

HHS Public Access

Author manuscript

Ethn Health. Author manuscript; available in PMC 2022 August 01.

Published in final edited form as:

Ethn Health. 2022 August; 27(6): 1241-1255. doi:10.1080/13557858.2021.1899137.

Perceptions, experiences, and preferences for partner services among Black and Latino men who have sex with men and transwomen in North Carolina

Gonzalez Rodriguez Humberto¹, Barrington Clare¹, McCallister Katherine Nicole², Guy Jalila², Hightow-Weidman Lisa², Hurt Christopher Browning², McNeil Candice Joy³, Sena Arlene Carmela²

¹University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Department of Health Behavior

²University of North Carolina at Chapel Hill, Institute for Global Health & Infectious Diseases

³Wake Forest University Health Sciences, Department of Medicine, Section on Infectious Diseases

Abstract

Objectives: In the United States, sexually transmitted infections (STIs) disproportionately affect men who have sex with men (MSM) and transwomen of color. Partner services can prevent STI transmission by facilitating testing and treatment for partners of individuals diagnosed with an STI. Understanding client perspectives towards partner services is critical to their acceptance and uptake. This study examined perceptions, experiences, and preferences for partner services among Black and Latino MSM and transwomen in North Carolina.

Design: We conducted seven audio-recorded focus groups in English (n=5) and Spanish (n=2). Audio was transcribed verbatim and we inductively analyzed data using field notes, systematic coding, and thematic comparison.

Results.—Black MSM reported the most exposure and experiences with partner services, and most perceived partner services negatively. Feeling supported and having flexibility characterized positive experiences with partner services among Black MSM; feeling judged or harassed characterized negative experiences. Black transwomen had less exposure to partner services and had a mix of positive reactions to the approach, along with concerns about client confidentiality. Most Latino participants were unaware of partner services and expressed openness to their potential. All participants preferred self-notifying and wanted flexible, discreet, supportive partner services with linkages to other wellness resources.

Declarations

Conflict of interest: The authors declare that they have no conflicts of interest.

Statement of human rights: All procedures performed in studies involving human participants were in accordance with the ethical standards of the Institutional Review Boards at the University of North Carolina at Chapel Hill and Wake Forest University Health Sciences and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

corresponding author: hgonz@email.unc.edu.

Conclusion.—Building off positive partner services experiences and responding to client preferences can enhance trust, acceptability, and service use.

Keywords

partner services; transgender; men who have sex with men; Latino; partner notification

Introduction

Partner services, also known as partner notification, partner referral, or contact tracing, is an effective public health strategy to interrupt and reduce transmission of HIV, syphilis, and other sexually transmitted infections (STIs) (Hogben 2007; Brown et al. 2011; Centers for Disease Control 2017). Disease Intervention Specialists (DIS) provide partner services for public health departments in the United States (US); DIS interview individuals recently diagnosed with HIV or syphilis to elicit information about recent sexual activity and notify recent sexual partners of possible STI exposure, encourage testing and treatment, and provide risk-reduction counseling (Ward and Bell 2014; Cope, Mobley, et al. 2019). How DIS contact clients varies by region, including phone calls, in-person visits, and, increasingly, virtual or electronic messaging (Cope, Seña, et al. 2019; Ronen et al. 2019). In North Carolina (NC), DIS generally initiate contact by calling clients for partner services. If telephone contacts are unsuccessful, NC DIS can conduct in-person visits at home, work, or other listed addresses without clients' permission, although clients can decline speaking with DIS.

Partner services can potentially reduce the disproportionate HIV and STI burden among racial and ethnic minority men who have sex with men (MSM) and transwomen in the US (Center for Disease Control 2015; Center for Disease Control and Prevention 2017). In 2017, Black and Latino gay and bisexual men accounted for 37% and 29% of new HIV diagnoses, respectively, and most transmissions stemmed from male-to-male sexual contact (Center for Disease Control and Prevention 2017). Black men in NC had the highest rates of newly diagnosed HIV and early syphilis (78 and 88 per 100,000 population, respectively) (North Carolina HIV/STD/Surveillance Unit 2018). In 2018, MSM in NC made up 65% of all HIV cases and 81% of newly diagnosed HIV among Latino men (North Carolina HIV/STD/Surveillance Unit 2018). HIV and STI data for transwomen are limited due to incomplete surveillance among this population. A 2018 systematic review estimated a 14% HIV prevalence among transwomen in the US from 2006–2017, with estimates highest among Black (44%) and Latina (26%) transwomen (Becasen et al. 2018).

There are several challenges to using partner services for STI control. Client acceptance can limit partner services' uptake (Cowan, French, and Johnson 1996; Magaziner et al. 2018; Semple et al. 2018; Taleghani et al. 2019). Perceived client confidentiality is another salient barrier (Magaziner et al. 2018); some clients and their partners may decline partner services to protect personal privacy, avoid partner rejection or loss of social support (Culbert, Earnshaw, and Levy 2019; Clark, Perez-Brumer, and Salazar 2015). Partner elicitation can also be uncomfortable for clients. Among surveyed index clients interviewed by DIS for partner elicitation in New York City, respondents felt these interviews were 'too personal',

'too long', or asked 'too many questions' (Udeagu et al. 2010). Programmatic challenges that include limited resources (Cuffe, Leichliter, and Gift 2018), competing responsibilities, and heavy caseloads (Magaziner et al. 2018; Cope, Mobley, et al. 2019) can also limit reach and quality of partner services.

Reducing HIV and STI transmission and improving sexual health equity among Black and Latino MSM and transwomen requires improving our understanding of barriers to partner services acceptability and uptake among clients (Magaziner et al. 2018). This study explored perceptions, experiences, and preferences of partner services among MSM and transwomen of color in NC.

Methods

Design.

We conducted a formative study among racial and ethnic populations at highest risk for HIV and STIs to assess experiences with partner services and identify areas for improvement. We used focus group discussions (FGD) to assess perceptions and experiences with partner services among Black and Latino MSM and transwomen in NC. FGDs allowed us to facilitate critical discussions and reflections with diverse groups across various social spaces.

Sample and recruitment.

We purposively sampled participants from four central NC counties with high incidence rates of HIV and syphilis. Eligible participants were aged 18–44, identified as Black and/or Latino, had sex with men, and identified as cisgender male or a transwoman. We recruited most participants through referrals from community partners and social media advertisements (Instagram and Facebook). We also distributed flyers at four public STI clinics, one in each participating county, and at community events. Two female study coordinators screened English-speaking participants, and a bilingual male assistant screened Spanish-speaking participants using a short questionnaire. This study received Institutional Review Board approval from the University of North Carolina at Chapel Hill and Wake Forest University Health Sciences.

Data collection.

Participants provided written consent to participate in an audio recorded FGD and completed a brief demographic survey before each discussion. We used a semi-structured interview guide with open-ended questions to stimulate discussion about partner services, such as: What have you heard about partner notification services? What are your personal experiences with DIS or partner notification services? What would be your preferred way of notifying your sexual partner about their potential exposure to an STI? Our interview guide also included questions about health and healthcare, sexual networks, venues for meeting sexual partners, pre-exposure prophylaxis (PrEP), and post-exposure prophylaxis (PEP). We conducted seven FGDs between July 1 and August 31, 2018. One cisgender man and one cisgender woman co-facilitated the four FGDs with Black MSM. Two cisgender women co-facilitated the FGD with Black transwomen. Two bilingual cisgender men and a

cisgender woman notetaker facilitated the two FGDs with Latino MSM and transwomen in Spanish. All study personnel had experience conducting FGDs.

Data Analysis.

Preliminary data analysis began with writing field notes and team debriefs to share observations of key themes and document group dynamics after each FGD. Next, we conducted a rapid analysis of field notes and identified three salient themes related to partner services: perceptions, experiences, and preferences. We structured our codebook around these themes and systematically coded transcripts in their original language using Dedoose (version 8.0.35)(SocioCultural Research Consultants, LLC 2018). One team member coded all transcripts and three team members double coded English transcripts. After coding, we compared partner services themes across the three study groups: Black MSM; Black transwomen; and Latinos. In the results, we describe key findings for each of the three key themes including comparison across groups, when relevant. We assigned pseudonyms to each participant to use in the presentation of results to maintain confidentiality.

Results

Sample Description

In total, we had 50 participants across seven FGDs: five in English and two in Spanish (see Table 1). On average, each FGD had seven participants (range: 3–12) and lasted 95 minutes (range: 86–106). The average participant age was 30 years (range: 19–43). Most participants identified as cisgender men (74%) and reported a sexual attraction to men (90%). Sixty-eight percent of participants identified as Black, and 34% identified as Latino; one participant identified as both Black and Latino. Most Latino participants self-identified as foreign born (92%).

Twenty-three or nearly half (46%) of participants reported any prior interaction with partner services; nine (18%) had engagement with partner services within the last 12 months. Of these nine, eight were Black men and one was a Latino man, all participants in English-speaking FGDs. Of all transwomen, only two, both Black, had any prior experience with partner services. Notably, no participants in Spanish-speaking FGDs reported prior experiences with partner services.

Perceptions

Perceptions of partner services varied across the three study groups. In general, most Black MSM were familiar with partner services, though few recognized it by name. Some participants referred to DIS as the 'health department', others called them the 'sex police', as reflected by Noah, 39, and Jalen, 38,

Noah: We call it [DIS] the sex police.

Moderator: Why do people call it the sex police?

Noah: Because they go out and -

Jalen: [interrupts] – Because they hound you. [Others laugh]

Noah: They take your name, call you on the phone. If not, they go to your house, leave a note, leave a letter.

Jalen: [interrupts] Come to your work sometimes.

Noah: Come to your work sometimes.

This dynamic exchange evoked laughter that encouraged others to share their thoughts about DIS. Black MSM in other FGDs shared similar experiences. Justin, 33, said DIS were like 'secret agents of the field', reinforcing the notion of DIS as law enforcement. 'Finding people' was a salient DIS role participants described. 'Yeah, that's how people view [DIS] - we don't know a whole bunch, but that's how people are viewing it', said Adrian, 30, suggesting many viewed DIS negatively because they personally knew little about the partner notification process.

The imagery of the health department, a government agency, 'looking for you' provoked discomfort and fear. Some participants felt public health initiatives 'targeted' the gay community, as reflected by Anthony, 30,

And I would stop targeting – because most commercials and advertisements you see is just focusing on gay teens and youth, and it [STI prevention] should be an *everybody* thing.

Others agreed. 'That's not fair, it not just us' said Nate, 29. Others felt unsure and curious about DIS and partner services, '...if [DIS] like, contact you and can't get in contact with you, do they like contact you again just in case somebody is not taking it serious?', asked Trevor, 25, suggesting many participants did not understand DIS procedures for contacting clients.

Awareness of partner services varied among Black transwomen. Transwomen who were less aware of partner services viewed services as theoretically positive, while those aware of services felt wary towards DIS and worried about privacy. For example, Lucy, 41, worried about the use of her personal information,

I feel, though, my main concern with the whole DIS thing is the information being saved and possibly being used in something that I didn't give my consent to. That would be my main thing that would stray me away from even using it.

Janna, 24, meanwhile, worried about partner violence,

[It would be like] putting your life at risk 'cause some people may not be able to take that they have been exposed to [HIV] or whatever. It's just your life, your safety, not as far as being HIV positive – it's just for real – that's serious, 'cause some guys might not be able to take that knowledge.

Janna feared partner violence more than HIV, reflecting the reality of violence among transwomen participants. Many Black transwomen preferred avoiding partner services altogether through STI prevention via condom use. However, several said increased condom use could make steady partners suspicious.

Most Spanish-speaking Latino participants, MSM and transwomen alike, had never heard of DIS or partner services and learned about these services in their FGD. 'I didn't know this department existed until today' said, Emilio, 29. After learning what partner services entailed, many viewed them as a positive, proactive public service, as reflected by Mateo, 36, 'I think it's impressive when someone calls you to say, "Come [to the clinic], you have to do an exam for this and this"'. Generally, Latino participants liked that partner services could enable them to quickly respond to health concerns, especially since most said they only sought healthcare when they felt 'sick'. Latino participants referenced their positive views towards partner services by comparing healthcare services in their respective countries of origin, as described by Agustin, 40,

...in this country, there is a lot of [healthcare] help, there's a lot of money for the health department and there are programs. But if you look, for example, in our countries, be it El Salvador, Mexico, or Honduras, there is no money.

Latino participants viewed the health department as a trustworthy authority, contrasting perceptions about government health systems in their countries of origin, which many described as unreliable or dysfunctional. In this respect, they believed anonymous service provision could largely prevent partner violence and community gossip, though some worried unprofessional interpreters could compromise privacy. Others thought some Latino clients might feel uncomfortable disclosing partner names for fear of 'causing problems', as reflected by Emilio, 25, '...there is some fear in the Hispanic community of sharing the names of the people you slept with'. Echoing this, Toño, 21, worried partner services could disrupt family life among married men who secretly had male or transgender partners.

Experiences

Participants actual experiences with partner services also varied across the three study groups. Black MSM had the most partner services experiences. They described client outreach as 'aggressive' and generally disliked persistent and spontaneous in-person DIS visits, particularly in public spaces. For example, Jalen, 38, felt harassed by persistent DIS outreach,

She [DIS] came to my work. She went to my house, well, she went to my parents' house – [that's] another story. Then she called my sister, for some odd reason she had my sister's number. My sister called me and said, 'The Health Department is looking for you.'

DIS outreach embarrassed some participants. Others felt judged by DIS, as reflected by Samuel, 26,

Samuel: Just don't act like you ain't never done nothing and [not] contracted a STI, [and act] like I'm just the worst person in the world. Like, you know? She [DIS] came into my house, you know. I remember back in the day, like as soon you get that call, like, [you] just hang up and you just try to do it on your own because you don't want people in your business, unless it's just me, and they make you feel so – I don't know the word for it, but it makes you feel –

Joe: Dirty.

Samuel: Yeah, dirty, they make you feel dirty. [...] So you know it's okay [for DIS to call], [but] like you say, more sensitivity is needed.

Many participants felt shock and uncertainty when notified of an exposure or diagnosis and wanted more sensitivity from DIS. For example, Otis, 25, was surprised to test positive for an STI while in a serious, monogamous relationship. Participants' STI-related stress worsened when they felt judged by DIS, as reflected by a DIS interview Otis described,

I didn't too much care for her [DIS], she just could not believe that I hadn't been with anyone else, and she thought that I was lying to her [...] And um, so I just kind of felt like she was placing me into a stereotype, as if she like expected me to have been having consistent casual sex with multiple partners and to have this long list of names to give her of the people who I've been with. So that was not a very pleasant experience.

DIS interactions largely defined participants' experiences with partner services. Feeling supported and reassured meeting DIS at his house with a parent present, Trevor, 25, described a positive DIS experience that alleviated his uncertainty,

It was very scary being reached out [to] because I didn't know what was going on. And apparently, it [my diagnosis] turned out it was something more common rather than to be afraid of. And they [DIS] worked with me, they came right to my house. I was a little bit weird about it but they were really nice, and, you know, like I had my [parent] there because I didn't trust them, (laughs nervously) I didn't trust them, but they were trustworthy.

Notably, Trevor's supportive, open relationship with his parent distinguished him from others who lacked family support. Most participants did not want DIS visiting them at home or work, as reflected by Stefan, 31, who reiterated the importance of flexibility to safeguard privacy when describing a DIS experience,

I got to set the terms of where I wanted to meet, so this popping up at work or at your house x that would be unacceptable. But they're like, 'Where can I meet you?' then y'all work that out. I mean, it takes a little bit of adjustment, but we did meet in his car, which you know [was a bit weird], but we were in a public area. But I think it did kinda make it so it seemed private and not everyone was able to hear. 'Cuz you're coming to someone's job and you're delivering information, I mean that's not anything I wanna share.

Other participants also appreciated DIS accommodating their individual circumstances. Otis, quoted earlier, described a different, positive DIS experience that included transportation support,

...At the time I wasn't driving, so you know [that was hard], she picked me up and took me there, and she waited there with me, you know, checked on me as I waited. That experience was really good.

Otis felt comfortable working with DIS when he felt supported, and he highlighted the importance of establishing client trust when reflecting on his negative and positive partner services experiences,

I think it depends on the DIS person. The last one I worked with one time was really, really good. At first, I really didn't wanna share too much, but then I got comfortable; we started chatting, I was able to share information. So, I think it's kinda, what angle they're coming from. Are they being judgmental about it?

While some participants gradually trusted and worked with DIS, others partially cooperated. Tiffany, 19, a Black transwoman, felt conflicted about working with DIS when diagnosed with HIV; she felt sharing her partner's name was 'telling on him' and did not want to upset him. To avoid partner conflict, Tiffany met with DIS, shared her partner's name, but did not provide his contact information.

Preferences

Participants across all three study groups believed notifying partners of potential STI exposure was important. They wanted clear and appropriate communication from DIS outlining the next steps in the partner services and care processes. For example, Mario, 23, a Latino MSM, said DIS needed to provide Latino clients information without inciting fear and panic, 'I think they need to be sensitive [in communicating] because imagine, if the disease does not kill them [a person] tomorrow, they'll [panic and] kill themselves'. Some Black MSM felt DIS prioritized eliciting client information and wanted more DIS support and follow-up, as described by Nelson, 30,

Also, follow-up – don't just drop a bomb on somebody and then don't talk to them. A courtesy call, [mimicking DIS calling a client] 'Hey, how are you doing? Have you got tested yet or have you talked to someone about it? Do you have any resources or a support group?' Just follow up and you know, just have some type of understanding about what you just gave him.

While all participants believed partner services were practical in anonymously alerting casual partners, they believed its use with steady partners, who ranged from friends to spouses, was more complicated. Given a choice, most preferred handling notification with steady partners themselves, as described by Elijah, 26, a Black MSM,

And that relationship plays a hard part in it [telling your partner] because if you tell that person that you actually have a consistency with, they're not gonna be – well, I wouldn't be as angry, because I would feel like, 'Okay, at least you cared enough about me to come and tell me [yourself].'

Elijah preferred telling his partner himself to show concern, something he himself would want from a partner. Extending this narrative, Justin, 33, shared an experience of a partner notifying him,

...there was a case where I could have been a contact, but the guy called me, he was like, 'Hey, I gave your name, just letting you know I'm positive, but I wanted you to hear it from me first, so they may call you.' And I was like, 'Okay', but I had to calm him down because [he was so stressed]. I was just like, 'Well, we used protection, so you know, I'm fine, you're fine'. And he was like, 'No, but I'm worried about you.' I'm like, 'Don't worry about it.'

Justin appreciated the personal notification; he felt cared for, knew to anticipate a health department call, and even supported his partner in this exchange. While many liked the idea of self-notifying a steady partner, many admitted this was easier said than done given sensitivities related to disclosure.

Discussion

Perceptions of and experiences with partner services varied notably across race, ethnicity, and gender identity sub-groups in our study. Black MSM reported the greatest exposure and experience with partner services, and most perceived partner services negatively, feeling harassed and targeted by persistent DIS outreach attempts. Such 'partner services fatigue' can decrease client cooperation with DIS (Rowlinson et al. 2018) while negative experiences with health staff can hinder STI testing and treatment (Nakku-Joloba et al. 2019). In contrast, some Black MSM participants reported positive experiences with DIS, most notably flexibility, autonomy, and support. The discrepancy between negative perceptions and mixed experiences with partner services among Black MSM suggests some clients may approach services with fear and distrust. Efforts to increase partner services acceptability need to address sources of negative perceptions and highlight positive experiences and outcomes.

Only two Black transwomen reported prior partner services experiences. Some Black transwomen with no partner services experience perceived services as theoretically positive while others distrusted services or worried loss of confidentiality could incite partner conflict or violence. In assessing partner services among Black patients using 2016 data from the National HIV Prevention Program Monitoring and Evaluation system, Rao et al. found that transgender patients had the lowest percent of partner services interviews (79.6%) compared to heterosexual women (92.7%), heterosexual men (91.5%), MSM (90.3%) and people who inject drugs (86.5%) (Rao et al. 2019). Distrust, concerns about confidentiality, stigma, discrimination, and negative healthcare experiences have been found to impede service use among transwomen (Sevelius et al. 2014; Smith et al. 2018). Limited legal protections and lack of accommodations for transgender people also discourage or delay healthcare use (Reisner et al. 2015). While fear of violence is a commonly cited barrier to partner notification (Nakku-Joloba et al. 2019; Temple-Smith et al. 2010), negative outcomes, including violence, are relatively rare (Passin et al. 2006; Tih et al. 2019). Given the high burden of partner violence experienced by transgender women in particular (Peitzmeier et al. 2020), future research is needed to further explore violence in the context of partner services among transgender individuals. To minimize risk, partner violence screening should be standard practice in partner services (Ayala et al. 2019). Additionally, integrating linkage to gender-affirming care could encourage STI and HIV testing and care among transwomen (Sevelius et al. 2014).

Most Latino participants learned about partner services in their FGDs, which may reflect poorer access to information about health services in general among this population. Latino participants viewed the health department as a trustworthy authority, a stark contrast to negative perceptions among Black MSM and transwomen. This finding is noteworthy, especially given that immigration status has been associated with delayed HIV diagnosis

(Levy et al. 2007), and Latino populations diagnosed with HIV in the Southeast US have lower rates of linkage to care than in other regions (Rao et al. 2016). Transnational healthcare experiences may influence positive perceptions towards partner services and the health department among Latino participants in our sample as many said sexual health programs were limited or non-existent in their country of origin. Public health professionals should consider leveraging positive perceptions towards the health department among Latino MSM and transwomen to increase awareness and engagement with partner services and linkage to care as needed. This outreach could include a 'know your rights' component to dispel misperceptions and increase awareness of patient rights (Ayala et al. 2019), especially among immigrant communities amidst growing deportation fears. Importantly, engaging Spanish-speaking Latino clients will require hiring bilingual staff sensitive and attuned to the needs of this community, particularly immigrant clients.

While perceptions and exposure varied among our sub-groups, all had similar partner services preferences. Most participants believed it was important to notify partners of exposure to an STI, a finding consistent with other studies (Passin et al. 2006; Contesse et al. 2019). Given a choice, participants preferred self-notification, also known as a passive or patient referral, to safeguard privacy (World Health Organization 2016; Ward and Bell 2014) rather than have DIS notify partners, a preference documented in implementation studies of partners services (Barrington et al. 2018; Plotkin et al. 2018; Bilardi et al. 2010; Contesse et al. 2019). Other studies suggest most clients reported positive experiences of self-notifying sexual partners (Passin et al. 2006; Wang et al. 2012; Temple-Smith et al. 2010). Partner-level factors that can facilitate partner notification include valuing a partner (Nakku-Joloba et al. 2019), having steady partners (Wang et al. 2012), and a strong partner relationship (Plotkin et al. 2018). Providing clients alternatives to communicating with DIS face-to-face or via phone could increase client engagement and perceived client privacy, a concern all participants expressed. Studies suggest clients want more options to communicate with partner services digitally via texts, applications, and email (Cope, Seña, et al. 2019; Huffam et al. 2013; Bilardi et al. 2010; Wang et al. 2016; Udeagu et al. 2017).

Discomfort sharing the names of sexual partners (Magaziner et al. 2018) and lack of DIS cooperation are known to inhibit the success of partner services (Cope, Mobley, et al. 2019). However, partner services are typically constrained by the requirements of state public health laws requiring individuals diagnosed with HIV and/or syphilis to provide DIS the names of their sexual partners. Participants wanted DIS to speak with clients with clarity and respect, and voiced feeling stress while using partner services. Edelman et al. suggested that service providers should increase their understanding of the lived experiences of MSM, and leverage partner services as an opportunity to increase empathy and trust (Edelman et al. 2014). Community trust in partner services can be earned when community members feel their privacy, consent, confidentiality of themselves, and others in their networks are protected (Ayala et al. 2019). In our study, supportive client communication helped facilitate trust among participants who felt scared, unsure, or distrustful of DIS, therefore transforming initial negative perceptions about partner services into positive experiences. Partner services should thus be tailored to meet the specific geographical, social and individual needs of clients (Sullivan et al. 2018), and DIS should work with clients to determine what, if any, reasonable accommodations could made to engage clients in service

use (Culbert, Earnshaw, and Levy 2019). Beyond this, public health departments need to continue understanding sources of mistrust that may hinder the use of partner services. Additional public health research is needed to understand how to improve client trust with DIS, who must balance compliance with state laws with increasing caseloads and obtain information on sexual partners and others who can benefit within the network of known positives.

Participants also preferred DIS to provide more support and follow-up in the partner services and care linkage processes for persons with HIV and other STIs. Participants appreciated services in the form of transportation and information regarding HIV. Most DIS have limited time for individual case management (Cope, Mobley, et al. 2019). NC, like other states, has a well-established infrastructure in which DIS can refer individuals newly diagnosed with HIV to regional HIV bridge counselors for linkage services and individual support to facilitate timely medical care (Swygard et al. 2018; Seña et al. 2017). Utilizing a strengths-based approach that builds off client preferences and facilitates referrals may improve the acceptance and use of partner services. Our results also suggest that potential clients can benefit from greater explanation of partner services, DIS roles, and clients' rights throughout this process to increase acceptability.

One limitation to our study is that we did not establish the timing and location of participants' experiences with partner services to understand how these factors may have shaped perceptions. For example, it is unclear if participants were referencing partner services occurring within 12 months, several years, or decades ago. We also did not assess if the type of STI exposure or diagnosis (HIV, syphilis, chlamydia, etc.) affected their partner services experiences. Given our use of purposive sampling from four NC counties, our findings may not be representative of all partner services as these characteristics are likely to differ across social and geographical settings. Lastly, group dynamics in each of our FGDs, such as social desirability, peer pressure, or confidentiality concerns, may have influenced how participants responded to questions, such as encouraging some responses while discouraging others.

Conclusion

We found distinct perceptions and experiences with partner services among Black and Latino MSM and transwomen. Future research is needed to systematically examine in more depth how partner services' perceptions, experiences, and preferences vary across racially and ethnically diverse MSM and transwomen to strengthen and tailor services. Overall, we found that participants preferred discretion, flexibility, support, and linkages to other health resources. Experiences with partner services can be improved by building off positive experiences and responding to client preferences for more confidential, tailored services that build trust and balance population health priorities with individuals' needs.

Acknowledgements

We thank participants for sharing their time, perspectives, and experiences. We thank our community partners and our colleagues at the Communicable Disease Branch at the NC Division of Public Health for their guidance and

support of planning and carrying out the study. We also thank our colleagues Matthew Hogben and Monique Carry at the Centers for Disease Control and Prevention for their support of this project.

Funding: This work was supported by the Centers for Disease Control and Prevention (National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention) under grant 6 NU50CK000530-01-02 and grant CK14-140105PPHF18 to the NC Division of Public Health.

References

- Ayala George, Bahati Mahri, Balan Elie, Chang Judy, Do Tri D, Fokeerbux Najeeb A, Hassan Abdulwahid, et al. 2019. "Partner Notification: A Community Viewpoint." Journal of the International AIDS Society 22 Suppl 3 (July): e25291. doi:10.1002/jia2.25291. [PubMed: 31321916]
- Barrington C, Knight J, Gomez H, Donastorg Y, and Kerrigan D. 2018. "Developing a Voluntary Partner Referral Strategy for HIV Testing Among Key Populations: A Pilot Program in the Dominican Republic". presented at the 22nd International AIDS Conference, Amsterdam, Netherlands, July 27. http://programme.aids2018.org/Abstract/Abstract/6788.
- Becasen Jeffrey S, Denard Christa L, Mullins Mary M, Higa Darrel H, and Sipe Theresa Ann. 2018. "Estimating the Prevalence of HIV and Sexual Behaviors Among the US Transgender Population: A Systematic Review and Meta-Analysis, 2006–2017." American Journal of Public Health, November, e1–e8. doi:10.2105/AJPH.2018.304727.
- Bilardi Jade E, Fairley Christopher K, Hopkins Carol A, Hocking Jane S, Temple-Smith Meredith J, Bowden Francis J, Russell Darren B, et al. 2010. "Experiences and Outcomes of Partner Notification Among Men and Women Recently Diagnosed with Chlamydia and Their Views on Innovative Resources Aimed at Improving Notification Rates." Sexually Transmitted Diseases 37 (4): 253–258. doi:10.1097/OLQ.0b013e3181d012e0. [PubMed: 20182407]
- Brown Lillian B, Miller William C, Kamanga Gift, Nyirenda Naomi, Mmodzi Pearson, Pettifor Audrey, Dominik Rosalie C, et al. 2011. "HIV Partner Notification Is Effective and Feasible in sub-Saharan Africa: Opportunities for HIV Treatment and Prevention." Journal of Acquired Immune Deficiency Syndromes (1999) 56 (5): 437–442. doi:10.1097/qai.0b013e318202bf7d. [PubMed: 22046601]
- Center for Disease Control. 2015. "Gay, Bisexual and Other MSM." October 17. https://www.cdc.gov/std/life-stages-populations/msm.htm.
- Center for Disease Control and Prevention. 2017. HIV Surveillance Report, 2017. 29. Atlanta, GA: Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html.
- Centers for Disease Control. 2017. "Partner Notification Services." August 29. https://www.cdc.gov/actagainstaids/campaigns/pic/talks/partner-notification.html.
- Clark Jesse L, Perez-Brumer Amaya, and Salazar Ximena. 2015. "Manejar La Situacion": Partner Notification, Partner Management, and Conceptual Frameworks for HIV/STI Control Among MSM in Peru." AIDS and Behavior 19 (12): 2245–2254. doi:10.1007/s10461-015-1049-3. [PubMed: 25821149]
- Contesse Marielle Goyette, Fredericksen Rob J, Wohlfeiler Dan, Hecht Jen, Kachur Rachel, Strona FV, and Katz David A. 2019. "Attitudes About the Use of Geosocial Networking Applications for HIV/STD Partner Notification: A Qualitative Study." AIDS Education and Prevention 31 (3): 273–285. doi:10.1521/aeap.2019.31.3.273. [PubMed: 31145001]
- Cope AB, Mobley Victoria L, Samoff Erika, O'Connor Kevin, and Peterman Thomas A. 2019. "The Changing Role of Disease Intervention Specialists in Modern Public Health Programs." Public Health Reports (Washington, D.C.: 1974) 134 (1): 11–16. doi:10.1177/0033354918813549.
- Cope AB, Seña Arlene C, Eagle Cedar, Pol Adam, Rahman Mohammad, and Peterman Thomas A. 2019. "Assessing Patient Opinions About Electronic Messaging for Gonorrhea and Chlamydia Result Notification and Partner Services, Durham, North Carolina." Sexually Transmitted Diseases, June. doi:10.1097/OLQ.000000000001021.

Cowan FM, French R, and Johnson AM. 1996. "The Role and Effectiveness of Partner Notification in STD Control: a Review." Genitourinary Medicine 72 (4): 247–252. doi:10.1136/sti.72.4.247. [PubMed: 8976827]

- Cuffe Kendra M, Leichliter Jami S, and Gift Thomas L. 2018. "Assessing Sexually Transmitted Disease Partner Services in State and Local Health Departments." Sexually Transmitted Diseases 45 (6): e33–e37. doi:10.1097/OLQ.000000000000000803. [PubMed: 29750775]
- Culbert Gabriel J, Earnshaw Valerie A, and Levy Judith A. 2019. "Ethical Challenges of HIV Partner Notification in Prisons." Journal of the International Association of Providers of AIDS Care 18 (December): 2325958219880582. doi:10.1177/2325958219880582. [PubMed: 31597526]
- Edelman E Jennifer, Cole Christopher A, Richardson Wanda, Boshnack Nicholas, Jenkins Heidi, and Rosenthal Marjorie S. 2014. "Opportunities for Improving Partner Notification for HIV: Results from a Community-based Participatory Research Study." AIDS and Behavior 18 (10): 1888–1897. doi:10.1007/s10461-013-0692-9. [PubMed: 24469221]
- Hogben Matthew. 2007. "Partner Notification for Sexually Transmitted Diseases." Clinical Infectious Diseases 44 Suppl 3 (April): S160–74. doi:10.1086/511429. [PubMed: 17342669]
- Huffam Sarah, Fairley Christopher K, Mark Chung, Sze Jun Kit, Bilardi Jade, and Chen Marcus Y. 2013. "Facilitating Partner Notification through an Online Messaging Service: Let Them Know." Sexual Health 10 (4): 377–379. doi:10.1071/SH13007. [PubMed: 23651689]
- Levy Vivian, Prentiss Diane, Balmas Gladys, Chen Sanny, Israelski Dennis, Katzenstein David, and Page-Shafer Kimberly. 2007. "Factors in the Delayed HIV Presentation of Immigrants in Northern California: Implications for Voluntary Counseling and Testing Programs." Journal of Immigrant and Minority Health 9 (1): 49–54. doi:10.1007/s10903-006-9015-9. [PubMed: 17031578]
- Magaziner Sarah, Montgomery Madeline C, Bertrand Thomas, Daltry Daniel, Jenkins Heidi, Kendall Brenda, Molotnikov Lauren, et al. 2018. "Public Health Opportunities and Challenges in the Provision of Partner Notification Services: The New England Experience." BMC Health Services Research 18 (1): 75. doi:10.1186/s12913-018-2890-7. [PubMed: 29386023]
- Nakku-Joloba Edith, Kiguli Juliet, Kayemba Christine Nalwadda, Twimukye Adeline, Mbazira Joshua Kimeze, Parkes-Ratanshi Rosalind, Birungi Monica, et al. 2019. "Perspectives on Male Partner Notification and Treatment for Syphilis Among Antenatal Women and Their Partners in Kampala and Wakiso Districts, Uganda." BMC Infectious Diseases 19 (1): 124. doi:10.1186/s12879-019-3695-y. [PubMed: 30727950]
- North Carolina HIV/STD/Surveillance Unit. 2018. 2018 North Carolina HIV/STD/Hepetatitis Surveillance Report. Raleigh, North Carolina: North Carolina Department of Health and Human Services.
- Passin Warren F, Kim Angela S, Hutchinson Angela B, Crepaz Nicole, Herbst Jeffrey H, Lyles Cynthia M, and HIV/AIDS Prevention Research Synthesis Project Team. 2006. "A Systematic Review of HIV Partner Counseling and Referral Services: Client and Provider Attitudes, Preferences, Practices, and Experiences." Sexually Transmitted Diseases 33 (5): 320–328. doi:10.1097/01.olq.0000194597.16236.48. [PubMed: 16505750]
- Peitzmeier Sarah M, Malik Mannat, Kattari Shanna K, Marrow Elliot, Stephenson Rob, Agénor Madina, and Reisner Sari L. 2020. "Intimate Partner Violence in Transgender Populations: Systematic Review and Meta-analysis of Prevalence and Correlates." American Journal of Public Health 110 (9): e1–e14. doi:10.2105/AJPH.2020.305774.
- Plotkin Marya, Kahabuka Catherine, Christensen Alice, Ochola Denice, Betron Myra, Njozi Mustafa, Maokola Werner, et al. 2018. "Outcomes and Experiences of Men and Women with Partner Notification for HIV Testing in Tanzania: Results from a Mixed Method Study." AIDS and Behavior 22 (1): 102–116. doi:10.1007/s10461-017-1936-x. [PubMed: 29090397]
- Rao Shubha, Seth Puja, Walker Tanja, Wang Guoshen, Mulatu Mesfin S, Gilford John, and German Emilio J. 2016. "HIV Testing and Outcomes Among Hispanics/Latinos United States, Puerto Rico, and U.S. Virgin Islands, 2014." MMWR. Morbidity and Mortality Weekly Report 65 (40): 1099–1103. doi:10.15585/mmwr.mm6540a2. [PubMed: 27736833]
- Rao Shubha, Song Wei, Mulatu Mesfin S, Rorie Michele, O'Connor Kevin, and Scales Lamont. 2019. "HIV Partner Service Delivery Among Blacks or African Americans - United States, 2016." MMWR. Morbidity and Mortality Weekly Report 68 (4): 81–86. doi:10.15585/mmwr.mm6804a2. [PubMed: 30703079]

Reisner Sari L, White Hughto Jaclyn M, Dunham Emilia E, Heflin Katherine J, Glass Begenyi Jesse Blue, Coffey-Esquivel Julia, and Cahill Sean. 2015. "Legal Protections in Public Accommodations Settings: A Critical Public Health Issue for Transgender and Gender-Nonconforming People." The Milbank Quarterly 93 (3): 484–515. doi:10.1111/1468-0009.12127. [PubMed: 26219197]

- Ronen Keshet, Golden Matthew R, Dombrowski Julia C, Kerani Roxanne P, Bell Teal R, and Katz David A. 2019. "Uptake and Impact of Short Message Service Reminders via STI Partner Services on HIV/STI Testing Frequency Among Men Who Have Sex with Men." Sexually Transmitted Diseases, July. doi:10.1097/OLQ.000000000001043.
- Rowlinson Emily, Goings Samuel, Minnerly Sydney, Surita Karen, and Pogosjans Sargis. 2018. "Differences in Partner Services Outcomes for Men Who Have Sex with Men Diagnosed with Primary and Secondary Syphilis by HIV Serostatus." Sexually Transmitted Diseases 45 (3): 152–157. doi:10.1097/OLQ.00000000000000010. [PubMed: 29420442]
- Semple Shirley J, Pines Heather A, Strathdee Steffanie A, Harvey Vera Alicia, Rangel Gudelia, Magis-Rodriguez Carlos, and Patterson Thomas L. 2018. "Uptake of a Partner Notification Model for HIV Among Men Who Have Sex with Men and Transgender Women in Tijuana, Mexico." AIDS and Behavior 22 (7): 2042–2055. doi:10.1007/s10461-017-1984-2. [PubMed: 29159592]
- Seña Arlene C, Donovan Jenna, Swygard Heidi, Clymore Jacquelyn, Mobley Victoria, Sullivan Kristen, LeViere Anna, Heine Amy, and Quinlivan Evelyn B. 2017. "The North Carolina HIV Bridge Counselor Program: Outcomes From a Statewide Level Intervention to Link and Reengage HIV-Infected Persons in Care in the South." Journal of Acquired Immune Deficiency Syndromes (1999) 76 (1): e7–e14. doi:10.1097/QAI.0000000000001389. [PubMed: 28394820]
- Sevelius Jae M, Patouhas Enzo, Keatley Joanne G, and Johnson Mallory O. 2014. "Barriers and Facilitators to Engagement and Retention in Care Among Transgender Women Living with Human Immunodeficiency Virus." Annals of Behavioral Medicine 47 (1): 5–16. doi:10.1007/s12160-013-9565-8. [PubMed: 24317955]
- Smith Adina J, Hallum-Montes Rachel, Nevin Kyndra, Zenker Roberta, Sutherland Bree, Reagor Shawn, Ortiz M Elizabeth, et al. 2018. "Determinants of Transgender Individuals' Well-Being, Mental Health, and Suicidality in a Rural State." Rural Mental Health 42 (2): 116–132. doi:10.1037/rmh0000089. [PubMed: 30333896]
- SocioCultural Research Consultants, LLC. 2018. Dedoose Version 8.0.35, Web Application for Managing, Analyzing, and Presenting Qualitative and Mixed Method Research Data (8.0.35). Computer software. Los Angeles, CA: SocioCultural Research Consultants, LLC. https://app.dedoose.com/App/?Version=8.0.35.
- Sullivan Patrick S, Purcell David W, Grey Jeremy A, Bernstein Kyle T, Gift Thomas L, Wimbly Taylor A, Hall Eric, and Rosenberg Eli S. 2018. "Patterns of Racial/ethnic Disparities and Prevalence in HIV and Syphilis Diagnoses Among Men Who Have Sex with Men, 2016: A Novel Data Visualization." American Journal of Public Health 108 (S4): S266–S273. doi:10.2105/AJPH.2018.304762. [PubMed: 30383430]
- Swygard H, Seña Arlene C, Mobley V, Clymore J, Sampson L, Glenn K, Keller JE, et al. 2018. "Implementation of the North Carolina HIV Bridge Counseling Program to Facilitate Linkage and Reengagement in Care for Individuals Infected with HIV/AIDS." North Carolina Medical Journal 79 (4): 210–217. doi:10.18043/ncm.79.4.210. [PubMed: 29991608]
- Taleghani Sophia, Joseph-Davey Dvora, West Scott B, Klausner Henry J, Wynn Adriane, and Klausner Jeffrey D. 2019. "Acceptability and Efficacy of Partner Notification for Curable Sexually Transmitted Infections in sub-Saharan Africa: A Systematic Review." International Journal of STD & AIDS 30 (3): 292–303. doi:10.1177/0956462418803983. [PubMed: 30396318]
- Temple-Smith Meredith, Hopkins Carol, Fairley Christopher, Tomnay Jane, Pavlin Natasha, Parker Rhian, Russell Darren, et al. 2010. "The Right Thing to Do: Patients' Views and Experiences of Telling Partners About Chlamydia." Family Practice 27 (4): 418–423. doi:10.1093/fampra/cmq028. [PubMed: 20444842]
- Tih Pius M, Chimoun Francois Temgbait, Khan Eveline Mboh, Nshom Emmanuel, Nambu Winifred, Shields Ray, Wamuti Beatrice M, Golden Matthew R, and Welty Thomas. 2019. "Assisted HIV Partner Notification Services in Resource-limited Settings: Experiences and Achievements from Cameroon." Journal of the International AIDS Society 22 Suppl 3: e25310. doi:10.1002/jia2.25310. [PubMed: 31321902]

Udeagu Chi-Chi N, Bocour Angelica, Gale Ilona, and Begier Elizabeth M. 2010. "Provider and Client Acceptance of a Health Department Enhanced Approach to Improve HIV Partner Notification in New York City." Sexually Transmitted Diseases 37 (4): 266–271. doi:10.1097/OLQ.0b013e3181d013e0. [PubMed: 20216478]

- Udeagu Chi-Chi N, Shah Sharmila, Toussaint Magalieta M, and Pickett Leonard. 2017. "Sociodemographic Differences in Clients Preferring Video-Call Over In-person Interview: A Pilot Study of HIV Tele-partner Services." AIDS and Behavior 21 (11): 3078–3086. doi:10.1007/s10461-016-1586-4. [PubMed: 27752874]
- Wang Alberta L, Peng Rui-Rui, Tucker Joseph D, Chakraborty Hrishikesh, Cohen Myron S, and Chen Xiang-Sheng. 2016. "Optimizing Partner Notification Programs for Men Who Have Sex with Men: Factorial Survey Results from South China." Plos One 11 (7): e0157749. doi:10.1371/journal.pone.0157749. [PubMed: 27462724]
- Wang Alberta L, Peng Rui-Rui, Tucker Joseph D, Cohen Myron S, and Chen Xiang-Sheng. 2012. "Partner Notification Uptake for Sexually Transmitted Infections in China: a Systematic Literature Review." Sexually Transmitted Infections 88 (5): 386–393. doi:10.1136/sextrans-2011-050275. [PubMed: 22427489]
- Ward Helen, and Bell Gill. 2014. "Partner Notification." Medicine (Abingdon, England: UK Ed.) 42 (6): 314–317. doi:10.1016/j.mpmed.2014.03.013.
- World Health Organization. 2016. Guidelines on HIV Self-Testing and Partner Notification: Supplement to Consolidated Guidelines on HIV Testing Services. WHO Guidelines Approved by the Guidelines Review Committee. Geneva: World Health Organization.

Humberto et al. Page 16

Table 1.Participant characteristics and experiences with partner services across focus groups

N	Language	Age	Gender Identity		Sexual Attraction		Race & Ethnicity		Partner Services Experience	
N									Ever	Last 12 months
		Mean (Range)	Male	TW ^a	Male	Male & Female	Black	Latino	n (%)	n (%)
8	English	25 (22–30)	8	0	7	1	8	0	6 (75%)	2 (25%)
3	English	28 (25–30)	3	0	3	0	3	0	2 (67%)	0 (0%)
12	English	32 (25–42)	12	0	10	2	11	1	9 (75%)	6 (50%)
4	English	28 (21–33)	4	0	3	1	2	3	4 (100)	1 (25%)
10	English	34 (19–43)	0	10	10	0	10	0	2 (20%)	0 (0%)
10	Spanish	32 (22–39)	7	3	10	0	0	10	0 (0%)	0 (0%)
3	Spanish	33 (21–40)	3	0	2	1	0	3	0 (0%)	0 (0%)
50		30 (19–43)	37	13	45	5	34	17	23 (46%)	9 (18%)

 $^{^{}a}$ TW = transwomen