National Institute for Health and Care Excellence

FINAL

Reducing sexually transmitted infections (STIs)

[B] Qualitative evidence synthesis for the acceptability of interventions for reducing or preventing the acquisition and transmission of STIs

NICE guideline NG221

Evidence reviews for qualitative evidence synthesis informing recommendations 1.1.1 to 1.1.15 and research recommendations in the NICE guideline

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Final

National Institute for Health and Care Excellence

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1 Acceptability of interventions to reduce the acquisition and transmission of STIs in higher-risk groups

1.1 Qualitative review question

What is the acceptability of interventions for reducing or preventing the acquisition and transmission of STIs in:

- Gay, bisexual and other men who have sex with men (MSM)[a]
- Young people aged 16 to 24 years
- People from a Black African or Caribbean family background
- Trans people
- Migrant communities
- People who are homeless
- Asylum seekers

This review is supported by a quantitative review question which is presented in evidence review A. The current review also contains a mixed methods synthesis of the quantitative and qualitative evidence.

1.1.1 Introduction

STI incidence increased by 5% from 2018 to 2019. Preventive interventions designed to prevent STI acquisition in uninfected people or prevent transmission from infected to uninfected people may be effective in reducing the spread of STIs in the specified risk groups. It is important to understand individual's views on the acceptability of these interventions, including their experiences of receiving STI preventive interventions and their preferences over the content, format and delivery of these interventions.

1.1.2 Summary of the protocol

Eligibility criteria	Content
Population	Gay, bisexual and other men who have sex with men, young people aged 16 to 24 years, people from a Black African or Caribbean family background, trans people, migrants, asylum seekers, people who are homeless.
Interventions	Interventions with the primary aim of reducing or preventing STI acquisition or transmission in each of the risk groups identified above. Interventions will largely seek to promote the uptake of specific preventative behaviours or to reduce risk behaviours but may also include efforts to improve knowledge or change attitudes and beliefs. Ideally this review will include the interventions or strategies included in the effectiveness review (RQ1.1) but is not limited to these.
Comparator	Not applicable
Outcomes	Individual perspectives, values, beliefs, preferences, experiences or attitudes that are considered to influence the acceptability of interventions for reducing the acquisition and transmission of STIs

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[a] Throughout this review, the term men who have sex with men (MSM) is used to refer to gay, bisexual and other men who have sex with men

Eligibility criteria	Content
	The JBI convergent segregated approach for mixed methods systematic reviews will be used to integrate the quantitative and qualitative evidence using a narrative summary.
Study type	Qualitative studies, mixed methods studies with qualitative data where the qualitative evidence meets specified inclusion criteria and can be extracted.

1.1.3 Methods and process

This qualitative evidence synthesis was developed using the methods and process described in Developing NICE guidelines: the manual. Methods specific to this question are described in the protocol in appendix A and the methods document.

Declarations of interest were recorded according to NICE's conflicts of interest policy.

1.1.4 Qualitative evidence

1.1.4.1 Included studies

The effectiveness and qualitative evidence reviews were carried out using two separate literature searches. Details of these searches, numbers of references identified, and study selection processes are described in section 1.1.4 and appendices A and B of evidence review A. 13 qualitative studies met inclusion criteria for the qualitative review. See Table 1 for a summary of studies and section 2.4 for included study references.

1.1.5 Summary of included qualitative studies

A summary of the qualitative studies that were included in this review is presented in Table 1.

Table 1: Summary of included qualitative studies

Study	Design and analysis	Country	Setting	Population	Objective	CASP Risk of Bias
Bowleg 2020	Structured interviews Rigorous and Accelerated Data Reduction (RADaR) technique	USA	STI clinics or via telephone	Black/African American heterosexual men who had participated in the treatment arm of the MEN Count intervention. Age 18-60 years n = 38	To understand how a subsample of participants in the MEN Count intervention evaluated the intervention's success. (MEN Count is an individual-level HIV/STI risk reduction and healthy relationship intervention with employment and housing stability case management).	Moderate risk of bias (Limited information about participant recruitment; insufficient consideration of researcher's role in the analysis or verification of findings)
Broaddus 2015	Focus groups Thematic analysis	USA	An inner-city Health Department STI clinic serving uninsured and underinsured residents.	African American women aged 18-25 years n = 12	To assess and understand participants' perceptions of the risks and benefits of participating in a small-group evidence-based intervention for young adult African American women.	Low risk of bias
Brothers 2014	Two open-ended questionnaire items collected during a pilot RCT of the EVOLUTION intervention.	USA	Clinical settings	HIV-positive African American women aged 19-24 years n = 22	To examine the feasibility and acceptability of a HIV secondary prevention empowerment intervention (EVOLUTION) for young HIV-positive African American women. The intervention comprises 7 small group sessions and 2 individual sessions. It aims to reduce secondary transmission by enhancing young people's knowledge and social and behavioural skills. It also addresses sexual inequality and power imbalances that may influence sexual behaviour.	High risk of bias (data collection was limited to 2 open-ended questions on a post-intervention questionnaire; no description of the analysis process and there were insufficient quotes used to evidence or support study findings)

Study	Design and analysis	Country	Setting	Population	Objective	CASP Risk of Bias
Buttram 2017	Semi-structured interviews Grounded theory framework	USA	Private offices	Black / African American MSM aged 20-52 years. All participants met binge drinking or substance use criteria. n = 21	To investigate the experiences of Black MSM in Project ROOM (men Reaching Out to Other Men; a small group sexual and substance use risk reduction intervention based on psychological empowerment theory). The study aimed to understand the experience of participating in Project ROOM assessment and intervention sessions.	Moderate risk of bias (the themes were very generic and the statement of findings was largely descriptive; alternative explanations or the credibility of findings were not considered)
Chandler 2016	Focus groups Direct content analysis	USA	A traditional university and a HBCU (historically Black college or university)	Black college women aged 18-24 years n = 32	To assess the HIV prevention needs of Black college women, using focus groups to evaluate their culturally specific HIV prevention information, motivation and behavioural skill needs.	Moderate risk of bias (themes of relevance to this review were under developed and not presented as a coherent theme; there was a lack of evidence and supporting statements for this theme)
Fontenot 2020	Online asynchronous focus groups Content analysis	USA	Online platform	Transgender youth aged 13-24 years, mean age 18.6 years n = 30	To better understand the factors that may contribute to HIV risk among transgender youth, and to obtain insights into transgender youth experiences with HIV preventive services	Low risk of bias
Hawa 2019	Semi-structured interviews Thematic analysis	Canada	Participants homes	South Asian immigrant women living with HIV. Age 28 to 50 years n = 12	To explore the unique individual experiences of South Asian immigrant women living with HIV in Canada, to assess the HIV risk context and to assess the strategies for HIV	Low risk of bias

Study	Design and analysis	Country	Setting	Population	Objective	CASP Risk of Bias
					education and prevention as expressed by study participants.	
Hosek 2012	Focus groups Thematic analysis	USA	Clinic settings	HIV-positive African American women aged 17-24 years n = 17	To understand the perceived problems and pressures of young HIV-positive women (e.g. gender, violence, victimisation, mental health, relationships, stigma), and to inform a developmentally appropriate secondary prevention intervention that could be implemented in clinical care settings.	Low risk of bias
Lee 2016	Focus groups Thematic analysis	USA	High schools	Latino adolescents aged 13-17 years n = 11	To identify knowledge about sexually transmitted infections (STIs) among Latino adolescents, to explore programmatic components that are essential for an effective educational program, and to explore gender differences regarding STI knowledge and essential components.	Moderate risk of bias (quotes were not always used to support the themes and where quotes were used they did not always accurately reflect the theme being described)
Mimiaga 2010	Semi-structured interviews Content analysis	USA	A community health centre specialising in HIV/AIDS care and serving the needs of the LGBT community	MSM aged 20-56 years. 66% were HIV-positive. n = 50	To assess sources of STI/HIV information and responses to STI/HIV prevention messages among MSM. The aim was to understand how to design more effective media campaigns on STI/HIV prevention and testing for this population.	Low risk of bias
Pedrana 2014	Focus groups Thematic analysis	Australia	Not reported	MSM aged 21-66 years.	To qualitatively examine gay men's reactions to a national HIV/STI social marketing campaign ("Drama	Low risk of bias

Study	Design and analysis	Country	Setting	Population	Objective	CASP Risk of Bias
				n = 49	Downunder") and to obtain in-depth contextual data on the acceptability, effectiveness and impact of the campaign. All participants had taken part in a quantitative trial assessing the effectiveness of the 'Drama Downunder' social marketing intervention.	
Rhodes 2020	Individual in-depth interviews Grounded theory	USA	Community settings	Latinx GBMSM and transwomen aged 18-48 years n = 22	To document and understand the intervention-related experiences, needs and priorities of participants who had taken part in a trial of a Spanish-language peer navigation intervention.	Moderate risk of bias (Limited information on analysis process or how themes were derived from the data)
Vanable 2012	Focus groups and semi-structured interviews Grounded theory approach	USA	Outpatient departments of a University-based infectious disease clinic	HIV-positive MSM aged 24-63 years n = 52	To facilitate the development of a tailored intervention for HIV-positive MSM by identifying major barriers to consistent condom use; characterising their interest in sexual risk reduction interventions; and eliciting feedback regarding optimal intervention format.	Low risk of bias

See appendix B for full evidence tables.

1.1.6 Summary of the qualitative evidence

Iterative aggregation of codes generated the following key themes and sub-themes, presented in Table 2.

Table 2: Summary of themes and sub-themes

Major theme	Sub-themes
Intervention content influences acceptability	Participants want information and education about STIs, HIV and sexual health
	Risk perception and risk assessment activities were viewed as an important component of sexual risk reduction interventions
	Activities focused on goal setting, developing action plans, and taking personal responsibility were considered beneficial
	Participants expressed a need for support to develop communication skills and confidence in negotiating safe sexual behaviours and consent
	Participants desired comprehensive content that was not exclusively focused on safe sex or HIV
Intervention structure and delivery format influences acceptability	The format of intervention sessions can influence acceptability
	Participants prefer session facilitators to be peers with shared experience and the ability to empathise
	Participants preferred an informal approach that was not overly clinical and where they did not feel lectured or preached at
	Most participants favour interactive group sessions
	There are barriers to engagement in group sessions
	Media messages and social marketing campaigns are useful for reaching a large audience • Messages should be highly visible, memorable, and displayed in multiple public venues to maximise campaign exposure and recall • Participants expressed a preference for simple, focused, informational messages on STI prevalence, testing and treatment • Messages should be visually appealing, light-hearted, using distinctive images and simple language • The conceptualisation and portrayal of HIV is important and can impact campaign appeal • Using a mainstream approach and normalising STIs/HIV can raise awareness and increase campaign impact
Diverse views on the appropriate tone of interventions	The seriousness of HIV and STIs
	Fear and humour in sexual health interventions
Cultural and contextual factors	Stigma and discrimination
	Inclusive language and definitions
	Cultural norms, group membership and identity
Preferred components of secondary prevention interventions for HIV	Participants identified specific information needs relating to the risks of oral sex, serosorting, and HIV viral load
	Interventions should focus on empowerment and healthy relationships
	Participants expressed a desire for interventions to devote time to partner communication and serostatus disclosure

1.1.6.1 Summary of qualitative findings

The qualitative findings for the acceptability of interventions for reducing or preventing the acquisition or transmission of STIs are presented in Table 3. Full CERQual tables are presented in Appendix C.

Table 3: Summary of qualitative findings

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
Intervention content influences acceptability				
Participants want information and education about STIs, HIV and sexual health: Participants wanted knowledge and information via a comprehensive sex education program so they could be more informed. Most people had basic knowledge of STIs/HIV but many lacked detailed knowledge. There was evidence of specific information preferences for different populations, e.g. trans youth wanted sexual health education to include information and statistics on LGBT health.	Chandler 2016 Fontenot 2020 Hawa 2019 Lee 2016 Mimiaga 2010 Pedrana 2014 (Young Black people; young people; MSM; young trans people; South Asian immigrant women)	*"A lot of people don't know what syphilis is, what gonorrhea is, know how long it lasts, know what to look for…" (MSM)* *"I think people pay more attention to HIV/AIDS than they do to other STDs, which is kind of sad because they're just as mean and as effective as you know HIV." (MSM)*	High confidence	Not downgraded
Risk perception and risk assessment activities were viewed as an important component of sexual risk reduction interventions. Intervention sessions focused on identifying risk and baseline and follow-up assessments that involved calculating frequencies of risk behaviours were all regarded as useful because they prompted honest self-reflection and an evaluation of their actions. By increasing their awareness of personal risk behaviours, participants were more able to consider what needed to change.	Brothers 2014 Buttram 2017 Pedrana 2014 (Young Black people; Black MSM; MSM)	*"Some of those questions are like . . . you don't want to answer them, but the fact that you don't want to answer them says something." While another respondent stated, "They were embarrassing, but they cause you to look at yourself too. You take a look at yourself and say, 'This is what I am doing,' and then, 'Perhaps I need to make some changes here.'" (Black MSM)*	Very low confidence	Downgraded because of moderate concerns regarding methodological limitations and further downgraded because of moderate concerns regarding adequacy and relevance

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
Activities focused on goal setting, developing action plans, and taking personal responsibility were considered beneficial. Activities involving personal reflection and goal setting were viewed as beneficial, especially sessions where individualised emotional, social, physical and sexual health goals over the next 6 months were mapped out. Participants described the value of developing a comprehensive action plan with detailed strategies and steps, and the importance of receiving feedback on that plan.	Brothers 2014 Lee 2016 (Young Black people; young people)	*"As one young woman stated, "I liked being able to cooperatively go over my goals and get feedback," and another felt "it was good to know the steps" [she] "need[ed] to take." (Young HIV+ African American woman).*	Very low confidence	Downgraded due to moderate concerns regarding methodological limitations and further downgraded because of serious concerns about adequacy and moderate concerns about relevance
Participants expressed a need for support to develop communication skills and confidence in negotiating safe sexual behaviours and consent. Participants described difficulties with self-advocacy and negotiating sexual preferences, including condom use and safer behaviours. Participants wanted information, education and support to help build their communication and negotiation skills so they could communicate more effectively with partners or overcome cultural barriers to insisting on condom use.	Fontenot 2020 Hawa 2019 (Trans young people; South Asian immigrant women living with HIV)	*"I almost never ask for things because of what I think is internal pressure to be grateful. In my head, I'm like, 'They're already willing to have sex with me; I shouldn't push my luck,' which is terrible, but as a result, I ask for as few things as possible." (Young trans person).* *"When asked whether or not wives could request their husbands to wear a condom, Anandi responded, 'I don't think that will happen. Because it's difficult to go against the man with the South Asians. Yeah, I don't think so; really, no.'" (South Asian immigrant woman)*	Low confidence	Downgraded once for moderate concerns about adequacy and once for moderate concerns about relevance
Participants desired comprehensive content that was not exclusively focused on safe sex or HIV. For primary prevention interventions, participants wanted interventions to address wider contextual issues that may influence their sexual well-being and noted the	Brothers 2014 Hosek 2012 Rhodes 2020 Vanable 2012	*"My perfect program wouldn't just not only be focused on the infection. It would just really be building self-worth, building self-esteem like all the way around." (Young HIV positive African American woman)*	Low confidence	Downgraded once for moderate concerns about methodological limitations and once because this finding may be more applicable to secondary prevention interventions for

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
importance of support with drug and alcohol use, mental health, and dealing with discrimination. For secondary HIV prevention interventions, participants expressed a preference for interventions that were not exclusively focused on HIV specific topics but also addressed the broader life context in which HIV positive people live. Participants suggested that safer sex modules should be part of a broader health promotion program which included content on self-worth, sexuality, healthy relationships, mental health, physical health, drugs and alcohol, emotion regulation and reducing stress.	(Young Black people; MSM; GBMSM and transwomen)	*"…if you're looking at giving support for the guys at the clinic, you want to cover mental health, physical health, sexuality, safe sex, drugs, and alcohol. We really need it." (HIV positive MSM)*		HIV rather than primary prevention interventions
Intervention structure and delivery format influences acceptability				
The format of intervention sessions can influence acceptability. Several factors relating to intervention format were described as positively or negatively impacting acceptability, including session duration (sessions should not be too long); the limitations of using written homework assignments for participants with varying literacy levels; the value of a participant contract to emphasise the importance of personal commitment; and the linkage-to-care made possible by referrals from trained interventionists.	Brothers 2014 (Young Black people)	*"One participant noted that the contract not only addressed what the intervention would focus on but what it would "expect out of me."" (Young HIV+ African American woman).* *"Participants appreciated the linkage-to-care made possible through the interventionists' referrals because as one participant stated "it gave me help people [and a] place to go in time of need." (Young HIV+ African American woman).*	Very low confidence	Downgraded once for moderate concerns regarding methodological limitations and further downgraded because of moderate concerns about coherence and relevance, and serious concerns about adequacy
Participants prefer session facilitators to be peers with shared experience and the ability to empathise. Participants described the importance of interventionists being able to relate to participants and their preference for peers, particularly with respect to gender and race. Participants wanted facilitators that could empathise and	Bowleg 2020 Brothers 2014 Hawa 2019 Hosek 2012 Lee 2016	*"I think it's better if its someone that's not that much older than you. Someone who's lived through it, experienced it, at the same time as you. Like 2 or 3 years older, that knows the stuff and has experienced it. The age makes a*	Very low confidence	Downgraded once for moderate concerns regarding methodological limitations and further downgraded because of moderate concerns about adequacy and relevance

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
understand what they were going through, as well as building trusting relationships that allowed facilitators to gently challenge participants to extend beyond their comfort zones.	(Young Black people; young people; Black heterosexual men experiencing housing instability; South Asian immigrant women)	*difference, because older people, its okay that was in their past, but teenagers it's like what could actually happen to us now and stuff. If you talk to someone who's your age, then they know what's going on and they know how the experiences are at that time." (Latino adolescent).*		
An informal, non-clinical approach is preferred. Participants preferred a social, informal approach that was not overly clinical and did not leave them feeling lectured or preached at on the need to practice safe sex or use condoms. It was noted that moralistic messaging should be avoided.	Mimiaga 2010 Vanable 2012 (MSM)	*"If it's made social, it's not so clinical, where you're able to discuss things, given the opportunity for us to learn about each other, and to participate in a group setting that's relaxed, where we can steer what is being said. Yes, you need a facilitator and yes, the facilitator needs to have an agenda, but we can't feel preached at." (HIV+ MSM)*	Low confidence	Downgraded twice for serious concerns about adequacy
Most participants favour interactive group sessions. Many participants favoured a supportive group setting that was interactive and incorporated group discussion and sharing of experiences with peers in an informal, social atmosphere. For some a combination of group and individual sessions was preferred. Benefits of group sessions included learning from others; the provision of social support and bonding; overcoming loneliness and a lack of social support resources; and the potential for a positive impact on social relationships outside of the group setting.	Bowleg 2020 Broaddus 2015 Brothers 2014 Buttram 2017 Hosek 2012 Vanable 2012 (Black heterosexual men experiencing housing instability; Young Black people; Black MSM; MSM)	*"You actually got to hear other people's opinions…To hear other people's judgments on it. And you might not want to be judged, but you are not really getting judged, like I said, [it's] hearing other people's opinions." (Young African American woman).* *"If the people who have more experience [participate], they would give you more insight of the situation that may occur." (Young African American woman)*	High confidence	No downgrading required
There are barriers to engagement in group sessions.	Broaddus 2015 Brothers 2014	*"They might not want to express themselves because of what people will*	Very low confidence	Downgraded due to moderate concerns regarding methodological

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
Participants were concerned about the risk of exposure and fear of being judged by others in the group due to their sexual experiences, which were potentially stigmatising. Some participants expressed concern about privacy and lack of anonymity, particularly the potential exposure of personal information to others in the community outside the group. Ground rules that emphasised confidentiality, respect and safety of all group members helped to alleviate concerns about privacy and judgement for some. Participants described how discussing sex in a group setting may cause discomfort or embarrassment, particularly for people who have experienced sexual violence or trauma. Several participants cited practical concerns as potential barriers to participating in group-based interventions, such as transportation difficulties, scheduling around other responsibilities such as work or education, and for some, the need for childcare.	(Young Black people)	*judge them by especially when you are young and people judge you as fast, being a ho, or not carrying yourself like a young lady should be carrying yourself." (Young African American woman).* *"They could feel embarrassed or just kind of avoid the whole topic of the sex…[or] they may have like personal issues and just try and forget about it and put in the background." (Young African American woman)*		issues and further downgraded due to serious concerns about adequacy.
Media messages and social marketing campaigns: messages should be highly visible, memorable, and displayed in multiple public venues to maximise campaign exposure and recall. Participants discussed how media messages need to be highly visible to the public and placed in numerous public locations and venues such as bars, clubs, buses, subway stations and trains, as well as television, magazines and newspapers. There were mixed views on whether the internet was an effective medium. Participants felt a high frequency of campaign exposure	Mimiaga 2010 Pedrana 2014 (MSM)	*"The Drama Down Under—it's really common, I see it every day on the tram, train, billboards, and at train stations. Because you basically see that ad like every day, if not three to five times a day…" (MSM)*	Low confidence	Downgraded twice for serious concerns regarding adequacy

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
was important for maintaining interest over time and improving message recall.				
Media messages and social marketing campaigns: Participants expressed a preference for simple, focused, informational messages on STI prevalence, testing and treatment. Participants commonly indicated that sexual health messages should focus on getting tested, including specific information on where to get tested and addressing stigma by normalising testing; information on treatment options; and practising safe sex. Some suggested that alarming statistics showing the high prevalence of HIV and STIs may be beneficial	Mimiaga 2010 (MSM)	No supporting quotes provided	Very low confidence	Downgraded once due to moderate concerns about methodological limitations and further downgraded twice due to serious concerns about adequacy
Media messages and social marketing campaigns: Messages should be visually appealing, light-hearted, using distinctive images and simple language. Participants reported that the visual appeal and humour of campaign images and messaging captured their attention and allowed them to engage with the campaign comfortably, without guilt, obligation or coercion. Some commented on the use of overtly sexual imagery and the advantages and disadvantages of using (and overusing) sexualised images to capture the audience's attention. Participants discussed how the use of simple and straightforward language to accompany images can enhance message clarity.	Mimiaga 2010 Pedrana 2014 (MSM)	*"The actual graphics and image are very good, 'cause it catches your eye even if you don't read the caption." (MSM)* *"It kind of tells me not to take it too seriously, like don't sweat it, don't be nervous about a sexual health check. Just do it and don't think twice about it." (MSM)* *"It's very simple, direct. Usually it's him in his underpants with a big word next to him, like syphilis or something. So it's pretty hard not to notice it as a sexual health campaign." (MSM)*	Low confidence	Downgraded once for moderate concerns about coherence and further downgraded for moderate concerns about adequacy
Media messages and social marketing campaigns: The conceptualisation and portrayal of HIV is important and can impact campaign appeal.	Mimiaga 2010 Pedrana 2014 (MSM)	*"HIV's still really glamorized. That doesn't help anyone because people can see someone who has HIV or hear about it, but they really don't see it as a*	Low confidence	Downgraded once for moderate concerns about coherence and further

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
Some participants expressed frustration with ads that they felt "glamourised" or downplayed the seriousness of HIV and neglected the harsh reality of living with HIV/AIDS in a way that misrepresented the risks associated with becoming infected. Many men believed that the framing of HIV and sexual health as a community issue, rather than just a gay men's issue, increased the campaign's potential impact. They noted that by using a 'generic' model that didn't "look gay or straight," and having multi-racial, multigender ads, the perception of HIV as a "gay disease" was reduced, increasing the appeal of the campaign.		*deadly or dangerous disease. They'd rather think that you can pop pills and still look like this." (MSM)* *""I think it's important that it doesn't only target gays, it doesn't reinforce the idea that HIV is only for gay men, 'cause straight people get infected as well." (MSM)*		downgraded for moderate concerns about adequacy
Media messages and social marketing campaigns: Using a mainstream approach and normalising STIs/HIV can raise awareness and increase campaign impact. Many participants discussed the campaign's wide appeal to a broad target audience and the use of mainstream media, publications, public locations, TV and radio, rather than exclusively gay press or gay venues. Several participants noted that limiting the campaign to traditional 'gay media' may miss those who do not necessarily identify with the gay community or MSM who do not self-identify as gay.	Mimiaga 2010 Pedrana 2014 (MSM)	*"I think the normalcy of seeing messages in places you wouldn't necessarily expect to see them, like if you pick up an AU magazine or the Advocate, you might see those messages. But it would be great to see them in Interiors magazine and Entertainment." (MSM)* *"I don't identify with mainstream gay groups/events, so I don't see a lot of the gay sexual health information and I don't identify as being a high-risk person. So I think I would benefit more from general sexual health messages like this." (MSM)*	Moderate confidence	Downgraded once for moderate concerns about adequacy

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
Diverse views on the appropriate tone of interventions				
The seriousness of HIV and STIs Some respondents objected to health messages that underemphasised the gravity of HIV and STIs and felt that stark images of people suffering from infections or the side effects of HIV medications may motivate prevention and treatment seeking. Other respondents found hopeful, positive messaging to be more compelling and memorable, including positive discussions about safe sex and HIV/STI treatment options.	Mimiaga 2010 Pedrana 2014 (MSM)	*"There is a lot of positive imagery. In the eighties there was a lot of negative advertising, and that advertising seems to have died away. So now there is lots of positive imagery that comes out, and maybe that doesn't make you think so much about the negative consequences." (MSM)*	Very low confidence	Downgraded once for moderate concerns about coherence and further downgraded twice for serious concerns about adequacy
Fear and humour. There were mixed perceptions about the importance of fear and humour in sexual health interventions. Some participants believed in the need for sex education programs to instil fear and suggested that graphic images or frightening statistics should be used to motivate change. Other participants did not believe negative fear-based messages are effective at changing behaviour and stressed the importance light-hearted and positive messaging to help empower people to take action. Some also considered humour a desired element of STI/HIV education.	Lee 2016 Mimiaga 2010 Pedrana 2014 (Young people; MSM)	*"I'm not saying that I believe fear is a good tactic, but if they had images—just like when they have those smoking ads and show people who have throat cancer or emphysema to show you what happens when you smoke—well, they should have things like that that show the extremes of people with AIDS." (MSM)* *"The silliness of it is kind of fun, is more light-hearted and not so confronting." (MSM)*	Low confidence	Downgraded once for moderate concerns about coherence and further downgraded for moderate concerns about adequacy
Cultural and contextual factors				
Stigma and discrimination. Some participants reported experiences of harassment, stigma and discrimination based on their sexual, gender and racial/ethnic identity or HIV status. For trans youth, this was particularly experienced on social media and dating apps. Participants discussed how discrimination	Fontenot 2020 Hawa 2019 Rhodes 2020	*"I wouldn't say a problem, but you can't tell anybody in the community that you're positive because nobody will speak to you again."*	Moderate confidence	Downgraded once due to moderate concerns about adequacy

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
can affect people in profound ways. Some participants reported negative experiences with culturally specific community-based organisations and noted that it would be beneficial to have support from outside their cultural communities as well as from within.	(Trans young people; South Asian immigrant women living with HIV; GBMSM and transwomen)			
Inclusive language and definitions Some participants expressed that they did not relate to narrow heteronormative definitions of sex or the belief that sex must include penetration; their definitions were much more fluid and broader. Young trans people wanted definitions of sex to be inclusive of transgender identities and a broad range of sexual behaviours and relationship types.	Fontenot 2020 (Trans young people)	*"There are trans and genderqueer people featured on their brochures and pamphlets. The questions my doctor asked on the intake weren't invasive and focused on my emotional health and my support system. …When she asks about sexual behavior, rather than asking 'when was the last time you had sex with a man or penetrative sex,' she'll ask, 'Are you having any sex that could result in pregnancy?'" (Young trans person)*	Low confidence	Downgraded for serious concerns about adequacy as this finding is only from one study, but clearly reflects the needs and experiences of a population of interest
Cultural norms, groups membership and identity Participants wanted interventions and services that took account of the cultural and social context in which they live. They described cultural norms and how they can impact sexual health or people's ability to access sexual health services. Participants wanted culturally specific education that accommodates various languages and religious affiliations, as well as support for those with multiple minority statuses and intersectional identities.	Fontenot 2020 Hawa 2019 Rhodes 2020 (Trans young people; South Asian immigrant women living with HIV; GBMSM and transwomen)	*"On reluctance within the South Asian community to discuss either sex or the issue of providing condoms to members: Anjali stated, 'Unprotected sex! Because you don't discuss sex with South Asians; you don't provide condoms to South Asians. This is unprotected sex that's happening.'" (South Asian immigrant woman)* *"There are still people who, due to lack of information, think that they can't get tested because of not having documents." (GBMSM)*	Low confidence	Downgraded once for moderate methodological concerns and further downgraded for moderate concerns about adequacy

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
Preferred components of secondary prevention interventions for HIV				
Participants identified specific information needs. Young HIV+ African American women expressed a need for sexuality education that extends beyond "just bringing no babies home" and focuses on re-exposure to HIV, sexually transmitted infections and their consequences, teaching women how to use female condoms, and preparing women for condom negotiation. Amongst HIV+ MSM, some specific information needs were identified concerning the risks associated with oral sex, the risks of serosorting, and the influence of HIV viral load on HIV transmission risk.	Hosek 2012 Vanable 2012 (Young Black people; MSM)	*"You know I don't know because I've heard so many different takes on it [risks posed by oral sex], you know, I just don't know what the risks are, I mean obviously there is a risk factor, but I just don't know what it is for sure." (HIV+ MSM)* *"The risks are the same as if you have a viral load of a bazillion, you've got it, you've got it…It doesn't matter if you have one of those little things in your body, you can still give it to somebody else." (HIV+ MSM)*	Moderate confidence	Downgraded once for moderate concerns about adequacy
Secondary prevention interventions for HIV should focus on empowerment and healthy relationships. Young HIV+ African American women expressed a need for interventions to empower young women not only through education, but by learning to support, accept and value themselves. Participants suggested ways of incorporating empowerment principles into a secondary prevention intervention, including building self-confidence, teaching life skills, identifying and discussing positive role models, and activities focusing on the development and maintenance of healthy relationships,	Brothers 2014 Hosek 2012 (Young Black people)	*"it [the activities] helped me want to put more effort into building myself up to do my best." Regarding self-esteem, one participant stated "I didn't know I didn't have much [self-esteem] now I can work on it." (Young HIV+ African American woman)*	Low confidence	Downgraded once for moderate concerns about methodological limitations and further downgraded for moderate concerns about adequacy
Participants expressed a desire for interventions to devote time to partner communication and serostatus disclosure.	Brothers 2014 Hosek 2012 Vanable 2012	*"It's hard to tell people that, it's hard to figure out who should you tell and who shouldn't you tell. Like I should tell my*	Moderate confidence	Downgraded once for moderate concerns about methodological limitations

Summary of review finding	Studies contributing to the review finding (populations)	Illustrative quotes	CERQual assessment	Explanation of GRADE-CERQual assessment
HIV+ participants discussed the need for secondary prevention interventions to address issues relating to serostatus disclosure. Participants wanted to be taught how to disclose and who to tell, by improving communication skills and learning to evaluate the risks and benefits of disclosure to others. HIV+ young women also emphasised the need to deal with the emotions associated with disclosure such as rejection and judgement from others. HIV+ MSM noted that decisions about condom use and disclosure are intertwined, and discussed how partner communication, both in relation to negotiating condom use and in the context of serostatus disclosure, can be a challenge to safe sex.	(Young Black people; MSM)	*boyfriend, but it doesn't matter if I tell my mom or not." (Young HIV+ African American woman)* *"How to deal with a rejection. It doesn't mean that because I told my friend that I'm HIV positive she's gonna accept me. It doesn't mean that because I told her I have to accept that she has to accept me. She can just OH, she gone. She's out of my picture. So how do we deal with it." (Young HIV+ African American woman)*		

2 Integration and discussion of the evidence

2.1 Mixed methods integration

Are the results/findings from individual syntheses supportive or contradictory?

The effectiveness evidence reported in review A did not show clear or consistent evidence of effectiveness for specific intervention types, but there was some evidence to suggest that interventions that are culturally informed, adopt a motivational-interviewing or Information Motivation Behaviour-based (IMB) approach, contain cognitive or Cognitive Behavioural Therapy (CBT)-stye techniques to assess and address personal risk, and are delivered by peers tend to be more effective. This effectiveness evidence is consistent with evidence from the qualitative synthesis. Themes from the qualitative evidence review emphasise the importance of sexual health interventions being comprehensive, culturally relevant, and addressing the wider social and cultural contexts in which people live. The qualitative themes also demonstrated that participants want interventions to provide information and education about STIs; that cognitively based activities such as goal setting, developing actions plans and receiving feedback were considered beneficial; and the recognition and assessment of personal risk was described as an important component of sexual risk reduction interventions. Participants also expressed a clear preference for sexual health interventions to be delivered by peers that share a similar identity, particularly the same racial, ethnic, sexual or gender identity or HIV status.

Does the qualitative evidence explain why the intervention is/is not effective?

Themes from the qualitative evidence broadly support the findings of the effectiveness review by highlighting the importance of participants' preferences and desire for choice over intervention content and delivery style. The qualitative evidence demonstrates that people prefer interventions that have comprehensive content covering a range of issues and activities relating to sexual health, but that these preferences relating to intervention content can vary between people and populations. Interventions in the quantitative review that tended to be effective were those that were multicomponent and included varied content on several domains of sexual well-being. The absence of clear evidence that one particular type of intervention works best for one particular population of interest likely reflects the qualitative finding that different people want different things from a sexual health intervention and that tailoring interventions to groups is important.

The qualitative evidence showed that participants favour interactive group sessions and for many participants this sharing of experiences and social support is beneficial. However, the qualitative evidence also demonstrated that there are barriers to engagement with group sessions, including practical barriers and barriers relating to concerns about privacy, lack of anonymity, and fear of being judged by others. These challenges in engaging in group sessions identified in the qualitative evidence may explain why not all group-based interventions were found to be effective. The qualitative evidence also demonstrated that participants prefer session facilitators to be peers with shared identity, shared experience and the ability to empathise. This was supported by the effectiveness evidence which showed that effective interventions tended to be those delivered by peers.

Does the qualitative evidence explain differences in the direction and size of effect across the included quantitative studies?

Many of the included interventions were not found to be effective relative to control or standard care, and where positive effects were identified, these tended to be small. Themes from the qualitative evidence made it clear that people's social and cultural context, their experiences of stigma, discrimination and marginalisation, and challenges relating to unemployment, drug and alcohol use and mental health problems can all play a significant role in their sexual well-being and sexual decision making. The reality of these broader life challenges may explain why interventions that largely focused on specific aspects of sexual risk behaviour without addressing broader social and systemic factors were not effective.

Which aspects of the quantitative evidence were/were not explored in the qualitative studies?

The quantitative evidence included a trial of a motivational interviewing intervention for people who are homeless and the qualitative evidence did not investigate intervention acceptability in this population. Many of the quantitative interventions included components relating to condom use such as common barriers to use, issues relating to fit and feel, pleasure-based approaches to condom use, and condom use demonstrations including the opportunity to practice. None of the qualitative studies examined acceptability or participant preferences relating to condom-based components of sexual risk reduction interventions.

Which aspects of the qualitative evidence were/were not tested in the quantitative studies?

The qualitative evidence contained themes relating to the acceptability of mass media interventions and participant's preferences relating to the language, appearance, messaging style and mainstream approach of media campaigns and social marketing interventions. The quantitative evidence did not include any trials of mass media or social marketing interventions. The qualitative evidence also identified themes relating to the appropriate tone of sexual health interventions, particularly with respect to the role of fear and humour and the depiction of the seriousness of HIV. This topic was not addressed in any of the effectiveness evidence.

2.2 The committee's discussion and interpretation of the evidence

This section is a synthesis of the committee discussion for the quantitative and qualitative reviews and incorporates discussion of the evidence for the effectiveness review presented in evidence review A and expert testimony contained in appendix D.

The outcomes that matter most

For the quantitative review, the primary outcomes of interest were condom use outcomes (which included condom use at last sex, proportion of condom-protected sex acts, condomless sex, correct and consistent condom use, and condom use self-efficacy), STI incidence and STI knowledge. Secondary outcomes of interest were also reported; these were outcomes relating to people engaging in group sex when under the influence of stimulant drugs - so-called chemsex (including drug use during last sex and condomless sex while using meth) and sexual well-being (including sexual self-efficacy and sexual communication). The committee noted that there was a large number of outcomes reported across the included studies and that the evidence covered all of their preferred outcomes. The committee discussed these outcomes and agreed that all were important for this review, although they noted some of the limitations of relying on self-reported sexual activity, particularly over long recall periods. It was noted that condom use at last sex is a more reliable measure and less prone to bias than outcomes that rely on participants accurately reporting their sexual activity and condom use over the prior 90 days. The committee also noted that it may be difficult asking participants to achieve no condomless sex in the previous 3 months, making this outcome possibly less realistic. The committee highlighted the distinction between condomless sex and unprotected sex, noting that condomless sex with someone taking PrEP may not be considered unprotected sex (in relation to HIV transmission), therefore using appropriate terminology is important.

STI incidence was considered an important outcome and potentially less prone to bias than condom use outcomes, particularly when clinic-verified rather than self-reported. The committee noted that in some cases increased STI incidence may be an indication of intervention efficacy in terms of improved access to testing and sexual health services, or a previously undiagnosed STI being detected, but that without additional data it was not possible to determine whether increased STI incidence reflected a desirable (increase in appropriate testing) or undesirable (increase in STI incidence) outcome. One study reported Human Papilloma Virus (HPV) incidence, but the committee did not consider this to be an outcome of interest due to it being relatively common and often asymptomatic. This means it is not a useful outcome for measuring intervention effectiveness because it may have been present for some time before the intervention.

The committee noted their preference for outcomes that captured sexual behaviour rather than cognitive outcomes such as self-efficacy or STI knowledge, which may not have an impact on sexual behaviour. Nevertheless, the committee recognised that sexual health and well-being encompasses more than just STI diagnoses and that a broad perspective that includes wider aspects of sexual well-being is important. It was noted that for some outcomes a positive impact of the intervention was seen at later, but not earlier, follow up assessments. The committee discussed this and considered that for some skills-based behaviours such as negotiating condom use, those skills may take time to develop and practice before they impact sexual behaviour, contributing to a delay in positive outcomes being detected. Similarly, interventions to improve psychological wellbeing may also have delayed positive outcomes.

For the qualitative review the primary outcomes of interest were people’s values, beliefs, preferences, acceptability, attitudes, views and experiences of interventions to reduce or prevent the acquisition or transmission of STIs. The included studies reported on all of these outcomes and captured the experiences of people who had received specific interventions of interest as well as people providing their views and preferences about sexual risk reduction and sexual health interventions more broadly.

The quality of the evidence

Quantitative Evidence

There were 48 studies included in the quantitative review. The evidence was grouped by population of interest then further grouped by intervention type where possible. There were 3 studies were of people from migrant communities, 1 study was of people who are homeless, 5 were studies of young people aged 16-24 years, 2 were studies of trans people, 13 were studies of gay, bisexual and other men who have sex with men (MSM), and 3 studies were of people from a Black African or Caribbean family background. There were also 7 studies of young people from a Black African or Caribbean family background, 2 studies of young MSM, 9 studies of MSM from a Black African or Caribbean family background, 2 studies of young MSM from a Black African or Caribbean family background, and one study of MSM and transwomen of mixed immigrant status. There were no studies of asylum seekers.

The committee noted that there was considerable diversity in the structure, format and content of included interventions; the range of comparators that had been used; and the large variation in outcome assessment and operationalisation. These factors together precluded the use of meta-analysis for most of the analyses. Despite the diversity in interventions, some broad intervention categories were identified, including CBT and cognitive based approaches, Motivational interviewing and Information, Motivation and Behaviour based approaches, condom-focused approaches, and culturally relevant interventions. The committee discussed the review findings and noted that the evidence was varied, with no interventions emerging as consistently or substantially effective and many showing no or very limited evidence of effectiveness. It was noted that many of the interventions were multicomponent which made it difficult to assess the particular components that were effective or how the combination of components might work together to impact outcomes. It was also noted that diversity in study samples, settings, comparators and outcomes made it difficult to draw overall conclusions about the effectiveness of included interventions.

The committee acknowledged the absence of evidence for digital interventions such as text messaging, eHealth or app-based approaches, but were reminded that this was due to the review protocol excluding digital interventions to prevent overlap with the NICE Behaviour Change: Digital and mobile health interventions, rather than due to an absence of evidence in this area.

The quality of the evidence was assessed using GRADE and the committee noted that many of the review findings were low or very low quality, with most findings being downgraded for indirectness and imprecision. This gave rise to concerns about the strength of any recommendations and the committee agreed that the generally low quality of the evidence made it difficult to justify any strong recommendations. The committee discussed the lack of UK-based evidence and the dominance of studies from the USA and agreed that there is a need for caution when extrapolating from US to UK contexts. In particular, the committee discussed the limitations of relying on US-based evidence when considering health inequalities and the needs of specific cultural and community groups, noting particularly the potential differences between African American communities in the US and Black communities in the UK; and between Latino migrant populations in the US and Latino or other migrant communities in the UK. The limited evidence for migrants and people who are homeless, and the absence of evidence for asylum seekers and trans men was also noted. The committee agreed that these evidence gaps required additional evidence from expert testimony, particularly on the sexual health needs and preferences of people from Black African or Caribbean family backgrounds, migrants and asylum seekers, so expert testimony was obtained (appendix D).

The committee noted that many of the comparators in US trials did not reflect what would be considered standard care in UK practice. The committee also discussed the high rates of unemployment, housing instability, incarceration history, and drug and alcohol use in many of the study samples and agreed that these sample characteristics are likely reflective of the challenging life circumstances experienced by the populations of interest, so they did not downgrade the evidence for indirectness in these cases. The limitations of RCT evidence for interventions delivered to individuals in providing information about the population- and system-level factors that are of critical importance in this area were also discussed by the committee. The committee also considered the broader picture. They clarified that it is somewhat unsurprising that specific interventions have limited effectiveness because any intervention takes place in the broader context of people’s lives. People live in a variety of social and personal circumstances that affect their wellbeing, and therefore their sexual wellbeing. They were clear that, as far as possible, this needed to be taken into account when making recommendations.

Qualitative evidence

There were 13 studies included in the qualitative review. The committee agreed that the qualitative evidence on the acceptability of risk reduction and prevention interventions was important and that the evidence identified a number of key themes that resonated with their clinical experience and relevant research in this area. However, the committee also discussed their concerns about aspects of the review findings that they considered to be dated and no longer relevant, particularly themes relating to information needs around serosorting and HIV viral load that are now negligible in light of the U=U (undetectable = untransmissible) evidence. The committee noted that most of the studies were published between 2010 and 2015 and that given the importance of time, culture and context in qualitative research, the evidence was considered limited. It was noted that almost all of the evidence was US based and there was no evidence from the UK, further limiting the applicability and relevance of the included studies. Nevertheless, the committee recognised the breadth of evidence with respect to populations of interest, noting the inclusion of evidence from young people, people from a Black African or Caribbean family background (including heterosexual men, women and MSM), trans people, gay, bisexual and other MSM, and South Asian immigrant women. The quality of the findings was assessed using GRADE CERQual and it was noted that many of the findings were low or very low quality, with many findings downgraded for adequacy due to the theme being reported in only a small number studies or lacking richness. As with the quantitative evidence, the committee recognised that the low quality of the evidence precluded any strong recommendations, but agreed that the evidence, in combination with committee experience, was sufficient to generate recommendations about general principles and preferred components that could be used to guide intervention design and delivery.

Evidence from expert testimony

The committee heard evidence from two experts: one on inclusion health groups and one on racially minoritized people in the UK. The committee discussed the evidence from both experts and agreed that it was valid and directly applicable to the evidence reviews. They noted the degree of consistency between the evidence from included studies and the evidence from expert testimony, particularly relating to the importance of cultural and contextual relevance and the impact of inequalities on service access. The committee noted that both experts described the lack of published UK-based evidence in their respective fields, so the testimony was based largely on their professional experience. For the evidence on racially minoritized people in the UK, the committee agreed that the interventions described showed promise, but as these were practice examples and not evaluated interventions, they did not feel able to recommend any of these specific interventions. However, the committee recognised that some of the other resources (e.g. Inclusion health: applying All Our Health) were created based on evidence and widespread expert consultation and so they felt able to include them in a recommendation about reducing barriers to access.

The committee recognised that evidence from the expert on racially minoritized people in the UK was largely based on their work in a London-based sexual health organisation and they considered the relevance of the approaches highlighted to regions outside of London. In particular they acknowledged that other regions may have smaller but more ethnically diverse communities so interventions tailored for one specific group (e.g. Black Caribbean men) may not be appropriate. There were concerns that generic interventions designed for broad groups may overlook the specific needs of different ethnic and cultural groups within that broader group population. The expert recognised this concern but emphasised that engaging with the local community about their needs and preferences and obtaining input from local bodies can help to ensure interventions are appropriate for the people receiving them. This evidence was therefore still considered directly relevant to the review.

Benefits and harms

The committee discussed and acknowledged the importance of interventions to reduce or prevent STIs but reasoned that overall, there was a lack of clear, consistent, good quality evidence to demonstrate a clinically meaningful effect of any main intervention type on condom use, STI incidence, or STI knowledge. Nevertheless, the committee acknowledged that there was some evidence of effect for some interventions in some trials, and that when combined with their clinical expertise, this could be used to develop recommendations about preferred components and delivery formats of interventions for sexual health and well-being.

The committee also acknowledged that in the absence of clear evidence of effectiveness, it was expedient to consider marginal effects or non-significant trends in the data (so-called ‘direction of travel’) available to them. Some committee members expressed caution about this approach, but overall the committee believed that given the complexity of public health and the known difficulties of conducting public health trials, it was potentially constructive to take into account findings that indicated a positive effect but where a small proportion of the confidence interval crossed the line of no effect. These findings were considered as indicating general trends only and were interpreted with caution.

The committee considered the evidence specific to each population group, as presented in the Summary of Findings tables, but noted that the range of different intervention types within these groups and the high number of findings that showed no difference between intervention and control participants made it difficult to draw conclusions about what was most effective for specific populations. The committee also discussed the degree of overlap and intersectionality between the population groups and agreed that it is not necessarily helpful to group people in this way. The committee therefore looked across the populations to consider the effectiveness of broad intervention types where possible.

The committee discussed the evidence for culturally informed interventions and agreed that interventions that take account of people’s cultural background and the influence of cultural norms, values and expectations on sexual behaviour show evidence of effectiveness. Seven studies that reported using a culturally informed or culturally relevant approach evidenced positive impacts on STI incidence (Champion 2012), condom use (Fernandez 2016, O’Donnell 2014, Rhodes 2017, Sanchez 2013, Tobin 2013), condom use self-efficacy (Peragallo-Montano 2019) and STI/HIV knowledge (Sanchez 2013, Rhodes 2017). Based on this evidence the committee agreed that as well as being culturally relevant, interventions were more likely to be effective if they were also tailored to meet the needs of target populations in terms of gender identity, sexual orientation, or HIV serostatus. At the same time, the committee pointed out that these groups were neither exhaustive nor exclusive and that people could identify with many different groups. The committee discussed at length the challenges of intersectionality; their concerns about grouping people by culture, community or population; the diversity of experiences across marginalised groups; and whether it is possible to extrapolate culturally relevant interventions from one community to another. However, the committee agreed that overall the quantitative evidence on culturally relevant or culturally informed interventions suggested that interventions tailored to the sociocultural needs of target groups are effective in improving outcomes relating to STI incidence, condom use, condom use self-efficacy and STI/HIV knowledge. This was further supported by the qualitative evidence which suggested that interventions and services that take account of the cultural and social context in which people live are acceptable. Evidence from expert testimony also emphasised that sexual health interventions should be culturally appropriate, including using relevant language, imagery, settings and dissemination approaches. The same expert testimony asserted that culturally competent interventions should be co-produced by and for the people they target, by listening to community needs and prioritising community involvement in all aspects of intervention design and delivery. The importance of co-production was also considered in relation to several of the qualitative themes, where diverse views on the appropriate tone of interventions and the acceptability of using fear- and humour-based messaging reiterated the importance of talking to target groups about what is acceptable to them. The committee therefore made a number of recommendations about targeting interventions to groups with greater sexual health needs, engaging with those groups to understand how best to meet those needs, co-producing services and interventions with the groups that they are for, and ensuring interventions are culturally competent by taking into account factors such as language, cultural norms and expectations about sexual behaviour.

The committee recognised that people’s socioeconomic status, cultural context, and the life circumstances in which they live can play a significant role in their sexual well-being and sexual decision making, and that interventions focusing exclusively on sexual risk behaviour without addressing broader social and cultural factors are unlikely to be effective. The committee reflected on the high rates of unemployment, housing instability, incarceration history, and drug and alcohol use in many of the study samples, and discussed how these challenging life circumstances, alongside experiences of stigma, discrimination and marginalisation, mean that individual-based interventions that seek to change individual's specific behaviours are largely inadequate. It was argued that a complex public health perspective that addressed system factors would be necessary to affect change. However, the committee understood that they were limited in their scope to tackle complex systemic issues. Nevertheless, the committee recognised that sexual health interventions should aim to address the socioeconomic challenges that many people from higher-risk groups experience, for example by including sessions focused on stress and coping, dealing with stigma and discrimination, mental health, and drug and alcohol use. This was reiterated in the qualitative evidence where participants expressed a preference for comprehensive interventions that did not focus exclusively on sexual behaviour, but where content on safe sex was one of several topics embedded in a broad health promotion program. Evidence from expert testimony also emphasised the importance of sexual health interventions being linked to other services such as mental health or domestic violence services, so that providers work in partnership with other local organisations to provide holistic, community-led care. The committee therefore recommended that sexual health interventions should adopt a multi-model approach within which people were offered support to address psychological aspects of sexual well-being, including stress management and coping skills. Similarly, the committee recommended that interventions should be delivered across a range of services, including community-based services such as drug and alcohol or mental health services.

The committee discussed the potential importance of interventions that were based on the Information, Motivation, Behavioural skills model (IMB) or Motivational Interviewing (MI) approach. 16 studies included IMB- or MI-based interventions and the committee acknowledged that the evidence for motivation-based approaches was mixed: 6 studies reported positive intervention impacts on condom use outcomes (Fernandez 2016, Mimiaga 2019, Morrison-Beedy 2013, Sanchez 2013) and STI/HIV knowledge outcomes (Brown 2019, Chandler 2019) but 10 studies reported that motivation-based approaches performed no better than control for condom use outcomes (Brown 2019, Hart 2021, McKirnan 2010, Miller 2021, Parsons 2014, Safren 2013, Sikkema 2011, Sikkema 2014, Tobin 2013, Tucker 2017). The committee agreed that although there was some evidence of effectiveness in a small number of trials, motivational interviewing did not perform as well as they had expected it to. The committee reflected on their clinical experience and the well-established evidence base on the effectiveness of MI for behaviour change across a range of domains, including drug and alcohol use, smoking cessation and weight loss. The committee considered whether it was possible to draw on these literatures to support the use of MI for sexual risk reduction in the absence of clear evidence from the current review, but were uncertain about whether there may be something unique about sexual risk behaviour that makes MI approaches less effective. The committee speculated that the way MI is conducted may influence its efficacy, and that when delivered in a way that incorporates other factors that can impact intervention efficacy, such as being culturally relevant and being delivered by empathic peer facilitators, it may be more effective. It was also acknowledged that motivational interviewing encompasses a range of techniques that involve asking questions and framing the discussion in a way that supports individuals to generate their own answers or solutions to sexual health issues. As such, motivational interviewing is not a stand-alone intervention and can be used to deliver other intervention approaches, such as CBT, condom-focused approaches or sexual risk decision making interventions. Despite the mixed findings, the committee agreed that on balance, motivation-based approaches represent an important approach to intervention delivery and recommended that they be included as a potential intervention component.

The committee discussed the evidence relating to interventions that were based on cognitive and CBT techniques. It was noted that some interventions with components that involved recognising risk behaviours then setting behaviour change goals and making personalised risk reduction plans showed evidence of effectiveness: 3 trials reported a positive impact on condom use (Fernandez 2016, Mimiaga 2019, Sanchez 2013) and 1 trial reported a positive impact on condomless sex while under the influence of drugs or alcohol (Tobin 2013). One high quality trial (Eaton 2018) focused on a sexual risk decision making intervention for African American MSM and showed a positive effect across a range of condom use outcomes, as well as a reduction in STI incidence at 3-, but not 6- or 12-, months. This was further supported by themes from the qualitative evidence, which showed risk assessment activities and activities focused on goal setting and developing comprehensive action plans were considered desirable. It was agreed that interventions should incorporate cognitively based risk reduction activities as one component of a comprehensive approach, so the committee made a recommendation about this. The committee acknowledged the potential for overlap with the NICE guideline on Behaviour Change: individual approaches (PH49) and agreed that the recommendation should contain a link to this guidance.

The committee discussed the evidence for condom focused interventions. Components of these interventions included condom use demonstrations and the opportunity to practice; exploring common barriers to condom use, including the perception that sex with a condom is less pleasurable; and discussion of the range of condoms available with a focus on fit and feel. The committee noted that some other main intervention types also included a condom-focused component such as a condom use demonstration, so evidence from these trials was also considered here. The committee discussed the evidence and noted that although the findings were mixed, with 7 trials reporting no difference in condom use outcomes between intervention and control participants (Brown 2019, Cruess 2018, Diallo 2010, Fernandez 2016, Hidalgo 2015, Jemmott 2015, Tobin 2013), there was evidence of effectiveness in some trials, with 3 studies reporting positive effects on condom use (Crosby 2019, Morrison-Beedy 2013, Wilson 2019) and 3 studies reporting positive effects on HIV knowledge (Brown 2019, Chandler 2019, Wingood 2011). The committee drew on both the evidence and their clinical experience and agreed that condom use is a fundamental method of preventing STIs so a recommendation about supporting people to use condoms correctly and consistently is important. They agreed that the recommendation should refer to sex-positive approaches to condom use and the wide variety of condoms available. The committee also highlighted the importance of using appropriate terminology relating to barrier methods, particularly by referring to internal and external condoms rather than the gendered language of male and female condoms, and by including dental dams when discussing barrier methods.

The committee discussed the apparent importance of peers in intervention efficacy and noted that many of the interventions that had shown positive effects on condom use, STI incidence or STI/HIV knowledge had been delivered by peer facilitators. The qualitative evidence also showed that participants emphasised a preference for peer-led approaches. The committee clarified their understanding of peers as someone with a shared identity to the target group or a trusted messenger, and that the ability to empathise and understand the person’s needs and life context was key. The committee discussed the potential challenges of commissioning and delivering peer-led services, but committee members with experience of peer-based approaches emphasised that establishing peer-led services is not prohibitively complex and the committee were reassured by this. It was also noted from the qualitative evidence that peers of similar identities with shared experience appear to be important for group-based interventions, and these themes came through particularly strongly for certain groups such as trans women and people with HIV. The committee considered that peer support can be empowering and may contribute to the self-assuredness and confidence required to change sexual behaviour, particularly for people experiencing minority stress, so they agreed to recommend that where possible, interventions should be delivered by peers.

The evidence included group-based interventions and 1-to-1 interventions and both delivery formats demonstrated evidence of effectiveness for some outcomes. This led the committee to consider the relative effectiveness of group versus 1:1 interventions. It was agreed that without evidence that directly compared the efficacy of an intervention when delivered via group or 1:1 format, it was not possible to establish whether group or 1:1 interventions were more effective. However, the committee agreed that there are potential resource and implementation implications of these delivery formats, particularly the relative ease of delivering a brief 1:1 session to patients already attending a sexual health clinic appointment compared to the processes involved in organising scheduled peer group sessions and supporting people to attend. Nevertheless, it was agreed both delivery formats were useful for different groups in different contexts, and that the most appropriate or effective delivery format would likely depend on what people wanted and the delivery setting available. The committee therefore recommended that people's preferences and any resource impact should be taken into account when determining whether 1-to-1 or group delivery is most appropriate.

The committee noted that in many of the included studies, participants had been paid for attending intervention sessions. The committee recognised the financial vulnerability of many of the higher-risk populations being considered and agreed that transport and other costs of attending interventions should be reimbursed to prevent inequalities in access. This was also reflected in the qualitative evidence where participants cited practical concerns as potential barriers to participating in interventions, such as transportation difficulties or the need for childcare while attending sessions. The committee also considered the potential of non-monetary incentives such as gym vouchers or entry into raffles to promote engagement.

The committee agreed that most interventions incorporated elements that addressed STI information, condom use and risk reduction behaviours, but that many also featured components addressing broader aspects relating to identity, self-worth, self-respect and empowerment. The committee considered it useful to understand the interventions as operating at multiple levels: the informational level, which included providing information and education about STIs, condom use and how to reduce risk; the psychological level, which included addressing issues relating to self-identity, self-worth and self-efficacy; the sociocultural level, which included elements such as cultural norms, minority stress, stigma and wider social factors contributing to risk; and the delivery level, relating to intervention modality or format such as whether it was interactive, educational, and community- or clinic-based. The committee agreed that effective interventions may need to operate on some or all of these levels using a multicomponent approach, so they recommended that interventions include some or all of several possible components, including information provision, personalised risk assessments, and activities to increase sexual self-efficacy. The committee recognised that the combination of elements or components will likely vary depending on the needs and preferences of the people they are intended for. This was also reflected in the qualitative evidence, where HIV positive participants identified preferred components of secondary prevention interventions, including specific information needs relating to re-exposure to HIV, female condoms, serostatus disclosure, and empowerment. The committee agreed that this reiterated the importance of engaging with groups at higher risk of STIs to understand how best to meet their sexual health and wellbeing needs in terms of intervention content and delivery format, and the value of co-producing interventions with the groups that they are intended for. The committee also agreed that interventions and services should be targeted at people with greater sexual health needs but recognised that local areas vary in their cultural and demographic profiles and the prevalence of higher-risk groups, so they agreed that data from various sources (including the Joint Strategic Needs Assessment) should be used to commission and provide services to meet local need.

The committee considered the evidence from expert testimony and recognised that there is limited evidence specific to sexual health care for inclusion health groups, as work with these populations largely focuses on mental health and substance use. However, it was acknowledged that interventions to support access to healthcare and services more broadly would also improve access to specialist sexual health care. The committee used evidence presented by the expert in combination with their clinical experience to recognise that approaches to improve access should combine general principles about service accessibility (e.g. kindness, empathy and a non-judgemental attitude; addressing language or literacy barriers; offering outreach where appropriate) with those specific to accessing sexual health services for marginalised groups (e.g. emphasising that sexual health services can be anonymous and that there are no eligibility criteria or costs for access) so they made a recommendation about reducing barriers to access. They also agreed that the principles outlined in the All Our Health framework were an important way to make services more welcoming and inclusive, so included a link to this guidance in the recommendation.

The committee also considered the expert testimony on sexual health inequalities among racially minoritized people in the UK and reflected on ways that interventions can address the known disparities in poor sexual health without stigmatising members of higher-risk groups. The committee considered the importance of using appropriate language and approaches to ensure that interventions are tailored to the needs of the groups identified without implying that all members of that group are at high risk of an STI, and agreed that this could be done using up to date information and statistics to educate communities about local rates.

Cost effectiveness and resource use

No economic evidence was identified for the review questions on interventions to reduce the acquisition and transmission of STIs in higher-risk groups (for full details of the economic literature review, see the quantitative evidence review for this question). Nevertheless, the committee discussed the potential cost-effectiveness and resource impact of the recommendations made. They did not consider that there would be a substantial resource impact associated with implementing the recommendations. In particular, they noted the recommendations were consistent with those in other guidance, including previously published NICE guidance (for example, guidelines on community engagement and condom distribution schemes) as well as that produced by other bodies, such as Public Health England. They reasoned that existing clinic appointments could be used to identify people with greater sexual health needs and signpost them to appropriate services, but agreed that additional appointment time would be needed for more comprehensive conversations about risk reduction, particularly if brief motivational interviewing, CBT or condom-focused interventions were used. The committee noted that a number of recommendations made talked about providing a range of options (for example on pathways into care or the range of services delivering interventions). They noted there was a resource impact associated with providing a broader range of options, but noted that since the guideline was not specific about what those options should be, this left sufficient flexibility for local areas to tailor what they provide to their local circumstances, and to manage within their particular budget constraints. Similarly, they noted the resource impact of group versus individual delivery of interventions would be different, but in the absence of evidence on the comparative effectiveness of these options, did not feel it was appropriate for them to make a recommendation specifying a preference between these options.

2.3 Recommendations supported by this evidence review

This evidence review supports recommendations 1.1.1 to 1.1.14 and the research recommendations on delivering effective sexual health services as part of other services and tailoring outreach services.

2.4 References – included studies

Bowleg, Lisa, Massie, Jenne S, Holt, Sidney L et al. (2020) The Stroman Effect: Participants in MEN Count, an HIV/STI Reduction Intervention for Unemployed and Unstably Housed Black Heterosexual Men, Define Its Most Successful Elements. American journal of men's health 14(4): 1557988320943352

Broaddus, M.R.; Marsch, L.A.; Fisher, C.B. (2015) Risks and Benefits of Text-Message-Delivered and Small-Group-Delivered Sexual Health Interventions Among African American Women in the Midwestern United States. Ethics and Behavior 25(2): 146-168

Brothers, Jennifer, Harper, Gary W, Fernandez, M Isabel et al. (2014) EVOLUTION--taking charge and growing stronger: the design, acceptability, and feasibility of a secondary prevention empowerment intervention for young women living with HIV. AIDS patient care and STDs 28(1): 33-42

Buttram, Mance E and Kurtz, Steven P (2017) A Qualitative Study of African American/Black MSM's Experiences of Participating in a Substance Use and Sexual Risk Reduction Intervention. American journal of men's health 11(4): 1155-1161

Chandler, Rasheeta, Anstey, Erica H, Ross, Henry et al. (2016) Perceptions of Black College Women on Barriers to HIV-Risk Reduction and Their HIV Prevention Intervention Needs. The Journal of the Association of Nurses in AIDS Care : JANAC 27(4): 392-403

Fontenot, Holly B, Cahill, Sean R, Wang, Timothy et al. (2020) Transgender Youth Experiences and Perspectives Related to HIV Preventive Services. Pediatrics 145(4)

Hawa, Roula N, Underhill, Angela, Logie, Carmen H et al. (2019) South Asian immigrant women's suggestions for culturally-tailored HIV education and prevention programs. Ethnicity & health 24(8): 945-959

Hosek, Sybil, Brothers, Jennifer, Lemos, Diana et al. (2012) What HIV-positive young women want from behavioral interventions: a qualitative approach. AIDS patient care and STDs 26(5): 291-7

Lee, Young Me, Florez, Elizabeth, Holm, Karyn et al. (2016) Latino Adolescent Perspectives Toward Sexually Transmitted Infection Educational Programs. International journal of nursing knowledge 27(1): 17-23

Mimiaga, Matthew J, Reisner, Sari L, Goldhammer, Hilary et al. (2010) Sources of human immunodeficiency virus and sexually transmitted disease information and responses to prevention messages among Massachusetts men who have sex with men. American journal of health promotion : AJHP 24(3): 170-7

Pedrana, Alisa E, Hellard, Margaret E, Higgs, Peter et al. (2014) No drama: key elements to the success of an HIV/STI-prevention mass-media campaign. Qualitative health research 24(5): 695-705

Rhodes, Scott D, Alonzo, Jorge, Mann-Jackson, Lilli et al. (2020) A peer navigation intervention to prevent HIV among mixed immigrant status Latinx GBMSM and transgender women in the United States: outcomes, perspectives and implications for PrEP uptake. Health education research 35(3): 165-178

Vanable, Peter A, Carey, Michael P, Brown, Jennifer L et al. (2012) What HIV-positive MSM want from sexual risk reduction interventions: findings from a qualitative study. AIDS and behavior 16(3): 554-63

Appendices

Appendix A – Review protocol

Review protocol for the acceptability of interventions for reducing or preventing the acquisition and transmission of STIs

ID	Field	Content
1.	Review title	Acceptability of interventions for reducing the acquisition and transmission of STIs in people at risk
2.	Review question	1.2. What is the acceptability of interventions for reducing the acquisition and transmission of STIs in: 1.1a Gay, bisexual and other men who have sex with men 1.1b Young people age 16 to 24 years 1.1c People from a Black African or Caribbean family background 1.1d Trans people 1.1e Migrants communities 1.1f People who are homeless 1.1g Asylum seekers
3.	Objective	This review aims to identify the acceptability of interventions for reducing the acquisition and transmission of STIs in the specified groups identified above The review will also consider how acceptability may vary in particular subgroups in whom the intervention might be expected to differ (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation, people with low-socio economic status)
4.	Searches	The following databases will be searched: Cochrane Central Register of Controlled Trials (CENTRAL) Cochrane Database of Systematic Reviews (CDSR) Embase (OVID) Medline (OVID) Medline in Process (OVID) PsycINFO (Ovid)

ID	Field	Content
		EmCare (OVID) Web of Science (for citation searching* only, if judged to be required) *Citation searching Depending on initial database results, forward citation searching on key papers may be conducted, if judged necessary, using Web of Science (WOS). Only those references which NICE can access through its WOS subscription would be added to the search results. Duplicates would be removed in WOS before downloading. Websites Key websites will be searched for relevant reports or publications (British HIV Association, CDC, PHE, Google) Database functionality will be used, where available, to exclude: Non-English language papers Animal studies Editorials, letters or commentaries Conference abstracts or posters Dissertations or theses Duplicates Sources will be searched from 2009 to current. The searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion. The guidance Information Services team at NICE will quality assure the principal search strategy and peer review the strategies for the other databases. Any revisions or additional steps will be agreed by the review team before being implemented. Any deviations and a rationale for them will be recorded alongside the search strategies. A record will be kept of number of records found from each database and of the strategy used in each database. A record will be kept of total number of duplicates found and of total results provided to the Public Health team.
5.	Condition or domain being studied	Sexually transmitted infections including herpes, chlamydia, genital warts, gonorrhoea, syphilis, HIV, mycoplasma genitalium, lymphogranuloma venereum (LGV), trichomonas vaginalis (TV)
6.	Population	Gay, bisexual and other men who have sex with men, people aged 16 to 24 years, people from a Black African or Caribbean family background, trans people, migrants, people who are homeless and asylum seekers.

ID	Field	Content
7.	Intervention/Exposure/Test	Individual's views on the acceptability of the interventions for reducing or preventing the transmission and acquisition of STIs in people at risk (identified above) (Ideally this will include interventions or strategies identified in RQ1.1, but is not restricted to these)
8.	Comparator/Reference standard/Confounding factors	Not applicable
9.	Types of study to be included	Qualitative studies, such as questionnaires, structured or semi structured interviews, focus groups. Mixed method studies with qualitative data, where the qualitative evidence meets specified inclusion criteria and can be extracted.
10.	Other exclusion criteria	Only papers published in the English language will be included. Only studies carried out in OECD countries will be included. Only full published peer-reviewed qualitative studies will be included.
11.	Context	The Department of Health and Social Care in England has asked NICE to update the guideline on sexually transmitted infections and under-18 conceptions: prevention (PH3), published in 2007. Changes in policy and commissioning, financial pressures and new evidence identified through the surveillance process led to the decision to update this guideline. The updated guideline will focus solely on the reduction of sexually transmitted infections (STIs), as prevention of under-18 conceptions is covered in other guidelines Data from Public Health England show the overall number of STI diagnoses increased by 5% between 2017 and 2018. STIs can affect personal wellbeing, mental health and relationships and can also lead to serious health problems including pelvic inflammatory disease, ectopic pregnancy or infertility. It is therefore important to address interventions to help prevent or reduce STIs.
12.	Primary outcomes (critical outcomes)	Outcomes will include values, beliefs, preferences, acceptability, attitudes, experiences and views on the interventions for preventing or reducing the acquisition and transmission of STIs
13.	Secondary outcomes (important outcomes)	N/A
14.	Data extraction (selection and coding)	All references identified by the searches and from other sources will be uploaded into EPPI reviewer and de-duplicated.

ID	Field	Content
		It is anticipated that as this is likely to be a large search as there are 7 differing population groups and many possible intervention types, the whole search will be screened and priority screening will not be used. 10% of the abstracts will be reviewed by two reviewers, with any disagreements resolved by discussion or, if necessary, a third independent reviewer. The full text of potentially eligible studies will be retrieved and will be assessed in line with the criteria outlined above. A standardised template will be used to extract data from studies (this is consistent with the Developing NICE guidelines: the manual section 6.4).
15.	Methodological (quality) assessment	Risk of bias will be assessed using the appropriate checklist as described in Developing NICE guidelines: the manual The CASP qualitative checklist will be used. This includes determining if the study is considered to be at low, moderate or high risk of bias.
16.	Strategy for data synthesis	The key findings from the studies will be categorised into themes relevant to the review across all studies using a thematic analysis. Supporting quotations and summaries of data may be included. The quality or certainty across all available evidence will be evaluated for each outcome using the GRADE CERQual approach. Where evidence allows, a triangulation convergence matrix will be produced to compare and contrast results from the quantitative and qualitative evidence reviews. Quantitative and qualitative findings will be analysed separately on the same question and then the different results are converged (by comparing the different results) during the interpretation. This is to help to confirm, or corroborate quantitative results with qualitative findings. The results may also be presented as a narrative summary or diagram with quantitative findings mapped onto the qualitative ones.
17.	Analysis of sub-groups	Where evidence allows, sub-group thematic analysis will be considered, this may include those disproportionately burdened with STIs, such as: • people with low socioeconomic status • people engaging in so-called chemsex • people with learning disabilities

ID	Field	Content	
		- commercial sex workers - people age 65 years and older identified within the higher risk groups specified - people taking HIV PrEP This approach will only be undertaken if it is considered that the data is sufficiently rich to allow this. Where there is not sufficient richness of data then these groups and potential differences or similarities will be considered in the same theme, with the coherence within or between discussed.	
18.	Type and method of review	☐	Intervention
		☐	Diagnostic
		☐	Prognostic
		☒	Qualitative
		☐	Epidemiologic
		☐	Service Delivery
		☐	Other (please specify)

Appendix B – Qualitative evidence tables

Bowleg, 2020

Bibliographic Reference	Bowleg, Lisa; Massie, Jenne S; Holt, Sidney L; Boone, Cheriko A; Mbaba, Mary; Stroman, Wayne A; Urada, Lianne; Raj, Anita; The Stroman Effect: Participants in MEN Count, an HIV/STI Reduction Intervention for Unemployed and Unstably Housed Black Heterosexual Men, Define Its Most Successful Elements.; American journal of men's health; 2020; vol. 14 (no. 4); 1557988320943352

Study Characteristics

Study type	Semi structured interviews
Aim of study	To understand how a subsample of participants in the MEN Count intervention's treatment arm evaluated the intervention's success. MEN Count is an individual-level HIV/STI risk reduction and healthy relationship intervention with employment and housing stability case management. It is delivered by a peer counsellor and aims to meet the specific needs of Black heterosexual men.
Theoretical approach	The intervention is based on Social Cognitive Theory and the Theory of Gender and Power. Data analyses were guided by strategies from the Rigorous and Accelerated Data Reduction (RADaR) technique.
Study location	Washington, DC, USA
Study setting	STI clinics. Some interviews were conducted via telephone to facilitate participation
Study dates	Not reported
Sources of funding	This study was funded by NIH/NIMH 5R01MH096657 to joint-PIs Drs. Bowleg and Raj
Data collection	- Brief, structured qualitative individual interviews with a subsample of MEN Count intervention participants.

	- Interviews examined 2 main questions: a) what were the intervention's most successful elements? and b) what do participant's narratives highlight about the role of context in the peer counselling sessions? Sample questions included "What have you liked [most/least] about the MEN Count program?" - Interviews lasted approximately 45 minutes, on average, and were completed either immediately after participants completed their 6-month follow-up assessment or at a later date. - Most interviews were conducted by the study's project director, a Black woman. The remaining interviews were conducted by peer counsellors who delivered the attention control condition, both Black men, or a female Doctoral student. - Interviews were digitally recorded and professionally transcribed.
Method and process of analysis	- Strategies from the Rigorous and Accelerated Data Reduction (RADaR) technique were used to iteratively reduce the data into relevant quotes and themes ready for analysis. - Members of the analytical team read all transcripts thoroughly to familiarise themselves with the data. - Coding independently, they used RADaR steps to reduce the data for analysis, then reviewed the reduced data tables for relevance to research questions and discussed any discrepancies until arrived at consensus. - To establish analytical rigor, analyses were verified by checking and rechecking data tables and interpretations; these were discussed and revised as needed, and by abandoning any ideas that the data did not support.
Population and sample collection	- Participants were 38 self-identified Black/African American heterosexual men who participated in the treatment arm of the intervention. - Age 18-60 years (mean = 31.1, SD = 9.3) - Participants were recruited to the initial trial using community and street outreach (flyers placed a community-based organisations, libraries and local businesses), adverts on Craigslist, on-site recruitment at the publicly-funded STI clinic, and participant referrals. - After completing the intervention sessions and 6-month follow up assessment, participants were invited to complete brief structured interviews to discuss their experiences of taking part in the intervention.

Inclusion Criteria	Criteria 1 Identify as cisgender Black/African American male Criteria 2 At least 18 years old Criteria 3 Report heterosexual HIV/STI risk behaviours, operationalised as sex with two or more women *and* reports of condomless sex in the past 12 months Criteria 4 Either report housing instability in the past 6 months *or* unemployment/underemployment in the past 12 months
Relevant themes	**<u>1. Drivers of Intervention Success</u>** **1a. Mr Stroman** Mr Stroman was the lead peer counsellor; a clinical social worker and registered addiction counsellor. Participants unequivocally attributed the success of the intervention to him and a large majority of participants reported their interactions with him were their favourite part of the intervention. Responses indicated that his positive impact related to (a) his candour about his own life challenges, which enhanced his relatability and the intervention's credibility, (b) participants' perception of Mr. Stroman as a mentor and a role model, and (c) the fact that he often exceeded the call of duty to show care for participants. *"And you know, me and Mr. Stroman, you know, we have similar the same background so we could relate to one another. . . . It played a role [in terms of the program helping me]."* *"I think talking to Mr. Stroman. He came from, kind of, like the same background I came from. He told me how he changed his life and it, kind of, inspired me."*

	1b. Peer counsellors: demographics and relatability matter Participants described how the peer-counselling element of the intervention, specifically Black men delivering content to Black men, was felt to be one of the most successful elements. For many, the peer counsellor's race and gender mattered. Similarly, for some the age of the interventionist was important, because they felt Mr Stroman's age provided him with gravitas and life experiences that enhanced his credibility. *"I'm gonna be honest with you, if I would have came through that session and it was a woman talking to me. . . I wouldn't have told her diddly squat. . . I would have kept my stuff to myself. . .I wouldn't've said nothing. . . Like, having someone there, personally, to relate to you. . . As a young Black male, is kinda good, when you going through something, period."* For one participant, sexual orientation also mattered when matching peer counsellors: *"Last time I think it was this little gay guy. . . I was a little uncomfortable. I felt like, I don't know, funny, man."* **2. Contextual factors shape intervention participation** **2a. MEN Count as a space to 'Get Stuff off my Chest'** Participants noted that they appreciated the outlet that MEN Count provided for Black men to discuss their challenges. Several noted that a space where Black men could express their feelings or "check-in" with themselves was vital because Black men rarely had opportunities to discuss these issues with other Black men. Many noted their tendency to 'bottle up' or conceal emotions, and that conventional masculinity norms can hinder Black men from engaging in interventions or programs that emphasise talking about feelings. As the MEN Count program was designed specifically to provide Black men with a safe space in which they could openly discuss their emotions and well-being, many relished this opportunity and felt they benefitted from it.
Additional information	As an incentive for intervention participation, participants received $30 at baseline and an additional $40 and $50 at 6- and 12-month follow up, respectively. For the qualitative study, interviewees received a $50 cash incentive.

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes *(Research design generally appropriate but used structured interviews which can restrict what participants are able to discuss.)*
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(No information on how participants from the trial were recruited for participation in post-trial interviews)*
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	No *(Some description of analysis process and good use of relevant quotes to support the themes, but limited critical examination of the researcher's own role in the process or the potential for bias.)*
Findings	Is there a clear statement of findings?	Yes *(Findings are clearly stated but little consideration of the credibility of findings or inter-rater reliability)*

Section	Question	Answer
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Moderate *(Lack of information about participant recruitment, and limited consideration of researcher's role in the analysis or verification of findings.)*
Overall risk of bias and relevance	Relevance	Relevant

Broaddus, 2015

Bibliographic Reference	Broaddus, M.R.; Marsch, L.A.; Fisher, C.B.; Risks and Benefits of Text-Message-Delivered and Small-Group-Delivered Sexual Health Interventions Among African American Women in the Midwestern United States; Ethics and Behavior; 2015; vol. 25 (no. 2); 146-168

Study Characteristics

Study type	Focus Groups
Aim of study	The study aimed to assess and understand participants' perceptions of the risks and benefits of participating in evidence-based interventions for young adult African American women. The study examined responses to two types of intervention - a text-message based intervention and a traditional small-group intervention, but as this review excludes digital interventions, only data relating to the face-to-face small-group intervention has been extracted.
Theoretical approach	Not reported
Study location	USA
Study setting	An inner-city Health Department STI clinic serving uninsured and underinsured residents.

Study dates	Not reported
Sources of funding	The research was supported in part by a grant from the National Institute on Drug Abuse, R25DA031608. Manuscript preparation was supported in part by a Center grant from the National Institute of Mental Health, P30MH0542776.
Data collection	- 3 focus groups consisting of between 2 and 5 women, lasting 45-90 minutes. - Each focus group began with the facilitator (the first author) guiding participants through a PowerPoint storyboard of the group-based intervention. - The storyboard content was based on session 3 of the SISTA (Sisters Informing Sisters on Topics about AIDS) intervention for African American women, which teaches assertiveness skills, effective communication, and negotiating with a partner around safer sex. The storyboard takes focus group participants through the process of participating in this intervention, from recruitment to completion. - The facilitator then used a focus group guide to facilitate discussion about that intervention. Participants were asked about their overall perception of the intervention, why they would feel comfortable or uncomfortable participating in the intervention, and what they perceived as the risks and benefits of participating. - Probes were used to further explore concerns around privacy, comfort, personal benefits, benefits to their community, and whether benefits outweighed risks. - Focus group discussions were audio-recorded.
Method and process of analysis	- Focus group recordings were transcribed verbatim. - The initial thematic coding tree was based upon questions included in the focus group guide and collaboration between the first and second authors, consisting of broad content areas such as convenience, participation benefits and risks, and confidentiality and privacy protections. - Transcripts were read multiple times by the first author, and more refined themes emerged from repeated mentions in the data as subcategories that emerged and from discussions with the second author. - Quotes were chosen to summarise main themes.

Population and sample collection	- African American women between the ages of 18–25 were recruited from the waiting room of an inner-city Health Department STI clinic. - Potential participants were approached by research staff and asked if they would be interested in participating in a research project about perceptions of sexual health programs. - Thirty-four eligible participants gave informed consent, and provided contact information. - Research assistants attempted to contact and schedule all women who provided informed consent, but due to inability to reach some women and scheduling conflicts, 12 women participated in one of 3 focus groups. - The first focus group consisted of two women, the second and third focus groups consisted of five women each. - Mean age was 21, range 18–25. - Seventy-five percent indicated that they were in a romantic or sexual relationship, 44% of whom indicated this was a serious relationship and 56% a casual relationship. - Participants were compensated a $30 stipend for their time and travel expenses.
Inclusion Criteria	None reported
Exclusion criteria	None reported
Relevant themes	1. Benefits of group-based modality Learning from others: group interventions allow participants to learn from others' experiences, especially in learning ways to react to role play scenarios: *“If the people who have more experience [participate], they would give you more insight of the situation that may occur.”* 2. Barriers to participation in group-based intervention Practical concerns: issues such as transportation difficulties, scheduling around other responsibilities like work or school, or for some the need for childcare: *"If they are not in daycare, and it’s like after I get off of work, or going to school, or going straight home to get my kid, or whatever the case might be. I think it would be hard ‘cause to find somebody else to watch*

	their kid and then people sometimes already don't watch other people's kids especially if it's a nice day, or if you are not paying them." 3. Risks of participating 3a. Discomfort discussing socially sensitive topics: in their community, sex was not a topic that was discussed openly, which may cause discomfort when discussing sex in group-based intervention: *"They could feel embarrassed or just kind of avoid the whole topic of the sex…"* This risk could be exacerbated for participants who may have experienced sexual violence, for whom discussion of sexual topics may be upsetting: *"Sometimes some people are not ready to talk about that maybe they are traumatized or maybe they went through some issues or maybe they are just not ready for that right now. It's not like they don't need to know the information, they do…, but sometimes other people might just have problems with that, they feel uncomfortable or they are just not ready to go through that stage for what their past experience might have been especially if it just happened to them."* 3b. Group social stigma: risk of being judged by others in the group due to their sexual experiences: *"They might not want to express themselves because of what people will judge them by especially when you are young and people judge you as fast, being a ho, or not carrying yourself like a young lady should be carrying yourself."* 3c. Community social stigma and privacy: risk of exposure of personal information to others in the community outside of group sessions, and risk of others knowing one was participating in an HIV prevention intervention. Group format causes a lack of anonymity. *"I'd be kind of concerned cause [this city] is a small place."*

Critical appraisal - CASP qualitative checklist

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes

Section	**Question**	**Answer**
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	No *(Limited information on theoretical approach or method of data analysis)*
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Low
Overall risk of bias and relevance	Relevance	Partially relevant *(The study investigated participants' perceptions of the risk and benefits of a small-group*

Section	Question	Answer
		intervention and a text-message based intervention. As digital interventions are out of scope, only information relating to small-group interventions was extracted, meaning there were large portions of this paper that were not relevant. In addition, focus group participants did not actually receive the intervention, they were just given information about it and what they would be asked to do if they took part in it.)

Brothers, 2014

Bibliographic Reference	Brothers, Jennifer; Harper, Gary W; Fernandez, M Isabel; Hosek, Sybil G; Adolescent Trials Network for HIV/AIDS, Interventions; EVOLUTION--taking charge and growing stronger: the design, acceptability, and feasibility of a secondary prevention empowerment intervention for young women living with HIV.; AIDS patient care and STDs; 2014; vol. 28 (no. 1); 33-42

Study Characteristics

Study type	Open-ended questionnaire items
Aim of study	To examine the feasibility and acceptability of a HIV secondary prevention empowerment intervention (EVOLUTION) for young African American women. The EVOLUTION intervention aims to reduce secondary transmission by enhancing young people's knowledge and social and behavioural skills. It also addresses sexual inequality and power imbalances that may influence sexual behaviour. The intervention consists of 7 small group sessions and 2 individual sessions
Theoretical approach	Not reported
Study location	Baltimore, Maryland, Chicago, Illinois, and Tampa, Florida; USA.
Study setting	Clinical settings
Study dates	Not reported

Sources of funding	The Adolescent Medicine Trials Network for HIV/AIDS Interventions (ATN) is funded by Grant Number U01 HD040533-06 from the National Institutes of Health through the National Institute of Child Health and Human Development (Bill Kappogianis, MD; Sonia Lee, PhD) with supplemental funding from the National Institutes on Drug Abuse (Nicolette Borek, PhD) and Mental Health (Susannah Allison, PhD).
Data collection	- Data for this study were collected during a pilot RCT of the EVOLUTION intervention. - Intervention group participants completed Session Evaluation Forms (SEF) at the end of each intervention session. The SEF is a brief 12-item questionnaire that included 10 items on a 4-point response scale and 2 open-ended items which asked participants about what was most useful and what they would like to change about the session. - Additional feasibility and acceptability data were collected, but as these were quantitative data or the views and experiences of people delivering the intervention, they were not extracted for this review.
Method and process of analysis	- Themes elicited from participants' feedback were categorised into three main areas. - No further detail on analysis method reported.
Population and sample collection	- Participants were recruited to the pilot RCT by study coordinators at the clinical sites who prescreened charts for eligibility and invited potentially eligible participants to take part. - Of the 43 young women enrolled in the trial, twenty-two young women were enrolled in the experimental intervention arm (EVOLUTION) and provided qualitative data for this study. - The majority of participants (77.3%) were aged 19–24 (mean age = 20.55) and identified as African American (86.4%). - 41% of participants had less than a high school education and were currently in school. - Most participants identified as straight (86.4%); 12.5% identified as bisexual. - Half of the young women reported past pregnancies. - Two participants were diagnosed with HIV in the 12 months prior to enrollment, and more than half (59.1%) were currently taking antiretroviral (ARV) medications.

Inclusion Criteria	Criteria 1 Documented to be HIV positive. Participants could be either behaviourally or perinatally infected. Criteria 2 Between the ages of 16-24 years Criteria 3 Received medical care at one of the three participating clinic sites Criteria 4 Understood written and spoken English at approximately 8th grade level
Exclusion criteria	Criteria 1 Demonstrated active, serious psychiatric symptoms that would impair their ability to meet the study requirements Criteria 2 Were visibly distraught and/or intoxicated at the time of study enrollment
Relevant themes	**1. Structure and Format** **1a. Group setting:** Participants noted throughout the intervention session how much they enjoyed the group setting and that being with other young women like them created an environment where they could share and discuss their lives. ‘‘It was nice to hear about other girls in my predicament.’’ **1b. Ground rules:** Participants appreciated the ground rules which were clearly defined at the outset of the intervention and emphasised confidentiality, respect, and safety of all group members. ‘‘Rules make every situation better.’’

	1c. Participant contract: These emphasised the importance of each participant's personal commitment to addressing her own emotional, social, sexual and physical health, and addressed not only what the intervention would focus on, but also what was expected of participants. ‘‘I like that everything is planned out to help me better myself.’’ **1d. Personal reflection and goal setting:** Activities that involved personal reflection and goal setting (short and long term goals) in different domains (emotional, social, physical, and sexual) of participants’ lives were viewed as beneficial. One participant stated the intervention overall ‘‘made me think about my life and past and present and long-term goals that I want to complete.’’ **1e. Action plan calendar:** Individual session involving a review of lessons learnt and mapping out individualised goals for the next 6 months was the most popular and useful session. "I liked being able to cooperatively go over my goals and get feedback’’ and another felt ‘‘it was good to know the steps’’ ‘[she] ‘‘need[ed] to take.’’ The comprehensive plan with detailed strategies and steps were seen as "something necessary," "very realistic." **1f. Linkage-to-care:** Participants appreciated the linkage to care made possible through the interventionists' referrals. "it gave me help people [and a] place to go in time of need" **2. Content** **2a. Self-confidence and self-esteem:** Activities that focused on building self-confidence and self-esteem and empowering young women to see beyond their HIV status, to critically examine how men and women are valued, and imbalances in power between men and women were well received and enjoyed. ‘‘It [the activities] helped me want to put more effort into building myself up to do my best.’’ ‘‘I didn’t know I didn’t have much [selfesteem] now I can work on it.’’ **2b. Emotional regulation:** Activities that encouraged honest introspection and self-reflection were well received. Participants enjoyed sessions that assisted with emotional regulation through activities that encouraged them to identify their daily stressors, distorted thinking, and negative emotions, then develop strategies to cope with them. ‘‘It [the session] made me look at myself and my coping skills better.’’ **2c. Stress and coping**

	2d. Anger management: Participants reported enjoying developing their anger management skills and noted how relevant these topics and skills were in their lives. Developing anger management skills helped them ‘‘find ways to control.’’ **2e. Healthy relationships:** Activities involving the development and maintenance of healthy relationships, including romantic relationships, were seen as highly useful and relevant to the young women, especially given that many reported histories of abusive relationships. Young women reported that the activities helped them identify abuse both in their previous and current relationships and were also able to reflect on what traits they would like to have in a partner and healthy ways to communicate with others. ‘‘I enjoyed this one because I was able to take a closer look at my relationship.’’ **2f. Sexual risk reduction:** Most of the participants reported enjoying and learning from sexual risk reduction activities, including those focused on learning how to assess a partner’s risk and identifying fun and innovative ways to negotiate condom use. **2g. Sexual networks:** **2h. HIV disclosure:** The HIV disclosure activity was very well received by the young women, with almost half of the participants making a point to highlight the relevancy and usefulness of this activity in their lives **3. Areas for Improvement** **3a. Group dynamics:** While only mentioned a few times, the most common suggestion was to improve the ability of interventionists to adequately address counterproductive group dynamics. This recommendation was presented in the context of personality conflicts that arose in one of the groups, which resulted in friction and impediments to group cohesion and support. **3b. Session length:** An area of concern was the session length. While interventionists attempted to keep sessions to a maximum length of 3 h, several sessions ran over this time limit. **3c. Written homework assignments:** Some participants had concerns about the requirement of weekly written homework assignments that assisted participants with applying the knowledge and skills learned from each week’s session.

Additional information	This study collected a range of feasibility data, including session attendance, attrition, and quantitative measures assessing participants' satisfaction with the intervention including procedures, quality and quantity of service, outcome, and general satisfaction. None of this quantitative data was extracted for this review. The study also conducted interviews with 3 interventionists to gather further data on acceptability, feasibility and any implementation challenges. These interviews also discussed the interventionists' perceptions of participants' comprehension and engagement. As the views and experiences of people delivering the interventions are outside of the scope of this review, this data was not extracted.

Critical appraisal - CASP qualitative checklist

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes *(Yes but this was limited to only 2 open ended questions after each intervention session which asked what was most useful about the session and what they would like to change about the session.)*
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(The data addressed what was useful about each session and how it could be improved, but did not address a more broad range of acceptability issues.)*

Section	Question	Answer
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	No *(No description of the analysis process used or how themes were derived from the data. Insufficient data or quotes provided to support findings. No examination of researchers own role in analysis process, development of themes or selection of data.)*
Findings	Is there a clear statement of findings?	No *(Themes are briefly described and in some, but not all, instances supporting quotes are provided, but inadequate discussion of alternative interpretations or credibility of findings.)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	High *(data collection was limited to 2 open-ended questions on a post-intervention questionnaire; no description of the analysis process and there were insufficient quotes used to evidence or support study findings)*
Overall risk of bias and relevance	Relevance	Relevant

Buttram, 2017

Bibliographic Reference	Buttram, Mance E; Kurtz, Steven P; A Qualitative Study of African American/Black MSM's Experiences of Participating in a Substance Use and Sexual Risk Reduction Intervention.; American journal of men's health; 2017; vol. 11 (no. 4); 1155-1161

Study Characteristics

Study type	Semi structured interviews
Aim of study	To investigate the experiences of Black MSM in Project ROOM (men Reaching Out to Other Men; a small group sexual and substance use risk reduction intervention based on psychological empowerment theory). The study aimed to understand the experience of participating in Project ROOM assessment and intervention sessions, and to understand how participation influenced BMSM's substance use and sexual behaviours. Data extraction was restricted to only those responses relating to participants' experience and acceptability of the intervention.
Theoretical approach	The Project ROOM intervention is based on psychological empowerment theory. A grounded theory framework guided the data analysis.
Study location	Florida, USA
Study setting	Interviews took place in a private office
Study dates	May 2013 to August 2013
Sources of funding	This research was supported by an Early Career Investigator award from the Center for Applied Research on Substance Use and Health Disparities and DHHS Grant Number R01 DA024579 from the National Institute on Drug Abuse.
Data collection	- In depth interviews, conducted by the first author, were guided by a semi-structured protocol which ensured all necessary topics were covered. - The interviews were conversational in style and topics from the guide were discussed as they naturally occurred during the conversation, rather than adhering to a strict format.

	- The interview guide asked about men's experiences with study assessments, intervention components, their changes in substance use and sexual behaviour, and the reasons why these changes occurred. - Example questions: "Tell me about your experience of participating in Project ROOM," "Which sessions (e.g. baseline assessment, follow-up assessment, intervention) did you like/dislike the most? Why?" - Each interview lasted approx. 90 minutes - All interviews were digitally audio recorded
Method and process of analysis	- Interviews were transcribed by an independent transcriptionist and reviewed for accuracy - Transcribed interviews were entered into ATLAS.ti Version 7 software for data management, coding and analysis - A grounded theory framework guided data analysis. The coding process was inductive and grounded in participants' voices. - Preliminary codes were created by the first author using *descriptive* (words or short phrases to summarise passages of data) and *in vivo* (actual language from participants) coding schemes. - Extensive analytic memos were written after each participant was interviewed and after each interview was coded. Analytic memos were also written throughout the coding process to reflect on code choices, emergent themes and patterns, and conceptual models. - Data collection was a cyclical process in which codes and memos were used to guide subsequent interviews, coding, and memo writing. - Next, the data were themed in which the final set of codes and their meanings were transformed into longer and more descriptive themes to organise recurrent meanings and patterns. Themes and definitions of themes were constantly compared across interviews to ensure consistency and reliability; validity was ensured through the use of thick, rich descriptions of data.
Population and sample collection	- All BMSM Project ROOM participants (n=92) were eligible to participate in this qualitative study. In total, 21 (22.8%) participated.

	- Comparisons of BMSM from Project ROOM who did and did not participate in the qualitative interviews were conducted. Measures of demographics, substance use, sexual behaviour, mental health, and social relationships were not significantly different across the two groups, indicating that BMSM participants in the qualitative study were broadly representative of the larger sample of BMSM from Project ROOM. - At Project ROOM baseline, men reported a mean age of 40.8 years (SD=8.19; range=20-52 years) - Past 90-day behaviours included an average of 32.2 days high, 16.3 anal sex partners, and 25.1 unprotected anal sex episodes.
Inclusion Criteria	Criteria 1 Age 18 to 55 years Criteria 2 Reported unprotected anal intercourse with a non-monogamous partner(s) during the last 90 days Criteria 3 Met one or more of 3 substance use inclusion criteria during the past 30 days: binge drinking (5 or more drinks) at least 3 times; using marijuana on 20 or more days; or using any other drug at least 3 times. Criteria 4 Note: paper does not specify inclusion criteria relating to race/ethnicity but all participants were Black / African American. Inclusion criteria listed relate to the Project ROOM trial, from which participants for the qualitative study were recruited.
Exclusion criteria	None reported
Relevant themes	**<u>1. Self-reflection and Increased Mindfulness</u>** **1a. During assessments:** The baseline assessment prompted men to be honest with themselves, reflect and evaluate the consequences of their actions. The process of calculating frequencies of substance use and sexual risk behaviours was

especially thought provoking. One participant said the interviews, *“made me think about those situations,”* while several others stated that the interviews *“put things in perspective”* and *“made me aware of what I was doing.”* For nearly all participants, this was the first time they had been asked questions about their substance use and sexual risk behaviours, and at times this could be somewhat uncomfortable: *“Some of those questions are like . . . you don’t want to answer them, but the fact that you don’t want to answer them says something.” “They were embarrassing, but they cause you to look at yourself too. You take a look at yourself and say, ‘This is what I am doing,’ and then, ‘Perhaps I need to make some changes here.’”*

The follow-up interviews were especially useful in assisting participants to maintain decreased substance use and sexual risk behaviours. There was a common sentiment among participants that knowing they would need to complete a follow-up interview played a role in reducing risk because men did not want to report increased risk behaviours during the follow-up. Participants stated that follow-up interviews as: *“kept me on an even keel”* and would *“push me a little bit more.”*

1b. During intervention components: the intervention components had an impact on the men's realisation of their risk behaviour. Men overwhelmingly believed that the diversity of the groups was a key influence on their behaviour change; that men who were vastly different could have so many similarities: *"Everybody’s walk of life was different, but we was all the same. There were two people in there that was HIV-positive, and I’m like “Wow. I never would’ve thought you had HIV, and maybe that could happen to me.” So, you know, it made me take precaution. It make me look at myself differently—look at my life circumstances differently and what I was doing."* For some men it was their first experience of discussing such topics with other men.

2. Influence of study participation on the Social Environment

2a. Positive impact on social relationships: many men described how the intervention prompted them to separate themselves from individuals they perceived to be of poor influence: *“No support at all. They were just either sex friends, drug friends, drinking friends, or party friends”* and *“I haven’t spoken to a lot of people [since the conclusion of Project ROOM]. In my head I’m like, “What the [explicative] was I talkin’ to those people for?”* As a result, a majority of participants began to search for positive social connections and relationships that they were lacking. One young man said the study assessment questions about friendships and relationships helped him realise he needed to reach out to people he may not have reached out to before and to be more social. In addition, a third of the respondents reported reconnecting with friends and family, some of whom provided material, financial and emotional support.

2b. Opportunity to vent: an aspect of social support frequently cited as a benefit of participating was the opportunity to vent, share opinions or meet people. While some men, particularly those who had prior experience of support groups, found

	this beneficial, others were anxious or intimidated by the possibility of being interviewed by strangers and having to share thoughts or feelings with other men: *“I was anxious and nervous about someone asking me questions about my life."* **2c. Social sharing was significant:** Participants described being able to talk and share things for the first time, and the camaraderie of the group sessions, which had a large impact on their reductions in risk behaviours. One respondent attributed his behaviour change to the fact that he had someone listening to him in a confidential setting: *“I used to live for it. I used to couldn’t wait to get there. I used to say, ‘I just can’t wait to get off my feet, get there and be comfortable and just speak out on things . . . ’” "Well, I think coming to the groups, and then reflecting, and talking to people, and also meeting people in the groups that were HIV positive, and the whole just coming in and doing the whole thing—the whole research thing, the whole questioning, the whole, you know, your opinion matters, and you matter, and, because if your opinion matters, then you matter."* **2d. Social support from peers and project staff is important for BMSM:** Participants noted that a supportive social environment is often lacking among BMSM. Thus, social support from study staff members and from other men in the groups was significant. There was a sense that when someone shows care or concern, it ignites a deeper sense of care within themselves which can reduce the desire to engage in substance use and sexual risk behaviours.
Additional information	Participants were compensated $50 for their time and travel expenses **Intervention Details** - Project ROOM is a 4 session small group sexual and substance use risk reduction intervention based on psychological empowerment theory. - Sessions focus on assisting high-risk MSM substance users in (a) strengthening the skills needed to exercise control over their lives; (b) taking a third person view of the interactions of drugs and sex among gay men, and examining the good and bad experiences associated with them; (c) broadening their spheres of social engagement; and (d) identifying achievable life goals and action plans to move toward them. - Baseline assessment focused on quantifying recent substance use (by drug type and frequency of use) and sexual risk behaviour (number of partners, frequencies of protected and unprotected sex), as well as mental health, loneliness and social relationships.

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(Detailed description of the analysis process and quotes were used well to support themes, but the themes were very generic and could have been further broken down for clarity. No discussion of contradictory data or potential for bias.)*
Findings	Is there a clear statement of findings?	Yes *(Yes, but statement of findings is generally descriptive and does not consider alternative interpretations; no discussion of the credibility of findings.)*

Section	Question	Answer
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Moderate *(the themes were very generic and the statement of findings was largely descriptive; alternative explanations or the credibility of findings were not considered)*
Overall risk of bias and relevance	Relevance	Relevant

Chandler, 2016

Bibliographic Reference	Chandler, Rasheeta; Anstey, Erica H; Ross, Henry; Morrison-Beedy, Dianne; Perceptions of Black College Women on Barriers to HIV-Risk Reduction and Their HIV Prevention Intervention Needs.; The Journal of the Association of Nurses in AIDS Care : JANAC; 2016; vol. 27 (no. 4); 392-403

Study Characteristics

Study type	Focus Groups
Aim of study	To assess the HIV prevention needs of Black college women, using focus groups to evaluate their culturally specific HIV prevention information, motivation and behavioural skill needs, in order to adapt HIP teens, an HIV prevention intervention that targeted Black teen girls (Morrison-Beedy et al. 2013).
Theoretical approach	The Information, Motivation and Behavioural Skills (IMB) model was used a priori to frame question development and data analysis. However, use of the model was not static and participants were given opportunity to share information beyond the constructs of the model.
Study location	A south-eastern US state

Study setting	A traditional university and a HBCU (historically Black college or university)
Study dates	Not reported
Sources of funding	University of South Florida, College of Nursing Faculty Research Pilot Projects Program.
Data collection	- Four 90 minute focus group sessions with 7-9 participants - The principal investigator (PI) led the focus group sessions accompanied by a co-moderator who took notes - The PI and co-moderator were both female; the PI was African American; both were trained in facilitating focus group sessions - Sessions took place in private rooms on campus and were recorded with digital voice recorders - A semi-structured focus group interview guide was designed to obtain information regarding HIV-related information, motivation and behaviour skills - Example questions: *What information do women like you need to protect themselves from HIV?* (Information); *What are some of the challenges women face when they want to use condoms during sex?* (Motivation); and *What would you do if you want to use condoms during sex, but your partner does not want to?* (Behaviour). - The PI probed for examples and experiences to better understand how culturally situated familial, social, and relationship contexts shaped the participants' knowledge, motivations, and behaviour skills.
Method and process of analysis	- A professional company transcribed the focus group recordings verbatim and a member of the study team reviewed them for accuracy. - The researchers kept detailed notes to document the analysis process, enabling the research team to address inconsistencies during data analysis in a transparent and reflective way. - Direct content analysis, using the IMB model, was used to identify themes. Two members of the research team independently identified a priori (established from the IMB model) and emergent codes using QSR NVivo 9.

	- After coding the first focus group, team members met to discuss discrepancies and revise the a priori and emergent codes. One of the research members then coded the other three focus groups, keeping careful notes of additional emergent themes and important sections for discussion. - Using a constant comparative method, the a priori and emergent themes were discussed, the codes were refined and the concepts broadened. - Possible alternative interpretations were actively cross-examined to strengthen the validity and credibility of findings. - In addition to within-group comparisons of focus group results from each university, similarities and differences between the two university samples were also examined.
Population and sample collection	- A convenience sample of 32 Black college women was recruited from two data collection sites - Students were recruited through multiple on-campus and electronic methods, including posting flyers in dorms, emailing fliers to students via campus listservs, and making announcements in undergraduate courses and at student organisation meetings. - Students either e-mailed or called the project coordinator to indicate interest in participating in the study; all applicants were then screened to ensure they met inclusion criteria and assign them to one of four prescheduled focus group sessions. - Following the focus group session, participants received a $50 incentive
Inclusion Criteria	Criteria 1 Identify as Black Criteria 2 Age 18-24 years Criteria 3

	Freshmen or sophomores Criteria 4 Sexually active with a male partner within the previous 6 months
Exclusion criteria	None reported
Relevant themes	**1. Information: Resources for HIV information** Despite basic knowledge about HIV, modes of transmission and the seriousness of HIV, participants expressed a desire for a more comprehensive education about STIs/HIV, including prevention, transmission and testing. The internet was their primary source of information but other sources for sexual health information included family members, friends, physicians, television, and movies. They also described middle and high school health classes as sources of prior information and spoke positively about college classes that focused on sexual health. **2. Motivation: Attitudes about Sexual Behaviours** Motivators were factors that influenced the women's decisions to practice HIV prevention behaviours and included attitudes and social norms. **2a. Attitudes about promiscuity and casual sex:** Promiscuity was seen to be a result of low self-esteem, the need for male attachment, and the need to be associated with a status symbol (e.g. fraternities, athletes). Casual attitudes about sex were also discussed as a risk associated with promiscuity, and that many women were not taking their sexual health seriously. The need for more programs to build on women's self-esteem was noted. **2b. Accountability:** Participants discussed accountability for contraception in the context of expected gender roles and expressed mixed thoughts on who should take responsibility for practicing safe sex in a relationship. Several believed that men were untrustworthy to be responsible for contraception. Consequently, unintended pregnancy was seen as a woman’s fault and an indication of a lack of self-respect: *“Like, if you put yourself in a situation, knowing you could get pregnant, it’s like when it does happen, you have no one else to blame but yourself.”* **2c. Stigma:** When students were asked about their experiences with the sexual health services on campus, they identified feelings of stigma that deterred them from accessing the services they needed. One woman felt like being Black made it worse to go into a clinic for testing and prevention services. Many of the women also commented about feeling

embarrassed related to being seen purchasing condoms, Plan B (emergency contraception), and pregnancy tests because they did not want to be judged as promiscuous by others in the community.

3. Motivation: Normative Beliefs

The women’s perceptions of social norms regarding sexual behaviour developed out of conversations (or a lack of conversation) with parents, peers, and other family members, as well as perceived cultural expectations and media representations of women’s sexuality.

3a. Communication about sex: The women’s family experiences and dynamics were diverse, with some reporting open, positive conversations about sex with their families and completely non-existent in other families. The women also talked about conversations with friends in terms of learning about sex.

3b. Media influences: Media was described as a strong influence in promoting early sexual debut, and they discussed its impact on their own sexuality. Participants described the lyrics and emotionality of music as seductive and persuasive and believed that it was influential in creating sexual expectations. They also struggled with the gender role expectations that were played out in the songs and videos.

3c. Cultural and religious expectations: Participants described cultural beliefs related to safe sex and STI prevention that ranged from university culture, to racial-ethnic cultures, to religious culture. University campus subcultures dictated social status, which in turn influenced ways in which students identified themselves and impacted their behaviour. For some, a woman's casual and risky sexual behaviours were attributed to a strong desire to heighten her social status on campus. A strong desire to avoid pregnancy was described as a major motivation to practice safe sex for women at both universities. Religious affiliations also played a significant role in governing the women’s attitudes about sex, and for some it created internal conflict or a sense of guilt because their sexual activity did not conform to their religious beliefs.

4. Behavioural Skills

4a. Safe sex and regular testing: Some women lacked knowledge about the proper use of condoms and the courage to purchase condoms, particularly if they believed that practicing safe sex was the role of the man in the relationship. Participants described embarrassment and stigma as barriers to practicing safe sex with condoms. Overall, women understood the importance of STI/HIV testing but indicated that stigma, affordability and easy access to testing were barriers to utilising these services.

	4b. Condom negotiation skills: Participants talked about being able to refuse sex if their partner was not willing to use a condom but also about an arbitrary moment in the relationship when stopping the use of condoms became an accepted practice, often when the relationship reached a level of comfort and familiarity: ‘*‘I know when it gets to a certain point in a relationship where you just stop.’’* **<u>5. Preferred Intervention Methods</u>** Participants described the need to integrate HIV awareness into activities that they were already engaging in socially. The participants expressed their substantial dependence on online resources in health information seeking; therefore, technology platforms were viable conduits for prevention efforts and information dissemination. Many of the participants also recommended that HIV education be required and provided in the format of a freshman orientation or an Introduction to College seminar. One woman suggested that sororities and fraternities should do a dance show or a step show on HIV to raise awareness. Another student thought that an HIV awareness program should include a speaker who had HIV to educate other students. Other suggestions included showing graphic photos of STIs, dispelling myths about safe sex, and hosting wellness expo events focused on safe sex. Several women also described the need for HIV interventions to be interactive; one woman commented, ‘‘It’s like you’re learning without realizing you’re learning.’’ A few women also discussed the potential for social media groups (e.g., Facebook) to provide more targeted information. The participants indicated that HIV prevention information was important to them, but that the mode of delivery would impact attendance and success in changing behaviour.

Critical appraisal - CASP qualitative checklist

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes

Section	Question	Answer
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(Yes, however most of the questions in the interview schedule focused on participant's knowledge, motivation, behaviour and experiences around safe sex rather than their preferences for risk reduction interventions.)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(Detailed description of the analysis process and how themes were derived from the data, but the no examination of the researcher's own role and potential for bias. In addition, the main theme of interest for this review (Preferred intervention methods) was not as well developed or evidenced as the other themes reported in paper)*
Findings	Is there a clear statement of findings?	No *(While some findings in this paper were clearly stated and argued, the main theme of interest for this review (Preferred intervention methods) was not adequately discussed and was not presented as a coherent theme with evidence but more as a list of preferences individual participants had expressed.)*
Research value	How valuable is the research?	The research has some value

Section	Question	Answer
Overall risk of bias and relevance	Overall risk of bias	Moderate *(The main theme of interest for this review was underdeveloped and not presented as a coherent theme with evidence or supporting statements. It was presented more as a list of suggestions or preferences individual participants had expressed.)*
Overall risk of bias and relevance	Relevance	Partially relevant

Fontenot, 2020

Bibliographic Reference	Fontenot, Holly B; Cahill, Sean R; Wang, Timothy; Geffen, Sophia; White, Bradley P; Reisner, Sari; Conron, Kerith; Harper, Christopher R; Johns, Michelle M; Avripas, Sabrina A; Michaels, Stuart; Dunville, Richard; Transgender Youth Experiences and Perspectives Related to HIV Preventive Services.; Pediatrics; 2020; vol. 145 (no. 4)

Study Characteristics

Study type	Focus Groups Online, asynchronous focus groups
Aim of study	To better understand the factors that may contribute to HIV risk among transgender youth, and to obtain insights into transgender youth experiences with HIV preventive services
Theoretical approach	Not reported
Study location	USA
Study setting	Focus groups were conducted online
Study dates	March 2018 to April 2018

Sources of funding	Funded by the Centers for Disease Control and Prevention (contract “Developing tools to engage adolescent men who have sex with men [MSM],” GS-10F0033M/HHSD2002013M53955B/200-2015-F-88276) and NORC at The University of Chicago (subcontract 7836.TFI.01).
Data collection	- Two 3-day, online, asynchronous focus groups. - This methodology was selected because of its convenience and flexibility in time of day when youth can engage in the discussion and ease of use among youth - Interested youth completed an online eligibility screen and informed consent. Participants were assigned a pseudonym and given instructions on attending their assigned group (day, time, login information) and using the online platform - Participants were asked to engage in the online discussion at least 2 times per day, answer all of the posted questions, and engage with each other by responding to each other’s posts. - Questions were posted each morning, and as youth responded to the questions, additional probing questions were added throughout the day. Youth could join in the discussion from different time zones before or after school and other activities at their convenience - The discussion guide was developed to uncover how gender identity contributes to or intersects with HIV risk and HIV prevention. Questions explored the following: (1) identity formation and social support, (2) forming romantic and/or sexual relationships, (3) sexual education, and (4) knowledge and/or attitudes related to HIV prevention and experiences with HIV preventive services. - The aim of the focus groups was to understand how youth communicated with family, friends, romantic and/or sexual partners, and health care providers about sexual activity; where they obtained sexual health information; their views on sexual health education, and their experiences with accessing or obtaining HIV preventive services
Method and process of analysis	- Transcript data were downloaded from the online platform and managed by using NVivo 11. - Content analysis was used to objectively engage the data and identify thematic patterns - 3 investigators conducted preliminary coding and developed a topical codebook. 2 investigators then continued coding data and routinely met to review codes, definitions and concepts to ensure accuracy across coders

	- The full analysis team then reviewed and coded data, examined relationships, and combined codes into broader categories and themes - Ongoing discussion and re-examination led to the development of final themes
Population and sample collection	- A purposive sample of transgender youth was recruited via advertisements posted on Facebook and with transgender-serving youth organisations (eg, the Gay, Lesbian, and Straight Education Network; and the AGLY Network, an alliance of LGBT youth) for online focus groups. These organisations posted advertisements on Listservs and social media pages - A total of 30 transgender youth participated: 11 13-18 year-olds and 19 18-24 year-olds. The average age was 18.6 years. - The racial and/or ethnic demographics were 70% white, 7% African American, 3% Asian American, 17% multiracial, and 3% other; 10% identified as Hispanic. - Participants were given multiple options for how to self-identify their gender by using recommended terms. Reported identities were 27% transgender male, 17% transgender female, 10% transgender, 10% genderqueer, and 7% male; 27% used more than 1 term, and 3% identified as unsure. - The majority reported being assigned female sex at birth (80%) and being sexually active (70%). Youth reported a wide range of sexual orientations. - There was representation from all geographic regions of the United States, with about half of the respondents residing in the Northeast.
Inclusion Criteria	Criteria 1 Age 13 to 24 years Criteria 2 Identify as transgender or gender identity differs from sex assigned at birth

	Criteria 3 Able to understand and/or read English Criteria 4 Have access to a computer and/or internet during the study dates and times
Relevant themes	**1. Barriers to self-efficacy in sexual decision making** - Participants expressed a need for services to help them build communication skills for sexual consent. The majority described communication with their romantic and/or sexual partner as challenging and many had difficulty with self-advocacy and negotiating their sexual preferences including condom use and safer behaviours. *"I almost never ask for things because of what I think is internal pressure to be grateful. In my head, I'm like, 'They're already willing to have sex with me; I shouldn't push my luck,' which is terrible, but as a result, I ask for as few things as possible."* - Bodily dissatisfaction and discomfort, and gender dysphoria, made some avoid or delay sex; for others it contributed to an inability to negotiate safe behaviours - Access to care, including condoms and lubricant, felt more difficult for transgender youth **2. Safety concerns, fear, and other challenges forming romantic and/or sexual relationships** - Participants reported experiences on harassment and discrimination, particularly on social media and dating apps. They also reported experiences of transphobia, challenges relating to being fetishised or threatened by prospective cisgender partners. - Participants did not relate to narrow heteronormative definitions of sex that did not apply to LGBT people, particularly the belief held by many cisgender people that sex must include penetration. This disconnect exacerbated barriers to effective communication with peers and providers about sex. - Participants definitions of sex were fluid and broad - differences in what people are comfortable with or capable of doing - so youth wanted definitions to be inclusive of transgender identities and broad ranges of sexual behaviours.

	3. Need for support and education - Youth wanted comprehensive sexual health education with gender neutral language, representation of different types of relationships, and information / statistics on LGBT health. They asserted that sexual assault and consent should be part of curricula. - Youth wanted social support for their sexual, gender and racial or ethnic identities and support associated with multiple minority statuses and intersectional identities. **4. Desire for affirmative and culturally competent experiences and interactions** *Within HIV prevention services:* - Participants were familiar with and used various HIV prevention techniques, including condoms and/or lubricant, finding non-penetrative ways to be intimate, HIV testing, PrEP, and effective communication with partners. - Primary barriers to services were accessibility and affordability; fear of exposing their sexual activity, gender identity and/or sexual orientation to parents. *In interactions with health care providers:* - Participants reported experiences of negative or dismissive interactions with providers which they felt devalued their gender identities and definitions of sex. They were fearful of encounters with disrespectful or uninformed providers. - Youth emphasised the need for gender-affirming care and providers who understood their unique care needs - Participants wanted pamphlets and brochures with trans representation, and the use of sensitive and inclusive sexual health assessment questions

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(In-depth description of the analysis process but limited examination of researcher's own role or potential for bias)*
Findings	Is there a clear statement of findings?	Yes *(Findings are clearly stated and good use of quotes to support themes, but limited discussion of the credibility of findings or triangulation, and agreement between researchers not reported.)*
Research value	How valuable is the research?	The research is valuable

Section	**Question**	**Answer**
Overall risk of bias and relevance	Overall risk of bias	Low
Overall risk of bias and relevance	Relevance	Relevant *(US study)*

Hawa, 2019

Bibliographic Reference	Hawa, Roula N; Underhill, Angela; Logie, Carmen H; Islam, Shazia; Loutfy, Mona; South Asian immigrant women's suggestions for culturally-tailored HIV education and prevention programs.; Ethnicity & health; 2019; vol. 24 (no. 8); 945-959

Study Characteristics

Study type	Semi structured interviews
Aim of study	To explore the unique individual experiences of South Asian immigrant women living with HIV in Canada, to assess the HIV risk context and to assess the strategies for HIV education and prevention as expressed by study participants.
Theoretical approach	The research followed an interpretive paradigm and adopted the principles of community-based research (CBR). It was grounded in the theory of gender to explore how male power (e.g. hegemonic masculinity and patriarchy) in South Asian communities contributes to South Asian women's risk of acquiring HIV
Study location	Greater Toronto Area of Ontario, Canada
Study setting	Participants were predominantly interviewed in their own homes
Study dates	Not reported
Sources of funding	Not reported
Data collection	- Data were collected using semi-structured one-to-one interviews lasting on average 2 hours. - The interview guide was developed in collaboration with a community-based organisation serving South Asian people living with HIV in the Greater Toronto Area. It contained 6 major topics: (1) background history; (2) South Asian identity; (3)

	immigration experience; (4) HIV/AIDS risk, risk perception and exposure; (5) perceived barriers affecting application of HIV prevention/intervention knowledge; and, (6) ways to overcome barriers for use of HIV prevention/intervention knowledge. - Each participant was called to schedule an interview and most women chose to be interviewed in their own homes due to concerns about confidentiality - Probes were also used throughout the interviews to elicit additional information (e.g. ‘Can you tell me more about that?’ or ‘Can you tell me about another time that happened to you?’).
Method and process of analysis	- Interviews were audio recorded and the first author took field notes. She also wrote a one-page summary immediately after each interview, which included reflections on issues and concepts emergent from individual interviews. - Data analysis began as soon as the first interview commenced, creating an iterative process for data interpretation. The interview guide and sequencing was revised as interviews progressed, adopting an inductive approach - All audio-recorded interviews were transcribed verbatim and anonymised. In addition to the transcripts, the data also included the researcher’s field notes and summaries prepared following each interview. Analysis involved continually reflecting on the data, asking analytical questions, and writing memos throughout data collection and beyond. - The emergent, iterative process allowed findings to materialise from the frequent, prevailing or central themes inherent in the raw data. - All interview transcripts were subjected to a thematic analysis using NVIVO. - To ensure triangulation, an external peer researcher examined the transcripts and compared her own perceptions of the emerging themes with those originally developed by the first author. Negotiated agreements were used to deal with conflicting codes or disagreements when developing the themes
Population and sample collection	- 12 South Asian Immigrant women living with HIV. - They ranged in age from 28-50 years.

	- Virtually all participant were in relationships when they received their HIV-positive diagnosis (10 married; 2 divorced)
Inclusion Criteria	Criteria 1 Identifying as an adult woman Criteria 2 Living with HIV Criteria 3 Self-identifying as of South Asian descent
Exclusion criteria	None reported
Relevant themes	**1. False perceptions and community denial of HIV** - Many women spoke about a lack of education about HIV and their own community's denial of its existence in their community. Most participants offered generalised descriptions of people in their community (such as religious groups, men, and South Asian health care providers) that depicted a disbelief of the existence of HIV within their own communities. - Participants reported that there were often stereotyped perceptions that only sex workers, gay men or people who inject drugs have HIV - This community denial of HIV was experienced as personally painful, particularly when it was by members of the medical profession. Some HCPs refusal to see patients with HIV perpetuated HIV stigma and discrimination - Having role models and spokespeople living with HIV from within the community to delivered prevention education was seen to be a helpful way of breaking through the community denial. **2. Non-disclosure due to stigma and discrimination**

	- Very few participants disclosed their HIV status to anyone in their communities, including their family and friends. Perceived and experienced HIV stigma was the most reported reason for non-disclosure. Others chose not to disclose because they wanted to protect their families from social exclusion if they were known to be HIV positive. - Some participants felt that support from *outside* their cultural communities would be beneficial. There were some instances of negative experiences with community-based organisations that served their cultural community, which led some to seek support from outside their community. Others noted that, due to HIV stigma, they would not attend a culturally specific community based organisation (CBO) because they did not want anyone in their community to discover their HIV status. Participants therefore recommended that HIV education efforts also be held at multiple (private) locations other than CBOs serving specific cultural communities. **3. Infidelity** - Many participants expressed a belief that men brought HIV back to their wives after engaging in condomless sex with women outside their marriages, and that HIV is spreading in their community because of their husbands' infidelity. -Participants discussed reluctance within the South Asian community to discuss sex or provide condoms to community members. This made it challenging for women to discuss or insist on condom use with their husbands - Some participants referred to the concept of 'husband reverence', a prevalent notion that a woman's husband is central in her world and takes care of her. This was seen to contribute to some women’s denial that their husbands would be unfaithful **4. Resistance talking to children about sex** - Many of the participants reported that parents in their cultural communities do not commonly discuss sex with their children, thus laying the groundwork for risky youth behaviour. **5. Lack of HIV knowledge among South Asian women** - Most respondents reported an almost complete lack of knowledge regarding HIV before becoming positive. Most were unaware of HIV transmission and symptoms.

	- Participants felt there was a clear need for more education about HIV and educational resources delivered in plain language. Assertiveness education was also discussed. **6. Resistance to condom use** - Virtually all women in this study did not use condoms, attributing their decision to the stigma attached to women purchasing, owning or using condoms. Even if they had been advised to use condoms in order to protect themselves from other sexually transmitted infections (STIs), they did not always use them because they lacked personal power, did not know how to be assertive, or lacked the social support needed to negotiate this with their husbands. - Participants recommended that women be offered assertiveness training and self-esteem building in education sessions

Critical appraisal - CASP qualitative checklist

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(Appropriate discussion of limitations of self-selecting sample and how those that agreed to be interviewed may differ from those who did not.)*

Section	Question	Answer
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Low
Overall risk of bias and relevance	Relevance	Relevant *(US study)*

Hosek, 2012

Bibliographic Reference	Hosek, Sybil; Brothers, Jennifer; Lemos, Diana; Adolescent Medicine Trials Network for HIV/AIDS, Interventions; What HIV-positive young women want from behavioral interventions: a qualitative approach.; AIDS patient care and STDs; 2012; vol. 26 (no. 5); 291-7

Study Characteristics

Study type	Focus Groups
Aim of study	To understand the perceived problems and pressures of young HIV-positive women (e.g. gender, violence, victimisation, mental health, relationships, stigma), and to inform a developmentally appropriate secondary prevention intervention that could be implemented in clinical care settings.
Theoretical approach	The focus group interview guide was informed by the Theory of Gender and Power.
Study location	Chicago, Baltimore and Tampa, USA
Study setting	Adolescent Medicine Trials Network (ATN) clinic sites
Study dates	Not reported
Sources of funding	This study was funded by the Adolescent Medicine Trials Network (ATN) for HIV/AIDS Interventions (ATN 073). The Adolescent Medicine Trials Network for HIV/AIDS Interventions (ATN) is funded by grant Number U01 HD040533-06 from the National Institutes of Health through the National Institute of Child Health and Human Development (Bill Kappogianis, M.D.; Sonia Lee, Ph.D.) with supplemental funding from the National Institutes on Drug Abuse (Nicolette Borek, Ph.D.) and Mental Health (Susannah Allison, Ph.D.).
Data collection	- Focus groups with HIV-positive young women - Each focus group took place in a private space at the clinic and lasted approximately 4 hours - Focus group facilitators were both female, MPH-level project directors with experience in facilitating focus groups with youth - The structure of the focus groups utilised the "Rapid Approach" as identified by Krueger & Casey (2000), which differs from traditional focus groups because it asks fewer questions and tightly focuses on specific areas of inquiry. - Session content focused on discussion of the life circumstances, challenges, and concerns young women living with HIV face and how these issues affect their ability to engage in safer sex behaviours and lead healthier lives. - The participants were also asked to identify critical components for programs targeting young women living with HIV.

	- Information regarding intervention content areas and representative activities were recorded on flip charts to capture and easily display participants' comments.
Method and process of analysis	- All focus group sessions were digitally recorded and then transcribed to allow for thematic analysis of the material. The transcripts were then reviewed for accuracy. - Members of the research team generated executive summaries of the focus groups based on review and integration of data from: (1) focus group flip charts, (2) audiotaped comments from participants, (3) audiotaped oral summaries by facilitators offered during the focus groups, and (4) thematic notes taken by the facilitator during the focus groups. - Finally, executive summaries were reviewed to identify themes across focus groups and to explore the proposed content and structure of the intervention.
Population and sample collection	- A total of 17 HIV-positive young women ages 17–24 (mean = 21 years) participated in the focus groups. - Three were perinatally infected with HIV while 14 had acquired HIV behaviourally. - 88% of the young women identified as African American. - Potential participants were contacted by research staff at each of the three ATN clinic sites, either during regular clinic visits or by phone, and informed about the study. If the potential participant was interested, the participant was given an appointment to confirm eligibility, obtain informed consent, and collect contact information. - Token compensation and transportation vouchers were provided to participants to cover costs associated with time and travel.
Inclusion Criteria	Criteria 1 Women aged 16-24 years Criteria 2 Receive services at one of the selected ATN clinic sites or their community partners

	Criteria 3 Have documented HIV-infection
Exclusion criteria	None reported
Relevant themes	There were 2 main themes: *challenges and concerns for young women living with HIV,* and *critical components for intervention for young HIV-positive women.* The first theme included 4 subthemes: self-esteem and how HIV had impacted the way they see themselves; HIV disclosure; rejection and lack of support; and issues around condom negotiation and unprotected sex. As these themes were not specifically connected to intervention acceptability or the experience of participating in a specific intervention, they were not extracted for this review question. **<u>Critical components for Interventions for young HIV-positive women</u>** **Need for comprehensive content:** participants emphasised the need for comprehensive programs that extended beyond HIV-specific topics. They requested programs that address a wide range of issues impacting their lives such as self-esteem, self-confidence, self-worth, living with HIV, sexuality, coping mechanisms, handling adversity, and developing and maintaining healthy relationships: *"My perfect program wouldn't just not only be focused on the infection. It would just really be building self-worth, building self-esteem like all the way around."* The participants desired program facilitators or interventionists that could ''understand what I'm going through'' and empathise or ''sympathize'' with them, as well as building trust and challenging the young women to go beyond their comfort zones: *"It will help give them that extra push, like say, yeah, take them by their hand, walk them to where they need to be and maybe they need you to be there just that much to get them to start doing what they need to do."* Participants reported preferring a combination of individual and group meetings. The group meetings would promote social bonding and through interactive activities, icebreakers and discussions, the young women could *"meet other people who are just like you,"* which would help them realise that they are not alone. The individual sessions would allow women to ''*get things off their chest*'' and provide in-depth discussions with a counsellor or therapist. Participants reported that programs should have opportunities for young women to learn something positive about themselves, as one young woman stated: '*'Tell them something about themselves that they may not see, but what you see in them.''*

	Empowerment: Participants discussed the need for interventions that empowered young women not only through education, but by learning to support, accept and value themselves: *"Yeah, you have that [HIV] and at the same time you have to learn to support yourself. Then like as we talk about reject, you think like everybody gonna reject you and you think like, okay, this is the end of the world. I cannot do anything. You have to learn to help yourself, give self-esteem to yourself, and be YOU."* The participants suggested ways of incorporating empowerment principles into a secondary prevention that included building their self confidence by teaching life-skills and decision-making skills to empower young women to thrive in their community and live out their dreams: *"I mean, just teach them about decision making. It ain't necessarily wrong crowd, right crowd, but if you become your own individual and you learn how to be a leader and not a follower, you can hang with people who doing what they doing."* Identifying and choosing positive role models were reported as necessary steps for young women to become empowered and to dream of a better life for themselves, particularly positive role models living with HIV: *"Ask them who their role models are. They could be somebody famous or something like that. Be like, you see how they work hard to get that, you want to do that for yourself. You want that life for yourself."* **Sexuality Education:** participants strongly emphasised the need for sexuality education that extends beyond ''just bringing no babies home.'' They suggested that interventions should focus on re-exposure to HIV, sexually transmitted infections and their consequences, teaching women how to use female condoms, and preparing them for condom negotiation. The participants also reported that interventions developed for young women living with HIV should devote time to disclosure, including improving communication, learning to evaluate the risks and benefits of disclosure, and how to deal with the emotions associated with disclosure such as rejection and judgement from others: *"How to deal with a rejection. It doesn't mean that because I told my friend that I'm HIV positive she's gonna accept me. It doesn't mean that because I told her I have to accept that she has to accept me. She can just OH, she gone. She's out of my picture. So how do we deal with it..."* **Coping Skills:** building the knowledge and skills for dealing with daily stress and pressures, as well as tools for how to deal with emotional situations, rejection, disappointment and lack of support, which are considered to be an inevitable part of the challenges these young women would face: *"I think a good way is helping young women how like to let go of stressors...It's not just getting over it, not holding it on and wearing it on your sleeve all day and let it impact school or work or home relationships or whatever and just dealing with it at that point. How to make it better. How to be real and just let it go."*

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(Yes although it was not clear how participants were selected; paper just reports that "potential participants were contacted by research staff at each of the ATN sites, either during regular clinic visits or by phone.")*
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(Yes but no critical examination of the researcher's own role, potential bias, or influence during analysis and selection of data.)*
Findings	Is there a clear statement of findings?	Yes *(Yes but no discussion of the credibility of findings, triangulation, or agreement between analysts.)*

Section	Question	Answer
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Low
Overall risk of bias and relevance	Relevance	Highly relevant

Lee, 2016

Bibliographic Reference	Lee, Young Me; Florez, Elizabeth; Holm, Karyn; Horwitz, Jessica; Waters, Rachel; Latino Adolescent Perspectives Toward Sexually Transmitted Infection Educational Programs.; International journal of nursing knowledge; 2016; vol. 27 (no. 1); 17-23

Study Characteristics

Study type	Focus Groups
Aim of study	The study aimed to identify knowledge about sexually transmitted infections (STIs) among Latino adolescents, to explore programmatic components that are essential for an effective educational program, and to explore gender differences regarding STI knowledge and essential components.
Theoretical approach	Not reported
Study location	Chicago, USA
Study setting	High school
Study dates	Not reported

Sources of funding	Not reported
Data collection	- Focus groups were employed to explore Latino adolescents' own perspectives on STIs and STI education programs. - Focus groups were gender separated (one female group and one male group). This was done to ensure a comfortable environment for sharing experiences and to capture discussions on how gender roles may affect sexual practices (Latino cultural values of machismo and marianismo may influence sexual practices and different expectations for male and female sexual behaviour). - The focus groups were conducted at the school during after-school hours and lasted approximately 60 minutes. - Each focus group had 2 moderators; one recorded the session using an audio voice recorder and took notes, the other facilitated the group discussion - The moderator used a semi-structured interview guide to keep the sessions focused and consistent. The guide was developed based on a review of the literature and the researchers' experience of working with this population. It began with broad questions and became more specific as focus group discussion progressed. - Focus groups were conducted in English because this was the primary language spoken by the students
Method and process of analysis	- After each focus group, the moderators documented initial general impressions about its process and content. - Next, the moderators listened to the audio recordings and transcribed the discussions verbatim. - The documents were read twice; first to get a general sense of needs identified, then to identify initial themes that emerged from the responses. - Significant themes were assigned codes. - An interactive process of comparison and analytic induction was used throughout analysis to support or modify emerging themes. - A final evaluation of the emerging themes yielded common threads which were reported in the study findings.

Population and sample collection	- Participants were 11 Latino adolescents; 4 females and 7 males aged between 13 and 17 years - Participants were recruited through a voluntary after school tutoring program at a high school where more than 90% of the students consisted of Latinos. - The assistant director of community outreach introduced the researchers to the students prior to the recruitment presentation. - All students were given two consent forms: one in English for them and one in their parents' primary language for their parents' permission to participate. Students who were interested in participating returned their consent forms to the researchers. - Once participants were recruited and consent forms were signed, the researchers assigned a data and time for the focus group session.
Inclusion Criteria	Criteria 1 Self-identified as Latino (nonspecific subgroup) Criteria 2 Spoke English Criteria 3 13-17 years old
Exclusion criteria	None reported
Relevant themes	**General Knowledge of STIs** The adolescents' knowledge of STIs both in terms of name recollection and their ability to provide details about the diseases was limited. Knowledge of specific STIs was minimal. However, both males and females had a general understanding of how STIs are spread, and that condoms or abstinence are needed to prevent transmission.

	Elements of STI education programs **Humour:** Humour was a recurring theme that emerged as a desired element of STI education, particularly for male participants who desired sex education that was presented in a humorous light to keep their attention: *"If it was something funny, they would probably catch onto it and watch it. That's probably why they watch a lot of comedies and shows and stuff, and they pay attention to it. If it was funny, they would probably pay attention to it."* **Fear:** Participants discussed a need for fear to be instilled in the adolescents through sex education programs. While focus group participants desired a program that was factual and relevant, they also expressed a desire to have a program that used a form of "scare tactics." *"Sex-Ed should have two parts. Yeah. Like, the big one should be abstinence. How important it is. Like to start out. And then go to the second one, like pregnancy and how it will ruin your life. Make sex seem bad. Make it seem like good, if your married and have your life set already. But make it seem like a worst case scenario. Like what happens if you get pregnant. How messed up your life would be."* **Empowered decision-making:** This theme was particularly evident in the female focus group, where females reported that the exercises in sex education programs that focused on this concept had an impact on them and made them think about their partner, and realise that they have choices with who and how they have sex: *"They talked about who the right person is. Like, they gave us like things to think about, who the right person is before you decide to have sex." "There was one part where it was about making someone a priority who makes you a choice, or something like that, and they asked us if he is a choice or not."* **Self-protection:** This theme captures the idea of self-preservation and the need to take care of and protect themselves. This theme was especially common in the female group; three females stated that they did not think that a guy would tell them about his sexual practices and that it was up to them to protect themselves from the dangers associated with partner sexual behaviours and negative sexual outcomes such as pregnancy and STI infections: *"If he's an honest guy he will tell you, but if he's someone that just wants to have some fun and sleep around, then I don't think he will."* **Peer educators:** Participants discussed the need for sex education programs and presenters to be able to relate to the students. Both female and male participants expressed a desire to have a discussion leader who was young, maybe even a high school senior at their school. Participants also desired a presenter who was Latino and understood the issues and concerns relevant to Latino adolescents. Students expressed interest in being part of a training program themselves in a train-the-trainer model. *"I think it's better if its someone that's not that much older than you. Someone who's lived through it, experienced it, at the same time as you. Like 2 or 3 years older, that knows the stuff and has experienced it."*

	Knowledge and information: The groups wanted a comprehensive sex education program so they could be more informed. The participants suggested that they would benefit from being educated on male and female reproductive systems, presented information that includes STIs and pregnancy, and have an opportunity to ask questions. *"I would want to have everything you could possibly know and pictures because especially pictures you see them and it keeps it in your head."* **Consistency of sex education:** The participants described a singular sex education experience when they were in the seventh grade, and desired sex education that would be repeated and would present consistent messages: *"I just wish we had more classes. To follow through. And, make them mandatory. You make em voluntary nobody's gonna come. Yeah. It doesn't have to be every day. Maybe like twice a month. Reminding you. Reminding you. Cuz if you don't get a reminder you know, you gonna forget. Keep on reminding you. Gonna make it better."* **Differences in Male and Female participants** Gender differences in STI knowledge were evident throughout the focus groups. Females were able to recall more STIs than males; although neither group was able to offer specific information on most of them. With respect to STI education programs, males preferred components such as humour and fear whereas females preferred components of self-worth, increasing knowledge, and self-protection.

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes

Section	Question	Answer
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(Recruitment strategy was appropriate but uptake was low (11 participants) and this is not discussed in the paper.)*
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(Yes but no critical examination of researcher's role in data analysis and potential for bias, and for some themes the quotes provided did not appear to be good examples of the theme being described.)*
Findings	Is there a clear statement of findings?	Yes *(Yes but limited discussion of the credibility of findings or consideration of possible alternative explanations)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Moderate *(Quotes not used to evidence all themes, and where quotes are used, some do not appear to accurately reflect the theme being described.)*
Overall risk of bias and relevance	Relevance	Relevant *(Relevant but very small sample and limited to English speaking Latino Americans.)*

Mimiaga, 2010

Bibliographic Reference	Mimiaga, Matthew J; Reisner, Sari L; Goldhammer, Hilary; Tetu, Ashley M; Belanoff, Candice; Mayer, Kenneth H; Sources of human immunodeficiency virus and sexually transmitted disease information and responses to prevention messages among Massachusetts men who have sex with men.; American journal of health promotion : AJHP; 2010; vol. 24 (no. 3); 170-7

Study Characteristics

Study type	Semi structured interviews
Aim of study	The study aimed to assess sources of STI/HIV information and responses to STI/HIV prevention messages among MSM. The aim was to understand how to design more effective media campaigns on STI/HIV prevention and testing for this population.
Theoretical approach	Social Cognitive Theory provided a framework for understanding how health messages for MSM are disseminated via the media and how MSM respond to HIV/STI information.
Study location	Boston, USA
Study setting	Fenway Community Health (FCH), a freestanding health centre and research facility specialising in HIV/AIDS care and serving the needs of the LGBT community in the Boston area.
Study dates	January to April 2005
Sources of funding	This work was supported by the HIV/AIDS Bureau, Prevention and Education Unit of the Massachusetts Department of Public Health and the Communicable Disease Bureau, STD Prevention Division of the Massachusetts Department of Public Health.
Data collection	- 50 individuals participated in a one-to-one semi-structured in depth interview with one of two trained interviewers.

	- Participants also completed a brief self-report quantitative survey capturing demographic information. - Interviews lasted approx. 2 hours and covered two broad topic areas: 1) sources of information about HIV/STIs [NOTE data relating to this line of questioning was not extracted for this review]; and 2) responses to media messages focused on HIV/STIs. - Questions for the semi-structured interview guide were based on a literature review and on needs identified by MSM health specialists at FCH - Participants were asked to think about any recent media messages about HIV/STI prevention and testing, and to describe what they remembered about them (e.g., *Think for a minute about any recent media messages about STIs or HIV prevention and testing that you may have seen or heard e.g. posters, brochures, radio, Web site, or magazine ads? What do you remember about them? What was appealing? Unappealing? Motivational?*). - Participants were also asked what they thought some of the best ways to disseminate HIV/STI prevention and testing messages might be (e.g., *In your opinion, what have been some of the most effective ways of getting sexual health messages out to people? What kinds of messages do you think would catch people's attention, particularly people your age/race/ethnicity?*). - Interviews were digitally recorded and transcribed verbatim by a professional transcription company.
Method and process of analysis	- Data from this study were analysed using content analysis. - NVIVO software was used for the coding, organisation and searching of narrative sections from each interview. It also facilitated systematic comparison and analysis of themes across interviews; and captured the frequency of participants responses allowing for reporting on the number of participants reporting on specific themes. - During the analysis process, recruitment continued until the interviews generated redundant themes. - Coding categories were created as 'nodes' in NVIVO. A structured codebook, based on the data, was developed and contained 5 parts: the code mnemonic (a brief definition of the code), a definition of inclusion criteria, a definition of exclusion criteria (to explain how the code differed from others), and example passages that illustrated how the code concept might appear in natural language.

	- Two study staff individually reviewed the coded transcripts and determined emerging themes that served as the basis for the thematic codebook. The full research team met together regularly and data were reexamined; ongoing discussion between coders and authors allowed for further theorising and making connections between research questions, coding categories and transcribed data. - When the research team agreed upon final themes, two individual analysts were then given the task of independently coding a sample of text. The results of their coding were compared for consistency of code application and text segmentation, and the codebook was revised and refined accordingly.
Population and sample collection	- To recruit MSM from diverse social networks, the study used a modified respondent driven sampling (RDS) method. - Ten study participants, known as ''seeds,'' were initially recruited; five seeds were recruited via key informants at MSM community-based organisations in Boston, and five seeds were recruited using an advertisement posted on one of the largest MSM Internet sex sites. - All seeds met eligibility criteria and were selected for their commitment to the goals of the study and motivation to recruit three peers into the study. - Seeds were asked to recruit a maximum of three eligible participants from their social or sexual network into the study. MSM recruited by seeds were, in turn, asked to recruit a subsequent wave of up to three participants, and so on, until the a priori target sample size of 50 MSM had been reached. - Each participant was given cards with study information to hand out to potential recruits to keep track of social networks; every card had a number code that connected participants back to the recruiters. - Participants were aged between 20 and 56 years (M=37.9; SD=11.5) - 12% were Latino/Hispanic; 40% were White; 30% were Black/African-American; 6% were Asian/Pacific Islander/Other; and 12% were mixed race/ethnicity. - 66% were HIV positive; 32% were HIV negative; and 2% did not know their HIV status - 2% identified as heterosexual; 80% identified as homosexual or gay; 14% identified as bisexual; and 4% identified as 'Other orientation (queer)

Inclusion Criteria	Criteria 1 18 years or older Criteria 2 Resident in Massachusetts Criteria 3 A man who had had oral or anal sex (protected or unprotected) with at least 3 male partners in the last 12 months
Exclusion criteria	None reported
Relevant themes	[Note: themes relating to sources of information about STIs/HIV were not extracted] **<u>Media Messages on HIV/STIs</u>** - Most respondents noted the importance of HIV/STI messages being highly visible to the public. Many men referenced news reports (concerning the resurgence of syphilis amongst MSM, and a virulent drug-resistant strain of HIV) or other public health messaging campaigns (e.g. messages on buses, subway stations, subway trains, on television and in magazines or newspapers) that they had seen and remembered. Messages or themes most often recalled were: getting tested, practicing safe sex, and the 'Knowing is Beautiful' campaign. Other public health campaigns that were remembered included those focusing on crystal methamphetamine and how it clouds sexual judgement, as well as pharmaceutical ads for HIV medications in magazines. - Fourteen participants (28%) expressed their frustration with ads that ‘‘glamorised’’ or downplayed the seriousness of HIV by showing attractive, healthy-looking people and neglecting the harsh reality of living with HIV/ AIDS: *"HIV’s still really glamorized. That doesn’t help anyone because people can see someone who has HIV or hear about it, but they really don’t see it as a deadly or dangerous disease. They’d rather think that you can pop pills and still look like this. I’m not saying that I believe fear is a good tactic, but if they had images—just like when they have those smoking ads and show people who have throat cancer or emphysema to show you what happens when you smoke—well, they should have things like that that show the extremes of people with AIDS."*

	- Other features associated with enhanced recall of media messages included: being eye-catching, direct, and concise; having celebrity appearances; and having multi-racial, multi-gender ads to reduce the perception of HIV as a ‘‘gay’’ disease. Six participants (12%) specifically thought advertisements should be more age specific: *"I think when people see people who look like themselves in pictures and things like that, then it’s more likely to hit home."* **Dissemination of Messages** Several themes and opinions emerged concerning the most effective approaches to increase public awareness of STDs and HIV: **Formats/Venues:** Most frequently (60%), men thought direct outreach (at bars, clubs, street corners, gay-friendly health centres) was a good approach, although three thought the appropriateness of time and place should be carefully considered in delivering health messages to MSM. Four men thought clinicians should be doing more to deliver information and should be comfortable and proactive talking about sexual health. In addition, four participants commented that schools and youth programs needed to do more to educate young people. Attention-grabbing public transportation posters were often (38%) mentioned; billboards were seen as a good idea by two MSM; television and other mass media were often recommended. Six men mentioned ‘‘gay magazines’’ but also emphasized normalizing HIV/STDs by getting messages into more mainstream publications, TV, and radio: *"I think the normalcy of seeing messages in places you wouldn’t necessarily expect to see them, like if you pick up an AU magazine or the Advocate, you might see those messages. But it would be great to see them in Interiors magazine and Entertainment."* The Internet was seen as an effective medium by some, but inappropriate by others. **Content:** Participants commonly indicated that messages should focus on (1) getting tested and (2) practicing safe sex. Ideas for content included having gay people, young people, and ‘‘people just like you’’ in ads; specific information on where to get tested; information on treatment options; and alarming statistics showing the high prevalence of STDs and HIV. Seven men commented that ads were not nearly blunt or realistic enough, and six thought messages should be very straightforward and to the point. Several men noted that different venues and outreach approaches were needed to reach diverse populations, particularly MSM not self-identifying as gay. Further recommendations included staying away from moralistic messages, addressing stigma by normalising testing, and keeping messages positive and hopeful (around safer sex, as well as HIV/STD treatment options). Respondents were divided on the tone of HIV/STI media campaigns - some objected to health messages that underemphasised the gravity of HIV and STI infections and recommended using stark images of people suffering to motivate prevention and treatment seeking; others found a hopeful message to be compelling and memorable.

Additional information	- All participants were compensated $50 for their participation in the study; they also had the potential to earn an additional $25 for each eligible participant they recruited for an interview (up to $125 total in participation and recruitment incentives).

Critical appraisal - CASP qualitative checklist

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(Detailed description of analysis process but no examination of the researcher's own role during analysis and potential for bias.)*

Section	Question	Answer
Findings	Is there a clear statement of findings?	Yes *(Main study findings are described and discussed with some quotes used to support themes, however no discussion of credibility of findings and not all themes have quotes to support them.)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Low
Overall risk of bias and relevance	Relevance	Relevant

Pedrana, 2014

Bibliographic Reference	Pedrana, Alisa E; Hellard, Margaret E; Higgs, Peter; Asselin, Jason; Batrouney, Colin; Stoove, Mark; No drama: key elements to the success of an HIV/STI-prevention mass-media campaign.; Qualitative health research; 2014; vol. 24 (no. 5); 695-705

Study Characteristics

Study type	Focus Groups
Aim of study	To qualitatively examine gay men's reactions to a national HIV/STI social marketing campaign ("Drama Downunder") and to identify key campaign elements that underpinned effectiveness. The aim of using focus groups was to obtain in-depth contextual data on the acceptability and effectiveness of the campaign, and to understand campaign impact.
Theoretical approach	The 'Drama Downunder' intervention adopted a social marketing approach.

Study location	Melbourne, Australia
Study setting	Not reported
Study dates	September 2008 to April 2009
Sources of funding	This study was partially supported by Burnet Institute funding received from the Victorian Operational Infrastructure Support Program. Alisa Pedrana received funding from the Australia Government through a National Health and Medical Research Council (NHMRC) Public Health Postgraduate Scholarship and the Sidney Myer Health Scholarship as a postgraduate scholarship student. Margaret Hellard received funding from the NHMRC as a senior research fellow. Peter Higgs received funding from the NHMRC as a postdoctoral fellow and from a Curtin University Research Fellowship.
Data collection	- 6 focus group discussions with between 4 and 10 participants; all participants had taken part in a quantitative study assessing the effectiveness of the 'Drama Downunder' social marketing intervention. - Focus groups were scheduled 1 to 2 months after the quantitative trial. - The groups were held after work hours and lasted approx. 90 minutes - Each focus group was facilitated by a moderator and a note taker. Discussions were digitally recorded. - Following initial discussion about campaign awareness, participants were presented with campaign images and prompted for comment on content, format and style/language, broadcasting schedule and campaign delivery, and their perceptions of the intended target audience. Participants were also asked if the campaign's messages were relevant to them and their peers, and if the messages affected their own sexual health knowledge, behaviour, and community dialogue.
Method and process of analysis	- Once data collection was completed, the first author initially transcribed and reviewed transcripts multiple times before coding commenced. - Thematic analysis and open coding techniques were used to identify and label key themes emerging from discussions that related to social marketing theories or approaches. - These data were then reviewed by the sixth author independently; coding inconsistencies were resolved at this stage. - Data were then grouped into one or more themes or potential drivers of behaviour change.

	- Findings from the focus groups were reported under the main themes that emerged from analysis and were discussed in relation to the campaign approach, broadcast schedule, and campaign appeal.
Population and sample collection	- Participants for this qualitative study were recruited using purposive sampling from the 295 people who participated in a previous quantitative evaluation of the Drama Downunder intervention. At study completion, those participants were asked if they would be interested in participating in a further evaluation of HIV prevention initiatives via focus groups. - A selection of those who indicated their interest were emailed and invited to participate. - Participants were selected for inclusion in focus groups based on their survey responses to ensure a cross-section of MSM based on characteristics such as their gay community involvement, sexual activity, age, resident location, and HIV status. This purposive sampling aimed to ensure that the evaluation was informed by detailed and in-depth responses from a range of gay community participants. - Of the 99 people invited to participate, 49 attended one of the 6 focus group discussions. - Participant median age was 33 years (range 21 to 66 years)
Inclusion Criteria	None reported
Exclusion criteria	None reported
Relevant themes	**<u>1. Key Campaign Elements</u>** Participants reported varying responses to campaign messages, images and delivery of the campaign, particularly surrounding the overly positive style, but overall there was agreement that the campaign had broad appeal because of the use of mainstream media and that this was a positive and encouraging step for a sexual health campaign. Several key elements emerged from the focus groups: **1a. Visually appealing, positive, and humorous imagery:** The majority of men commented on the visual appeal of the campaign images, and focused on the humour and light-heartedness of the images and messaging. Many described how this allowed them to engage with the campaign comfortably without guilt, obligation or coercion: *“The silliness of it is kind of fun, is more light-hearted and not so confronting.” “It kind of tells me not to take it too seriously, like don’t sweat it, don’t be nervous about a sexual health check. Just do it and don’t think twice about it.”* A few participants claimed that positive images help empower people to take action and change their behaviour, unlike fear campaigns that aim to scare or shock

	people into changing behaviour: *"Negative advertising doesn't work. You send a negative message and you don't empower people; you scare them but you won't influence."* **1b. Message clarity:** A few participants suggested that the type of images used in the campaign, particularly the lack of overt sexual imagery, resulted in them thinking they were commercial "life-style" advertisements rather than recognising it as a sexual health campaign: *"Campaigns these days are looking too much like everything else, like lifestyle advertising. The message gets lost, the image gets lost."* This suggests a need for balance between being visually appealing, distinctive enough to be recognised by the target audience, and not being too overtly sexual. It was noted that the simple and straightforward language used to accompany the images enhanced message clarity and helped to overcome some of the ambiguity related to the campaign images. **1c. Message relevance:** Most participants agreed that the campaign messages were both personally relevant and relevant to other gay men. Some participants mentioned that the choice of model for the campaign was an important factor: *"He's more generic, he doesn't look gay/straight. He's a regular looking guy that has a bit of tone to him."* Some younger participants described how social changes have meant they do not necessarily identify with the gay community, either by reading gay press or frequenting gay venues, which might result in them missing out on receiving health messages delivered through traditional 'gay media': *"I don't identify with mainstream gay groups/events, so I don't see a lot of the gay sexual health information."* **1d. Message response:** Although participants' response to the campaign messaging and imagery was largely positive and encouraging, it was not universally so. Some participants, particularly older participants, expressed concern regarding the lack of realism of the situation depicted in the images, particularly around the lack of emphasis on the potential negative consequences and long-term effects of HIV/STIs. Men suggested that this lack of realism regarding the portrayal of the consequences of HIV/STIs misrepresented the risks associated with becoming infected: *"There is a lot of positive imagery. In the eighties there was a lot of negative advertising, and that advertising seems to have died away. So now there is lots of positive imagery that comes out, and maybe that doesn't make you think so much about the negative consequences."* Some men asserted that it was important campaigns address or dispel misconceptions about HIV/STIs and educate men regarding the real and likely consequences of infection. **1e. Broadcast schedule:** Many participants described how the high frequency of campaign exposure and the multiple locations in which they were exposed to the campaign helped maintain their attention and interest over time. This high exposure also helped them to readily recall the campaign messages.

	1d. Audience segmentation: Many men discussed the campaign's wide appeal to a broad target audience, not just men within the gay community but to men more broadly. Participants spoke about how the use of mainstream media, including very public locations, represented a “mainstreaming” of sexual health campaigns in response to broader mainstreaming of the gay community: *"I used to only see this kind of campaign in SOPVs [sex-on premises venues], saunas, or gay venues/pubs, and now you’re seeing it everywhere." "Yeah—I think it’s the breaking down or the normalization of the gay community, so there isn’t that sort of, “This, this is the gay area; this is the straight area.” Being gay is getting, or it is normal now."* Younger participants in particular noted that the use of mainstream media to deliver the campaign meant that it had the potential to reach beyond the usual “gay-community-attached” men, to younger or less gay-identified men who might not be receiving such health messages: *"I don’t identify with mainstream gay groups/events, so I don’t see a lot of the gay sexual health information and I don’t identify as being a high-risk person. So I think I would benefit more from general sexual health messages like this."* Most men perceived the “mainstreaming” of sexual health campaigns as a positive move by campaign developers because it helped frame HIV and sexual health as a community issue rather than just a gay men’s issue, thus increasing its potential impact*: “I think it’s important that it doesn’t only target gays, it doesn’t reinforce the idea that HIV is only for gay men, ’cause straight people get infected as well.”* **2. Campaign Effectiveness** **2a. Engagement: Raising awareness of HIV/STIs:** There was general consensus among participants that the campaign was engaging and appealed to the target audience. Participants described how the very public and mainstream nature of the campaign was effective at raising awareness about HIV/STIs and acted as a reminder to them about the importance of regular sexual health checks. **2b. Information: Increasing knowledge and encouraging community dialogue:** Men reported that although they considered themselves knowledgeable about HIV, they were less knowledgeable about other areas of sexual health, and this campaign was useful in filling those knowledge gaps, especially for younger gay men. There was limited evidence for the campaign prompting community dialogue. **2c. Facilitation: Normalising sexual health testing:** There was strong evidence to support the campaign’s ability to facilitate a change in men’s attitudes and perceptions surrounding sexual health testing, though less evidence for its impact on directly influencing men’s behaviours. Men described how the mainstreaming of sexual health messages was helping to normalise sexual health and testing, but also acknowledged that this might not necessarily lead to an increase in testing.

Additional information	**The 'Drama Downunder' (DDU) Intervention** Drama Downunder is a social marketing campaign developed to increase access to diagnosis, treatment and care of STIs; improve STI/HIV awareness and knowledge; and move away from using traditional gay media (e.g. gay press, posters in gay venues) to deliver sexual health campaigns by presenting sexual health information in new spaces and in a new style. DDU involved a conscious move away from previous sexually explicit and anodyne or fear-based approaches to more positive images and messages designed to be light-hearted in nature and light on detailed information. The campaign employed tools of mainstream advertising media to reach beyond the gay community. It relied heavily on outdoor advertisements, utilising more than 550 public display points including billboards, train stations and tram stops. These 'mainstream' elements were combined with delivery through gay media and the distribution of 54,000 print resources through gay social events venues. The campaign used repeated images of a man standing in his underwear in various poses accompanied by the same tag line and coupled with different health messages; for example: “Stop the Drama Downunder! Get a sexual health check today!” “There’s not always a smoking gun! You can have a sexually transmitted infection without symptoms.” “Sexual Health Checks, No Drama! Get a sexual health check today!” Additional novel campaign resources included refrigerator magnets, drink holders, bandanas and underwear, as well as specific events such as the "Drama Down-underwear show" and the "Drama Downunder Outdoor Cinema" to encourage community engagement. The accompanying DDU campaign website provided comprehensive information on STIs and service locations and featured interactive components, including a free SMS reminder for sexual health checks and an anonymous email or SMS partner notification service.

Critical appraisal - CASP qualitative checklist

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes

Section	Question	Answer
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(Brief description of analysis process but no consideration of researcher's role in the analysis or potential for bias.)*
Findings	Is there a clear statement of findings?	Yes *(Yes but limited consideration of credibility or alternative interpretations.)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Low
Overall risk of bias and relevance	Relevance	Relevant

Rhodes, 2020

Bibliographic Reference	Rhodes, Scott D; Alonzo, Jorge; Mann-Jackson, Lilli; Song, Eunyoung Y; Tanner, Amanda E; Garcia, Manuel; Smart, Benjamin D; Baker, Logan S; Eng, Eugenia; Reboussin, Beth A; A peer navigation intervention to prevent HIV among mixed immigrant status Latinx GBMSM and transgender women in the United States: outcomes, perspectives and implications for PrEP uptake.; Health education research; 2020; vol. 35 (no. 3); 165-178

Study Characteristics

Study type	Semi structured interviews
Aim of study	To document and understand the intervention-related experiences, needs and priorities of participants who had taken part in a trial of a Spanish-language peer navigation intervention.
Theoretical approach	Community-based participatory research partnership
Study location	North Carolina, USA
Study setting	Community settings
Study dates	Not reported
Sources of funding	National Institute of Health (grant R01MH087339) and the Program in Community Engagement of the Wake Forest Clinical and Translational Science Institute, which is supported by the National Center for Advancing Translational Sciences, National Institutes of Health (grant UL1TR001420).
Data collection	- Individual in-depth interviews were conducted with 11 intervention *Navegantes* (informal lay community leaders who share similar backgrounds and demographic characteristics of the target community; recruited to work within their existing social networks of Latinx GBMSM and trans women to increase awareness and provide information and promote behaviour change) and a random sample of 11 intervention social network members (one from each social network). - Standardised interview guides explored implementation experiences (e.g. satisfaction, challenges face, lessons learned) and current issues affecting the health of Latinx GBMSM and transwomen (e.g. health needs and priorities, perceived barriers to care)

	- Interviews were conducted in Spanish by native Spanish-speaking gay men - Interviews lasted 25-73 minutes (mean = 43 minutes) - Interview participants were compensated $40
Method and process of analysis	- Interviews were digitally recorded and transcribed - Themes were identified through constant comparison; initial observations were refined throughout data collection and analysis
Population and sample collection	- Interview participants were Navegantes and their social network members - The sample from which they were drawn comprised Latinx GBMSM and transwomen aged 18 to 48 years. Almost all participants were born in Mexico, Honduras, Guatemala and other Central or South American or Caribbean countries.
Inclusion Criteria	None reported
Exclusion criteria	None reported
Relevant themes	**1. Participant intervention experiences** Role of peer navigators Participants noted the importance of peer navigators and reported that they must be viewed as leaders, respected and trusted within their social networks, and motivated to help others. Participants felt it was important they had lived experiences which enabled them to promote sexual health within their social networks; and were able to build trust and engage participants in a way that allowed them to respond to the personal needs and priorities of their social network members **2. Perceptions, needs and priorities** Discrimination

	Participants reported high levels of discrimination based on sexual, gender, and racial/ethnic identity. Participants noted that discrimination in the US is perceived as more subtle and less overt or hostile than in their countries of origin; but that nevertheless discrimination affects people in profound ways (e.g. employment options, healthcare access) **<u>3. Health and sexual health</u>** - Participants identified a profound need to focus on the sexual health-related needs, priorities and assets of Latinx TW. Latinx TW were identified as a particularly neglected and vulnerable group. Although some are connected to networks of other Latinx TW and GBMSM, there are many who remain isolated (especially in rural communities), and all could benefit from interventions and programs to meet their needs and priorities, in terms of access to gender-affirming supports including education, mental health resources, hormone therapy, pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP). - Excessive use of alcohol and drugs were identified as a problem for some Latinx GBMSM and TW and was perceived by participants as contributing to increased HIV and STI infection within these populations. Participants reported that substance use is interwoven with mental health challenges including felt and enacted stigmas, social support, depression and anxiety and the ability to ‘make ends meet’ - Participants reported very little awareness of and confusion about PrEP, including what PrEP is and does; its effectiveness, side effects and cost; how to access it; and who can benefit from it. - Participants also noted that they did not know how to access healthcare services, were unclear about their eligibility to receive services, perceived that they could not afford health care, and were fearful that their immigration status may place them at risk for detainment and deportation if they sought health care in the United States

Critical appraisal - CASP qualitative checklist

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes

Section	**Question**	**Answer**
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	No *(Very limited information on the analysis process and how themes were derived from the data. No examination of the researchers role in the analysis process)*
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Moderate *(Limited information on analysis process or how themes were derived from the data)*
Overall risk of bias and relevance	Relevance	Relevant *(US based study with migrants from South and Central America)*

Vanable, 2012

Bibliographic Reference	Vanable, Peter A; Carey, Michael P; Brown, Jennifer L; Littlewood, Rae A; Bostwick, Rebecca; Blair, Donald; What HIV-positive MSM want from sexual risk reduction interventions: findings from a qualitative study.; AIDS and behavior; 2012; vol. 16 (no. 3); 554-63

Study Characteristics

Study type	Focus Groups n = 31 Semi structured interviews n = 21
Aim of study	To facilitate the development of a tailored intervention for HIV-positive MSM by identifying major barriers to consistent condom use; characterising their interest in sexual risk reduction interventions; and eliciting feedback regarding optimal intervention format.
Theoretical approach	The Information Motivation Behavioural Skills (IMB) model of sexual risk reduction provided the theoretical framework.
Study location	USA
Study setting	Outpatient departments of a University-based infectious disease clinic.
Study dates	Not reported
Sources of funding	This research was supported by NIMH Grant R21-MH65865. Jennifer L. Brown is supported by K12 GM000680 from the National Institute of General Medical Sciences.

Data collection	- Qualitative interviews (n=21) and focus groups (n=31) were conducted with HIV-positive MSM. - Focus groups were led by a clinical psychologist with extensive experience working with HIV-positive individuals. Individual interviews were conducted by either a clinical psychologist or a clinical psychology doctoral student with experience working with HIV positive individuals. - An interview guide was used to structure the individual interviews and focus groups and included: (a) a set of open-ended questions to elicit input regarding critical information, motivation, and skills-based barriers to consistent condom use and serostatus disclosure among HIV-positive MSM; and (b) prompts to facilitate discussion regarding the importance of prevention programming, as well as ways to optimize intervention content and elicit interest from HIV-positive MSM. - Questions asked of participants did not differ between the individual interview and focus group formats. - Questions and prompts addressed challenges or hassles they faced related to being HIV positive; barriers to maintaining safe sexual practices; partner negotiation for safer sex; potential informational deficits in safe sex knowledge; and ways to optimise prevention programming.
Method and process of analysis	- Each focus group and individual interview was audio-taped and transcribed verbatim. - A structured codebook and subsequent analyses were guided by the Grounded Theoretical approach. - The process of data analysis began with open coding to capture maximum detail and complexity in the data and then used a process of continual comparison and revision with initial broad codes to eventually become more focused and systematic. - The framework for the coding classification scheme was based on major topical headings specified in the interview guide. Additional topics pertinent to intervention development that emerged in the focus groups and individual interviews were added to the coding classification scheme. - Using the initial classification system, two research staff members then coded a randomly selected focus group transcript together. The initial coding classification system was refined based on coding discrepancies and discussion of potential revisions for the coding structure.

	- Once the coding classification system was finalised, a structured codebook was developed and included definitions for the classification codes and coding guidelines with illustrative examples for each code. - Transcripts were inputted into Analysis Software for Word-Based Records. - Two independent raters coded all of the focus group and individual interview transcripts. Percent agreement between raters was calculated across all transcripts for every code; overall percent agreement was 66%. - When inter-rater discrepancies emerged, relevant passages were reviewed by the study team before a final code was assigned. - Using the final coded data, key themes were extracted and illustrative quotes were selected.
Population and sample collection	- HIV-positive MSM recruited during outpatient visits to a University-based infectious disease clinic. - Participants' racial background was 61% Caucasian, 33% African American, and 6% “other.” - Participants ranged in age from 24-63 years (Mean = 41.4, SD = 8.1). - Fifty percent reported having an undetectable viral load at their most recent medical appointment. - Average of 8 years since diagnosis of HIV infection. - 33% were living with a primary partner, 19% had a steady partner but did not live together, and 48% did not have a primary partner. - Participants reported having an average of 4.8 sexual partners in the past year (SD = 10.9). - No information on recruitment procedure provided.
Inclusion Criteria	Criteria 1 HIV-positive

	Criteria 2 Reported having oral or anal sex within the past year with a man.
Exclusion criteria	None reported
Relevant themes	**1. Sexual Health Relative to Other Life Concerns** Only two of 52 participants (5%) spontaneously mentioned condom use and avoiding risky sexual behaviour as a priority for maintaining health. The most salient priorities for maintaining health emphasised by the participants were maintaining a positive outlook, avoiding heavy drug and alcohol use, and reducing stress. The importance of taking medication, and acceptance of medication as a lifetime commitment, was also noted. Stigma related to HIV and sexual orientation were among the most prominent stressors noted by participants. Other stressors included worry about potential health decline and death due to HIV, challenges related to medication adherence and side effects, coping with mental illness and substance abuse, and financial stress. While sexual health and safer sex in the context of being HIV-positive did not emerge spontaneously as a major stressor, difficulty forming supportive relationships, loneliness, and lack of social support were noted by many as core stressors. Many participants noted a lack of community support in general for HIV-positive MSM. **2. Optimising Interest in and Impact of Sexual Risk Reduction Interventions** **2a. A program that focuses exclusively on safer sex may not be well received.** Overall participants expressed enthusiasm for health promotion programming and there was a wide range of views on how to optimise the content and approach of safe sex interventions, but many views were tinged with negativity regarding the prospect of "yet another safe sex workshop." For some, negativity was linked to a strong sense that prevention efforts involving HIV-positive people tend to place too much blame for the epidemic on those who are HIV-positive: *"“…I'm tired of being responsible for other people's actions. This society is always looking for somebody to blame…”* Some participants expressed outright negativity regarding efforts to promote safer sex and did not believe HIV prevention programs would curb the spread of HIV: *"“I'll be honest, I don't think prevention is worth a damn. I've found that some people just want to practice unsafe sex… they're not going to hear it. I don't think any number of workshops is going to do it, I just don't.”* **2b. Preference for a supportive, group approach that addresses other coping challenges as well as sexual risk reduction.** Many HIV-positive MSM expressed interest in health promotion programming that is not solely focused on safer sex. Participants favoured a supportive group setting that would allow them to meet other HIV positive MSM. They also preferred an interactive, engaging format that would incorporate group discussions. Participants stated that interventions

	should not lecture on the need to practice safer sex and use condoms, but instead provide a group-based forum to discuss safer sex topics in an informal, social atmosphere: *“…if you want to get safer sex out to HIV-positive men and talk about it, it's got to be more social... If it's made social, it's not so clinical, where you're able to discuss things, given the opportunity for us to learn about each other, and to participate in a group setting that's relaxed, where we can steer what is being said. Yes, you need a facilitator and yes, the facilitator needs to have an agenda, but we can't feel preached at.”* A number of participants stressed that a program would be appealing only if it provides additional coping skills to facilitate the management of the many stressors they face. As one participant stated, there was an interest in a holistic health promotion program, where safer sex was one of several topics covered: “*…if you're looking at giving support for the guys at the clinic, you want to cover mental health, physical health, sexuality, safe sex, drugs, and alcohol. We really need it."* Overall, men were enthusiastic about an intervention that would provide a forum to address the many challenges they face and that understood the broader life context in which HIV-positive people live. They suggested that safer sex modules should be part of a broader health promotion program where HIV-positive MSM support each other in their efforts to live healthier lives. For many, the primary draw for such a program was the prospect of enhanced social support: *"In a setting where it's more like a workshop, it would be a lot better to just talk about the feelings surrounding having HIV.”* **3. Motivational and Skills-based Influences on Safer Sex** **3a. Concern for partner safety.** The strongest motivation for condom use was the desire to avoid infecting (or re-infecting) sexual partners. Some reported that they avoid sex with HIV-negative partners altogether; other reported limiting activities to safer behaviours and using condoms for anal sex: *“…because I know I'm HIV-positive, I would automatically use a condom, cause I wouldn't want to infect nobody else… cause like there are a lot of people out there that are infected and don't care about who they have sex with, they don't care if they infect somebody or not, but you just got to think about other people and other people's lives.”* However, a number of participants indicated that some partners, regardless of HIV status, strongly prefer sex without a condom, and some experienced pressure from primary to have unprotected sex as the relationship became more serious, often as a means of experiencing greater intimacy. **3b. HIV as a chronic illness and optimism regarding long-term health outlook.** A minority of participants reported that HAART treatments can contribute to unsafe sex because of the perceptions of reduced infectivity. A more common theme regarding treatment advances was the belief that safer sex is less important because HIV is viewed as a treatable, chronic illness; and because an HIV diagnosis is no longer a death sentence so people get more easily 'caught up in the moment' during a sexual encounter: *"Because the alarm is not sounding as loudly and the thrill is a little bit more enticing. It used to be that the alarm drowned out the thrill. Cost/benefit is in a different light now. I think that nowadays it's easier to think about the thrill rather than the alarm, the alarm's not there so loudly."*

3c. Partner communication and serostatus disclosure. Partner communication, both in relation to negotiating condom use, and in the context of serostatus disclosure, was cited as a major challenge to safer sex. A number of participants noted that decisions about condom use and disclosure are intertwined. For some, discussions about condoms were avoided because introducing the topic of condoms with a new partner could lead to a relationship-ending discussion about their serostatus. For others, using condoms avoided the need for disclosure; and for others, if a partner does not bring up the need for condoms, it is assumed that the partner is also HIV-positive, negating the perceived need for condoms. Participants emphasised that subtle social cues often exert a powerful influence in the context of discussions about safe sex and HIV status disclosure. With regard to serostatus disclosure, a nearly ubiquitous concerns was that because of stigma and concern about HIV transmission, HIV disclosure often leads to rejection. Fear of rejection and fear of violence both serve as barriers to disclosure.

In addition to assertiveness and communications skills training, HIV-positive MSM would benefit from support and education that aims to promote sensible decision making about how and when to bring up condom use and HIV status with new or existing partners. Additionally, interventions should provide HIV-positive MSM with strategies to communicate and negotiate the need for continued safer sex with primary partners, even for long-term relationships.

4, Informational Barriers: Clarifying HIV transmission and Personal Health Risks Posed by Unprotected Sex

In terms of sexual health knowledge, participants expressed near universal recognition of the high degree of HIV transmission risk posed by unprotected anal and vaginal sex. Participants also recognised a continuum of risk to uninfected partners, with some activities riskier than others. Given that a majority of participants were well informed about the basics of HIV disease transmission and prevention, health promotion programs for HIV-positive MSM should operate from the assumption that most HIV-positive MSM are sufficiently knowledgeable about the 'basics'. Nevertheless, there were particular informational needs where participants expressed confusion or anxiety about the risks associated with 3 issues:

4a. Oral sex. Oral sex was correctly viewed as being much less risky than other penetrative sexual behaviours but participants expressed frustration concerning the lack of clear information about whether oral sex poses a significant risk for HIV transmission, particularly relating to the risks posed by pre-ejaculate and open mouth cuts. In the absence of clear information, most participants reported that they forgo condom use with oral sex, but often with accompanying anxiety (although anxiety about HIV or STI transmission was not sufficient to motivate condom use for oral sex): *"You know I don't know because I've heard so many different takes on it [risks posed by oral sex], you know, I just don't know what the risks are, I mean obviously there is a risk factor, but I just don't know what it is for sure. It bothers me obviously because I mean I can ejaculate in someone's mouth and they could have a cut in their mouth or vice a versa, you know, I mean that stuff*

	happens." Future interventions should include content regarding oral sex, including HIV transmission risks to HIV-negative partners and potential health consequences of oral sex (e.g., acquisition of other STDs) with HIV-positive partners. **4b. Serosorting.** Limiting sexual encounters to HIV-positive people only was commonly reported as a strategy for avoiding HIV transmission to uninfected partners and a reason for not using a condom. However, there were divergent beliefs about the potential personal health risks of serosorting, with some considering condomless sex with seroconcordant partners as relatively harmless: *"I'm not going to lie… I always think, oh well, you might as well not bother; he's positive and just call it a day…I can't get no more positive,"* whereas others recognised the potential health hazards associated with HIV re-infection or 'HIV "super-infection"' with respect to multidrug resistant HIV. Many participants used the terms re-infection and super-infection interchangeably and only expressed a vague understanding of what the terms referred to. Comparatively fewer men expressed awareness of the potential for contracting other STIs. Some expressed a high level of concern about health risks associated with condomless sex: *"I'm terrified not to (use condoms). Because my greatest fear is getting reinfected…. The thing is, I know that there are hundreds of different strains of this virus and I already know that the one I have has definitely kicked my ass several times during the past 5 years, and I'm not going to compound it with another strain of the virus."* Others noted that there were risk-benefit trade-offs and for some the possibility of increased intimacy was more salient than health risks. These findings highlight the importance of raising awareness of the health compromising effects of STI coinfection in future risk reduction interventions. **4c. HIV viral load and infectivity.** A number of participants expressed confusion about what viral load numbers represent and reported that they were unsure about whether viral load influenced infectivity to uninfected partners. Participants were often emphatic in stating that once infected, transmission risks are the same regardless of viral load and that their own viral load has no influence on decisions about whether to use a condom: *"The risks are the same as if you have a viral load of a bazillion, you've got it, you've got it…It doesn't matter if you have one of those little things in your body, you can still give it to somebody else."* A minority of participants noted that they have heard of people deciding to forgo condom use because they are undetectable and that partners had encouraged them to have sex without a condom when their viral load is undetectable: *"….that was an issue I had with my partner you know, he's like you're undetectable and blah blah blah and I'm like you know as well as I do that it doesn't mean (you can't transmit)… I don't know because he's very intelligent and he knows better, I just think he thought it would be less of a risk."*
Additional information	Participants were compensated $20 for their participation

Critical appraisal - CASP qualitative checklist

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes *(The study used a combination of interviews and focus groups; questions did not differ between individual interview and focus group formats.)*
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and relevance	Overall risk of bias	Low

Section	Question	Answer
Overall risk of bias and relevance	Relevance	Relevant

Appendix C – GRADE-CERQual tables

Table 4 CERQual assessment of qualitative findings by sub-theme

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Intervention content influences acceptability						
Participants want information and education about STIs, HIV and sexual health. The desire for knowledge and information was a consistent theme that emerged from the data; participants wanted a comprehensive sex education program so they could be more informed. It was noted that although most people had basic knowledge of STIs/HIV and their modes of transmission, many lacked detailed knowledge and there was evidence of specific information preferences for different populations. Young participants suggested that they would benefit from being educated on male and female reproductive systems, information on STIs and pregnancy, the seriousness of STIs, and be given the opportunity to ask questions. They also desired sex education that was periodically repeated using follow-up sessions and that presented consistent messages. Young Black women suggested that HIV education should dispel myths about safe sex, incorporate graphic photos of STIs, should be required as part of freshman orientations, and that HIV awareness programs should include a speaker who had HIV to educate other students. It was noted that some young Black women lacked knowledge of correct condom use so this may be a specific information need identified for this group. MSM noted the importance of specific information on where to get tested, information on treatment options, and alarming	Chandler 2016 Fontenot 2020 Hawa 2019 Lee 2016 Mimiaga 2010 Pedrana 2014	Minor concerns (all studies used focus groups or interviews but two studies provided largely descriptive themes)	Minor concerns (there were some differences in the types of information preferred by different populations but overall the theme of desiring information on sexual health was consistent)	Minor concerns (the available data comes from 6 of 13 studies and is fairly comprehensive, covering a range of information needs across groups, but in some instances is mainly descriptive and lacks richness from supporting quotes)	No or very minor concerns (the data is of direct relevance and is applicable to the context specified in the review question)	High confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
statistics showing the high prevalence of STIs and HIV. MSM also asserted that it was important that interventions or campaigns address or dispel misconceptions about HIV/STIs and educate men regarding the real and likely consequences of infection, particularly to counteract the growing perception that HIV is no longer a death sentence. They also highlighted the need to raise awareness about STIs, noting that many people pay more attention to HIV/AIDS but the impact of STIs can be just as serious. Transgender youth wanted comprehensive sexual health education to include information and statistics on LGBT health and wanted it to be inclusive of all gender identities and sexual orientations, using broad definitions of sex and relationships. South Asian immigrant women with HIV described an almost complete lack of knowledge of HIV before their positive diagnosis and believed that this lack of education about HIV contributed to stereotyped perceptions of it within their community and in some cases community denial of HIV.						
Supporting statements: “I just wish we had more classes. To follow through. And, make them mandatory. You make em voluntary nobody’s gonna come. Yeah. It doesn’t have to be every day. Maybe like twice a month. Reminding you. Reminding you. Cuz if you don’t get a reminder you know, you gonna forget. Keep on reminding you. Gonna make it better.” (Latino adolescent) “I think people pay more attention to HIV/AIDS than they do to other STDs, which is kind of sad because they’re just as mean and as effective as you know HIV.” (MSM) “A lot of people don’t know what syphilis is, what gonorrhea is, know how long it lasts, know what to look for…” (MSM) “Like you know, it needs to be a lot more education about HIV that women can understand and it has to be in their knowledge, not in the scientific knowledge. They have to be in knowledge that they can understand, the language they speak.” (South Asian immigrant woman)						
Risk perception and risk assessment activities were viewed as an important component of sexual risk reduction interventions.	Brothers 2014 Buttram 2017 Pedrana 2014	Moderate concerns (2/3 studies uses interviews and focus groups but 1/3 study was	Minor concerns (there were some small discrepancies in how risk	Moderate concerns (the data comes from 3 of 13 studies and two of	Moderate concerns (the finding is from relevant studies but	Very low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
The recognition and assessment of personal risk was described as an important component of sexual risk reduction interventions. Participants (MSM) described how intervention sessions impacted their realisation of their personal risk behaviour, but this was most often reported with respect to baseline and follow-up assessments: for many participants, this was the first time they had been asked about their sexual risk behaviours and the process of calculating frequencies of certain behaviours was especially thought provoking. Participants spoke of these assessment sessions as a time in which they had to be honest with themselves, reflect, and evaluate the consequences of their actions, and that by increasing their awareness of their personal risk behaviours, they were more able to consider what needed to change. Participants also described the impact of the follow-up assessments in helping to maintain decreased risk behaviours and allowing them to reflect on their progress. Other participants (young HIV+ African American women) reported enjoying and learning from risk reduction activities, including those that focused on assessing a partner's risk, although some participants stated that they found this activity too confronting. With respect to social marketing campaigns, participants described how the public and mainstream nature of the campaign was effective at making people more aware of their risk of STIs/HIV and acted as a reminder about the importance of regular sexual health checks.		limited to 2 open-ended questions that did not address a broad range of acceptability issues; and there was a limited use of quotes to support study findings)	reduction activities were viewed but overall the importance of understanding one's own personal risk was consistent)	these provide data that is mainly descriptive and lacks supporting quotes)	only reflects the experiences of 2 populations of interest for this review)	
Supporting statements: One participant said the interviews, "made me think about those situations," while several others stated that the interviews "put things in perspective" and "made me aware of what I was doing." (Black MSM) "Some of those questions are like . . . you don't want to answer them, but the fact that you don't want to answer them says something." While another respondent stated, "They were embarrassing, but they cause you to look at yourself too. You take a look at yourself and say, 'This is what I am doing,' and then, 'Perhaps I need to make some changes here.'" (Black MSM) "The follow-up I kind of liked, because I was able to see my progress. I was able to actually see from where I came from this point to this point, and I left, and I'm like, "Damn. Last time I						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
answered this, this way. This time, it's this way. The first initial interview I'm like, 'Oh my God. Shut the hell up. I'm ready to go and get some drugs' [laughs]. But that was the first one, but after the second one, I'm like, 'Wow, I really came a long way,' and you don't actually see it until, like, somebody is interviewing you about it." (Black MSM)						
Activities focused on goal setting, developing action plans, and taking personal responsibility were considered beneficial. Activities that involved personal reflection and goal setting (short- and long-term goals) in different domains of participants' lives were viewed as beneficial by young HIV+ African American women. Intervention sessions where participants mapped out their individualised emotional, social, physical and sexual health goals over the next 6 months were particularly well received. Developing a comprehensive plan with detailed strategies and steps, and receiving feedback on that plan, was considered a beneficial activity. Another theme commonly reported among young people was the idea of self-preservation and the need to take responsibility for protecting oneself. This was particularly common for females, who voiced concerns about threat and vulnerability in some sexual relationships and felt that males could not always be trusted to be honest about their sexual practices, so it was their responsibility to protect themselves. This related to the topic of empowered decision making and the importance of teaching people to realise that they have choice with who and how they have sex, advocating for safe sex, and saying 'no' to their sex partners, again emphasised by female participants.	Brothers 2014 Lee 2016	Moderate concerns (one study was limited to 2 open-ended questions that did not address a broad range of acceptability issues; and for both studies there was a limited use of quotes to support study findings; where used the quotes did not always reflect the theme being described)	Minor concerns (the finding reflects the data but the data itself is limited)	Serious concerns (the data is not rich and the finding is based on a limited number of studies)	Moderate concerns (the finding is from relevant studies but only reflects the experiences of 2 populations of interest for this review)	Very low confidence
Supporting statements: "As one young woman stated, "I liked being able to cooperatively go over my goals and get feedback," and another felt "it was good to know the steps" [she] "need[ed] to take." (Young HIV+ African American woman). "I think guys, the people you know that are close to you probably would, but if you find some guy off the street or in a club or a park I don't think they're going to tell you. Just going to go for						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
it. If he's an honest guy he will tell you, but if he's someone that just wants to have some fun and sleep around, then I don't think he will. They just want to get what they want and that's it, they're not going to tell you, but if they want something serious then they would." (Latino adolescent). "They talked about who the right person is. Like, they gave us like things to think about, who the right person is before you decide to have sex." (Latino adolescent)						
Participants expressed a need for support to develop communication skills and confidence in negotiating safe sexual behaviours and consent. Participants described difficulties with self-advocacy and negotiating sexual preferences, including condom use and safer behaviours. Participants wanted information, education and support to help build their communication and negotiation skills so they could communicate more effectively with partners. In particular, trans youth wanted education and resources relating to physical and emotional safety, dating violence, sexual consent and advocacy. Women from South Asian communities described cultural barriers to discussing or insisting on condom use, particularly within their marriages and most felt a lack of personal power due to being unable to negotiate condom use with their husbands. Many described the stigma attached to women purchasing, owning or using condoms. Participants suggested including assertiveness training and self-esteem building into education sessions.	Fontenot 2020 Hawa 2019	Minor concerns (studies used interviews and focus groups to produce rich data and quotes to evidence the themes)	Minor concerns (there were some differences in the factors that made sexual communication difficult but overall the theme of desiring support for communication, negotiation and consent was consistent)	Moderate concerns (the data comes from only 2 of 13 studies but covers several aspects of the theme, is rich, and well evidenced using quotes)	Moderate concerns (the finding is from relevant studies but only reflects the experiences of 2 populations of interest for this review)	Low confidence
Supporting statements: "I almost never ask for things because of what I think is internal pressure to be grateful. In my head, I'm like, 'They're already willing to have sex with me; I shouldn't push my luck,' which is terrible, but as a result, I ask for as few things as possible." (Young trans person). "When asked whether or not wives could request their husbands to wear a condom, Anandi responded, 'I don't think that will happen. Because it's difficult to go against the man with the South Asians. Yeah, I don't think so; really, no.'" (South Asian immigrant woman)						
Participants desired comprehensive content that was not exclusively focused on safe sex or HIV. For primary prevention interventions, participants wanted interventions to address wider contextual issues that may	Brothers 2014 Hosek 2012 Rhodes 2020 Vanable 2012	Moderate concerns (3/4 studies used interviews and focus groups to generate rich data	Minor concerns (almost all participants agreed on this theme, however	Minor concerns (while only 4 out of 13 studies reported on this theme; all 3	Moderate concerns (studies are of direct relevance but	Low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
influence their sexual well-being. Trans people wanted interventions to also facilitate access to gender-affirming support, education, mental health resources, hormone therapy, PrEP and PEP. Others noted the importance of support with drug and alcohol use, mental health, and dealing with discrimination. For secondary HIV prevention interventions, participants expressed a preference for interventions that were not exclusively focused on sexual health or HIV specific topics but also addressed the broader life context in which HIV positive people live. They noted that a program focusing entirely on safe sex may not be well received but were enthusiastic about approaches that address a wide range of issues impacting their lives such as self-esteem, self-confidence, self-worth, living with HIV, sexuality, coping mechanisms, handling adversity, and developing and maintaining healthy relationships. Participants suggested that safer sex modules should be part of a broader health promotion program where safe sex was one of several topics covered, including mental health, physical health, drugs and alcohol, and reducing stress. Participants particularly favoured sessions that focused on supporting them to improve their emotion regulation and coping skills. They desired content that helped them to improve their knowledge, skills, and ability to identify and cope with daily stress and pressures, distorted thinking and negative emotions, and anger management.		with a low risk of bias, but 1/4 study was limited to 2 open-ended questions that did not address a broad range of acceptability issues; and there was a limited use of quotes to support study findings).	it was reported by participants in all 3 studies of secondary prevention interventions for HIV and only 1 primary prevention intervention so may be particularly applicable to secondary prevention interventions)	studies of secondary prevention interventions reported on this theme)	this finding may be more applicable to secondary prevention interventions)	
Supporting statements: “My perfect program wouldn’t just not only be focused on the infection. It would just really be building self-worth, building self-esteem like all the way around.” (Young HIV positive African American woman) “…if you're looking at giving support for the guys at the clinic, you want to cover mental health, physical health, sexuality, safe sex, drugs, and alcohol. We really need it.” (HIV positive MSM) “It [the session] made me look at myself and my coping skills better.” (Young HIV positive African American woman)						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
“Maybe this program you could put, make up flash cards and put like pressures, stressors, what you could do if this come up and what you could do if that come up. Like all of this stuff. You could make cards up so the girls would say, if this come up, this is what you could do. Give them tips. Like they say, for stress is yoga. Just different, introducing young women and young people to different ways of dealing with stress.” (Young HIV positive African American woman)						
Intervention structure and delivery format influences acceptability						
The format of intervention sessions can influence acceptability. Several factors relating to intervention format were described as positively or negatively impacting acceptability. Participants in one study noted concerns about session length when they ran over 3 hours, so session duration may be important. Another concern related to the use of written assignments, which were often part of homework tasks that encouraged participants to apply the knowledge and skills learned in each week’s session. It was noted that varying literacy levels of participants may contribute to difficulty in expressing themselves through writing, and that offering alternative strategies for participants to document their experiences outside of intervention sessions could be helpful. One intervention used a participant contract to emphasise the importance of each participant’s personal commitment to addressing their own emotional, social, sexual and physical health. This was viewed favourably by participants, who described how it explained what would be expected of them. Another aspect that was viewed favourably was the linkage-to-care that was facilitated by interventionists making referrals to appropriate local services in an intervention for young HIV+ African American women.	Brothers 2014	Moderate concerns (the study was limited to 2 open-ended questions that did not address a broad range of acceptability issues; and there was a limited use of quotes to support study findings)	Moderate concerns (the finding largely reflects the data but is only based on one study)	Serious concerns (the data is not rich and is based on a single study reflecting only one population of interest)	Moderate concerns (the finding is based on a relevant study but only reflects one population of interest)	Very low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Supporting statements: “One participant noted that the contract not only addressed what the intervention would focus on but what it would ‘‘expect out of me.’’” (Young HIV+ African American woman). “Participants appreciated the linkage-to-care made possible through the interventionists’ referrals because as one participant stated ‘‘it gave me help people [and a] place to go in time of need.’’ (Young HIV+ African American woman).						
Participants prefer session facilitators to be peers with shared experience and the ability to empathise. Participants described the importance of interventionists being able to relate to participants and their preference for peers, particularly with respect to shared gender, race and other demographic characteristics. For young people, there was a desire to have a discussion leader that was young, and possibly even a high school senior at their school. Similarly, they desired a presenter who was Latino, who understood the issues and concerns relevant to Latino adolescents. More broadly, young HIV+ African American female participants expressed a preference for facilitators or interventionists that could empathise with participants and understand what they were going through, as well as building trusting relationships that allowed facilitators to gently challenge participants to extend beyond their comfort zones. Facilitators with shared experience were considered more credible and relatable. Participants also noted the importance of session facilitators being equipped to adequately address counterproductive group dynamics. This suggestion was presented in the context of personality conflicts that arose in one of the groups, which resulted in friction and impediments to group cohesion and support.	Bowleg 2020 Brothers 2014 Hosek 2012 Lee 2016	Moderate concerns (3/4 studies used interviews or focus groups but 1 study was limited to 2 open-ended questions that did not address a broad range of acceptability issues. For 2/4 studies there was a limited use of quotes to support study findings)	Minor concerns (participant preferences relating to interventionists were largely consistent)	Moderate concerns (data covers several aspects of the theme but comes from 4 out of 13 studies and is not rich)	Moderate concerns (the finding is from relevant studies but only reflects the experiences of 2 populations of interest for this review)	Very low confidence
Supporting statements:						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
“I think it’s better if its someone that’s not that much older than you. Someone who’s lived through it, experienced it, at the same time as you. Like 2 or 3 years older, that knows the stuff and has experienced it. The age makes a difference, because older people, its okay that was in their past, but teenagers it’s like what could actually happen to us now and stuff. If you talk to someone who’s your age, then they know what’s going on and they know how the experiences are at that time.” (Latino adolescent). **“**The participants desired program facilitators or interventionists that could ‘‘understand what I’m going through’’ and empathize or ‘‘sympathize’’ with them.” (Young HIV+ African American woman). “It will help give them that extra push, like say, yeah, take them by their hand, walk them to where they need to be and maybe they need you to be there just that much to get them to start doing what they need to do.” (Young HIV+ African American woman).						
An informal, non-clinical approach is preferred. Participants preferred a social, informal approach that was not overly clinical and did not leave them feeling lectured or preached at on the need to practice safe sex or use condoms. Some participants expressed views that were tinged with negativity about the prospect of “yet another safe sex workshop.” It was noted that moralistic messaging should be avoided. Some HIV+ people expressed a sense that HIV prevention efforts tend to place too much blame for the epidemic on those who are HIV+ and stressed that safe sex should be everyone’s responsibility, not just those who are HIV+.	Mimiaga 2010 Vanable 2012	Minor concerns (studies used interviews and focus groups to produce rich data and quotes to evidence the themes, although in one study not all themes had supporting quotes)	Minor concerns (the finding reflects the data but the data itself is limited)	Serious concerns (the finding is based on 2 out of 13 studies and the data is not rich)	Minor concerns (the finding is from relevant studies)	Low confidence
Supporting statements: **“**If it's made social, it's not so clinical, where you're able to discuss things, given the opportunity for us to learn about each other, and to participate in a group setting that's relaxed, where we can steer what is being said. Yes, you need a facilitator and yes, the facilitator needs to have an agenda, but we can't feel preached at.” (HIV+ MSM) “…I'm tired of being responsible for other people's actions. This society is always looking for somebody to blame…” (HIV+ MSM)						
Most participants favour interactive group sessions. Many participants favoured a supportive group setting that was interactive and incorporated group discussion and sharing of experiences with peers in an informal, social atmosphere. Some described the importance of having a ‘safe space’ to discuss their challenges and emotions with people with shared	Bowleg 2020 Broaddus 2015 Brothers 2014 Buttram 2017 Hosek 2012 Vanable 2012	Minor concerns (5/6 studies used interviews and focus groups to produce rich data and quotes to evidence the	No or very minor concerns (there was minimal disagreement between	Minor concerns (the data is rich and comes from 6 out of 13 studies representing a reasonable range	Minor concerns (most data is of direct relevance and is applicable to the context of	High confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
experience. For some a combination of group and individual sessions was preferred. *Shared experiences and learning from others is valuable* Many participants commented on the value of hearing other people's opinions, exploring potentially differing viewpoints, and learning from others' experiences. It was also noted that other people with shared experiences could provide real world examples for negotiating sexual safety or making different choices when it comes to sexual risk behaviour. *Group sessions can promote social support and bonding* Meeting new people and interacting with people who had similar experiences was considered important and facilitated the development of friendships, a sense of camaraderie, and the feeling that they are not alone. Many participants noted the appeal of being able to vent, share feelings and experiences, and being listened to in a confidential setting. This was considered particularly important for some participants, particularly BMSM and HIV+ people, who reported lacking adequate social support resources and described difficulty forming supportive relationships, loneliness, and lack of social support as major life stressors. Many HIV+ MSM noted the paucity of outlets to form supportive relationships and a lack of community support in general, which made the support of peers and study staff significant. *Group sessions can positively impact other relationships* Some participants noted that accessing social support resources through the group intervention prompted them to remove themselves from unsupportive relationships and seek out or reconnect with positive social supports, including friends and family members who provided material, financial and emotional		themes. One study was limited to 2 open-ended questions that did not address a broad range of acceptability issues and there was a limited use of quotes to support study findings)	participants on this finding)	of population groups)	the review question)	

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
support. Group interventions were seen to have a positive impact on people’s social environment and relationships.						
Supporting statements: “A lot of [White and Hispanic men] don’t have the hardships that a lot of Black males have, and I think, so when Black males get into a warm and a nurturing environment where they can really be themselves, and people seem to not be judgmental and open to them or whatever, I think they can’t help but to thrive in there. I think [Black men] are a little bit more appreciative, because I think they that they have to deal with a lot more in life. I mean, let’s get real. Black men have the highest incarceration rate, the highest incidence of AIDS, the highest homicide rate, the highest murder rate, the highest suicide rate… That’s a recipe for disaster, so I’m saying, so yeah, so when [Black men] come into any environment like this, of course it’s going to be a positive benefit for them.” (Black MSM). “If the people who have more experience [participate], they would give you more insight of the situation that may occur.” (Young African American woman) “You actually got to hear other people’s opinions…To hear other people’s judgments on it. And you might not want to be judged, but you are not really getting judged, like I said, [it’s] hearing other people’s opinions.” (Young African American woman). “Everybody’s walk of life was different, but we was all the same. There were two people in there that was HIV-positive, and I’m like “Wow. I never would’ve thought you had HIV, and maybe that could happen to me.” So, you know, it made me take precaution. It make me look at myself differently— look at my life circumstances differently and what I was doing.” (Black MSM) “If you want to get safer sex out to HIV-positive men and talk about it, it's got to be more social. We don't have a lot of social things. Half the reason we're sitting here is an opportunity for us to get together, hang out with some friends, and make some new friends. If it's made social, it's not so clinical, where you're able to discuss things, given the opportunity for us to learn about each other, and to participate in a group setting that's relaxed, where we can steer what is being said.” (HIV+ MSM).						
Barriers to engagement in group sessions *Stigma, judgement and privacy concerns* Participants were concerned about the risk of being judged by others in the group due to their sexual experiences, which were potentially stigmatising. Participants noted that discussing sexual topics in a group setting carried a risk of exposure and fear of judgement, which may cause some to disengage with the group intervention. Some participants expressed concern about privacy and lack of anonymity, both within the group setting but also the potential exposure of personal information to others in the community outside the group. This was particularly relevant in ‘small towns’ where information shared in the group intervention could be circulated among the community. Similarly, in small	Broaddus 2015 Brothers 2014	Moderate concerns (one study used focus groups but one study was limited to 2 open-ended questions that did not address a broad range of acceptability issues and there was a limited use of quotes to support study findings)	Minor concerns (participants views on this finding were largely consistent but most of the evidence came from one study)	Serious concerns (most of the data for this finding comes from one study and only reflects the experiences of one population)	Minor concerns (data from one study is only partially relevant)	Very low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
communities, the risk of other people knowing one was participating in a sexual health / HIV intervention were noted. Participants described how they appreciated having ground rules, which were clearly defined at the outset of the intervention and emphasised confidentiality, respect and safety of all group members. This may help to alleviate concerns about privacy and judgement. *Discomfort discussing sex-related topics:* Participants described how in some communities, sex is not a topic that is discussed openly, which may cause discomfort or embarrassment during group sessions. It was noted that this may be especially important for participants who have experienced sexual violence or trauma. *Practical challenges:* Several participants cited practical concerns as potential barriers to participating in group-based interventions, such as transportation difficulties, scheduling around other responsibilities such as work or education, and for some, the need for childcare. It was also noted that any financial incentives for participating may be offset by the financial cost of childcare.						
Supporting statements: “They might not want to express themselves because of what people will judge them by especially when you are young and people judge you as fast, being a ho, or not carrying yourself like a young lady should be carrying yourself.” (Young African American woman). “P1: I’d be kind of concerned cause [this city] is a small place. P2: Yeah that’s what I heard. P3: I feel like after we talk about it here, run to your friends and talk about it and your friends likely to know somebody that know me and get back to me and stuff. I kind of not want that person to be in my business or know what I have been through and stuff like this.” (Young African American woman) “They could feel embarrassed or just kind of avoid the whole topic of the sex…[or] they may have like personal issues and just try and forget about it and put in the background.” (Young African American woman) “Sometimes some people are not ready to talk about that maybe they are traumatized or maybe they went through some issues or maybe they are just not ready for that right now. It’s not						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
like they don’t need to know the information, they do…, but sometimes other people might just have problems with that, they feel uncomfortable or they are just not ready to go through that stage for what their past experience might have been especially if it just happened to them.” (Young African American woman) “In an open discussion, I don’t think so, not in an open discussion with a lot of people.” (Young African American woman) **“**If they are not in daycare, and it’s like after I get off of work, or going to school, or going straight home to get my kid, or whatever the case might be. I think it would be hard ‘cause to find somebody else to watch their kid.” (Young African American woman)						
Media messages and social marketing campaigns: messages should be highly visible, memorable, and displayed in multiple public venues to maximise campaign exposure and recall. Many participants highlighted the importance of HIV/STI messages being highly visible to the public. Participants most frequently thought direct outreach at bars, clubs, street corners and gay friendly health centres was a good approach. Participants also often mentioned attention-grabbing public transport posters, including buses, subway stations, and subway trains, as well as television messages and in magazines or newspapers. It was noted that multiple locations, venues and outreach approaches may be required in order to reach diverse populations. The internet was seen as an effective medium by some, but inappropriate by others. Some felt that it should be targeted because many men use it to find sex partners; others thought that people, now inured to “pop-up” ads, would immediately close them or wouldn’t be interested because they were there to “cruise,” not to see health advertising. In terms of broadcast schedule, many participants described how the high frequency of campaign exposure and the multiple locations in which they were exposed to the campaign helped to maintain their interest over time. It was noted that because of	Mimiaga 2010 Pedrana 2014	Minor concerns (interviews and focus groups were used to elicit rich data although in one study not all themes had supporting quotes)	Minor concerns (there is some disagreement between participants on one small aspect of the finding but overall the data is consistent)	Serious concerns (data for this finding comes from 2 out of 13 studies and is limited to only one population of interest)	Minor concerns (the finding is from relevant studies)	Low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
this high exposure, people were able to readily recall campaign messages.						
Supporting statements: "I've seen the issue of syphilis on the rise within the gay male community here in Boston. I'm impressed with the fact that the information is out there. I think it's important." (MSM). "The Drama Down Under—it's really common, I see it every day on the tram, train, billboards, and at train stations. Because you basically see that ad like every day, if not three to five times a day…" (MSM)						
Media messages and social marketing campaigns: Participants expressed a preference for simple, focused, informational messages on STI prevalence, testing and treatment. Participants commonly indicated that sexual health messages should focus on getting tested, including specific information on where to get tested and addressing stigma by normalising testing; information on treatment options; and practising safe sex. Some suggested that alarming statistics showing the high prevalence of HIV and STIs may be beneficial.	Mimiaga 2010	Moderate concerns (interviews used and low risk of bias but no supporting quotes provided)	Minor concerns (overall the data is consistent)	Serious concerns (finding is based on 1 study out of 13 and reflects the experiences of only one population)	Minor concerns (the finding is based on 1 study that is directly relevant)	Very low confidence
Supporting statements: No supporting quotes provided.						
Media messages and social marketing campaigns: Messages should be visually appealing, light-hearted, using distinctive images and simple language. Participants reported that the visual appeal of campaign images, alongside the light-heartedness and humour of the images and messaging, captured their attention and allowed them to engage with the campaign comfortably, without guilt, obligation or coercion. Some commented on the use of overtly sexual imagery, with a discussion among participants about the	Mimiaga 2010 Pedrana 2014	Minor concerns (interviews and focus groups were used to elicit rich data although in one study not all themes had supporting quotes)	Moderate concerns (there is some disagreement between participants on some aspects of this finding)	Moderate concerns (data for this finding comes from 2 out of 13 studies (but 2/2 studies of social marketing campaigns), and is limited to only one	Minor concerns (the finding is from relevant studies)	Low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
advantages and disadvantages of using (and overusing) sexualised images to alert and capture the audience's attention. There was a recognition that strong positive images of a naked man were more tasteful and acceptable than highly sexualised, graphic images that may be too confronting. However, for some, the subtlety of the images meant they did not initially recognise it as a sexual health campaign and resulted in them thinking it was commercial advertising. There is a balance to be sought between being visually appealing, distinctive enough to be recognised by the target audience, and being too overtly sexual. Participants discussed how the use of simple and straightforward language to accompany images can enhance message clarity.				population of interest)		
Supporting statements: "The image grabs your attention, it kind of jumped out and stayed in my mind." (MSM) "The actual graphics and image are very good, 'cause it catches your eye even if you don't read the caption." (MSM) "The silliness of it is kind of fun, is more light-hearted and not so confronting." (MSM) "It kind of tells me not to take it too seriously, like don't sweat it, don't be nervous about a sexual health check. Just do it and don't think twice about it." (MSM) "It's very simple, direct. Usually it's him in his underpants with a big word next to him, like syphilis or something. So it's pretty hard not to notice it as a sexual health campaign." (MSM) "The message is clear: Get tested more often." (MSM) "For me I guess the most poignant message I saw was when they had the celebrity and the message, it said knowing is beautiful. That's at a subway station. And that was all it said, knowing is beautiful. And it said know your status or get tested. For more information, call a number that it gave you. And that was that." (MSM) ""All the bus stop adverts [advertisements] with the guy in burning undies. I didn't quite understand, and I thought it was an underwear ad at first." (MSM) "Campaigns these days are looking too much like everything else, like lifestyle advertising. The message gets lost, the image gets lost." (MSM)						
Media messages and social marketing campaigns: The conceptualisation and portrayal of HIV is important and can impact campaign appeal. Some participants expressed frustration with ads that they felt "glamourised" or downplayed the seriousness of HIV by showing attractive, healthy-looking people and neglecting the harsh	Mimiaga 2010 Pedrana 2014	Minor concerns (interviews and focus groups were used to elicit rich data although in one study not all	Moderate concerns (there is some slight disagreement between participants on	Moderate concerns (data for this finding comes from 2 out of 13 studies (but 2/2 studies of social marketing	Minor concerns (the finding is from relevant studies)	Low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
reality of living with HIV/AIDS. Several men, particularly older men, expressed concern regarding this lack of realism and overly positive imagery in the portrayal of the consequences of STIs/HIV, and felt that it misrepresented the risks associated with becoming infected. Many men believed that the framing of HIV and sexual health as a community issue, rather than just a gay men's issue, increased the campaign's potential impact. They noted that by using a 'generic' model that didn't "look gay or straight," and having multi-racial, multigender ads, the perception of HIV as a "gay disease" was reduced, increasing the appeal of the campaign.		themes had supporting quotes)	some aspects of this finding)	campaigns), and is limited to only one population of interest)		
Supporting statements: ”HIV's still really glamorized. That doesn't help anyone because people can see someone who has HIV or hear about it, but they really don't see it as a deadly or dangerous disease. They'd rather think that you can pop pills and still look like this." (MSM) "There are no implications, like, "Here you are bedridden with diarrhea for days on end," like this is what will happen." (MSM) "I think it would be good if you take away the gay factor all together, so it's for everyone and you don't feel so targeted—like telling everyone to go get tested." (MSM) ""I think it's important that it doesn't only target gays, it doesn't reinforce the idea that HIV is only for gay men, 'cause straight people get infected as well." (MSM)						
Media messages and social marketing campaigns: Using a mainstream approach and normalising STIs/HIV can raise awareness and increase campaign impact. Many participants discussed the importance of a mainstream approach and the normalising of HIV/STIs. There was considerable attention to the campaign's wide appeal to a broad target audience and the use of mainstream media, publications, public locations, TV and radio, rather than exclusively gay press or gay venues. Several participants noted that limiting the campaign to traditional 'gay media' may miss those who do not necessarily identify with the gay community or MSM who do not	Mimiaga 2010 Pedrana 2014	Minor concerns (interviews and focus groups were used to elicit rich data although in one study not all themes had supporting quotes)	Minor concerns (overall the data for this finding is consistent)	Moderate concerns (data for this finding comes from 2 out of 13 studies (but 2/2 studies of social marketing campaigns), and is limited to only one population of interest)	Minor concerns (the finding is from relevant studies)	Moderate confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
self-identify as gay. Others noted that this broad appeal may increase the campaign's potential impact by raising awareness of HIV/STIs and acting as a reminder about the importance of regular sexual health checks for everyone. Some also considered this mainstream approach to sexual health to parallel a broader mainstreaming of the gay community.						
Supporting statements: "I think the normalcy of seeing messages in places you wouldn't necessarily expect to see them, like if you pick up an AU magazine or the Advocate, you might see those messages. But it would be great to see them in Interiors magazine and Entertainment." (MSM) "I don't identify with mainstream gay groups/events, so I don't see a lot of the gay sexual health information and I don't identify as being a high-risk person. So I think I would benefit more from general sexual health messages like this." (MSM) "I used to only see this kind of campaign in SOPVs [sex-on premises venues], saunas, or gay venues/pubs, and now you're seeing it everywhere. When you have stuff in the gay press or just at gay venues, there are only so many people who are going to see that, so it's great to see that out and about." (MSM) "I think it has a broader appeal, 'cause it's advertised on trams stops, bus stations, and billboards, and he's more generic, not necessarily gay." (MSM) "I think that it was designed specifically for the gay community but incidentally it happens to also speak to people who aren't [gay]." (MSM)						
Diverse views on the appropriate tone of interventions						
The seriousness of HIV and STIs Some respondents objected to health messages that underemphasised the gravity of HIV and STIs and felt that stark images of people suffering from infections or the side effects of HIV medications may motivate prevention and treatment seeking. Other respondents found hopeful, positive messaging to be more compelling and memorable, including positive discussions about safe sex and HIV/STI treatment options.	Mimiaga 2010 Pedrana 2014	Minor concerns (interviews and focus groups were used to elicit rich data although in one study not all themes had supporting quotes)	Moderate concerns (there was disagreement between participants on this finding)	Serious concerns (data for this finding comes from 2 out of 13 studies and is limited to only one population of interest)	Minor concerns (the finding is from relevant studies)	Very low confidence
Supporting statements: "There is a lot of positive imagery. In the eighties there was a lot of negative advertising, and that advertising seems to have died away. So now there is lots of positive imagery that comes out, and maybe that doesn't make you think so much about the negative consequences." (MSM) "Even in the gay press I think that a lot of the images are really positive, and that maybe they're actually a little too positive at times." (MSM)						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Fear and humour. There were mixed perceptions about the importance of fear and humour in sexual health interventions. Some participants believed in the need for sex education programs to instil fear and suggested that graphic images or frightening statistics should be used to motivate change. Young males in particular emphasised a desire for programs that used a form of 'scare tactics.' Other participants did not believe negative fear-based messages are effective at changing behaviour and stressed the importance light-hearted and positive messaging to help empower people to take action. Some considered humour a desired element of STI/HIV education and felt that information presented in a humorous light would keep the attention of male adolescents. Some MSM noted that the use of humour in social marketing campaigns allowed them to engage with the campaign comfortably without guilt, obligation or coercion, and that it helped them to digest and recall the messages. Others viewed the positive messaging and imagery as a welcome change from previously fear-based campaigns	Lee 2016 Mimiaga 2010 Pedrana 2014	Minor concerns (all studies used focus groups but one study reported quotes that did not always accurately reflect the theme being described)	Moderate concerns (the was disagreement between participants on this finding and views appeared to differ by population)	Moderate concerns (data for this finding come from 3 out of 13 studies)	Minor concerns (the finding is from relevant studies)	Low confidence
Supporting statements: "Sex-Ed should have two parts. Yeah. Like, the big one should be abstinence. How important it is. Like to start out. And then go to the second one, like pregnancy and how it will ruin your life. Make sex seem bad. Make it seem like good, if your married and have your life set already. But make it seem like a worst case scenario. Like what happens if you get pregnant. How messed up your life would be. And actually, it would be interesting if the speaker had a couple of stories, of people he knew, who like, of how bad their life is going or stuff." (Latino adolescent) "I'm not saying that I believe fear is a good tactic, but if they had images—just like when they have those smoking ads and show people who have throat cancer or emphysema to show you what happens when you smoke—well, they should have things like that that show the extremes of people with AIDS." (MSM) "A video, like a humor video. You know, not actually showing what was going on, but showing something funny, and then something bad goes on and then they fix it. I don't know, something that has to do with something funny. You know teenagers like to laugh and smile all the time. It doesn't matter what it is, they just like to laugh and smile all the time. If it was something funny, they would probably catch onto it and watch it. That's probably why they watch a lot of comedies and shows and stuff, and they pay attention to it. If it was funny, they would probably pay attention to it." (Latino adolescent). "The silliness of it is kind of fun, is more light-hearted and not so confronting." (MSM) "I think it's a good thing that they're positive, 'cause it pulls you in comfortably without you being fearful . . . gives you those messages without you being afraid." (MSM)						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
“Negative advertising doesn’t work. You send a negative message and you don’t empower people; you scare them but you won’t influence.” (MSM)						
Cultural and contextual factors						
Stigma and discrimination Some participants reported experiences of harassment, stigma and discrimination based on their sexual, gender and racial/ethnic identity or HIV status. For trans youth, this was particularly experienced on social media and dating apps where experiences of transphobia, being fetishized or threatened were not uncommon. Participants discussed how discrimination can affect people in profound ways, including employment options and healthcare access. South Asian immigrant women also discussed perceived and experienced stigma and how that contributed to reluctance to disclose their HIV status, and feelings of fear of exposure when attending community-based sessions. Some participants reported negative experiences with culturally specific community-based organisations and noted that it would be beneficial to have support from outside their cultural communities as well as from within.	Fontenot 2020 Hawa 2019 Rhodes 2020	Minor concerns (interviews and focus groups were used to elicit rich data with a good use of supporting quotes to evidence themes)	Minor concerns (overall the data for this finding is consistent)	Moderate concerns (data for this finding comes from 3 of 13 studies but 3 populations of interest are reflected in the data)	Minor concerns (the finding is from relevant studies)	Moderate confidence
Supporting statements “I wouldn’t say a problem, but you can’t tell anybody in the community that you’re positive because nobody will speak to you again.” (South Asian immigrant woman with HIV) “Haifa reported a preference to receive support from CBOs serving other cultural communities. She characterized her own culturally specific CBO as ‘judgmental. I don’t know … something to do with their heads I think … they are not that open-minded.’” (South Asian immigrant woman with HIV) “Online dating has always scared me. I’m in constant fear of being used as someone’s fetish rather than seen as a competent human being.” (Young transgender female) “I think it makes life more difficult. You see more homophobia in these rural places than in big metropolises, and it’s also more difficult getting access to healthcare, work, and housing. It’s more complicated.” (GBMSM)						
Inclusive language and definitions Some participants expressed that they did not relate to narrow heteronormative definitions of sex or the belief that sex must	Fontenot 2020	Minor concerns (online focus groups used to elicit rich	Minor concerns (overall this finding is	Serious concerns (this finding is only from 1 of 13	Minor concerns (the finding is from	Low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
include penetration; their definitions were much more fluid and broader. Young trans people wanted definitions of sex to be inclusive of transgender identities and a broad range of sexual behaviours and relationship types. Trans participants also wanted pamphlets and brochures with trans representation, and the use of sensitive and inclusive sexual health assessment questions.		data and a reasonably good use of quotes to evidence the theme)	consistent)	studies but was included as it clearly reflects the needs and experiences of a population of interest)	a relevant study)	
Supporting statements “At my first appointment with a new doctor’s office last year, I noticed the intake form had a section for gender identity that included more than 2 binary options, a write-in section for pronouns, and a section for sexuality. It was a relief to not have to find a way to bring it up; the doctor just immediately went with what I put down and even offered me services from the trans health program without me having to ask.” (Young trans person) “There are trans and genderqueer people featured on their brochures and pamphlets. The questions my doctor asked on the intake weren’t invasive and focused on my emotional health and my support system. …When she asks about sexual behavior, rather than asking ‘when was the last time you had sex with a man or penetrative sex,’ she’ll ask, ‘Are you having any sex that could result in pregnancy?’” (Young trans person) “Sex ed in school is a joke. We learn about how abstinence is the only contraception and p-in-v [penis in vagina] is the only form of sex and how sex should be for nothing more than reproduction. …It should teach more about other forms of sex and how it can be for so much more than making a child and how gay people exist and, yes, even how gay people have sex and how to prevent STDs” (Young trans person)						
Cultural norms, group membership and identity Participants wanted interventions and services that took account of the cultural and social context in which they live. They described cultural norms and how they can impact sexual health or people’s ability to access sexual health services. They also highlighted fears around the risks of exposing their sexual activity, gender identity or sexual orientation to parents. Participants wanted culturally specific education that accommodates various languages and religious affiliations, as well as support for those with multiple minority statuses and intersectional identities. Trans youth specifically emphasised the need for gender-affirming care and providers who understood their unique care needs. Migrants highlighted issues relating to lack of awareness about their eligibility to receive services and	Fontenot 2020 Hawa 2019 Rhodes 2020	Moderate concerns (interviews and focus groups were used to elicit rich data but there was limited use of supporting quotes to evidence themes)	Minor concerns (overall this finding is consistent but some diversity in views or needs highlighted, largely relating to unique needs of different groups)	Moderate concerns (data for this finding comes from 3 of 13 studies but 3 populations of interest are reflected in the data)	Minor concerns (the finding is from relevant studies)	Low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
how to access health care, as well as concerns about immigration status and fear of deportation.						
Supporting statements "On reluctance within the South Asian community to discuss either sex or the issue of providing condoms to members: Anjali stated, 'Unprotected sex! Because you don't discuss sex with South Asians; you don't provide condoms to South Asians. This is unprotected sex that's happening.'" (South Asian immigrant woman) "Minu also reported hesitation and stigma related to parents discussing sex with their children: 'It's not good to talk to your kids, [about sex] okay. They think it's a bad thing to do … . Sex is very bad. They should be talking properly.'" (South Asian immigrant woman) "There are still people who, due to lack of information, think that they can't get tested because of not having documents." (GBMSM)						
Preferred components of secondary prevention interventions						
Participants identified specific information needs. Young HIV+ African American women expressed a need for sexuality education that extends beyond "just bringing no babies home" and focuses on re-exposure to HIV, sexually transmitted infections and their consequences, teaching women how to use female condoms, and preparing women for condom negotiation. While the majority of HIV+ MSM were well informed about the basics of HIV disease transmission and prevention, some specific information needs were identified concerning the risks associated with oral sex, the risks of serosorting, and the influence of HIV viral load on HIV transmission risk. *Risks of oral sex* Many participants expressed a high need for information concerning health risks posed by oral sex. Most discussions focused on whether HIV can be transmitted via oral sex. Some wondered about the risks posed by pre-ejaculate and about open mouth cuts that were assumed to increase transmission risks. *Risks of serosorting*	Hosek 2012 Vanable 2012	Minor concerns (studies used interviews and focus groups to obtain rich data)	Minor concerns (there is some disagreement between participants on one small aspect of the finding but overall the data is consistent)	Moderate concerns (only 2 out of 9 studies reported on this theme; although 2 of the 3 studies of secondary prevention interventions reported on this theme)	Minor concerns (studies are of direct relevance but this finding applies only to secondary prevention interventions)	Moderate confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
there were divergent beliefs regarding the personal health risks associated with unprotected sex with an HIV infected partner. One subset of participants down-played any potential health risks associated with serosorting and viewed condom use as unnecessary. Another subset of participants expressed awareness of potential health risks associated with HIV re-infection (i.e., infection with a different strain of HIV) and, in some cases, expressed worry about HIV "super-infection" (i.e., multidrug resistant HIV), but most participants expressed only a vague understanding of the terms re-infection and super-infection. Few men expressed awareness of the potential health consequences of contracting STI co-infections. *HIV viral load and infectivity* A number of participants expressed confusion about what viral load numbers represent and reported that they were unsure about whether viral load influenced infectivity to uninfected partners.						
Supporting statements: "You know I don't know because I've heard so many different takes on it [risks posed by oral sex], you know, I just don't know what the risks are, I mean obviously there is a risk factor, but I just don't know what it is for sure. It bothers me obviously because I mean I can ejaculate in someone's mouth and they could have a cut in their mouth or vice a versa, you know, I mean that stuff happens." (HIV+ MSM) "The risks are the same as if you have a viral load of a bazillion, you've got it, you've got it…It doesn't matter if you have one of those little things in your body, you can still give it to somebody else." (HIV+ MSM)						
Secondary prevention interventions for HIV should focus on empowerment and healthy relationships. Young HIV+ African American women expressed a need for interventions to empower young women not only through education, but by learning to support, accept and value themselves. They described how activities that focus on building	Brothers 2014 Hosek 2012	Moderate concerns (one study used focus groups but one study was limited to 2 open-ended questions that did not address	Minor concerns (overall the data for this finding is consistent)	Moderate concerns (only 2 out of 9 studies reported on this theme; although 2 of the 3 studies of	Minor concerns (studies are of direct relevance but this finding applies only to	Low confidence

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
self-confidence and self-esteem, and empowering young women to see beyond their HIV status, to critically examine how men and women are valued, and imbalances in power between men and women, were well received and enjoyed. Participants suggested ways of incorporating empowerment principles into a secondary prevention intervention, including building self-confidence by teaching life skills and decision-making skills to empower young women to become leaders rather than followers, to thrive in their community and live out their dreams. Identifying and discussing positive role models, including positive role models living with HIV, was also considered a useful way of empowering young women. Activities focusing on the development and maintenance of healthy relationships, including romantic relationships, were also seen as highly useful and relevant to young HIV+ African American women. This was especially true as many of them reported histories of abusive relationships and the activities had helped them to identify abuse both in their past and, for some, current relationships. These activities also helped the young women to reflect on what traits they would like to have in a partner and healthy ways to communicate with others.		a broad range of acceptability issues and there was a limited use of quotes to support study findings)		secondary prevention interventions reported on this theme)	secondary prevention interventions)	
Supporting statements: ‘‘it [the activities] helped me want to put more effort into building myself up to do my best.’’ Regarding self-esteem, one participant stated ‘‘I didn’t know I didn’t have much [self-esteem] now I can work on it.’’ (Young HIV+ African American woman) “Yeah, you have that [HIV] and at the same time you have to learn to support yourself. Then like as we talk about reject, you think like everybody gonna reject you and you think like, okay, this is the end of the world. I cannot do anything. You have to learn to help yourself, give self-esteem to yourself, and be YOU.” (Young HIV+ African American woman) “I mean, just teach them about decision making. It ain’t necessarily wrong crowd, right crowd, but if you become your own individual and you learn how to be a leader and not a follower, you can hang with people who doing what they doing.” (Young HIV+ African American woman)						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Participants expressed a desire for interventions to devote time to partner communication and serostatus disclosure. HIV+ participants discussed the need for secondary prevention interventions to address issues relating to serostatus disclosure. Participants who had taken part in HIV disclosure activities highlighted the relevancy and usefulness of this intervention session. Participants wanted to be taught how to disclose and who to tell, by improving communication skills and learning to evaluate the risks and benefits of disclosure to others. These young women also emphasised the need to deal with the emotions associated with disclosure such as rejection and judgement from others. HIV+ MSM noted that decisions about condom use and disclosure are intertwined, and discussed how partner communication, both in relation to negotiating condom use and in the context of serostatus disclosure, can be a challenge to safe sex. It was noted that interventions to promote safe sex should provide support and education that aims to promote sensible decision making about discussing condom use and HIV status, in addition to assertiveness and communication skills training and condom negotiation strategies.	Brothers 2014 Hosek 2012 Vanable 2012	Moderate concerns (2/3 studies used interviews and focus groups to generate rich data with a low risk of bias, but 1/3 study was limited to 2 open-ended questions that did not address a broad range of acceptability issues; and there was a limited use of quotes to support study findings).	No or very minor concerns (almost all participants agreed on this theme)	Minor concerns (while only 3 out of 9 studies reported on this theme; all 3 studies of secondary prevention interventions reported on this theme)	Minor concerns (studies are of direct relevance but this finding applies only to secondary prevention interventions)	Moderate confidence
Supporting statements: “It’s hard to tell people that, it’s hard to figure out who should you tell and who shouldn’t you tell. Like I should tell my boyfriend, but it doesn’t matter if I tell my mom or not.” (Young HIV+ African American woman) “The young women spent considerable time talking about the difficulties associated with ‘‘not exactly lying to them, but you just haven’t told the big secret of your life.’’” (Young HIV+ African American woman) “How to deal with a rejection. It doesn’t mean that because I told my friend that I’m HIV positive she’s gonna accept me. It doesn’t mean that because I told her I have to accept that she has to accept me. She can just OH, she gone. She’s out of my picture. So how do we deal with it.” (Young HIV+ African American woman)						

Appendix D – Expert Testimony

Section A: Developer to complete	
Name:	Dr Ines Campos-Matos
Role:	Inclusion Health Lead
Institution/Organisation (where applicable): **Contact information:**	Public Health England
Guideline title:	Reducing sexually transmitted infections
Guideline Committee:	PHAC E
Subject of expert testimony:	Inclusion health
Evidence gaps or uncertainties:	Sexual health needs and service provision for marginalised groups including people who are homeless, asylum seekers and migrants

Section B: Expert to complete	
Summary testimony:	[Please use the space below to summarise your testimony in 250–1000 words. Continue over page if necessary]

Inclusion health is a term used to describe people who are socially excluded, experience stigma and discrimination, and experience multiple overlapping risk factors for poor health such as poverty, insecure or overcrowded housing, violence and trauma. These factors frequently lead to barriers in accessing and engaging with healthcare and other services, which can lead to poor health outcomes and increasing health inequalities. Inclusion health groups include people who experience homelessness, vulnerable migrants, sex workers, refugees, and Gypsy, Roma and Traveller communities.

People who belong to inclusion health groups often experience difficulties and barriers in accessing services, which can include:

- Difficulties registering with a GP, particularly for mobile populations, those without a permanent address, or those without certain identity documents. Evidence indicates 74% of GP practices refuse to register patients without proof of address or photo identification (ID).[1]
- Challenges in understanding and navigating the system or in accessing health information, particularly with respect to language and health literacy issues
- Misunderstanding of NHS entitlements. Some patients are unaware of their right to access services or may have had past experiences of being turned away or being badly treated by some services. Some health and care professionals may also be unaware of NHS entitlements. For some groups, fear and mistrust of the system and concerns that presenting to the NHS could result in the Home Office knowing where they are may also prevent them from attending services.
- Overt discrimination about some communities, or policies and practices that explicitly exclude people from some inclusion health groups.

There are a number of complex issues when working with inclusion health groups. Some view this as a role for specialised inclusion health services, while others see it as being ‘everyone’s problem’ and that all health and care professionals can take action to impact the health and wellbeing of inclusion health groups. Similarly, in some instances outreach work is seen as a solution as it meets people ‘where they are' and overcomes some of the challenges with accessing services. However, other groups may view outreach as stigmatising, particularly from Gypsy, Roma and Traveller communities where outreach work may be seen as invasive or targeted.

Most work in inclusion health has historically focussed on mental health, substance use and infectious diseases due to overcrowding, so sexual health is not something that is particularly well addressed in this area. There is also a lack of data on the sexual health needs of inclusion health groups, particularly asylum seekers and migrant groups, although some proxy measures from surveillance data can be used, such a region of birth.

The ‘All Our Health’ framework is considered an effective tool for frontline healthcare workers to have an impact on public health issues, and there is a specific resource for inclusion health groups (‘Inclusion health: applying All Our Health’). This resource was created based on the evidence and on widespread expert consultation. The Safe Surgeries Initiative is considered particularly effective for supporting migrants and other inclusion health groups to access healthcare. More generally, approaches that are effective in addressing barriers to access are those that include translation and interpreting services, empathy, building trust, and working with local partners. The importance of acting quickly when a window of opportunity arises is also emphasised when working with marginalised and excluded populations.

Discussion

The committee discussed the barriers to accessing healthcare for inclusion health groups and considered whether interventions that aimed to improve access for one inclusion health group may also be effective for others. It was acknowledged that as the barriers to access are often similar across groups, addressing those barriers and improving practice for one group is also likely to improve access for other marginalised or excluded groups, although some tailoring may be required.

The committee recognised that the step change for inclusion health largely occurs when people are given access to primary care. It was noted that very little data is collected on people who are refused registration in GP practices so this is difficult to monitor. The committee considered approaches to support socially excluded or marginalised groups to register with GP practices, and reflected on general principles about increasing access, as well as those outlined in the All Our Health framework, to support this. The committee recognised that these principles also apply to improving access to specialist sexual health services, and emphasised the importance of reiterating that access to sexual health services does not require proof of residence and is free, confidential, and can be done anonymously if necessary. The importance of providing assurances that there is no connection or data sharing between sexual health services and the Home Office was also discussed, particularly for groups where there is fear of the state.

Take home messages

Inclusion health groups face multiple barriers to accessing and engaging with NHS and other care services, including fear, lack of awareness of entitlement, and difficulty navigating the system.

There is limited data on the sexual health needs of inclusion health groups and most work in inclusion health focuses on mental health and substance misuse; sexual health does not tend to be a priority.

Approaches to improve access to health services, particularly GP services and sexual health services, should combine general principles about service accessibility (e.g. kindness, empathy and a non-judgemental attitude; addressing language or literacy barriers; offering outreach where appropriate) with those specific to accessing sexual health services for marginalised groups (e.g. emphasising that sexual health services can be anonymous and there are no eligibility criteria or costs for access).

References to other work or publications to support your testimony' (if applicable):

1. https://www.gypsy-traveller.org/resource/locked-out-a-snapshot-of-access-to-general-practice-for-nomadic-communities-during-the-covid-19-pandemic/

Disclosure: None
Please disclose any past or current, direct or indirect links to, or funding from, the tobacco industry.

Declaration of interests: Please complete NICE's declaration of interests (DOI) form and return it with this form.

Note: If giving expert testimony on behalf of an organisation, please ensure you use the DOI form to declare your own interests and also those of the organisation – this includes any financial interest the organisation has in the technology or comparator product; funding received from the manufacturer of the technology or comparator product; or any published position on the matter under review. The declaration should cover the preceding 12 months and will be available to the advisory committee. For further details, see the NICE policy on declaring and managing interests for advisory committees and supporting FAQs.

Section A: Developer to complete	
Name:	Marc Thompson
Role:	Co-founder of The Love Tank
Institution/Organisation (where applicable):	The Love Tank, a not-for-profit community interest company (CIC) that promotes health and well-being of under-served communities through education, capacity building and research.
Guideline title:	Reducing sexually transmitted infections
Guideline Committee:	PHAC E
Subject of expert testimony:	Addressing sexual health inequalities among racially minoritized people in the UK
Evidence gaps or uncertainties:	Sexual health needs and services for people from Black family backgrounds.

Section B: Expert to complete	
Summary testimony:	[Please use the space below to summarise your testimony in 250–1000 words. Continue over page if necessary]

The Love Tank is a community interest company that delivers a range of health promotion services for underserved communities including outreach, web-based interventions, one to one support and peer support. Projects include PrEPster, Black Health Matters, Queer Migrant Men, Pan-London Outreach, International Network of People Using PrEP (INOPUP), and PEasy. These projects all aim to address sexual health inequalities in people from Black family backgrounds while also recognising the intersections of race, gender, sexual orientation and HIV status.

While there is evidence to demonstrate the disproportionate impact of STIs and poor sexual health in racial minority communities, there is almost no meaningful UK-based evidence to tell us what interventions work or what is acceptable for minority ethnic people. Some US-based evidence exists but is not sufficiently relevant to help understand what UK-based communities need. There is a clear need for existing interventions to be rigorously assessed and evaluated in order to produce robust evidence that can be used to inform decision making, funding, policy and change. Similarly, research is needed to understand the needs of the community, what is acceptable, what the barriers to accessing sexual health provision are, and what other health or social conditions may impact these groups.

Despite the lack of published literature, there is anecdotal evidence for several interventions that have successfully engaged with people from minority ethnic communities, particularly in relation to HIV and to STI testing. Examples include:

- **Me. Him. Us.** A sexual health awareness project which aimed to increase awareness and accessibility of testing for Black gay men, run by and for the men it serves. Black gay men were engaged in all elements of project development which fostered community engagement and ownership. This included influence over the language and images used in the campaign and appropriate media and community placement.
- **Date PrEP.** A short film aimed to raise awareness about PrEP in young Black Caribbean and Black African heterosexual communities and young Black MSM. The film depicts young Black people preparing to go on a date and discussing the risks they may take, condom use, and PrEP with their friends. The film takes place in a hairdressers and a barbershop, is highly visual, engaging and fun. It was designed to be culturally appropriate and reflects Black people talking to Black people about sexual health.
- **MOBPRESH (Mobilising for PrEP and sexual health).** This project trained women recruited through community organisations to be peer community mobilisers in Bristol, London and Yorkshire. Mobilisers were provided with resources to develop PrEP and sexual health interventions in their own communities so they could talk to other women about PrEP and sexual health. Interventions included outreach, videos, web pages, blogs workshops, group work, art projects and educational material.
- **PEasy.** Project designed to increase access to gonorrhoea testing for Black Caribbean men in London and Hull, and to tackle inequalities in access to sexual health services. The project involved outreach in community settings where teams of outreach workers went to areas where young Black men may congregate (e.g. football grounds, bars, hairdressers). Men were offered 2 choices: to provide a urine sample to be posted to SH London for testing, or to sign up directly to have their own account with SH London.

The success of these programs demonstrates the need for sexual health interventions to be culturally appropriate, including using relevant language, imagery, settings and dissemination approaches. The best way to do this is by listening to community needs and prioritising community involvement in all aspects of intervention design and delivery so that interventions are co-produced by and for the people they target. It is also important that sexual health interventions are linked to other services (e.g. mental health, domestic violence, routine health checks) and that providers work in partnership with other local organisations to provide holistic, community-led care.

Discussion

The committee discussed the lack of UK-based evidence on sexual health interventions for minority ethnic groups and agreed on the value of hearing from an expert on the success of ‘real world’ approaches. They reflected on the importance of cultural competence and discussed how this corresponded with evidence from the effectiveness review on culturally relevant interventions. The committee agreed that interventions should be co-produced with the people they are designed for, which again reiterated discussions they previously had based on the effectiveness and qualitative evidence reviews.

The committee recognised that The Love Tank is a London-based organisation and considered the relevance of the approaches highlighted to regions outside of London. In particular they acknowledged that other regions may have smaller but more ethnically diverse communities so interventions tailored for one specific group (e.g. Black Caribbean men) may not be appropriate. There were concerns that generic interventions designed for broad groups may overlook the specific needs of different ethnic and cultural groups within that broader group population. The expert recognised this concern but emphasised that engaging with the local community about their needs and preferences and obtaining input from local bodies can help to ensure interventions are appropriate for the people receiving them. The committee also considered ways that interventions can address the known disparities in poor sexual health without stigmatising members of higher risk groups, and agreed that presenting up to date data and statistics to communities and explaining why they have been identified as ‘high risk’ could help to demonstrate that people are not being singled out because of their racial identity, but because people of that racial identity have higher rates of STIs.

Take home messages

There is a limited evidence base on what interventions work and what is acceptable to people from minority ethnic groups. More research is needed to evaluate the effectiveness of existing interventions and to qualitatively understand what people in these groups want from sexual health interventions.

There is anecdotal evidence to support approaches that are culturally appropriate and coproduced by the communities that they target. The importance of engaging with local communities and allied services to provide holistic, comprehensive care was also emphasised.

References to other work or publications to support your testimony’ (if applicable):

MobPrESH-report-MARCH-2020.pdf (prepster.info)

Disclosure:
Please disclose any past or current, direct or indirect links to, or funding from, the tobacco industry.

Declaration of interests: Please complete NICE's declaration of interests (DOI) form and return it with this form. **Note: If giving expert testimony on behalf of an organisation**, please ensure you use the DOI form to declare your own interests and also those of the organisation – this includes any financial interest the organisation has in the technology or comparator product; funding received from the manufacturer of the technology or comparator product; or any published position on the matter under review. The declaration should cover the preceding 12 months and will be available to the advisory committee. For further details, see the NICE policy on declaring and managing interests for advisory committees and supporting FAQs.

Expert testimony papers are posted on the NICE website with other sources of evidence when the draft guideline is published. Any content that is academic in confidence should be highlighted and will be removed before publication if the status remains at this point in time.

Appendix E Research recommendations – full details

E.1.1 Research recommendation

How can sexual health services best be delivered together with other services (for example, drug and alcohol services)?

Why this is important

The committee discussed how the wider determinants of health can influence sexual health and wellbeing, including housing instability, poverty, substance use, mental health and intimate partner violence. They agreed that it is important to link sexual health interventions to broader support services, for example drug and alcohol services, HIV care and mental health services.

Rationale for research recommendation

Importance to ‘patients’ or the population	Sexual health and well-being is one part of a person’s overall well-being and is impacted by social, cultural, emotional and economic factors. Providing comprehensive care by delivering sexual health care together with other services will improve access, support, and quality of care.
Relevance to NICE guidance	Future versions of the guideline would be able to give specific advice on providing sexual health services together with other services
Relevance to the NHS	Providing comprehensive, joined-up care will help to streamline services and provide more opportunities to identify people with unmet healthcare needs
National priorities	DHSC will publish a new sexual health strategy in winter 2021
Current evidence base	No data about effective strategies for delivering sexual health services together with other services
Equality considerations	Increasing accessing to sexual health services via other related services may reduce inequalities by enabling people who would not otherwise access sexual health services to receive sexual health care.

Mixed methods research design

Modified PICO table

Population	People attending non-sexual health services, for example mental health services, drug and alcohol services, domestic violence services
Intervention	Sexual health service delivered within the relevant non-sexual health service (e.g. sexual health advisor offering outreach clinic in drug and alcohol service)
Comparator	Standard sexual health care
Outcome	*Quantitative* Uptake of STI testing Rate of diagnoses of STI Condom use Adverse events/unintended consequences Cost-effectiveness/utility

	Qualitative The values, beliefs, preferences, acceptability, attitudes, experiences and views of patients receiving sexual health services delivered in other services
Study design	Mixed method research design *Quantitative* Cluster randomised controlled trial *Qualitative* Interviews or focus groups with people receiving the intervention
Timeframe	Medium term (6-12 month follow up)
Additional information	None

E.1.2 Research recommendation

How can outreach be tailored to specific groups to increase their access to sexual health services and their uptake of STI testing?

Why this is important

The committee discussed the importance of tailoring interventions to the groups they target, and if possible, co-producing interventions with those groups. They agree that it was unclear how outreach sexual health services can best be tailored to those groups.

Rationale for research recommendation

Importance to 'patients' or the population	People are more likely to access services that meet their needs better.
Relevance to NICE guidance	Future versions of the guideline would be able to give specific advice on tailoring interventions to groups of interest.
Relevance to the NHS	Better tailoring is likely to lead to better use of sexual health services and increased uptake of testing among people at risk and may reduce the burden on treatment services and the long term costs associated with poor sexual health.
National priorities	DHSC will publish a new sexual health strategy in winter 2021
Current evidence base	No data about the effects of tailoring for specific populations
Equality considerations	Tailoring interventions to seldom heard populations would reduce health inequalities by improving their access to services.

SPIDER table

Setting	Outreach settings
Phenomenon of interest	Outreach sexual health services and STI testing
Design	Interviews or focus groups
Evaluation	Target groups experiences and beliefs about accessing outreach sexual health services (including STI testing) and the barriers they encountered

Research design	Qualitative
Timeframe	Any
Additional information	None