AIDS PATIENT CARE and STDs
Volume 32, Number 11, 2018

DOI: 10.1089/apc.2018.0094

Barriers and Facilitators to Seeking HIV Services in Chicago Among Young Men Who Have Sex with Men: Perspectives of HIV Service Providers

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Abstract

Young men who have sex with men (YMSM) are disproportionally impacted by HIV, and continue to lag behind other age groups in the receipt of HIV prevention and care services. To inform the development of interventions to improve pre-exposure prophylaxis and HIV care engagement outcomes among YMSM, a growing number of studies have reported the barriers and facilitators YMSM encounter when accessing HIV services. Few studies, however, have assessed how HIV service providers perceive these facilitators and barriers. In total, 21 interviews were conducted with HIV service providers in Chicago about barriers and facilitators they perceived affected YMSM's engagement in HIV services. Barriers included lack of comprehensive wraparound services, lack of trust of providers, unfamiliarity with seeking HIV services, feelings of invincibility, lack of knowledge of HIV service providers, intersectional and structural concerns (e.g., not thinking the site's services were for YMSM), geography and distance to clinic, and HIV stigma. Facilitators included presence of comprehensive wraparound services, high trust in providers, a clinic's willingness to serve uninsured patients, community engagement, word-of-mouth recommendations from lesbian, gay, bisexual, and transgender (LGBT) friends, intersectionality (e.g., offering LGBT-tailored services), geography and distance, lack of HIV stigma. Axial coding revealed that five conceptual themes cut across multiple barriers and facilitators, including health system characteristics, intersectionality, geography and transportation, community outreach, and stigma. These conceptual themes map closely onto Bronfenbrenner's ecological model. Overall, these findings highlight the importance of a multi-level approach to future intervention development to increase engagement in HIV services among YMSM.

Keywords: YMSM, HIV prevention, implementation science, key informant interviews, provider perspectives, multi-level intervention development

Introduction

Men who have sex with men (MSM) are disproportionately affected by HIV. Although they only comprise ~2% of the US population, MSM accounted for 70% of all HIV diagnoses in 2015.[1,2] Within this group, young MSM (YMSM) aged 13–24 years are particularly affected by HIV, with young black MSM being the most heavily affected.[1,3]

YMSM are less likely to be successfully linked to and retained in HIV care, and are less likely to be virally suppressed than MSM in other age groups.[1,4] These findings hold true not only for HIV treatment but also for HIV prevention-related services. For example, MSM <30 years of age who test negative for HIV have been shown to be less likely than older MSM to obtain a prescription for HIV pre-exposure prophylaxis (PrEP) and remain adherent to PrEP in select

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urban areas.[5,6] These findings demonstrate the importance of adopting an intersectional approach when investigating how multiple marginalized identities can lead to differential HIV prevention and care outcomes.

To inform the development of interventions to improve HIV care and PrEP engagement among YMSM, a growing number of studies have reported the barriers and facilitators YMSM report they encounter when accessing HIV treatment or prevention services.[7–14] While important insights can be gained from the analysis and reporting of each barrier and facilitator individually, additional information can emerge when they are collectively viewed as positioned within a larger theoretical context.

Bronfenbrenner's ecological systems theory was originally developed to conceptualize how multiple sociocultural factors affect adolescent development at different levels of influence and interaction.[15] Bronfenbrenner's model has subsequently been adapted to theorize how HIV impacts the health of adolescents and emerging adults,[16] and to inform approaches to the development of HIV prevention interventions.[17–19] The original model contains four levels: the microsystem, mesosystem, exosystem, and macrosystem.[17] In its HIV-adapted applications, the model asserts that wellness (or conversely illness) is influenced by interactions among multiple domains and systems.[16]

Applied to HIV-related health and healthcare among YMSM, microsystems represent contexts in which YMSM participate directly, such as their relationships with family, friends, HIV service providers, and the greater community. Mesosystems represent interactions among persons who directly interact with YMSM, such as conversations among healthcare service providers who see YMSM. Exosystems represent contexts in which YMSM do not participate directly, but that affect the ability of YMSM to access HIV services, such as access to health insurance and transportation. Finally, macrosystems represent broad sociocultural dynamics that affect the way YMSM are seen and treated in society, including by healthcare workers and health systems.

Notably, salient intersecting dimensions of identity and experience, such as gender identity and socioeconomic status, affect the microsystem and mesosystem interactions of YMSM. Similarly, the level of cultural competence HIV service providers exhibit as well as the overall social attitudes present within healthcare systems toward not only sexuality but also age, race, ethnicity, and immigration status, among other factors, affects the exosystem and macrosystem dynamics of YMSM.

The prior barriers and facilitators published to affect YMSM's engagement in HIV[7,9–11,13] and PrEP[8,12,14] care map onto the Bronfenbrenner model. Among barriers, fear of side effects,[14] belief in invincibility,[11] suboptimal medication adherence,[12] and low HIV risk perception[7,14] map onto the microsystem, whereas lack of healthcare access[8,12] and cost of medications[10,12,14] map onto the exosystem. Among YMSM, many of whom may not have access to or control funds for medications, suboptimal medication adherence may also be better characterized as part of the mesosystem, exosystem, or macrosystem levels. Similarly, depending on whether referring to the self, provider, health system, or societal level, HIV stigma[13] can be seen as occurring at any or all levels within the Bronfenbrenner model, up to and including the macrosystem.

Among facilitators associated with better HIV[9,11] and/or PrEP[8,10,12] related outcomes among YMSM, knowing where to obtain an HIV test,[11] enjoying condomless sex,[12] and reporting higher levels of sexual activity[8] and HIV risk[12] map predominantly onto the microsystem level. Living closer to AIDS Service Organizations (ASOs)[9] can be viewed as mapping onto the mesosystem and/or exosystem levels. Due to the requirement for access to healthcare services, being diagnosed with a sexually transmitted infection[10] maps onto the exosystem level. Finally, living in a disadvantaged neighborhood,[9] a factor tied to socioeconomic status, maps onto the macrosystem level.

In addition to self-reported barriers and facilitators affecting YMSM's ability to engage with HIV services, a limited number of studies have assessed what factors YMSM-serving *providers* believe lead YMSM to successfully or unsuccessfully seek HIV-related services.[20–25] As recently reported within a systematic review by Wao et al., the literature examining provider perceptions of barriers and facilitators to HIV care for MSM overall, let alone YMSM, is sparse.[26]

In brief, previous studies have found that providers were more likely to prescribe PrEP to YMSM who they perceived had fewer barriers and a greater number of facilitators.[24] Examples of provider-perceived barriers and facilitators of YMSM's successful linkage and/or engagement with HIV services included the difficulties of navigating health insurance policies[20] and youth taking responsibility for their own HIV care and overall health.[25] Provider perspectives are important because the beliefs service providers hold about what factors contribute to HIV care and prevention outcomes of YMSM may impact the overall range of HIV services they provide (e.g., outreach for HIV care re-engagement, the decision to provide PrEP, navigation services) and the types of interventions undertaken to improve HIV prevention and treatment outcomes at their facilities. Using a qualitative approach, this study reports the barriers and facilitators HIV service providers in Chicago identified as affecting whether YMSM utilized HIV treatment and/or prevention services housed within their organizations.

Methods

Background

In 2014, the Chicago Department of Public Health (CDPH) received funds from the Centers for Disease Control and Prevention (CDC) to support an initiative to develop and evaluate comprehensive high-impact HIV prevention projects to be implemented by community-based organizations (CBOs) in the city of Chicago. In 2015, as part of this initiative, CDPH funded 20 HIV prevention demonstration projects within a total of 15 organizations (e.g., hospitals, health centers, CBOs) to create and implement locally developed/homegrown (HG) interventions and/or to tailor the existing evidence-based interventions (EBIs) designed to enhance the effectiveness of HIV prevention activities in Chicago by providing both behavioral and wraparound services.

CDPH also funded the Evaluation Center (EC) from Northwestern University's Evaluation, Data Integration, and Technical Assistance (EDIT) Program to monitor and evaluate the impact, implementation, and effectiveness of these interventions among and between the 20 projects. Embedded within the initiative's multi-site evaluation and technical

assistance activities, the EC team conducted a qualitative substudy to assess how HIV services could be optimized for YMSM across the care continua. This study was deemed nonhuman subjects research and was therefore exempt from review by the Northwestern University Institutional Review Board (IRB).

Participants

In the larger CDPH evaluation plan, a total of 34 key informants (KIs) participated in semistructured interviews to capture detailed information about the barriers and facilitators related to the implementation of the HIV prevention interventions within each project. Field staff ($n=17$) and project managers ($n=17$) from each project were recruited to participate in intervention implementation interviews tied to the larger CDPH initiative. For this embedded substudy, 19 individuals were selected, and agreed to answer additional questions about the barriers and facilitators they believed influenced whether YMSM engaged with HIV prevention and/or treatment services at their organization.

KIs selected for the substudy were purposively selected based on their organizational roles and their history of working with YMSM. Among the 15 individuals included within the parent interviews of the larger study, but were not selected for the embedded substudy, two answered the additional questions within the course of the parent interview, for a total of 21 responses to the specific, YMSM-focused questions. Of these 21 individuals, two did not provide substantive responses to questions regarding barriers and two did not provide substantive responses to questions regarding facilitators, thus resulting in a final sample size of 19 KIs for each substudy question.

Procedures

Interviews were led by one of three EC team members with the large majority being conducted face to face at each of the delegate agency sites, with selection being done over the telephone due to scheduling constraints. In total, interviews lasted 90 min. The substudy portion of the interview lasted 30 min, during which time KIs answered the following questions: ''Thinking specifically about YMSM up to 29 years of age, what are the main reasons they would seek HIV-related services at your organization?'' and ''What are some reasons YMSM may have for not seeking services at your organization?'' The KI interviews (KIIs) were transcribed by a third party, and cleaned and verified for accuracy by two EC team members.

Analysis

An initial overall codebook was developed and agreed upon by consensus. The transcripts were uploaded into Dedoose,[27] and the coding team achieved high inter-rater reliability (kappa = 0.85). During initial coding, two parent codes were used to classify responses: YMSM barriers to seeking HIV services (''YMSM barriers'') and YMSM facilitators for seeking HIV services (''YMSM facilitators''). A third team member reviewed the KII transcripts, developed additional child codes and grandchild codes using a grounded theory[28] approach, and coded the transcripts according to this framework. Finally, selective and axial coding were iteratively applied to develop a framework of five overlapping conceptual domains to structure and summarize results. A mixed-methods analysis comparing differences in endorsements of themes among different groups (e.g., CBO vs. hospital vs. community health center and/or administrator vs. field staff) was conducted within Dedoose. Given the small sample size (e.g., 19 individuals for each substudy question), and the fact that providers did not all report the same themes, no meaningful differences were able to be calculated from these investigations.

Results

Participants

Among the respondents who answered the focused study questions ($n=21$), the average age was 36.8 years (±7.4 years), 28.6% ($n=6$) identified as cisgender men, 86% ($n=18$) identified as a member of the lesbian, gay, bisexual, and transgender (LGBT) community, and 57% ($n=12$) held a bachelor's degree or higher. Participants were nearly equally distributed by organizational type: eight worked for CBOs (38.1%), six for hospitals (28.6%), and seven for community health centers (CHCs) (33.3%). See Table 1 for complete demographics of the participants.

Summary

Overall, 16 child themes and 17 grandchild themes were identified for the parent codes of YMSM facilitators ($n=8$ child themes) and barriers ($n=8$ child themes) for attending HIV services. After conducting axial coding to understand the relationship among the child themes within both parent codes, five interdependent conceptual themes present in the literature, and consistent with Bronfenbrenner's ecological model, were identified as incorporating all child themes and used to report results: (1) health systems characteristics (patient and provider), (2) intersectionality, (3) community

Table 1. Demographic Characteristics of Implementation Interview and Key Informants Respondents

Demographics mean	*II respondent* (n = *34*)	*KII respondents* (n = *21*)
Age (mean/SD)	39.1 (9.7)	36.8 (7.4)
Man	17	6
Woman	16	14
Transgender/gender nonconforming	1	1
LGBT community identity	22	18
Bachelor's degree or higher	23	12
Manager	17	12
Field staff	17	9
Homegrown intervention	17	11
Evidence-based intervention	17	10
Community-based organization	14	8
Community health center	7	7
Hospital	12	6

II, implementation interview; KII, key informants interviews; LGBT, lesbian, gay, bisexual, and transgender.

Table 2. Codebook for Young Men Who Have Sex with Men: Facilitators

No.	*YMSM facilitators*	*Concept*	*No. of participants*
1F	Comprehensive/wraparound services offered	Health system (systems)	4
2F	Good providers, maintain confidentiality	Health system (provider)	8
3F	Lack of insurance	Health system (patient)	2
4F	Community-informed services; community engagement	Community outreach	7
5F	Heard from other LGBT friends	Community outreach	5
6F	Intersectionality	Cultural responsiveness	14
6F.1	Multiple identity affirming	Cultural responsiveness	4
6F.2	No need for documentation	Cultural responsiveness	1
6F.3	Youth focused	Cultural responsiveness	4
6F.4	LGBT tailored	Cultural responsiveness	12
7F	Geography/distance	Environmental/structural	6
7F.1	Site is close	Environmental/structural	3
7F.2	Site is on a transit line	Environmental/structural	3
7F.3	Client likes that site is far from their home	Environmental/structural + stigma	2
8F	HIV stigma avoided	Stigma	4

YMSM, young men who have sex with men.

outreach, (4) geography and transportation, and (5) HIV stigma (Tables 2 and 3). Accordingly, results from parent YMSM themes are reported by overarching conceptual themes. Mixed-methods analysis comparing differences between groups did not result in significant differences.

Health systems characteristics. Two overlapping child themes were identified by KIs as related to health systems characteristics affecting the decision making of YMSM for whether to attend HIV services at their organizations: (lack of) comprehensive wraparound services and the presence/absence of maintaining confidentiality. KIs reported five additional nonoverlapping child themes as either only YMSM facilitators (good providers providing convenient care; financial accessibility) or only YMSM barriers (medical mistrust; feelings of invincibility; unfamiliarity with seeking services).

Four KIs named the presence of comprehensive wraparound social and medical services within their organizations as a reason why YMSM would choose to access their HIV services. Participant ECD3F126 (CBO, field staff, EBI) emphasized the importance of social services: ''We put you right on the waiting list for the HIV positive housing, any jobs that come up… We're trying to create a climate of wrap around services.'' Participant ECD3M105 (Hospital, manager, HG intervention) described that wraparound services could even serve as the primary attraction for YMSM: ''So a lot of the clients we work with, their primary presenting concern is actually not HIV, right?… And so a lot of the time the initial contact is actually not specific to HIV. It might be related to those so-called supportive services.'' Lack of comprehensive wraparound HIV services was perceived as a barrier for YMSM to access care by two KIs. One stated, ''We don't have medical services, and so it's a lot easier for a person to go to another place where they can get all the services that they need,'' Participant ECD3M117 (CBO, manager, HG).

In addition to the scope of services provided by agencies (lack of), maintaining confidentiality was named as both a facilitator and a barrier affecting YMSM. Participant

Table 3. Codebook for Young Men Who Have Sex with Men: Barriers

No.	*YMSM barriers*	*Concept*	*No. of participants*
1B	No comprehensive/wraparound services offered	Health system (systems)	2
2B	Distrust of site and/or medical providers	Health system (provider)	5
2B.1	Lack of confidentiality	Health system (provider)	2
3B	Unfamiliar with seeking services	Health system (patient)	1
4B	Feeling invincible/denial of need for services	Health system (patient)	3
5B	Don't know about organization	Community outreach	5
6B	Intersectional and structural concerns	Cultural responsiveness	14
6B.1	Think site's services aren't for them	Cultural responsiveness; community outreach	11
6B.2	Homophobia	Cultural responsiveness	2
6B.3	Racism	Cultural responsiveness	1
6B.4	Transphobia	Cultural responsiveness	3
6B.5	HIV prevention fatigue	Cultural responsiveness	2
6B.6	Neighborhood safety	Environmental/structural	1
7B	Geography/distance	Environmental/structural	5
7B.1	Distance/travel time is too long	Environmental/structural	4
7B.2	Transit is a barrier	Environmental/structural	5
7B.3	Don't want to seek services where they live	Environmental/structural + stigma	1
8B	HIV stigma	Stigma	10

ECC1M134 (CBO, manager, EBI) described providing confidential HIV services as a facilitator: ''They [YMSM] feel we maintain their confidentiality. When we go out to testing events, we always bring our lockboxes, so they've actually observed the protection of their information. So that… [builds] a lot of trust.'' Lack of confidentiality, however, was viewed as a barrier: ''…agencies have a bad habit of hiring someone because they self-identify, but they don't put into the training that's required around confidentiality,'' Participant ECC1M134 (CBO, manager, EBI).

KIs reported two stand-alone facilitators to attract YMSM to their organizations: good providers providing convenient care and financial accessibility. Participant ECC1F132 (CHC, field staff, EBI) described how providing patient-centered HIV services helped engage and retain YMSM: ''We have a great provider… she's not like, 'I'm up here and you're down there….' that's what attracts and retains clients, especially in that group.'' Convenience and accessibility of services were also seen as part of being patient centered and as an overall facilitator: ''They [YMSM] come here, it's small. It's a nice clinic. The wait time is not long for our programs,'' Participant ECC1M131 (CHC, manager, EBI). Finally, KIs ($n=2$) reported that financial accessibility helped them attract YMSM who lacked health insurance: ''I think some of the draw… [was] 'If you don't have insurance then your services are covered','' Participant ECD1F114 (Hospital, field staff, HG).

KIs also reported three stand-alone barriers: medical mistrust, feelings of invincibility, and unfamiliarity with healthcare navigation. Participant ECD1F113 (CHC, field staff, HG) reported that medical mistrust served as a barrier to access HIV services, especially among YMSM of color: ''I mean, there's a distrust among a lot of people of color and healthcare providers that feel that… 'They're not going to treat me well'.'' In addition to race/ethnicity, KIs named age-related factors as negatively influencing YMSM's decision to attend HIV services. Participant ECC2M101 (CHC, manager, HG) stated, ''I think that young people don't prioritize their health in the way that older adults may.'' Participant ECC2F112 (CHC, field staff, HG) contextualized YMSM's lack of attendance in HIV care services as linked to ''some level of denial about their need, and priority.'' Another participant identified the complexity of healthcare navigation as a barrier: ''But there's also just like it's unfamiliarity with the whole process. So kind of coaching people on how to make it through the door is really important,'' Participant ECD1F113 (CHC, field staff, HG).

Intersectionality. A large proportion of KIs identified the presence or absence of an intersectional approach to providing HIV services as a facilitator ($n=14$) or a barrier ($n=14$), respectively, to engage and retain YMSM at their organizations. In total, four overlapping child themes tied to intersectionality as a facilitator (youth focused; LGBT tailored; multiple identity affirming; no need for documentation), and their four corresponding barriers (think services are not for them; homophobia; racism; transphobia) were identified. In addition, two nonoverlapping barriers (HIV prevention fatigue; neighborhood safety) were identified and are discussed in turn.

In total, four KIs reported providing HIV services tailored to youth as a facilitator. As Participant ECC1F129 (Hospital, field staff, EBI) described, ''We specifically have… one clinic that is totally dedicated to the youth population…that can work with that population, understands them and does their best to try to keep them in care.'' Some KIs, however, expressed that providing specialized care to youth may also backfire, as youth may paradoxically perceive that services are not for them. As ECD3F111 (Hospital, field staff, EBI) stated, ''So a lot of people here are like, 'You [provide pediatric care]…' So you see a 24-year-old who's like, 'What are you talking to me about this for? I'm not a child'.''

In total, 12 KIs, including Participant ECD1F113 (CHC, field staff, HG), reported that providing culturally competent care was of great importance to their organization's ability to attract YMSM: ''They're [YMSM] not going to get a doctor who thinks of them any less because they're gay or bisexual or same-gender loving or anything like that.'' In contrast, two KIs indicated that homophobia was a barrier that stopped YMSM from seeking their services: ''Again, fear of their own, the internalized stigma, and homophobia is very real for us [LGBT people] as well,'' Participant ECC1M134 (CBO, manager, EBI).

Four KIs reported that multiple identity affirmation was a facilitator to engage YMSM in HIV services at their site: ''Again, I think to a large extent, while MSM is certainly… one of the characteristics of the target population… We're working to overcome the stigma and the cultural barriers to care, not just from an HIV perspective, but also from an African-American perspective,'' Participant ECC1M108 (CHC, manager, EBI). Participant ECD2M102 (CBO, manager, EBI) reported that YMSM who were immigrants accessed services at their CBO because HIV services were structured to be financially accessible to clients regardless of their immigration status: ''Services are anonymous, so they're attracted that they don't have to disclose who they are, they don't have to provide identification so they can have those services anonymously and confidentially. At times they don't have insurance coverage. Many of them it's because of them being undocumented.''

Conversely, six KIs highlighted how not only single categories of marginalization, such as homophobia ($n=2$, as described above), racism ($n=1$), and transphobia ($n=3$), but also the intersections of these prejudices were barriers that made it less likely for YMSM to access care at their organizations. Participant ECD3M105 (Hospital, manager, HG) reported racism as a barrier: ''Security. Frankly I feel [at my organization] that racial profiling happens.'' Participant ECD3M105 (Hospital, manager, HG) noted that anticipated transphobia was a barrier, ''…So that's been a common complaint… especially trans clients not feeling [physically] safe coming here.'' Finally, Participant ECD3F126 (CBO, field staff, EBI) described how race and homophobia intersected to lead to barriers for especially black YMSM to access their HIV services: ''In the Black community, some people like to maintain their anonymity in terms of their sexual identity. It's hard to be gay, Black, and live on the South Side.''

In addition to the eight total overlapping child themes tied to intersectionality, two unique child themes emerged solely as barriers related to why YMSM would not seek care: neighborhood safety and HIV prevention fatigue. One KI named neighborhood gang violence as a barrier that prevented the service provider's organization from expanding into underserved areas within Chicago: ''The reason we don't

have a brick-and-mortar location in those areas is because when we were in the community, everyone would tell us that I can't visit your shop because I'm facial-familiar to my cousin or brother who's in a gang, so I can't walk into that territory,'' Participant ECC1M134 (CBO, manager, EBI). In addition, having a greater-than-necessary focus on HIV prevention at the expense of discussing other aspects of life important to YMSM, or ''HIV prevention fatigue,''[29] was reported by providers as negatively affecting YMSM engagement in HIV services: ''…Folks are… inundated with HIV prevention programs… They want to talk about dating. And they want to talk about relationship issues… A lot of the normal life stuff. But [instead] everything is just totally HIV prevention, 'Use a condom','' Participant ECCM122 (CBO, manager, HG).

Community outreach. Two overlapping child themes tied to community outreach were identified by participants that served as a facilitator (community engagement) or as a barrier (YMSM were unaware of the organization) to engage YMSM at their organizations. One stand-alone facilitator (referral to the organization by LGBT friends) was also identified.

Seven KIs named community engagement as a facilitator attracting YMSM to their organizations. Participant ECC2M123 (Hospital, manager, HG), for example, listed the hospital's community engagement efforts as a key factor facilitating engagement with YMSM: ''We have established relationships in the community that are very strong.'' Conversely, five KIs described low organizational awareness as a barrier to attract YMSM to use their organization's HIV services. Participant ECD1F121 (Hospital, field staff, HG) noted, ''Some people may not know that this exists… We're not outside with a big flag saying come access HIV services here.'' Likewise, Participant ECC1F129 (Hospital, field staff, EBI) reported, ''They don't know that we may do HIV testing…'' Low awareness of organizations and services among YMSM was typically related to weak outreach. Participant ECD3M117 (CBO, manager, EBI), for example, reported, ''We had some interns… do community mapping, and in the process they checked with several medical facilities and other community services here, and they had never heard of us, so we really haven't done good marketing.''

In alignment with the child themes highlighting the importance of having effective community engagement to promote organizational awareness among YMSM, five KIs emphasized the importance of having a strong word-of-mouth referral system among LGBT networks to attract YMSM to their organizations: ''I would assume that they [YMSM]… understand [organization name redacted] is a health organization that serves people like them…. We don't do a ton of advertising but we get most of our people from word of mouth,'' Participant ECD1M103 (CHC, manager, HG).

Geography and transportation. Participants also reported that three overlapping child themes tied to geography and transportation (distance and travel time; transit accessibility; and likelihood to be recognized accessing HIV services) could serve as either a facilitator ($n=6$) or a barrier ($n=5$) for YMSM to seek care at their organizations.

In total, three KIs indicated that proximity encouraged YMSM to attend care at their organizations: ''Well, one of the reasons is most of those people in that population live not far from here. And so it's more convenient for them to make their appointments,'' ECC1F132 (CHC, field staff, EBI). Participant ECD1F114 (Hospital, field staff, HG) agreed, ''People come to [our organization] because… either it's convenient or it's close by.'' Similarly, greater distance between home and provider was named as a key barrier by four KIs. Participant ECD1F113 (CHC, field staff, HG) stated, ''I think distance. A lot of folks don't live in this area, or they live pretty far away.'' Similarly, Participant ECC2M101 (CHC, manager, HG) reported, ''You know, I think we're on the North Side so if you're a YMSM on the South Side it's a very long commute to get here.''

Transportation was similarly discussed as both a facilitator ($n=3$) and a barrier ($n=5$) by a variety of participants. Organizations near public transportation reported that convenient transit was a facilitator for YMSM to access care: ''The train line is number one. It is literally number one,'' Participant ECC1M134 (CBO, manager, EBI). Participant ECC1M134 (CBO, manager, EGI) also highlighted that complex travel routes requiring multiple transfers can lead to lack of engagement in HIV services: ''It's the problem that oftentimes, when guys are willing to be tested, they'll call in Thursday, a day we're not there, and we'll say, 'You'll want to take the train, the Green Line to Roosevelt to the Orange Line'. They'll say, 'Oh, never mind, forget it'.''

Two providers described YMSM seeking care far from home as a facilitator for their site and explicitly connected this to attempting to conceal their HIV status. Participant ECC1M131 (CHC, manager, EBI) stated, ''Some of them come here who don't live in the Austin community who may not live in this ZIP code, they come from the far South Side because they wanna come into care outside of the community where they're in because they don't wanna be outed.'' One KI also identified that proximity to patients' homes, when combined with HIV stigma, could serve as a barrier to engage YMSM in HIV services: ''So definitely clients tell us that they don't want to receive services close to where they live,'' Participant EDC3M105 (Hospital, manager, HG).

HIV stigma. HIV-specific stigma was reported by KIs as a facilitator ($n=4$) and a barrier ($n=10$) to engagement in HIV services. Providers who offered comprehensive medical services reported that this was a facilitator to engage YMSM in their services: ''One of the advantages we have as a community-based health center is that we're not an HIV clinic. We're not a place where an individual might feel less than secure walking in the front door that somebody in the community might see them do that and have questions,'' Participant ECC1M108 (CHC, manager, EBI). Conversely, providers reported that YMSM would avoid attending HIV services at organizations exclusively associated with HIV care due to HIV stigma: ''There's a stigma behind the building of the [organization name redacted], so a lot of times even when we communicate with other clients or other people we hear… 'Oh, I don't want to go there for medical services','' Participant ECD1F114 (Hospital, field staff, HG).

Discussion

Our study investigated factors HIV service providers believed would lead YMSM to access or avoid accessing HIV

Table 4. Mapping Codes Onto the Ecological Framework

Ecological level	*Conceptual theme (axial code)*	*Parent code*
Microsystem	Health system	Perceived risk
		Insurance
		Ability to seek and navigate services
	HIV stigma	Stigma (internalized)
Mesosystem	Health system	Distrust of site and/or medical providers
		Lack of confidentiality
	HIV stigma	Stigma (provider)
	Intersectionality	Racism (provider)
	Community outreach	Thinks site's services aren't for them
		Knowledge of organization
Exosystem	Intersectionality	Neighborhood safety
	Geography and transportation	Distance/travel time is too long
		Transit is a barrier
	Community outreach	Knowledge of organization
Macrosystem	Health system	(lack of) Comprehensive services
	Intersectionality	Racism (community)
		Homophobia (community)
	Geography and transportation	Don't want to seek services where they live
	HIV stigma	Don't want to seek services where they live

services at their organizations. In total, using a grounded theory approach, we identified five inter-related theoretically based conceptual domains—health systems characteristics, intersectionality, community outreach, geography and transportation, and HIV stigma—that we felt collectively captured the qualitative themes HIV service providers identified as barriers or facilitators. In total, six themes served as both barriers and facilitators, including (1) patient confidentiality, (2) comprehensive/wraparound HIV services, (3) community engagement, (4) intersectionality, (5) geography and transportation, and (6) HIV stigma. Additional stand-alone facilitators included having good providers, financial accessibility, and word-of-mouth referrals from LGBT friends, while stand-alone barriers included medical mistrust, YMSM feelings of invincibility, unfamiliarity with HIV services navigation, HIV prevention fatigue, and neighborhood safety.

Similar to prior research, we found that these domains as well as their associated themes and subthemes mapped onto the levels of Bronfenbrenner's ecological model.[15,17,20] The themes from each domain were found to map onto multiple levels of the Bronfenbrenner model. For example, within the health systems domain identified in our study, the barrier themes of medical mistrust, feelings of invincibility, and unfamiliarity with seeking HIV services can be primarily classified as belonging to the microsystem. Patient confidentiality, which necessarily involves conversations among YMSM and their HIV service provider(s) as well as YMSM's service providers talking to each other to coordinate the care of their clients, is most closely tied to the microsystem and mesosystem levels. Moreover, as a factor not as directly tied to overarching social structures but that indirectly affects the healthcare decision making of YMSM, the presence or absence of providing comprehensive/wraparound HIV services is tied most closely to the exosystem level of Bronfenbrenner. Finally, financial accessibility of healthcare, a factor tied both to health systems and to the socioeconomic status of YMSM, most closely maps onto the exosystem and/or macrosystem levels. Similar applied theoretical analyses were undertaken by members of our team to create Table 4, which summarizes how each theme maps onto the Bronfenbrenner model.

A limited number of studies have shown that, with the exception of HIV prevention fatigue and feelings of invincibility, HIV providers have previously named these child themes as affecting whether YMSM access the PrEP continuum[21] or are linked to[20] or are retained in[22,23] HIV care. Similar to our study findings, Doll et al. recently reported that HIV providers who primarily served YMSM patients named medical mistrust, having multiple marginalized identities, ability to navigate healthcare, transportation safety, and privacy issues as tied to the ability of their patient populations to navigate PrEP services.[21] Philbin et al. have also reported provider perspectives about facilitators and barriers to HIV care for adolescents from providers embedded within Adolescent Medicine Trials Network for HIV/AIDS Intervention (ATN) sites.[20,22,23] Notably, many ATN sites, especially those sites that participated in ATN's Connect 2 Protect® intervention, prioritize providing HIV services to YMSM populations.[30] Similar to our study, Philbin et al. identified that ATN providers named availability of ancillary/wraparound services[20] as well as effective community outreach[22] as facilitators to attract youth to participate in HIV services. Likewise, ATN providers identified challenges with health insurance navigation,[20] transportation,[20] services not being youth tailored,[20] level of adolescent readiness for HIV care,[20,23] HIV stigma,[23] and need for trusting patient/provider relationships[23] as barriers to link or engage adolescents within HIV care.

Philbin and Doll also identified a number of additional barriers not named in our study primarily focused on health systems issues, including missing information in health records;[21,22] lack of health insurance,[20] challenges tied to confidentiality from YMSM's inclusion on parental health insurance policies;[21] the need to create new clinical protocols to identify YMSM most in need of HIV prevention services,[21] duplication versus coordination of HIV services,[20] and the lack of sharing of patient information across community and health services agencies.[20] While the factors

identified within our study and those named within the prior literature were not entirely identical, all fit within the five inter-related domains we used to frame our results. Interestingly, compared with the previous literature, we did not find that providers reported as many health systems factors affected YMSM's decision making for where to seek HIV services. The heightened emphasis on health systems barriers and facilitators within the prior literature could be due in part to the fact that our study contained providers from sites that did not offer medical services. Therefore, the emphasis our study places on learning about what factors that not only medical providers within hospitals and health centers but also nonmedical providers in CBOs believe affect the decision making of YMSM about where and whether to access HIV services makes a unique contribution within the sparse literature on this understudied topic.

Both in our study and in the prior literature, participants indicated that these conceptual domains served as both barriers and facilitators for YMSM across multiple levels of the Bronfenbrenner model. The Bronfenbrenner model has been applied to inform effective HIV-related intervention development.[17–19] Indeed, research has consistently shown that HIV infection is driven and sustained by factors at multiple levels within the model, and any care or prevention intervention attempting to address an individual's needs that fails to consider such levels will likely fall short of achieving a comprehensive understanding of the drivers of health disparities.[31] Accordingly, HIV service providers have begun developing community engagement initiatives targeted to assist YMSM with overcoming these obstacles.

The cross-cutting, multi-level conceptual themes described in our study provide further support that multi-level approaches to increase engagement in HIV prevention and care services among YMSM are warranted. For example, the results of this study highlight potential opportunities for interventions to address barriers related to health system characteristics on the microsystem level (i.e., programming designed to increase individual understanding about lack of invincibility and building their capacity and knowledge for how to seek HIV services), the mesosystem level (i.e., providers working together to increase an individual's trust of the medical system and ensuring confidentiality), and the macrosystem level (i.e., ensure comprehensive services are available to all individuals). Likewise, they suggest a need to consider meso-, macro-, and exosystem-level factors related to the theme of intersectionality, such as the attitudes of providers, the effects of economic instability and multiple marginalized identities while developing and implementing interventions. The identification of community outreach and geography and transportation as barriers suggests that researchers and evaluators should consider incorporating community surveys and geospatial analysis into evaluations to better understand how the meso-, macro-, and exosystems influence engagement outcomes. Findings from these studies could then inform future efforts to address these barriers. Finally, negating the effects of HIV stigma on service engagement will require the development of interventions and services that address several levels of the ecological model. This could include programing that aims to increase resiliency among individuals existing on the microsystem level, as well as initiatives that seek to decrease stigma among providers and the community as a whole, which exist at the meso- and macrosystem levels, respectively.

Our study should be interpreted with the following limitations in mind: this study was conducted at one site in a major urban area, so our results may not be generalizable to other geographic locations. The significant overlap between child themes reported here and those reported in the previous literature, however, may provide support for common provider perceptions of barriers and facilitators affecting YMSM's access of HIV services across multiple geographic regions. Reports from providers may not align with what factors YMSM themselves identify as barriers and facilitators. Many of the factors identified in our work and in the prior literature (e.g., transportation, HIV stigma, financial accessibility, feelings of invincibility, HIV prevention fatigue), however, have also been previously identified within surveys of YMSM to actually be associated with whether YMSM do or do not engage in HIV services.[9–14] Future work should investigate how closely provider perceptions match with what facilitators and barriers their YMSM patients actually report lead these YMSM to engage in providers' HIV services. Overall, our results indicate that providers report that complex, inter-related factors affect YMSM's decision making for why YMSM choose to engage in HIV care. These results, combined with feedback from YMSM and interpreted through the lens of Bronfenbrenner's model, could be used to shape future HIV prevention interventions.

Acknowledgments

The work presented in this study was funded by a supplement grant from the Third Coast Center for AIDS Research (Supplement to P30 AI117943) and by the Chicago Department of Public Health (RFP # DA-41-3350-11-2014-003).

Author Disclosure Statement

No competing financial interests exist.

References

1. Singh S, Mitsch A, Wu B. HIV care outcomes among men who have sex with men with diagnosed HIV Infection—United States, 2015. MMWR Morb Mortal Wkly Rep 2017; 66:969–974.
2. Purcell DW, Johnson CH, Lansky A, et al. Estimating the population size of men who have sex with men in the United States to obtain HIV and syphilis rates. Open AIDS J 2012;6:98–107.
3. Seth P, Walker T, Figueroa A. CDC-funded HIV testing, HIV positivity, and linkage to HIV medical care in non-health care settings among young men who have sex with men (YMSM) in the United States. AIDS Care 2017;29: 823–827.
4. Zanoni BC, Mayer KH. The adolescent and young adult HIV cascade of care in the United States: Exaggerated health disparities. AIDS Patient Care STDS 2014;28: 128–135.
5. Snowden JM, Chen YH, McFarland W, Raymond HF. Prevalence and characteristics of users of pre-exposure prophylaxis (PrEP) among men who have sex with men, San Francisco, 2014 in a cross-sectional survey: Implications for disparities. Sex Transm Infect 2017;93:52–55.

6. Patrick R, Forrest D, Cardenas G, et al. Awareness, willingness, and use of pre-exposure prophylaxis among men who have sex with men in Washington, DC and Miami-Dade County, FL: National HIV Behavioral Surveillance, 2011 and 2014. J Acquir Immune Defic Syndr 2017;75 Suppl 3:S375–S382.
7. Holloway IW, Cederbaum JA, Ajayi A, Shoptaw S. Where are the young men in HIV prevention efforts? Comments on HIV prevention programs and research from young men who sex with men in Los Angeles county. J Prim Prev 2012;33:271–278.
8. Marks SJ, Merchant RC, Clark MA, et al. Potential healthcare insurance and provider barriers to pre-exposure prophylaxis utilization among young men who have sex with men. AIDS Patient Care STDS 2017;31:470–478.
9. Bauermeister JA, Eaton L, Andrzejewski J, Loveluck J, VanHemert W, Pingel ES. Where you live matters: Structural correlates of hiv risk behavior among young men who have sex with men in metro detroit. AIDS Behav 2015;19: 2358–2369.
10. Bauermeister JA, Meanley S, Pingel E, Soler JH, Harper GW. PrEP awareness and perceived barriers among single young men who have sex with men. Curr HIV Res 2013;11: 520–527.
11. Phillips G, 2nd, Ybarra ML, Prescott TL, Parsons JT, Mustanski B. Low rates of human immunodeficiency virus testing among adolescent gay, bisexual, and queer men. J Adolesc Health 2015;57:407–412.
12. Perez-Figueroa RE, Kapadia F, Barton SC, Eddy JA, Halkitis PN. Acceptability of PrEP uptake among racially/ethnically diverse young men who have sex with men: The P18 study. AIDS Educ Prev 2015;27:112–125.
13. Veinot TC, Caldwell E, Loveluck J, Arnold MP, Bauermeister J. HIV Testing behavior and social network characteristics and functions among young men who have sex with men (YMSM) in metropolitan Detroit. AIDS Behav 2016;20:2739–2761.
14. Chan PA, Glynn TR, Oldenburg CE, et al. Implementation of preexposure prophylaxis for human immunodeficiency virus prevention among men who have sex with men at a New England sexually transmitted diseases clinic. Sex Transm Dis 2016;43:717–723.
15. Bronfenbrenner U. The Ecology of Human Development: Experiments by Nature and Design. Cambridge, MA: Harvard University Press, 1979.
16. Hosek SG, Harper GW, Lemos D, Martinez J. An ecological model of stressors experienced by youth newly diagnosed with HIV. J HIV AIDS Prev Child Youth 2008;9: 192–218.
17. Prado G, Lightfoot M, Brown CH. Macro-level approaches to HIV prevention among ethnic minority youth: State of the science, opportunities, and challenges. Am Psychol 2013;68:286–299.
18. Martinez O, Wu E, Frasca T, et al. Adaptation of a couple-based HIV/STI prevention intervention for Latino men who have sex with men in New York city. Am J Mens Health 2017;11:181–195.
19. Garofalo R, Johnson AK, Kuhns LM, Cotten C, Joseph H, Margolis A. Life skills: Evaluation of a theory-driven behavioral HIV prevention intervention for young transgender women. J Urban Health 2012;89:419–431.
20. Philbin MM, Tanner AE, Duval A, Ellen J, Kapogiannis B, Fortenberry JD. Linking HIV-positive adolescents to care in 15 different clinics across the United States: Creating solutions to address structural barriers for linkage to care. AIDS Care 2014;26:12–19.
21. Doll M, Fortenberry JD, Roseland D, McAuliff K, Wilson CM, Boyer CB. Linking HIV-negative youth to prevention services in 12 U.S. cities: Barriers and facilitators to implementing the HIV prevention continuum. J Adolesc Health 2018;62:424–433.
22. Philbin MM, Tanner AE, DuVal A, et al. Factors affecting linkage to care and engagement in care for newly diagnosed HIV-positive adolescents within fifteen adolescent medicine clinics in the United States. AIDS Behav 2014;18: 1501–1510.
23. Philbin MM, Tanner AE, DuVal A, et al. Understanding care linkage and engagement across 15 adolescent clinics: Provider perspectives and implications for newly HIV-infected youth. AIDS Educ Prev 2017;29:93–104.
24. Mullins TLK, Zimet G, Lally M, Xu J, Thornton S, Kahn JA. HIV care providers' intentions to prescribe and actual prescription of pre-exposure prophylaxis to at-risk adolescents and adults. AIDS Patient Care STDS 2017; 31:504–516.
25. Philbin MM, Tanner AE, Ma A, et al. Adolescent and adult HIV providers' definitions of HIV-infected youths' successful transition to adult care in the United States. AIDS Patient Care STDS 2017;31:421–427.
26. Wao H, Aluoch M, Odondi GO, Tenge E, Iznaga T. MSM's versus health care providers' perceptions of barriers to uptake of HIV/AIDS-related interventions: Systematic review and meta-synthesis of qualitative and quantitative evidence. Int J Sex Health 2016;28:151–162.
27. Dedoose Version 8.0.33, web application for managing, analyzing, and presenting qualitative and mixed method research data [computer program]. Los Angeles, CA: SocioCultural Research Consultants, LLC, 2016.
28. Glaser BG, Strauss AL. The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago: Aldine, 1967.
29. Macapagal K, Birkett M, Janulis P, Garofalo R, Mustanski B. HIV prevention fatigue and HIV treatment optimism among young men who have sex with men. AIDS Educ Prev 2017;29:289–301.
30. Ziff MA, Harper GW, Chutuape KS, et al. Laying the foundation for Connect to Protect: A multi-site community mobilization intervention to reduce HIV/AIDS incidence and prevalence among urban youth. J Urban Health 2006; 83:506–522.
31. Schwartlander B, Stover J, Hallett T, et al. Towards an improved investment approach for an effective response to HIV/AIDS. Lancet 2011;377:2031–2041.

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