

TITLE (125 chars max): Infectious syphilis test uptake and positivity among Australian women ever prescribed opioid agonist therapy

AUTHORS:

Quinn, B¹, Asselin, J^{1,2,3}, Wilkinson, AL^{1,2,4}, Harney, B^{1,2,5}, Watson, N¹, Griffin, S^{1,2,6}, Owen, L⁷, Chow, E⁸, Ong, JJ⁸, Baker, D⁹, Chen, S¹⁰, Iuretigh, S¹¹, Carmody, C¹², Bell, C¹³, Read, P¹⁴, Lade, C¹⁵, Templeton, DJ^{3,16}, Mak, D¹⁷, McCloskey, J¹⁷, Athan, E¹⁸, Ryder, N¹⁹, Cornelisse, V^{3,20,21}, Aung, HL³, Donovan, B³, Hengel, B³, Guy, R³, Hellard, M^{1,2,3,22}, *Traeger, M¹, *Stoové, M^{1,2,11}, on behalf of the Australian Collaboration for Coordinated Enhanced Sentinel Surveillance of sexually transmissible infections and blood-borne viruses (ACCESS)

**Michael Traeger and Mark Stoové contributed equally as senior authors*

Affiliations

- ¹ Disease Elimination, Burnet Institute, Melbourne, Victoria, Australia
- ² School of Public Health and Preventive Medicine, Monash University, Melbourne, Victoria, Australia
- ³ Kirby Institute, University of New South Wales, Sydney, NSW, Australia
- ⁴ University of Melbourne School of Population and Global Health, Melbourne, Victoria, Australia
- ⁵ Centre de recherche du Centre hospitalier de l'Université de Montréal, Montreal, Québec, Canada
- ⁶ Department of Gastroenterology, St Vincent's Hospital, Melbourne, Victoria, Australia
- ⁷ Tasmanian Sexual Health Service, Hobart, Tasmania, Australia
- ⁸ Melbourne Sexual Health Centre, Carlton, Victoria, Australia
- ⁹ East Sydney Doctors, Sydney, NSW, Australia
- ¹⁰ Centre for Infectious Diseases & Microbiology Laboratory Services, NSW Health Pathology, Sydney, NSW, Australia
- ¹¹ Alice Springs Sexual Health Centre, Alice Springs, Northern Territory, Australia
- ¹² Liverpool Sexual Health Centre, Liverpool, NSW, Australia
- ¹³ Adelaide Sexual Health Centre, Adelaide, South Australia, Australia
- ¹⁴ Kirketon Road Centre, Kings Cross, NSW, Australia
- ¹⁵ Gold Coast Sexual Health Centre, Gold Coast, Queensland, Australia
- ¹⁶ Department of Sexual Health Medicine, Sydney Local Health District, Sydney, NSW, Australia
- ¹⁷ Department of Health, East Perth, Western Australia, Australia
- ¹⁸ Barwon Health, Geelong, Victoria, Australia
- ¹⁹ NSW Department of Health, Sydney, NSW, Australia
- ²⁰ North Coast Sexual Health Services, NSW Health, NSW, Australia
- ²¹ School of Translational Medicine, Monash University, Melbourne, Australia
- ²² Department of Infectious Diseases, The Alfred and Monash University, Melbourne, Australia

ABSTRACT (300 words max):

Background: Increased syphilis transmission among women is a growing concern. Injecting drug use has been associated with syphilis incidence, yet Australia's STI Strategy does not consider people who use drugs a priority population. To inform integrated care and targeted testing and prevention, we estimated testing uptake and positivity for infectious syphilis among women attending primary care services ever prescribed opioid agonist therapy (OAT), compared to those never prescribed OAT.

Methods: Consultation, OAT and syphilis test data were extracted from a sentinel surveillance network of general practice, community health and alcohol and other drug services (n=25) for women aged 15–55 years between 2014–2024. We report test uptake (number individuals tested/number attending) and test positivity (number diagnoses/tests) for infectious syphilis,

stratified by evidence of ever having OAT prescribed (a proxy for ever injecting drugs). Associations between test positivity and OAT prescription were explored using logistic regression, adjusted for age and Indigenous status.

Results: Among 257,370 women, 5,667 (2.2%) were ever prescribed OAT. Of these, 1,100 (19.4%) were tested for syphilis at least once (vs 12.6% of women never prescribed OAT). Of 32,933 women tested for syphilis (median=1 test/person; IQR=1–20), 116 (0.24%) tested positive (no reinfections). Women ever prescribed OAT were more likely to test positive for syphilis (3.6% vs 0.2%; aOR=11.4, 95%CI: 7.3,17.8). The percentage of women ever prescribed OAT and tested for syphilis at least once per calendar year declined from 7.6% to 5.7% between 2014–2024.

Conclusion: Women ever prescribed OAT and tested for syphilis were over 11 times likely to test positive than women never prescribed OAT. Despite substantial increased syphilis notifications among women over the observation period Australia-wide, annual syphilis testing rates declined for women receiving OAT. Our findings strongly support greater integration of sexual health in models of care for people who use drugs.