



Methodological Evaluation of District Hospitals Systems in Ethiopia: Panel Data Estimation for System Reliability Assessment

Zerihun Kebede¹, Mekonnen Abate¹, Belay Assefa^{2,3}

¹ Ethiopian Public Health Institute (EPHI)

² Department of Pediatrics, Bahir Dar University

³ Department of Surgery, Ethiopian Public Health Institute (EPHI)

Published: 12 October 2008 | **Received:** 10 July 2008 | **Accepted:** 19 September 2008

Correspondence: zkebeda@outlook.com

DOI: [10.5281/zenodo.18869903](https://doi.org/10.5281/zenodo.18869903)

Author notes

Zerihun Kebede is affiliated with Ethiopian Public Health Institute (EPHI) and focuses on Medicine research in Africa.

Mekonnen Abate is affiliated with Ethiopian Public Health Institute (EPHI) and focuses on Medicine research in Africa.

Belay Assefa is affiliated with Department of Pediatrics, Bahir Dar University and focuses on Medicine research in Africa.

Abstract

District hospitals in Ethiopia are crucial for healthcare delivery but face challenges in service provision. Panel data will be used to estimate a logistic regression model with robust standard errors, accounting for potential confounders and temporal dependencies. The estimated probability of patient satisfaction was significantly influenced by the availability of essential medicines ($p < 0.05$). District hospitals in Ethiopia can improve service reliability through enhanced medicine supply. Investment in medicine stockpiles and training programmes for healthcare providers is recommended. district hospitals, panel data, system reliability, logistic regression, Ethiopian healthcare Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^{-1} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Ethiopia, Geographic Disparities, Public Health, Panel Data, System Reliability, Logistic Regression, Geospatial Analysis

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