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Harambee! 3.0: Addressing HIV-Stigma and Increasing HIV-Testing in Three African Immigrant Communities in King County

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ABSTRACT

Background

In King County, Washington, the new HIV diagnosis rate is 10-times higher among African immigrants than the general population. Many African immigrants report never testing for HIV due to various reasons, including inaccessible testing, stigma around HIV and testing, and concerns over jeopardizing their immigration status.

Objectives

We partnered with the Ethiopian Community in Seattle, the Eritrean Health Board, and the Congolese United Foundation to deliver community-based HIV testing via health fairs at faith-based organizations in King County. We also worked to address community-level HIV-related stigma HIV through pilot implementation of an existing workshop intervention.

Methods

We held four health fairs from September 2023 to April 2024 at three faith-based organizations, including free point-of-care HIV and other health screenings. Participants completed questionnaires related to sociodemographics and HIV testing history and stigma. Additionally, we adapted and piloted a faith-based HIV stigma reduction intervention called Project FAITHH.

Results

There were 105 health fair attendees and 11 Project FAITHH workshop participants across the three communities. Sixty (52%) were women, sixty-two (54%) were from Ethiopia and Eritrea, and eighty-five (74%) had health insurance at the time. Seventy-two (69%) participants underwent HIV testing at the health fairs. Commonly perceived barriers to accessing HIV testing include fear of discovering their results, concerns about privacy and confidentiality, and anxiety about HIV-related stigma.

Conclusions

Building relationships between academic researchers, community organizations, and faith-based organizations can improve the acceptability of and access to HIV testing among African immigrant communities by addressing perceived barriers to HIV testing.

KEYWORDS

HIV/AIDS, Screening, Health Fairs, African Immigrants, HIV Stigma, HIV Testing, Faith-based Organizations

INTRODUCTION

HIV remains prevalent in the United States (U.S.), where an estimated 31,800 new infections occurred in 2022, and communities of color, including immigrant communities, face a disproportionate burden of HIV in the U.S.[1]. In King County, WA, a priority jurisdiction for U.S. efforts to end HIV, African immigrant individuals experienced a new HIV diagnosis rate of 38.8 per 100,000 in 2021-2022[2], far higher than the county average of 7.9 per 100,000[2]. While recently, these rates have decreased among men who have sex with men (MSM), largely White MSM, in King County, the rates are increasing among African immigrants[3]. This pattern is mirrored nationally as well. Nationally, the proportion of new HIV cases among foreign-born individuals grew from 23% to 34% between 2006 and 2015, with African immigrant individuals representing the largest share, despite comprising only 8% of the population[4,5]. Throughout the U.S., and in King County, WA, African immigrants are more likely to receive a late HIV diagnosis, and many report never having tested before[2,4,6,7]. However, once diagnosed, people in these communities tend to do better in the later stages of the HIV care continuum and have among the highest viral suppression rates compared to their U.S.-born counterparts[2]. Early HIV testing remains a key bottleneck in HIV prevention and care for African immigrant communities in the U.S., with intersectional stigma—especially related to HIV and marginalized identities—being a significant obstacle[8,9].

In 2019, the U.S. The Department of Health and Human Services released the “Ending the HIV Epidemic: A Plan for America (EHE)”, a roadmap that serves to support the jurisdictions most impacted by HIV. The goals of EHE are to reduce the rate of new HIV infections by 75% by 2025 and by 90% by 2030, detailed through work in four pillars: Diagnose, Treat, Prevent, and Respond[10]. EHE has identified 48 counties as priority jurisdictions, which includes King County, WA, to receive EHE funding and garner focus for activities[11]. Early HIV testing, which falls under the Diagnosis pillar of the EHE plan, continues to pose a barrier for African immigrant communities. The epidemiology of HIV transmission in African immigrant communities, where women account for 60% of new HIV infections and most African immigrant men and women acquired HIV via heterosexual routes[7], tends to be different compared to other U.S.-born racial/ethnic groups, where men account for 80% to 95% of new HIV infections, the majority of whom are MSM[2]. Arguably, the experiences of African immigrant communities surrounding HIV are more reflective of the HIV epidemic in sub-Saharan Africa, with stigma being even more intense in the U.S. than back in sub-Saharan Africa today.

Religion has a profound significance in the lives of many immigrant communities in the U.S., and especially among African immigrant communities. African immigrants are more religious, e.g., attending religious services regularly compared to U.S.-born Black and White Americans with 72% of African immigrants agreeing that religion is very important to their lives[12]. Globally, faith-based organizations of varying denominations play a vital role for immigrant and migrant populations through extending health services and education, addressing sensitive public health topics, providing networking resources, and much more[13]. Although faith-based organizations and religious leaders have historically perpetuated stigma around HIV by reinforcing beliefs regarding immorality of sex and sexuality[14], they have a unique place among African immigrant communities, and can play a pivotal role in reducing HIV-related stigma and improve early testing as faith-based organizations build trust with immigrant communities through providing culturally and linguistically appropriate services and care.

Our prior work, Harambee! 1.0, where we offered community-based and integrated HIV testing along with other preventive health services, found that HIV-related stigma was the primary barrier to testing among Ethiopian, Somali, and Eritrean communities in King County, WA[8,15]. In Harambee! 2.0, we explored the mechanisms of how HIV-related and intersectional stigma influence testing behaviors and gathered community feedback regarding effective potential stigma reduction interventions[16,17]. In this current phase, Harambee! 3.0, our goals were to assess the feasibility of hosting health fairs and stigma reduction workshops at faith-based organizations to reduce HIV-related stigma at the community level and to increase HIV screening among the Ethiopian, Eritrean, and Congolese communities in King County, WA. This paper presents our process and descriptive findings from the health fairs, while our stigma reduction workshop adaptation process will be reported separately.

METHODS

Overall setting, approach, and positionality/reflexivity

This research took place as part of an academic-community partnership, between the University of Washington (UW) researchers, the YMCA of Greater Seattle (YGS) community health navigators and workers, and the Ethiopian, Eritrean, and Congolese health organizations and faith leaders in the respective communities. This partnership arose from our ongoing work in addressing barriers to HIV testing amongst African immigrant communities in King County, WA. This particular partnership utilized principles of community-based participatory research[18,19]. Specifically, we attempted prioritizing principles of equity (e.g., equitable distribution of financial resources), justice (e.g., representation of community partners in all steps of the research process), and sustainability (e.g., bidirectional capacity-building and commitment to organizational priorities) in this partnership. For an effective partnership, we aimed to incorporate practices of cultural humility, trust, a history of partnerships, shared decisionmaking, capacity-building, bi-directional learning, and a regular process of reflection on project improvement at the partnership level. Community members, including faith leaders, were valued as equal contributors to the conceptualization and implementation of study design, intervention selection, implementation and data analysis, and interpretation and dissemination of findings to both scientific and community audiences. Over half of our study budget went directly to our community partners to support them as active members of the research team, as they contributed to every step of this process. The YGS and UW were each funded directly, with the three health organizations directly supported by the YGS. We acknowledge the systemic barriers in place as each of the health organizations were not funded directly due to varying capacity of each organization as they are largely run by unpaid volunteer staff. The project team, which included the academic researchers (the two primary investigators did not belong to African immigrant communities, though one belonged to South Asian immigrant community), study staff (all members belonged to African immigrant communities, including undergraduate research assistants, except for one who belonged to an East Asian immigrant community), and community partners (all belonged to the African immigrant communities) met regularly during project planning, implementation, analysis, and dissemination.

Community-engagement processes

At the forefront of our community engagement efforts were the YGS community health navigators. The YGS is a non-profit organization that aims to strengthen community and individual health and well-being. They offer empowerment and health promotion programs and services through its 14 branches in the Greater Seattle area, Washington[20]. Specifically, the YGS team liaised with the leaders from the different health organizations, faith leaders, and our research team. YGS worked closely with Sophia Benalfew from the Ethiopian Community in Seattle, Yikealo Beyene, Delina Seyoum, and Rahwa Ghebremichael from the Eritrean Health Board, and Dr. Jean-Jacques Kayembe Kashondo and Lydia Bukonde from the Congolese United Foundation. Additionally, YGS were in contact with Saba Girmay for the Medhane-Alem Evangelical Church for the Ethiopian community, Dr. Astier Alem and Tsegay Berhe of the Eritrean Kidisti Selassie Tewahedo Church for the Eritrean community, and Pastor Jeff Kalombo Mubenga from the Rehoboth Missional Church for the Congolese community.

Collaboration with the three health boards was critical to conduct this Harambee! 3.0 phase. This involved selecting locations to host the health fairs and advertising the health fairs to community members. The health boards were greatly involved in preparing materials for the health fairs including providing feedback on the cultural relevance of the study questionnaires and accurately translating all materials. Additionally, they recruited volunteer interpreters and helped with logistics on the day of the health fairs. Furthermore, members from at least one of the health boards participated in focus group discussions (FGDs) for the Faith-based Intervention to Heal HIV/AIDS (Project FAITHH) curriculum adaptation, theater test, and pilot of the Project FAITHH workshop. Lastly, members of the health boards were directly involved in interpretation and dissemination of findings, developing the points to be emphasized in the discussion section of this manuscript, and revisions of early manuscript drafts.

Selection of health fair locations and timeline of activities

From September 2023 to April 2024, we held four health fairs at three faith-based venues, selected for their cultural relevance to the communities they serve. With support from community health and faith leaders, we conducted site visits 2–3 months prior to assess space availability for services and HIV testing. In addition, community leaders promoted the events through virtual and physical flyers. Each health fair lasted 4–6 hours.

Timeline of activities

The first health fair was hosted on September 23, 2023, and the fourth health fair was hosted on April 20, 2024. The fourth health fair, hosted with the Congolese United Foundation, was the only one hosted after a faith-based organization partner underwent the pilot stigma reduction workshop (more details on the timeline can be found in supplementary materials). Concurrently, we implemented a structured process to adapt the Project FAITHH, a stigma reduction workshop, for local use with our three community partners and respective faith-based organizations. Project FAITHH was originally created by the Christian Council of Ghana and adapted for use in rural Alabama church congregations among predominantly U.S.-born Black Americans[21,22]. The workshop is intended to be led by trusted community faith leaders. It implements a multi-level focus of health influencing factors including individual, structural, social, and cultural through discussion based- and interactive activities. After months of iterative curriculum adaptation, the pilot workshop was hosted over two sessions on March 2 and 9, 2024 with faith leaders and community leaders from the Ethiopian and Congolese communities (more details can be found in supplementary materials). Adaptation of the Project FAITHH curriculum will be detailed in a separate manuscript.

Service provision

Various organizations provided point-of-care services, ranging from clinical services (e.g., testing for diabetes and HIV) to depression screenings and referrals, at each health fair (greater details for each service and provider can be found in supplementary materials). All services offered were free of charge and provided anonymously. Participants received a checklist and record of the different provided services and their test results, and participants with abnormal results and no existing primary care provider were offered assistance in setting up an appointment at a local primary care clinic.

Data collection

Participants aged 18 and older were invited to join the study after providing informed consent. They were oriented to the study goals, read the consent documents, and gave verbal consent after their questions were addressed. A study ID was assigned to ensure anonymity and link responses to screening results. Consent documents and questionnaires were available in English, Amharic, French, Kiswahili, and Tigrinya, with translations reviewed for accuracy by native speakers from our community partners. Participants who could not read these languages could request in-person interpretation by a volunteer interpreter.

Study participants were invited to complete two questionnaires, one regarding demographic and general healthcare[23] and the other regarding HIV-related questions; these were used from our prior related work which were further adapted from their sources[8]. Participants self-completed the questionnaires with the option of utilizing in-person volunteer interpreters. Additionally, participants were offered HIV testing. A study identification number was used to link questionnaire data to screening test uptake and results (more details about data collection at health fairs can be found in supplementary materials). This method of linkage, between sociodemographic and HIV-related data collected from the two questionnaires, is significant in reporting patterns of HIV health depending on identities, informing culturally appropriate interventions, and identifying vulnerable populations[24]. In addition, this data informs our project goals by assessing participants' willingness to partake in point-of-care HIV testing in faith-based organizations. Study data were collected on paper forms and later entered and managed using REDCap[25].

We also collected data during the Project FAITHH pilot workshop after informed consent. The same demographic and general healthcare questionnaire was offered at the start of the workshop. Additionally, we also administered a HIV-related Bogardus social distance scale (SDS), which empirically measures people's willingness to partake in social contacts of varying degrees of closeness with someone living with HIV, post-workshop[26]. The SDS is a critical tool in evaluating participants' perceptions and potential stigmas relating to PLWHIV. In particular, assessing these perceptions and potential stigmas after participating in the workshop. We used a study identification number to link the questionnaires to the SDS results (more details can be found in supplementary materials). All study data were collected on paper forms and later entered and managed using REDCap.

Data Analysis

We calculated descriptive statistics and summaries for participant demographics, access to health care indicators, HIV testing history, and attitudes toward people living with HIV through the two questionnaires, noting that we remove missing data from these statistics. We calculated HIV testing uptake as the percentage of study participants who accepted HIV testing divided by overall participants in the health fair. We classified blood pressure and blood testing results based on national guidelines[27–29]. We report results for general health care, HIV, and non-communicable disease (NCDs) outcomes.

We calculated similar descriptive statistics and summaries for participants of the Project FAITHH pilot workshop based on results from the demographic and general health care questionnaire. The results for the SDS are detailed in a separate manuscript.

Dissemination

To better engage community partners in data analysis, interpretation of findings, and in this report, we hosted an end-of-project celebration with food on September 21, 2024 attended by all three community partners and religious leaders. Preliminary data analyses were presented to the community partners, including tables and figures, to discuss synthesis and interpretation of the data. The built consensus on findings by community partners explicitly guided the discussion points that we felt were crucial to include in this paper, as well as our next steps.

RESULTS

Characteristics of health fair participants and Project FAITHH participants

One hundred and five people accessed at least one service across the four health fairs, with a median of 25 people attending each health fair (**Table 1**). Seventy-two (69%) participants tested for HIV. Blood pressure screening was the service most frequently accessed (92, 88%), followed by blood glucose screenings (73, 70%), and hemoglobin A1C blood screenings for diabetes (26, 25%). Eleven individuals participated in the Project FAITHH pilot workshop (**Table 1**; detailed descriptions of workshop participants can be found in supplementary materials).

Health fairs

One hundred and five people completed at least one of the study questionnaires (**Table 1**). Approximately half of participants were aged >60 years (50%, Table 1) and women (52%). Thirty percent of participants were born in Eritrea, and Tigrinya (37%) and Amharic (32%) were the most common languages spoken at home. Ninety-two percent identified a religious affiliation with most identifying as some type of Christian. Twenty-three percent had immigrated to the U.S. in the past five years.

Prior engagement with U.S. healthcare system

For the health fairs, the majority of participants currently had health insurance (71%) and had a primary care provider (59%, **Table 2**). Most participants (62%) reported having their last routine checkup within the last year. Additionally, the majority (83%) reported having received the COVID-19 vaccine(s), eighteen (17%) participants received two doses, and fifteen (14%) received three doses.

Uptake of HIV Testing

Among the 105 study participants, 72 (69%, **Table 3**) underwent point-of-care HIV testing, one of whom tested positive and was referred for engagement in HIV care. Forty-one (39%) of the study participants had tested for HIV before, 15 (14%) had not tested for HIV before, and 49 (47%) did not disclose whether they had tested for HIV before or not. Of those who had disclosed having been HIV tested before, 18 (44%) had not tested in the last five years. Uptake was slightly higher among women (53%) than men (46%). The most common perceived barriers faced to accessing HIV screening reported by our participants included not wanting to know their results, worried about privacy and confidentiality, and worried about HIV stigma (**Table 4**).

Non-communicable diseases screening results

Of the ninety-two participants who underwent hypertension screening, 30 (33%) had a blood pressure reading above 140/90 mmHg (i.e., in the hypertensive range) and another 16 (17%) had a blood pressure reading above 130/80 mmHg and below 140/90 mmHg (i.e., in the pre-hypertensive range; **Table 5**). Of the seventy-three participants who underwent diabetes screening, seven (10%) had non-fasting glucose results greater than 200 md/dL, and of the twenty-six participants who underwent A1C screening, 6 (23%) were in the prediabetic range of hemoglobin A1C 5.7%-6.4% and nine (35%) were in the diabetic range of greater than 6.5%. The results of the five participants who underwent total cholesterol screening ranged from <100 mg/dL to 168 mg/dL, and HDL levels from 33 mg/dL to 42 mg/dL. Of the eleven participants who underwent BMI screening, the results ranged from 22.4 to 32.1. Seven of the 89 participants (8%) who completed the PHQ-2 questionnaire had positive screens for depression and were referred to a local provider.

HIV stigma scale results

In regards to the HIV stigma scale, most participants reported low levels of stigma (**Figure 1**). “Living with HIV would bring shame to the person’s family” had the least amount of agreement (15%), while “individuals should be treated the same by their community regardless of their HIV status” had the most amount of agreement (85%).

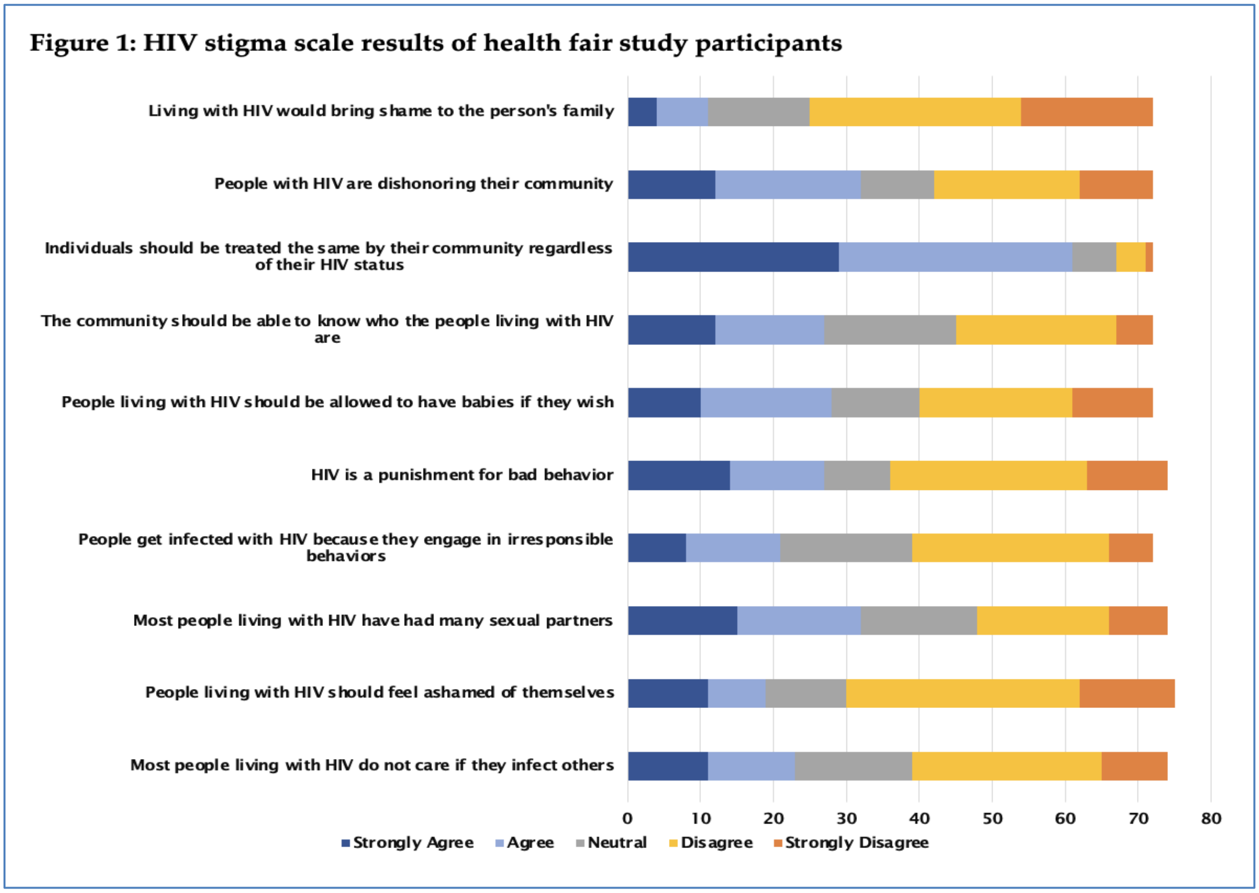

Figure 1: HIV stigma scale results of health fair study paticipants

* There were 33 out of 105 (31%) health fair participants that did not complete the HIV stigma scales across the three communities

Discussion

In this Harambee! 3.0 phase, we demonstrated the feasibility of integrating HIV screenings via health fairs at faith-based organizations. Most health fair participants were African immigrants, spoke a language other than English at home, were older, women, and noted a religious affiliation. Given that religion and religious organizations play such a large role in

African immigrants' communities in the U.S.[13], working closely with these organizations is important to improve the health of these communities.

Majority (69%) of the participants underwent HIV testing at the health fairs in this study, which was within the range of uptake of the NCDs screenings. Our results show that HIV testing offered in a faith-based venue along with other health screenings is largely acceptable. Compared to our prior work, Harambee! 1.0, which saw 56% of participants accept HIV testing, so uptake of HIV testing when offered in a faith-based venue was comparable to slightly higher than in largely residential settings[8]. In a similar community-based intervention targeted towards African and Caribbean immigrants conducted in Philadelphia, where HIV testing was also bundled with NCDs screenings, the HIV testing uptake was very high (92%)[30]. Regarding HIV testing uptake in other immigrant communities in the U.S., for example, a study among Latino adults reported that 60% had ever been tested[31]. HIV stigma was relatively low in our study, and while no direct comparisons in the literature exist, it seems to contrast high perceived stigma among African immigrants living with HIV in the U.S[32]. Thus, our HIV testing uptake seems comparable to others, but room to improve exists. Efforts to reduce community-level stigma against HIV and HIV testing may improve HIV testing uptake, and stigma reduction efforts carried out in conjunction with religious organizations and leaders at faith-based venues can provide a culturally-acceptable forum for HIV testing[33]. Our work benefited from a fruitful path of community partnerships to support improving HIV testing and, subsequently, HIV care and prevention efforts.

Our work identified common themes for influencing HIV screening behaviors and HIV-related stigma among the Ethiopian, Eritrean, and Congolese communities in King County, WA. Firstly, religious leaders are influential gatekeepers in these communities and can be powerful allies in addressing work related to HIV, other stigmatizing conditions, and/or health in general. However, this partnership is complex and requires navigating their historically negative role in perpetuating stigma, especially around HIV. Additionally, strict beliefs around morality intertwine in complex ways with HIV, sexuality, and more[14]. Nonetheless, we consider religious leaders as indispensable partners in this work, and stress the importance of building these partnerships.

Our religious partners emphasized that an important first step for them was to feel that *they* were being educated. By educating these leaders about HIV, from epidemiology to treatment and prevention updates, and HIV-related stigma, they can converse more comfortably about HIV and create platforms in which HIV can be discussed more openly in their communities. Training faith leaders first can also prevent the spread of misinformation about HIV, negative HIV-related stigmas, and fear[34]. We acknowledge that this work requires a fine balance; for example, for one of the faith-based venues, the leadership requested that we remove a question about the number of sexual partners in the last year from our health fair questionnaire, which our study team decided was a reasonable compromise. We recognize that accommodating cultural sensitivity can be in tension with basic principles of HIV-related work, and future work–ours included–needs to be in constant dialogue with partners to not make assumptions and push boundaries when feasible. Overall, faith leaders leading in program implementation can foster positive health outcomes for immigrant communities, and strengthen their roles as intermediaries between their community and local government, social, and healthcare services[13].

Second, activities for the African immigrant communities also need to be more approachable and accessible or, fundamentally, more culturally relevant for their communities. Cultural relevance in this context entails the overall approach to the event that celebrates these communities[35]. For example, hosting community gatherings that mimic familiar gatherings hosted in their respective home countries may be more appealing for these immigrant community members. Food and music are often central to such family gatherings, and should be better incorporated into events held in the U.S. for these communities[34–36]. Furthermore, these community gatherings can highlight multiple beneficial topics such as health screenings, family workshops, insurance information, etc.. Offering additional incentives such as gift cards can encourage members to get together. Involvement of religious and community leaders for planning from the work's inception is integral. It is important to note the challenges with providing culturally relevant activities, for example, as food is often an element not supported by funders. Relatedly, our funding mechanism did not support the three health organizations directly. This in itself comments on how traditional funding institutions need to incorporate capacity-building, such as providing fiscal training, to better support grassroot organizations' access to these funding opportunities, thereby preventing greater disparities within funding recipients.

Third, we learned that having health services providers from the community themselves, present at the health fairs was also key to the success of the health fairs and uptake in health services. We acknowledge structural barriers in the current U.S. healthcare workforce results in inadequate representation of the various African immigrant communities among U.S. healthcare workers[37]. As well as the conundrum of wanting members of your community present for some healthcare-related experiences but not for potentially sensitive or stigmatized elements (e.g., for HIV testing or sexual history taking). As with working with religious leaders, navigating these nuances can be difficult, but it is the best path forward for meaningful community-engaged work.

Fundamentally, by considering these elements, activities meant for African immigrant communities can be celebrations where community members can learn and grow together.

HIV is undoubtedly an important issue for African immigrant communities; however, at times, it can feel stifling to focus so heavily on HIV only. Indeed, as the demographics of African immigrant communities change, and more of the second generation engages in the U.S. healthcare system, the more our healthcare settings need to be better prepared to meet their diverse needs. Non-HIV findings from our health fairs can help here. About a third of the participants appeared hypertensive or diabetic, which is similar to a study done in Baltimore regarding cardiovascular disease among West African immigrants[38], and in range with other findings from the literature[39]. Most had health insurance, a primary care doctor, and had been seen in the last year for a routine care visit. They also appeared to have largely received COVID-19 vaccinations and to have access to COVID-19 testing. One element that is often overlooked among African immigrant communities is mental health[40]. Nearly 10% of the participants who underwent the depression screening tool screened positive. Mental health services and care among African immigrants in the U.S. are greatly underutilized and do not cater to the unique lived experiences of this population (e.g., war, political unrest, natural disasters, extreme poverty, etc.)[37]. Creating and implementing culturally significant mental health services and interventions is vital to addressing this disparity in care in the U.S. For example, work conducted in St. Paul, Minnesota serves to improve immigrant refugee mental health outcomes in Somali communities in the U.S., through developing culturally relevant, trauma-informed, integrated services co-led by community members to uplift community building and engagement[41–43].

Limitations

While we are proud of our partnerships, this work has some limitations. First, turnout at the health fairs was relatively low, and strategies to increase attendance should be considered for future efforts. Our small sample size deterred us from performing potentially meaningful statistical analyses, for example between HIV and non-HIV measures. Consequently, this limits the generalizability or transferability of our work. Second, young adults, who may be at higher HIV risk[44], were greatly underrepresented. Engaging youth earlier in planning and utilizing social media for outreach could improve their participation. Thirdly, our initial goal was to conduct one health fair before and another after the Project FAITHH pilot workshop to compare attendance and HIV testing uptake; however, delays in workshop implementation prevented us from achieving this objective. Additionally, while we administered the SDS post-workshop, we did not administer it prior to the workshop, therefore, we do not have more definitive data on how the workshop impacted participants' attitudes towards HIV. We also did not provide an opportunity for direct participant feedback, such as quotes or testimonials, during or after project implementation. Collecting this feedback can personalize project findings and reinforce significance, something we will strive to include in our future work. Lastly, our work may have some biases; social desirability may have biased the faith leaders participating in the Project FAITHH pilot workshop to respond favorably to the HIV stigma scales.

Conclusion

In conclusion, while greater than two-thirds of health fair participants underwent HIV testing at the faith-based venues, more work needs to occur to improve acceptability of and access to HIV testing among African immigrant communities. Perceived barriers to HIV testing included HIV-related stigmas and fears related to the confidentiality of HIV test results. Our adapted and piloted Project FAITHH workshop may be effective in helping to address community-level HIV stigma through faith-based communities, to improve HIV testing among African immigrants.

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Ethics Statement

Ethical approval for study and informed consent procedures was obtained from the University of Washington Institutional Review Board (Study # 00003046). All participants provided oral informed consent. Oral consent was obtained to preserve the anonymity of study participants.

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Table 1: Sociodemographic characteristics of health fair and Project FAITHH study participants, September 2023 to April 2024

Variable	**Subcategory**	**Total participants (n=116)**	**Health fair only participants (n=105)**	**Project FAITHH only participants (n=11)**
Age (6 responses missing)	<30-39	30 (26%)	26 (25%)	4 (36%)
	40-49	16 (14%)	10 (10%)	6 (55%)
	50-59	12 (10%)	11 (10%)	1 (9%)
	>60	52 (45%)	52 (50%)	0
Women (7 responses missing)		60 (52%)	55 (52%)	5 (46%)
Country of birth (13 responses missing)	Ethiopia	31 (27%)	28 (27%)	3 (3%)
	Eritrea	31 (27%)	31 (30%)	0
	Democratic Republic of Congo	28 (24%)	20 (19%)	8 (73%)

	Angola	10 (9%)	10 (10%)	0
	U.S.	1 (0.9%)	1 (1%)	0
	Other	2 (2%)	2 (2%)	0
Religious affiliation (6 responses missing)	Christian	47 (41%)	47 (45%)	0
	Evangelical Christian	32 (28%)	23 (22%)	9 (82%)
	Orthodox Christian	12 (10%)	12 (11%)	0
	Protestant Christian	8 (7%)	7 (7%)	1 (9%)
	Catholic	7 (6%)	6 (6%)	1 (9%)
	Other	4 (3%)	4 (4%)	0
Language spoken at home (5 responses missing)	Amharic	37 (32%)	34 (32%)	3 (3%)
	Tigrinya	39 (34%)	39 (37%)	0
	Spanish	1 (0.9%)	1 (1%)	0
	French	33 (28%)	25 (24%)	8 (73%)
	Kiswahili	4 (3%)	4 (4%)	0

	English	30 (26%)	25 (24%)	5 (46%)
	Other	28 (24%)	26 (25%)	2 (18%)
Immigrated within last five years (11 responses missing)	Yes	26 (22%)	24 (23%)	2 (18%)
Ethnic community hosting the health fairs	Ethiopian	-	36	-
	Eritrean	-	29	-
	Congolese	-	40	-

Table 2: Prior engagement with U.S. healthcare of health fair and Project FAITHH study participants, September 2023 to April 2024

Variable	**Subcategory**	**Total participants (n=116)**	**Health fair only participants (n=105)**	**Project FAITHH only participants (n=11)**
Currently has health insurance (12 responses missing)	Yes	85 (73%)	75 (71%)	10 (91%)
	No/Don't know	19 (16%)	19 (18%)	0
Has Primary Care provider (11 responses missing)	Yes	67 (58%)	62 (59%)	5 (46%)
	No/Don't know	38 (33%)	33 (31%)	5 (46%)
Last routine health check up (12 responses missing)	Less than one year ago	73 (63%)	65 (62%)	8 (73%)
	1-<2 years ago	13 (11%)	13 (12%)	0
	2-5 years ago	4 (3%)	4 (4%)	0
	More than 5 years ago	0	0	0

	Don’t know/Never	14 (12%)	12 (11%)	2 (18%)
Have received any COVID-19 vaccines (12 responses missing)	Yes	96 (83%)	87 (83%)	9 (82%)
	No	8 (7%)	6 (6%)	2 (18%)
If yes, how many total doses of COVID-19 vaccine received (66 responses missing)	One dose	2 (2%)	1 (1%)	1 (9%)
	Two doses	23 (20%)	18 (17%)	5 (45%)
	Three doses	17 (15%)	15 (14%)	2 (18%)
	Four (or more) doses	8 (7%)	7 (7%)	1 (9%)
Had a COVID-19 infection in the past confirmed by positive test result (14 responses missing)	Yes	43 (37%)	38 (36%)	5 (45%)
	No	59 (51%)	54 (51%)	5 (45%)

Table 3: Prior engagement to HIV care and point-of-care HIV screening of health fair participants, September 2023 to April 2024

Previous or current HIV testing	**Response**	**N (%)***
Had been tested for HIV before (49 responses missing) (n=105)	Yes	41 (39%)
	No	15 (14%)
If yes, had tested within last five years (1 response missing) (n=41)	Yes	22 (54%)
	No	18 (44%)
Underwent HIV testing at the health fair (n=105)	Yes	72 (69%)
	No	33 (31%)

* Health fair only participants

Table 4: Perceived community barriers faced in accessing HIV screening of health fair and Project FAITH study participants, September 2023 to April 2024

Perceived community barrier to getting tested for HIV (28 responses missing)	**Total participants (n=116)**	**Health fair only participants (n=105)**	**Project FAITHH only participants (n=11)**
Worried about HIV stigma for the individual results	27 (23%)	19 (18%)	8 (73%)
Fear that HIV will bring shame to my family	19 (16%)	13 (12%)	6 (55%)
Worried about privacy and confidentiality	41 (35%)	37 (35%)	4 (36%)
Don’t want to know their results	44 (38%)	39 (37%)	5 (45%)
No barrier	20 (17%)	20 (19%)	0

Table 5: Health screening results among health fair participants completing study questionnaires, September 2023 to April 2024

Variable	**Subcategory**	**N (%)**
Blood Pressure (mm Hg) (n=92 participants)	<120/ and <80	25 (27%)
	120-129 and /<80	21 (23%)
	130-139/ or 80-89	16 (17%)
	>140/ or >90	30 (33%)
Non-fasting Glucose (mg/dL) (n=73 participants)	Normal (<200)	66 (90%)
	Elevated (200+)	7 (10%)
A1C (n=26 participants)	Normal (below 5.7%)	11 (42%)
	Prediabetes (5.7% - 6.4%)	6 (23%)
	Diabetes (6.5% or above)	9 (35%)
Total Cholesterol (mg/dL) (n=5 participants)	Normal (<200)	5 (100%)
	Elevated (200+)	0
HDL (mg/dL) (n=5 participants)	Normal (40+)	2 (40%)
	Low (<40)	3 (60%)

BMI (kg/m^2) (n=11 participants)	Underweight (<18.5)	0
	Healthy (18.5 - 24.9)	2 (18%)
	Overweight (25 - 29.9)	7 64%)
	Obese (>30)	2 (18%)
PHQ-2 Depression (n=89 participants)	Negative (0-2)	82 (92%)
	Positive (3-6)	7 (8%)

* Health fair participants only

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