

Trends in infectious syphilis notifications among women of reproductive age in Victoria, Australia

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Background:

Globally, there is an increased rate of syphilis among women of reproductive age; similarly, an increased trend has been observed in Australia especially in recent years. Syphilis infection in women of reproductive age is of significant public health concern as transplacental infection during pregnancy can occur resulting in congenital syphilis. We aim to examine the trend of infectious syphilis among women of reproductive age in Victoria.

Methods:

Data on infectious syphilis notifications in women of reproductive age between 2000 and 2019 were extracted from the Victorian Department of Health and Human Services notifiable diseases database. We applied an interrupted time series analysis to observe the difference in the number of cases between two time periods: 2000-2015 and 2016-2019. Fractional polynomial regression with generalised linear model was used to test the significance of the difference in trends between the two time periods.

Results:

Between 2000 and 2019, there were a total of 858 infectious syphilis cases in women of reproductive age. The number of cases increased from four cases in 2000 to 172 cases in 2019. The trend indicated an exponential rise with a greater increase during the last four years (2016-2019) than the previous 16 years (2000-2015). We found that the trend in the number of infectious syphilis cases in 2016-2019 was 2.66 (95% CI: 1.90, 3.69) times higher than the previous period ($p < 0.001$). During the study period, Victoria recorded seven cases of congenital syphilis, six of which occurred after 2016.

Conclusion:

There is a significant increase of infectious syphilis among women of reproductive age particularly after 2015, resulting in re-emerging of congenital syphilis. The cause of this increase may be multifactorial; a multidisciplinary approach is required to address the increase. The data also supports continued public health vigilance to prevent congenital syphilis in Victoria.

Disclosure of Interest Statement:

The Authors declared no conflicts of interests