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NOTES FROM THE FIELD

How to Have Sex in an Epidemic Redux: Reinforcing HIV Prevention in the COVID-19 Pandemic

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Sexual health is a fundamental determinant of health and wellbeing [1]. All persons—including gay, bisexual, and other men who have sex with men (GBMSM)—have the right to enjoy a safe and pleasurable sexual life with access to comprehensive information, affirmative care, and an enabling legal and sociopolitical environment [1]. The COVID-19 pandemic threatens to disrupt HIV programs and global progress toward UNAIDS 90–90-90 targets [2, 3]. The unprecedented repurposing of health services and resources to address COVID-19, along with necessary restrictive public health measures [4], present a spectrum of psychological, sociocultural, structural, and biomedical concerns for sexual health and HIV prevention [5]. In this *Note*, we draw on lessons learned from four decades of the HIV response with GBMSM communities, and our respective programs of research, to advocate carefully recalibrated, community-engaged approaches to reinforcing HIV prevention in the COVID-19 pandemic.

Sex and Risk in a Pandemic

Sex in a pandemic is complicated. Key considerations for "safer sex" must address the immediate risks of new coronavirus (SARS-CoV-2) transmission and potential exacerbation of risks for HIV transmission. Sexual transmission of HIV, especially among GBMSM, remains the leading driver of the AIDS epidemic [6]. The integral role of sexual health in many people's lives, and its sociocultural and political ramifications for GBMSM and people living with HIV (PLHIV), suggests it is implausible to expect sexual contacts to cease for months or years in response to social distancing and stay-at-home guidelines [7] while awaiting new vaccines and therapeutics [4].

Among the core lessons to emerge from the HIV response is the failure of sex-negative, stigmatizing, and ideologically driven approaches that defy science (e.g., abstinence-based interventions) [8, 9]. SARS-CoV-2 presents very different transmission and infection risks than HIV; nevertheless, unilateral proscriptions around sex fail to capture the complexity of many GBMSM's sexual lives. They also reflect a concerning disconnection from the sociocultural meanings of sex for a community that has successfully struggled against more than a century of criminalization and repression. The burden of recommendations not to have sex with anyone outside of one's household, and unilateral advice to avoid new partners, are not equally distributed in the context of state-sanctioned heterosexuality and the rights it confers in many parts of the world. In many countries, GBMSM are fighting for their very right to exist. Calls to shut down sexual network apps used by GBMSM in the context of the COVID-19 pandemic fail to account for their role in promoting health and social support [10].

Fundamental Considerations for HIV Prevention in the COVID-19 Pandemic

Immediately following the first author's December 2019 report on a UNICEF-sponsored study of social and structural challenges for HIV prevention among adolescent and young key populations in Southeast Asia [11], the study sponsor and our main partner (Interagency Task Team on Young Key Populations) conducted a rapid survey with 113 respondents aged 18–29 years [12]. Half were MSM, 10% transgender people, and half PLHIV. In addition to challenges in accessing food supplies (46%) and loss of income/employment due to pandemic lockdowns (46%), participants reported

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disruptions in accessing condoms (27%), HIV testing (26%), and PrEP (14%). While 80% reported receiving COVID-19 information, over two-thirds (68%) indicated lack of information about measures for PLHIV. Among the 51% (58/113) on antiretroviral medication (ARV), 22% reported one-week or less and 29% a one-month supply; nearly all were unaware if they could access a multi-month prescription [12].

Combination HIV prevention [13, 14] in the new pandemic must expand not only to address COVID-19, but to foreground social determinants of health (SDOH), including intersectional discrimination and syndemic burden among GBMSM that produce disparities across HIV prevention and care cascades [15–20]. Pandemic burden is likely to be worsened for GBMSM across intersections of race/ethnicity [16, 21], age [22–24], and immigrant/refugee status [25, 26]. In low- and middle-income countries (LMIC), existing vulnerabilities among GBMSM—as evidenced in our syndemic research on HIV risk in India [27, 28]—are intensified in the pandemic amid overwhelmed healthcare systems [29, 30]. Finally, lack of human rights protections, including in the U.S., more so in 70 + countries that criminalize same-sex sexual behavior, fuel unstable housing, low-wage employment, barriers in healthcare access, and violence victimization [31, 32], which exacerbate vulnerability in the pandemic and across HIV prevention and care continua [33, 34].

Revisiting the HIV Prevention Cascade

The COVID-19 pandemic poses considerable threats across the HIV prevention cascade [20]. First, HIV testing motivations and access may be reduced by stay-at-home and physical distancing directives, travel restrictions, perceived risks of SARS-CoV-2 transmission in medical facilities, and clinic repurposing. We anticipate that GBMSM will negotiate sex based on perceived HIV *and* COVID-19 risks (e.g., only having sex with partners who have been distancing and are assumed to not have been exposed to either). HIV testing may become further stigmatized, including by GBMSM and healthcare providers, due to judgments about the profligacy of (same-sex) sexual activity in the pandemic. However, this ignores different living configurations, sexual cultures and meanings that form an essential context for understanding sexual activity among GBMSM; it also elides situations in which sex is for survival (e.g., sex workers [35, 36]) and nonconsensual (including between people who share a residence) [37]. HIV testing remains a cornerstone of prevention, facilitating access to counselors and providers who can promote behavioral risk reduction strategies. Despite recent investments and positive messaging around HIV testing (fast, easy, and accessible) highlighted in the context of PrEP, testing remains a complex process for many GBMSM in the U.S [38]. and globally [39–42]. This is particularly the case for those whose sexual practices are stigmatized—such as GBMSM who combine sex and drugs [39, 40], and as evidenced in our research with young GBMSM [11], including sex workers, in India [41] and Thailand [42]—and amid structural barriers that limit access to testing [11, 38, 41].

Second, absent HIV testing and diagnosis, GBMSM cannot be provided relevant risk information about HIV and COVID-19 in their communities. HIV testing also serves as a critical conduit for PrEP, or ARV initiation for those who test HIV positive [14, 20]. In contrast to the limitations of abstinence models, including in a pandemic, interventions that promote sexual decision-making and risk reduction strategies are paramount. Beyond the question around why anyone would seek out sex in a pandemic lurks its corollary: "why would anyone want to initiate PrEP in a pandemic?" Yet, this is contrary to the realities of worsening SDOH in the pandemic, which may increase risks for HIV transmission—and the need for PrEP [37]. PrEP access and initiation challenges persist based on insurance status [43], geography and racial disparities [44, 45]. In our 2016 study with GBMSM in Toronto, lack of insurance coverage and pervasive stigma within and outside gay communities were key barriers to PrEP uptake [43]; both are likely to worsen with the economic and social impacts of COVID-19.

Third, the current disruption to health systems and daily life may impact many GBMSM's PrEP adherence, and clinical monitoring. The slow roll-out of PrEP, especially for racialized GBMSM [45] and those in LMIC, is further threatened by potential ARV stock-outs [46] that may aggravate tensions in the context of resource (and ideological) constraints that pit prevention against treatment. Moreover, COVID-19 raises questions about what 'safer sex' means in the era of successful combination prevention, including PrEP and U = U (Undetectable = Unstransmittable) [47]. Earlier discussions about 'going back' to condoms if PrEP should fail to deliver may need to be revisited in the context of global treatment disruptions and condom shortages due to the pandemic [46, 48, 49].

Finally, beyond challenges *along* the prevention cascade, limitations of the cascade model itself may need to be re-evaluated. In addition to critiques of what is sometimes approached as a 'one-size-fits-all' model predicated on linear steps, with all roads leading to PrEP [43], adherence may be threatened by supply chain disruptions, constrained clinic access, and lockdowns in response to COVID-19 [12, 46]. Pandemic stress [18, 50] in the absence of psychosocial support and health promotion programs may further threaten PrEP adherence. Some GBMSM may decide to discontinue PrEP due to reduced sexual activity or increased challenges and risks in using PrEP in the pandemic (e.g., attending clinics for required bloodwork). Providers need to be supported by clinical practice guidelines and health insurance companies to respond to these realities by making accommodations

where possible (e.g., negotiating monitoring requirements, providing longer-term prescriptions) [3, 18] and, importantly, maintaining open lines of communication.

Research Directions

Rapid research, including mixed methods and collaborative approaches, with diverse GBMSM is needed to understand sexual health and broader mental health amidst COVID-19 [3, 7, 18]. The impact of public health-recommended behavioral changes (physical distancing, stay-at-home), curfews and border lockdowns, and community closures (LGBT + community centers and bars) are crucial topics for inquiry. Investigations should further address the impact of emergency changes in the availability and provision of sexual health screening, access to medication for treatment and prevention, and disruptions across HIV prevention and care continua [3, 7, 47]. The pandemic also demands rapid implementation science approaches to translate innovations in HIV prevention and sexual eHealth services into routine practice—remote HIV and sexual health counseling and home HIV/STI testing [51, 52], and virtual PrEP prescribing, monitoring, and adherence support [53]—along with accelerated research on long-acting injectable PrEP [54, 55]. Structural interventions, such as guaranteed income and healthcare coverage, may decrease reliance on survival sex and ensure PrEP affordability. However, public health interventions are not neutral, and engagement with diverse GBMSM communities is necessary to support acceptability and uptake [56–58].

Conclusion: Community Mobilization and Survival

Marginalized communities tend to experience lack of confidence and mistrust in the face of public health responses developed without community representation, fueled by ongoing disparities in healthcare access in the absence of human rights protections [32, 59, 60]. Lessons learned from successful HIV behavioral and policy responses [61–63] indicate that community-engaged [64, 65], strengths-based [66], and positive psychology approaches [67] that promote solidarity and pride [33, 34] may be most effective in reenergizing HIV prevention—as a basic human right and a strategy for community survival. Community mobilization that builds on individual and community strengths among GBMSM and PLHIV in response to emergent challenges for HIV prevention [68] can best promote health in the context of COVID-19 and preparedness for future pandemics.

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Compliance with Ethical Standards

Conflict of interest The authors have no conflicts of interest to declare.

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