

PREVALENCE OF THALASSEMIA IN KURUNEGALA DISTRICT: MAP BASED ANALYSIS.

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Thalassemia, a hereditary blood disorder, poses a significant public health concern in many regions, including Kurunegala District in Sri Lanka. This research aims to investigate the prevalence patterns and trends of Thalassemia patients, with a specific focus on patients who registered at the National Thalassemia Center in Kurunegala District. The main objective of this study is making geospatial analysis using ArcGIS software to map the distribution of Thalassemia patients across the district and identify the patterns and trends. The most Thalassemia patients have recorded in Kurunegala district. So the research problem centers on understanding the spatial distribution, as well as exploring potential contributing factors that may influence the prevalence patterns. Data were collected from medical records and interviews affected children and their families as secondary data and primary data. The maps created through ArcGIS and Excel software showcased distinct spatial patterns of Thalassemia and illustrating areas with varying prevalence rates. special finding is Most of thalassemia patients are in East Half of the Kurunegala district and it spread to the outer area. Most of that patients (more than 50%) are children. Such insights can provide valuable information for health authorities, policymakers, and healthcare practitioners to better allocate resources and implement targeted interventions for Thalassemia prevention, management, and awareness campaigns. Moreover, this research contributes to the growing field of spatial epidemiology and highlights the potential benefits of incorporating geospatial analysis in addressing public health challenges like Thalassemia in kurunegala district.

Keywords: Thalassemia, Prevalence Patterns, Spatial distribution, Arc GIS, Geospatial Analysis.

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