Background

- Despite the high HIV burden faced by women in sex work, data on sex workers’ (SWs) access and retention in antiretroviral therapy (ART) are limited, with most studies focused on clinical/behavioral determinants.
- Using an innovative spatial approach, we mapped the criminalization of sex work and explored its independent effects (e.g., client violence, policing, legal restrictions) on HIV treatment interruptions (i.e., ≥2 day ART interruptions) among women sex workers (SWs) living in HIV in Metropolitan Vancouver, BC, over a 3.5-year period.

Methods

- Data were drawn from a prospective community-based cohort (An Evaluation of Sex Workers’ Health Access, 2010-13), including baseline and semi-annual interview questionnaires and mapping data.
  - Interviewer, outreach, and nursing staff include experimental staff (see workers) and individuals with sex work community support experience.
  - AESHA is guided by a Community Advisory Board of >15 organizations.
- Through informed consent, we also drew on linked data on ART dispensation from the BC Centre for Excellence Drug Treatment Program.
- Using GIS mapping and multivariable logistic regression with generalized estimating equations (GEE), we examined the confounding effects of spatial density of criminalization within a buffer of a woman’s place of residence on treatment interruptions (time-updated variable of no ART dispensed for ≥2 consecutive days at each semi-annual visit) among women living with HIV who had previously used ART.
- Using the kernel density function, spatial criminalization variables were created from the locations of reported police harassment, physical dislocation due to policing, and “red zone”/legal restrictions on working locations. Data for place of residence was laid over this surface and a 250-meter buffer was created around each location. For each participant, spatial criminalization variables were measured as the density of reported events within a 250-meter buffer of each participant’s residential location.

Results

- 68 women who were HIV-seropositive, used ART, and who identified a valid location for their place of residence were included in the analysis.
- Among 96 participants, there were 208 observations and 83 events of ≥2-day ART interruptions over the 3.5-year study period. At baseline, 32 participants (48.5%) had experienced at least one treatment interruption in the prior six months, and over the entire study period, 44 participants (66.7%) experienced at least one ART interruption.

Conclusions

- Spatial criminalization (e.g., policing, legal restrictions) within SWs’ neighborhood environments may undermine sustained use and retention in HIV treatment.
- These findings contribute to a body of global evidence highlighting the ways in which laws and policies that criminalize aspects of sex work and their enforcement undermine sex workers’ access to health and human rights, including retention in HIV treatment.
- Programmes facilitating access to safer living and working spaces for women living with HIV/AIDS should be explored as potential intervention strategies, alongside critically-needed policy reforms.

Acknowledgements

We thank all those who contributed their time and expertise to this project, including participants, partner agencies and the AESHA Community Advisory Board. This research was supported by operating grants from the US National Institutes of Health (RO1DA028640) and Canadian Institutes of Health Research (H868833). We have no conflicts of interest to declare.