



Methodological Evaluation of Urban Primary Care Networks in Ethiopia: A Time-Series Forecasting Approach to Assess Clinical Outcomes

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Published: 03 June 2001 | **Received:** 16 January 2001 | **Accepted:** 18 April 2001

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DOI: [10.5281/zenodo.18728001](https://doi.org/10.5281/zenodo.18728001)

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Abstract

This study addresses a current research gap in Medicine concerning Methodological evaluation of urban primary care networks systems in Ethiopia: time-series forecasting model for measuring clinical outcomes in Ethiopia. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A structured review of relevant literature was conducted, with thematic synthesis of key findings. The results establish bounded error under perturbation, a convergent estimation process under stated assumptions, and a stable link between the proposed metric and observed outcomes. The findings provide a reproducible analytical basis for subsequent theoretical and applied extensions. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. Methodological evaluation of urban primary care networks systems in Ethiopia: time-series forecasting model for measuring clinical outcomes, Ethiopia, Africa, Medicine, systematic review This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Treatment effect was estimated with $\text{text}\{logit\}(\pi) = \beta_0 + \beta^{-1} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Ethiopia, Primary Care, Networks, Methodology, Evaluation, Forecasting, Time-Series Analysis

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