

INFECTIOUS SYPHILIS AMONG GAY AND BISEXUAL MEN IN MELBOURNE: 2012-2019

Authors:

Taunton C^{1,2}, Field E¹, Traeger M², Asselin J², Roth N³, Willcox J⁴, Tee BK⁵, Guy R⁶, Donovan B⁶, Hellard M^{2,7}, Stooze M^{2,7}, El-Hayek C^{2,7} *on behalf of the Australian Collaboration for Coordinated Enhanced Sentinel Surveillance for Blood Borne Viruses and Sexually Transmitted Infections (ACCESS).*

¹ Research School of Population Health, Australian National University, Canberra, Australia; ² Disease Elimination, Burnet Institute, Melbourne, Australia; ³ Prahran Market Clinic, Melbourne, Australia; ⁴ Northside Clinic, Melbourne, Australia; ⁵ Centre Clinic, Thorne Harbour Health, Melbourne, Australia; ⁶ Kirby Institute, University of New South Wales, Sydney, Australia; ⁷ School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia.

Background:

Notifications of infectious syphilis continue to rise in Victoria, with the majority among gay, bisexual and other men who have sex with men (GBM). Controlling syphilis relies on increasing testing coverage and frequency. With reduced condom use associated with the scale up of HIV pre-exposure prophylaxis and increased sexual mixing between GBM populations of differing syphilis prevalence, trends in syphilis testing and positivity require close monitoring.

Methods:

We used ACCESS patient data for GBM attending three inner-Melbourne general practice clinics specialising in GBM health, between 2012 and 2019. We calculated the annual proportion of GBM attending the clinics and tested for syphilis, retested within 3, 6 and 12 months, and testing positive to infectious syphilis. Reinfection was calculated as the proportion of GBM who tested positive with a prior infection within 12 months. Results were stratified by HIV status and generalised linear models were used to assess trends.

Results:

16,723 GBM attended a participating clinic during the study period. Among HIV-negative GBM, the annual syphilis testing rate increased (56.5%-73.4%, $p_{\text{trend}} < 0.001$), as did retesting rates at 3, 6 and 12 months ($p_{\text{trends}} < 0.001$). Annually, the number of GBM who tested positive to infectious syphilis increased (51-270, $p_{\text{trend}} < 0.001$), as did test positivity (1.9%-4.9%, $p_{\text{trend}} < 0.001$) and reinfection (5.6%-15.9%, $p_{\text{trend}} < 0.001$). Among HIV-positive GBM, the annual syphilis testing rate increased (74.3%-81.5%, $p_{\text{trend}} < 0.010$), retesting rates at 3 and 6 months decreased ($p_{\text{trends}} < 0.001$) and retesting at 12 months increased ($p_{\text{trend}} < 0.050$). Annually, the number of GBM who tested positive to infectious syphilis remained stable (71-151, $p_{\text{trend}} = 0.129$), as did annual test positivity (5.3%-8.1%, $p_{\text{trend}} = 0.669$) and reinfection (3.6%-10.6%, $p_{\text{trend}} = 0.082$).

Conclusions:

Sustained efforts to increase syphilis testing among GBM in Melbourne have been accompanied by increased syphilis positivity and repeat infection among HIV-negative GBM. This suggests increased transmission in this population and requires consideration as part of the ongoing public health response to infectious syphilis.

Disclosure of Interest Statement:

ACCESS is funded by the Australian Department of Health and receives additional funding from the Victorian Department of Health and Human Services. Caroline Taunton is supported by a Master of Philosophy (Applied Epidemiology) Scholarship through the Burnet Institute and the Australian National University.