

# ESTABLISHMENT OF A DIRECT REFERRAL PATHWAY BETWEEN PUBLIC HEALTH AND SEXUAL HEALTH SERVICES AS AN INTERVENTION TO IMPROVE SYPHILIS TREATMENTS WITHIN WESTERN SYDNEY

## Authors:

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## Background:

In June 2019, the Public Health Unit (WSPHU) and Western Sydney Sexual Health Centre (WSSHC) introduced a direct referral pathway whereby the WSPHU refers syphilis notifications to WSSHC. This study examined the syphilis referral management and treatment outcomes pre- and post-intervention over an 8-year period.

## Methods:

We performed a descriptive cross-sectional analysis of all syphilis cases notified to the NSW Notifiable Conditions Information Management System (NCIMS) in Western Sydney Local Health District. Cases were classified according to whether they were notified pre-intervention (1 January 2016 to 31 May 2019) or post-intervention (1 June 2019 to 31 December 2023). We analysed patients' demographic, treatment, and clinical risk data. 'Unknown' or 'missing' treatment initiation status were classified as 'treatment not initiated'. A chi-square test of independence was performed to examine the relationships. Data was analysed using in SAS Enterprise Guide 8.3.

## Results:

There were 1,746 syphilis cases notified during the study period, 574 pre-intervention and 1,172 post-intervention. The cohort contained 80% males and 20% females, 59% were aged 25 to 44 years, 44% identified as men-who-have-sex-with-men (MSM). Treatment initiation rates (TIR) were 67.8% pre-intervention versus 79.2% post-intervention (relative risk (RR): 1.17, CI: 1.04-1.32,  $p=0.01$ ). TIR in males was 68.9% pre-intervention versus 79.8% post-intervention (RR: 1.16, CI: 1.01-1.32,  $p=0.03$ ). TIR in MSM was 82.7% pre-intervention versus 90.1% post-intervention (RR: 1.09, CI: 0.92-1.28,  $p=0.31$ ). TIR in non-MSM was 56.8% pre-intervention versus 70.4% post-intervention (RR: 1.24, CI: 1.05-1.47,  $p=0.01$ ). TIR in females was 63.6% pre-intervention versus 77.8% post-intervention (RR: 1.22, CI: 0.94-1.60,  $p=0.14$ )

## Conclusions:

Syphilis treatment outcomes in Western Sydney were improved following the implementation of the referral pathway between Public Health and Sexual Health services. Treatment of men showed significant improvement with the greatest effect in non-MSM men and a modest non-significant improvement in women. The intervention described has the potential to strengthen current syphilis control measures in NSW.

## Disclosure of interests:

None