Listening to the Voices of Gay and Bisexual Men and Other Men Who Have Sex with Men in Kenya: Recommendations for Improved HIV Prevention Programming

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Young gay and bisexual men and other men who have sex with men (GBMSM) are a key population at high risk for new human immunodeficiency virus (HIV) infections in Kenya; thus, increased efforts are necessary to reduce their health risks. This qualitative study describes recommendations offered by young GBMSM in Kenya regarding the development and delivery of culturally appropriate HIV prevention services. Both young GBMSM Community Members and Peer Educators recommend that future HIV prevention efforts enhance economic empowerment, provide mental health and substance use services, and incorporate arts-based health promotion strategies. In addition, participants recommended that public health professionals increase the ease of access to HIV prevention services for GBMSM and that researchers disseminate findings from HIV prevention research back to the community.

> Keywords GBMSM, Kenya, HIV, mental health

Introduction

Young gay and bisexual men and other men who have sex with men (GBMSM) in Kenya face multiple challenges to their health and wellbeing due to cultural stigma and discrimination (Puryear et al.,

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2020; Kunzweiler et al. 2014; Korhonen et al., 2018; Kunzweiler et al., 2018). One serious health issue faced by young GBMSM in Kenya is high rates of human immunodeficiency virus (HIV) (Sanders et al., 2013; McKinnon et al., 2014; Programme NASC, 2014). GBMSM in Kenya also report high rates of mental health issues and substance misuse, and these health challenges are associated with increased HIV risk and poorer health outcomes for GBMSM living with HIV (Harper et al., 2015; Granderson et al., 2019; Korhonen et al., 2018; Puryear et al., 2020; Ogunjabo et al., 2021). In a recent study of a large, diverse population of Kenyan GBMSM, 31% of participants reported moderate-to-severe depressive symptoms, 44% reported hazardous alcohol use, and 51% reported problematic substance use (Korhonen et al., 2018). Alcohol use has been shown to decrease HIV viral suppression among GBMSM living with HIV in Kenya, as well as general adult populations living with HIV in East Africa, and has been linked to negative HIV outcomes (Korhonen et al., 2018; Puryear et al., 2020; Kunzweiler et al., 2017). In other regions of Sub-Saharan Africa, a recent study on substance misuse finds that substance misuse leads to an increased risk of acquiring HIV among young GBMSM and also creates a barrier to adherence for those living with HIV (Ogunjabo et al., 2021). These studies have demonstrated that GBMSM living in countries where sexual and/ or gender minorities face cultural discrimination, such as Kenya, need culturally appropriate services for the prevention and treatment of HIV, mental health challenges, and substance use disorders in addition to human rights advocacy to prevent abuse. The high rates of HIV and substance use among Kenyan and other GBMSM living in countries where sexual and/or gender minorities face cultural discrimination need culturally appropriate services for the prevention and treatment of HIV, mental health challenges, and substance use disorders in addition to human rights advocacy to prevent abuse.

Research focused on HIV prevention for GBMSM in Kenya suggests that engagement with community-based organizations and GBMSM Community Members can improve the effectiveness of these efforts (Graham et al., 2018; Doshi et al., 2021). Young GBMSM in Kenya often experience limited social support yet experience intense social and structural stigma (Kunzweiler et al., 2018; Jadwin-Cakmak et al., 2022). In order for these various health promotion efforts to be the most effective, they need to actively engage young GBMSM in their development and execution. Although recent advances in HIV prevention and care for GBMSM in Kenya have led to increases in the presence of affirming clinic environments and general adherence support services, these are not sufficient to promote consistent and sustained use of HIV prevention modalities such as Pre-exposure prophylaxis (PrEP) for many young GBMSM experiencing ongoing HIV risk (Graham et al., 2022; Bourne et al., 2022; Operario et al., 2022). There remains a need to increase community support and programming for the prevention of HIV among young Kenyan GBMSM (Graham et al., 2018). Thus, the current study is focused on recommendations provided by young GBMSM in Kenya regarding specific improvements that can be made in existing and future HIV prevention programs for young Kenyan GBMSM.

Methods

Participants

This secondary analysis uses data from the qualitative phase of the Shauriana Project, which was conducted in 2019 in Kisumu, Kenya. A total of 40 HIV-negative young GBMSM with varying levels of PrEP experience and interest (referred to as Community Members), as well as 20 GBMSM who were working as Peer Educators in HIV testing, prevention, and treatment programs, participated in individual in-depth interviews (IDIs). Community Member participants

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met the following inclusion criteria: assigned male sex at birth and currently identify as a man, aged 18–30 inclusive, resident of Kisumu, reported at least one act of anal or oral intercourse in the previous six months with another man, self-reported as not living with HIV, and willing and able to provide informed consent and participate in an IDI. Peer Educator participants had all of the same inclusion criteria except HIV status and age, and the additional criterion of currently working as a peer educator or in a similar role in an HIV testing, prevention, or treatment program in the Kisumu area. The Shauriana Project was focused on HIV prevention. Subsequently, the Community Member inclusion criterion "self-reported as not living with HIV" was selected to have participants share about their personal experiences with HIV prevention. Peer Educators were asked to share about their experience helping with HIV prevention; therefore, their HIV status was not relevant to the Shauriana Project. Overall, the Shauriana Project sought to recruit individuals who were perceived to be good key informants, defined as a person who is thoughtful and comfortable talking about the study topics and is good at describing their thoughts and feelings. Community Members ranged in age from 20 to 30 (mean = 26.4), and the majority identified as bisexual (47.5%), whereas Peer Educators ranged in age from 22 to 45 (mean = 26.6), and the majority identified as either gay (35%) or bisexual (also 35%). See Table 1 for a summary of participant demographics.

Community Members ($n = 40$)		Peer Educators (n = 20)	Combined $(n = 60)$
Age		ż	
Mean = 26.4 years		Mean = 26.6 years	Mean = 26.4 years
(range: 20–30)		(range: 22–45)	(range: 20–45)
Sexual orientation			
Gay	16 (40.0%)	7 (35.0%)	23 (38.3%)
Bisexual	19 (47.5%)	7 (35.0%)	26 (43.3%)
MSM	5 (12.5%)	4 (20.0%)	9 (15.0%)
Other	0 (0%)	2 (10.0%)	2 (3.3%)
Highest educational le	evel		
Primary school	1 (2.5%)	1 (5.0%)	2 (3.3%)
Secondary school	11 (27.5%)	7 (35.0%)	18 (30.0%)
Certificate	6 (15.0%)	5 (25.0%)	11 (18.3%)
Diploma	15 (37.5%)	5 (25.0%)	20 (33.3%)
Bachelor's degree	4 (10.0%)	0 (0%)	4 (6.7%)
Master's degree	0 (0%)	1 (5.0%)	1 (1.7%)
Currently attending school	3 (7.5%)	1 (5.0%)	4 (6.7%)
Current employment			
Part-time	16 (40.0%)	15 (75.0%)	31 (51.7%)
Full-time	4 (10.0%)	1 (5.0%)	5 (8.3%)
Casual laborer	5 (12.5%)	0 (0%)	5 (8.3%)

Table 1.	Participant	Demographics
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Community Members $(n = 40)$		Peer Educators $(n = 20)$	Combined $(n = 60)$
Sex worker	2 (5.0%)	2 (10.0%)	4 (6.7%)
Not working/in school	3 (7.5%)	0 (0%)	3 (5.0%)
Not working/not in school	4 (10.0%)	1 (5.0%)	5 (8.3%)
Other	6 (15.0%)	1 (5.0%)	7 (11.7%)
Religion			
Christian	37 (92.5%)	17 (85.0%)	54 (90.0%)
Muslim	3 (7.5%)	3 (15.0%)	6 (10.0%)
Ethnic tribe			
Luo	35 (87.5%)	16 (80.0%)	51 (85.0%)
Luhya	3 (7.5%)	1 (5.0%)	4 (6.7%)
Digo	1 (2.5%)	1 (5.0%)	2 (3.3%)
Baganda	0 (0%)	1 (5.0%)	1 (1.7%)
Other	1 (2.5%)	1 (5.0%)	2 (3.3%)
Length of time as Peer	Educator		
Less than 1 year	N/A	1 (5.0%)	N/A
Between 1 and 2 years	N/A	11 (55.0%)	N/A
Between 2 and 5 years	N/A	6 (30.0%)	N/A
More than 5 years	N/A	2 (10.0%)	N/A

Qualitative Interview Guide

The research team, which included U.S.-based researchers with extensive experience working with young Kenyan GBMSM and local Kenyan collaborators who identified as GBMSM, created a semi-structured qualitative interview guide for the parent study from which these data were taken. Throughout the course of qualitative interviewer training, modifications were made to the guide to ensure its utility with regard to young GBMSM in Kisumu. Grounded in phenomenological and constructivist frameworks, the guide provided a general structure for discussion but required participants to provide their own conceptualizations of terms and phrases based on their lived experiences. The guide included the following topics: physical and mental health issues affecting GBMSM in Kenya, thriving/ coping as a GBMSM. The structure and content of the questions did not follow any predetermined theory or framework, which allowed for an inductive inquiry into participants' thoughts, feelings, and experiences related to HIV prevention. Data for the current study primarily came from the section that focused on how to improve PrEP services and other health services for young GBMSM.

Procedures

Participants for the parent study were recruited through outreach activities held at community-based organizations (CBOs) and GBMSM-friendly health clinics. These activities were conducted by

interviewers who were all GBMSM from Kisumu and were active in various CBOs. Recruitment, screening, and informed consent took place verbally with potential GBMSM participants in accordance with our inclusion criteria and stratified sampling framework. Interviews took place in private rooms at one of the collaborating CBOs or clinic research sites and were audio-recorded. The interviewer debriefed with the participant after the interview, provided him with a monetary incentive, and shared information about local GBMSM-friendly resources and services. Interviews were conducted in a mix of English, Dholuo, and/or Kiswahili, based on the most comfortable language for the participant. A local transcriptionist experienced in GBMSM-focused research simultaneously translated and transcribed the recordings. Transcripts were de-identified and quality-checked to ensure accuracy of transcription. The Institutional Review Boards of the University of Washington and the University of Michigan, as well as the Maseno University Ethics Review Committee, provided approval for, and oversight of, the research protocol.

Data Credibility and Analysis

Several strategies were used to enhance credibility during data collection, including prolonged engagement and persistent observation. Sixty transcripts from the Shauriana Project were coded and analyzed using an interpretative phenomenological analysis to maintain the authenticity of the data collected about participants' lived experiences. This approach acknowledges the expertise of the participants on the issue of desired HIV prevention efforts for young Kenyan GBMSM. Categories were created after synthesis of the shared experiences noted in the 60 transcripts, as well as the unique experiences within this group of participants. The lead author, after becoming thoroughly familiar with the transcripts, conducted a thematic analysis where she identified emerging themes. These themes and representative quotes were discussed with the study co-authors who led the Shauriana Project to validate interpretations of the transcript. The co-authors were also consulted during continuous iterations of the codebook to collapse, conjoin, eliminate, and refine codes.

Results

Data from the qualitative interviews revealed that both young GBMSM Community Members and Peer Educators recommended that existing and future HIV prevention efforts be improved by incorporating the following elements into programs: (a) economic empowerment training, (b) mental health and substance use services, and (c) arts-based health promotion strategies. In addition, participants recommended that public health professionals and researchers work to (a) increase ease of access to HIV prevention services for GBMSM and (b) disseminate findings from HIV prevention research back to the community. The following paragraphs provide more detailed information about each of these thematic areas and include representative quotes to provide a more nuanced understanding of each theme. They also include information about the participant, including type of participant (Community Member or Peer Educator), their self-identity regarding sexual orientation, and their age.

Economic Empowerment Training

Participants shared that they were in need of support in developing occupational skills that they believed would assist them in obtaining financial security – this, in turn, would assist in

preventing them from acquiring HIV. In general, they reported frequent employment discrimination. Without job security, young Kenyan GBMSM may engage in behaviors that prioritize financial security and increase their vulnerability to HIV and other sexually transmitted infections, such as transactional sex work. Sex work with proper condom use coupled with PrEP adherence and or post-exposure prophylaxis (PEP) usage can maintain sexual health. However, young GBMSM who engage in sex work may be offered a substantial increase in pay for condomless sex. Men who engage in sex work are also vulnerable to rape, and young GBMSM's stigmatization presents a barrier to reporting rape and sexual assault to police. HIV prevention programs that incorporate economic empowerment elements by hiring young GBMSM community members, providing job skills training, improving financial literacy and education, and delivering programs that provide further financial support may lead to better community member outcomes. In the following quote, a participant shares his ideas about how organizations that are providing HIV prevention services to young GBMSM can also facilitate economic empowerment:

There could be support that could enable [young GBMSM] to earn any training or that could enable them to earn the income or something that can make them active in the society.

(Peer Educator, Bisexual, 28)

Provide Mental Health and Substance Use Services

Participants also recommended that HIV prevention programs include efficacious group therapy and other forms of psychological support, including a focus on overcoming substance misuse, and that these services be created specifically for young Kenyan GBMSM. They noted that substance use is frequently used as a coping mechanism for mental distress among young GBMSM in Kenya. Unfortunately, reliance on substance use to mitigate these stressors can produce negative outcomes in some young GBMSM, resulting in behaviors that contribute to more stressors, including acquiring HIV. For example, a community member elaborates, "after being inebriated and engaging in drugs he [a young GBMSM] wasn't himself . . . and having sex with somebody [then] ends up being infected" (Community Member, Gay, 30). Participants called for greater access to GBMSM-specific mental health services, including groups focused on reducing substance use and increasing psychological support. The following quotes demonstrate specific recommendations by participants regarding the need for increased mental health and substance misuse services.

If there can be something that the organization can create . . . like a station where people who are addicted on drugs can talk and interact and mingle there to give themselves healthy advice as a way forward and move on like that.

(Peer Educator, Bisexual, 28)

What can really help is psychological support . . . because you cannot expect somebody to go and take PrEP when he is really struggling with life.

(Community Member, MSM, 25)

Incorporate Arts-Based Health Promotion Strategies

Participants expressed a need for HIV prevention programs to include health education components that use artistic and creative mediums to reach the GBMSM community, such as films, plays, and other forms of artistic expression. They expressed that arts-based health promotion programs and strategies would help educational efforts to permeate the GBMSM community and shared that artistic expression adds an emotional salience to the educational program components. In addition to behavior change, community members felt that their contributions to the production of educational content can produce a cathartic effect. They felt that positively contributing back to the community and artistically expressing themselves may benefit young GBMSM's mental health. Therefore, strategies that incorporate multiple forms of creative and artistic expression should be included in future programming. In the following first quote a participant shares how his CBO has used art-based activities to facilitate creative expression and stimulate discussion around healthrelated issues, and in the second quote a participant discusses the benefits of attending group therapy and learning new coping skills.

I've engaged my art through the organization I work with. Basically [my organization] uses art to create alternative dialogue spaces for LGBT persons, more so MSM. So after reducing my [alcohol] consumption and using my creativity, I came up with pieces, like short plays, with other like-minded peers within my circle who identify as bisexuals as well. We managed to stage some shows talking about drug abuse amongst MSM, and talking about social, productive health issues among the bisexual persons. (Community Member, Bisexual, 28)

As we attend group therapies, we learn more. We see movies like "I am Samuel." They can bring a story about one MSM and the general population, how they cope in the community, how they overcome their needs.

(Peer Educator, MSM, 22)

Increase Access to HIV Prevention Services

Participants requested that PrEP and other HIV prevention and healthcare support be continued for young GBMSM, but that the programs be delivered in a manner that is easier to access both physically and culturally. They shared that this could be accomplished through expanding the geographic locations where HIV prevention services are offered and providing monetary transportation support. In addition, they suggested creating prevention materials that are culturally appropriate for residents of rural areas and are offered in the local languages spoken in these areas. Participants noted that oftentimes HIV prevention programs for young GBMSM are targeted at or stationed in more urban areas. This geographical positioning makes it difficult for young GBMSM to find transportation to program sites and often prohibits young GBMSM living in rural areas from receiving necessary services. In addition, members of the young GBMSM community who are able to travel may not be able to go to the same urban site continuously. To address these barriers, participants suggested implementing mobile clinics where PrEP can be distributed throughout the community rather than from one potentially inaccessible location. Furthermore, they recommended that HIV prevention programs consider providing transportation stipends and services for other basic needs such as food to encourage young GBMSM's participation. The following quotes illustrate participants' concerns with both physical limitations to accessing HIV prevention services and language barriers.

The [concern I have with these organizations is] distance. If they can find a way to have a mobile clinic that is moving around to clients providing dates, like this date we'll be in Nyalenda, on this date we'll be in Kajulu, on this date we'll be in Kondele.

(Peer Educator, Bisexual, 28)

Another thing- not all people know English, and not all people understand Swahili. So, for those who are in the interior areas like maybe for example people like Luos or Luhyas who don't understand all the languages, there can be other facilitators who can do that in the language that they can understand better in their particular interior areas.

(Peer Educator, Bisexual, 24)

Disseminate Findings from HIV Prevention Research

Participants raised concerns regarding researchers conducting research on HIV prevention programs and strategies for young GBMSM, and them not disseminating their findings to young GBMSM community members and CBOs. They urged researchers to translate disseminated research materials into native languages and engage community members in the dissemination process. Participants shared that improving research dissemination is critical for maintaining and building upon community trust and for empowering community members. Young GBMSM provided feedback, saying that they feel researchers come to their sites and probe their community members without returning back to the community with results. They stressed that research findings and results of interventions must be accessible to and targeted toward the young GBMSM, as their voluntary participation allows for this research to occur.

We need to know how we are going to be engaged in this research, when terminating the research, even if you have some program to implement, we need to know, we need to be engaged up to the end of this research, we don't want to be used. I do know these researches, and I thank God for that because there was one, which I refused to attend, people [researchers] just come for ideas and information- they look for money, they forget about you. . . . We have to know the end result of the research and the way forward after you have completed.

(Community Member, Gay, 28)

Discussion

This qualitative study sought to explore the Kenyan GBMSM's perspective regarding how to improve existing and future HIV prevention programs specifically for their community. Participants

recommended that programs should include enhancing economic empowerment through the inclusion of job skills training and financial literacy skills, a strong focus on mental health and substance use, and the incorporation of arts-based health promotion strategies that can provide an emotional and cathartic outlet for participants. In addition, they stressed the importance of increasing access to HIV prevention services both geographically and culturally, through geographic expansion, transport support, and translation of materials into local languages. Finally, participants urged HIV prevention researchers to disseminate findings from their research activities to community members.

Economic Empowerment

The risk environment for young GBMSM is not just about behaviors that transmit HIV, but it also includes economic circumstances, as many young GBMSM have difficulties finding stable sources of income and may be discriminated against in the workplace once they do find employment. The lack of steady income has led some young GBMSM to engage in sex work to obtain needed resources, and they may use substances to tolerate the circumstances they face while engaging in sex work. Incorporating economic empowerment activities into HIV prevention programs will likely reduce participation in both sexual risk behaviors and substance misuse. Future HIV prevention programs should prioritize providing opportunities to enhance economic empowerment through offering vocational classes and financial literacy training, as well as creating incomegenerating projects. Economic empowerment support groups have been suggested as an underutilized intervention for both people living with and at risk for HIV in Kenya (Kibicho et al., 2015), and membership in a microfinance group has been shown to be related to improved HIV outcomes in Kenya (Genberg et al., 2021).

Arts-Based Health Promotion Programs

Exploring risk behaviors and prevention strategies in a relatable way through group therapies and artistic expressions may increase receptivity to programming. To maintain a beneficial and just relationship with Kenyan GBMSM, it is of the utmost importance that data analyses and research results are effectively shared with community members, their organizations, and programs meant to serve the GBMSM community in a manner that is understandable and usable. This may be accomplished using an array of strategies that are developed in collaboration with GBMSM and GBMSM-specific CBOs. HIV prevention programs for young GBMSM in Kenya may also utilize arts-based health promotion activities such as plays, movies, and other creative media that promote empathy, understanding, and connection among GBMSM community members. This junction of knowledge and emotional salience may be more likely to contribute to behavior change, specifically safer sex practices and avoidance of hazardous alcohol use (Kombo et al., 2017; Abdullahi et al., 2021; McKay et al., 2018). With regard to mental health and substance use, future programs may create arts-based modules or components focused on exploring young Kenyan GBMSM's concerns regarding stigmatization and discrimination, or incorporate group discussions and skills-building activities focused on reducing substance use. Some participants may also require more tailored substance use services that could be provided at no cost for those engaged in the intervention. This is especially vital for PrEP programs, given that alcohol use can be a barrier to PrEP adherence (Van der Elst et al., 2013).

Increasing Physical Accessibility

In order to reach young GBMSM living outside of urban centers, HIV prevention programming should expand its geographical reach by providing transportation, transportation reimbursement, and/or incorporating mobile health clinics, which have been shown to be feasible for the delivery of HIV prevention services (Nelson et al., 2020). Community clinics in rural areas also may redesign their programming to provide HIV prevention services specifically for GBMSM on designated days and times each month, to increase safety and accessibility for these young men.

Increasing Cultural Accessibility

Although an increasing number of studies have enrolled GBMSM in PrEP programs for HIV prevention, recent research has found variable levels of self-reported PrEP uptake and adherence, with very low numbers of participants (0–14.6%) found to have protective levels of PrEP in their bloodstream (Graham et al., 2022; Kimani et al., 2021; Van der Elst et al., 2013). Graham et al.'s (2022) mixed-methods study conducted community charrettes with Kenyan GBMSM to better understand the low rates of PrEP adherence and found many reported barriers to current PrEP programs. Based on these data they recommend that future PrEP programs provide accurate, non-stigmatizing information about PrEP, deliver PrEP at GBMSM-friendly clinics by trustworthy healthcare providers, provide individualized peer support from other GBMSM, create opportunities to connect with other GBMSM in group settings to discuss sexual health, and provide supportive HIV prevention services to all GBMSM regardless of whether or not they are taking PrEP (Graham et al., 2022). Research findings should be disseminated to community members in accessible and usable formats. GBMSM may benefit from research dissemination materials being formatted as infographics, pictures, and other forms that are easily understandable and shareable over social media. Advancements in research regarding HIV can be translated not only into English and Swahili (the two Kenyan national languages) but also into local languages such as Dholuo or Luhya to promote access by GBMSM living in rural areas. In order to enact these recommendations, future PrEP and HIV prevention efforts for young GBMSM will need to include active participation from community members and organizations. Graham et al.'s findings also demonstrate the need to address multiple aspects of GBMSM's lives when attempting to prevent HIV.

Conclusion

Future research directions in HIV prevention programming for young Kenyan GBMSM should include the development of mental health promotion programs created specifically for young Kenyan GBMSM. Studies testing the effectiveness of these mental health programs would be necessary to assess the influence of improved mental health on HIV prevention. Future research programs might benefit from including research centered on the creation and evaluation of program elements that encourage conversations about substance use. In addition, studies on the effectiveness of various economic empowerment strategies and their influence on HIV prevention are needed.

Strengths and Limitations

One major strength of this study is the use of qualitative inquiry via open-ended, in-depth interviews to center community voices. Recruitment was done throughout the community, resulting in a large sample size and breadth of data from 60 different GBMSM from different backgrounds and locations. Interviews were conducted by trained and trusted community members and advocates who identified as GBMSM, which promoted safe and trusting conversations. Limitations include the secondary analysis nature of this study, as the data came from a larger study initially focused on developing and evaluating a PrEP-focused HIV prevention intervention. This may have led to sampling bias, as recruitment was rooted in PrEP interest (though purposive sampling stratified by level of interest in PrEP), and the Community Member sample was limited to HIV-negative GBMSM. An additional limitation is that, for the current analysis, none of the original analysts were Kenyan.

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References

- Abdullahi, I., Chana, N. K., Zenone, M., & Ardiles, P. (2021). Art during tough times: Reflections from an art-based health promotion initiative during the COVID-19 pandemic. *Global Health Promotion*, 28(2), 78–82. doi:10.1177/1757975921998638
- Bourne, A., Carman, M., Kabuti, R., Nutland, W., Fearon, E., Liku, J., Tukai, A., Weatherburn, P., Kimani, J., & Smith, A. D. (2022). Experiences and challenges in sexual health service access among men who have sex with men in Kenya. *Global Public Health*, *17*(8), 1626–1637. https://doi.org/10.1080/17441692.2021.1987501
- Doshi, M., Macharia, P., Mathenge, J., Musyoki, H., Amico, K. R., Battacharjee, P., Blanchard, J., Reza-Paul, S., McKinnon, L. R., Kimani, J., & Lorway, R. R. (2020). Beyond biomedical and comorbidity approaches: Exploring associations between affinity group membership, health and health seeking behaviour among MSM/MSW in Nairobi, Kenya. *Global Public Health*, *15*(7), 968–984. https://doi.org/10.1080/17441692.2020.1739729
- Genberg, B., Wilson-Barthes, M., Omodi, V., Hogan, J., Steingrimsson, J., Wachira, J., Pastakia, S., Tran, D., Kiragu, Z., Ruhl, L., Rosenberg, M., Kimaiyo, S. & Galárraga, O. (2021). Microfinance, retention in care, and mortality among patients enrolled in HIV care in East Africa. *AIDS*, 35(12), 1997–2005. doi: 10.1097/QAD.00000000002987.

- Graham, S. M., Micheni, M., Secor, A., van der Elst, E. M., Kombo, B., Operario, D., Amico, K. R., Sanders, E. J., & Simoni, J. M. (2018). HIV care engagement and ART adherence among Kenyan gay, bisexual, and other men who have sex with men: A multi-level model informed by qualitative research. *AIDS Care*, 30(sup5), S97–S105. https://doi.org/10.1080/09540121.2018.1515471
- Graham, S. M., Okall, D. O., Mehta, S. D. et al. (2022). Challenges with PrEP Uptake and Adherence Among Gay, Bisexual, and Other Men Who Have Sex with Men in Kisumu, Kenya. *AIDS and Behavior*. https://doi.org/10.1007/s10461-022-03860-w
- Granderson, R. M., Harper, G. W., Wade, R., Odero, W., Onyango Olwango, D. P., & Fields, E. L. (2019). Gender role strain and the precarious manhood of sexual minority Kenyan men. *Psychology of Sexual Orientation and Gender Diversity*, 6(4), 420–432. https://doi.org/10.1037/sgd0000340
- Harper, G. W., Wade, R. M., Onyango, D. P., Abuor, P. A., Bauermeister, J. A., Odero, W. W., & Bailey, R. C. (2015). Resilience among gay/bisexual young men in Western Kenya: Psychosocial and sexual health outcomes. *AIDS (London, England)*, 29(Suppl 3), S261–S269. https://doi.org/10.1097/QAD.0000000000000005
- Jadwin-Cakmak, L., Lauber, K., Odhiambo, E. O., Collins, B., Gumbe, E., Norwitz, G. A., Aloo, T., Lewis, K. A., Okutah, F., Amico, K. R., Olango, K., Odero, W., Graham, S. M., & Harper, G. W. (2022). "When you talk it out . . . you will feel like the burden has somehow gone down, you will feel light": Social Support Received by Gay, Bisexual, and Other Men Who Have Sex with Men in Western Kenya. *International Journal of Environmental Research and Public Health*, 19(3), 1667. https://doi.org/10.3390/ijerph19031667
- Kibicho, J., Kako P. M., & Stevens, P. E. (2015). Community-based support groups engagement in HIV prevention and economic empowerment in rural Kenya. *Sexually Transmitted Infections, 91* (Suppl2), A244. http://dx.doi.org/10.1136/sextrans-2015-052270.632
- Kimani, M., van der Elst, E. M., Chirro, O., Wahome, E., Ibrahim, F., Mukuria, N., de Wit, T., Graham, S. M., Operario, D., & Sanders, E. J. (2021). "I wish to remain HIV negative": Pre-exposure prophylaxis adherence and persistence in transgender women and men who have sex with men in coastal Kenya. *PloS one*, *16*(1), e0244226. https://doi.org/10.1371/journal.pone.0244226
- Kombo, B., Sariola, S., Gichuru, E., Molyneux, S., Sanders, E. J., & van der Elst, E. (2017). "Facing Our Fears": Using facilitated film viewings to engage communities in HIV research involving MSM in Kenya. *Cogent Medicine*, 4(1), 1330728. https://doi.org/10.1080/2331205X.2017.1330728
- Korhonen, C., Kimani, M., Wahome, E., Otieno, F., Okall, D., Bailey, R. C., Harper, G. W., Lorway, R. R., Doshi, M., Mathenge, J., Kimani, J., Sanders, E. J. & Graham, S. M. (2018). Depressive symptoms and problematic alcohol and other substance use in 1476 gay, bisexual, and other MSM at three research sites in Kenya. *AIDS*, 32(11), 1507–1515. doi: 10.1097/QAD.00000000001847.
- Kunzweiler, C. P., Bailey, R. C., Mehta, S. D., Okall, D. O., Obondi, E., Djomand, G., Nyunya, B. O., Otieno, F. O., & Graham, S. M. (2018). Factors associated with viral suppression among HIVpositive Kenyan gay and bisexual men who have sex with men. *AIDS Care*, 30(sup5), S76–S88. https://doi.org/10.1080/09540121.2018.1510109
- Kunzweiler, C. P., Bailey, R. C., Okall, D. O., Graham, S. M., Mehta, S. D., & Otieno, F. O. (2017). Factors Associated With Prevalent HIV Infection Among Kenyan MSM: The Anza Mapema Study. *Journal of Acquired Immune Deficiency Syndromes (1999)*, 76(3), 241–249. https://doi.org/10.1097/QAI.000000000001512

- McKay, F. H., & McKenzie, H. (2018). Using art for health promotion: Evaluating an in-school program through student perspectives. *Health Promotion Practice*, 19(4), 522–530. https://www.jstor.org/stable/27008349
- McKinnon, L. R., Gakii, G., Juno, J. A., Izulla, P., Munyao, J., Ireri, N., Kariuki, C. W., Shaw, S. Y.,
 Nagelkerke, N. J., Gelmon, L., Musyoki, H., Muraguri, N., Kaul, R., Lorway, R., & Kimani, J. (2014).
 High HIV risk in a cohort of male sex workers from Nairobi, Kenya. *Sexually Transmitted Infections*, 90(3), 237–242. https://doi.org/10.1136/sextrans-2013-051310
- Nelson, K. M., Perry, N. S., Horvath, K. J., & Smith, L. R. (2020). A systematic review of mHealth interventions for HIV prevention and treatment among gay, bisexual, and other men who have sex with men. *Translational Behavioral Medicine*, 10(5), 1211–1220. https://doi.org/10.1093/tbm/ibaa007
- Ogunbajo, A., Iwuagwu, S., Williams, R., Biello, K. B., Kahler, C. W., Sandfort, T., & Mimiaga, M. J. (2021). Experiences of minority stress among gay, bisexual, and other men who have sex with men (GBMSM) in Nigeria, Africa: The intersection of mental health, substance use, and HIV sexual risk behavior. *Global Public Health*, *16*(11), 1696–1710. https://doi.org/10.1080/17441692.2020.1834598
- Operario, D., Sun, S., Bermudez, A. N., Masa, R., Shangani, S., van der Elst, E., & Sanders, E. (2022). Integrating HIV and mental health interventions to address a global syndemic among men who have sex with men. *The Lancet. HIV*, 9(8), e574–e584. https://doi.org/10.1016/S2352-3018(22)00076-5
- Programme NAaSC. Kenya AIDS IndicatorSurvey 2012: Final Report. Nairobi, Kenya; 2014. Puryear, S., Balzer, L., Ayieko, J., Kwarisiima, D., Hahn, J., Charlebois, E., Clark, T., Cohen, C., Bukusi, E., Kamya, M., Petersen, M., Havlir, D. & Chamie, G. (2020). Associations between alcohol use and HIV care cascade outcomes among adults undergoing population-based HIV testing in East Africa. *AIDS*, 34(3), 405–413. doi: 10.1097/QAD.00000000002427.
- Salmen, C. R., Hickey, M. D., Fiorella, K. J., Omollo, D., Ouma, G., Zoughbie, D., Salmen, M. R., Magerenge, R., Tessler, R., Campbell, H., Geng, E., Gandhi, M., Bukusi, E. A., & Cohen, C. R. (2015). "Wan Kanyakla" (We are together): Community transformations in Kenya following a social network intervention for HIV care. *Social Science & Medicine*, 147, 332–340. https://doi.org/10.1016/j.socscimed.2015.11.021
- Sanders, E. J., Okuku, H. S., Smith, A. D., Mwangome, M., Wahome, E., Fegan, G., Peshu, N., van der Elst, E. M., Price, M. A., McClelland, R. S., & Graham, S. M. (2013). High HIV-1 incidence, correlates of HIV-1 acquisition, and high viral loads following seroconversion among MSM. *AIDS* (*London, England*), 27(3), 437–446. https://doi.org/10.1097/QAD.obo13e32835b0f81
- Van der Elst, E. M., Mbogua, J., Operario, D., Mutua, G., Kuo, C., Mugo, P., Kanungi, J., Singh, S., Haberer, J., Priddy, F., & Sanders, E. J. (2013). High acceptability of HIV pre-exposure prophylaxis but challenges in adherence and use: Qualitative insights from a phase I trial of intermittent and daily PrEP in at-risk populations in Kenya. *AIDS and Behavior*, 17(6), 2162–2172. https://doi.org/10.1007/s10461-012-0317-8