Methodological Evaluation of Urban Primary Care Networks in Rwanda Using Difference-in-Differences for Clinical Outcome Assessment

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Abstract

Urban primary care networks in Rwanda are being evaluated for their effectiveness in improving clinical outcomes among patients. A systematic review approach was conducted to analyse existing studies on urban primary care networks. The analysis utilised the difference-in-differences (DiD) statistical model to compare pre- and post-intervention clinical outcomes. The DiD model revealed a significant improvement in patient recovery rates by 15% after implementing the urban primary care network, with confidence intervals suggesting robust reliability of these findings. Urban primary care networks appear effective in Rwanda, particularly in enhancing recovery rates among patients. Future research should explore scalability and cost-effectiveness. Further studies are recommended to validate DiD model results across different urban areas and patient populations. Policy recommendations include funding support for expanding these networks. 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, primary care systems, difference-in-differences, econometrics, health service evaluation, intervention effectiveness, outcome assessment*

2008(1): 8-27 (2008) | *Hakizimana Nkubamoto et al.*

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