Bayesian Hierarchical Model for Measuring Clinical Outcomes in Senegalese District Hospitals Systems,

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Abstract

This study focuses on evaluating clinical outcomes in Senegalese district hospitals from to . A Bayesian hierarchical model will be employed to analyse clinical data collected across Senegalese district hospitals. This approach allows for the integration of hospital-specific variables with aggregated national indicators. The analysis reveals significant variations in treatment success rates among different districts, indicating a need for targeted interventions. The Bayesian hierarchical model effectively captures both hospital-specific and national trends, offering a robust framework for future evaluations. Policy makers should prioritise the implementation of district-specific improvement plans based on this analysis to enhance overall healthcare performance. Bayesian Hierarchical Model, Senegalese District Hospitals, Clinical Outcomes, Healthcare Systems Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \vec{\beta}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

ABSTRACT-ONLY PUBLICATION

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