Methodological Evaluation of Rural Clinics Systems in Ethiopia Using Multilevel Regression Analysis

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Abstract

Rural healthcare systems in Ethiopia face challenges related to service delivery quality and patient outcomes. Multilevel regression analysis was employed to assess the impact of clinic-level and district-level factors on clinical outcomes in Ethiopia's rural healthcare system. Significant variations were observed in treatment success rates across clinics (e.g., an increase of 15% in antibiotic prescription adherence). The multilevel regression approach provided nuanced insights into the determinants of clinic performance, highlighting areas needing attention for improvement. Enhanced training programmes and resource allocation strategies should be implemented to improve clinical outcomes. rural clinics, Ethiopia, clinical outcomes, multilevel regression analysis Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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