



Methodological Evaluation of Maternal Care Facilities Systems in Senegal Using Difference-in-Differences for Measuring Clinical Outcomes

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Abstract

Maternal care facilities in Senegal have undergone significant transformations over recent years, necessitating a methodological evaluation to assess their effectiveness. The study employed longitudinal data from maternal health facilities across Senegal. A DiD regression was applied, accounting for potential confounders such as socio-economic status and geographic location. A substantial improvement in neonatal mortality rates was observed within the intervention group compared to controls ($p < 0.05$), suggesting enhanced care quality. The use of DiD provided robust evidence on the impact of maternal care facilities, contributing to policy-making and resource allocation decisions. Further research should explore cost-effectiveness and scalability of interventions identified. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta'X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Sub-Saharan, African, Senegal, Difference-in-Differences, Longitudinal, Qualitative, Ethnicity

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