatory research and participatory action research approaches that emphasize the equal participation of community stakeholders and researchers are needed to promote social change through research. The liberation of communities most affected by HIV-related intersectional stigma cannot be achieved without leadership reflective of those communities.

Centering considerations of social–structural contexts encourages interventionists to set their sights on structural change to eliminate HIV inequities. For example, interventions that aim to establish and enforce rights-based policies are needed to dismantle HIV-related intersectional stigma. Moreover, community-led research that investigates how to prevent and eliminate intersectional stigma across contexts, sources, and levels is critical for stigma-reduction efforts. In particular, research that focuses on policymakers, health care providers, and hegemonic community norms can investigate strategies to rebalance interlocking systems of power and transition from an exclusion-focused "them/deficits" approach to an inclusion-focused "we/assets" approach to HIV prevention and treatment.

RESEARCH OPPORTUNITIES

Despite growing recognition of the importance of adopting an intersectional stigma lens within HIV research, there are several prominent barriers to engaging in this work. Following, and in Box 2, we identify key opportunities for addressing barriers to enhance the field's potential for engagement in HIV-related intersectional stigma research.

Reduce Barriers and Strengthen Investment

Identifying structural determinants of HIV prevention and treatment is foundational to HIV-related intersectional

BOX 2— Opportunities and Examples of Strategies for Advancing HIV-Related Intersectional Stigma Research

Opportunity	Examples of Strategies
Reduce barriers and strengthen investment.	• Facilitate access to and support the development of data sets needed for multilevel analyses, including geocoded, population-based, and policy data sets. • Remove barriers to the use of geographic indicators in existing population-based data sets. • Create a compendium of intersectional stigma methods, measurements, and approaches. • Continue to invest in funding opportunities to support development of innovative methods and measurements.
Build capacity.	• Invest in training of future researchers via training and mentorship opportunities. • Invest in professional development of current researchers via workshops, institutes, and short courses. • Develop a resource guide that outlines educational and training opportunities, sources of seed and pilot funding, and existing data sets. • Increase the diversity of the biomedical and scientific workforce, with a focus on communities that have been disproportionately affected by the HIV epidemic.
Create pathways to structural change.	• Identify and develop pathways for research to contribute to structural change. • Facilitate opportunities for researchers and policymakers to engage at the local, regional, and national levels through advocacy, networking, and other initiatives. • Engage communities in all stages of the research process.

stigma research. Opportunities exist to strengthen access to resources to enable researchers to better study these determinants. First, access to and the development of data sets needed for multidimensional and multilevel analyses can be facilitated. These include geocoded data sets to enable researchers to examine associations between structural and contextual factors with individual-level HIV risk and prevention outcomes; population-based data sets that include multidimensional stigma measures and that oversample underrepresented key populations to facilitate adequate statistical power for intersectional analyses; and data sets with indicators of structural stigma, which often require substantial time and resources to develop, yet are vital for multilevel analyses. Establishing a centralized mechanism for collecting longitudinal data on laws, policies, and other institutional factors could greatly accelerate the scalability of research by enabling researchers to more easily incorporate indicators of HIV-related intersectional stigma into a wide range of studies.[23]

Second, barriers must be removed to facilitate the use of geographic indicators in international, national, and local-level data sets. Numerous health data sets provide insufficient information on participants' geographic residence, which prevents the examination of structural factors. Other data sources release data at only 1 geographic level of analysis (e.g., state), which restricts researchers' ability to examine structural determinants across multiple geographic levels, or provide geographic indicators but restrict the ability of researchers to use it (e.g., variables that may identify a particular state), which limits the types of analyses that are possible.[11] Third, the creation of a compendium of intersectional stigma methods could accelerate their uptake and usage by researchers. Fourth, continued investment in funding opportunities would promote the development of innovative methods for HIV-related intersectional stigma research.

Build Capacity

Intersectional stigma is a complex phenomenon that requires advanced understanding of theory and specialized skill sets to research. Training early career investigators in theory and methods for HIV-related intersectional stigma research and strengthening mentorship networks will accelerate this area of research. All training should include a strong focus on theory to ensure that research remains rooted in considerations of power, social justice, and Black feminist thought.[21,22] Increasing the diversity of the biomedical and scientific workforce, with a focus on communities that have been disproportionately affected by the HIV epidemic, will ensure that HIV-related intersectional stigma research is informed and led by researchers with relevant lived experiences. Investments can additionally be made in professional development of established researchers via workshops, training institutes, and short courses to enable them to engage with HIV-related intersectional stigma research as investigators, mentors, and peer reviewers. In their roles as peer reviewers, established researchers act as gatekeepers to innovative methods—accelerating or blocking their advancement.

Create Pathways to Structural Change

To achieve the action-oriented elements of intersectionality research, we recommend the creation of pathways for research to contribute to structural change. Greater engagement between researchers with policymakers and health care leaders at the local, state, and national levels through advocacy, networking, and other initiatives can better enable research findings to inform policy and health care decisions. Researchers may bridge the research–policy and bench-to-bedside gaps by communicating with policymakers and health care providers in ways that meet the demands of policymakers' and providers' time and needs (e.g., synthesized, policy- and practice-relevant, easily digestible communications).[24] Similarly, policymakers and health care leaders may bridge these gaps by investing in systems, programs, and personnel that better tap the expertise of researchers.

For research to inform structural change, communities living with and affected by HIV should be engaged in all stages of the research process. Researchers can provide opportunities for community members to engage in the formulation of research to ensure that research projects reflect community priorities surrounding HIV-related intersectional stigma. Funders can ensure that community members receive funding to engage in grant projects, rather than relying on their involvement as volunteers, to promote equitable research partnerships. Funders can also support efforts for communities to sustain their work after the research project so that research can promote lasting changes in intersectional stigma.

CONCLUSIONS

Recognition of the importance of adopting an intersectionality lens within HIV-related stigma research is growing.

To date, most of the field's methodological innovation related to intersectional stigma has focused on developing multidimensional methods that explore how multiple, interlocking dimensions of stigma shape HIV outcomes at the individual or interpersonal levels. Although this work has been important, multilevel, multidirectional, and action-oriented methods are critical for understanding and transforming interlocking and reinforcing systems of oppression. These core elements may not be easily captured with a single study design, measure, or analysis. Instead, researchers should consider employing multiple methods in concert to triangulate evidence regarding HIV-related intersectional stigma. Ultimately, we believe that the payoff for incorporating these core elements and addressing barriers to their implementation will be a body of HIV-related intersectional stigma research that is both better aligned with the transformative potential of intersectionality and better positioned to achieve the goals of Ending the HIV Epidemic in the United States and globally. AJPH

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HIV-Related Intersectional Stigma and Discrimination Measurement: State of the Science

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Background. Across settings, individuals from populations that are multiply stigmatized are at increased risk of HIV and experience worse HIV treatment outcomes. As evidence expands on how intersecting stigmatized identities and conditions influence HIV outcomes, researchers have used diverse quantitative approaches to measure HIV-related intersectional stigma and discrimination. To date, no clear consensus exists regarding how to best quantitatively measure and analyze intersectional stigma and discrimination.

Objectives. To review and document existing quantitative measures of HIV-related intersectional stigma and discrimination to inform research, programmatic, and policy efforts.

Search Methods. We searched 5 electronic databases for relevant studies. References of included articles were screened for possible inclusion. Additional articles were screened on the basis of consultations with experts in the field.

Selection Criteria. We included peer-reviewed studies published between January 1, 2010, and May 12, 2021, that were HIV related and presented 1 or more quantitative measures of stigma and discrimination using an intersectional lens in measure design or analysis.

Data Collection and Analysis. Systematic methods were used to screen citations and abstract data via a standardized coding form. Data were analyzed by coding categories stratified according to 2 subgroups: (1) studies incorporating a single intersectional measure and (2) studies that examined intersectional stigma through analytical approaches combining multiple measures.

Main Results. Sixteen articles met the inclusion criteria, 7 of which explicitly referenced intersectionality. Ten studies were from the United States. All of the studies included participants living with HIV. Among the 4 studies incorporating a single intersectional stigma measure, 3 explored race and gender stigma and 1 explored gender and HIV stigma. Studies involving analytic approaches (n = 12) mostly examined intersectional stigma via interaction terms in multivariate regression models. Three studies employed structural equation modeling to examine interactive effects or latent constructs of intersectional stigma.

Conclusions. Research on the measurement of HIV-related intersectional stigma and discrimination is currently concentrated in high-income settings and generally focuses on the intersection of 2 identities (e.g., race and gender). Efforts are needed to expand appropriate application of intersectionality in the development, adaptation, and use of measures of HIV-related intersectional stigma and discrimination. The use of context-, identity-, or condition-adaptable measures should be considered. Researchers should also carefully consider how to meaningfully engage communities in the process of measurement development.

Public Health Implications. The measures and analytic approaches presented could significantly enhance public health efforts in assessing the impact of HIV-related intersectional stigma and discrimination on critical health outcomes. (*Am J Public Health*. 2022;112(S4):S420–S432. https://doi.org/10.2105/AJPH.2021.306639)

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PLAIN-LANGUAGE SUMMARY

We conducted a systematic review of peer-reviewed studies to document existing quantitative measures of HIV-related intersectional stigma and discrimination as a means of informing research, programmatic, and policy efforts. We included studies published between January 1, 2010, and May 12, 2021, that were HIV related, incorporated 1 or more quantitative measures of stigma and discrimination, and involved the use of an intersectional lens in measurement design or analysis. A total of 16 articles met the inclusion criteria. Among these, 7 studies explicitly referenced intersectionality, 10 were conducted in the United States, and all included participants living with HIV. Most studies examined intersectional stigma through analytic approaches (n = 12), with the majority exploring stigma via interaction terms in multivariate regression models. Only 4 studies examined intersectional stigma via a single, intersectional measure. Our results indicate that measurement of HIV-related intersectional stigma and discrimination is concentrated in high-income settings and generally focuses on the intersection of 2 identities (e.g., race and gender). Efforts are needed to expand appropriate application of intersectionality in quantitative HIV research, including intersectional stigma related to more than 2 identities, statuses, or conditions. Careful consideration should be given to how we engage communities and honor the principles of intersectionality when adapting measures for intersectional HIV research.

More than 20 years ago, African American feminist legal scholar Kimberlé Crenshaw used the term "intersectionality" to describe how multiple forms of inequalities, mainly due to race and gender, were embedded in the United States legal system and often intersected to create distinct barriers for marginalized individuals and groups.[1] Through her work describing the unique experiences of discrimination and violence among African American women in the United States, she argued that individuals' specific social realities are based on their affiliation to multiple marginalized identities and social positions.[1,2] In coining the term intersectionality, Crenshaw drew on the work of previous Black feminists[3,4] and argued that Black women's experiences were more than the sum of their parts (e.g., being both Black and women), instead converging from interdependent systems of power and oppression.[1,5]

Over the past decade, interest in applying intersectionality as a theoretical lens and orientation to study health inequities—including in relation to HIV prevention, treatment, and care—has grown exponentially.[2] The groups at highest risk for acquiring HIV in the United States and globally are those whose identities encompass multiple socially stigmatized populations, such as marginalized groups at the intersections of racial/ethnic, gender, and sexual minority status. Possible examples of groups at these unique intersections include young Latinx and Black men who have sex with men in the United States,[6,7] Black and Latina transgender women living in the United States,[8] and young Black women and girls in South Africa.[9]

Studies have also shown that people living with HIV who are members of multiply stigmatized population groups experience worse HIV treatment and care outcomes than those who are not members of such groups.[10,11] For example, female sex workers living with HIV have been found to have lower rates of antiretroviral therapy adherence and viral suppression than women living with HIV who are not sex workers.[12] Given this, HIV researchers have increasingly sought to understand the role of intersecting marginalized identities and conditions in shaping HIV outcomes.[13–17]

Understanding the complex relationships between intersectional stigmatized identities, socially marginalized positions, and HIV outcomes warrants nuanced methodological approaches.[18–20] In recent years, scholars have increasingly used quantitative approaches to document and measure HIV-related intersectional stigmas and discrimination to appropriately intervene and address these challenges. However, to date, there is no clear consensus within the field regarding how to best quantitatively measure and analyze intersectional stigma and discrimination,[18] including as it relates to HIV stigma. Of particular debate is whether and how intersections can be captured within a given measure or scale or be reflected through examinations of the interplay between measures of distinct types of stigma.[18,20,21] Also, there is significant variation in how researchers analyze that interplay, for instance whether it is modeled via additive or multiplicative approaches.[18,20,21]

Given the critical need to investigate the effects of intersectional stigma on HIV-related outcomes and ongoing methodological questions, we sought

to examine the state of the evidence regarding measurement of HIV-related intersectional stigma and discrimination by conducting a systematic review of peer-reviewed literature published over the past 10 years. We were motivated by a conceptualization of intersectional stigma that acknowledges the interplay of stigmas either through measurement itself or through intersectional analytic approaches. Through this review, we aim to document HIV-related intersectional stigma and discrimination measures that can serve as a key reference for researchers, practitioners, and community members to use in future research, programmatic, and policy efforts.

METHODS

Guided by previous work,[5,22] we defined intersectional stigma as internalized, perceived, anticipated, or enacted stigma (the latter also referred to here as discrimination[23,24]) related to the unique intersection of multiple marginalized identities, statuses, or conditions. Using this definition, we explored measures and analytic models related to intersectional stigma, focusing on any 2 or more intersections of social stigmas (e.g., substance use, sex work) or interlocking systems of oppression (e.g., race, gender, class) relevant for understanding HIV-related risks and outcomes.

Inclusion Criteria

We included studies in the review if they met the following criteria:

1. They presented work relevant to HIV risk and outcomes. Examples of these studies are those that (a) included people living with HIV, (b) compared populations of people living with HIV with those not living with HIV, or (c) assessed an HIV-related outcome (e.g., HIV stigma, HIV prevention, or HIV care and treatment outcomes).
2. They presented information on stigma measures using an intersectional lens. This included (a) single measures (i.e., scales, indices, or indicators) that considered stigma experiences at unique intersections (e.g., one scale measuring the specific stigma experiences of Black women living with HIV) and (b) multiple measures that considered the intersectional nature of multiple forms of stigma (e.g., one measure of HIV stigma and a separate measure of racism). If multiple measures were used, we required authors to explore their intersectional effects through analytic approaches (e.g., interaction terms, latent variable models combining multiple stigma measures).
3. They presented quantitative data.
4. They were published in a peer-reviewed journal between January 1, 2010, and May 12, 2021.

Exclusion Criteria

We excluded studies if they met any of the following criteria:

1. They did not examine intersectional stigma or discrimination. This includes studies that measured one form of stigma (e.g., HIV stigma, sex work stigma) among vulnerable populations but did not consider the other unique identities, statuses, or conditions of those populations.
2. They used exclusively additive analytic approaches to explore intersectional stigma or discrimination. This includes studies combining multiple indexes or measures to yield a single sum score capturing intersectional stigma or discrimination. Such approaches assume that each stigmatized identity, social status, or condition is independent from the others,[20,25] which does not align with our conceptualization of intersectional stigma.
3. They included multiple stigma measures but did not bring them together analytically (e.g., studies that entered multiple stigma scales independently in a regression model but did not use interaction terms to explore their intersecting effects).
4. They presented research on perpetration of stigma rather than experiences of stigma.
5. They were conference abstracts, commentaries or editorials, protocol papers, or exclusively qualitative studies.

We did not restrict studies according to design, geographic location, subgroups, or language.

Search Strategy and Terms

We searched 5 electronic databases (PubMed, PsycINFO, the Cumulative Index to Nursing and Allied Health Literature, EMBASE, and the Cochrane Library) for relevant studies. Our search terms included (1) HIV or AIDS; (2) stigma, discrimination, and other relevant terms; and (3) intersectional, interlocking, layered, and other relevant terms (full search terms are available from the authors upon request). We also reviewed secondary references of included articles for possible inclusion of other relevant work. Finally, we consulted with 2 key experts in the field to identify any additional studies.

Screening

After deduplicating our search results, we screened articles for inclusion. Screening occurred in 3 phases. First, 1 trained study member screened the titles, abstracts, and citation information of all records and removed irrelevant articles. Second, resulting titles and abstracts were screened in duplicate by 2 trained study members working independently. Third, studies were pulled for full-text reviews on the basis of consensus between the 2 reviewers, with referral to senior study members as needed. Any article for which no consensus regarding inclusion was reached was included in a full-text review. Finally, we obtained full-text articles of all selected abstracts, and 2 members of the team independently assessed these articles to determine final study selection. During each phase, we retained excluded articles that were relevant and could serve as background material for our review.

Data Abstraction

Two trained study members completed the data abstraction of all included articles. Data abstraction was conducted in duplicate for the first 10 articles, with differences resolved through consensus and referral to a senior study team member when necessary. Two reviewers independently conducted the remaining abstraction. A standardized coding form was used to gather the following information from each included study: study identification (authors and year of publication), study description (study design and setting, period of study, sample size, and relevant study population characteristics), authors' conceptualization of intersectionality, types of intersectional stigma assessed, form and level of stigma, information on measures (e.g., description, rigor), relevant intersectional stigma results, study limitations, source of funding, and references for secondary screening.

We classified forms of stigma as internalized (feelings of inferiority or of deserved negative outcomes owing to one's affiliation to a marginalized identity, status, or condition), perceived (perceptions of stigmatizing attitudes by the public toward one's affiliated group), anticipated (expectations of poor treatment or outcomes owing to one's affiliation to a marginalized identity, status, or condition), and enacted (unjust treatment due to one's affiliation to a marginalized identity, status, or condition).[26,27] Furthermore, we classified levels of stigma as individual (stigma held within individuals), interpersonal (stigma occurring between individuals), societal (stigma exhibited by members of communities), and structural (stigma within institutions and structures of power).

Data Analysis

All data were analyzed through coding of categories. We stratified analyses by 2 subgroups: (1) studies that incorporated a single intersectional measure (e.g., stigma toward women living with HIV) and (2) studies that examined intersectional stigma through the use of analytical approaches bringing together multiple stigma measures (e.g., interactive effects of HIV and gender stigmas). Given the heterogeneity in populations, study designs, measures, types of stigma, and outcomes, we did not conduct a meta-analysis of the data and instead present the synthesized data narratively.

RESULTS

A total of 1415 published citations were identified through our initial search, and 10 additional citations were identified from consultation with 2 key experts (Figure 1). After removal of duplicates, 801 citations were part of the first-level title and abstract screening, with 713 records excluded during this phase. In addition, 88 citations were part of the second-level title and abstract screening, resulting in the further exclusion of 52 citations.

The remaining 36 citations were included in the full-text review.[21,28–62] Of these 36 citations, 20 were excluded because they did not explore intersectional stigma through either a single measure or a combined analytic approach,[21,28–33] they examined intersectional stigma through an additive approach,[34–39] they were insufficiently HIV related,[40–43] they measured stigma perpetration rather than experiences of stigma,[44,45] or their description of stigma measures or analyses was insufficient, precluding our ability to understand the authors' assessment of intersectional stigma.[46] This resulted in 16 articles meeting the inclusion criteria for our review.

Study Descriptions

Table 1 presents a description of the 16 included studies.[47–62] Of these studies, 10 were conducted in the United States, 2 in Russia, 1 in Botswana, 1 in Canada, 1 in China, and 1 in the Dominican Republic. Some studies collected data in multiple languages (data not shown), including 3 studies in the United States[53,56,60] conducted among English- and Spanish-speaking participants, 1 study in Canada[59] conducted among English- and French-speaking

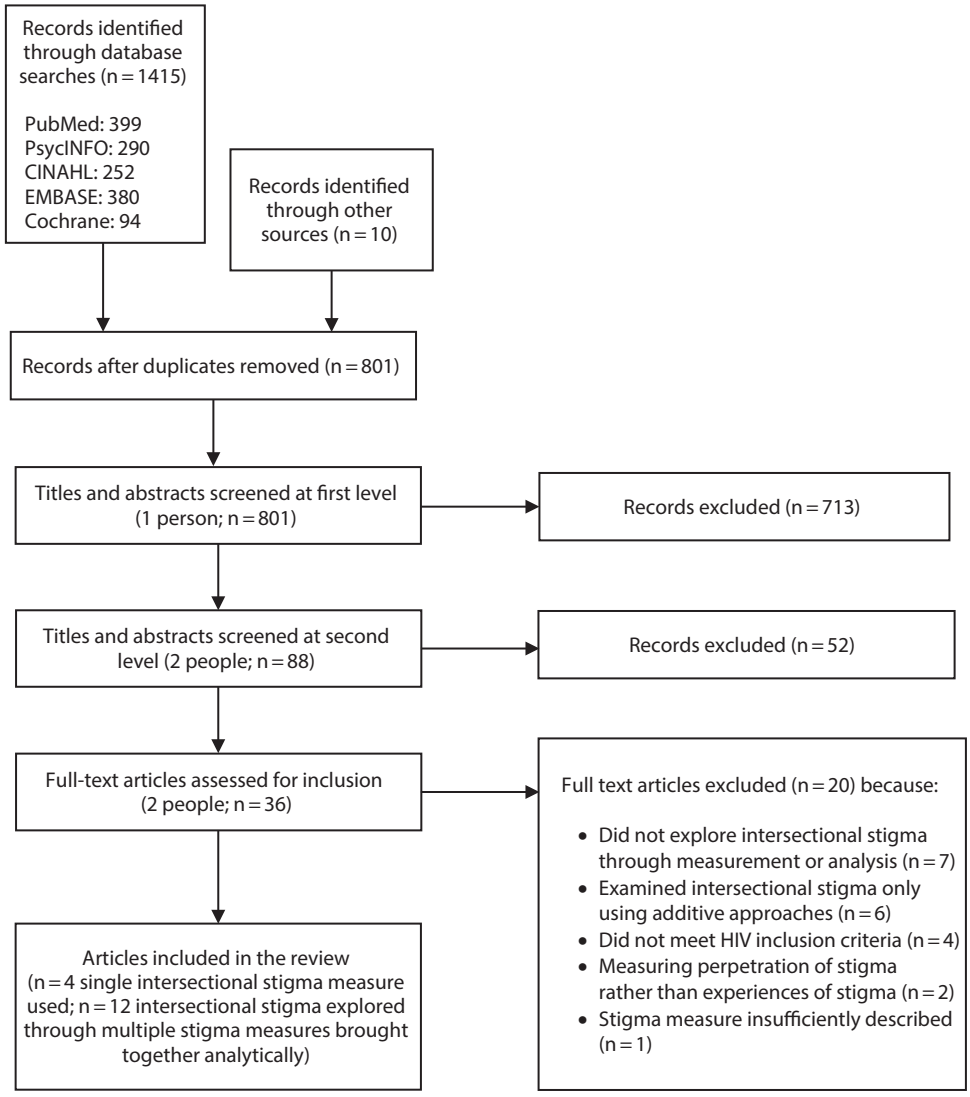

FIGURE 1— Citation Search and Screening Process: HIV-Related Intersectional Stigma and Discrimination Measurement, January 1, 2010–May 12, 2021

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participants, and 1 study in Botswana[50] conducted among Setswana- and English-speaking participants.

All of the included studies involved people living with HIV, with most exploring outcomes among male-identifying members of sexual minority groups[51–53,57,58,60,62] and cisgender women.[48–50,59] Three studies explored individuals who injected drugs[54,61] or who reported use of illicit drugs, misuse of prescription drugs, or use of alcohol.[56] One study explored cisgender female sex workers,[55] and another explored transgender women.[47] The majority of studies employed a cross-sectional design (n = 11). Among the investigated outcomes, most related to mental health and well-being[48,50,52,56,60,62] or HIV treatment and care.[47,49,51,53,54,59]

Intersectionality and Forms and Levels of Stigma

Among the included studies, 7 explicitly referenced intersectionality theory or frameworks in their work,[54,56–61] reflecting on the interdependence of socially marginalized identities, conditions, or statuses in influencing health outcomes (Table 2). Although the remainder of the studies did not explicitly reference intersectionality theory or frameworks, they indicated the "intersectional,"[48,49] "overlapping,"[47] "layered,"[55] "synergistic,"[62] "simultaneous,"[51] "concurrent,"[53] or "combined"[52] effects of multiple identities, conditions, or statuses on the health of socially marginalized groups. Among the 16 included

TABLE 1— Description of Included Studies Using an Intersectional Stigma Measure or Analytic Approach: HIV-Related Intersectional Stigma and Discrimination Measurement, January 1, 2010–May 12, 2021

Authors	Setting	Population	Analytic Sample, No.	Study Design	Outcomes Studied
Baguso et al.[47]	United States	Transgender women living with HIV	123	Cross sectional	Engagement with HIV care, ART use, detectable or unknown viral load
Bogart et al.[51]	United States	Black, African American MSM living with HIV	152	Prospective cohort	ART adherence
Bogart et al.[52]	United States	Black, African American MSM living with HIV	181	Cross sectional (baseline survey as part of prospective study)	Depression, PTSD
Bogart et al.[53]	United States	Black and Latino MSM living with HIV	181 Black participants, 167 Latino participants	Prospective (Black participants), cross sectional (Latino participants)	Side effect severity, AIDS symptoms, CD4 cell count, undetectable viral load, emergency department use
Calabrese et al.[54]	Russia	People living with HIV who inject drugs	383	Cross sectional	Health status, health service use
Carrasco et al.[55]	Dominican Republic	Cis-gender female sex workers living with HIV	228	Cross sectional (follow-up data from a prospective cohort study)	Consistent condom use, social cohesion
Dale and Safren[48]	United States	Cis-gender Black women living with HIV	100	Cross sectional (baseline data from an intervention study)	PTSD symptoms, posttraumatic cognitions
Dale et al.[49]	United States	Cis-gender Black women living with HIV	100	Cross sectional (baseline data from an intervention study)	Barriers to HIV-related care
Earnshaw et al.[56]	United States	Clients living with HIV at a community clinic who reported use of illicit substances, misuse of prescription drugs, or use of alcohol in the past 3 months	85	Cross sectional	Depressive symptoms
Earnshaw et al.[57]	United States	Black gay and bisexual men who were newly diagnosed with HIV, gonorrhea, chlamydia, or syphilis; 31.8% of participants were diagnosed with HIV	151	Prospective cohort	HIV/STI internalized stigma
English et al.[58]	United States	Sexual minority men (biologically and self-identified as male and as gay, bisexual, or another nonhetero-sexual identity); the sample was composed of Black	170	Prospective cohort	Substance use (drug use and heavy drinking), emotion regulation difficulties

Continued

TABLE 1— Continued

Authors	Setting	Population	Analytic Sample, No.	Study Design	Outcomes Studied
		(42.7%), Latino (30.0%), and multiracial (25.3%) participants, 57.1% of whom were living with HIV			
Logie et al.[59]	Canada	Women living with HIV who were members of marginalized communities (including indigenous, Black, and transgender communities) represented in Canada's HIV epidemic	1367	Cross sectional	ART adherence, CD4 count, viral load
Reisen et al.[60]	United States	Latino gay men living with HIV	301	Cross sectional	Depression, gay collective identity
Vetrova et al.[61]	Russia	People living with HIV who injected drugs and had a documented ART naive status (i.e., they had never started treatment)	188	Observational prospective cohort	Access to health care, use of health care
Yang et al.[62]	China	MSM living with HIV	193	Cross sectional (baseline survey as part of prospective study)	Depression, anxiety, psychological resilience, quality of life
Yang et al.[50]	Botswana	Clients living with HIV from a dedicated infectious disease center and members of the general community without a reported HIV status	38 focus groups, 46 in-depth Interviews	Mixed methods	Scale development: construct validity examined with validated HIV stigma scale, depressive symptoms, self-esteem, and social support

Note. ART = antiretroviral therapy; MSM = men who have sex with men; PTSD = posttraumatic stress disorder; STI = sexually transmitted infection. A total of 16 studies were included in the review.

studies, 4 explored intersectional stigma through a single measure,[47–50] whereas 12 employed analytic approaches to bring together multiple stigma measures.[51–62] Most studies explored the intersection of 2 types of stigma (n = 11), with the remaining studies exploring the intersection of 3 types (n = 5). Studies explored different forms of stigma, including enacted (n = 11), internalized (n = 8), perceived (n = 3), and anticipated (n = 2) stigma. In addition, studies examined intersectional stigma at the individual (n = 8), interpersonal (n = 10), structural (n = 6), and societal (n = 1) levels.

Intersectional Stigma Via Single Measures

Appendix A (available as a supplement to the online version of this article at http://www.ajph.org) presents the measurement descriptions of studies exploring intersectional stigma through a single measure.[47–50] In all 4 studies, a single scale was used to measure intersectional stigma.

Two of the 4 included studies, both conducted by Dale et al.,[48,49] were based on the same sample and employed the same intersectional stigma measure to estimate the effects of gendered racial microaggressions among Black women living with HIV in a large urban city in the southeastern United States. These studies, although involving the same measure, analyzed the measure differently by using sum[48] or

TABLE 2— Use of Intersectionality Theory or Frameworks and Characterization of Forms and Levels of Stigma, by Study: HIV-Related Intersectional Stigma and Discrimination Measurement, January 1, 2010–May 12, 2021

Authors	Explicit Reference to Intersectionality Theory or Framework	Intersectional Stigma Explored Through a Single Measure	Type of Stigma	Form of Stigma	Level of Stigma
Baguso et al.[47]		X	Gender identity or presentation, race	Enacted	Structural
Bogart et al.[51]			Race, HIV, sexual orientation	Enacted	Interpersonal, structural
Bogart et al.[52]			Race, HIV, sexual orientation	Enacted	Interpersonal, structural
Bogart et al.[53]			Race/ethnicity, HIV, sexual orientation	Enacted	Interpersonal, structural
Calabrese et al.[54]	X		HIV status, drug use	Internalized	Individual
Carrasco et al.[55]			HIV, sex work	Internalized	Individual
Dale and Safren[48]		X	Gender, race	Enacted	Interpersonal
Dale et al.[49]		X	Gender, race	Enacted	Interpersonal
Earnshaw et al.[56]	X		Substance use, HIV	Internalized	Individual
Earnshaw et al.[57]	X		Race, sexual orientation, HIV/STI	Internalized	Individual
English et al.[58]	X		Race, sexual orientation	Internalized, enacted	Individual, interpersonal
Logie et al.[59]	X		HIV, race, gender	Internalized, perceived, anticipated, enacted	Individual, interpersonal
Reisen et al.[60]	X		Sexual orientation, ethnicity	Enacted	Interpersonal, structural
Vetrova et al.[61]	X		Substance use, HIV	Internalized, perceived, anticipated, enacted	Individual, interpersonal
Yang et al.[62]			HIV, sexual orientation	Internalized, enacted	Individual, interpersonal, structural
Yang et al.[50]		X	Gender, HIV	Perceived	Societal

Note. STI = sexually transmitted infection. A total of 16 studies were included in the review.

average[49] scores from a validated scale[63] to explore the frequency and appraisal of gendered racial microaggressions. Both studies, which employed regression models to explore the effects of intersectional gender and race stigma on posttraumatic stress disorder symptoms or conditions[48] and barriers to HIV-related care,[49] reported good internal consistency (Cronbach $\alpha > 0.90$ for each subscale).

In a separate study, Baguso et al.[47] adapted an existing scale[64] to explore enacted stigma due to gender identity or presentation and race among transgender women living with HIV in San Francisco, California. In this study, the authors measured intersectional stigma by asking respondents about experiences of discrimination, followed by a question attributing such experiences to their race, gender identity or presentation, or both.[47] The authors reported an internal consistency (Cronbach α) of 0.76 for their measure. The measure was dichotomized, and respondents who attributed experiences of discrimination to both gender identity or presentation and race were classified as experiencing intersectional gender and race stigma. The authors used logistic regression to explore the relationship between intersectional gender and race stigma and HIV treatment and care outcomes.[47]

Finally, only 1 measure was developed to focus on the intersectional stigma experiences of people living with HIV. In their study, Yang et al.[50] examined intersectional (HIV and gender) stigma experiences among women living with HIV in Botswana. The authors developed the Cultural Factors Shape Stigma subscale, which the authors determined to have strong content

validity, good internal consistency (Cronbach $\alpha = 0.90$), and high test–retest reliability ($P = .92$).[50] Construct validity assessments revealed a positive, marginally significant correlation with the validated Berger HIV Internalized Stigma Scale[26] ($\rho = 0.24$; $P = .095$) and a strong correlation with the validated Center for Epidemiologic Studies Depression Scale[65] ($\rho = 0.39$; $P = .005$).[50]

Intersectional Stigma Via Multiple Measures

Appendix A also presents the analytic approaches of 12 studies assessing intersectional stigma through multiple stigma measures.[51–62] In most studies, authors generated a sum or average score for each stigma measure and subsequently explored 2- or 3-way interactions via multivariable logistic or linear regression models.[51–54,56,57,60–62]

In addition to exploring interactive effects through regression analyses, 2 studies (Vetrova and colleagues' exploration of substance use and HIV stigma[61] and Yang and colleagues' examination of HIV and sexual orientation stigma[62]) developed 4-level group categorizations of intersectional stigma. These stigma groups (classified as "high–high," "high–low," "low–high," and "low–low") were used in comparisons of the outcomes of interest.[61,62]

Three studies employed structural equation modeling to explore the effects of intersectional stigma through multiple stigma measures.[55,58,59] The first study explored the influences of latent sex work and HIV internalized stigma constructs on social cohesion and consistent condom use among cisgender female sex workers living with HIV in the Dominican Republic.[55] In this study, Carrasco et al.[55] assessed 4 mediation models, including a model testing the interactive effects of latent constructs of HIV and sex work internalized stigmas.[55]

In a second study, English et al.[58] examined the interactive effects of the latent constructs of racial discrimination and internalized sexual orientation stigma among sexual minority men living in New York City. In this study, the authors used longitudinal structural equation modeling to explore the interactive effects of baseline stigma related to race (enacted) and sexual orientation (internalized) on substance use at a 12-month follow-up, mediated by emotional regulation at baseline and internalizing symptoms at a 6-month follow-up.[58]

The third study, conducted by Logie et al.,[59] was based on a sample of women living with HIV from marginalized communities in Ontario, Quebec, and British Columbia, Canada. In this study, the authors used structural equation modeling to examine the impact of a latent intersectional stigma construct (indicated by latent constructs of internalized HIV stigma, racial discrimination, and gender discrimination) on HIV outcomes (antiretroviral therapy adherence, CD4 count, viral load) via social support, depression, resilience, and drug use.[59]

DISCUSSION

We identified 16 studies from 6 countries assessing the effects of intersectional stigma on health-related outcomes, including HIV-related, mental health, and substance use outcomes. Of these 16 studies, only 4 employed a single intersectional stigma scale; the remaining 12 used multiple stigma scales or indices, which were then combined analytically. All 16 studies were conducted among people living with HIV, with several (n = 7) conducted among male-identifying members of sexual minority groups.

Just under half of the included studies (n = 7) made explicit reference to intersectionality as a motivating theory, framework, or perspective. Most of the remaining studies either did not acknowledge intersectionality or referred briefly to "intersectional stigma" but did not situate their work within the intersectionality literature or define intersectionality. Furthermore, several of the included studies applied intersectionality during post hoc analyses but did not consider intersectionality during study design or implementation. A recent review by Bauer et al.[66] revealed a parallel trend in the broader literature.

As such, given the recent proliferation of quantitative intersectional HIV research, we encourage scholars to think critically about their conceptualization of intersectionality from the outset. This will help shape how intersectional stigma is measured and whether the selected measurement approach aligns with conceptual underpinnings. Logie et al. exemplified this notion by using intersectionality theory to guide their analytic approach when assessing intersectional HIV, race, and gender stigma.[59]

Others have pointed out the importance of studying intersectional stigma from a multilevel perspective.[23] The studies included in our review were most likely to measure intersectional stigma at the individual and interpersonal levels. We did not identify any studies of community or organizational intersectional stigma, suggesting a need for additional research in these areas. However, the fact that 6 studies measured structural stigma is promising, given the structural nature and embeddedness of intersectional stigma, discrimination, and oppression.

Most studies included in our review did not measure intersectional stigma through a single scale or index but, instead, combined new and existing measures of stigma to quantitatively estimate the effects of intersectional stigma. This is consistent with Mena and colleagues' finding that most intersectionality-based analyses in other health fields rely on combining multiple stigma scales analytically.[67] We caution researchers using these approaches to carefully consider their assumptions and motivations, particularly when applying measures not intended to be used intersectionally.[66]

We did not include in our review studies measuring intersectional stigma by combining multiple stigma scales through additive approaches (e.g., by yielding a sum score) because they did not align with our conceptualization of intersectionality[20,25] and how the interdependence of multiple identities, social conditions, or statuses affects health outcomes. Rather, represented in this review were analyses that examined intersectionality beyond these additive approaches. This aligns with recent calls to employ moderation approaches, multilevel modeling, and latent variable models to model intersectional experiences when using multiple existing scales.[18]

Among those studies that incorporated dedicated intersectional stigma measures (n = 4), only 1 was specifically developed for the study population of interest (Batswana women living with HIV).[50] Others were adaptations or reapplications of existing scales, none of which reported substantial community involvement. Our findings suggest that it is feasible to adapt or tailor existing measures for intersectional HIV-related research. Given the time and resources required to develop scales tailored toward unique intersectional experiences among marginalized communities, scholars should consider using context-, identity-, or condition-adaptable measures when possible. When adapting measures for intersectional HIV research, scholars should carefully consider how to meaningfully engage communities and honor the principles of intersectionality throughout their approach.

Although not an intersectional stigma measure, Kerrigan et al.[68] provided an example of how to develop a scale in conjunction with the community for whom the scale is intended. In their work, the authors used in-depth and cognitive interviews to define measure domains and items and then assessed the content validity of a sex work stigma scale among cisgender female sex workers living in the Dominican Republic and Tanzania while also assessing the construct validity of the scale against other existing measures. Similar methods could be employed when approaching the development of intersectional stigma measures.

Furthermore, although our inclusion criteria covered studies that examined HIV stigma or other HIV-related outcomes among both people living with HIV and other populations, we identified studies of intersectional stigma conducted only among people living with HIV. This suggests an opportunity for additional quantitative intersectional stigma research in the field of HIV prevention, which is of particular importance given that the qualitative literature suggests that intersectional stigma and discrimination play an important role in access to and uptake of HIV testing and prevention interventions (e.g., preexposure prophylaxis).[69–72] Also, the majority of studies we included considered intersectional stigmas related to HIV and only 1 or 2 additional identities or conditions. Additional efforts are needed to understand the more complex effects of large numbers of intersectional identities.[66]

Finally, although there is a growing body of qualitative literature around intersectional stigma and HIV in low-income settings,[73–75] we found no corresponding quantitative studies. Indeed, most of our studies (n = 11) were conducted in high-income settings; the remainder (n = 5) were conducted in upper-middle-income settings. Given the growing concentration of HIV epidemics among multiply marginalized communities worldwide, additional intersectional stigma research in low-income settings is warranted. Such studies would provide a more nuanced description of how intersecting identities are experienced in more marginalized communities, allowing for transnational and multilevel analyses to be conducted. Also, as reflected in some of the studies wherein data were collected in multiple languages (n = 5), using culturally and linguistically congruent measures to examine intersectional stigma and discrimination is advantageous because these measures allow for more in-depth exploration of intersecting realities across diverse groups.

Limitations

Our review involved some limitations. For example, we included studies that did not explicitly reference intersectionality as a motivating theory or framework. This may have resulted in the inclusion of studies that did not set out to do intersectional research. We also excluded non-peer-reviewed articles and conference abstracts. This exclusion, although made in an effort to allow for included articles to have undergone more thorough quality

checks through the peer-review process and to present more complete information, could have led to disregard of relevant work related to intersectional stigma measurement. Despite these limitations, the results of our review of HIV-related intersectional stigma and discrimination measures and analytic approaches can serve as a key reference for researchers, practitioners, and community members in future research, programmatic, and policy efforts.

Conclusions

There is a growing body of quantitative research examining HIV-related intersectional stigma and discrimination, although current research is concentrated in high-income settings and involves people living with HIV and members of sexual minority groups. In this review, we have identified gaps in the development and adaptation of tailored, multidimensional measures of intersectional stigma and discrimination. Further efforts are required to ensure that intersectionality is appropriately defined and applied in quantitative research from the outset and to explore the potential of more complex analytic and measurement approaches for studying intersectional stigma as it relates to HIV. High-quality, innovative approaches to quantitatively measuring and analyzing HIV-related intersectional stigma have great potential to improve the HIV response and increase equity in HIV testing, treatment, and prevention outcomes by allowing for a more nuanced understanding of the effects of individuals' intersecting realities on their health trajectories. AJPH

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CONTRIBUTORS

T. S. Karver, K. Atkins, C. E. Kennedy, and D. Kerrigan led the writing of the review. T. S. Karver and K. Atkins conducted the search and data abstraction. C. E. Kennedy and D. Kerrigan provided expertise on the final application of the methodology. T. S. Karver led the project administration. All of the authors contributed to the conceptualization, review protocol, methodology, and editing of the review.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

HUMAN PARTICIPANT PROTECTION

No protocol approval was needed for this research because secondary data were used.

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Neighborhood Characteristics, Intersectional Discrimination, Mental Health, and HIV Outcomes Among Black Women Living With HIV, Southeastern United States, 2019–2020

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Objectives. To examine the effects of within-neighborhood and neighboring characteristics on discrimination, stigma, mental health, and HIV outcomes among Black women living with HIV (BWLWH).

Methods. A total of 151 BWLWH in a southeastern US city provided baseline data (October 2019–January 2020) on experienced microaggressions and discrimination (race-, gender-, sexual orientation-, or HIV-related), mental health (e.g., depression, posttraumatic stress disorder), and HIV outcomes (e.g., viral load, antiretroviral therapy adherence). Neighborhood characteristics by census tract were gathered from the American Community Survey and the National Center for Charitable Statistics. Spatial econometrics guided the identification strategy, and we used the maximum likelihood technique to estimate relationships between a number of predictors and outcomes.

Results. Within-neighborhood and neighboring characteristics (employment, education, crime, income, number of religious organizations, and low-income housing) were significantly related to intersectional stigma, discrimination, mental health, HIV viral load, and medication adherence.

Conclusions. Policy, research, and interventions for BWLWH need to address the role of neighborhood characteristics to improve quality of life and HIV outcomes. (*Am J Public Health*. 2022;112(S4):S433–S443. https://doi.org/10.2105/AJPH.2021.306675)

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Black women living with HIV (BWLWH) are disproportionately affected by HIV and accounted for 64% of all new HIV diagnoses in 2018.[1] In addition, Black or African Americans represented 43% of all deaths among people living with HIV (PLWH) in the United States in 2018.[1] This may be attributable to intersectional systems of oppression that manifest at the neighborhood (e.g., employment rates, housing), interpersonal (e.g., discrimination), and individual (e.g., mental health, health behaviors) levels to have an adverse impact on the lived experiences of BWLWH.[2–5] However, few scholars have used an intersectional lens incorporating neighborhood factors to improve our understanding among BWLWH. Spatial analyses provide an opportunity to examine the potential influence of factors of neighboring areas in addition to within-neighborhood factors.[6]

The theory of intersectionality[7] states that interwoven systems act in concert to perpetuate discrimination and

oppression and postulates that discrimination and oppression are best understood in the context of multiple marginalized identities and manifest differently based on the nature of this intersectionality. Furthermore, Berger conceptualized "intersectional stigma" specifically among women of color living with HIV as a process through which they face structural oppression and barriers to political participation including racism, sexism, and classism, and stigmatization of drug use, sex work, and HIV status.[8,9] In addition, the social–ecological model of health promotion posits that HIV health promotion, via increased retention and engagement in care, is affected by the complex interplay of individual-level (e.g., housing and spirituality), interpersonal-level (e.g., experiences of discrimination, microaggressions, and trauma), and community-level factors (e.g., neighborhood deprivation and poverty).[10]

Neighborhood context (e.g., poverty and crime rates) has been negatively associated with adverse mental and physical health outcomes (e.g., HIV viral load [VL] and depression) among PLWH.[11–13] Poverty prevents access to basic needs (e.g., food, shelter) and medical care, and chronic stress from crime and poverty may make it difficult to prioritize medication adherence, which may compromise immune functioning.[12] In addition, neighborhood factors related to housing reflect a legacy of structural racism—for example, through gentrification, "White flight," the disproportionate burden of evictions on Black women, and the intentional use of public housing to segregate Black Americans historically.[14,15] Housing may be a resilience resource; for instance, in the United States, programs such as the Housing Choice Voucher Program (Section 8) are prominent for their ability to provide affordable and safe housing in the private market. Religious congregations (e.g., churches) have also been a source of resilience within Black communities, and religion and spirituality have been positively associated with physical and mental health–related quality of life among PLWH.[16] Nonetheless, the direct associations between neighborhood factors and intersectional discrimination, mental health, and HIV-related outcomes among BWLWH is unknown.

Intersectional stigma,[8] discrimination, and microaggressions (which are defined as subtle acts of discrimination) based on race, gender, and HIV status significantly compromise the mental and physical health of BWLWH. HIV stigma and discrimination have been positively associated with poor viral suppression, and, among BWLWH, depression and posttraumatic stress disorder (PTSD) symptoms have been linked to gendered racial microaggressions and racial-, gender-, and HIV-related discrimination.[4,5] In addition, PTSD and depression are associated with increased HIV disease progression.[17] However, the relationship between neighborhood-level factors and microaggressions and discrimination aimed at multiple identity axes for BWLWH has yet to be explored.

Spatial econometrics is a theoretical and empirical methodology that is designed to encapsulate the effects of potential geographic dependencies and their influences.[6] Over the past 2 decades, spatial econometric methods have become increasingly important in the applications to social science, although rarely in the context of HIV and mental health. Neighborhoods influence each other, and spatial econometrics is able to incorporate these interdependencies, which are missing from previous work among BWLWH. Missing from the health literature is that the characteristics of neighboring communities (in addition to within-neighborhood factors) may be important in explaining variation in health outcomes. Accounting for these neighboring effects will help to create policies that will reduce health disparities within and across vulnerable communities.

CURRENT STUDY

Given the dearth of studies examining the impact of characteristics of within-neighborhood and neighboring areas on intersectional discrimination and stigma, mental health, and HIV outcomes among BWLWH, we used spatial econometrics techniques to examine neighborhood characteristics in relation to discrimination, microaggressions, mental health, and HIV outcomes. Findings have the potential to inform future research and multilevel interventions addressing intersectional discrimination and stigma and the health of BWLWH.

METHODS

BWLWH residing in South Florida were recruited between October 2019 and January 2020. Recruitment included sharing flyers and posters at community health clinics and centers, hospitals, and community events. Potential participants who expressed interest completed a phone screen to determine their eligibility. Eligible participants were scheduled for an in-person baseline visit and enrolled in the study if they met the following inclusion criteria:

1. aged 18 years and older;
2. English speaking;

3. identifying as Black (racial identity), African American (racial–ethnic identity), or both;
4. cis-gender female;
5. living with HIV;
6. owning a cell phone with text messaging and Internet capability; and
7. capable of understanding and completing the informed consent process and procedures.

During the baseline visit, participants completed (1) informed consent, (2) questionnaires using the Research Electronic Data Capture, and (3) a semistructured clinical interview. Participants received a $75 stipend for the visit.

Measures

Self-report demographic information included the participants' age, ethnicity, sexual orientation, relationship status, education level, employment status, and annual household income.

Intersectional Discrimination and Oppression

We used the Gendered Racial Microaggressions Scale for Black Women,[18] a 26-item measure assessing the lifetime frequency and stress appraisal (level of stress resulting from each experience) of microaggressions encountered by Black women (e.g., "Someone accused me of being angry when I was speaking in a calm manner"). Internal reliability estimates (frequency $\alpha = 0.92$; appraisal $\alpha = 0.95$) for the scale have been good among samples of BWLWH.[5]

We used the HIV Microaggression Scale,[19] a 14-item instrument measuring experiences (in past 3 months) of subtle insults stemming from HIV-related stigma (e.g., "You heard someone say, 'I'm HIV negative; I'm clean' "). The internal reliability ($\alpha = 0.83$) for the HIV Microaggression Scale has been good among community-based samples of PLWH.

We used the LGBT (lesbian, gay, bisexual, and transgender) People of Color Microaggression Scale,[20] an 18-item instrument assessing microaggressions experienced (in the past 3 months) on the basis of being both a person of color and a sexual or gender minority (e.g., "Being rejected by potential dating or sexual partners because of your race/ethnicity"). The scale has shown good internal reliability ($\alpha = 0.89$) among racially/ethnically diverse LGBT individuals.[20]

We used the Multiple Discrimination Scale[21] to capture discrimination (in the past year) on the basis of race, sexual orientation, and living with HIV, and it was adapted to capture gender. We used 13 items to assess each type of discrimination with a total of 56 items (e.g., "In the past year, were you denied a job or did you lose a job because you are a woman?"). The scale has shown good construct validity and reliability (α for race subscale = 0.83; α for sexual-orientation subscale = 0.86; α for HIV subscale = 0.85).[21]

Trauma and Mental Health Outcomes

We used the 17-item Life Events Checklist[22] to assess exposure to traumatic events involving actual or threatened death, serious injury, and violence. The checklist has shown good internal reliability ($\alpha = 0.78$) among women living with HIV.

The 20-item PTSD Checklist[23] assessed the severity of PTSD symptoms. Participants were asked to endorse symptomology (in the past month) related to their worst or most distressing traumatic event. The checklist has shown great internal reliability ($\alpha = 0.97$) among PLWH.

We used the 20-item self-report Center for Epidemiological Studies Depression Scale[24] to assess depressive symptoms (e.g., "I had crying spells"). The scale has shown great reliability ($\alpha = 0.88$–0.98) and validity in studies focused on women living with HIV.[5]

We used the Mini-International Neuropsychiatric Interview for *DSM-5* (*Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*),[25] a widely used semistructured clinical interview, to assess current major depressive disorder, PTSD, suicidality, alcohol use disorder, and substance use disorder.

HIV Outcomes

At the baseline visit, blood was collected to assay for HIV viral load by using the Roche COBAS AmpliPrep/COBAS TaqMan HIV-1 Test, v2.0. A VL cutoff of less than 200 copies per millimeter was used in our analyses for viral suppression and a cutoff of less than 20 was defined as undetectable.

To capture self-reported HIV medication adherence for the past 4 weeks, we used a pre-existing item[26]: "Thinking about the past 4 weeks, how would you rate your ability to take all your medications as your doctor prescribed them?" Responses ranged from 1 = "very poor" to 6 = "excellent" on a 6-point Likert scale.

Neighborhood Factors

To gather characteristics of each participant's neighborhood, we utilized the open-access Web sites of the American Community Survey (ACS)[27] and the National Center for Charitable Statistics

(NCCS) Data Archive.[28] The ACS is administered by the US Census Bureau more frequently (monthly and annually) than the US Census.[27] Neighborhood characteristics (e.g., employment rate, median income, education) were collected by census tract from the 2019 ACS (5-year estimates).

The NCCS collects information filed with the Internal Revenue Service (IRS) by tax-exempt nonprofit organizations. The IRS Business Master File contains descriptive information on each of these organizations, and the 2020 file[28] was used to collect variables of interest (e.g., number of Christian religious institutions, number of low-income and subsidized rental housing).

Participant addresses were geocoded to latitudes and longitudes and census tract using the US Census Bureau[27] Geocoder service. For each participant, the ACS and NCCS data were merged by census tract. The organizations in the IRS business file were geocoded to census tracts. To estimate the availability of potential nonprofit services for each participant, for each census tract, the number of each type of charitable entity in the NCCS data set was merged with the participant data.

Women's responses to the National Crime Victimization Survey[29] were also used as a proxy for neighborhood crime given barriers to reporting and underreporting.[30] This survey assesses experiences of 7 major types of crime victimization—assault (aggravated and simple), burglary, robbery, identity theft, motor vehicle theft, rape, and sexual assault. Participants indicated if they had experienced situations related to each type of crime in the past 12 months. If a participant experienced crime victimization in the past 12 months, they were asked to indicate the frequency of the crime(s).

Statistical Analyses

Maximum likelihood techniques (via Stata version 16.1; StataCorp LLC, College Station, TX) estimated all models, and we used the Wald test (χ^2 distributed) to assess if the spatial correlation parameters were jointly significant. For dichotomous outcomes (e.g., diagnoses of depression, PTSD), we used the spatial probit models and assumed the spatial interactions were in the covariates and not the error terms. If spatial dependence is in the error terms for the probit model, then the multivariate normal cumulative distribution function has "n" integrals because of correlation across space and, hence, the likelihood function does not have a closed form solution—this is computationally infeasible because the number of integrals grows with the sample size.[6] The unit of observation was participant nested within census tract. Participants' longitude and latitude values (computed from addresses) were used to compute the physical distance within and across census tracts.

The spatial Durbin Error model (see Elhorst[31]), is given as

$$(1)\quad h_i = \alpha + \sum_{k=2}^{K} x_{ik}\beta_k + \sum_{k=2}^{K}\sum_{j=1}^{n} g_{ij}x_{jk}\gamma_k + \varepsilon_i$$

$$(2)\quad \varepsilon_i = \delta\sum_{j=1}^{n} z_{ij}\varepsilon_i + v_i$$

for $i = 1, \ldots, n$.

The variable h_i represents the dependent variable for the ith individual's outcome (e.g., discrimination, stigma, mental health, VL); x_{ik} is the kth covariate or regressor that is used to explain variations in the outcomes of the ith person. The term $\sum_{k=2}^{K}\sum_{j=1}^{n} g_{ij}x_{jk}$ represents the weighted average of neighboring communities' observations for the respective characteristics that is used to capture interdependencies among the n observations in the covariates between neighbor i and j (for $i \neq j$). This term represents another source of exogenous variations that explain variations in the outcome variable. The term ε_i is an error term, and $\sum_{j=1}^{n} z_{ij}\varepsilon_j$ captures the spatial dependence in the error term—the assumption of independence is violated. This is used to capture latent variables that explain variations in outcomes via neighboring communities. Additional details are provided in Appendix A (available as a supplement to the online version of this article at http://www.ajph.org).

RESULTS

Among the 151 BWLWH participants, mean age was 53.5 years (range = 21–69); 64.8% had a high-school diploma or above; 85.4% identified as heterosexual; 73.5% had an annual household income of $11 999 or less; and 82.8% identified with a Christian denomination. Table 1 provides additional descriptive information on sociodemographics, intersectional discrimination, mental health, HIV outcomes, and neighborhood factors.

Covariates, Discrimination, and Outcomes

Older age was associated with lower HIV microaggressions (b = –0.195; $P < .05$), depressive symptoms (b = –0.311; $P < .01$), PTSD symptoms (b = –0.479; $P < .01$), posttraumatic cognitions (b = –0.806; $P < .05$), and lower likelihood of diagnoses of suicidality (b = –0.0443; $P < .01$), PTSD (b = –0.0298; $P < .05$), and alcohol use disorder (b = –0.0309; $P < .01$; Tables 2–4). Women's annual household income was not associated with

TABLE 1— Sociodemographics and Characteristics Among 151 Black Women Living With HIV: South Florida, October 2019–January 2020

Sociodemographics	Mean ±SD or No. (%)
Age	53.5 ±10.5
Ethnicity	
Non-Hispanic	146 (96.7)
Hispanic	5 (3.3)
Education	
Eighth grade or lower	6 (4.0)
Some high school	48 (32.0)
High-school graduate or GED	58 (38.7)
Some college	24 (16.0)
College graduate	9 (6.0)
Some graduate school	2 (1.3)
Graduate school degree	3 (2.0)
Sexual orientation	
Heterosexual	124 (85.5)
Same gender loving (gay or lesbian)	4 (2.8)
Bisexual	12 (8.3)
Asexual	4 (2.8)
Income, $	
< 5 000	36 (27.3)
5 000–11 999	61 (46.2)
12 000–15 999	11 (8.3)
16 000–24 999	11 (8.3)
25 000–34 999	6 (4.6)
35 000–49 999	5 (3.8)
≥ 50 000	2 (1.5)
Housing	
Renting home or apartment	84 (55.6)
Living in home or apartment owned by you or someone else	19 (12.6)
Residential drug, alcohol, or other treatment facility	2 (1.3)
Publicly subsidized housing	26 (17.2)
A friend's or relative's home or apartment	12 (8.0)
Temporary or transitional housing	2 (1.3)
Homeless: sleeping in a shelter	5 (3.3)
Other	1 (0.7)
Employment	
Full-time work	13 (8.6)
Part-time work	14 (9.3)
Full-time or part-time in school	1 (0.7)
Neither in work nor in school	15 (9.9)
On disability	101 (66.9)
Other	4 (2.6)
I choose not to answer	6 (4.0)

Continued

microaggression, discrimination, or mental health; however, higher household income was associated with higher likelihood of having HIV viral suppression (b = 0.214; $P < .01$) or an undetectable VL (b = 0.263; $P < .05$).

Neighborhood Factors and Discrimination

Higher crime was associated with higher gendered racial microaggression (GRM) frequency (0.000652; $P < .05$) and appraisal (b = 0.000726; $P < .05$; Table 2). Higher employment was associated with lower HIV microaggressions (b = –0.171; $P < .05$) and lower HIV-related discrimination (b = –0.0510; $P < .05$). Similarly, higher number of low-income and subsidized rental housing was associated with lower HIV microaggressions (b = –11.90; $P < .05$). Conversely, higher neighborhood median income was associated with higher HIV microaggressions (b = 0.129; $P < .05$) and higher sexual orientation–related discrimination (b = 0.0478; $P < .01$).

Higher education in neighboring areas was associated with lower GRM appraisal (b = –0.0918; $P < .05$). However, higher neighboring median income was associated with higher GRM appraisal (b = 0.00153; $P < .05$).

Neighborhood Factors and Mental Health

Higher crime was associated with higher depressive symptoms (b = 0.00733; $P < .05$) and posttraumatic cognitions (b = 0.0344; $P < .01$; Tables 3 and 4). Also, higher crime was associated with higher likelihood of diagnoses of PTSD (b = 0.00131; $P < .01$) and substance use disorder (b = 0.00126; $P < .01$). Higher employment was related to lower PTSD symptoms (b = –0.420;

TABLE 1— Continued

Sociodemographics	Mean ±SD or No. (%)
Religion	
Christian	40 (26.5)
Catholic	6 (4.0)
Baptist	77 (51.0)
Protestant	2 (1.3)
Jewish	1 (0.7)
Islamic	0 (0)
Other	5 (3.3)
None	13 (8.6)
I choose not to answer	7 (4.6)

Note. GED = general educational development test. A larger version of Table 1 (Table A, available as a supplement to the online version of this article at http://www.ajph.org) presents additional information.

$P < .05$) and lower likelihood of alcohol use disorder (b = –0.0329; $P < .05$). Higher education was associated with lower likelihood of suicidality (b = –7.160; $P < .05$). In addition, higher number of Christian organizations was associated with lower posttraumatic cognitions (b = –11.60; $P < .05$) and lower likelihood of depression diagnosis (b = –0.604; $P < .01$).

Higher education in neighboring areas was associated with a lower number of traumas (b = –0.429; $P < .01$), lower depressive symptoms (b = –0.806; $P < .05$), lower PTSD symptoms (b = –2.299; $P < .01$), and lower likelihood of depression diagnosis (b = –0.177; $P < .01$). Higher neighboring employment was associated with higher traumas (b = 0.00241; $P < .01$), higher PTSD symptoms (b = 0.0138; $P < .01$), and higher likelihood of depression diagnosis (b = 0.00119; $P < .01$). Higher neighboring median income was also associated with higher traumas (b = 0.00515; $P < .05$).

Neighborhood Factors and HIV Outcomes

Higher crime was associated with lower medication adherence within the past month (b = –0.000866; $P < .05$) and higher VL log (b = 0.000591; $P < .05$; Tables 3 and 4). Conversely, higher education was associated with lower VL log (b = –4.715; $P < .05$) and higher likelihood of HIV viral suppression (b = 6.844; $P < .05$) and undetectable VL (b = 6.814; $P < .05$). Similarly, higher employment was associated with higher likelihood of undetectable VL (b = 0.0296; $P < .05$). However, higher median income was associated with lower likelihood of HIV viral suppression (b = –0.0253; $P < .05$)

TABLE 2— Microaggression and Discrimination Scores Associated With Neighborhood and Neighboring Factors: South Florida, October 2019–January 2020

	Appraisal GRMS, b (95% CI)	Frequency GRMS, b (95% CI)	HIV Microaggression, b (95% CI)	MDS HIV, b (95% CI)	MDS Sexual Orientation, b (95% CI)
Participants' age	−0.02 (−0.03, 0.002)	−0.02 (−0.03, 0.0002)	−0.20 (−0.35, −0.04)	−0.03 (−0.06, 0.01)	−0.02 (−0.05, 0.01)
Neighborhood median income	−0.0004 (−0.02, 0.01)	−0.002 (−0.02, 0.01)	0.13 (0.001, 0.26)	0.02 (−0.01, 0.05)	0.05 (0.02, 0.07)
W_neighborhood median income	0.002 (0.0002, 0.003)	0.001 (−0.0001, 0.003)	0.002 (−0.01, 0.01)	−0.001 (−0.004, 0.002)	−0.0004 (−0.003, 0.002)
Total crime	0.001 (0.0001, 0.001)	0.001 (0.00003, 0.001)	0.002 (−0.003, 0.01)	0.0002 (−0.001, 0.002)	−0.0001 (−0.001, 0.001)
W_ neighborhood education[a]	−0.09 (−0.17, −0.02)	−0.07 (−0.15, 0.002)	−0.25 (−0.89, 0.39)	0.03 (−0.14, 0.20)	0.04 (−0.10, 0.18)
Neighborhood employment	−0.02 (−0.04, 0.0001)	−0.009 (−0.03, 0.01)	−0.17 (−0.33, −0.01)	−0.05 (−0.09, −0.01)	−0.02 (−0.06, 0.01)
Low-income housing	−0.88 (−2.06, 0.30)	−0.76 (−1.90, 0.39)	−11.90 (−22.19, −1.61)	−1.21 (−3.77, 1.35)	−0.19 (−2.30, 1.92)
Spatial in the error	−0.01 (−0.01, −0.001)	−0.01 (−0.01, 0.0003)	−0.01 (−0.01, 0.001)	−0.003 (−0.01, 0.004)	−0.004 (−0.01, 0.003)

Note. CI = confidence interval; GRMS = Gendered Racial Microaggression Scale; MDS = Multiple Discrimination Scale. The coefficients are the change of microaggression and discrimination scores associated with per-unit increase in the neighborhood and neighboring factors. A larger version of Table 2 (Table B, available as a supplement to the online version of this article at http://www.ajph.org) presents variables with nonsignificant findings.

[a]The variable beginning with "W_" represents neighboring areas (they provide an estimate of *I*).

and undetectable VL (b = –0.0224; $P < .05$).

Contrary to the direction for within-neighborhood, neighboring higher median income was associated with higher likelihood of undetectable VL (b = 0.00324; $P < .01$).

Spatial Error

Analyses indicated that there was significant variation in the spatial distribution of GRM frequency (b = –0.00743; $P < .05$) and appraisal (b = –0.00775; $P < .05$), suggesting that, in addition to the neighborhood variables mentioned previously, some unknown latent characteristics of neighboring areas may influence GRM.

DISCUSSION

To our knowledge, this is the first study among BWLWH to examine how within-neighborhood and neighboring characteristics relate to intersectional discrimination and stigma, mental health, and HIV outcomes among BWLWH using spatial econometrics techniques. We present novel findings as well as results consistent with existing literature. Higher crime victimization (used as a proxy for neighborhood crime) was associated with higher GRM frequency and appraisal, suggesting that women who are facing more crime are also subjected to more GRM. In addition, higher neighborhood employment was associated with lower HIV microaggressions and HIV-related discrimination, and access to affordable housing was associated with lower HIV microaggressions. This suggests that access to jobs and housing may serve as protective factors and is consistent with literature linking unstable housing and HIV-related stigma.[32]

TABLE 3— Mental Health Outcomes Associated With Neighborhood and Neighboring Area Factors: South Florida, October 2019–January 2020

	Traumas (LEC), b (95% CI)	Depressive Symptoms (CESD), b (95% CI)	PTSD Symptoms (PCL), b (95% CI)	Posttraumatic Cognitions (PTCI), b (95% CI)	Adherence (Past 3 wk), b (95% CI)	Viral Load (Log), b (95% CI)
Participants' age	−0.04 (−0.10, 0.02)	−0.31 (−0.49, −0.13)	−0.48 (−0.81, −0.15)	−0.81 (−1.47, −0.14)	−0.004 (−0.02, 0.01)	−0.01 (−0.01, −0.03)
W_ neighborhood median income	0.005 (0.0004, 0.01)	0.01 (−0.003, 0.03)	0.026 (−0.01, 0.06)	0.04 (−0.01, 0.10)	−0.0003 (−0.002, 0.002)	−0.001 (−0.002, 0.0003)
Total crime	0.002 (−0.0002, 0.004)	0.01 (0.001, 0.01)	0.005 (−0.01, 0.02)	0.03 (0.01, 0.06)	−0.001 (−0.002, −0.0002)	0.001 (0.00001, 0.001)
Neighborhood education	5.08 (−8.72, 18.89)	−34.99 (−75.15, 5.16)	−33.95 (−109.50, 41.61)	−44.79 (−199.10, 109.53)	−3.12 (−7.38, 1.15)	−4.72 (−8.36, −1.07)
W_ neighborhood education	−0.43 (−0.70, −0.16)	−0.81 (−1.59, −0.02)	−2.30 (−3.93, −0.67)	−2.45 (−5.43, 0.54)	−0.02 (−0.12, 0.08)	0.01 (−0.06, 0.79)
Neighborhood employment	−0.05 (−0.11, 0.02)	−0.08 (−0.26, 0.11)	−0.42 (−0.77, −0.07)	−0.22 (−0.91, 0.48)	−0.01 (−0.03, 0.01)	−0.02 (−0.03, 0.001)
W_ neighborhood employment	0.002 (0.001, 0.004)	0.004 (−0.001, 0.01)	0.01 (0.004, 0.02)	0.01 (−0.01, 0.03)	0.0003 (−0.0003, 0.001)	0.0003 (−0.0001, 0.001)
Christian organizations	−0.38 (−1.27, 0.52)	−2.21 (−4.83, 0.40)	−2.81 (−7.88, 2.26)	−11.60 (−21.42, −1.77)	−0.05 (−0.35, 0.25)	−0.01 (−0.25, 0.22)
Spatial in the error	−0.004 (−0.01, 0.01]	−0.004 (−0.01, 0.005)	0.0002 (−0.01, 0.01)	−0.003 (−0.01, 0.01)	0.002 (−0.01, 0.01)	−0.004 (−0.01, 0.003)

Note. CESD = Center for Epidemiological Studies Depression Scale; LEC = Life Events Checklist; PCL = Posttraumatic Stress Disorder Checklist; PTCI = Total Post Traumatic Cognition Inventory. The variables beginning with "W_" represent neighboring areas (they provide an estimate of *I*). The coefficients are the change of mental health and HIV outcomes associated with per unit increase in the neighborhood and neighboring factors. A larger version of Table 3 (Table C, available as a supplement to the online version of this article at http://www.ajph.org) presents variables with nonsignificant findings.

TABLE 4— Z-score for Binary Mental Health and HIV Conditions Associated With Neighborhood and Neighboring Factors: South Florida, October 2019–January 2020

	Viral Load Undetectable, b (95% CI)	Viral Load Suppression, b (95% CI)	Major Depressive Disorder Current, b (95% CI)	Suicidality, b (95% CI)	PTSD Current, b (95% CI)	Alcohol Consumption (12 mo), b (95% CI)	Substance Use (12 mo), b (95% CI)
Participants' age	0.01 (−0.01, 0.04)	0.01 (−0.01, 0.04)	−0.01 (−0.03, 0.01)	−0.04 (−0.07, −0.02)	−0.03 (−0.06, −0.003)	−0.03 (−0.05, −0.01)	−0.02 (−0.05, 0.003)
Participants' household income	0.26 (0.03, 0.49)	0.21 (0.04, 0.38)	−0.00004 [−0.19, 0.19)	−0.09 (−0.28, 0.10)	−0.12 (−0.33, 0.08)	−0.07 (−0.24, 0.10)	−0.23 (−0.48, 0.01)
Neighborhood median income	−0.02 (−0.04, −0.002)	−0.03 (−0.05, −0.001)	−0.005 (−0.02, 0.01)	0.004 (−0.02, 0.03)	0.01 (−0.01, 0.03)	0.005 (−0.01, 0.02)	0.003 (−0.02, 0.03)
W_ neighborhood median income	0.003 (0.001, 0.005)	0.001 (−0.001, 0.004)	0.002 (−0.001, 0.004)	−0.003 (−0.01, 0.002)	0.001 (−0.001, 0.003)	0.0005 (−0.001, 0.002)	0.001 (−0.001, 0.003)
Total crime	−0.0003 (−0.001, 0.001)	−0.001 (−0.002, 0.0001)	0.001 (−0.00002, 0.001)	−0.002 (−0.01, 0.001)	0.001 (0.0004, 0.002)	0.001 (−0.001, 0.003)	0.001 (0.0004, 0.002)
Neighborhood education	6.81 (1.20, 12.43)	6.84 (0.24, 13.40]	−5.20 (−10.91, 0.51)	−7.16 (−13.53, −0.80)	2.52 (−3.61, 8.64)	0.94 (−4.53, 6.42)	0.34 (−5.52, 6.20)
W_ neighborhood education	−0.06 (−0.16, 0.05)	0.002 (−0.12, 0.12)	−0.18 (−0.30, −0.05)	0.16 (−0.05, 0.37)	−0.06 (−0.17, 0.05)	−0.06 (−0.17, 0.04)	−0.06 (−0.16, 0.05)
Neighborhood employment	0.03 (0.004, 0.06)	0.026 [−0.004, 0.06)	−0.02 (−0.05, 0.004)	0.005 (−0.02, 0.03)	−0.02 (−0.05, 0.01)	−0.03 (−0.06, −0.01)	0.01 (−0.01, 0.04)
W_ neighborhood employment	−0.001 (−0.001, 0.0001)	−0.001 (−0.002, 0.0002]	0.001 (0.0003, 0.002)	−0.001 (−0.001, 0.0001)	0.0003 (−0.0004, 0.001)	0.0004 (−0.0002, 0.001)	0.0001 (−0.001, 0.001)
Christian organizations	−0.14 (−0.56, 0.28)	0.28 (−0.11, 0.67)	−0.60 (−1.01, −0.20)	0.47 (−0.26, 1.19)	0.15 (−0.54, 0.25)	−0.15 (−0.51, 0.21)	−0.07 (−0.46, 0.33)

Note. The variables beginning with "W_" represent neighboring areas (they provide an estimate of *I*). The estimates are probit model estimates, not the marginal effects. The coefficients are the change of *z* score for the mental health and HIV conditions associated with per-unit increase in the neighborhood and neighboring factors. A larger version of Table 4 (Table D, available as a supplement to the online version of this article at http://www.ajph.org) presents variables with nonsignificant findings.

Similarly, higher education in neighboring areas was associated with lower GRM appraisal, suggesting that when people in neighboring communities are more educated, BWLWH are less distressed by GRM. However, higher within-neighborhood median income was associated with higher HIV microaggressions and higher sexual orientation–related discrimination, and higher median income in neighboring areas was associated with higher GRM appraisal. These findings align with a recent study reporting that higher within-neighborhood median income was linked to higher internalized HIV stigma and HIV-related discrimination in health care settings.[33] Higher median income may indicate income disparity, and if BWLWH have low income in a higher-income neighborhood, this may result in BWLWH facing more microaggressions. Together, these novel results suggest that socioeconomic characteristics both within neighborhoods and in neighboring areas may have an impact on microaggressions and discrimination Black women face across multiple axes of identities (HIV status, race, gender, and sexual orientation). This further echoes that individual-level experiences of discrimination are directly related to intersecting systems of oppression that manifest in the form of disparities in income and socioeconomic status.[8]

In addition to being associated with higher GRM, crime victimization was also associated with worse mental health (PTSD, substance use disorder, depressive symptoms) and HIV outcomes (lower medication adherence and higher VL). Consistent with existing literature,[11] this indicates that higher crime exposure has negative impacts on BWLWH's mental health and may adversely affect women's ability to adhere to antiretroviral therapy and consequentially result in higher VL.[12]

However, across mental health and HIV outcomes, beneficial within-neighborhood characteristics for BWLWH were higher education, employment, and religious organizations. Higher education was associated with lower likelihood of suicidality, lower VL,[12] and higher likelihood of HIV viral suppression and undetectable VL, suggesting that higher education within neighborhood may be a protective health factor, perhaps as an indication of awareness of health services. Higher within-neighborhood employment was related to lower PTSD symptoms, lower likelihood of alcohol-use disorder, and higher likelihood of undetectable VL. Higher employment within their neighborhood may serve as a buffer in 2 ways: (1) individuals are behaviorally activated (linked to better mental health) through work, and (2) work may provide access to a support system, mental health and HIV care, and resources (e.g., food, housing, car).[2] In addition, a higher number of Christian organizations was associated with lower posttraumatic cognitions and likelihood of a depression diagnosis, which is consistent with literature indicating the positive effects of religious affiliation.[16]

In contrast to the benefits of within-neighborhood education and employment, neighborhood income was adversely associated with HIV outcomes (HIV viral suppression and undetectable VL), echoing that neighborhood-level income (perhaps in the midst of high neighborhood income disparity), may have adverse impacts on BWLWH who may have lower income. In fact, BWLWH's own household income was associated with higher likelihood of having HIV viral suppression and undetectable VL, indicating that what matters most is higher household income for BWLWH.[3]

Neighboring characteristics also related to mental health and HIV outcomes in interesting ways. Higher employment and income in neighboring areas related to more mental health symptoms and diagnoses (number of traumas, PTSD symptoms, depression) and may be a proxy for income disparity that may expose BWLWH to more traumas, or a proxy for congestion or gentrification, which may have negative implications for BWLWH's mental health.[34] This reiterates the negative psychosocial implications of structural inequities in the form of housing policies.[8] However, higher neighboring income related to undetectable VL may suggest proximity to services such as pharmacies.

Limitations

This study presents novel findings on neighborhood factors, intersectional discrimination, and health among BWLWH; however, a few limitations need to be acknowledged. First, the cross-sectional data and sample size prevents causal and definitive conclusions. Second, our sample consisted of BWLWH in the southeastern United States and, thereby, findings may not generalize to other geographic areas. Third, women's response to questions from the National Crime Victimization Survey were used as a proxy for their neighborhood crime; however, their self-report may be better than official statistics given barriers to reporting to police such as a history of ineffectual, uncompassionate, and sometimes deadly responses by police officers when called to serve Black individuals.[29] Despite these limitations, findings

presented may have important public health implications.

Public Health Implications

BWLWH bear the brunt of the HIV epidemic, and efforts should be directed to ameliorate the burden by addressing structural inequities (e.g., housing, income, and crime rates), intersectional discrimination and stigma, and mental health, and improve HIV outcomes. The HIV literature has yet to adequately examine how characteristics of within-neighborhood and neighboring areas may be associated with these factors. Our novel findings suggest that policies are needed to (1) improve the rates of neighborhood education and employment, availability of low-income housing, and access to religious organizations and (2) decrease crime. In addition, policies are needed to increase the household income of BWLWH and minimize income disparities, and human rights legislation is needed to improve their quality of life and reduce structural inequities. AJPH

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S. K. Dale, the study's principal investigator, developed the study hypotheses and procedures for data collection, oversaw the study team, helped to draft the article, and worked closely with I. A. Wright on the analyses. I. A. Wright (co-investigator) co-developed the study hypotheses, contributed spatial econometrics expertise, ran all analyses, and helped to draft the article. R. Reid, N. Shahid, and A. Ponce helped with data collection and with drafting some sections of the article. C. M. Nelson assisted with data organization and management and with drafting a section of the article. J. Sanders, N. Gardner, and E. Simmons helped with data collection and provided feedback on the article. J. Liu and Y. Pan assisted with data organization and management and reviewed the article. A. Phillips was instrumental in participant recruitment and retention and reviewed the article. A. Rodriguez provided medical consultation during data collection and reviewed the article. G. Ironson, S. A. Safren, D. J. Feaster, and M. L. Alcaide are co-investigators who provided insights on the project and feedback on the article.

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CONFLICTS OF INTEREST

The authors declare that they do not have conflicts of interest.

HUMAN PARTICIPANT PROTECTION

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Procedures were approved by the University of Miami institutional review board and informed consent was obtained from all individual participants included in the study.

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Intersectional Stigma and Prevention Among Gay, Bisexual, and Same Gender–Loving Men in New York City, 2020: System Dynamics Models

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Objectives. To create causal loop diagrams that characterize intersectional stigma experiences among Black, gay, bisexual, same gender–loving, and other men who have sex with men and to identify intervention targets to reduce stigma and increase testing and prevention access.

Methods. Between January and July 2020, we conducted focus groups and in-depth interviews with 80 expert informants in New York City, which were transcribed, coded, and analyzed. These qualitative insights were developed iteratively, visualized, and validated in a causal loop diagram (CLD) using Vensim software.

Results. The CLD revealed 3 key feedback loops—medical mistrust and HIV transmission, serosorting and marginalization of Black and gay individuals, and family support and internalized homophobia—that contribute to intersectional HIV and related stigmas, homophobia, and systemic racism. On the basis of these results, we designed 2 novel intervention components to integrate into an existing community-level anti-HIV stigma and homophobia intervention.

Conclusions. HIV stigma, systemic racism, and homophobia work via feedback loops to reduce access to and uptake of HIV testing, prevention, and treatment.

Public Health Implications. The CLD method yielded unique insights into reciprocal feedback structures that, if broken, could interrupt stigmatization and discrimination cycles that impede testing and prevention uptake. (*Am J Public Health*. 2022;112(S4):S444–S451. https://doi.org/10.2105/AJPH.2022.306725)

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Gay, bisexual, same gender–loving, and other men who have sex with men (SGL/MSM) are disproportionately affected by HIV in the United States.[1] In 2018, over two thirds of new HIV cases were attributed to male-to-male sexual contact, and SGL/MSM make up about 40% of new HIV cases nationwide.[2,3] Geographic hotspots in urban areas of northeastern states report new case rates among Black SGL/MSM that are equal to those of some southern states.[4] New York City (NYC) is the metropolitan area with the largest number of new HIV infections among MSM, with prominent racial disparities in HIV infection.[5]

Increasing uptake of postexposure and preexposure prophylaxis (PEP/PrEP) is critical to ending the HIV epidemic in the United States,[6] especially among Black SGL/MSM, but prescribing data reveal that Black and Latinx SGL/MSM make up just 25% of PrEP users[7,8] and are 6 times less likely to be prescribed PrEP as White MSM. HIV testing is crucial to access, and infrequent testing delays diagnosis, contributing to morbidity and mortality.[9] Approximately 80% of new infections are transmitted from the 40% of people living with HIV but undiagnosed or not in care.[10] Thus, consistent testing is now recommended for MSM.[11]

Black SGL/MSM are more likely than White MSM to be living with undiagnosed HIV.[12,13] Although HIV testing has increased among Black and Latinx MSM,[14] health care access and quality,[15] lack of structurally or culturally competent services,[16] low risk perception[17,18] and fear of a positive result[19] present multilevel barriers to testing among Black SGL/MSM.[20] Barriers to PrEP use are also multilevel,[21] and include health care system–level factors (e.g., funding or health insurance, access to settings with PrEP, messaging), provider-level factors (e.g., inadequate knowledge, discomfort discussing sexual behavior, cultural competency, and bias),[22–24] and individual-level factors (e.g., cost, stigma, lack of awareness, and low risk perception).[22,25–27]

HIV-related stigmas (e.g., HIV stigma, HIV testing stigma, and PrEP stigma)[28,29] and homophobia act independently and in combination to reduce prevention and treatment access among MSM. HIV stigma is a key barrier to HIV testing,[30,31] care engagement,[32] antiretroviral therapy use,[33] and intention to use PEP/PrEP.[34] HIV testing stigma also impedes self-testing.[35] Additionally, PrEP/PEP stigma,[36] which emerged in the early days of PrEP,[37] continues to be reported by MSM,[38] and community-level and anticipated PrEP stigma[39] influences uptake of biomedical prevention.[40] Homophobia is a barrier to prevention[41,42] and is negatively associated with PEP awareness and use.[43] Although associations between homophobia and HIV testing are mixed,[44] internalized homophobia has been associated with never testing among Black MSM.[45]

HIV-related stigma and homophobia are often racialized, exacerbating barriers to testing, prevention, and treatment among MSM of color.[42,46,47] The intersections among systemic racism, HIV stigma, HIV-related stigmas, and homophobia particularly affect MSM of color, as systemic racism, manifest in discriminatory policies and practices,[48,49] blocks opportunities and produces stratification.[50] Medical racism[51] is of particular importance to Black SGL/MSM[52–54] and, together with medical mistrust, is a barrier to testing, care, and prevention independently and in interaction with HIV-related stigmas and homophobia.[55–58] This intersectional interaction among systems of oppression fundamentally condition how stigmatized individuals experience their social worlds.[59] Combined, they interact to drive fear and anxiety (e.g., fear of positive HIV test results or being identified as gay), avoidant coping (e.g., HIV- or sexual health–related service aversion), and medical mistrust or medication skepticism (e.g., selective communication, side effect concerns), which reduce testing and PEP/PrEP uptake.[28]

Social policies as well as community-level and multilevel interventions can reduce experienced stigma and support individuals in responding to and resisting stigma and discrimination.[60–62] However, the knowledge base upon which to build complex anti-intersectional stigma and discrimination interventions is sparse. To address this gap, we applied a qualitative system dynamics (SD) modeling approach to create causal loop diagrams (CLDs) that characterize the dynamic interactions among intersecting stigmas and systems of oppression, including HIV stigma, homophobia, and racism, among Black SGL/MSM in NYC. SD modeling is a systems science approach that has been used to study the dynamic behavior of complex systems and problems in health care, engineering, and social work and provides a framework to develop insights into potential interventions.[63] SD allows researchers to represent complex systems, including modifying and mediating factors.[64,65] The primary aim of the CLD development process here was to identify intervention targets to reduce intersectional stigma and increase HIV testing and prevention uptake. Thus, as a qualitative SD model, our model formalizes feedback loops, but does not yield a simulation of a mathematical SD model. In this article, we present the results of the CLD development process and application of these results to intervention component design; next, the components will be pilot tested and integrated into an existing community-level intervention.[62]

METHODS

System dynamics modeling provides a systematic method for description, exploration, and analysis about the dynamic behavior of intersectional stigma experiences among Black SGL/MSM. We generated CLDs based on analysis of transcripts and notes from a series of focus groups (n = 11 groups; n = 59 participants) and in-depth interviews (n = 21) with 80 expert informants, comprising Black SGL/MSM (n = 59) and HIV and social service professionals of color (n = 21) between January and July 2020. We conducted both individual and group interviews because each inquiry method yields different insights (e.g., social interactions critical to norm formation may be observed in groups, whereas individual interviews may yield personal information). Participants were recruited online (e.g., Facebook and Instagram), in person, and via word of mouth; allies and community leaders shared promotional materials on personal pages. All participants self-identified as male and 96%

self-identified as Black or African American; participants ranged in age from 24 to 61 years and half self-reported living with HIV. All participants identified their gender as male; 95% identified as gay, SGL, or homosexual. Two thirds reported having an undergraduate degree or higher. All participants lived in the NYC metropolitan area. Our groups and interviews used scripts that elicited "systems thinking" (e.g., vignettes, presentation of simplified CLDs) to explore the roles of HIV stigma, homophobia, and racism on sexual behavior, partnering, HIV-related prevention and care access, family and community experiences, and other relevant and emergent areas. Our scripts evolved as data began to accrue and emergent focal areas were identified.

The analysis used text data ("quotes") from the interviews and groups, which were digitally recorded, professionally transcribed, and coded in an Airtable—a cloud collaboration service that we designed to organize the data for creating CLDs. The table included 14 columns: interview and group number, coder, quotes, and quote summary, among others. The first and second author (P. L. and D. W. M.) read and coded all transcripts in waves. First, we applied 5 "tags" or broad codes or areas of focus, including stigma, homophobia, racism, pandemic (COVID-19/SARS-CoV-2) and PEP/PrEP. Next, we coded several "causes," including internalized homophobia, HIV stigma, medical mistrust, intersectionality, and PrEP education and marketing. We then coded primary, secondary, and tertiary "effects," based on the content of individual participant quotes, including PrEP usage, HIV stigma, HIV transmission, access to HIV care, mental health (including self-esteem), internalized homophobia, concealing of sexual identity, and medical mistrust. Finally, we coded the "relationship" or the direction of the relationship. We instructed the coders to code the same quote twice if more than 1 cause and effect was described in the quote. Coders were also instructed not to code previous paragraphs (to the focal quote) to give context to quotes. In-depth interviews were coded by 3 analytic team members; focus groups were coded by 2 members of the same team. Select focus groups and interviews were double coded to enhance consistency. The analytic team developed codes for variables and initial and plausible relationships (linkages), with the full study team meeting weekly to discuss the coding process, develop the CLD, and resolve coding discrepancies. A designated column in the Airtable ("dataset item") served as means to reference the variables that were added to the CLD.

We developed the CLD using these data in Vensim modeling software. Members of the analytic team read each transcript and generated relevant queries. Numerous rereadings of the quotes occurred during meetings and relabeling of variables, and new variables were added through this iterative process. The analytic team led a series of structured discussions designed to validate the CLD, which visualizes the processes, or feedback structures, using positive (+) and negative (–) signed links that form either "reinforcing" or "balancing" loops. Reinforcing loops explain exponential growth or decline, and balancing loops bring variables into steady states and stabilize the system. We identified feedback processes that represented narratives reflected in the text data, beginning with the dynamics of stigma, then layering in homophobia, racism, PrEP, and HIV testing. Collectively, the resultant CLD represents a dynamic hypothesis, or statement, about a given problem of focus. CLDs often serve as a formative step in building formalized SD models for mathematical simulation. Here, we used the models to develop novel anti-intersectional stigma intervention components. Thus, the CLD was presented in a series of meetings with study advisors, including members of MOBI (Mobilizing Our Brothers Initiative) and academic intervention design and analysis experts, where we focused on select loops within the CLD, identifying theoretical intervention targets and brainstorming interventions. The process resulted in the novel anti-intersectional stigma intervention components.

RESULTS

Through this analytic process, we identified individual, community, and social constructs (termed "variables" in the CLD) and connections among them, resulting in a synthesized CLD that illustrates the entirety of the structures of a system and their causal relationships based on the data we collected. Our synthesized CLD contains several hundred loops and dozens of variables, including broad systems, such as HIV stigma, racism, and homophobia, as well as smaller systems (subsystems) embedded within the broader systems. A simplified version of the synthesized CLD is illustrated in Figure A (available as a supplement to the online version of this article at http://www.ajph.org), depicting medical mistrust (red), mental health (green), and serosorting (blue). We also identified loops that combined subsystem loops that are not color coded. Because of the complexity of the synthesized CLD, we isolated subsystems for further analysis. Specific variables and connections from those isolated subsystems are described below, first using the language of the

"story" or narrative that the loops "tell" and then as applied to the theoretical and conceptual factors that could be targeted in various intervention components.[61] Table A (available as a supplement to the online version of this article at http://www.ajph.org) displays key variables and selected participant quotes that informed the identification of the variable and the polarity of the links in 2 focal loops.

Feedback Loop 1

Medical mistrust and HIV transmission. This feedback loop depicts the medical mistrust and HIV transmission variables and connections (Figure B, available as a supplement to the online version of this article at http://www.ajph.org). The "story" of this reinforcing loop suggests that decreased trust in medical professionals among Black and gay patients reduces sexual identity and orientation disclosure and increases sexuality hiding to health care providers, among others, which subsequently decreases patients' HIV testing and knowledge—and therefore disclosure of their HIV status to sexual partners. This increases the likelihood of sexual contact between people living with HIV and those who are not, which can increase HIV transmission. More infections drive further HIV stigma among all community members, including physicians who may stereotype and label patients. With more labeling of patients, Black gay men have more stigmatizing experiences with medical professionals. In sum, this sequence leads to continuous reduction in patients' trust in their medical professionals, in a vicious cycle, where the problem worsens over time at an increasing rate of speed.

In reinforcing loops, the cause-and-effect relationships perpetuate growth and repeatedly reinforce one another. This loop can be a virtuous cycle, with all its variables positively supporting each other, or a vicious cycle where a decline in 1 variable is propagated throughout the loop into a downward spiral. As indicated by the polarity of the arrows, some connections reinforce the direction of change, whereas others balance and oppose the direction of change. Notably, the loop adjacent to the medical mistrust and HIV transmission loop depicts the influence of representation in the health care of Black SGL/MSM ("Black gay representation in health care") on patient–provider interaction ("physicians disclosing similar experiences with patients") and on the quality of health care ("quality of care, humanizing and culturally competent care"), which links back to the focal loop via comfort with health care providers ("Black gay patients being uncomfortable at doctor's appointment").

Application to intervention component design. This loop informed our intervention component design by focusing us on the roles of patient–provider interactions and mistrust of biomedicine due to medical racism and lack of representation of people of color and of gay, lesbian, and bisexual people in health care provision. Thus, our component design targeted theory of change factors, such as provider disclosure of shared sexual and other behaviors and identities that increase feelings of connectedness and solidarity between the provider and patient, which in turn encourages patient disclosure of behaviors and conditions that are relevant to maintenance of sexual health and well-being. Representation in medicine may also be related to increased culturally and structurally competent health care provision (by all providers) via pathways external to this model, including increased emphasis in training on issues related to diversity, equity, and inclusion, as well as antiracist practices. The resultant component is a dramatization of a telehealth visit depicting patient–provider interaction in a clinical encounter; the component, implemented via videoconferencing technology because of the COVID-19 pandemic, is followed by a structured discussion with participants, both providers and potential patients, in break-out rooms.

Feedback Loop 2

Serosorting and marginalization of Black, gay, lesbian, and bisexual people. Our second potential focal area of intervention is a reinforcing feedback loop, representing the dynamics of within-community serosorting and marginalization among Black SGL/MSM (Figure C, available as a supplement to the online version of this article at http://www.ajph.org). This loop may be interpreted as follows: higher levels of HIV stigma (particularly experienced and perceived community stigma) increase serosorting—the practice of selecting sexual partners based on HIV status—which increases disclosure of HIV status, which in turn ultimately results in an increase of marginalization of Black SGL/MSM within the Black community. This results in negative mental health effects, which stimulate the growth of internalized and enacted stigma. This vicious cycle connects experienced stigma to mental health effects and to enacted stigma, which then drives generalized stigma.

Application to intervention component design. Applying the same approach as described for feedback loop 1, we

developed a scenario that depicts an attempted disclosure of a recent HIV diagnosis by a young Black man to his older "mentor." The conversation also includes another individual, who is older than the mentor and was present during the early days of the HIV epidemic. Within the scenario, the oldest participant describes how they would not date someone with HIV because of the burden that the disease places on the caregiver. Here, the impact of community-level norms around respect for age and experience collides with more modern understandings of both HIV care and how sexual exclusion based on status (serosorting) can be experienced as stigmatizing. Communication style and content are also theoretical targets. Finally, effective strategies to interrupt stigmatization by addressing the use of language is 1 focus of the postdramatization debrief, which was designed to include a role play and practice of stigma interruption skills.

Family Support and Internalized Homophobia Feedback Loop

From online Figure A, the feedback loop depicted in green was a key focus in the CHHANGE community-level intervention; this loop illustrates how family support and internalized homophobia operate to influence disclosure, self-acceptance, and internalized homophobia. The loop may be interpreted as follows: low or absent family support of gay, lesbian, and bisexual people increases opportunities for experiencing trauma, which can reduce self-esteem and self-love and can increase internalized homophobia. Higher levels of internalized homophobia decrease individuals' self-acceptance of their own sexual orientation, which leads to a corresponding drop in disclosure of sexual orientation. Participants described family dynamics in which gay, lesbian, and bisexual people expect that the disclosure of their sexual orientation will lead to a loss of family support. This sequence reduces self-acceptance and disclosure of sexual orientation. In this feedback loop, the impact of both may serve to support a higher level of internalized homophobia. Unlike reinforcing loops, which cause an acceleration of change, balancing loops usually serve to stabilize and slow the rate of change in the system to not only oppose initial changes in variables but also to drive the system toward a stable goal. This loop (online Figure C) is disconnected visually to improve readability. We focused intensively on this loop in the CHHANGE intervention as described previously,[66] and thus we do not discuss its integration into the novel components.

Combined Loops

The interaction of the 3 feedback loops is depicted in online Figure C. The medical mistrust and HIV transmission loop is in red and connects with other loops present in online Figure A through the variables HIV stigma, disclosure of sexual orientation, and disclosure of HIV status. The purpose of these loops was to illustrate the intersectional effects of stigma and related variables. The variables colored gray were variables that, although connected to the feedback loops in question, did not necessarily form a feedback loop themselves. The balancing loop of family support and internalized homophobia (online Figure A, green) illustrates a force that brings stasis to the system. Through this loop, we expect meaningful changes in the current rate of disclosure of gay sexual orientation to be less likely to occur within the Black community. In other words, the rate of disclosure of gay sexual orientation is not expected to increase exponentially because it tends to reach an equilibrium. As reflected by participants' stories, disclosure of gay sexual orientation within the Black community is considered consistently low, which in turn reinforces lower rates of HIV testing, more transmission of new HIV infections, and increased HIV stigma in the reinforcing loop of medical mistrust and HIV transmission (Figure A, red). Finally, the rate of disclosure of HIV status interacts with the reinforcing loop of serosorting and marginalization of Black gay, lesbian, and bisexual people (blue). Serosorting ultimately increases HIV stigma, which in turn escalates the transmission of new infections among Black MSM in a feedback loop that includes medical mistrust and HIV transmission.

DISCUSSION

We developed a CLD grounded in participant stories that identified feedback loops highlighting broader systems affecting the health and well-being of SGL/Black MSM. The modified qualitative SD methodology encouraged significant engagement from participants during data collection and resulted in data adequate to characterize the complex system that Black SGL/MSM face that is consequential to HIV prevention and treatment. The resultant CLD reveals how various subsystems interact with and influence each other, sets of relations that are dynamic and change over time. Because CLDs are living models, we expect that as new information, data, and interpretation emerge, the model may be enhanced.

On the basis of the CLD that emerged, we identified 2 key loops that could be realistically centered for

intervention components to complement our existing CHHANGE community-level anti-HIV stigma and anti-homophobia intervention.[62,66] Because of the COVID-19 pandemic, we imagined our novel components as being virtually delivered and in partnership with community members expert in delivering relevant and engaging content to Black SGL/MSM via digital formats. The components that eventually emerged, through input from a panel of expert advisors and a series of meetings with the MOBI team, included a theatrical presentation of dramatizations of technology-mediated social interactions where intersectional stigma unfolds. The postdramatization break-out activities and discussion are designed to unpack the issues and provide alternative ways of communicating and behaving to reduce experienced intersectional stigma.

The advantage of our approach, using the CLD rather than a matrix to map theoretical targets, is that the CLD isolates feedback loops and how the loop "behaves" in manifesting the dynamics of stigma, homophobia, and racism. Another advantage is that the full CLD is complex, multifaceted, and dynamic, making clear that effective interventions must also be multilevel and adaptive to achieve and sustain desired outcomes over time. This is a particularly important advantage as it forces the interventionist to face the complexity and dynamism of intersectional of oppression and privilege systems. Additionally, although the whole system can be taken into account, it is also possible to evaluate the impact of interventions based on specific subsystems. Understanding the whole system clarifies how a subsystem-focused intervention component may interrupt a specific feedback loop while another loop blocks its impact on the whole system. Because public health is conditioned by and the product of intersectional systems of oppression and privilege, the method can be applied to a range of public health concerns.

We applied a CLD to develop a better understanding of the complex system involving HIV stigma, HIV-related stigmas, homophobia, and systemic racism, as they influence access to and uptake of HIV testing and biomedical prevention among Black SGL/MSM living in an urban area. Results were used to design novel intervention components to interrupt feedback loops in the whole system and to complement our existing community-level anti-HIV stigma and anti-homophobia intervention. Piloting the novel components will yield information on their feasibility and acceptability. The next steps will include integrating the new components into the existing intervention and evaluating its impact using methods optimized for estimating the impact of community-level and multilevel interventions on intersectional stigma-related outcomes. AJPH

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CONTRIBUTORS

All authors contributed to the conceptualization and revision of the work as a part of the CHHARGE project collaboration led by V. Frye, D. W. Matthews, and M. Paige. M. Paige, V. Frye, and D. Matthews conducted all individual and group interviews. P. Lutete developed the causal loop diagram and wrote the first draft of the article with V. Frye, N. S. Sabounchi, M. Paige, A. Dickerson, and J. Hillesheim. D. W. Matthews, A. Dickerson, N. Rodriguez, N. Echevarria, and J. Hillesheim provided invaluable assistance to the causal loop analysis, review, and coding process. D. W. Lounsbury, N. S. Sabounchi, D. Usher, and J. J. Walker provided critical feedback and edits to drafts, and all authors approved the final version.

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CONFLICTS OF INTEREST

The authors have no potential conflicts of interest to declare.

HUMAN PARTICIPANT PROTECTION

The City University of New York institutional review board reviewed and approved the study (IRB# 2019-0398).

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Biopsychosocial Health Outcomes and Experienced Intersectional Stigma in a Mixed HIV Serostatus Longitudinal Cohort of Aging Sexual Minority Men, United States, 2008–2019

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Objectives. To determine whether intersectional stigma is longitudinally associated with biopsychosocial outcomes.

Methods. We measured experienced intersectional stigma (EIS; ≥ 2 identity-related attributions) among sexual minority men (SMM) in the United States participating in the Multicenter AIDS Cohort Study. We assessed longitudinal associations between EIS (2008–2009) and concurrent and future hypertension, diabetes, dyslipidemia, antiretroviral therapy adherence, HIV viremia, health care underutilization, and depression symptoms (2008–2019). We conducted causal mediation to assess the contribution of intersectional stigma to the relationship between self-identified Black race and persistently uncontrolled outcomes.

Results. The mean age (n = 1806) was 51.8 years (range = 22–84 years). Of participants, 23.1% self-identified as Black; 48.3% were living with HIV. Participants reporting EIS (30.8%) had higher odds of hypertension, dyslipidemia, diabetes, depression symptoms, health care underutilization, and suboptimal antiretroviral therapy adherence compared with participants who did not report EIS. EIS mediated the relationship between self-identified Black race and uncontrolled outcomes.

Conclusions. Our findings demonstrate that EIS is a durable driver of biopsychosocial health outcomes over the life course.

Public Health Implications. There is a critical need for interventions to reduce intersectional stigma, help SMM cope with intersectional stigma, and enact policies protecting minoritized people from discriminatory acts. (*Am J Public Health*. 2022;112(S4):S452–S462. https://doi.org/10.2105/AJPH.2022.306735)

The burden of chronic comorbidities is increasing as people with HIV (PWH) in the United States age, presenting key challenges to effective HIV care.[1,2] The largest proportions of PWH in the United States are aged 45 years or older,[3] the majority of whom are sexual minority men (SMM).[4] Among aging PWH, noncommunicable diseases (NCDs) such as diabetes, hypertension, and dyslipidemia are common, complicating clinical care and contributing to poor HIV outcomes.[2,5,6] Studies estimate that, by 2030, 84% of PWH will have at least 1 NCD, with 28% predicted

to have 3 or more NCDs, and 40% of PWH predicted to experience HIV treatment complications because of multimorbidity polypharmacy concerns.[1,7]

Domestically, there exist profound ethnoracial and socioeconomic disparities in the incidence, prevalence, and control of HIV and NCDs.[8–13] These disparities are attributed to structural inequities, like racism, embedded in different aspects of society (e.g., employment, housing, and health care) that trickle down at the policy level and minimize the political power and access to resources that marginalized individuals require to maintain wellness.[14–18] Compared with SMM who identify as White, SMM who identify as Black or Latinx experience higher HIV prevalence and incidence and lower rates of viral suppression.[13,17,18] Populations who identify as Black experience higher prevalence of hypertension and lower rates of hypertension control compared with White populations.[8,9,19] Populations who identify as Black or Latinx experience higher prevalence and incidence of diabetes and higher diabetes-related mortality rates compared with White populations.[20,21]

Lower socioeconomic status has been associated with higher diabetes-related mortality in models adjusted for ethnoracial identity,[21] suggesting that class-based structural inequalities (e.g., lack of universal health care in the United States, absence of universal basic income) contribute to effective NCD management and help explain underlying social gradients of health. Lower rates of dyslipidemia treatment and control have been found in populations who identify as Black relative to those who identify as White, and higher rates of dyslipidemia have been observed among populations who are low-income and those who identify as Latinx.[22–24] Given that race is a social construct, ethnoracial inequities in HIV and NCD incidence, prevalence, and control are not biologically intrinsic. Therefore, sociocultural and structural inequities caused by interlinked systems of oppression such as racism, classism, and heterosexism have been hypothesized as fundamental drivers of health inequities.[25]

Intersectional stigma offers a key framework for understanding pathways between systemic oppression and health inequities in multiply marginalized populations (e.g., SMM of color living with HIV).[26] Stigma (the process in which groups of people are devalued, negatively stereotyped, and discriminated against)[27,28] is a multidimensional construct inclusive of anticipated, internalized, perceived, and enacted or experienced domains; in stigma frameworks, active discrimination can be viewed as a specific form of experienced stigma.[26,29] Linking the stigma framework with intersectionality,[30] which conceptualizes how social identities overlap to engender different modalities of privilege and discrimination, intersectional stigma as coined by Berger "represents the total synchronistic influence of various forms of oppression, which combine and overlap to form a distinct *positionality*."[26(p.4)] Intersectional stigma research elucidates relationships between multiple intersecting identities at both the microlevel of minoritized social status (e.g., race, sexuality, and HIV status) and the macrolevel of systemic oppression (e.g., racism, heterosexism, and HIV stigma), the multiple dimensions of stigmatization, and consequent mental, physical, and behavioral health inequities on individual and population levels.[29–34]

Research has begun to demonstrate associations between stigma and biological outcomes. Anticipated and experienced stigma have been shown to be associated with higher odds of hypertension among adults who identify as Black[35,36]; discrimination has been associated with greater allostatic load among Puerto Rican adults.[37] Intersectional stigma has been associated with adverse psychosocial conditions, such as depression and substance use, among SMM, increasing failure risk along the HIV care continuum.[38,39] This can cause minoritized people (i.e., people who are marginalized by systems of oppression beyond their control, such as racism and heterosexism) to avoid situations, such as health care environments, where they perceive that stigmatization occurs. Intersectional stigma has been associated with health care underutilization and antiretroviral therapy (ART) nonadherence. Because diabetes, dyslipidemia, and hypertension are, like HIV, chronic conditions requiring ongoing health care engagement, effective management of NCDs may also be affected by intersectional stigma.

Understanding the longitudinal pathways between minoritized populations, intersectional stigma, psychosocial health, and HIV and NCD outcomes remains limited. The aims of this study were threefold. First, we assessed the prevalence and correlates of experienced intersectional stigma (EIS) in adulthood in a mixed-serostatus cohort of aging SMM. Second, we prospectively assessed relationships between EIS and biopsychosocial health outcomes over 11 years. Third, we assessed mediation by EIS of the relationships between Black identity and persistently uncontrolled biopsychosocial conditions. Ongoing imbalances in social power and privilege are reflected in the US health care infrastructure and disproportionately affect people from historically excluded and often intersecting groups, heightening minoritized

communities' vulnerabilities to social adversity. Therefore, we hypothesized that (1) participants from minoritized subgroups would report higher rates of EIS than their nonminoritized counterparts, (2) EIS would be associated with higher odds of biopsychosocial health outcomes, and (3) EIS would mediate relationships between Black ethnoracial identity and persistently uncontrolled biopsychosocial outcomes.

METHODS

The Multicenter AIDS Cohort Study (MACS) is an observational, community-based cohort that examines the natural and treated history of HIV/AIDS among SMM in Baltimore, Maryland/Washington, DC; Chicago, Illinois; Los Angeles, California; and Pittsburgh, Pennsylvania. Data and specimens collected at biannual study visits include sociodemographic and psychosocial characteristics, medications, hematology (HIV RNA quantification, lipid profile, glucose metabolism), health care utilization, and blood pressure. Biologically validated outcomes assessed include dyslipidemia, hypertension, diabetes, and HIV viral load.[7,40] Additional methodology is available at https://statepi.jhsph.edu/mwccs.[40,41]

Measures

We assessed EIS via audio computer-assisted self-interviewing (ACASI) surveys conducted in 2008–2009 (n = 1806). For participants completing surveys at both timepoints, only initial responses were used. Using the 2-stage version of the Major Experiences of Discrimination Scale,[42] participants reported EIS in adulthood (age ≥ 18 years) from any of 6 sectors (employment, education, community, housing, health care, or law enforcement). For each sector in which participants reported stigmatization, they were prompted to indicate identity-related (age, gender, race, ethnicity, religion, appearance, body shape, disability, HIV status, or sexual orientation) attributions that represented the top 3 reasons for stigmatization.[43] Data were operationalized to reflect any experienced stigmatization in adulthood in each sector, then aggregated across sectors to reflect all identity-related attributions. For primary analyses, we defined EIS as having reported 2 or more identity-related attributions (e.g., race and sexuality) for stigmatization across all sectors. For secondary analyses, we used the sum (0–10) of identity-related attributions.

Biological outcomes were assessed by using plasma collected after fasting. Among PWH, HIV viremia was defined as having a viral load of 200 copies per milliliter or more.[44] Diabetes was defined as glucose greater than 125 milligrams per deciliter (mg/dL) or self-reported diabetes with medication, concomitant with hemoglobin A1c of 7.5% or higher. Dyslipidemia was defined as total cholesterol 200 mg/dL or higher, low-density lipoprotein cholesterol of 130 mg/dL or higher, high-density lipoprotein cholesterol less than 40 mg/dL, triglycerides 150 mg/dL or higher, or use of lipid-lowering medications concomitant with a clinical diagnosis. Hypertension was defined as blood pressure 140/90 millimeters of mercury or higher or use of blood pressure–lowering medications concomitant with a clinical diagnosis.[45] Secondary analyses defined persistently uncontrolled outcomes as at least 2 occurrences of blood pressure 140/90 millimeters of mercury or higher (uncontrolled hypertension), fasting low-density lipoprotein cholesterol of 130 mg/dL (uncontrolled cholesterol), and fasting hemoglobin A1c of 7.5% or higher (uncontrolled diabetes) between 2008 and 2019.

Behavioral outcomes were assessed at each visit via ACASI. Health care underutilization was assessed with a 1-item measure ("Since your last visit, was there a time when you did not receive medical care, dental care, or prescription drugs when you thought you needed to?") consistent with other brief measures.[46] Among PWH, self-reported ART adherence was dichotomized to reflect 100% adherence versus less than 100% adherence over the previous 4 days.[47–49] Secondary analyses defined persistently suboptimal ART adherence and persistent health care underutilization as 2 or more reports of each behavior between 2008 and 2019.

Depression symptoms in the past 7 days were measured via ACASI, using the Center for Epidemiologic Studies Depression scale.[50] A cut-off of 20 was used to delineate depression symptoms.[51] Secondary analyses defined persistently uncontrolled depression symptoms as 2 or more occurrences of scores of 20 or higher between 2008 and 2019.

Ethnoracial variables were collected at the baseline study visit using the following questions: "Are you of Hispanic (Spanish) or Latino origin?"; and "What is your race? Do you consider yourself (check all that apply) White, Black, Native Hawaiian/Pacific Islander, Native American, Alaskan native, Other?" Low-income status (gross annual income < $20 000/year) was collected at each study visit via ACASI and treated as time-varying. Sexual behavior was defined using behavior questions for the 6 years before 2008–2009 and treated as fixed.[52] HIV status was assessed at each study visit via enzyme-linked immunosorbent assay for HIV-negative individuals and

western blot to confirm seroconversion, and treated in analyses as time-varying for HIV-negative men to delineate seroconversions. Time (study visit) was treated as time-varying and specified as a random effect. Models adjusted for sociodemographics, site, and age (10-year increments).

Statistical Analysis

We used descriptive statistics to explore sociodemographics and frequency of settings and attributions for intersectional stigma. We used χ^2 and *t* tests to analyze differences in EIS by sociodemographics. We constructed a series of generalized linear mixed models (GLMM) with repeated measures to assess associations between EIS (2008–2009) and biopsychosocial outcomes, comprising a maximum of 22 potential visits. Analyses were conducted in SAS version 9.4 (SAS Institute, Cary, NC), with specifications for mixed effects (between-subjects and within-subject). We reported least-squares means estimates of outcomes at a given observation and adjusted odds ratios (AORs) by intersectional stigma group with corresponding 95% confidence intervals (CIs) and *P* values using the observed margins specification, which includes all nonmissing observations and averts listwise and pairwise deletion for observations where dependent variables are missing, maximizing the utility of the full observed data set. We constructed post hoc models with an interaction term (EIS*visit), to assess whether outcome trajectories differed by EIS. Results from post hoc models display regressed least-squares means estimates of outcomes by visit and EIS group.

To assess whether EIS mediated relationships between Black ethnoracial identity and persistently uncontrolled outcomes, we conducted secondary analyses using the 4-way decomposition approach for causal mediation.[53,54] To include both PWH and seronegative participants, we created a variable summing non-HIV outcomes (total: 0–5 of persistently uncontrolled diabetes, hypertension, dyslipidemia, depression symptoms, and persistent health care underutilization occurring at least twice between 2008 and 2019) and used this as the outcome in a cross-sectional Poisson model. Black ethnoracial identity was the main predictor, and EIS (treated continuously) was the mediator. These models allowed us to assess decompositions including a pure direct effect (the expected inequality in outcomes attributable to Black ethnoracial identity) and a pure indirect effect (the mediating effect of intersectional stigma on persistently uncontrolled outcomes). Using established procedures for causal mediation,[53,55–57] we reported the proportion of the effect mediated, and the proportion of the effect of Black ethnoracial identity on persistently uncontrolled outcomes that would be eliminated if EIS levels among participants who identified as Black were reduced to levels reported by participants who did not identify as Black. GLMM and causal mediation analyses adjusted for covariates. Because of low numbers of participants identifying as Native American, Asian, Native Hawaiian/Pacific Islander, and multiracial, these categories were aggregated into "Other ethnoracial identity" for GLMM analyses.

RESULTS

Table 1 describes the sample using baseline data from 2008–2009. Overall, 1806 participants responded to stigma-related questions and were included in analyses. The majority of participants identified as White (71.7%), 23.1% identified as Black, and 10.1% identified as Hispanic/Latinx. At the index visit, participants' mean age was 51.8 years (range = 22–84 years). Around half (48.3%) of participants were PWH. Table 1 shows that EIS rates varied significantly by race ($\chi^2 = 50.8$; $P < .01$), with higher proportions of Black (42.7%) and multiracial (54.3%) respondents reporting EIS than White respondents (26.6%); by HIV status ($\chi^2 = 8.6$; $P < .01$), with higher proportions of PWH (34.1%) reporting EIS than HIV-negative participants (27.8%); by low-income status ($\chi^2 = 14.7$; $P < .01$), with higher proportions of low-income participants reporting EIS (38.1%) than higher-income participants (28.4%); and by age: the mean age of intersectionally stigmatized participants was 50.9 years, compared with 52.9 years for their counterparts ($t = 3.0$; $P < .01$).

Table A (available as a supplement to the online version of this article at http://www.ajph.org) describes frequencies of settings and identity-related attributions for stigmatization. The majority of participants (50.7%) reported experiencing stigmatization in adulthood. Law enforcement (29.3%), employment (hiring and promotion: each 19.2%; being fired: 13.5%), and health care sectors (10.4%) were the most common settings for stigmatization. A large minority (49.3%) attributed stigmatization to specific identities: sexuality (35.2%), race (17.2%), and age (11.6%) were the most common attributions. A minority (30.8%; n = 577) reported 2 or more identity-related attributions for stigmatization. Among this subsample, the most common discrete intersections were sexuality- and

TABLE 1— Sociodemographics of Study Participants at Substudy Baseline Visit by the Presence of Experienced Intersectional Stigma (EIS): Multicenter AIDS Cohort Study (MACS), United States, 2008–2009

Sociodemographics	Total (n = 1806), No. (%) or Mean (Range)	No EIS (n = 1249), No. (%) or Mean (Range)	EIS (n = 557), No. (%) or Mean (Range)	χ^2 or *t* Test Value
Racial self-identification				50.84***
White	1295 (71.7)	950 (73.4)	345 (26.6)	
Asian	6 (< 1)	5 (83.3)	1 (16.7)	
Native Hawaiian/Pacific Islander	3 (< 1)	1 (33.3)	2 (66.7)	
Black	417 (23.1)	239 (57.3)	178 (42.7)	
American Indian/Alaska Native	40 (2.2)	31 (77.5)	9 (22.5)	
Other	10 (< 1)	7 (70.0)	3 (30.0)	
Multiracial	35 (1.9)	16 (45.7)	19 (54.3)	
Ethnicity self-identification				1.77
Hispanic/Latino	182 (10.1)	118 (64.8)	64 (35.2)	
Not Hispanic/Latino	1624 (89.9)	1131 (69.6)	493 (30.4)	
MACS site				28.75***
Pittsburgh, PA	462 (25.6)	332 (71.9)	130 (28.1)	
Chicago, IL	327 (18.1)	201 (61.5)	126 (38.5)	
Baltimore, MD/Washington, DC	434 (24.0)	336 (77.4)	98 (22.6)	
Los Angeles, CA	581 (32.2)	379 (65.2)	202 (34.8)	
HIV status				8.59**
HIV-negative	933 (51.7)	674 (72.2)	259 (27.8)	
HIV-positive	873 (48.3)	575 (65.9)	298 (34.1)	
Age, y	51.8 (22–84)	52.3	50.9	*t* = 2.96**
Sexual behavior over previous 6 y				0.31
Men only	1502 (83.2)	1036 (69.0)	466 (31.0)	
Men and women	108 (6.0)	76 (70.4)	32 (29.6)	
Women only	102 (5.6)	70 (68.6)	32 (31.4)	
No sexual activity	94 (5.2)	67 (71.3)	27 (28.7)	
Annual income, $				14.68***
≥ 20 000	1129 (62.5)	808 (71.6)	321 (28.4)	
< 20 000	483 (37.5)	299 (61.9)	184 (38.1)	

Note. EIS defined by ≥ 2 intersecting attributions for enacted stigmatization in adulthood.

*$P < .05$; **$P < .01$; ***$P < .001$.

HIV-related stigma (n = 42; 7.5%), sexuality- and appearance-related stigma (n = 33; 5.9%), and sexuality- and ethnoracial-related stigma (n = 29; 5.2%). Figure 1 shows a Venn diagram of identity-based intersections, classed into sexuality-, ethnoracial-, HIV-, and other-related stigma (remaining attributions, collapsed for interpretability) among intersectionally stigmatized participants. This figure illustrates the diversity of identity-based attributions: 58.3% (n = 325) of intersectionally stigmatized participants reported at least sexuality- and other-related stigma; 7.4% reported at least race- and HIV-related stigma (n = 41).

Table 2 (and Table B, available as a supplement to the online version of this article at http://www.ajph.org) shows results from adjusted GLMM with repeated measures constructed for each outcome, representing a maximum of 27 762 person-observations.

Participants who reported EIS had higher odds of health care underutilization at a given observation than those who did not (13.0% vs 7.8%; AOR = 1.76; 95% CI = 1.61, 1.93). Compared with participants who identified as White, those who identified as Black or other non-White had respectively lower odds of health care underutilization in

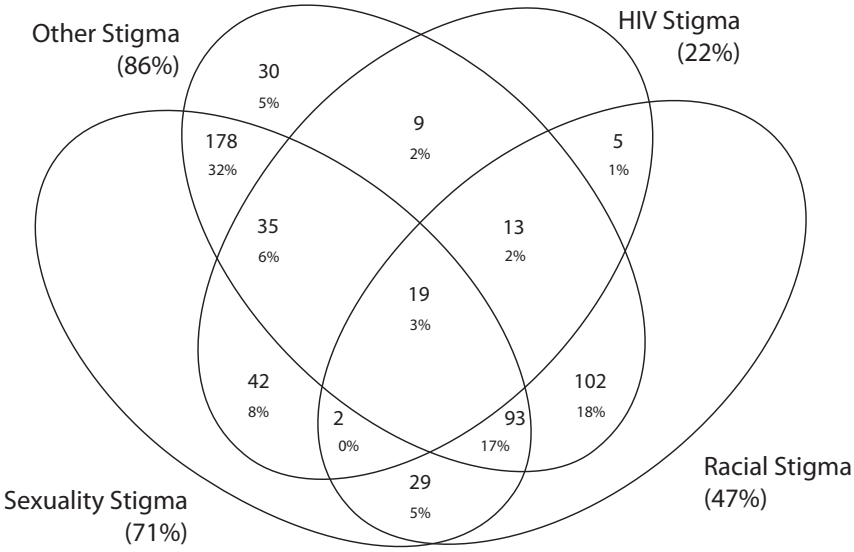

FIGURE 1— Venn Diagram of Intersections of Identity-Related Attributions for Stigma Experienced in Adulthood Among Multicenter AIDS Cohort Study Participants Reporting Intersectional Stigma (n=557): 2008–2009

adjusted models. Low-income participants had higher adjusted odds of health care underutilization than higher-income participants.

Participants who reported EIS had higher odds of depression symptoms than those who did not (18.7% vs 13.4%; AOR = 1.48; 95% CI = 1.38, 1.59). Compared with White participants, those who identified as other non-White had higher adjusted odds of depression symptoms; low-income participants had higher adjusted odds of depression symptoms than higher-income participants.

PWH using ART who reported EIS had higher odds of suboptimal ART adherence than those who did not (13.4% vs 9.9%; AOR = 1.41; 95% CI = 1.26, 1.59). Compared with higher-income PWH, low-income PWH had higher adjusted odds of reporting suboptimal ART adherence.

PWH who reported EIS had lower adjusted odds of HIV viremia than those who did not (7.2% vs 9.0%; AOR = 0.79; 95% CI = 0.69, 0.89). PWH who identified as Black or other non-

TABLE 2— Effects of Experienced Intersectional Stigma (EIS) on Biopsychosocial Outcomes: Multicenter AIDS Cohort Study (MACS), United States, 2008–2019

Outcome	EIS, LSME (95% CI)	No EIS, LSME (95% CI)	AOR (95% CI)
Health care underutilization	0.13 (0.12, 0.14)	0.08 (0.07, 0.08)	1.76 (1.61, 1.93)
Depression symptoms	0.19 (0.18, 0.20)	0.13 (0.13, 0.14)	1.48 (1.38, 1.59)
Suboptimal ART adherence (PWH on ART)	0.13 (0.12, 0.15)	0.10 (0.09, 0.11)	1.41 (1.26, 1.59)
HIV viremia (PWH)	0.07 (0.07, 0.08)	0.09 (0.08, 0.10)	0.79 (0.69, 0.89)
Dyslipidemia	0.82 (0.81, 0.83)	0.80 (0.80, 0.81)	1.11 (1.03, 1.19)
Diabetes	0.12 (0.11, 0.13)	0.09 (0.09, 0.10)	1.40 (1.27, 1.53)
Hypertension	0.59 (0.57, 0.60)	0.52 (0.51, 0.53)	1.30 (1.23, 1.38)

Note. AOR = adjusted odds ratio; ART = antiretroviral therapy; CI = confidence interval; LSME = least-squares means estimates; PWH = people with HIV. Results from generalized linear mixed models with repeated measures. The sample size was n = 1806. There was a maximum of 27 762 person-observations. EIS defined as ≥ 2 identity-related attributions. Models additionally controlled for racial identification, ethnicity identification, low-income status, HIV status (for non-HIV outcomes), age, site, recent sexual behavior, and visit; results for these covariates have been suppressed in Table 2 for ease of interpretability and are available in Table B (available as a supplement to the online version of this article at http://www.ajph.org). AOR values for the "no EIS" group are the referents for each model (AOR = 1.00).

White had higher adjusted odds of HIV viremia than White PWH. Low-income PWH had higher odds of HIV viremia than higher-income PWH.

Participants who reported EIS had higher odds of dyslipidemia than those who did not (81.9% vs 80.3%; AOR = 1.11; 95% CI = 1.03, 1.19). HIV-negative participants had lower odds of dyslipidemia than PWH. Compared with White participants, those who identified as Black had lower odds of dyslipidemia.

Participants who reported EIS had higher odds of diabetes than those who did not (12.2% vs 9.1%; AOR = 1.40; 95% CI = 1.27, 1.53). Compared with White participants, those who identified as Black or other non-White had higher adjusted odds of diabetes; Latinx participants had higher odds of diabetes than non-Latinx participants, and low-income participants had higher odds of diabetes than higher-income participants.

Participants who reported EIS had higher odds of hypertension than those who did not (58.6% vs 52.1%; AOR = 1.30; 95% CI = 1.23, 1.38). Compared with participants who identified as White, those who identified as Black had higher odds of hypertension. Participants who identified as Latinx had lower adjusted odds of hypertension than non-Latinx participants.

In post hoc models constructed to assess outcome by time interactions, we found no significant differences in slope of each of the 7 outcomes over time by EIS (data not shown). Figure A (available as a supplement to the online version of this article at http://www.ajph.org) shows plots of regressed least-squares means estimates of outcomes over time by EIS group, highlighting mean differences in outcomes, but similarity in trajectories, between groups.

TABLE 3— Effects of Relationships Between Black Ethnoracial Identity (Predictor), Experienced Intersectional Stigma (Mediator), and Persistently Uncontrolled Outcomes (Outcome): Multicenter AIDS Cohort Study (MACS), United States, 2008–2019

Excess Mean Ratio	B (Wald 95% CI)	% (95% CI)
NDE+NIE		
Natural direct	0.13 (0.002, 0.26)	80.86 (60.87, 100.86)
Natural indirect	0.03 (0.01, 0.06)	19.14 (−0.86, 39.13)
CDE+PE		
Controlled direct	0.13 (−0.003, 0.26)	77.23 (56.45, 98.01)
Portion eliminated	0.04 (0.02, 0.06)	22.77 (1.99, 43.55)
TDE+PIE		
Total direct	0.11 (−0.02, 0.24)	65.27 (33.34, 97.20)
Pure indirect	0.06 (0.02, 0.09)	34.73 (2.80, 66.66)
NDE+PIE+IMD		
Natural direct	0.13 (0.002, 0.26)	80.86 (60.87, 100.86)
Pure indirect	0.06 (0.02, 0.09)	34.73 (2.80, 66.66)
Mediated interaction	−0.03 (−0.06, 0.01)	−15.60 (−39.92, 8.73)
CDE+PIE+PAI		
Controlled direct	0.13 (−0.003, 0.26)	77.23 (56.45, 98.01)
Pure indirect	0.06 (0.02, 0.09)	34.73 (2.80, 66.66)
Portion attributable to interaction	−0.02 (−0.05, 0.01)	−11.96 (−30.54, 6.62)
4-way		
Controlled direct	0.13 (−0.003, 0.26)	77.23 (56.45, 98.01)
Reference interaction	0.01 (−0.004, 0.02)	3.63 (−2.94, 10.21)
Mediated interaction	−0.03 (−0.06, 0.01)	−15.60 (−39.92, 8.73)
Pure indirect	0.06 (0.02, 0.09)	34.73 (2.80, 66.66)
Total	0.17 (0.03, 0.30)	. . .

Note. CDE = controlled direct effect; CI = confidence interval; IMD = mediated interaction (component effect attributable to both interaction and mediation); NDE = natural direct effect; NIE = natural indirect effect; PAI = portion attributed to interaction; PE = portion eliminated; PIE = pure indirect effect; TDE = total direct effect. Results from a causal mediation model (Poisson distribution) using 4-way decomposition to assess total, direct, indirect, and interaction effects. The sample size was n = 1633. EIS is composed of the sum of identity-related attributions. Persistently uncontrolled outcomes is composed of the sum of uncontrolled diabetes, dyslipidemia, hypertension, health care underutilization, and significant depression symptoms that occurred at least twice, respectively, between 2008 and 2019. The model is adjusted for sociodemographics (low-income status, self-identified Hispanic/Latinx ethnicity, bisexual behavior, study site, age, and HIV status).

Table 3 shows results from causal mediation analyses, demonstrating a positive association between Black ethnoracial identity and persistently uncontrolled biopsychosocial outcomes (natural direct effect = 0.133; 95% CI = 0.002, 0.264). The pure indirect effect (mediation by intersectional stigma of the relationship between Black ethnoracial identity and persistently uncontrolled biopsychosocial outcomes, attributable to mediation but not interaction) was significant (0.057; 95% CI = 0.022, 0.092). More than one third (34.7%) of the effect of Black ethnoracial identity on persistently uncontrolled biopsychosocial outcomes was attributable to EIS. Estimates of the portion

eliminated indicate that 22.8% (95% CI = 2.0%, 43.6%) of the effect of Black ethnoracial identity on persistently biopsychosocial uncontrolled outcomes would be eliminated if EIS levels among SMM who identified as Black in this sample were reduced to levels reported by SMM who did not identify as Black.

DISCUSSION

This study extends empirical evidence for the effects of intersectional stigma on health by analyzing associations with NCDs, including diabetes, dyslipidemia, and hypertension, which are increasingly prevalent among PWH. We found that, in a mixed HIV serostatus sample of SMM, the majority experienced stigma in adulthood; a substantial minority reported intersecting identity-related attributions for stigmatization (EIS). These intersections were diverse, with a plurality radiating from sexuality-based stigma. Our results demonstrate that EIS was associated with higher likelihood of future health care underutilization, depression symptoms, suboptimal ART adherence (among PWH), and dyslipidemia, diabetes, and hypertension. Differences in these outcomes were persistent and robust after we adjusted for minoritized statuses. We found that higher rates of persistently uncontrolled biopsychosocial outcomes among participants who identified as Black were substantially attributable to higher levels of EIS, suggesting that efficacious intersectional stigma reduction interventions tailored to the lived experiences of SMM of color, including PWH, are likely to be impactful. Efficacious interventions focused on helping SMM of color cope with EIS have begun to show efficacy on outcomes including ART adherence.[58–60] Our results provide further evidence that larger structural changes are necessary to support wider deployment of these interventions, research on new interventions reducing EIS in discrete settings (such as health care environments), and—most importantly—local, state, and federal antidiscrimination policies and enforcement frameworks that work to eliminate EIS in our communities at large. Future research should evaluate how changes in policies intending to minimize EIS inflect population health outcomes.

While intersectionally stigmatized PWH reported higher odds of suboptimal ART adherence, their odds of HIV viremia were lower than those of their counterparts. This counterintuitive finding has not been seen, to our knowledge, in previous literature and may reflect the low prevalence of HIV viremia in the study sample overall, limitations of ART adherence measures, adjustments for minoritized statuses, and efficacy of ART regimens when adherence is suboptimal.[61] Otherwise, results from this prospective study are consistent with findings on relationships between EIS and mental health, health care underutilization, and ART adherence,[62–64] and with emergent findings showing associations between experienced stigma and hypertension in Black-identifying adults[65] and experienced stigma and allostatic load among Puerto Rican adults.[37] Experienced stigma in non-HIV health care settings has also been associated with health care underutilization and lower non-HIV medication adherence.[46,66] Results provide additional support for research identifying intersectional stigma as a key mediator of relationships between minoritized status and distress,[54] indicating that minority stressors may inflect myriad biopsychosocial outcomes over the life course.

Limitations

This study contains limitations, and findings should be interpreted cautiously. The MACS is not nationally representative. However, as the most longstanding community-based cohort of SMM in the United States, the MACS provides a well-characterized sample of aging PWH and HIV-negative SMM living with diagnostically validated NCDs, while minimizing the potential selection bias and limited variance that clinic-based cohorts confer on biological outcomes. MACS recruitment efforts historically targeted gay and bisexual men[67]; gender identity was not assessed at baseline, limiting our ability to assess differential experiences of intersectional stigma among transgender and nonbinary people, including those who underwent gender transition after enrollment.

While the intersectional stigma measure relied on the validated, 2-stage process developed by the Major Experiences of Discrimination Scale creators,[68] it was only operationalized for 1 timepoint; analyses cannot account for EIS after the index visit. By accounting for retrospective experiences of experienced stigma, the measure was subject to recall bias; it does not encompass internalized and anticipated stigma or structural stigma, restricting findings to a limited form of experienced stigma (active discrimination) and limiting our ability to assess societal-level conditions, like stable housing, that contribute to outcome disparities.[69] Experienced stigma may not be easily identified or may go unnoticed by minoritized people as they occur; for these reasons, intercategorical measures may be more suitable.[70,71] Other identity-related attributions for stigma (e.g., sex work, substance use, or

write-in options) were not elicited, limiting available options; furthermore, participants could choose only the top 3 identity-related attributions for each stigmatization by setting. Self-reported ART adherence and health care underutilization were subject to recall and social desirability biases. The income measure used increments of $10 000 and did not assess household size, limiting our ability to characterize whether participants met federal poverty level criteria.

Public Health Implications

Pathways between intersectional stigma and biopsychosocial outcomes are only beginning to be empirically elucidated, particularly within SMM assessed prospectively.[2,25] Our findings demonstrate that intersectional stigma is a powerful and durable driver of health disparities among SMM over the life course and suggest that mechanisms by which intersectional stigma affects HIV care continuum outcomes may operate similarly for SMM along the NCD care continua. Future work should build on new research quantifying both intersectional stigma[71,72] and the NCD continua of care[73–75] to assess pathways between social position, intersectional stigma, psychosocial health, and NCD outcomes among PWH. Our results estimating that almost one quarter of the disparity in persistently uncontrolled biopsychosocial outcomes among participants with Black ethnoracial identities could be eliminated if intersectional stigma levels in this group were reduced to levels reported by their counterparts reveals a critical need for intersectional stigma reduction interventions targeting comorbidity management among SMM, particularly SMM of color. AJPH

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