

A TEN-YEAR REVIEW OF TUBERCULOSIS CASES IN JOHOR BAHRU DISTRICT: 2013-2022

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ABSTRACT

INTRODUCTION: Tuberculosis (TB) is caused by Mycobacterium tuberculosis, remains a major public health issue around the world mainly impacting the lungs despite the comprehensive global initiatives. OBJECTIVE: This study examines the epidemiology of TB cases in the Johor Bahru District from 2013-2022. METHODOLOGY: This is a cross-sectional study that uses existing data from the NTBR database to provide a snapshot of TB cases in Johor Bahru from 2013-2022. Descriptive analysis was performed to examine the incidence rate, sociodemographic characteristics, diagnostic details and treatment outcomes using Microsoft Excel version 2021. RESULTS: A total of 10,162 cases were recorded in the NTBR database, with 10,008 cases meeting the inclusion criteria. After excluding 154 cases due to change in diagnosis (not TB) and 124 cases for double entries or missing data, 9,884 cases were analyzed. The incidence rate of TB in 2022 was 53 per 100,000 population. The average age of TB patients was 34.4 years with males comprising 64% (n=6,354) of cases. The majority (91%) were Malaysian-born, with 56% identifying as Malay. For the education level, 58% had completed secondary education, and 11% had higher education. The average household income was RM2322.43 with 72% having no regular income. Newly diagnosed TB cases made up 91% of the total, with 92% detected passively. Among the cases, 63% were PTB Smear Positive, and 34% were PTB Smear Negative. The treatment success rate was 82%, with an overall fatality rate of 7.53%, ranging from 1.74% in 2013 to 4.27% in 2022. CONCLUSION: Most TB cases in Johor Bahru occurred among working-age Malaysians with low socioeconomic status and secondary education. Active case detection was notably low, despite available diagnostic tools and guidelines, suggesting a need for further research into the barriers to effective active case detection in the district.

Keywords: Tuberculosis, Epidemiology, TB Trends, Johor Bahru
