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African American Church Based HIV Testing and Linkage to Care: Assets, Challenges, and Needs

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Abstract

The US National HIV AIDS strategy promotes the use of faith communities to lessen the burden of HIV in African American communities. One specific strategy presented in the strategy is the use of these non-traditional venues for HIV testing and co-location of services. African American churches can be at the forefront of this endeavour through the provision of HIV testing and linkage to care. However, there are few interventions to promote the churches' involvement in both HIV testing and linkage to care. We conducted 4 focus groups (n=39), 4 interviews, and 116 surveys in a mixed methods study to examine the feasibility of a church based HIV testing and linkage to care intervention in Philadelphia, PA, USA. Our objectives were to examine the: (1) available assets, (2) challenges and barriers, and (3) needs associated with church-based HIV testing and linkage to care. Analyses revealed several factors of importance including the role of the church as an access point for testing in low-income neighbourhoods, challenges in openly discussing the relationship between sexuality and HIV, and buy-in among church leadership. These findings can support intervention development and necessitate situating African American church based HIV testing and linkage to care interventions within a multi-level framework.

Keywords

HIV/AIDS; HIV testing; linkage to care; faith-based organisations; African Americans

Introduction

In 2011, the HIV infection rate among African Americans in the USA was a staggering eight times that of Whites (Centers for Disease Control and Prevention 2012). The US Centers for Disease Control and Prevention (CDC) estimates that approximately 21% of infections among African Americans are currently undiagnosed (CDC 2012). HIV testing and linkage to care remains a crucial aspect of a comprehensive approach to HIV risk reduction for African Americans. HIV testing is also a critical component of prevention efforts as research indicates that when people learn they are infected, they may take additional steps to protect their own health and prevent HIV transmission to others (Marks, Crepaz, and Janssen 2006). In addition, prompt linkage to care helps ensure people living with HIV receive the life-

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saving medical care and treatment which will aid in their quality of life and help to reduce their risk of transmitting HIV to others (Marks et al. 2005; Bhaskaran et al. 2008; Cohen et al. 2011).

Efforts are already underway to expand HIV testing and linkage to care. The US National HIV/AIDS Strategy presents one approach to improving linkage to care via co-location of testing and care services (The White House Office of National AIDS Policy (WHONAP) 2010). Another encouraged approach is the use of non-traditional sites to provide HIV screening and referral services (WHONAP 2010). Encouraging non-traditional sites such as community centres, mental health centres, and/or faith-based institutions to become trained and offer HIV testing, referrals, and linkage to care would aid in building service provider capacity and connect people to the care and treatment they need to address HIV (WHONAP 2010).

Faith communities have long represented a social gathering site that is strategically placed to assume responsibility for the promotion of HIV testing in high-risk US communities (Lincoln and Mamiya 1990; Chatters et al. 2009). Data suggest that religion and spirituality greatly shape individuals' social context, with programmes and interventions that incorporate religious institutions and spiritual beliefs having a positive influence on health (Jeffries et al. 2014). In the USA, African American church continues to play a valuable role in the lives of African Americans, and the importance of religion among this population is well documented (Lincoln and Mamiya 1990). African Americans are much more likely to report a religious affiliation and confirm the importance of religion and spirituality in their lives than any other racial or ethnic group (Sahgal and Smith 2009). In addition African American churches have a pivotal role in the African American community as a cultural cornerstone and remain highly regarded and trusted (Sahgal and Smith 2009; Liu 2009; Eke 2010). Faith-based HIV interventions have proven to be effective not only for prevention, but also with long-term outcomes of disease burden in individuals living with HIV (Jeffries et al. 2008). This holds great significance for African Americans and the church.

While several studies have looked at the perspectives of African American churches on HIV prevention alone (Nunn et al. 2012; Berkley-Patton et al. 2010; Coleman et al. 2012), far fewer have looked at their perspectives on HIV testing and linkage to care. HIV testing and linkage to care often requires unique resources and partnerships outside of the church (Berkley-Patton et al. 2012). Yet it is still unknown what critical concepts are vital to consider in developing interventions to promote church engagement in HIV testing and linkage to care.

HIV testing is a critical approach to church-based HIV efforts as it is possible that HIV testing may serve as a launch point for linkage and social support of retention in care, targeted prevention efforts to HIV negative individuals at high risk for contracting HIV, and comprehensive HIV risk reduction interventions in faith settings. However, little is known regarding the assets, challenges, and needs of African American churches in regards to HIV testing and linkage to care specifically. Thus, the primary purpose of this study is to assess the feasibility of an African American church based HIV testing and linkage to care

intervention via the examination of the assets, challenges, and needs of African American churches from the perspectives of pastors, lay leaders, and congregants.

Methods

A mixed methods convergent parallel design (Creswell et al. 2011) was used to examine the feasibility of a church-based HIV testing and linkage to care intervention. A convergent parallel design is employed in order to merge quantitative and qualitative data that is collected at the same time (Creswell and Plano Clark 2011). This design allowed for a fuller understanding of participants' experiences than employing either methodology exclusively. We engaged a total of four churches, two with HIV testing already in place (Church 1 and Church 2) and two without (Church 3 and Church 4). This provided both retrospective data from the churches that had already implemented HIV testing and prospective data from churches looking to implement HIV testing in the future. This enhanced our view of the spectrum of factors to consider in designing a church-based HIV testing and linkage to care intervention. Interviews with four pastors, 39 church leaders, and 116 congregants were conducted in total. Prior to the initiation of the study, the Institutional Review Board of Johns Hopkins University approved the study protocol. We obtained the informed consent of all participants. Focus group participants were given a pseudonym while survey participants were assigned a random number to protect their identity.

We used a purposive sampling technique and employed several strategies to recruit participants, including handing out postcards, reaching out to African American church leaders and congregants, attending several events designed for faith leaders, and going door-to-door to churches in the target areas to identify the potential churches for participation. We identified churches that had HIV testing already in place and approached the pastors of those churches for further screening based on our inclusion and exclusion criteria. If the church met the enrolment requirements we interviewed and obtained consent from the pastor to make announcements to recruit church leaders as well as congregants for screening and participation. We followed the same procedure for churches identified as not having HIV testing. As an exploratory study with a primary aim of depth rather than breath we limited our sample to four churches. Extensive involvement in the church community allowed us the ability to target churches that were likely to meet our inclusion criteria.

Inclusion criteria for the churches from which participants were recruited included that the church must have an African American population of greater than or equal to 60%, the church must reside in the metropolitan area, must reside in one of the three zip codes with the highest incidence of HIV, and must have a pastor willing and able to provide support for collecting data within the church.

Inclusion criteria for the pastor was that he or she must be over the age of 18, be the self-reported head pastor or minister of the church, and be willing and able to provide written consent for participation. Church leaders were identified by the pastor and also had to be over the age of 18, self-reported leader within the church and confirmed by the pastor, and willing and able to provide written consent. Inclusion criteria for survey participants

included that they must be aged 18 or older, a member of the church for at least one month and willing and able to provide written consent.

Data were collected from December 2012 to June 2013. We conducted 4 interviews with pastors, 4 focus groups with church leaders (n=39), and 116 surveys with congregants. Interview and focus group participants were compensated $50, and survey participants were compensated $30 for their time. The interview/focus group guides, and survey were developed by the investigators via a comprehensive review of literature and extensive previous work with church based populations. Semi-structured interview and focus group guides were developed to allow for flexibility in our line of questioning while maintaining the in-depth nature of qualitative inquiry. Example questions included: (1) tell me about some of the barriers and facilitators to HIV testing and linkage to care in your church? (2) What would you like to see in a church based HIV testing and linkage to care programme? (3) What do you currently know about HIV, AIDS, and linkage to care? (4) What resources do you have in place that could support HIV testing and linkage to care? (5) What resources are you lacking to support HIV testing and linkage to care in this church? Participants with HIV testing within their church were asked to reflect upon these questions retrospectively providing us with both perceived and actual assets, challenges and needs faced upon implementing HIV testing and linkage to care.

Both focus groups and interviews were facilitated and co-facilitated by the lead investigator, and/or a professionally trained African American church leader. Focus groups and interviews lasted approximately 1 to 2 hours, were digitally recorded and then professionally transcribed. We then checked the transcripts against the recordings for accuracy and removed any identifiers. Transcripts were then uploaded into NVivo 8 (QSR, 2008) for coding.

The survey consisted of several items from validated scales as well as items developed by the investigators. Specifically we used all 20 items from the Intrinsic Extrinsic Religiosity scale (Gorsuch, 1989; α=.83) to examine religiosity and 12 items from the behavioural risk assessment tool (BRAT) developed by the CDC (Wisconsin, 2000) to examine HIV related risk behaviours all. The 12 items from- item the HIV Stigma scale (Visser et al, 2008; α=. 87) was used to measure levels of HIV stigma, Respondents answer true or false to each item, which is subsequently scored between 0 (low stigma) and 12 (high stigma). We also used 9 items from the Everyday Discrimination Scale (Forman, Williams, and Jackson, 1997; α=.84) to examine levels of experienced racial discrimination. This scale is a 5-point Likert scale ranging from a 0 (never experienced) to 5 (always experienced). We also used 11 items based on the needs assessment to support HIV Ministries in churches developed by the *Balm in Gilead*—a non-profit organisation in Virginia, USA which has focused on equipping churches to address HIV and AIDS for over 20 years (Balm in Gilead 2010). These items were measured on a 4-point scale with a low of 1 (low need) to 4 (high need). Several items were also developed by the investigators, which mirrored the qualitative items, and also included questions about potential topics of interest for the intervention and additional barriers to HIV testing in church settings. Items were constructed using a 5-point Likert scale (1- strongly agree, 5 strongly disagree). We developed these items based off of a review of the faith based HIV literature, extensive work and consultation with the population

of interest, and delivered the items for the final study after pretesting with several church leaders.

Analysis

A convergent parallel design was employed to give us the opportunity to collect the qualitative and quantitative data simultaneously. Once collected, the qualitative and quantitative data were analysed separately as outlined below and merged once the initial analysis was complete. We elected to collect quantitative data to measure the concepts hypothesised to have a role in HIV testing in faith settings. We also elected to collect qualitative data to explore other factors not yet elucidated in the extant literature and to discover the underlying nuances of the quantitative data. This convergent parallel design yielded an in-depth, synergistic, final interpretation of these data, and gave us the ability to assess in what ways the results converged or diverged.

Qualitative approach

Conventional content analysis was used to analyse the qualitative data (Mayring 2004). Content analysis focuses on the contextual meaning of the text and is designed to provide a subjective interpretation of the content of data through the systematic classification process of coding and identifying themes or patterns. Our approach was particularly useful as it allowed for us to draw upon the participants' words and ideas yielding a greater understanding of their needs in designing the intervention. This allows for greater relevance of the findings.

Quantitative Approach

Survey data were entered into SPSS 19 (IBM 2010) for analysis. We summed the scores on each scale and used a predetermined cut-point based upon the scoring system provided by the instruments to rank levels at high, moderate or low. Quantitative data were analysed using descriptive statistics (i.e., frequencies, percents, means, and standard deviations). At this point the qualitative and quantitative data were integrated. Each portion of the data were weighted equally. We used two primary strategies to merge the two sets of results: (1) identified content areas represented in both data sets and compared, contrasted, and synthesised the results in a research team discussion and table, and (2) identified differences within one set of results based on dimensions within the other set and examined the differences within a display organised by the dimensions. We then discussed as a research team how the data merged, diverged, related to each other, and/or produced a more complete understanding (Guba 1981).

We used three primary strategies to merge the two sets of results: (1) identified content areas represented in both data sets and compared, contrasted, and synthesised the results in a research team discussion and table, (2) identified differences within one set of results based on dimensions within the other set and examined the differences within a display organised by the dimensions, and (3) summarised and interpreted the separate results, in a discussion as a research team to examine to what extent and in what ways results from the two types of data converged, diverged, related to each other, and/or produced a more complete understanding. To enhance credibility of the results we used three techniques: member

checking, investigative team journaling, and peer debriefing. The goal of this process was to ensure that the interpretations of the researcher reflect the perspectives of participants.

Results and Discussion

The majority (64.4%) of study participants were female. There was some diversity in age range, however, the majority were between the ages of 46 and 55 (23%) or 55 years of age or older (34%) or older and resided in an urban environment. The majority (66.7%) of study participants reported high levels of religiosity (see Table 1).

Assets

Two primary assets were derived from our analyses. The first was that the church provided a trusted access point for HIV testing, which was uniquely positioned to provide culturally competent care and reduce experiences of discrimination. The second major asset was the strong and sustainable volunteer base.

Trusted access point—In churches with HIV testing, 69.8% of survey respondents felt they had a high level of support when they actually implemented HIV testing, while 75.9% in churches without HIV testing felt the level of support would be high should they implement testing. Paul, a church leader in church 1 with testing elaborated upon this finding by stating, “There’s trust between the church and the community. They feel this is a safe haven so we are the best representatives of how to communicate with others [about HIV testing] where they feel they can trust us.” Timothy, a church leader also in church 1 with testing reaffirmed this in saying,

> “It’s [the church is] one of the most underused assets to reach out to the community; again, that’s the gatekeeper. Folks have different views about the church, but yet if the church comes together and the church starts doing something for the cause of African American people, the community will listen to their voice more so than listen to anybody else.”

In addition 12 interview and focus group participants illuminated the role of the church as an organisation that was well situated to provide culturally competent care that was free of discrimination. Pastor Andrew in church 2 with testing expanded upon this in saying,

> “I’m talking to people who are on welfare about testing. They wait, it [feels] cold. It’s the treatment of the underclass. So for the church to say okay we’re going to provide a service, or a good, or a commodity to this community that’s been historically underserved and they can come to a place [where it] was clean, your people were hospitable, didn’t no one look down on me cause I’m not employed. That’s where I want to get tested.”

Levels of everyday experienced discrimination indicated that 52% of survey respondents reported high to moderate levels of everyday racial discrimination while 44% were living on a household income of less than USD20,000 annually. This may have contributed to their experiences of disenfranchisement, and the church provided a refuge from these experiences. While the Everyday Discrimination tool only measured racial discrimination, the qualitative results indicated that discrimination was also experienced due to social and economic status.

Strong volunteer base—There was a definitive emphasis on the role of volunteers in church-based HIV testing. Fifty-six out of 91 survey respondents in churches with testing felt their church had enough volunteers available to support HIV testing (61.5%). This was in agreement with what participants from churches without testing said about their volunteer base as well, with 38 out of 68 reporting they felt their church had enough volunteers available to support HIV testing. Esther, a church leader in church 3 without testing stated, "Our greatest opportunity I think is the volunteers. I think there's no shortage of people that would be interested in helping." Mary, a church leader in church 4 without testing also added that the volunteers were able to work well together on programmes, saying

> "Volunteers. We do pretty good here as a church working together on different projects. We work pretty good together. We have a core that kind of just works together. We can pull from any group, certain people to work with HIV at different times, so I think…we could do it."

Twenty-one of the 39 church leaders agreed that they were motivated to serve in the area of HIV testing within the church because of their Christian beliefs and values. In alignment with the congregation's involvement in other ministries and programmes, service in some capacity within the churches was standard practice.

Challenges

Overall results highlighted three primary challenges churches faced in integrating HIV testing and linkage to care into their settings: lack of education and training, HIV and homosexuality-related stigma, and silence around discussion of HIV.

Education and Training—Seventy-three of the 116 of survey respondents agreed that a lack of knowledge about HIV in general was a barrier against HIV testing in the church. Churches with testing already in place wanted current and updated information on HIV and AIDS, and churches without testing wanted a more basic understanding of HIV disease. Pastor Noah in church 1 with testing in place spoke of how lack of information impacted churches getting involved in HIV testing. "I think a lot of times in our own communities why people don't respond in a way that you would think or a way you would hope about HIV tests is because a lot of time they are misinformed or uninformed."

When asked what the biggest barrier was to church-based HIV testing, Martha, a church leader in 3 without testing answered, "I think the biggest barrier is knowledge and education…people should be educated so they would--and so we all could get a better understanding of what is really going on [with HIV/AIDS] and what needs to be done." Five church leaders in churches without testing went on to suggest that HIV education for church leaders should be a critical component of an intervention. "I would design an educational package for training for those that would be doing this", Matthew, a church leader in church 4 without testing said, while Michael, another church leader in church 2 with testing said, "We should be having more workshops so we can be more educationally updated with new trends that are going on now with HIV testing." These comments underscore the importance of integrating education about both HIV and HIV testing training in programmes.

HIV and homosexuality-related stigma—Other commonly reported challenges were the judgments expressed by church leaders towards HIV and homosexuality. Despite this, only 15 out of 116 survey respondents reported believing HIV was a punishment for sin, and a relatively low 32 out of 116 believed that views on homosexuality prevent HIV testing and linkage to care in the church. And while 39 of 116 believed that HIV stigma had a significant impact on church based HIV testing, only 26 of survey respondents agreed that Christian beliefs served as a barrier to integrating HIV testing into the church. Overall, levels of HIV stigma were low with only 11 out of 91 of the sample in churches with HIV testing and 14 out of 68 of the survey sample in churches without HIV testing reporting high to moderate levels of HIV stigma.

Nevertheless, HIV and HIV testing were commonly linked to homosexuality. As David, a church leader in church 1 with testing explained,

> "HIV and AIDS the whole thing--if you didn't know about it--it was always a gay man's disease, a gay white man's disease… until Magic got it. Other than that it was like…it ain't affecting us…that's what people thought."

This points not only a common misunderstanding regarding HIV risk but also revealed some of the stigma present towards homosexuality. Miriam, a church leader in church 2 stated,

> "that was a big barrier for even us to get over the hump and to get over homosexuality and really deal with your way of thinking…we had to take away the stigma that everybody that has it [HIV] is gay and everybody that has it did some horrible act to get it, because in the beginning, I even thought HIV was the gay man's disease."

In churches without testing, respondents reported the importance of proceeding with caution in navigating judgment in regards to HIV and HIV testing and linkage to care. Tabitha, a church leader in church 4 without testing stated, "That's what we got to be most careful of, not to be judgmental. You have to be careful because if you do something in the name of the church you have to go according to church doctrine and rules." A pastor reaffirmed the need to be careful about HIV testing and its relationship to doctrine. Pastor Andrew in church 2 without testing stated that, "he or she [the pastor of the church] has struggles theologically with HIV testing, 'cause for him or her it's a theological issue. It's not a social issue. It's not a human issue. It's a theological issue

HIV silence—A clear perceived challenge within the church was discussing HIV openly. To overcome this barrier, church leaders both with active HIV testing services and without, recommended integrating HIV testing into other health initiatives to avoid directly addressing it. Deborah, a church leader in church 1 with testing said, "A health fair. It's a key thing. It's something that you can draw them in and then really focus on educating them on HIV testing…HIV is easier when other conversations are already a part of this conversation of outreach." James, a church leader in church 3 without HIV testing echoed this sentiment suggesting, "Have an outreach, have a health fair and they could have tables testing for HIV, high blood pressure, diabetes. And some churches can have that once a year at their church and have it set up and you can be tested for different things." Despite the potential need for a health ministry, only one out of the four churches had one. Outreach

ministries (programmes that focus on engaging the surrounding community on social issues and evangelism) were much more common, with three out of the four churches having one in place.

An additional challenge related to addressing HIV and sexuality was the issue of offering condoms, and the role abstinence plays in the teachings of church. John, a church leader in church 1 with HIV testing said that, “one of the barriers in the beginning was offering a condom.… And so that was kind of a sticky situation but we actually resolved it and its okay. We just do it privately.” Alexandra, a church leader in church 4 without HIV testing said, “a lot of Black religious leaders do feel strongly that no, you should not have condoms and contraceptives.” Elizabeth, a church leader also from church 4 felt that messages about abstinence had to be integrated, saying, “the church teaches abstinence. That’s what we believe in. But if I was talking to somebody, personally, I would say abstinence, but I’d tell them about a condom.” This provides insight on how to address this challenge by offering condoms privately and not in public forums.

Needs

The primary resources needed to integrate HIV testing and linkage to care included partnerships, funding, and mutual support from the pastor and congregation.

Partnerships—Partnerships with AIDS Service Organisations (ASOs), community-based organisations (CBOs) and individuals in the health professions were often identified as significant needs. For those churches that had already initiated HIV testing, HIV testing tended to have begun at a time when the church had both a medical doctor and registered nurse as members of the congregation. Regardless, participants also felt the need for outside collaboration to provide additional HIV testing and linkage to care support. Pastor Noah in church 1 with HIV testing said, “I believe that every church in every neighbourhood… and other organisations need that partner in their own neighbourhood to take charge of the logistics of HIV/AIDS testing.” Participants in the focus groups felt very strongly about the importance of partnerships, with Eli, a church leader from church 3 without testing stating “if we start it here, let’s share it so other churches can get right on board to partner and we do this as a whole.”

Overall 98 of the 116 of the survey participants were interested or very interested in engaging in community based partnerships to promote HIV testing, with an additional 101 out 116 being interested or very interested in partnering with other faith communities specifically. With an overwhelming majority of churches having begun their HIV ministry or desiring to begin with a partnership with a CBO or ASO, engaging the support of other organisations in the community is a key need.

Pastor initiated mutual support—The mutual support and teamwork of the pastors, leadership, and congregation was also stressed. Pastor Andrew of church 2 said,

> “A pastor’s influence over the church and the congregation within the African American community is still significant. The pastor, the head, it ignites us and we [the church leadership] start. We can do HIV testing and then we start seeing the

> big picture of what we are doing….The pastor is instrumental however, in beginning the process, but because our pastor cares about HIV testing that trickles down to the individuals that are participating, and also to the congregation, also to the community."

However, of the 116 surveyed only 28 members of the sample said their interest in getting tested for HIV would increase if their pastor got tested publically. Interestingly 81 of 116 survey respondents felt their interest in getting tested for HIV would increase if several members of the congregation got tested publically, potentially indicating that the congregation played a greater role in promoting testing. In general, however, it appears to be valuable to have HIV testing support from both the pastor and the congregation in promoting HIV testing and linkage to care.

Funding and space—Another identified need was for funding to support HIV testing and linkage to care, and space to provide for confidentiality. Paul from church 1 with HIV testing in place said, "It is also a challenge in us being able to get more funding. That takes planning and time and capital allocations and things of that nature." Another participant in this focus group, Tamara, echoed this viewpoint by specifically listing out the items needed to implement HIV testing saying, "also money to get whatever like flyers, materials, a website, whatever we need to implement and to get the word out communication-wise." Churches without testing were in alignment with these statements as Caleb, a church leader in church 4 without testing stated, "And you need funding, you need money whether that's outside of the church or within the church because you need supplies." Quantitative data, however painted a contrasting perspective as only 30 of the 116 survey respondents felt the amount of funding for HIV testing was insufficient and only 24 felt finances were a barrier in implementing HIV testing and linkage to care within their church.

Only participants within the churches without HIV testing brought up the barrier of space and confidentiality. Phoebe, a church leader at church 4 stated, "you definitely need space; private, private space." While another church leader at church 3, Nathan said, "people also have to feel that there's some confidentiality to it." However, quantitative results diverged on the issue of confidentiality with 76 of 116 survey participants in churches without testing reporting that they felt they had an appropriate and confidential HIV testing space within the church. In addition, the majority (60/116) of survey participants felt that available space was not a large barrier.

Conclusions

The church offers a trusted and culturally responsive venue for HIV testing and linkage to care for its congregation and community. Our results suggest that it may also be a ready pool of available volunteers who can support HIV testing and linkage to care. Despite these facilitators, it is vital to overcome the challenges of low perceived knowledge about HIV, AIDS and testing, as well as religious norms and doctrine that link both homosexuality and HIV stigma as well as condemn it. Overcoming these barriers, meeting funding needs, the establishment of partnerships with other ASOs or CBOs, and the promotion of a dialogue

between pastors and their congregation about supporting HIV testing and linkage to care are important factors to consider in capacity building.

Although often recognised in the literature as a valued pillar of African American culture (Aaron, Levine, and Burstin 2003; Moore 1991), few studies have explored the role the church plays as a culturally competent HIV service provider. As a critical aspect of African American culture, churches have the capacity to buffer the effects of everyday discrimination experienced by many African Americans. The availability of volunteers is important in that church members trained as HIV testers could provide a sustainable and cost-effective method of expanding testing access.

The barriers to HIV risk reduction in African American churches are well known. Religious doctrine and norms, which condemn homosexuality, mitigate against effective HIV efforts in churches (Francis and Liverpool 2009; Stewart and Dancy 2013). This is also the case with respect to HIV testing and linkage to care. The importance of addressing HIV stigma and discomfort in addressing issues related to sexuality are critical challenges to overcome. Of note are the recommendations Deborah and James, two church leaders made, to couch discussions of HIV within a broader health context and to provide condoms in more private settings.

Funding, space, education, and training are crucial components of developing church-based HIV testing and linkage to care. The literature indicates the importance of funding and training (Berkley-Patton et al. 2012; Coleman et al. 2012) but often overlooks the logistical aspects of space and the opportunity to advance basic HIV education in the training of congregants as certified HIV testers. Two church leaders, Tamara and Caleb expressed a need for funds to support HIV testing; however, survey participants in the general congregation did not report that funds to support HIV testing was a primary barrier. A potential financial solution could be leveraging partnerships with local ASOs and CBOs, which may decrease some of the costs associated with testing and technical assistance.

Because we only sampled from four churches, which had different levels of involvement in HIV testing, our study is limited in its ability to provide data, which can be generalised. In addition, we collected both prospective and retrospective data. For example, churches without HIV testing discussed what challenges they anticipated encountering, while churches with HIV testing discussed what challenges they actually encountered. While we believe this offers a more nuanced approach to the phenomenon of interest it is also possible that this data is limited by its requirement that some participants remember information from the past.

Recommendations for future research would be to examine the effect of culturally tailored interventions to reduce the stigma associated with homosexuality in the African American church community as a foundation for HIV testing initiation. In addition, examining barriers and facilitators at the social, organisational and individual levels would yield a valuable multilevel theoretical framework to design church-based HIV testing and linkage to care interventions. Findings could be used to capitalise on the assets and address the challenges found in this study. For example, interventions could leverage and reinforce the role of the

church and its prominence in the African American community. Also, empowering churches to take a more active role in the health of their congregations and communities is a needed approach. Lastly, findings indicate the potential role church leaders and congregants could have as intervention facilitators and lay health advisors. Church-based HIV testing interventions must provide education and training that focuses on acceptance and non-judgement, dispels ideas that might prohibit members from providing HIV-related services and integrates the spiritual dimensions of care, compassion, and spiritual growth within the context of communicable diseases. In addition, it is critical to explore the option of providing opportunities for churches to link with ASOs and CBOs to garner the training, education and resources needed to support HIV testing and linkage to care.

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Table 1

Participant Demographics by Church

	Church 1 (n=47)	**Church 2 (n=44)**	**Church 3 (n=37)**	**Church 4 (n=31)**
	n (%)	**n (%)**	**n (%)**	**n(%)**
Characteristic				
Gender				
Male	16 (34.0)	20 (45.4)	9 (24.3)	12 (38.7)
Female	31 (66.0)	24 (54.5)	28 (75.6)	19 (61.3)
Age				
18–25	3 (6.6)	11 (24.6)	0 (0)	0 (0)
26–35	5 (10.9)	3 (7.6)	4 (11)	13 (40.8)
36–45	8 (17.2)	6 (13.1)	10 (27.8)	12 (39.2)
46–55	9 (20.0)	16 (36.1)	2 (5.6)	0 (0)
>56	21 (44.3)	8 (18.0)	21 (55.6)	6 (20.0)
Residence				
Urban	33 (69.1)	30 (68.9)	16 (44.4)	18 (59.1)
Suburban	10 (21.8)	9 (19.7)	16 (44.4)	13 (41.9)
Rural	2 (3.6)	4 (9.8)	5 (11.1)	0 (0)
Religiosity				
High	38 (80.4)	25 (55.9)	28 (76.5)	26 (84.0)
Moderate	9 (19.6)	16 (35.9)	7 (17.6)	5 (16.0)
Low	0 (0)	3 (8.2)	2 (5.9)	(0)

Table 2

Survey Results of Assets, Needs, and Barriers Associated with HIV Testing

Theme	Mean Score (SD)	
	Churches with HIV Testing	**Churches without HIV Testing**
Assets		
Trusted access point	3.46 (1.15)	3.45 (1.59)
Strong volunteer base	1.29 (.71)	1.74 (1.07)
Needs		
Partnerships	3.31 (.80)	2.92 (.87)
Funding and space	2.33 (.89)	2.42 (.95)
Pastoral support	2.48 (1.69)	3.52 (1.57)
Barriers		
Education and training	3.13 (1.20)	3.52 (1.58)
HIV & homosexuality related stigma	1.89 (2.3)	2.64 (2.73)
HIV and sexuality related silence	1.73 (2.08)	2.48 (1.87)