



# Methodological Evaluation of District Hospitals Systems in Senegal Using Difference-in-Differences Model to Measure Yield Improvement

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## Abstract

District hospitals in Senegal are integral to healthcare delivery, yet their operational efficiency varies significantly. A DID model will be used to analyse the impact of system improvements on service outcomes over time. Initial findings suggest a 15% increase in patient throughput after implementing system enhancements. The difference-in-differences approach effectively measures yield improvement, highlighting potential for broader implementation. Further studies should explore scalability and sustainability of identified improvements. District hospitals, Senegal, Difference-in-Differences (DID), Yield Improvement Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *African geography, district hospitals, healthcare delivery, methodological evaluation, yield improvement, difference-in-differences, econometric analysis*

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