

# Trends in oropharyngeal gonorrhoea testing and positivity among different population groups in Australia: an analysis of sentinel surveillance data (2016-2025)

## Authors:

Aung HH<sup>1,2</sup>, Hocking JS<sup>1</sup>, Chow EPF<sup>1,3,4</sup>, Asselin J<sup>2,5,6</sup>, Aung HL<sup>5</sup>, Carter A<sup>5</sup>, Hengel B<sup>5</sup>, Ong JJ<sup>3,4</sup>, Templeton D<sup>5,7,8</sup>, Vujcich D<sup>9</sup>, Cornelisse V<sup>4,5,10,11</sup>, Lewis DA<sup>12,13</sup>, Owen L<sup>14</sup>, Cotter J<sup>15</sup>, Murray S<sup>15</sup>, Pony M<sup>16</sup>, Guy R<sup>5</sup>, Stooze M<sup>2,6,17</sup>, Kong FY<sup>1,2</sup> \*\*, Traeger M<sup>2,6</sup> \*\*

## \*\*Co-senior authors

## Affiliations:

<sup>1</sup> Centre for Epidemiology and Biostatistics, Melbourne School of Population and Global Health, University of Melbourne, <sup>2</sup> Burnet Institute, Melbourne, <sup>3</sup> Melbourne Sexual Health Centre, Bayside Health, Melbourne, <sup>4</sup> School of Translational Medicine, Faculty of Medicine, Nursing and Health Sciences, Monash University, <sup>5</sup> The Kirby Institute, University of New South Wales, <sup>6</sup> School of Public Health and Preventive Medicine, Monash University, <sup>7</sup> Central Clinical School, University of Sydney, <sup>8</sup> Department of Sexual Health Medicine, Sydney Local Health District, <sup>9</sup> M Clinic, Western Australia AIDS Council, <sup>10</sup> North Coast HIV and Sexual Health Services, Mid North Coast & Northern NSW Local Health Districts, NSW Health, <sup>11</sup> Department of Infectious Diseases, University of Melbourne at the Peter Doherty Institute for Infection and Immunity, <sup>12</sup> Western Sydney Sexual Health Centre, Sydney, <sup>13</sup> Westmead Clinical School, Faculty of Medicine and Health, University of Sydney, Westmead, <sup>14</sup> Tasmania Sexual Health Clinic, Tasmania Health Service, Hobart Tasmania, <sup>15</sup> South Terrace Clinic, Fremantle Hospital, Fremantle, Perth Western Australia, <sup>16</sup> Scarlet Alliance, Australian Sex Workers Association, Sydney, <sup>17</sup> Australian Research Centre in Sex, Health and Society, La Trobe University, Melbourne

## Background:

Routine oropharyngeal gonorrhoea (OPG) testing is recommended for gay and bisexual men (GBM) in Australia, but not for men who have sex with women only (MSW) or women. We examined trends in OPG testing and positivity.

## Methods:

We retrospectively analysed sentinel surveillance data (2016-2025) from 38 general practices (GPs) and 19 sexual health clinics (SHCs). Annual testing rate (proportion of attendees tested) and positivity (proportion tested with  $\geq 1$  positive) were calculated by population (gay men, bisexual men, MSW, women) and clinic type. We also examined concordant OPG testing and positivity (within +/-30 days) among urogenital gonorrhoea (UGG) cases.

**Results:**

Overall, 83,709 gay men, 32,550 bisexual men, 85,651 MSW and 241,784 women tested for gonorrhoea. From 2016–2025, testing was high and stable in gay (SHCs: 79.9–76.8%; GPs: 53.7–51.2%) and bisexual (SHCs: 67.8–70.6%; GPs: 47.0–48.1%) men, but lower and increasing in MSW (SHCs: 1.1–5.9%; GPs: 0.7–1.5%; both  $P<0.001$ ) and women (SHCs: 11.1–16.4%,  $P=0.012$ ; GPs: 0.6–1.8%,  $P<0.001$ ). OPG positivity increased across all populations at SHCs (10.4–12.3%, 10.2–12.2%, 3.6–8.0%, 4.7–4.8%, respectively, all  $P<0.05$ ), and among gay men at GPs (8.1–9.6%,  $P=0.005$ ), but fluctuated among bisexual men (8.3–9.8%), MSW (1.9–1.7%) and women (2.7–2.6%). Among UGG cases, OPG testing was consistently  $\geq 80\%$  in GBM, increased in MSW (3.3–33.7%,  $P<0.001$ ) and fluctuated in women (27.7–47.9%). Concordant OPG positivity increased across populations (32.8–44.6%, 32.3–39.5%, 1.4–11.9% and 17.4–28.9%, respectively).

**Conclusion:**

Over a decade, OPG testing remained high among GBM and increased from low levels among MSW and women, while positivity increased across all populations. Despite substantial OPG-UGG co-infection in MSW and women, OPG testing in these groups remained low. Targeted OPG screening criteria may improve the detection of missed infections among heterosexual populations diagnosed with UGG.

Disclosure of interest: N/A