

ABSTRAK

Latar Belakang: Tuberkulosis (TBC) tetap menjadi ancaman kesehatan masyarakat global dan nasional. Puskesmas Paal V, Kota Jambi, merupakan salah satu area dengan beban TBC tertinggi (insidensi 500/100.000 jiwa) yang dipengaruhi oleh karakteristik urban padat dan dampak *backlog* pasca-pandemi COVID-19. Keterbatasan laporan deskriptif konvensional dalam menangkap kompleksitas data epidemiologis menuntut adanya pendekatan analitik yang lebih komprehensif untuk mendukung intervensi tepat sasaran. Tujuan: Menganalisis karakteristik demografi, klinis, faktor risiko, serta pemetaan spasial keberhasilan pengobatan kasus TBC di wilayah kerja Puskesmas Paal V periode Januari 2023–April 2026. **Metode:** Penelitian observasional analitik dengan pendekatan *cross-sectional* menggunakan rentang data 40 bulan. Total sampling diperoleh dari 285 pasien TBC paru terkonfirmasi. Variabel dependen berupa keberhasilan pengobatan (berhasil vs. *drop-out*/gagal), sedangkan variabel independen mencakup faktor individu, klinis, perilaku, dan lingkungan. Analisis data menggunakan uji Chi-Square, Regresi Logistik Multivariat (metode *Forward Likelihood Ratio*), dan analisis spasial (Indeks Moran's I dan Getis-Ord Gi*) menggunakan software SPSS dan QGIS. Hasil: Mayoritas kasus TBC berasal dari kelompok usia produktif 25–44 tahun (57,5%), laki-laki (65,6%), dan berstatus pekerja sektor informal (44,2%). Secara klinis, ditemukan keterlambatan diagnosis yang ditandai dengan tingginya pasien yang datang dalam stadium lanjut dengan kavitas (69,1%), gejala batuk produktif >2 minggu (86,3%), dan komorbiditas Diabetes Melitus yang signifikan (27,7%). Analisis multivariat dan spasial dilaksanakan untuk mengidentifikasi variabel prediktor dominan dan pola kluster kegagalan pengobatan di tingkat mikro (RT). Kesimpulan: Kasus TBC di Puskesmas Paal V didominasi oleh laki-laki usia produktif dengan kondisi klinis yang sudah lanjut dan tingkat komorbiditas yang tinggi. Integrasi pendekatan Regresi Logistik dan Sistem Informasi Geografis (GIS) terbukti memberikan *actionable intelligence* yang krusial untuk mengidentifikasi kluster risiko, mengarahkan prioritas skrining aktif, serta mengoptimalkan alokasi sumber daya puskesmas menuju target eliminasi TBC 2030.

Kata Kunci: Tuberkulosis, Faktor Risiko, Analisis Spasial, Regresi Logistik, Urban, Puskesmas Paal V.

ABSTRACT

Background: Tuberculosis (TB) remains a major global and national public health threat. Puskesmas Paal V in Jambi City is one of the areas with the highest TB burden (incidence of 500/100,000 population), influenced by dense urban characteristics and the impact of post-COVID-19 backlogs. The limitations of conventional descriptive reports in capturing the complexity of epidemiological data necessitate a more comprehensive analytical approach to support targeted interventions. **Objective:** To analyze the demographic and clinical characteristics, risk factors, and spatial mapping of TB treatment outcomes in the working area of Puskesmas Paal V from January 2023 to April 2026. **Methods:** An observational analytical study with a cross-sectional approach using a 40-month data span. Total sampling was conducted, yielding 285 confirmed pulmonary TB patients. The dependent variable was treatment success (successful vs. dropout/failure), while independent variables included individual, clinical, behavioral, and environmental factors. Data were analyzed using the Chi-Square test, Multivariate Logistic Regression (Forward Likelihood Ratio method), and spatial analysis (Moran's I index and Getis-Ord Gi*) using SPSS and QGIS software. **Results:** The majority of TB cases were found in the productive age group of 25–44 years (57.5%), male (65.6%), and working in the informal sector (44.2%). Clinically, a significant delay in diagnosis was observed, indicated by the high proportion of advanced-stage patients presenting with cavitation (69.1%), productive cough >2 weeks (86.3%), and a notable prevalence of Diabetes Mellitus comorbidity (27.7%). Multivariate and spatial analyses were executed to identify dominant predictor variables and patterns of treatment failure clusters at the micro-level (neighborhood units). **Conclusion:** TB cases at Puskesmas Paal V are dominated by productive-age males presenting with advanced clinical conditions and high comorbidity rates. The integration of Logistic Regression and Geographic Information Systems (GIS) provides crucial actionable intelligence to identify risk clusters, prioritize active case finding, and optimize primary healthcare resource allocation towards the 2030 TB elimination targets.

Keywords: *Tuberculosis, Risk Factors, Spatial Analysis, Logistic Regression, Urban, Puskesmas Paal V.*