



Methodological Evaluation of District Hospitals Systems in Nigeria Using Difference-in-Differences Approach to Assess System Reliability

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Abstract

District hospitals in Nigeria play a crucial role in healthcare delivery, yet their reliability is often uncertain due to varying system standards and resource availability. A DiD regression analysis was employed, with a focus on identifying systematic differences in service delivery between baseline and post-intervention periods. The study utilised data from multiple districts to ensure robustness of findings. The DiD model revealed significant improvements in certain healthcare metrics (e.g., outpatient visits) post-intervention, suggesting an enhancement in system reliability. This research underscores the effectiveness of the DiD method for evaluating district hospital systems and highlights areas requiring further improvement. Future studies should consider expanding data collection to include more variables and regions for a comprehensive evaluation of district hospitals' reliability. Difference-in-Differences, District Hospitals, Healthcare Systems, Reliability Assessment 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, African, Spatial, Econometric, Diagnostics, Hospital, Systems, Reliability

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