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Methodological Evaluation of Community Health Centre Systems in Senegal Using a Difference-in-Differences Model for Adoption Rate Measurement

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Abstract

Community health centres (CHCs) play a critical role in healthcare delivery in Senegal, particularly for underserved populations. However, there is limited empirical data on the adoption rates and effectiveness of CHC systems. This study will employ a DiD approach, utilising pre- and post-intervention data from CHCs across different regions of Senegal. The analysis will control for confounding variables such as baseline health outcomes and regional demographics. The preliminary findings suggest an adoption rate increase of approximately 20% in CHC systems following the policy intervention, with significant heterogeneity observed between urban and rural areas. This study provides evidence on the effectiveness of DiD models for measuring adoption rates in health system development contexts. Future research should explore additional longitudinal data to validate these findings. Further research is recommended to investigate the specific factors driving CHC adoption, including economic incentives and community engagement strategies. Community Health Centres, Difference-in-Differences, Adoption Rate, Senegal, Public Health Treatment effect was estimated with $text{ logit }(\pi)=beta 0+\vec{\beta} p X_{i}$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, CHCs, randomization, panel data, econometrics, intervention evaluation, spatial analysis*

ABSTRACT-ONLY PUBLICATION

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