



Methodological Assessment and Panel Data Estimation of Clinical Outcomes in Rural Clinics Systems in Senegal,

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Abstract

This study focuses on evaluating the clinical outcomes in rural clinics within Senegal's healthcare system. A mixed-method approach was employed, involving quantitative analysis of patient records and qualitative interviews with clinic staff. Panel data were collected using structured questionnaires designed to capture key performance indicators. The panel data revealed an average improvement rate of 15% in treatment efficacy compared to baseline measurements, indicating a positive trend towards better clinical outcomes. The study's findings support the hypothesis that regular data collection and analysis can enhance the quality and efficiency of rural healthcare services in Senegal. Rural clinics should be encouraged to adopt standardised protocols for treatment efficacy tracking and continuous improvement initiatives based on the identified trends. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Sub-Saharan, Africa, Rural, Healthcare, Systems, Econometric, Qualitative, Panel Data

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