



Methodological Evaluation of District Hospitals in Senegal Using Difference-in-Differences to Measure Efficiency Gains

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Abstract

District hospitals in Senegal play a crucial role in healthcare delivery, but their operational efficiency is often questioned. A systematic review was conducted using search terms related to district hospitals in Senegal. Studies were assessed based on quality criteria, including robustness of methodology. The analysis revealed that most studies employed the difference-in-differences (DiD) model, but variability in implementation and data quality varied significantly among studies. While the DiD model is widely used, its effectiveness hinges critically on high-quality dataset integrity and consistent application across different settings. Future research should prioritise harmonizing methodology standards and improving data collection protocols to enhance reliability of efficiency assessments in district hospitals. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^{-1} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, Africa, Hospital, Systems, Economics, Difference-in-Differences, Mixed-Methods*

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