

Need for robust and inclusive public health ethics review of the monitoring of HIV phylogenetic clusters for HIV prevention

The near real-time monitoring of HIV transmission hotspots with HIV genotype data described by Art Poon and colleagues¹ is a powerful and promising public health approach to reduce transmission. As acknowledged by the authors, these data cannot directly identify transmission events, and safeguards were instituted to ensure that interventions targeted clusters, not individuals. However, as molecular techniques such as next-generation sequencing yield increased certainty in detecting transmissions between individuals and become more widely available, the ethical implications of this change in public health surveillance assume even greater importance.² Potential harms need to be identified and carefully mitigated, particularly the noted potential for misuse of data in criminal cases of HIV non-disclosure in Canada and worldwide.³ Justification for use of individuals' private clinical data also requires that substantial public benefits are clear.⁴

Applications of this technology should include full transparency about the implications of surveillance, accountabilities and safeguards at involved agencies, as well as early public engagement and the meaningful involvement of people living with HIV.⁵ As fear of criminalisation and other harms could result in individuals withdrawing from valuable studies and treatment databases—or even from testing and treatment—appropriate policy and technical safeguards are needed to mitigate the likelihood of this occurring in future applications. Given the continued social stigma and dangerous legal environments that

negatively affect many people living with HIV worldwide, a robust and inclusive public health ethics review of the use of HIV phylogenetic data for HIV surveillance and intervention is urgently needed.

We declare no competing interests. All authors contributed to the writing of this Correspondence.

Mark Gilbert, Luke Swenson,
David Unger, Ayden Scheim,
Daniel Grace
mgilbert@ohntn.on.ca

Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada (MG, DG); Faculty of Medicine, University of Toronto, Toronto, ON, Canada (LS); Providence Health Care, Vancouver, BC, Canada (DU); and Epidemiology and Biostatistics, Schulich School of Medicine and Dentistry, Western University, London, ON, Canada, (AS)

- 1 Poon AFY, Gustafson R, Daly P, et al. Near real-time monitoring of HIV transmission hotspots from routine HIV genotyping: an implementation case study. *Lancet HIV* 2016; **3**: e231–38.
- 2 Brooks JI, Sandstrom PA. The power and pitfalls of HIV phylogenetics in public health. *Can J Public Health* 2013; **104**: e348–50.
- 3 Loutfy M, Tyndall M, Baril JG, Montaner JS, Kaul R, Hankins C. Canadian consensus statement on HIV and its transmission in the context of criminal law. *Can J Infect Dis Med Microbiol* 2014; **25**: 135–40.
- 4 Lee LM, Heilig CM, White A. Ethical justification for conducting public health surveillance without patient consent. *Am J Public Health* 2012; **102**: 38–44.
- 5 Sweeney P, Gardner LI, Buchacz K, et al. Shifting the paradigm: using HIV surveillance data as a foundation for improving HIV care and preventing HIV infection. *Milbank Q* 2013; **91**: 558–603.

Legal impediments to prevention

The recent modelling study by Jennifer Smith and colleagues¹ argues for the scaling up of prevention interventions. However, data and assumptions on which the study is based do not consider how laws and their enforcement impede access.¹

The study draws on service coverage data among South African sex workers, but does not mention that sex work is criminalised there. Use of condoms as evidence by South African police impedes uptake of prevention services.² Modelling has

suggested that decriminalisation of sex work could avert 33–46% of HIV infections worldwide.³ In Nigeria, another context on which the study draws, legislation criminalising same-sex sexuality resulted in increased avoidance of health care among men who have sex with men.⁴

The modelling of prevention scale-up without addressing the legal environment omits a crucial part of the picture.

I declare no competing interests.

Sara L M Davis
sld387@nyu.edu

New York University Center for Human Rights and Global Justice, New York, NY, USA

- 1 Smith JA, Anderson SJ, Harris KL, et al. Maximising HIV prevention by balancing the opportunities of today with the promises of tomorrow: a modelling study. *Lancet HIV* 2016; **3**: e289–96.
- 2 Open Society Foundation. Criminalizing condoms: How policing practices put sex workers and HIV services at risk in Kenya, Namibia, Russia, South Africa, the United States and Zimbabwe. New York: 2012. <https://www.opensocietyfoundations.org/reports/criminalizing-condoms> (accessed Aug 29, 2016).
- 3 Shannon K, Strathdee SA, Goldenberg SM, et al. Global epidemiology of HIV among female sex workers: influence of structural determinants. *Lancet* 2014; **385**: 55–71.
- 4 Schwartz SR, Nowak RG, Orazulike I, et al. The immediate effect of the Same-Sex Marriage Prohibition Act on stigma, discrimination, and engagement on HIV prevention and treatment services in men who have sex with men in Nigeria: analysis of prospective data from the TRUST cohort. *Lancet HIV* 2015; **2**: e299–306.

From sharing needles to unprotected sex: a new wave of HIV infections in Iran?

HIV continues to affect millions of people worldwide and most people living with the infection are from low-income and middle-income countries.¹ In Iran, as in other Asian countries, the number of people living with HIV and being diagnosed with HIV/AIDS has been steadily increasing.² HIV was first identified in Iran in a 6-year-old boy with haemophilia, and transmission