

COMMUNITY-LEVEL CHANGE IN CONDOM USE ASSOCIATED WITH HIV PRE-EXPOSURE PROPHYLAXIS BY GAY AND BISEXUAL MEN IN MELBOURNE AND SYDNEY, 2013-17

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Background: Pre-exposure prophylaxis (PrEP) is increasingly being used in Victoria and New South Wales. We modified behavioural surveillance of gay and bisexual men (GBM) to track the uptake and impact of PrEP, particularly its effect on condom use.

Methods: Cross-sectional surveys of adult GBM were conducted in Melbourne/Victoria and Sydney/New South Wales in January–March each year. Recruitment occurred at gay venues/events and online. Using logistic regression, we assessed trends in condom use, condomless anal intercourse (CAI), and PrEP by GBM with casual partners, and the characteristics of HIV-negative/untested GBM who engaged in CAI stratified by PrEP use.

Results: During 2013-17, 27,011 surveys were completed in Melbourne (48.3%) and Sydney (51.7%). The mean age was 36.0 yrs, 89.8% were gay-identified, 78.6% HIV-negative, 8.4% HIV-positive and 13.0% untested. Subsequent analyses were restricted to 16,827 GBM with casual partners.

Consistent condom use was reported by 45.9% in 2013, 41.6% in 2016 and 30.6% in 2017 ($p < 0.001$). In 2013, 27.0% reported CAI and were HIV-negative/untested and not on PrEP, increasing to 30.6% in 2016 and 29.0% in 2017 ($p = 0.01$). In 2013, 0.9% reported CAI and were HIV-negative and using PrEP, rising to 4.6% in 2016 and 16.2% in 2017 ($p < 0.001$).

Between 2016 and 2017, the characteristics of HIV-negative/untested men not on PrEP who engaged in CAI were relatively stable, but frequent condom use declined (39.0–32.9%, $p < 0.005$). Compared to non-PrEP users in 2017, PrEP users were demographically similar but reported more CAI with HIV-positive casual partners (37.7% vs. 11.5%), group sex using drugs (37.0% vs. 17.3%) and crystal use (25.0% vs. 12.4%; all $p < 0.001$).

Conclusion: Increasing PrEP use in Melbourne and Sydney has been accompanied by an equivalent decline in condom use. The overall proportion of GBM protected from HIV remains at ~70%, with ~30% unprotected. PrEP users' sexual practices reflect both eligibility criteria and post-PrEP behaviour.

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