

# **A NOVEL HIV PRE-EXPOSURE PROPHYLAXIS (PREP) CASCADE TO ASSESS SCALE-UP IN AUSTRALIA AMONG GAY AND BISEXUAL MEN: RESULTS FROM NATIONAL BEHAVIOURAL SURVEILLANCE DATA, 2019–2023**

## **Authors:**

MacGibbon J<sup>1</sup>, Broady TR<sup>1</sup>, Bavinton BR<sup>2</sup>, Chan C<sup>2</sup>, Smith AKJ<sup>1</sup>, Mao L<sup>1</sup>, Holt M<sup>1</sup>

<sup>1</sup> Centre for Social Research in Health, UNSW Sydney, Sydney, Australia, <sup>2</sup>Kirby Institute, UNSW Sydney, Sydney, Australia

## **Background:**

We developed a cascade to assess HIV pre-exposure prophylaxis (PrEP) scale-up in Australia among gay and bisexual men (GBM). We used current PrEP suitability criteria and included a step to assess HIV testing.

## **Methods:**

The PrEP cascade was constructed using national HIV behavioural surveillance surveys (2019-2023), comprising: (1) PrEP suitability, (2) awareness of PrEP's availability, (3) PrEP use (within the last six months), and (4) testing at least once in the last six months for HIV. Participants were counted in a step if they met the conditions for the previous step(s). Changes over time were assessed using generalized linear models controlling for changes in sampling.

## **Results:**

38,880 responses from HIV-negative/untested GBM were included (range=6,413-8,508 each year). The median age was 35 years, 81.9% identified as gay, 11.8% as bisexual, and 69.4% were Australian-born. Between 2019-2023, PrEP suitability increased from 40.7% (3,462/8,508) to 43.6% (3,647/8,365), awareness increased from 37.9% (3,221/8,508) to 41.6% (3,480/8,365), PrEP use increased from 21.3% (1,808/8,508) to 29.7% (2,487/8,365), and recent HIV testing increased from 20.4% (1,736/8,508) to 27.8% (2,323/8,365; all  $p<.01$ ).

Between 2019-2023, PrEP awareness among PrEP-suitable participants increased from 93.0% to 95.4%, PrEP use among participants who met steps 1-2 increased from 56.1% to 71.5%; i.e., 28.5% of PrEP-suitable and aware participants were not using PrEP in 2023. Recent HIV testing among PrEP users who met steps 1-3 decreased from 96.0% to 93.4%. Between 2019-2023, daily PrEP use fell from 93.5% to 69.0% while on-demand use increased from 6.5% to 26.2%.

## **Conclusion:**

All the cascade steps improved over time except recent testing for HIV, even using a lenient six-month measure of testing below current guidelines. More than one quarter of PrEP-suitable and aware participants were not using PrEP, highlighting the need to investigate barriers to PrEP uptake beyond awareness, such as individual perceptions of HIV risk and PrEP access.

## **Disclosure of Interest Statement:**

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