

RAPID REDUCTION IN HIV DIAGNOSES AFTER TARGETED PREP IMPLEMENTATION IN NSW, AUSTRALIA: THE EPIC-NSW STUDY

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Background:

HIV pre-exposure prophylaxis (PrEP) is highly effective in men who have sex with men (MSM) at the individual level, but data on population-level impact are lacking. We examined whether rapid, targeted, and high-coverage roll-out of PrEP in a MSM epidemic would reduce HIV incidence in the cohort prescribed PrEP and in the population of New South Wales (NSW).

Methods:

Expanded PrEP Implementation in Communities–NSW (EPIC-NSW) is an implementation cohort study of daily co-formulated tenofovir disoproxil fumarate (TDF) and emtricitabine (FTC) as HIV PrEP. Recruitment of people at high risk of HIV infection commenced in March 2016 in a NSW-wide network of 21 clinics. Protocol specified co-primary outcomes at 12 months after recruitment of the first 3700 participants were (1) the within-cohort HIV incidence, and (2) the change in NSW-wide numbers of HIV diagnoses in MSM before and after roll-out of PrEP.

Results:

We recruited the first 3700 participants in 8 months. Almost all (99.4%) were men, identified as gay (95.5%) or bisexual (4.0%), and median age was 36 years (interquartile range (IQR) 30-45 years). By November 2017, 83.0% of participants had completed a month 12 or later visit. Over 4100 person-years (PY) of follow-up, two men became HIV-infected (incidence of 0.048 (95%CI 0.012-0.195) per 100PY). Neither had been taking PrEP at the time of infection. New HIV diagnoses in MSM in NSW declined by 25.1%. The relative risk reduction was 31.5% (95%CI 24.2%–39.7%) for infections acquired in the last 12 months and 18.5% (95%CI 12.6%–25.8%) for other HIV diagnoses.

Conclusion:

PrEP implementation was associated with a rapid decline in HIV diagnoses in MSM NSW-wide, which was greatest for recent infections. When implemented as part of a combination prevention approach, rapid, targeted, high-coverage PrEP implementation is effective at reducing new HIV infections at the population level.

Disclosure of Interest Statement:

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