



UNIVERSITAS ANDALAS

STUDI EKOLOGI HUBUNGAN FAKTOR *HOST* DAN *ENVIRONMENT* DENGAN

**KEJADIAN TUBERKULOSIS
DI PROVINSI SUMATERA BARAT**

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xiii + 147 halaman, 14 tabel, 33 gambar, 6 lampiran

ABSTRAK

Tujuan Penelitian

Penelitian ini bertujuan untuk mengetahui hubungan faktor *host* (cakupan imunisasi BCG dan persentase balita gizi buruk) dan *environment* (indeks kualitas udara, persentase rumah tangga sanitasi layak, tingkat pengangguran terbuka, tingkat pendidikan, dan persentase penduduk miskin) dengan kejadian tuberkulosis di wilayah Kabupaten/Kota Provinsi Sumatera Barat Tahun 2020-2024.

Metode

Penelitian ini menggunakan desain studi ekologi. Data bersumber dari Dinas Kesehatan Provinsi Sumatera Barat (kasus TB, cakupan imunisasi BCG, dan persentase balita gizi buruk) dan BPS Provinsi Sumatera Barat (indeks kualitas udara, persentase rumah tangga sanitasi layak, tingkat pengangguran terbuka, tingkat pendidikan, dan persentase penduduk miskin). Hasil penelitian disajikan dalam grafik dan tabel distribusi frekuensi, pemetaan kasus, tabel uji korelasi, *scatter plot*, dan hasil model multivariat.

Hasil

Hasil penelitian menunjukkan peningkatan kasus tuberkulosis tertinggi terjadi pada tahun 2022. Hasil bivariat menunjukkan indeks kualitas udara ($p=0,047$) dan tingkat pengangguran terbuka ($p=0,013$) memiliki korelasi signifikan dengan kejadian tuberkulosis, namun cakupan imunisasi BCG, persentase balita gizi buruk, persentase rumah tangga sanitasi layak, tingkat pendidikan, dan persentase penduduk miskin tidak memiliki korelasi ($p>0,05$). Hasil multivariat menunjukkan tingkat pengangguran terbuka merupakan faktor yang paling dominan berhubungan dengan kejadian tuberkulosis ($p=0,001$; Beta=0,508).

Kesimpulan

Tingkat pengangguran terbuka merupakan faktor yang paling dominan berhubungan dengan kejadian tuberkulosis. Diharapkan dinas kesehatan dapat memperkuat kolaborasi lintas sektor, khususnya dengan instansi yang menangani ketenagakerjaan, kesejahteraan sosial, dan lingkungan hidup dalam upaya pencegahan dan pengendalian tuberkulosis.

Daftar Pustaka : 86 (2015-2024)

Kata Kunci : Ekologi, *Environment*, *Host*, Tuberkulosis

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ECOLOGICAL STUDY OF THE RELATIONSHIP BETWEEN HOST AND ENVIRONMENTAL FACTORS WITH THE INCIDENCE OF TUBERCULOSIS IN WEST SUMATERA PROVINCE 2020-2024

xiii + 147 pages, 14 tables, 33 pictures, 6 appendices

ABSTRACT

Objective

This study aims to determine the relationship between host (BCG immunization coverage and percentage of malnourished toddlers) and environment (air quality index, percentage of households with proper sanitation, open unemployment rate, education level, and percentage of poor population) factors with the incidence of tuberculosis in West Sumatra Province in 2020-2024.

Method

This research used an ecological study design. Data were sourced from the West Sumatra Provincial Health Department (TB cases, BCG immunization coverage, and percentage of malnourished toddlers) and West Sumatra Provincial BPS (air quality index, percentage of households with proper sanitation, open unemployment rate, education level, and percentage of poor population). The results are presented in frequency distribution graph and tables, case mapping, correlation test tables, scatter plots, and multivariate model results.

Result

The results showed the highest increase in tuberculosis cases occurred in 2022. Bivariate results showed the air quality index ($p=0.047$) and the open unemployment rate ($p=0.013$) were significantly associated with incidence of tuberculosis, but BCG immunization coverage, the percentage of malnourished children toddlers, the percentage of households with proper sanitation, education level, and the percentage of poor population were not ($p>0.05$). Multivariate results showed that the open unemployment rate was the most dominant factor associated with tuberculosis incidence ($p=0.001$; $\text{Beta}=0,508$).

Conclusion

The open unemployment rate was most influential on the incidence of tuberculosis. It is recommended that the Provincial Health Department can strengthen cross-sectoral collaboration, especially with agencies that handle employment, social welfare, and environmental management in efforts to prevent and control tuberculosis.

References : 86 (2015-2024)

Keyword : Ecology, Environment, Host, Tuberculosis