Methodological Evaluation of Community Health Centres Systems in Nigeria Using Quasi-Experimental Design for Cost-Effectiveness Assessment

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Abstract

Community health centres in Nigeria face challenges in delivering effective healthcare services due to resource limitations and inadequate system efficiency. A systematic literature review employing PRISMA guidelines was conducted to identify relevant studies. Studies were screened based on inclusion criteria related to methodologies, study design, and outcomes. The analysis identified a significant proportion (35%) of quasi-experimental designs that employed robust statistical models such as regression discontinuity design (RDD) or difference-in-differences (DiD), demonstrating their effectiveness in measuring cost-effectiveness with moderate uncertainty around estimated effects. This review highlights the importance of methodological rigor in evaluating healthcare systems, particularly focusing on quasi-experimental designs for assessing cost-effectiveness and operational efficiency. Future research should prioritise the replication and validation of findings through additional empirical studies to ensure robustness and generalizability. Treatment effect was estimated with $text\{logit\}(\pi)=beta\,0+\beta^{\neg}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Geographic, Sub-Saharan, Public Health, Quasi-experimental, Evaluation, Cost-effectiveness, Healthcare Systems*

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