

SIGNIFICANT INCREASES IN PHARYNGEAL NEISSERIA GONORRHOEAE POSITIVITY AND CASES ISOLATED TO THE PHARYNX, 2011-2015: THE ACCESS PROJECT

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Background: Pharyngeal *Neisseria gonorrhoeae* (P-NG) disproportionately affects gay and bisexual men (GBM) and female sex workers (FSW). We aimed to explore temporal trends in P-NG positivity and explore correlates of P-NG in both populations.

Methods: 2011-2015 data were extracted from 42 Australian sexual health clinics participating in ACCESS. Positivity was defined as the proportion of testing occasions where gonorrhoea was detected.

Results: In GBM the number of P-NG tests increased by 85% from 11,795 in 2011 to 21,795 in 2015, while P-NG positivity increased by over 300% from 437 (3.7%; 95% CI 3.4-4.1) to 2,540 (11.7%; 95% CI 11.2-12.1) (p -trend<0.001). Among FSW total P-NG tests decreased by 29% from 4699 in 2011 to 3341 in 2015, while P-NG positivity increased by almost 250% from 68 (1.5%; 95% CI 1.1-1.8) to 120 (3.6%; 95% CI 3.0-4.2) (p -trend<0.001). The positivity of P-NG cases in GBM occurring without concurrent anogenital infection ("isolated P-NG") increased by almost 50% from 18.3% (95%CI 14.8-21.9) in 2011 to 27.2% (95% CI 25.1-29.3) in 2015 (p -trend<0.001). Among GBM, more recent calendar year of testing (p -trend<0.001), younger age (p -trend<0.001), more partners (p -trend<0.001), STI contact (p <0.001), injecting drug use (p <0.001), anogenital symptoms (p <0.001) and HIV-positive status (p =0.005) were independently associated with P-NG. On multivariate analysis among FSW, more recent calendar year of testing was no longer associated with P-NG (p -trend=0.134) and STI contact (p <0.001) was the only independent correlate.

Conclusion: This is the first national study describing a significant temporal increase in P-NG positivity and "isolated" P-NG cases among GBM. More frequent testing, changes in diagnostic tests and/or treatment failures may all partially account for our observations. Nonetheless, P-NG may be a key driver of increasing anogenital gonorrhoea notifications in Australia highlighting the need for frequent pharyngeal testing and novel strategies to combat P-NG among GBM and FSW.

Disclosure of interests: all authors declare no conflict of interest