

SEGMENTED LINEAR REGRESSION TO ASSESS HIV TESTING AMONG PREPX AND NON-PREPX PARTICIPANTS DURING RAPID PREP SCALE UP IN MELBOURNE, AUSTRALIA.

Asselin J¹, Ryan K¹, Cornelisse V^{2,3,4}, Price B³, Roth N^{3,4}, Wilcox J⁵, Tee B⁶, Fairley C^{2,7}, Chang C³, Armishaw J³, Vujovic O³, Penn M⁶, Cundill P⁶, Forgan-Smith G⁸, Gall J⁹, Pickett C¹⁰, Lal L^{1,3}, Mak A³, Spelmen T^{1,11}, Nguyen L¹, Murphy D^{12,13}, El-Hayek C^{1,14}, Ruth S⁶, Batrouney C⁶, Lockwood J³, Hoy J³, Grant R^{15,16}, Wright E^{*1,3,11}, Stoové M^{*1,14}.

¹Burnet Institute, Centre for Population Health, Melbourne, Australia,

²Melbourne Sexual Health Centre, Alfred Health, Melbourne, Australia

³Alfred Hospital, Department of Infectious Diseases, Monash University, Melbourne, Australia

⁴Prahran Market Clinic, Melbourne, Australia,

⁵Northside Clinic, Melbourne, Australia,

⁶Victorian AIDS Council, Melbourne, Australia,

⁷Monash University, Central Clinical School, Faculty of Medicine, Nursing and Health Sciences, Melbourne, Australia,

⁸Collins Street Medical, Melbourne, Australia,

⁹ERA Health, Melbourne, Australia,

¹⁰Ballarat Community Health, Ballarat, Australia

¹¹Peter Doherty Institute for Infection and Immunity, Melbourne, Australia

¹²University of Sydney, Department of Gender and Cultural Studies, Sydney, Australia

¹³University of New South Wales, Centre for Social Research in Health, Sydney, Australia

¹⁴Monash University, School of Population Health and Preventive Medicine, Melbourne, Australia,

¹⁵University of California, San Francisco, United States

¹⁶ San Francisco AIDS Foundation, San Francisco, United States

*Joint senior authors

Background:

In 2016, PrEPX began enrolling gay and bisexual men (GBM) in clinics in Melbourne. Using data from the Australian Collaboration for Coordinated Enhanced Surveillance (ACCESS), we assessed changes to number of HIV tests conducted pre- and post-study enrolment to explore the overall impact on clinic capacity.

Methods:

Test records were extracted from ACCESS for three general practice and one peer-led community HIV testing clinics enrolling PrEPX participants. HIV tests conducted between June 2015 and August 2017 among GBM were included. Segmented linear regression of monthly aggregate data assessed changes in the number of HIV tests among PrEPX participants and non-participants across pre- (June 2015-June 2016) and post-intervention (July 2016-August 2017) periods. We report comparative pre-intervention slope (β_1), change in intercept at intervention (β_2), and pre- to post-intervention change in slope (β_3).

Results:

23,695 HIV tests among 8,431 individuals were included; accounting for 11,520 (48.6%) tests among 2,353 (27.9%) PrEPX participants. An increasing trend in the monthly tests was detected pre-intervention among both PrEPX ($\beta_1=15.1$, 95%CI:13.1-17.1, $p<0.001$) and non-study participants ($\beta_1=18.6$, 95%CI:13.8-24.5, $p<0.001$). At intervention, there was an increase of 218.7 tests per month among PrEPX participants (β_2 , 95%CI:145.0-292.5, $p<0.001$) and a marginal decrease of 48.8 tests per month among non-participants (β_2 , 95%CI:-97.1- -0.4, $p=0.048$). Post-intervention, the trend in monthly tests was stable among PrEPX participants ($\beta_3=-9.7$, 95%CI:-23.2-3.9, $p=0.153$) and was attenuated in non-study participants ($\beta_3=-10.8$, 95%CI:-17.5- -4.1, $p=0.003$). Monthly tests continued to increase in non-study participants (7.8, 95%CI:3.3-12.3, $p=0.002$) post-intervention.

Conclusion:

Prior to PrEPX, the number of HIV tests conducted among GBM at these clinics was increasing. Study enrolment resulted in a further increase in testing associated with baseline and follow-up visits, which initially impacted on non-participants as seen by the initial decline post-intervention. Over the year, the number of tests among non-participants has increased suggesting that clinics have adapted to increased demand.

Disclosure of Interest Statement

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