



# Methodological Evaluation of District Hospitals Systems in Senegal: A Randomized Field Trial for Measuring Clinical Outcomes

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## Abstract

District hospitals in Senegal play a crucial role in providing healthcare services to underserved populations. However, their effectiveness and efficiency remain underexplored. A mixed-methods approach combining quantitative data from patient outcome assessments with qualitative interviews was employed. Randomization ensured comparability between treatment and control groups, enhancing internal validity. The preliminary analysis indicated that the intervention group demonstrated a statistically significant improvement in recovery rates ( $p < 0.05$ ) compared to the control group. This study supports the use of randomized field trials as a robust methodological tool for assessing clinical outcomes in district hospitals, contributing to evidence-based healthcare policy development. Further research should explore scalability and cost-effectiveness of these findings across different geographical settings. Treatment effect was estimated with  $\text{text}\{logit\}(\pi) = \beta_0 + \beta^{-1} p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan, African, Healthcare, Systems, Evaluation, Randomization, Outcome*

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