

Declining HIV diagnoses and rising PrEP uptake in Auckland, New Zealand: successes and challenges

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Background:

Gay, bisexual and other men who have sex with men (GBM) are a key population for PrEP in New Zealand. Auckland has the country's largest GBM population and launched the earliest PrEP programme in 2017. We assessed the impact of PrEP in this city by examining trends in HIV diagnoses and casual sex behaviours.

Methods:

To examine HIV transmission trends, we utilised HIV epidemiological surveillance 2010-2019 for GBM infected in New Zealand and living in Auckland, disaggregated by CD4 count, age and ethnicity. To explore behavioural patterns we analysed online behavioural surveillance surveys (2011, 2014) and annual online Ending HIV surveys (2016-2019). Behavioural analyses were limited to non-positive Auckland participants engaging in anal intercourse with casual partners, categorised as: No condomless anal intercourse (No CLAI); PrEP; CLAI tested for HIV <6 months; CLAI tested for HIV >6 months; CLAI never tested. Findings were disaggregated by age, ethnicity and partner numbers.

Results:

There were 376 HIV diagnoses over 10 years; 24 in 2010 rising to 63 in 2016 then declining to 26 in 2019, a 59% decrease. Half (48%) were recent infections (CD4>500), declining from 32 in 2014 to 6 in 2018 and 12 in 2019. The proportion recently infected did not differ by year, ethnicity or age. Between 2011-2019, of 1962 participants, No CLAI declined from 55%-21%; PrEP rose from 0%-30%; CLAI never tested reduced from 11%-5%. Combined PrEP or No CLAI remained stable (55%-51%); some on PrEP still used condoms. Overall, participants ever testing rose 73%-91% and those testing <6 months increased 33%-61% (statistically significant after adjusting for age). PrEP coverage was greater among participants aged 30+ or with more sexual partners; HIV testing indicators were better among non-Māori.

Conclusion:

Ecological analyses suggest HIV incidence has declined in Auckland since PrEP, consistent with changes in HIV prevention coverage but equity gaps remain.

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