

Programmatic mapping of virtual platforms and size estimation of online men who have sex with men in Delhi, India

Carl Boodman^{1,2*}, Shajy Isac^{3,4*}, Purnima Parmar⁴, Parveen Kumar⁵,
Shishram Ola⁴, J K. Mishra⁵, Marissa Becker^{2,3,6}

1. Section of Infectious Diseases, Department of Internal Medicine, Max Rady College of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada

2. Department of Medical Microbiology and Infectious Diseases, Max Rady College of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada

3. Department of Community Health Sciences, Max Rady College of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada

4. India Health Action Trust, New Delhi, India

5. Delhi State AIDS Control Society, New Delhi, India

6. Centre for Global Public Health, Max Rady College of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada

*Indicates shared first authorship.

Introduction:

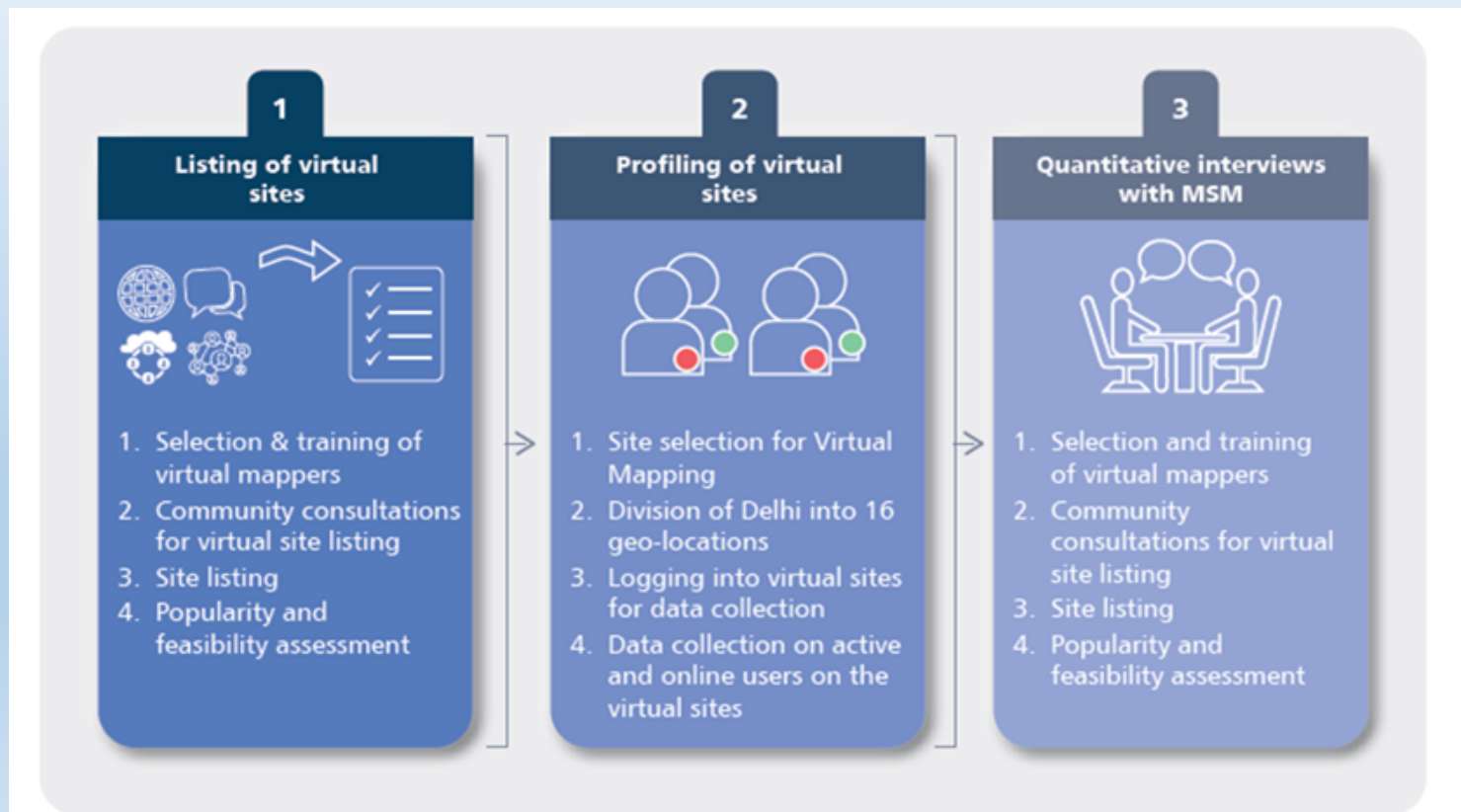
In India, Key Populations (KPs), such as men who have sex with men (MSM), bear a disproportionate burden of HIV disease. Conventional targeted intervention programs (TI) mitigate HIV transmission by focusing on engaging MSM and delivering services in physical locations. As solicitation behavior within India's MSM community shifts online, novel approaches are needed to map virtual platforms where sexual networks are formed.

Objectives:

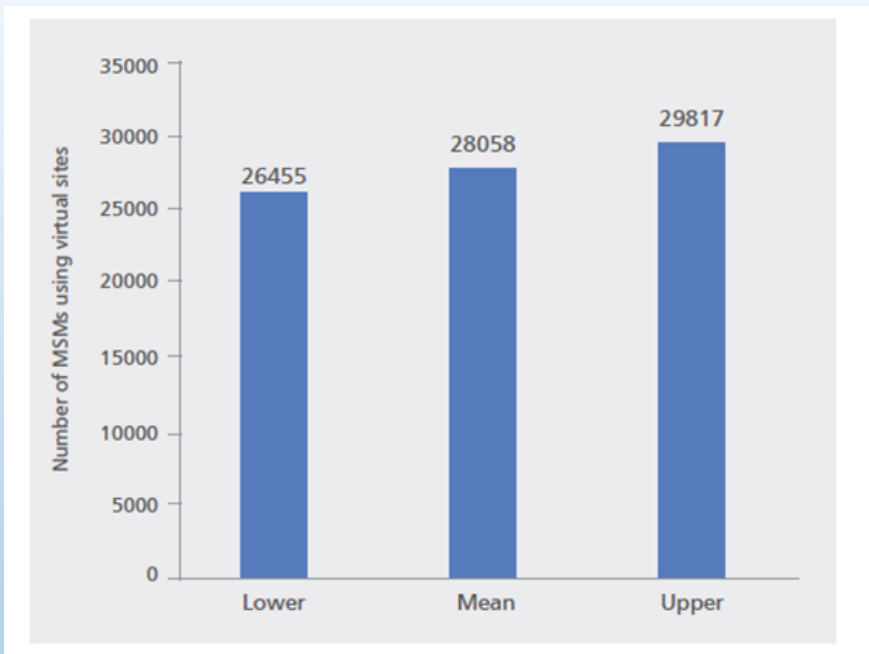
To estimate the number of MSM in Delhi using virtual platforms to meet sex partners and to characterize the platforms.

Methodology:

This study was conducted in all eleven districts of Delhi in 2020. The study population included consenting MSM, over 18 years of age, who used virtual platforms to meet sex partners. A list of virtual platforms was established with community consultations, including organizations working on HIV Prevention for MSM. Size estimation was carried out by counting the number of active online users with adjustments for duplication. 565 individuals consented to structured interviews .

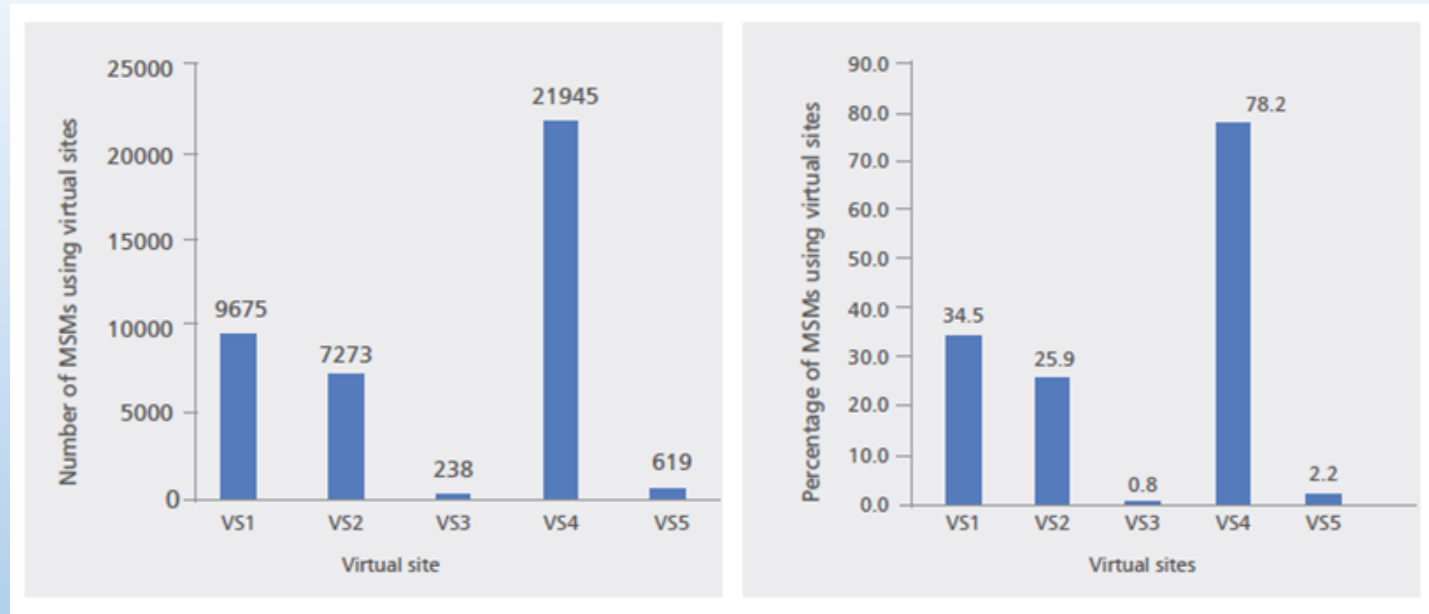


Results: Estimates of MSM using virtual sites and popularity of different virtual sites



Numerical estimates of MSM using virtual sites for connecting with sexual partners.

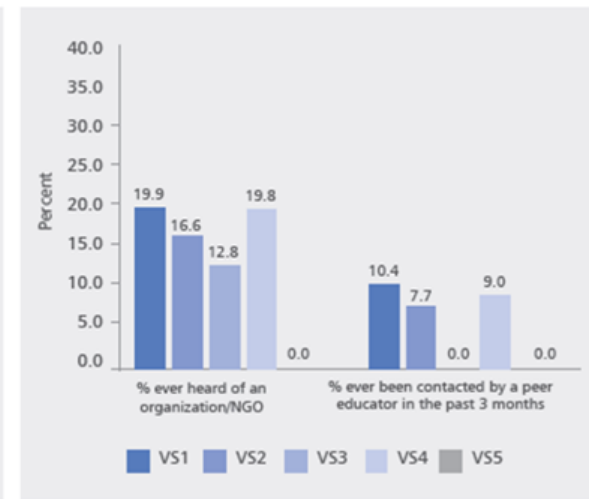
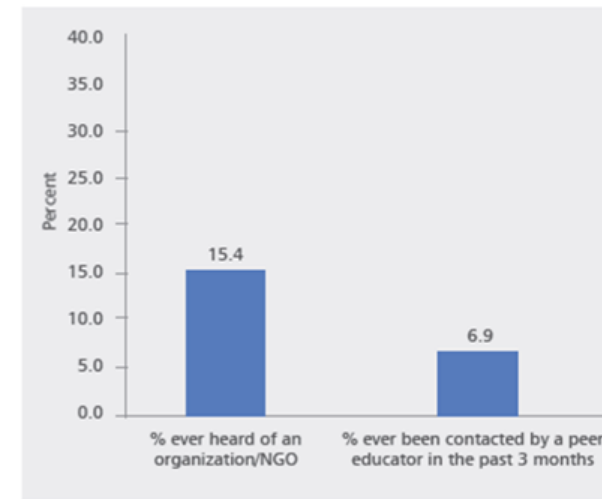
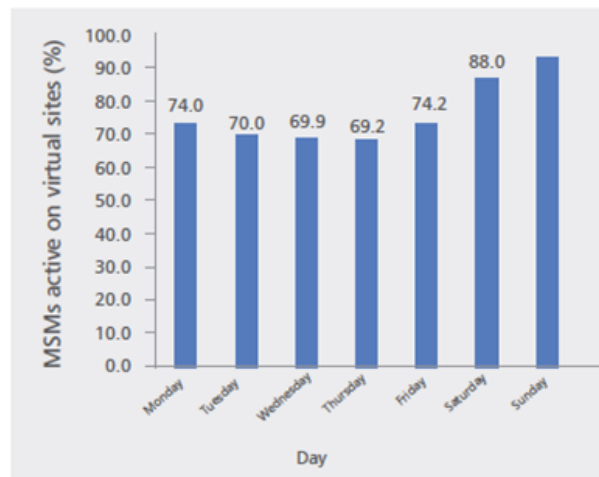
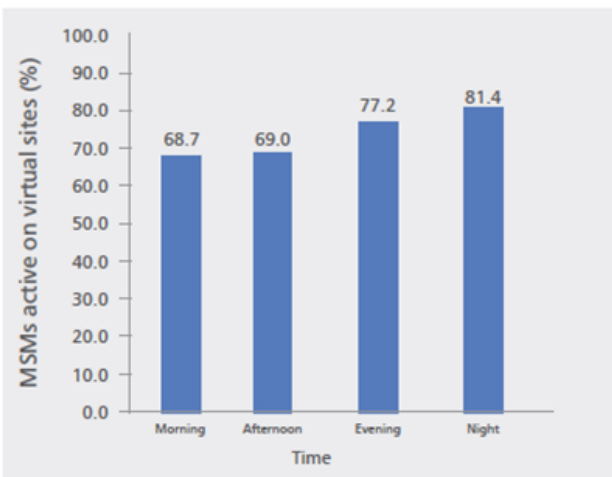
- 28,058 MSM (range 26,000 to 30,000) use virtual sites to find sexual partners.



Number and percentage of MSM using different virtual platforms

- We identified 14 virtual sites, 19 social networking pages and 112 messenger groups, all exclusively for MSM.
- 5 virtual platforms met feasibility criteria for virtual mapping

Results: Temporal distribution of site use and participant knowledge and engagement with HIV prevention and treatment services



Temporal distribution of MSM using virtual sites by time of day and day of the week: platforms were most active at night (81%) and on Sundays (94%).

16% participants were aware of organizations providing HIV services and 7% were contacted by peer educators in the preceding three months. 42% visited a physical location for solicitation in the month prior to the study.

Conclusions:

- 1) Targeted intervention programs that focus on physical hotspots do not reach the majority of MSM who use virtual platforms for sexual solicitation.
- 2) MSM active on virtual platforms have a low awareness of HIV services.
- 3) Virtual mapping must be incorporated into current public health interventions to reach MSM unreached by traditional programs.