

Tuberculosis rates fall in the Top End

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The rate of tuberculosis (TB) in the Northern Territory (NT) is decreasing. However it is still the highest in Australia, according to a collaborative study between the Northern Territory Centre for Disease Control, Menzies School of Health Research and the Doherty Institute.

The first study to examine the genomic epidemiology of TB in the NT, it included all cases of confirmed TB in the NT Top End over three decades from 1989-2020.

An important positive finding was that the rate of TB in Aboriginal people in the NT has dropped an average of five per cent per year.

The study found that 359 (48%) people with TB were born overseas, 328 (44%) were Aboriginal people, and 52 (7%) were Australian-born and non-Indigenous. Aboriginal people were more likely to die from TB (12%) than overseas-born people (3%).

Menzies PhD candidate and lead author Dr Ella Meumann says that combining patient epidemiological information with TB genomic sequencing has enabled better understanding of transmission clusters.

“Genetically linked cases mostly involved Aboriginal people in remote regions, with evidence that both recent transmission and reactivation of dormant TB after infection in the past, are contributing to TB cases in these areas.

“Genomic sequencing also found transmission links which had not been recognised during contact tracing. This approach therefore brings new insights into how TB is circulating in the NT.”

Dr Meumann notes: “Future work will explore factors contributing to late TB diagnosis, how genomic sequencing done up front can help surveillance and outbreak investigations, and whether short, effective regimens for dormant TB can control TB better in the NT.”

NT Centre for Disease Control Director Dr Vicki Krause says that the study also helps identify what can be done to decrease cases of TB in the NT.

“Eliminating tuberculosis is a global goal, and although Australia has one of the lowest incidences in the world it remains a public health challenge. This study helps us better understand how TB is transmitted in the Northern Territory,” said Dr Krause.

“This study provides support for focusing on timely case detection, contact tracing supported by genomic sequencing, and effective latent TB treatment to break transmission chains in NT remote hotspot regions.”

Positive findings from the study were that there were few overseas-born cases within transmission clusters, and there was no evidence of transmission of drug-resistant TB in the NT.

The study published in the *LANCET Regional Health – Western Pacific* is online here:
[Tuberculosis in Australia's tropical north: a population-based genomic epidemiological study.](#)

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