SPATIAL MAPPING OF GONORRHOEA NOTIFICATIONS BY SEXUAL PRACTICE IN VICTORIA, AUSTRALIA, 2017-2019

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Background:
Australian surveillance data for gonorrhoea only report cases by gender (males vs females) but not by sexual practice. This study aimed to describe the geographical distribution of gonorrhoea, stratified by gender and population group, in Victoria between 2017 and 2019 using enhanced surveillance data.

Methods:
All gonorrhoea infections notified in Victoria between 2017 and 2019 were included in this analysis, and were stratified by the local government area (LGA) of residence of infected individuals. The data were further categorised into five groups based on the gender of the individual and the gender of sex partner: females; heterosexual males; bisexual males; and men who have sex with men (MSM). Spatial mapping of infections by LGA and populations were conducted using QGIS.

Results:
We included 24,204 notified gonorrhoea infections in Victoria between 2017 and 2019 – 4,842 (20%) were female and 19,165 (79%) male. Overall, the female-to-male ratio was 1:4. Cases in MSM were concentrated in inner Melbourne LGAs especially Melbourne (n=1254), Yarra (n=912) and Stonnington (n=826). Female cases were concentrated in Melbourne (n=320), followed by Melton (n=229) and Casey (n=220). The pattern was similar for heterosexual males with cases concentrated in Melbourne (n=231), Casey (n=172) and Brimbank (n=157).

Conclusion:
The geographical pattern for these three population groups is similar to the geographical distribution of notified infectious syphilis cases by group. Targeting of interventions including access to testing and treatment to affected geographical areas and population groups would be beneficial in improving gonorrhoea control.

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