

AN EVALUATION OF THE OUTBREAK RESPONSE AND MANAGEMENT OF SYPHILIS DURING PREGNANCY FOR THE SYPHILIS OUTBREAK IN THE NORTHERN TERRITORY, 2014-2016

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Introduction: A syphilis outbreak has been affecting remote districts in the Northern Territory since 2014. This paper evaluates the outbreak response implemented to date.

Methods: The outbreak response included vigorous case management, contact tracing, enhanced testing and monitoring activities (including antenatal testing), improved condom accessibility and innovative health promotion campaigns. Retesting every 3 months and identifying and testing people never or not recently tested were promoted to increase testing coverage. Special emphasis was given to implement measures for actively screening outbreak cases for pregnancy and intensively following up pregnant cases for early detection and prevention of Congenital Syphilis (CS). We analysed surveillance and testing data to examine trends in testing and notifications and evaluate the management of pregnant cases.

Results: Between July 2014 and April 2016, 282 cases of infectious syphilis (51% females and 49% males) were notified with ~80% in the 15-29 year age group. Significant increasing trends were identified in the positivity rates of syphilis screening tests and the monthly number of outbreak cases in this age group before September 2015 (Stage 1). These figures showed a significant decreasing trend in the period afterwards (Stage 2, chi-square for trend, $p < 0.05$ for all 4 trends). The average number of syphilis screening tests per month increased significantly from 576.3 in Stage 1 to 785.6 in Stage 2 ($p < 0.05$). Thirty outbreak cases of infectious syphilis were diagnosed during pregnancy with 3 cases of CS. All 3 neonates, treated immediately, became seronegative within 18 months.

Conclusion: The downward trends in positivity rate and outbreak cases in Stage 2 occurred when a higher level of testing was maintained. These possibly indicate the effectiveness of the outbreak response. No further cases of CS have been diagnosed after 2014. However, continual effort in outbreak response needs to be maintained to bring the outbreak under control.

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