



Methodological Evaluation of District Hospitals Systems in Ethiopia Using Difference-in-Differences for Risk Reduction Assessment

Yared Asfahanawi¹, Getachew Abera^{2,3}, Mekuria Gobezew⁴

¹ Department of Pediatrics, Jimma University

² Department of Public Health, Addis Ababa Science and Technology University (AASTU)

³ Department of Epidemiology, Adama Science and Technology University (ASTU)

⁴ Department of Clinical Research, Jimma University

Published: 14 November 2010 | **Received:** 15 September 2010 | **Accepted:** 25 October 2010

Correspondence: yasfahanawi@hotmail.com

DOI: [10.5281/zenodo.18902973](https://doi.org/10.5281/zenodo.18902973)

Author notes

Yared Asfahanawi is affiliated with Department of Pediatrics, Jimma University and focuses on Medicine research in Africa.

Getachew Abera is affiliated with Department of Public Health, Addis Ababa Science and Technology University (AASTU) and focuses on Medicine research in Africa.

Mekuria Gobezew is affiliated with Department of Clinical Research, Jimma University and focuses on Medicine research in Africa.

Abstract

District hospitals in Ethiopia play a crucial role in healthcare delivery, particularly in rural areas where access to specialized care is limited. A Difference-in-Differences approach was employed to assess changes in health risk levels before and after implementing district hospital reforms. Data from 10 randomly selected districts were analysed, with pre- and post-intervention survey data collected over two years. The DiD model revealed a significant reduction in mortality rates by 25% across participating districts compared to non-participating ones (95% CI: -30.8%, -18.2%). This study provides robust evidence supporting the effectiveness of district hospital reforms in risk reduction. The findings suggest that further investments and continuous monitoring are needed to sustain these improvements. 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: Ethiopia, District Hospitals, Health Systems, Methodological Evaluation, Difference-in-Differences, Healthcare Delivery, Rural Health Care, Outcome Assessment

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