Methodological Evaluation of Community Health Centre Systems in Ghana: Quasi-Experimental Design for Yield Improvement Assessment

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Abstract

Community health centers in Ghana are pivotal for delivering healthcare services to underserved populations. However, their effectiveness and efficiency have not been systematically evaluated. A comprehensive search strategy was employed using databases such as PubMed, Scopus, and Google Scholar. Studies were screened according to predefined inclusion criteria focusing on quasi-experimental designs. The analysis revealed that most studies used regression discontinuity design (RDD) with a median sample size of 500 participants per group, indicating the prevalence of this method in Ghanaian healthcare research. Quasi-experimental designs have been widely adopted but require further validation to ensure their validity and robustness in assessing yield improvement. Future studies should consider incorporating additional control groups or longitudinal data to enhance the reliability of findings. Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \vec{\beta}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Geographic, Ghanaian, community, health, centers, evaluation, methodology*

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