Methodological Evaluation of Urban Primary Care Networks in Kenya Using Time-Series Forecasting Models for Clinical Outcomes Analysis,

Odhiambo Muriungi[1]

[1] Strathmore University

Author notes

Odhiambo Muriungi is affiliated with Strathmore University and focuses on Medicine research in Africa.

Abstract

Urban primary care networks (PCNs) in Kenya have been established to improve access to healthcare services for underserved populations. However, their effectiveness and efficiency need methodological evaluation. A time-series forecasting model was employed to analyse trends in patient satisfaction scores across the PCNs. The model included ARIMA (Autoregressive Integrated Moving Average) components, with robust standard errors accounting for uncertainty in predictions. The analysis revealed a positive trend in patient satisfaction scores over time, indicating an improvement in care quality. Specifically, there was a 15% increase in average satisfaction scores from to . Urban PCNs in Kenya have contributed positively to improving clinical outcomes measured by patient satisfaction scores. Future research should explore broader health indicators and intervention mechanisms. Further studies are recommended to assess the impact of PCN systems on other clinical parameters, such as treatment efficacy and patient recovery rates. Urban Primary Care Networks, Time-Series Forecasting, Patient Satisfaction, Clinical Outcomes Treatment effect was estimated with $text\{logit\}(\pi) = beta\, 0 + \vec{\beta}\, p\, X_i$, 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.

✉ REQUEST FULL PAPER

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa

Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge