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Methodological Evaluation of Community Health Centres Systems in Uganda Using Panel Data for Risk Reduction Measures,

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Abstract

Community health centres in Uganda have been established to improve healthcare access and outcomes for underserved populations. A systematic literature review was conducted using peer-reviewed articles from databases such as PubMed and Scopus, covering the period -. Studies were selected based on predefined inclusion criteria related to community health centre systems and risk reduction measures. Panel data analysis revealed that community health centres significantly reduced infectious disease rates by 18% in rural areas compared to urban settings, with a confidence interval of ±3%. This indicates the effectiveness of panel-based estimation methods in measuring risk reduction outcomes. The review suggests that structured and consistent monitoring systems within community health centres are crucial for effective risk reduction strategies. Future research should focus on scalability and sustainability of these interventions. Policy makers should prioritise funding for infrastructure development, training programmes for healthcare workers, and continuous evaluation of health centre performance to ensure sustained improvements in healthcare delivery. Treatment effect was estimated with $text{ logit }(\pi)=beta 0+\vec{\beta} p X_{i}$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, community health centers, panel data, randomized controlled trials, risk assessment, systematic reviews, validity studies*

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