

My Sex, My Sexual Health

A social study of sexually transmissible infections among gay and bisexual men

STIs
ARE ON THE
RISE!



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1. Executive summary

Sexually transmissible infections (STIs) continue to rise among gay and bisexual men. To better understand the social understandings and implications of this rise, a mixed methods qualitative study was undertaken in New South Wales to collect and combine online discussions among gay and bisexual men, in-depth interviews with gay and bisexual men, and in-depth interviews with sexual health stakeholders. Data were collected during a three-week period in June and July of 2018, which were compiled into a single textual database.

Descriptive topical analyses found that gay and bisexual men had a largely pragmatic **perception of STIs**, noting that early experiences with infection were often stressful but with time most described them as easy to manage and largely harmless. While a few participants characterised them as serious health issues, the majority viewed them as a natural part of sexual health. As an extension of this pragmatism, gay and bisexual men were highly supportive of **partner notification**, although some had experienced negative and hurtful reactions when they had told a previous partner about an STI. Regarding **condoms**, while some men discussed their infrequent use – particularly in conjunction with HIV pre-exposure prophylaxis (PrEP) – it was clear that for some they remained an important safer sex strategy that extended beyond HIV to also encompass other STIs.

Although all participants discussed the importance of **diagnostic testing**, for some it was their sole strategy for managing STIs; ‘testing as prevention’ in lieu of condoms. Some health stakeholder participants were critical of such an approach, reflecting primarily on the risks of antimicrobial resistance along with burdens on the health system. Concerns over antimicrobial resistance also featured in participants’ critiques of antibiotics employed as ‘**STI PrEP**’, a strategy that when presented hypothetically to gay and bisexual men was met with concern and disinterest. In contrast, these men overwhelmingly viewed **public sexual health campaigns** as a positive force that could decrease stigma and raise awareness, although they were less convinced that it had the power to alter individual practice and were suspicious of the financial cost of such efforts.

Looking across the data, it was possible to construct a conceptual model of sexual health among gay and bisexual men, namely that: (i) STIs and sexual health should be **normalised**, everyday aspects of sexuality and overall health, (ii) approaches to prevention and management should be **individualised** and tailored to individual need, and (iii) managing one’s sexual health should be **holistic** by drawing upon multiple, complementary strategies. While such descriptions represent what can be described as an *ideal* model for sexual health, participants also recognised that in *reality* things often play out differently. By attending to these tensions – the fact that STIs are still stigmatised, that people seek to impose their own ideas around safer sex, and that some people rely too heavily on one strategy to the exclusion of all else – it becomes possible to see a clearer and more complete picture.

The conceptual model defined by this research provides a framework for future efforts to promote the prevention and management of STIs. Gay and bisexual men and health stakeholders all placed considerable value on a multifaceted and choice-driven approach to sexual health, reinforcing a need for a menu of prevention options that reflect the realities of STI transmission and sexual lives. This report makes several recommendations for future efforts to enhance and improve STI prevention and management among this population.

2. Background

In New South Wales and across Australia, there is little question that gay and bisexual men have entered a new era of sexually transmissible infections (STIs). Rates of chlamydia, gonorrhoea and infectious syphilis among gay men are at their highest in recent memory, [1] whilst new methods of biomedical HIV prevention have, and continue to, evoke changes in condom use practices. In Sydney and Melbourne, decreases in condom use with casual sex partners have been observed among gay and bisexual men, attributed mainly to the swift implementation of HIV pre-exposure prophylaxis (PrEP) [2].

The implementation of biomedical HIV prevention hints at the potential decoupling of HIV and STI prevention. For decades, strategies for preventing and managing HIV were mainly the same as other STIs: use condoms, talk to your partners, and get tested. Attentive uptake of these strategies by gay and bisexual men not only stemmed the tide of HIV – the primary motivator for such changes – but also had the handy bonus effect of driving significant declines in bacterial STIs in Australia [3]. If PrEP is reshaping condom use norms, this has major implications for the prevention and management of other STIs. Further, as HIV self-testing technologies are now available commercially in Australia, the distance between how gay and bisexual men manage HIV compared with other STIs may continue to grow.

Prior to the implementation of PrEP or awareness around HIV treatment-as-prevention, it is notable that rates of bacterial STIs among gay and bisexual men had been increasing for several years [4]. While PrEP likely has some part to play in this story, attention to preventing and managing STIs must take a broader view to encompass the diverse sexual health strategies and perceptions maintained by gay and bisexual men. A holistic approach of this kind is captured in the New South Wales STI Strategy, which commits to delivering, “targeted and innovative education, community mobilisation and behavioural prevention interventions,” for gay and bisexual men [1]. This commitment has resulted in a number of targeted sexual health programs and services for gay and bisexual men in the state, including access to publicly-funded sexual health clinics, free condom distribution, safer sex and sexual health media campaigns, community-run testing services, and anonymous partner notification platforms.

Having such programs available is important, but their successes rely – at least in part – on how gay and bisexual men view them and understand their value. It seems likely that engagement would be heavily influenced by how gay and bisexual men think about STIs and sexual health on a broader scale. It is notable that previous research has found high levels of awareness and knowledge around STIs, but also that men are more likely to prioritise their sexual experiences over STI prevention [5]. These points were further illustrated by a study conducted in Melbourne, which found that gay and bisexual men viewed pharyngeal gonorrhoea as ‘non-serious’ and that they would not change their sexual practices in order to prevent its transmission [6].

This report outlines a social study of STIs among gay and bisexual men in the state of New South Wales. Specifically, we sought to understand the *attitudes*, *mediators* and *strategies* that these men maintained relative to their sexual health with a specific focus on STIs. Beyond merely describing these aspects, a key aim of this study was to draw connections between the tangible aspects of STI prevention and management (i.e., the strategies that men employ), and the psychosocial components (i.e., the ways in which they think about and engage with sexual health as a collection of ideas), which undoubtedly shapes what people do and the successes of those strategies for maintaining sexual health.

3. Methods

Study design

We undertook a concurrent and reflexive mixed methods research design comprising: (i) an online participant forum for gay and bisexual men, (ii) interviews with gay and bisexual male forum participants, and (iii) interviews with sexual health stakeholders. Data were collected during June and July of 2018.

Recruitment and participants

Eligible participants included men 18 years and older who lived in New South Wales and reported at least once sexual experience with another man in the year prior to participation. Trans and cisgender men were both encouraged to participate.

Study advertisements (Figure 1) were distributed through existing online groups and forums, as well as via paid advertising on social media. Publicly-funded sexual health clinics were emailed digital copies of the promotional material to make available to their clients at their discretion. Advertisements directed participants to a dedicated study website where potential participants completed an eligibility survey, which collected some basic information on demographics and self-identity.



Figure 1. 'My Sex, My Sexual Health' social media and print recruitment advertisement

Eligible men were contacted via text, email or telephone to confirm their interest and describe the study in more detail, with efforts made to recruit a diverse group of men on the basis of age, HIV status, regionality and ethnoracial identity. Further, from our pool of eligible men efforts were made to select a diverse representation from within different communities and sub-cultures of gay life. During the eligible survey, men were asked to self-define within 11 non-exclusive 'tribes' commonly used to describe different kinds of gay identity, including 'bear', 'party boy', 'bisexual' and 'drag queen' [7].

Data collection

Data were collected through an anonymous online forum and in-depth interviews. While gay and bisexual male participants were eligible to participate in both the forum and interviews, health stakeholders were only invited to participate in an interview. This project undertook what is known as iterative exchange of mixed methods, whereby data were collected concurrently and used to inform each other over time [8]. In this way, as data collection progressed it was possible to test, refine and enrich ideas encountered through the different methods of engagement described here.

Online forum

A closed, moderated and anonymous online forum was hosted for a three-week period over June and July in 2018. The forum was 'closed' to invited participants only who were asked to choose a screenname. It was moderated by a member of the research team responsible for posting discussion topics, responding to participant posts, and – as required – removing offensive content (of which there was none). And the forum was anonymous to the extent that neither the moderator nor forum participants were aware of each other's offline identities. Anonymity with the moderator was assured by having another member of the research team assign and link participant screennames. Participants were reimbursed for posting regularly during the study period with 50AUD per week for each week during which they posted at least twice.

Topics or 'threads' were posted by the moderator periodically throughout the study period, which were guided by a flexible topic guide (Appendix A). Thread topics typically posed a number of open-ended questions for participants and were occasionally accompanied by a digital poll. New threads triggered automatic email notifications to participants who were able to follow a hyperlink to log directly into the forum and post a response. Responses could be posted to the thread topic itself or in response to posts from other users; it was also possible to indicate approval for other user's posts by a 'like' button. Participant posts that received replies further generated email notifications to the author of the original post in case they wanted to reply. Before participating, men were asked to agree to the forum's code of conduct, which included a guide for respectful language and a warning about sharing potentially-identifiable information.

In-depth interviews with forum participants

Five gay and bisexual men participating in the online forum were also invited to participate in an in-depth interview offline. Two interviews took place during each of the first and second weeks and the final interview during the third week the forum was active. The forum moderator selected two or three screennames per week for interviewing based on their contributions to the forum, specifically if they appeared to offer a unique perspective, were at odds with other forum participants, or shared a particularly revealing experience. Interviews were conducted by another member of the research team to maintain the anonymity of forum participants with the moderator.

Interviews followed a similar topic schedule to the online forum (Appendix B) but with greater breadth and depth. They were audio recorded, transcribed and cleaned of any identifying details before being shared with the forum moderator. The moderator reviewed the transcripts and used those details to guide the online conversation and to refine the interview schedules. Interview participants were reimbursed an additional 50AUD for their time.

In-depth interviews with sexual health stakeholders

Interviews were also conducted with four sexual health stakeholders, defined as health workers who had a particular expertise in or provided service for the sexual health of gay and bisexual men. Interviews were guided by a semi-structured interview schedule (Appendix C) and audio was recorded for later transcription. Similar to the interviews with gay and bisexual men, those with stakeholders were conducted during the forum's three-week period, which enabled the interview content to inform the forum discussions and *vice versa*. Recruitment drew upon existing networks of health experts with an aim to involve those working in urban and non-urban settings. Stakeholders were reimbursed 50AUD for their time.

Analysis

To facilitate analysis, data collected via the three strategies described above were compiled into a single, textual database. This database was linked to participant demographics from the eligibility survey and polls conducted as part of the online forum. Forum participants self-selected to participate in any polls, which were presented as part of the initial post guiding the topic of discussion. Forum data were downloaded from the digital platform and, as described, interview audio was transcribed; both were de-identified and loaded for analysis into the research software, *NVivo*.

Two qualitative analyses were conducted sequentially of this study’s dataset. First, participant responses through the forum or in an interview were organised based on three overarching topics and six underlying sub-topics: attitudes (general perceptions of STIs), mediators (sexual health campaigns, antimicrobial resistance), and practices (partner notification, condom use, diagnostic testing). Within each sub-topic, a descriptive analysis was undertaken to outline the various positions men took to each and highlight convergence and divergence. In qualitative research, organising data by topics is a useful starting point for identifying broader themes [9]. Second, drawing upon the topic-driven work the overall dataset was analysed thematically from an inductive position [10]. An inductive approach to this kind of qualitative research means that specific cases (i.e., participant responses) were used to identify and define general principles, in this case facilitating the creation of a conceptual model of sexual health among gay and bisexual men. Overall, these analyses were positioned within the sociological framework of phenomenology, which means that we focused on how practices and ideas related to sexual health were thought about by gay and bisexual men but also how they were produced through our participants social interactions (i.e., norms, shared values) and their understandings of the social world [11].

4. Results and discussion

Participants

In total, 159 gay and bisexual men expressed an interest in participation; invitations were issued to 61 of those men on the basis of diverse ages, locations, HIV statuses, relationship statuses and ‘tribes’ with 35 ultimately signing up and contributing at least one post in the online forum. Participants ranged in age from 19 to 73 years with a median age of 32 years and an interquartile range of 20 to 35. In total, 27 participants were HIV negative (77%), five were HIV positive (14%) and three were unsure of their HIV status (9%). Just over half of participants were in a relationship (n=18, 51%) and the majority were based in a major city (n=32, 91%) with a few participants living in inner or outer regional parts of New South Wales (n=3, 9%). Two participants identified as transgender men. Figure 2 details participants’ self-selected, non-exclusive labels commonly assigned to subcultures of gay life in Australia [7].

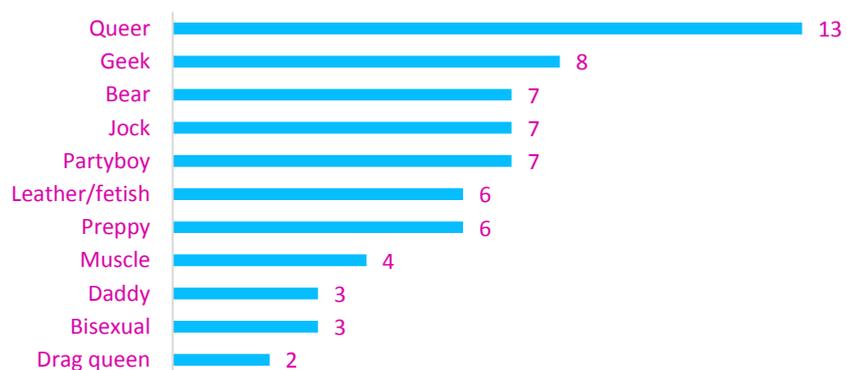


Figure 2. Participant self-identification within gay subcultures ('tribes')

Of the 35 forum participants, five participated in separate in-depth interviews. Four physician stakeholders were also recruited to participate in an interview, which included a director of an urban general practice clinic with a high caseload of gay and bisexual men, the director of an urban sexual health clinic, one regionally-based general practitioner, and a sexual health physician based at a large urban sexual health clinic.

Topical analysis

A range of topics related to STIs and sexual health were presented via the online forum and during the interviews. In this section, we describe responses to each topic with particular attention paid to consensus and divergence within and between gay and bisexual male participants and key stakeholders.

Attitudes: General perceptions of STIs

Across this study, men were invited to share their experiences and perceptions of STIs. In a poll of forum participants, three quarters of men reported at least one previous diagnosis of an STI. Many had been diagnosed multiple times, with gonorrhoea being the most common first experience of an STI (what one participant described as “losing [his] STI virginity”).

<i>First STI among gay and bisexual men</i>	
Gonorrhoea (n=9)	“My first STI (rectal gonorrhoea) came from sex I didn't even enjoy, a few years ago. He was just such a prick.”
Crabs* (n=8)	“Crabs are even worse if you're a bear-like person, they get everywhere. I was stuck at work for several hours after realising what had happened... sheer torture.”
Chlamydia (n=7)	“My first STI was chlamydia, I managed to get it in both my holes as well (I'm a trans guy). Living!”
Genital warts (n=2)	“It was a pretty horrible experience, messed with my mental health and confidence a lot. I think I'm in the clear now though!”

**There was some discussion over whether or not crabs 'qualified' as a STI. The general consensus was that it does, and also that it is among the most annoying*

The quotations shared above reveal an important dimension of how men saw STIs, which can be characterised as pragmatic. Although some described their first STI as traumatic or uncomfortable, there seemed to be a balance between what forum participants described as the realities of STIs (treatable, generally harmless, part of gay life) and what they perceived to be their (typically minor) negative aspects (embarrassing, inconvenient, temporary shame), an appreciation that appeared to develop as men grew more experienced sexually. This finding closely mirrors the findings of previous Australian research, which found that while men do not *like* STIs – as one doctor put it, “I think most people, if given the choice, would not catch an STI” – they are not typically very bothered by them either [5].

Importantly, some of the doctors with whom we spoke were less convinced that STIs were as easily managed as perceived publicly. One health stakeholder, the director of a sexual health clinic, characterised STIs as “complex” and, in particular, highlighted emerging challenges of antimicrobial resistance and growing awareness of *Mycoplasma genitalium*. As he described:

You know, we've got a whole bunch of, all sexual-health services have got a bunch of mycoplasma patients who are just essentially untreatable now... people hadn't even heard of mycoplasma, you know. I mean we've just done some research on it... on an individual level, you want them to make sure they understand that there are STIs out there and it's not as easy as it used to be. (Interview participant, sexual health clinic director)

It should be noted that one gay man interviewed expressed that STIs should be taken seriously (“I think it is a serious health issue...I do see it as a serious impact on my health”), reinforcing the idea of complexity and highlighting that opinions were not neatly homogenous. Here, it is useful to conceive the attitudes towards STIs among our sample – gay and bisexual men and doctors – as existing along a continuum: on one end were those who took the view of STIs as serious and to be avoided at all costs, while on the other end were those far more willing to accept STIs as a natural part of sex. As we explore in the coming sections, safer sex strategies were variously adopted depending on someone’s place along such a continuum. Playing on the idea of ‘negotiated safety’ introduced by social scientists to describe sexual agreements and HIV risk [12], STI prevention among gay and bisexual men could be thought to operate more along the lines of ‘negotiated danger’.

Participants also spent some time establishing HIV as distinct from other STIs both conceptually and, for some, more practically related to their safer sex practices. Speaking about his approach, one participant wrote:

In the past year we have both started on PrEP. We decided on this because we like to have group sex and we found that it is now the norm that this is often bareback. Our primary concern was contracting HIV. We realise that part of this choice is the increased risk of contracting other STIs. (Forum participant, 33-years-old, HIV negative)

This idea of HIV as the most concerning is echoed in earlier research, including one study in which gay men were asked to rank their fear of each STI [13]. Interestingly, that study found that many gay men viewed gonorrhoea as a ‘rite of passage’, which was the case also for many in our sample. The point here is that HIV continued to be treated very differently by gay men in terms of prevention but not necessarily that HIV and STI were becoming wholly unlinked. While it is true that nearly all men reporting PrEP use also shared that they had far more condomless sex than in the past, they also described that their regular PrEP appointments imposed a regular testing regimen for STIs, ideas explored in more detail in later sections.

Practices: Partner notification

Men’s generally pragmatic attitude towards STIs extended to their belief in and practices around partner notification. In a forum poll, 60% of participants said they have previously received a message informing them that they were an STI contact. Men viewed receiving such messages as a positive experience (“thankful for the heads up”) but, conversely, several shared experiences of negative reactions when they notified potential contacts. For example:

Once to the guy I'm fairly certain I got the STI from. I can't remember if he responded at all, but if he did it was nothing controversial or memorable. I also texted another guy I'd slept with around the same time. I thought I was being polite and helpful, but it was actually a pretty gross experience. He was pretty mean in response, like I was some dirty nuisance to him. There was no acknowledgement that this is what can happen, that I didn't intend it, or, significantly, that I might actually be distressed about it - both that I had an STI and that I might have spread it. It's a pretty disappointing thing to be made to feel bad about being sick. (Forum participant, 30-years-old, HIV positive)

Negative reactions were actually not uncommon and shared by ten forum participants in total. In addition to being made to feel a “nuisance”, participants’ partners also made them feel like a “skank”, “patient zero”, “rubbish” and “dirty”. These responses stand in direct contrast to the attitudes towards STIs maintained by our sample, who as-described adopted what we have described as a pragmatic approach. Such responses also suggest that in spite of the pragmatism of our sample, it does not follow

that this approach is the same among all gay and bisexual men, which again reinforces our contention that this population does not hold a neatly homogenous view of STIs.

It is also conceivable that negative reactions to partner notifications described by participants would deter men from contacting partners in the future. Interestingly, the men in our sample seemed to be more comfortable receiving contact notices than distributing them. Thus, despite a common belief that partner notification was important and could serve to normalise attention to and destigmatise aspects of sexual health, these stories of shame and blame convey that STI stigma persists among some gay and bisexual men.

One strategy employed by participants and encouraged by the doctors in our sample was partner notification via anonymous messaging services. Several forum participants were aware of and used anonymous messaging services available in Australia, which helped them feel as one participant put it, “less awkward”. Interest in these services was driven by a sense of responsibility to one’s partners, although it was also acknowledged that their anonymous nature reinforced an idea that STIs were something of which to be ashamed. It is notable, however, that not all reactions were negative, and several forum participants also described experiences where notifying a partner had actually increased trust and was viewed as essential by those men engaged in non-monogamous relationships.

Practices: Condoms and condomless sex

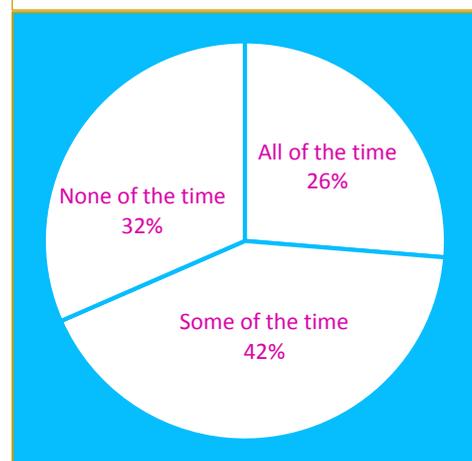
Participants had diverse opinions about condoms, including their ongoing relevance in a world of biomedical HIV prevention. Our sample did not universally view condoms as obsolete, and although this was clearly the belief of some, others continued to position condoms as an essential part of their safer sex practices:

Condoms for me is a must, it’s something that is not negotiable. And anyone that I do interact with is told upfront... I’ve had people ask me if we could have condom free sex as they’re on PrEP, I’ll turn around and say there’s other STI’s out there that a condom helps prevents. I always put it in my profile on Grindr and I always say during the chat before we have decided to go forward and have sex, I also bring some around with me... If they’re not open to condoms then it’s generally a sign for me, that I wouldn’t have gotten along with them. (Forum participant, 24-years-old, HIV negative)

As part of a discussion thread entitled ‘Are condoms still relevant?’, this participant echoed a common refrain among those committed to condoms, which is that they protect against STIs other than just HIV. Indeed, several other men described experiences where a partner evoked their PrEP status as a precursor to condomless sex. While sometimes, as in the quotation above, men rejected potential partners who refused to use a condom, insisting on condoms sometimes resulted in their rejection instead: “I have been turned down a few times and blocked by a few guys on Grindr when they wanted ‘raw only’” (Forum participant, 20-years-old, HIV negative).

Even among those who had not faced explicit sexual rejection because they used condoms there was a sense that this was becoming increasingly common, although some participants who preferred condomless sex reported that they were willing to use them at a partner’s request.

Figure 3. Forum poll: *How frequently do you use condoms for anal sex with casual partners?* (n=15)



Further, echoing earlier research on negotiated safety around condom use and HIV [12], several participants reported that they were less likely to use condoms with partners with whom they were familiar, as opposed to those they had just met. While familiarity may have helped some participants feel safer engaging in condomless sex, from an infection standpoint such an approach may not have actually decreased their risk for STIs.

Although individual perceptions varied, many participants described shifting norms around condom use, echoing the findings of other research from Australia [2]. Importantly, participants also conceived of condoms as a central marker of sexual health risk among gay and bisexual men, highlighting its long history as a tool for safer sex and sexual responsibility. As one sexual health physician described, there was a gradual release in panic around condom use from the perspective of providers as well:

When I started in this specialty, if someone reported that they were having condomless, anal sex, it was, you know, it was quite a big deal for everyone... And then it just became more and more to the point that actually it became the norm in sexual health clinics. (Interview participant, sexual health clinic director)

Other physicians shared this perspective, which was not viewed as entirely negative. Indeed, while lauding the positive aspects of PrEP from a health perspective, one general practitioner also noted that by destigmatising condomless sex PrEP had also created the space for what he perceived as more honest discussions with patients. As described above, disclosures of condomless sex in the past could trigger interventions or at least a stern lecture from health providers, which may have disincentivised men from being entirely honest about their practices. Overall, however, gay and bisexual men and their health care providers both seemed to believe that there was, at least, an open and honest conversation about them going on in the context of individual sexual encounters and in the arena of health more broadly.

Practices: Diagnostic testing and 'testing as prevention'

For every man who participated in the online forum, diagnostic testing for STIs was a – and in some cases *the* – key strategy for sexual health management. As one gay man put it during an interview: “I do consider testing to be a very important deal”. This idea was echoed by every other participant during interviews and in the online forum. For some men, it was a complement to their other strategies of risk reduction, while for others it was employed almost as a strategy that could be conceived of as ‘testing as prevention’. In the forum, one participant described his testing strategy as follows:

Regular testing, my partner and I have never used condoms. And I am undetectable. We are open and both get our fair share on the side. We make sure we always go in for our 3 monthly check up. (Forum participant, 31-years-old, HIV positive)

For this man and several others, testing instead of condoms was the main way by which they managed STIs. Positively, the general consensus was that testing in New South Wales was easy to access, which some reflected made it possible to test frequently, often in the context of regular PrEP or HIV management consultations. The doctors with whom we spoke reflected on the effort that had gone into positioning testing as easy and carefree. As one described:

We have tried to present our service delivery has been to make sure that people understand that STI testing is simple, easy, access is great. And, if we identify something, it's not really a problem 'cause treatments are great. (Interview participant, sexual health doctor)

Interestingly, this participant went on to explore the idea that the treatment of STIs is increasingly complex and made even more challenging by rising infection rates:

But we've come to the other end of that where it's now actually quite a big deal and it's very complicated, and it's quite challenging but there's that disconnect of easier access to services and, but still that message of, you know, 'If you get something, we can sort it out'.

Beyond reinforcing our earlier points around complexity, this quotation reveals that 'testing as prevention' places strain on health systems as it requires a large number of tests and frequently administering treatment, which has implications in terms of the financial costs of such testing and the staff time their administration consumes. This strain is possibly even exacerbated by false disclosure of STI contact, a strategy shared by some forum participants as a means to access on-the-spot treatment:

I feel like I have to lie at the clinic and say someone told me they tested positive, just so I can be treated, when I know that I have something. I don't have time to go to the clinic once and then come back again. (Forum participant, 34-years-old, HIV negative)

This practice reveals a unique strategy of manipulating the current system of testing and treating in New South Wales, and it highlights the prioritisation of convenience among some men. One sexual health doctor, however, was critical of this practice, raising the potential for antimicrobial resistance from the unnecessary use of powerful antibiotics. It is notable that in recent years some sexual health clinics have stopped administering treatment for patients presenting as STI contacts, but there is no consensus on such an approach and no information about this practice in general practice settings. While testing was clearly an attractive and convenient management strategy for most men, it comes at a cost to health resources recognised by doctors but seemingly invisible to gay and bisexual men.

Mediators: STI PrEP and antimicrobial resistance

While men appeared to value convenience in terms of testing and treatment, they had some awareness and concern of treatment resistance. In the forum and during interviews, men were presented with the idea of 'STI PrEP', which is the use of antibiotics as prophylaxis to prevent STIs. This idea was generally not met with much enthusiasm mainly due to potential side effects and concerns around antimicrobial resistance. As one participant succinctly put it:

To be honest I think it's a really dangerous idea to be recommending people to take antibiotics regularly and building up our resistance to antibiotics. I would vote no! (Forum participant, 32-years-old, HIV negative)

Interestingly, even some of the men who described false disclosures of STI contact in order to access treatment were averse to widespread administration as a preventative measure. Possibly this disconnect stems from how people consider an abstract idea like STI PrEP versus their assessment of individual, situational need. Indeed, the very few men in favour of STI PrEP contextualised their support by advocating its use among only those most at-risk through frequent sexual activity.

For some, the forum discussion around STI PrEP and drug resistance seemed to spark annoyance and concern. For example:

It baffles me how we seem to have steered away from promoting 'safe sex' and now instead seem to be doing everything we can to promote and encourage unsafe sexual practices. Who should pay for that?? The tax payer? (Forum participant, 32-years-old, HIV positive)

In contrast to the discussion around testing, this example reveals some attention to the costs associated with sexual health care. Others also reflected on their own and others' use of condoms, reinforcing their use as a proven strategy for preventing STIs without the need for medication. As a feature of this discussion, one participant bemoaned his "lazy" approach to condoms and mused that he would be

more likely to use them again rather than take up STI PrEP. The generally negative attitude towards STI PrEP stands in contrast to another recent study of attitudes among gay and bisexual men, which found that many supported its implementation [14]. Noting that several trials of STI PrEP have been discussed in Australia, it seems clear that there are diverse attitudes towards it as an individual or public health strategy; these will need to be addressed if any attempt at its implementation is going to be successful. Attending to the way in which resistance to HIV PrEP was addressed and overcome may offer one way forward.

Mediators: Sexual health campaigns

Messaging around sexual health was explored more generally through a dedicated forum thread. Men were shown an outdoor marketing campaign launched jointly by ACON and STIGMA in 2018 and asked to reflect on its impact.



In an informal poll of forum participants, 25 men (81%) had favourable reactions to this campaign specifically, and most were generally supportive of sexual health messaging of this kind. Commonly-cited reasons in support of public marketing included that perceptions that they reduce stigma, foster community pride, encourage sexual communication, and promote testing. As one man put it: “They’re great. It brings awareness to our community and others” (Forum participant, 33-years-old, unknown HIV status).

While men were generally supportive of public sexual health marketing, they were less clear if it had the power to alter behaviours. Several forum participants expressed that seeing these advertisements had done nothing to alter their condomless sex practices or even increase their testing, due in part to the fact that their sexual health practices were already well established. Some men, however, commented on how these campaigns served as a reminder to be conscious of sexual health. Other participants were somewhat critical of the designs of the campaign shared via the forum (Figure 4), noting that they found the messaging unclear and at times hard to interpret (e.g., “some eye-grabbing text but everything else is too small to read”). Others felt that they could potentially reinforce negative stereotypes of gay men as promiscuous and STI-prone, and two forum participants asked about the financial cost of such efforts relative to their benefits.

It is worth noting that the effects of public sexual health campaigns have been previously evaluated in various settings. Several studies have found that such campaigns can reduce sexual risk practices and promote testing among several populations, including gay and bisexual men [15-18]. Echoing some of the concerns raised by participants, however, some of this research has questioned whether or not these campaigns achieve infection reductions [18] and effects have been found to be modest and short-lived [15].

A conceptual model of sexual health

Our second analysis considered the entire dataset in an effort to define a conceptual model for sexual health among gay and bisexual men in New South Wales. As described, gay and bisexual men and their doctors maintained diverse opinions and experiences of STIs, challenging any idea of homogeneity within this population. In reviewing participant responses, however, it is possible to construct some clear patterns in the sexual health terrain, which requires a balance between what is viewed as ideal (i.e., what men and health stakeholders view as ‘best practice’ in the context of sexual health) and the occasionally contrasting reality (i.e., experiences and perceptions that challenge an idealised view).

Appreciation for managing sexual health can be organised into three dominant themes, namely that: (i) STIs and sexual health should exist as normal and de-stigmatised aspects of sexuality and overall health, (ii) approaches to prevention and management should be decided-upon and tailored to individual need, and (iii) managing one’s sexual health should draw upon a collection of diverse strategies. As noted, however, these ‘*should*’ statements represent what can be conceived as the ideal, and the most productive approach to sexual health that could be imagined by our participants. In contrast, we encountered many examples of reality challenging what *should* be, providing a more complete view of how sexual health is viewed and constructed than is available through a sole focus on the ideal.

The following table outlines these themes in more detail and with specific examples and it reveals some of the tension arising from idealised and more realistic experiences and perceptions.

	Ideal	Reality
<i>Normalised</i>	There was a strong sense that STIs and sexual health should be a normalised aspect of gay life. It was thought that public marketing campaigns and open discussions with partners was part of normalisation, and many of the men in our sample sought to exemplify this through their own attitudes and practices.	Non-normalisation of STIs was most profoundly experienced when men received negative reactions to partner notifications or, in one case, experienced stigma around asking for testing in a non-specialist general practice
<i>Individualised</i>	The men in our sample also took a highly individualised approach to sexual health. As we explored relative to condoms in particular, practices tended to vary and while some men had strong preferences for or against their use, most also were quick to acknowledge that choices around safer sex and STI prevention should be up to each individual.	Standing in contrast to an individualised approach were ideas around public responsibility and cost. Men only supported an individual approach to sexual health if it supported public health, and some were suspicious of shouldering the costs of what they perceived to be other’s high-risk sexual practices through strategies like STI PrEP.
<i>Holistic</i>	There was also a strong perception that sexual health management should take a holistic approach by combining a variety of strategies: regular testing, condom use (at least situationally), HIV PrEP or treatment-as-prevention, and partner notification. That these strategies were discussed and employed collectively highlights the success of efforts to encourage a multifaceted approach to sexual health, reinforcing the idea that no one strategy can maintain sexual health.	It was felt by some that there was too much emphasis placed on ‘quick’ fixes to sexual health, namely those driven by medications like PrEP for HIV or STIs. As an extension of this idea, several men struggled with the shifting terrain of safer sex and the decreased role that condoms were perceived as playing in the sexual landscape. Others – especially doctors – felt that an overreliance on ‘testing-as-prevention’ as a preferred strategy for some was placing undue burden on health resources in the state.

5. Conclusions

For gay and bisexual men in New South Wales, sexual health is a multifaceted and complex idea. Not only do men maintain a diverse array of attitudes and understandings centred around STIs, but their strategies for preventing and managing these infections are varied. While for some men this seems to reflect a holistic appreciation of sexual health, among others it appears that relying on a single strategy – notably diagnostic testing – has become a mainstay for managing STIs. Questions linger about what this approach means for the distribution of health resources and the capacity for the robust public health system in New South Wales to keep pace amid rising rates of infection.

Many of the state's efforts to promote sexual health practices among gay and bisexual men are popular and well-utilised, at least among our sample. It is encouraging that men took such a pragmatic approach to STIs, revealing perhaps the success of campaigns that have sought to de-stigmatise their place in sexual life. While it is less encouraging that pockets of stigma remain, public sexual health campaigns seem well-placed to continue to deliver messages that reinforce normalcy and, at least to some extent, encourage sexual health prevention and management. Future evaluations of such campaigns, however, should seek to better-understand not only their effects but also their cost, and other strategies for distributing this kind of information should be considered.

By defining a conceptual model for sexual health among gay and bisexual men, this study unites many different, personal perspectives into a central framework that can be used to guide the development and implementation of future efforts. Given the particular value that was placed on choice by gay and bisexual men, continuing to offer multifaceted and individual approaches is key. As part of this, there is likely a balance to be struck between promoting various prevention and management strategies and simply making men aware of their options; we encountered resistance to what was perceived as disproportionate attention to prospective, medically-based approaches (i.e., STI and HIV PrEP), which continue to be seen by some as threats to more conventional approaches, like condoms. While this study found that safer sex norms and practices have and continue to change for gay and bisexual men, negotiating safer sex nevertheless continues to be a part of how men think about their sexual health. Such negotiation, however, seems to be centred more prominently around managing rather than preventing STIs other than HIV.

Although the findings of this study suggest a generally positive climate of sexual health among gay and bisexual men in New South Wales, tensions remain between the way things should be and the way they are currently. It is important to recognise that this study appears to have recruited a sample of men who were reasonably well-versed on STIs and at least nominally engaged in gay culture. How or if the state's efforts have penetrated other populations of men who have sex with men remains unclear, an enduring challenge for research and health promotion. This study was strengthened by its use of an anonymous online forum to collect data, which not only allowed participants to be more open about their experiences, beliefs and fears but also to discuss and engage with the research topics as a group. Reflexive, social engagement is an important aspect of how communities construct meaning and cannot always be captured via interviews or other forms of qualitative enquiry. Conversely, the online forum's group dynamics may have contributed to a false sense consensus if men felt unwilling to voice dissent or merely echoed comments from other participants. While we compensated for this possibility by also conducting one-on-one interviews, some caution should be taken in the interpretation of how men viewed potentially contentious ideas like STI PrEP and condom use.

Do gay and bisexual men care about STIs?

A central issue guiding this research was if gay and bisexual men care and are concerned about STIs. The simple but qualified answer is that they definitely do care about STIs but only so far as that care does not impede their sexual experiences. In New South Wales, the ease with which men reported they could access services to prevent and manage STIs played a major role in supporting their sexual health by making it a simple and normalised part of their sexual lives. Providing choice of and access to diverse STI prevention and management strategies that meet individual need and lifestyle is an essential part of good sexual health of gay and bisexual men.

6. Recommendations

Building on the findings and conclusions detailed within this report, we make the following recommendations:

1. Health organisations and sexual health providers must continue to provide information to gay and bisexual men about all STI prevention and management options available to them while not appearing to preference one over others,
2. Efforts to implement STI PrEP must work with communities of gay and bisexual men to address concerns around the over-medicalisation of safer sex and the potential for antimicrobial resistance,
3. Implementation of future public sexual health campaigns by health organisations should include an explicit plan to evaluate their impact on STI prevention and management, including as it relates to their financial cost, and
4. Guidelines for treating individuals who present as STI contacts should be reviewed and revised for consistency between and within jurisdictions as well as between the various health contexts (e.g., sexual health clinics, general practice) in which STI treatments are administered.

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9. Appendices

APPENDIX A: ONLINE FORUM TOPIC GUIDE

Topic	Post
First time	<p>The fact is that most gay men will get an STI at least once in our lives. My first STI was syphilis when I was 19 years old. I was totally freaked out, in fact. As an icebreaker, if you've had an STI why not share what one it was and when you got it.</p> <p><i>Prompts: How did you feel at the time? Have your feelings towards STIs changed since then?</i></p>
Do STIs matter?	<p>The fact is that most gay men will get an STI at least once in our lives. They're pretty common and, for the most part, can be treated easily. With this in mind, I have to ask the uncomfortable question: Do STIs actually matter?</p> <p><i>Prompt: Why or what not?</i></p>
Protecting yourself	<p>There are a number of ways that we can protect ourselves and our partners from STIs. What are the top one or two strategies that you guys use.</p> <p><i>Prompt: why?</i></p>
Health promotion	<p>These posters are part of a recent campaign aimed at raising awareness about STIs. Have you seen this or similar ads around town?</p> <p><i>Prompts: How do you react to seeing this kind of material? Do you think these ads are effective for getting you to think about STIs and sexual health?</i></p> 
Contact tracing	<p>OK, confessional time. Who here has ever received a message from a sex friend saying that they had an STI?</p> <p><i>Prompts: What did you think about the message: were you glad you received it? Scared? Annoyed? Have you ever sent a similar message yourself? How important do you think it is to notify partners of an STI?</i></p>
Doxy-PrEP	<p>POLL: Would you take before and after sex if they would protect you from STIs? [Yes; No; Maybe]</p> <p><i>Prompts: Why? In what situations might you want to take antibiotics as STI prevention? What do you think are the risks of this approach?</i></p>
HIV and STI prevention	<p>More and more guys are using PrEP, and – let's be honest – it's great. When people talk about PrEP, however, often the discussion turns to STIs.</p> <p>Guys on PrEP, are you worried about STIs at all? What kind of things do you do to prevent and manage STIs along with HIV?</p> <p>Guys not on PrEP, do you worry about sleeping with guys on PrEP? How do STIs factor into your decisions about sexual partners?</p>
The future	<p>What's next for STIs, do you think? Imagine ten years from now – do you think they will still be an issue?</p>

Appendix B: GAY AND BISEXUAL MEN INTERVIEW SCHEDULE

STI terrain	<ul style="list-style-type: none"> • How do you personally see STIs? Do you think of them as a serious health issue? Why or why not? • Do you talk about STIs with your friends? Why or why not? What kinds of things do you guys talk about? • Is there a question about STIs that you've always wanted to know the answer to? Can you talk to me about that?
STI (and HIV) prevention	<ul style="list-style-type: none"> • Can you tell about some of the strategies you have used to prevent STIs? Why/how are these useful to you? • Can you tell me about other strategies you have heard about but maybe not used to prevent STIs? • Do you see STI prevention and HIV prevention as similar strategies? Why or why not? • Where do you get information on STIs and sexual health generally? • Do you use PrEP? How do you think STIs have changed now that PrEP is so widely available?
Health promotion	<ul style="list-style-type: none"> • Health promotion is a big part of preventing and managing STIs in New South Wales. Can you recall seeing any health promotion campaigns, either online or offline in the past 6 months? Can you describe these to me? Where did you see them? What was the message? Do you think it was effective
Testing for STIs	<ul style="list-style-type: none"> • Have you ever had difficulty in accessing STI testing yourself? Can you tell me more about that? Speaking generally - do you think it is easy for gay men to access testing? Are there any barriers for gay men to access testing in NSW? If yes - can you tell me about some of these?
Contact tracing	<ul style="list-style-type: none"> • Can you tell me what you know about contact tracing? (define is needed) • Do you think most gay men are aware of contact tracing? • Have you ever been contacted by a partner who told you that you had an STI? What were your feelings in that moment? What did you do afterwards? • Have you ever contacted a partner to tell them about a positive STI test or ever been told about a positive STI test by a partner? Can you tell me about that experience?
Doxy-PrEP	<ul style="list-style-type: none"> • There has been growing attention to the use of antibiotics as prevention for some STIs. Would you be in favour of this? Why or why not?
New strategies	<ul style="list-style-type: none"> • Is there anything else that you do to prevent or manage STIs that we haven't covered here? • How commonly do condoms feature in your sex life today?

Do you have anything to add before we wrap up?

APPENDIX C: SEXUAL HEALTH STAKEHOLDER INTERVIEW SCHEDULE

Opening question: I'd like to start by talking about how you see the current state of STIs among gay men. Over the past ten years, what do you think has been the most significant change relevant to STIs among gay men?

STI terrain	<ul style="list-style-type: none"> • How do you think gay men perceive STIs? Do you think they view them as a serious health issue? Why or why not? • What do you think are the major challenges to STIs among gay men? • How do your clients/patients/participants/members talk to you about STIs? What kinds of questions do they ask or what kinds of issues do they raise? • What is one thing you think your clients/patients/participants/ members should know about STIs?
STI (and HIV) prevention	<ul style="list-style-type: none"> • Tell me a bit about what you see as the most useful STI prevention strategies? How do these align with HIV prevention? How do they differ? • In this era of PrEP and TasP, do you think it is possible for HIV and STI prevention to remain aligned? Why or why not? Are there any things you think should be done to help improve the relationship between HIV and STI prevention? • Among your clients/patients/participants/members, what do you think are the most widely used STI prevention and management strategies? What informs their popularity?
Health promotion	<ul style="list-style-type: none"> • Health promotion is a big part of preventing and managing STIs in New South Wales. Do you think it is an effective use of time and resources? Why or why not? • What do you see as the primary value of health promotion in the context of STIs? What do you see as the primary limitation? • Have your clients/patients/participants/members ever referred to a health promotion campaign? What was the campaign? What did they say about it? In what context was it discussed?
Testing for STIs	<ul style="list-style-type: none"> • In your mind, how might testing for STIs be improved in New South Wales? • Do you think it is easy for gay men to access testing? Where do you see gaps in testing accessibility for men across the state? • What do you wish more gay men knew about STI testing?
Contact tracing	<ul style="list-style-type: none"> • Do you think contact tracing as it is currently undertaken in New South Wales is effective? Why or why not? What would you change about how contact tracing is done in the state? • Do you think most gay men are aware of contact tracing? How often do you think it is undertaken by men diagnosed with an STI?
Doxy-PrEP	<ul style="list-style-type: none"> • There has been growing attention to the use of antibiotics as prophylaxis for some STIs. Would you be in favour of such an approach here in New South Wales? What do you see as the primary limitations? What about the main benefits?
New strategies	<ul style="list-style-type: none"> • Are there any other things that you think the health sector could or should be doing to help prevent and manage STIs? • Are there any other things that you think individuals could or should be doing to help prevent and manage STIs?

Do you have any last thoughts before we wrap up?