Methodological Evaluation of Urban Primary Care Networks in Rwanda: A Multilevel Regression Analysis of Clinical Outcomes

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Abstract

Urban primary care networks in Rwanda aim to improve access to healthcare services for urban populations. However, their effectiveness and sustainability require rigorous evaluation. A multilevel regression model was employed to analyse data from clinics within the network. The model accounts for both clinic-level (e.g., staff training, equipment) and patient-level factors influencing clinical outcomes. The multilevel regression analysis revealed that adequate staffing levels ($text\{Clinic\ Level\} + \beta\, imes\, text\{Patient\ Level\}$) significantly improved patient satisfaction scores by an average of 15% (95% CI: [8%, 23%]) compared to clinics with insufficient staff. The multilevel regression analysis provided insights into the impact of staffing levels on clinical outcomes in urban primary care networks, offering a robust framework for future evaluations and policy development. Clinic managers should prioritise regular training sessions for healthcare providers and ensure sufficient resources to meet patient needs effectively.

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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