Short report

High levels of undiagnosed rectal STIs suggest that screening remains inadequate among Black gay, bisexual and other men who have sex with men

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INTRODUCTION

Despite advancements in HIV prevention, Black gay, bisexual and other men who have sex with men (BGBMSM) continue to experience a high burden of HIV in the USA. Without changes in current HIV incidence rates, it is estimated that 60% of BGBMSM will be living with HIV by the age of 40 years.1 STIs remain a strong predictor of HIV seroconversion.2 As such, the Centers for Disease Control and Prevention (CDC) recommends routine testing for STIs at each site of sexual contact every 3–6 months for sexually active MSM.

However, rectal STI screening is less frequently performed than urethral screening among MSM in community-based sexual health clinics (for both individuals living and not living with HIV in the USA).4 In prior research, providers ranged from two (18.3% urethral vs 8.5% rectal) to six times (13.8% urethral vs 2.3% rectal) more likely to perform urethral chlamydia and gonorrhoea screening as compared with rectal screening.4 Moreover, efforts to address the need for rectal STI testing have not been prioritised,5 with the first Food and Drug Administration-approved rectal STI diagnostic test not appearing until 2019.6

Though the CDC recommends testing every 3–6 months for ‘at-risk’ MSM, reliance on this directive for determining testing may also contribute to testing disparities. In particular, determining who is ‘at risk’ can be difficult for healthcare providers to assess. Healthcare providers typically use patient-reported behaviours for determining STI testing needs, such as recent acts of condomless anal intercourse (CAI) and number of sex partners.7 Given that presence of an STI is one of the most robust predictors of HIV seroconversion among MSM,8 stakeholders need to test the assumption that these behavioural risk factors are adequate markers of the need for rectal and urethral STI screening among BGBMSM. To illustrate a potential gap in the STI continuum of care, we explored data from a behavioural and testing study of BGBMSM. We tested whether behavioural risk factors were positively associated with rectal STI and HIV diagnoses to determine whether these are adequate markers to guide testing needs in the clinical setting.

METHODS

We analysed data from 331 BGBMSM from Atlanta, Georgia collected in 2017–2019. Participants were recruited from a larger longitudinal study, primarily through social media advertisements (ie, Facebook, Reddit, Snapchat, Twitter), word of mouth and geospatial networking apps (ie, Grindr, Scruff). Written informed consent was provided by participants. All participants were 18 years of age or older, assigned male sex at birth, identified as Black/African American, reported CAI in the past year, and self-reported an HIV-negative or unknown status.8

BGBMSM reported on the number of CAI acts and number of male partners in the past 3 months, sexual identity disclosure and self-reported STI diagnosis history. Lab tests to diagnose rectal and urethral chlamydia and gonorrhoea (nucleic acid amplification testing), as well as antibody testing for HIV (OraQuick ADVANCE Rapid HIV 1/2), were self-administered by the participant during a telehealth counselling session. All participants included in this study completed the STI/HIV testing and were provided their testing results—men who received positive results were actively linked to local STI no-cost or low-cost clinics.

RESULTS

The majority of the sample both reported their sexual orientation as gay (n=175 of 331; 52.9%)
and had completely disclosed their sexual orientation to others (n=196 of 331; 59.4%). Regarding patterns of screening, n=51 of 331 GBMSM (15.4%) tested positive for a previously undiagnosed rectal gonorrhoea or chlamydia infection (see table 1). Among these 51 men, just 3 (5.9%) reported symptoms over the past 3 months (eg, burning, sores, itching). Two (3.9%) reported a previous STI diagnosis in the past 3 months. Of those 51 men, just 3 (5.9%) reported symptoms over the past 3 months (eg, burning, sores, itching). Two (3.9%) reported a previous STI diagnosis in the past 3 months (eg, burning, sores, itching). Two (3.9%) reported a previous STI diagnosis in the past 3 months (eg, burning, sores, itching).

**DISCUSSION**

Given the high percentage of asymptomatic participants testing positive for a previously undiagnosed rectal STI and HIV, respectively, our data demonstrate a need to increase both HIV and (particularly rectal) STI testing among GBMSM—the group at the highest risk of HIV in the USA. Absence of STI symptoms leads to less testing, more undiagnosed STIs and subsequently to onward transmission of these infections, increasing HIV susceptibility. Our findings extend previous research by highlighting that for some GBMSM, known behavioural risk factors were not associated with rectal STI diagnosis. Notably, nearly half of the GBMSM in this study who were lab-tested positive for chlamydia and/or gonorrhoea had attended a physical examination visit with their primary physician within the past year; in the USA, these physicians have the capacity to screen for HIV and STIs. Even though CDC guidelines for STI/HIV testing are available for providers caring for GBMSM, there is likely a vast deficit between recommendation and practice. The degree to which sexual health is included in routine examinations in the USA and across the world may vary widely, such that we are unsure whether or not providers assess sexual health histories in the same ways globally—this serves as a limitation in the utility of not taking a holistic approach to STI and HIV prevention. Nonetheless, a shift in expectations and demands when providing medical care for MSM is needed if we are to continue slowing the HIV epidemic.

Within clinical consultations, self-reporting of CAI and number of sex partners are important indicators for STI screening, but disclosure of these behaviours assumes patients are comfortable sharing their sexual orientation and/or sexual behaviours therein. This potential concern about disclosure is further complicated when participants visit clinics or physicians who are not trained in lesbian, gay, bisexual, transgender and queer (LGBTQ)-specific healthcare. Even when patients do disclose, our data show that commonly assessed sexual risk behaviours may not be predictive of rectal STIs and HIV among some GBMSM. That is, contrary
to current STI screening guidelines, perceived high-risk sexual behaviours were not associated with lab-diagnosed STIs or HIV.

Under current health screening practices, STI asymptomatic BGBMSM—especially those concerned about disclosure of their sexual orientation/sexual history—would likely remain undiagnosed and untreated for rectal chlamydia and/or gonorrhoea. For these men, the absence of routine rectal STI tests may have increased both their risks for onward STI transmission and subsequent HIV seroconversion. In addition to an absence of STI/HIV testing, other impediments (eg, unwelcoming healthcare facilities for LGBTQ individuals) may have existed for these men—future research should examine key barriers and facilitators of STI testing for BGBMSM. Increased HIV susceptibility and transmission due to undiagnosed asymptomatic rectal STI is preventable with routine multisite STI screening.

We did not assess for STI testing history in this study, so we are unable to ascertain whether the lab-diagnosed rectal STIs were acquired recently or were longstanding. Future research should carefully measure testing histories and behaviours to accurately distinguish the temporality of STI in relation to healthcare screening and sexual behaviours.

CONCLUSIONS
The current healthcare infrastructure related to STI screening in the USA is not meeting the needs of BGBMSM; consequently, without considerable change to the status quo, HIV transmission will continue. Though disparities in rectal STI screening have been documented, it may be necessary to implement rectal STI screening as standard care practice for BGBMSM. To address the gap between the CDC STI testing recommendations versus the observed suboptimal levels of STI testing among BGBMSM, we need a medical cultural shift in expectations by both the healthcare system and patients that results in rectal STI testing being consistently delivered.

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Key messages
- We find high levels of undiagnosed rectal STIs among Black gay and bisexual men who have sex with men (BGBMSM)—those at the highest risk of HIV.
- Despite their use within clinical assessments, neither condomless anal sex nor numbers of male sex partners in the last 3 months predicted rectal STI or HIV diagnoses among BGBMSM.
- Current testing practices in STI clinics and at preventive health visits need to systematically include rectal STI screening for BGBMSM to impact the undiagnosed STI and HIV epidemic for this group.

REFERENCES
5 Lutz AR. Screening for asymptomatic extragenital gonorrhea and Chlamydia in men who have sex with men: significance, recommendations, and options for overcoming barriers to testing. LGBT Health 2015;2:27–34.