



# Methodological Evaluation of Urban Primary Care Networks in Kenya Using Difference-in-Differences Models for Clinical Outcomes Measurement

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## Abstract

Urban primary care networks (UPCNs) in Kenya aim to improve healthcare access and outcomes by integrating community health workers into standard clinic settings. However, their effectiveness is subject to methodological evaluation. A systematic literature search was conducted using databases such as PubMed, Scopus, and Web of Science. Studies were included if they used DiD models for measuring clinical outcomes in UPCNs, with a focus on health indicators like vaccination rates or patient satisfaction scores. One specific study found a significant improvement in vaccination coverage among children aged 0-5 years by 18% after the implementation of UPCNs (95% confidence interval: 6.2%, 30.2%). The DiD model provided robust evidence for the effectiveness of urban primary care networks in enhancing clinical outcomes, particularly vaccination rates. Further research should explore the scalability and sustainability of these network models across different geographical settings. Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Geographic, Primary Care, Integration, Difference-in-Differences, Evaluation, Methodology, Community Health Workers*

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