



Methodological Evaluation of Community Health Centre Systems in Rwanda Using Difference-in-Differences Model for Cost-Effectiveness Analysis

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Abstract

Community health centres in Rwanda have been established to improve access to healthcare services, particularly for underserved rural populations. A systematic literature review was conducted using electronic databases such as PubMed, Embase, and Cochrane Library. Studies published between and were included if they utilised a difference-in-differences approach to assess the impact of community health centres on healthcare outcomes. A total of 45 studies met the inclusion criteria. The average cost-effectiveness ratio for community health centres was 5 per capita, indicating significant potential savings in healthcare costs compared to traditional models. The difference in logit probability is $\text{logit}(p_i) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Rwanda, Community Health Centres, Cost-Effectiveness, Difference-in-Differences, Spatial Heterogeneity, Randomized Controlled Trials, Geographic Variation

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