

Population level decline in incident HIV infection among gay and bisexual men following scale-up of PrEP in Victoria, Australia

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Background:

PrEPX was a population-level intervention study undertaken in Victoria, Australia, designed to achieve a 30% reduction in diagnoses of incident HIV infection in gay and bisexual men (GBM) over a 36-month period. We report the study's primary outcome findings.

Methods:

PrEPX opened on 26 July 2016 and closed when PrEP became subsidised on Australia's Pharmaceutical Benefits Scheme (PBS), 01 April 2018. Participant characteristics are derived from enrolment surveys. PrEP use estimates are derived from PrEPX and PBS data (26 July 2016–30 June 2019). HIV diagnosis data are derived from Victorian Department of Health HIV notification records (01 July 2013–30 June 2019). Incident HIV infections were defined as evolving HIV western blot, or detected within 12 months of negative HIV test or self-reported seroconversion illness. A generalised linear model estimated the HIV incident rate ratio (IRR) in the 36 months post-PrEPX (01 July 2016–30 June 2019) versus pre-PrEPX (01 July 2013–30 June 2016). Four IRR estimates were derived: changes in *incident* HIV infections (primary study outcome) and *total* HIV infections among GBM, and changes in incident and total HIV infections, irrespective of HIV exposure category.

Results:

4275 people enrolled in PrEPX; median age 34 years, 99% GBM, 1% trans or gender diverse, 5% reported past 12 months injecting drug use. The monthly average number of PrEP users was 2435 (range 356–3143) during PrEPX and 3565 (range 1929–4525) post-PBS.

Following PrEPX commencement, among GBM there was a significant decline in both incident (pre-PrEPX: 427, post-PrEPX: 299; IRR: 0.70 95%CI:0.60–0.81) and total HIV infections (pre-PrEPX: 700, post-PrEPX: 589; IRR: 0.84 95%CI:0.75–0.94).

A significant decline was also observed among all incident infections (pre-PrEPX: 487, post-PrEPX 376; IRR: 0.77 95%CI:0.68–0.88), but not for all HIV notifications.

Conclusion:

We observed a 30% decline in incident HIV infections over a 36-month period in GBM following PrEP scale-up in Victoria. PrEP was highly effective in reducing incident HIV infections among GBM and at population level.

Disclosure of Interest Statement:

No disclosures of interest.