

Changes in HIV-positive men's relationships in the biomedical prevention era: An analysis of Australian behavioural surveillance data, 2014-2019

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Background:

The vast majority of HIV-positive gay and bisexual men (GBM) in Australia have undetectable viral loads (UVL), posing no risk of onward HIV transmission. Increased uptake of pre-exposure prophylaxis (PrEP) has further reduced HIV acquisition risk for HIV-negative GBM. We investigated whether increased use of biomedical prevention was associated with changes in HIV-positive men's relationships and sexual practices.

Methods:

National data from the Gay Community Periodic Surveys were included. We analysed the trends (multivariable logistic regression) and characteristics of HIV-positive participants' serodiscordant versus seroconcordant partnerships (binary logistic regression).

Results:

During 2014-19, 4,388 surveys were completed by HIV-positive GBM (8.6% of the whole sample). The proportion receiving antiretroviral therapy (ART) increased from 85.3% to 95.5% (aOR=1.21, $p<.001$). Serodiscordant relationships were reported by 48.6% of HIV-positive GBM in relationships in 2014 and 57.4% in 2019 (aOR=1.07, $p=.280$). Agreements that required condoms to be used within relationships became less common (20.7% to 8.1%, aOR=.83, $p<.001$). Condomless anal intercourse (CAI) became more common in serodiscordant regular relationships (49.4% to 68.1%, aOR=1.12, $p=.045$), and in 2019, 43.7% of HIV-positive GBM with serodiscordant regular partners reported that those partners were taking PrEP. CAI also became more common with casual partners (from 41.5% to 62.1%, aOR=1.15, $p=.002$). HIV-positive GBM in serodiscordant and seroconcordant relationships generally reported similar characteristics, although men in serodiscordant relationships were more likely to have been together for less than two years (aOR=.33, $p<.001$).

Conclusion:

As ART and UVL have increased among HIV-positive GBM, and PrEP uptake has increased among HIV-negative GBM in Australia, HIV-positive GBM have become more likely to engage in CAI with serodiscordant regular partners and with any casual partners. Increased reliance on biomedical HIV prevention strategies has coincided with HIV-positive GBM reporting more diverse relationship experiences and sexual practices.

Disclosure of Interest Statement:

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