



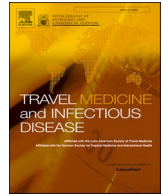
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Contents lists available at ScienceDirect

Travel Medicine and Infectious Disease

journal homepage: www.elsevier.com/locate/tmaid

Monkeypox and transgender women: The need for a global initiative

ARTICLE INFO

Keywords

Monkeypox virus
Transgender women
Sexual behavior
HIV

Dear Editor:

We would like to highlight the importance of addressing the data gap on monkeypox among travestis and transgender women (TGW) as this viral disease might add to the social vulnerabilities and stigma faced by these populations. We conducted a search in Pubmed for articles containing “monkeypox” AND “transgender” published by October 3, 2022 that revealed only two articles: one was a case report of a transgender woman coinfecting with neurosyphilis, HIV and monkeypox published in this journal on September 2022 [1]. The second one reported an electronic survey to assess monkeypox exposure mitigation strategies employed by gay, bisexual and other men who have sex with men (MSM) and TGW in the United States [2].

From the case series published so far, just a few describe disaggregated data by gender identity. A Spanish cohort of 185 participants registered no monkeypox cases among TGW [3]. Official data from the United States' Center of Diseases Control showed that TGW represented less than 1% of monkeypox cases identified in the United States [4].

In Rio de Janeiro, Southeast Brazil, the Instituto Nacional de Infecç o Evandro Chagas (INI-Fiocruz) is a major referral center for monkeypox diagnostics and care. INI-Fiocruz diagnosed the first monkeypox case in Rio de Janeiro State on June 14, 2022 [5]. INI-Fiocruz has established a solid relationship with TGW communities, providing a suite of comprehensive wellness and care options, including specialized services, such as sexual health, endocrinology, HIV prevention and care, and mental health [6]. In addition, we offer social services, such as name rectification and civil requalification at a mobile unit (through an established partnership with the Rio de Janeiro state court), continuous cash provision benefit, free transportation pass, as well as an art-focused program that includes risk reduction workshops, theater and movies sections, and participation in community movements and activities.

Between April 1 and September 9, 2022, 358 (26.0%) of 1379 individuals tested for HIV at our service self-identified as TGW. Almost all of them (357/358, 99.7%) reported sexual contact with cisgender men in the previous 6 months; median number of sexual contacts was 3 (IQR:1,11) and 31% reported a considerable high number of sexual contacts (26.6% between 10 and 100 and 4.3% more than 100 sexual contacts) (Table 1). Since June 12, 2022, the number of monkeypox cases has been sharply increasing in Brazil, with the country ranking

second globally on October 3, 2022. Although TGW are highly vulnerable for HIV and other sexually transmitted infections (STI), the number of TGW with monkeypox diagnosis in our cohort was very low. As of October 8, 2022, among 340 individuals with confirmed monkeypox only two were TGW (0.6%). These disparities could be explained by distinct sexual networks across populations without shared transmission so far, similarly to described for HIV transmission patterns among TGW, their sexual partners, and MSM [7].

The lack of information on gender identity has always limited the availability of data on trans populations. Recent important efforts to produce disaggregated HIV prevention and care data have also focused on conducting studies and generating data on trans populations. Dissemination of further reliable data showing the real impact of different health conditions among TGW is important toward understanding the real burden of monkeypox on TGW, so that friendly and proper services can be organized and provided in a timely manner.

In this sense, health services must provide a comprehensive sexual assessment, including gender-diverse populations. In addition, most vulnerable people, including TGW, might face different barriers not only to access the health system in general, but also to guarantee financial conditions to permit home isolation in the context of monkeypox. As we learned from the experience with COVID-19, we also outline the importance of structuring public policies to address the hurdles that the most vulnerable face to guarantee adequate conditions for home isolation and financial and food security. Therefore, we call for an initiative to promote worldwide research and to report monkeypox data disaggregated by gender identity. This will inform health services and public health programs, which will be able to tailor interventions and structure adequate responses based on community engagement and stigma-free strategies to tackle this infectious emergence.

Funding

This research did not receive any specific grant from funding agencies. BG and TST are funded by the National Council of Technological and Scientific Development (CNPq) and Carlos Chagas Filho Foundation for Research Support in the State of Rio de Janeiro (FAPERJ).

<https://doi.org/10.1016/j.tmaid.2022.102479>

Received 5 October 2022; Accepted 12 October 2022

Available online 17 October 2022

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Table 1
Sexual behavior among TGW tested for HIV at INI-Fiocruz, Rio de Janeiro, Brazil (April to September, 2022).

	n/N (%)
Gender of sexual contacts in the previous 6 months^a	
Cisgender men	357/358 (99.7)
Cisgender women	19/358 (5.3)
Transgender men	15/358 (4.2)
Transgender women	13/358 (3.6)
Number of sexual contacts in the previous 6 months^b	
0	25/323 (7.7)
1	79/323 (24.5)
2–9	119/323 (36.8)
10–100	86/323 (26.6)
>100	14/323 (4.3)
<i>Median (IQR)</i>	3 (1,11)

^a N = 353 individuals were tested for HIV at Instituto Nacional de Infectologia Evandro Chagas (INI-Fiocruz).

^b N = 323 reported on number of sexual contacts in the previous six months.

Author's contributions

We consider that all authors equally contributed on this manuscript.

Declaration of competing interest

Nothing to declare.

References

- [1] Gandrakota N, Lee H, Nwosu O, Kulshreshtha A. Monkeypox coinfection with neurosyphilis in a transgender with HIV in Atlanta, USA. *Trav Med Infect Dis* 2022; 50:102454. <https://doi.org/10.1016/j.tmaid.2022.102454>.
- [2] Hubach RD, Owens C. Findings on the monkeypox exposure mitigation strategies employed by men who have sex with men and transgender women in the United States. *Arch Sex Behav* 2022. <https://doi.org/10.1007/s10508-022-02423-3>.
- [3] Català A, Clavo Escribano P, Riera J, Martín-Ezquerria G, Fernandez-Gonzalez P, Revelles Peñas L, et al. Monkeypox outbreak in Spain: clinical and epidemiological findings in a prospective cross-sectional study of 185 cases. *Br J Dermatol* 2022. <https://doi.org/10.1111/bjd.21790>. bjd.21790.
- [4] Philpott D, Hughes CM, Alroy KA, Kerins JL, Pavlick J, Asbel L, et al. Epidemiologic and clinical characteristics of monkeypox cases — United States, May 17–July 22, 2022. *MMWR Morb Mortal Wkly Rep* 2022;71:1018–22. <https://doi.org/10.15585/mmwr.mm7132e3>.
- [5] Silva MST, Coutinho C, Torres TS, Peixoto EM, Ismerio R, Lessa F, et al. Socio-demographic, Clinical and Laboratorial Characteristics of Ambulatory and Hospitalized Patients with Suspected and Confirmed Monkeypox Virus Infection: An Observational Cohort Study from Brazil 2022. <https://doi.org/10.2139/ssrn.4216694>.
- [6] Ferreira ACG, Coelho LE, Jalil EM, Luz PM, Friedman RK, Guimarães MRC, et al. Transcendendo: a cohort study of HIV-infected and uninfected transgender women in Rio de Janeiro, Brazil. *Transgend Health* 2019;4:107–17. <https://doi.org/10.1089/trgh.2018.0063>.
- [7] Long JE, Tordoff DM, Reisner SL, Dasgupta S, Mayer KH, Mullins JI, et al. HIV transmission patterns among transgender women, their cisgender male partners, and cisgender MSM in Lima, Peru: a molecular epidemiologic and phylodynamic analysis. *The Lancet Regional Health - Americas* 2022;6:100121. <https://doi.org/10.1016/j.lana.2021.100121>.

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