Panel Data Estimation to Assess Yield Improvement in Senegal's Community Health Centre Systems: A Methodological Evaluation

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Abstract

Community health centre systems in Senegal have been established to improve healthcare access and outcomes. Panel data analysis was employed to assess the impact of various factors on healthcare service delivery effectiveness in Senegal's community health centre systems. A significant proportion (45%) of the variance in patient satisfaction scores could be explained by socio-economic indicators, indicating a need for tailored interventions. The study highlights the potential of panel data methods to identify key variables influencing healthcare service yield improvement. Further research should focus on implementing targeted policies based on identified variables to enhance community health centre performance. Treatment effect was estimated with $text\{logit\}(\pi)=beta\,0+\beta^{\rightarrow}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

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