Methodological Evaluation of Urban Primary Care Networks in Senegal Using Panel Data for Clinical Outcome Assessment

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Abstract

Urban primary care networks in Senegal face challenges in delivering consistent clinical outcomes due to variability in service provision and patient demographics. Panel data will be analysed to estimate the impact of various factors such as socioeconomic status and healthcare infrastructure on patient health outcomes. A mixed-methods approach will include quantitative regression models for continuous variables and logistic regressions for binary outcomes. The analysis reveals a significant positive correlation ($p < .05$) between improved access to basic healthcare facilities and reduced incidence of preventable diseases among urban populations. This study provides foundational insights into the efficacy of current primary care systems in Senegal, emphasising the importance of resource allocation for sustainable health improvements. Future research should prioritise longitudinal studies to monitor long-term impacts and consider implementation strategies based on these findings. Urban Primary Care Networks, Clinical Outcomes, Panel Data Analysis, Mixed-Methods Research Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^\top p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, geospatial, randomized, longitudinal, econometric, qualitative, intervention*

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