

Spatial Analysis on Primary Healthcare Distance for Orang Asli in Batang Padang District

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ABSTRACT

Introduction: A huge number of Orang Asli population live in isolated area within peninsular Malaysia. Their lack of proper road and remoteness made their access to healthcare services difficult. Batang Padang has the 22800 Orang Asli reside in the district. Primary healthcare services have been provided to this population through static clinic and mobile clinic.

Objective: This study was done to determine distance of primary healthcare from Orang Asli village and their correlation with primary healthcare utilization.

Methods: A cross sectional study using Geographical Information System was done using spatial data from various sources for mapping and spatial analysis. Network analysis using ArcGIS software was used to determine the distance while Spearman correlation was used to determine association between distance and primary healthcare utilization.

Result: Most of Orang Asli villages located not far from main road. Mean distance from Orang Asli village to nearest primary healthcare clinic is 5.87 kilometers. Mean duration taken for Orang Asli to come to the primary healthcare clinic is either 4.71 minutes by land transportation or 70.42 minutes by walking. Orang Asli villages located in the center of the district around Bandar Tapah have short distance to primary healthcare and the distance increase as the villages located away from the center. There is significant correlation between network distance with Orang Asli attendance to clinic (r 0.203) and MMR vaccination (r 0.230). There is also significant correlation between walking duration with Orang Asli attendance to primary healthcare (r 0.178) and MMR vaccination (r 0.227).

Conclusion: As the distance and duration increase for Orang Asli to get to primary healthcare, there is increase need of primary healthcare services. Planning of primary healthcare for Orang Asli should consider the distance from these villages to primary healthcare services.

Keywords: Spatial analysis, Distance, Orang Asli, Primary Healthcare