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Methodological Evaluation of Community Health Centres Systems in Senegal Using Difference-in-Differences Model for Cost-Effectiveness Analysis

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Abstract

Community health centres in Senegal have been established to improve healthcare access and outcomes for underserved populations. However, their cost-effectiveness remains a subject of interest. A DiD analysis was employed to assess the impact of community health centres on healthcare access and outcomes. Uncertainty in results was quantified through robust standard errors. There was a statistically significant improvement ($p < 0.05$) in patient satisfaction scores after the introduction of community health centres, indicating increased effectiveness. The DiD model demonstrated that community health centres were effective in enhancing healthcare access and outcomes, with robust statistical support. Further research should explore scalability and potential cost savings to ensure sustainable implementation across Senegal. 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, DiD, health economics, cost-benefit, randomized controlled*

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