

# Trends in HIV annual test uptake and retesting among gay and bisexual men and other men who have sex with men in Australia with no evidence of PrEP use between 2013-2021

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## Key finding:

We observed only modest increases in HIV testing and retesting rate and frequencies among GBM with no evidence of PrEP use.

These results are particularly concerning when compared to recent evidence of increases in HIV testing and retesting among GBM, and considering the current Australian testing guidelines for this group.

## Background

Early diagnosis of HIV remains a key priority in the UNAIDS 90-90-90 targets, both to minimise the morbidity and mortality associated with late diagnosis, as well as to reduce community viral load and risk of onward transmission.

Prior to 2019, Australian guidelines recommended gay, bisexual and other men who have sex with men (GBM) be tested for HIV up to four times a year, depending on risk-based criteria. In 2019, these guidelines changed to recommend quarterly testing for all sexually active HIV-negative GBM. In Australia, recent gains in HIV testing uptake and frequency appear to be driven by the rapid scale up of PrEP, however evidence has suggested these gains have not been experienced among all GBM.

Using data from the Australian Collaboration for Coordinated Enhanced Sentinel Surveillance (ACCESS)<sup>1</sup>, we examined trends in HIV testing and retesting rates among HIV-negative GBM with no evidence of PrEP use (GBM-NeverPrEP).



Figure 1. HIV testing rate and mean number of tests per person by year, 2013-2021

## Methods

Linked de-identified HIV testing and prescription data from January 1 2013 to December 31 2021 were extracted from 29 sexual health services and specialist general practices participating in ACCESS. These included services represented all Australian states and territories other than the Northern Territory.

Patients were identified as GBM if either their data had their sexual orientation recorded as gay or bisexual, or if they had a history of anorectal swabs for chlamydia or gonorrhoea screening<sup>2</sup>. GBM-NeverPrEP were defined as having no evidence of a PrEP prescription between January 1 2013 and December 31 2021.

HIV testing rate was calculated as the proportion of individuals who attended a clinical consultation who received an HIV test in the same calendar year. Among those tested, mean number of HIV tests per individual per calendar year was also calculated. Annualised three- and 12-month retesting rates were calculated as the proportion of individuals whose first HIV test within a calendar year was preceded by at least one HIV test within three and 12 months, respectively.

To account for impacts of the COVID-19, Poisson regression assessed trends in retesting rate from 2013-2019 and 2019-2021.

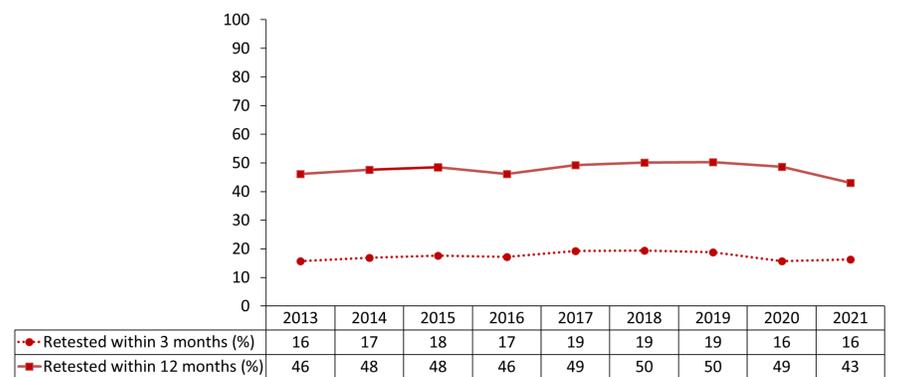


Figure 2. Three and twelve month retesting rates by year, 2013-2021

## Results

Of 88,258 HIV-negative GBM who attended services between 2013-2021, 58,942 (67%) were GBM-NeverPrEP.

Between 2013 and 2019, annual HIV testing rates among GBM-NeverPrEP increased from 53% to 64% ( $p < 0.001$ ), and declined to 55% in 2021 ( $p < 0.001$ ). From 2013 to 2019, mean number of tests increased from 1.4 to 1.5 per year ( $p < 0.001$ ), declining to 1.4 in 2021 ( $p < 0.001$ ) (Figure 1).

Between 2013 and 2019, the proportion of GBM-NeverPrEP retested within three months increased from 16% to 19% ( $p < 0.001$ ) and declined to 16% in 2021 ( $p < 0.001$ ). Between 2013 and 2019, the proportion retested within 12 months increased from 46% to 50% ( $p < 0.001$ ) before declining to 43% in 2021 ( $p < 0.001$ ) (Figure 2).

## Conclusions

Our data show that in spite of modest increases in HIV testing and retesting rates, GBM with no evidence of PrEP appear to be falling behind Australian testing guidelines. Further, testing frequency was negatively impacted during the COVID-19 pandemic.

These findings compare starkly to recent Australian data reporting increases in HIV testing and retesting rates among GBM in recent years<sup>3</sup>, strongly suggesting that recent gains among GBM overall have been driven by the rapid uptake of PrEP, and its associated testing schedule.

In addition to increased clinic-based testing, a renewed focus on messaging about HIV risk and exploring new models of HIV testing (self, online, etc) may need to be considered to meet the needs of these GBM who continue to choose forms of HIV prevention other than PrEP.

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